Cost Study On
SHEETFED PRESS OPERATIONS

A simplified method for constructing your own budgeted hourly cost rates

Includes:

• Conventional Offset Presses

• Digital Imaging Presses

• Color and B&W Digital Duplicators/Copier-Printers

• Wide Format Digital Printers
QUESTIONS?
NAPL continually strives to be responsive to its members. Should you have any questions or comments regarding this Cost Study, please contact us, toll free, at (800) 642-NAPL (6275), Option 4, or email publications@napl.org.

ABOUT NAPL
Chartered in 1933, NAPL (www.napl.org) is a not-for-profit trade association representing companies in the $100 billion graphic communications industry. NAPL’s comprehensive slate of business-building solutions provides company leaders with the strategies, insights, and guidance they can use to make informed decisions, minimize risk, anticipate change, and profitably grow their business.

NAPL members receive one copy of this book (NB-109) or the CS InterACT-SF software version of this book (ND-109) at no charge. Additional copies are available to NAPL members at special discounts. Copies may also be purchased by non-members at the list price. To order, phone toll-free, between 9 am-5 pm eastern time, 800-642-6275, Option 4. Fax to 201-634-0328. Email to orders@napl.org. Or order online at www.napl.org/store.

Editor: Joseph A. Andrukitas
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NAPL is pleased to present its new *Budgeted Hourly Cost Study on Sheetfed Press Operations*, which includes conventional presses, digital imaging presses, digital duplicators/copier-printers, and a new category for digital wide format printers. Contained in this edition are hourly cost studies and information on 491 machines from survey data provided by 28 different manufacturers or distributors. For sheetfed printing operations, this book is the most powerful reference available for understanding the factors influencing your costs, establishing your own hourly rates, and managing your business in the most productive and profitable manner.

Each machine is studied on one full page. This includes a description and breakdown of all items used in the construction of the hourly cost rates, including equipment prices; equipment specifications; auxiliary equipment prices; manning complement; wages; and a dozen more fixed and variable charges. Hourly cost rates are provided for one-, two-, and three-shift operations; for three different levels of productivity; and for three different types of working conditions. This makes it possible to pick out hourly costs, similar to your own, quickly. Easy to follow instructions show how to tailor specific cost rates to your own actual operation in just minutes.

Though the efforts of many were involved in preparing this Cost Study, we would like to extend special thanks to all of the manufacturers and distributors that contributed specifications and price information for this study. A complete listing of the companies, with full customer contact information, can be found on page xxiv.

We urge you to review the instructions prior to using this book. Doing so will help you better understand, and gain the most benefit from, the studies. Further, the instructions contain information not available anywhere else in the book, such as how to adjust the hourly cost rates shown for different wages, different manning complements or different investment costs. Understand that this book is a pro forma study including estimates, standards and averages. For truly accurate hourly cost rates, you should always incorporate your own actual costs into the studies.

NAPL has followed the principles of sound accounting practices in setting up these budgeted hourly cost rates. We cannot, however, be held responsible for errors or changes in facts supplied to us by participating companies, resulting in errors in the final computations.

NAPL publishes a complete series of Budgeted Hourly Cost Studies for the graphic arts industry, including editions for Digital & Conventional Prepress; Web Press Operations; Bindery, Finishing & Mailing; Printing Operations Up To 25 Employees; and this edition on Sheetfed Press Operations. Our Hourly Cost Studies are now also available in interactive software form. Get more information about *CS InterACT* cost study software on page iv.

As important as the Cost Studies are, they are only one example of the vital role NAPL plays in the area of cost and finance. Our Association also makes available a wide variety of other financially related publications, seminars, conferences, podcasts, software packages, and consulting services, all designed to help your company grow and prosper. To learn more about NAPL’s financial information services, call (800) 642-6275 or visit www.napl.org.

Consider NAPL your on-call adviser.

Joseph P. Truncale, CAE
President & CEO
Now You Can Interact with Your Blue Books!

NAPL’s Blue Book Hourly Cost Studies are now available on interactive software.

- Change more than 50 data fields to tailor the hourly costs any way you want. The calculations update automatically.
- Simple design, with all "button" navigation and help topics at a click of the mouse, virtually eliminates the learning curve. Get right to work!
- For both Macintosh and Windows Platforms.

CS InterACT
NAPL's Interactive Hourly Cost Study Software

It’s Easy. Simply click on the category of equipment you would like to browse. Next, click the exact machine you would like to study. Then, click on the number of shifts you run and the working conditions most similar to your own. You are then presented with a completed hourly cost study which you can now edit or change any way you see fit. Your new study is automatically saved in a place called "Your Files" that is accessible at any time by a click of the mouse.

Equipment can be searched, sorted, edited, previewed, and printed. Help topics appear at the click of a button. While editing a study, simply click on the text you don't understand for an instant pop-up explanation.

It’s Mac & Windows Friendly. The CD-ROM comes equipped with both Mac and Windows versions of the software. Check NAPL’s web site (www.napl.org) for the latest information on the versions of CS InterACT available and their compatibility with your computer system.

It’s Comprehensive. Five editions of CS InterACT cover almost 60 categories of equipment—the same equipment in the book versions of NAPL’s Blue Book Cost Studies.

- CS InterACT-PR: Digital Prepress (ND111)
- CS InterACT-SF: Sheetfed Press (ND109)
- CS InterACT-BD: Bindery/Finishing (ND110)
- CS InterACT-SP: Operations Up to 20 Employees Edition

It’s FREE To All NAPL Corporate Members! That’s right. CS-InterACT is so useful, we wanted all of our Corporate Members to have it at no charge.

It’s Time You Went Interactive!

For more information or to order, call NAPL at (800) 642-6275, Option 4. Or fax to (201) 634-0328. Or email to orders@napl.org. Or visit www.napl.org/store.
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### Digital Imaging Presses: Color

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### Digital Duplicators/Copier-Printers: B/W

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#### Over $200,000

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<td><strong>Digital Duplicators/Copier-Printers: Color</strong></td>
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<td><strong>Digital Wide Format Printing Equipment</strong></td>
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NAPL 2007 Cost Study xiii Contents
Budgeted Hourly Cost Rates Improve Profitability
And an NAPL Cost Consultant Can Help

An analysis of your budgeted hourly cost rates provides the real cost of running your plant. And, from there, you know how to price what you sell to be profitable.

Operations of any size can learn how budgeted hourly cost rates improve the bottom line. The rates provide the exact cost for each operation within your plant and capture the true cost of production on each order. How can you run a business profitably without information like this? Luck aside, you can’t.

A consultation by an experienced NAPL budgeted hourly cost analyst can serve as a vital indicator, alerting you to the strengths and weaknesses affecting your bottom line. You can even have it performed yearly, as an annual check-up!
Consider NAPL your Cost Doctor.

Call NAPL’s Professional Services and get started. The call is free and there’s no obligation, so why wait?

(800) 642-6275, Ext. 6376

Or, Fax Us
Simply complete the form on the right and fax this page to:

(201) 634-0325

We’ll be happy to discuss how an NAPL budgeted hourly cost rate consultant can impact your profit picture.
A Word About Cost Centers

One of the most important things to understand about hourly cost rates is that they are based on cost centers. Cost centers are areas of specific responsibility in your plant. For example, one four-color press could be a cost center. However, a camera department with two or three cameras could also be a cost center. Similarly, all of a plant’s small bindery machines could be lumped together into one cost center and a single hourly rate calculated for those machines.

Each machine studied in this book represents its own cost center. In performing your own cost studies, you would want to study your cost centers, as you have defined them, as a whole. You would base the study on the total direct labor cost, the total investment in equipment, the total productive hours, the total square footage of the department, and so forth, in order to come up with a better average hourly cost rate. The following instructions will explain all of these factors, item-by-item, from top-to-bottom.

The Top Half of the Page—Equipment Specs, Prices, Labor Costs

In this book, each cost study for each machine is displayed on one full page. Located on the top half of each cost study page are all the basic equipment specs, investment costs, and descriptive information about each machine. This information was supplied by either the manufacturers or exclusive distributors of the equipment during a three-month period ending April 30, 2007. NAPL cannot be held responsible for errors or changes in the data supplied to us by them. Also, these companies reserve the right to change prices or specs without further published notice. Items not directly provided by these companies, or that may require some elaboration, are as follows.

Installation: NAPL realizes that installation costs can vary widely, depending on the situation. In our survey, we asked companies to provide an estimated installation cost for each piece of equipment. When provided, that information is given in our cost studies. When not provided, we did not estimate an installation cost. Rather, we alert the reader, on each page, that the information was not provided and that the total investment cost shown should be adjusted accordingly. This differs from previous editions of this book. It is always difficult to estimate reasonable installation charges to apply to the various sizes and types of equipment. For the sake of fairness and accuracy, we leave adjusting investment cost to you, based on actual installation quotes you receive.

Floor Space (Square Feet): The square footage of floor space, though given by the companies contacted, was sometimes adjusted by NAPL for the sake of consistency. The figure shown for square feet in each cost study includes not only the area occupied by the equipment, but also the normal working area around the equipment.

Working Conditions and Direct Labor Cost: The working conditions and wages used in this study have been compiled by NAPL from various surveys, and our personal observations of sheetfed operations in the United States. In determining your own hourly rates, you should adjust wages and working conditions to those actually in place in your operation.

Power Requirements: In most cases, power requirements were provided by those surveyed. In some cases, the information was not provided and NAPL estimated the power required based on the electrical needs of comparable equipment.

The Bottom Half of the Page—Hourly Cost Calculations

The bottom half of each Cost Study provides the complete breakdown of all the fixed and variable charges used in the construction of the hourly rates. It then shows the hourly rates in the form of both Total Manufacturing Costs Per Productive Hour as well as Total All-Inclusive Costs Per Productive Hour (all for three shifts, three types of working conditions, and three levels of productivity).

Productive Hours Annually At 100% Productivity

Since this study is an area study, the number of productive hours varies according to the work week, vacations, and holidays granted in each area. Due to non-chargeable time, a cost center will never actually be 100% productive. However, NAPL uses 100% productivity in the calculations, and then, at the very end of each study (in Lines 19 and 20) adjusts for varying levels of productivity—specifically 85%, 75%, and 60%.

Should you desire to compare your own costs against those in this study, be sure you select the area that represents hours, vacations, and holidays in existence in your operation. The calculation of productive hours was done as shown in the following box. Note that the hours in a one-shift operation are simply doubled for a two-shift operation and tripled for a three-shift operation.
### How We Calculated the Productive Hours @ 100% Productivity

#### Area A—35 Hour Week:

<table>
<thead>
<tr>
<th>Shifts</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Shift</td>
<td>1,820</td>
</tr>
<tr>
<td>2 Shifts</td>
<td>3,640</td>
</tr>
<tr>
<td>3 Shifts</td>
<td>5,460</td>
</tr>
</tbody>
</table>

35 Hours straight time per week x 52 weeks

Less:
- 4 weeks vacation paid: 140
- 11 paid holidays—not worked: 77 (217)

**ANNUAL HOURS @ 100% PRODUCTIVITY**: 1,603 3,206 4,809

Annual Productive Hours @ 85% Productivity:
- 1,362 2,725 4,088
- 1,202 2,405 3,607
- 962 1,924 2,885

#### Area B—37.5 Hour Week:

<table>
<thead>
<tr>
<th>Shifts</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Shift</td>
<td>1,950</td>
</tr>
<tr>
<td>2 Shifts</td>
<td>3,900</td>
</tr>
<tr>
<td>3 Shifts</td>
<td>5,850</td>
</tr>
</tbody>
</table>

37.5 Hours straight time per week x 52 weeks

Less:
- 3 weeks vacation paid: 112.5
- 10 paid holidays—not worked: 75.0 (375)

**ANNUAL HOURS @ 100% PRODUCTIVITY**: 1,763 3,525 5,288

Annual Productive Hours @ 85% Productivity:
- 1,499 2,996 4,495
- 1,322 2,644 3,966
- 1,058 2,115 3,173

#### Area C—40 Hour Week:

<table>
<thead>
<tr>
<th>Shifts</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Shift</td>
<td>2,080</td>
</tr>
<tr>
<td>2 Shifts</td>
<td>4,160</td>
</tr>
<tr>
<td>3 Shifts</td>
<td>6,240</td>
</tr>
</tbody>
</table>

40 Hours straight time per week x 52 weeks

Less:
- 2 weeks vacation paid: 80
- 8 paid holidays—not worked: 64 (144)

**ANNUAL HOURS @ 100% PRODUCTIVITY**: 1,936 3,872 5,808

Annual Productive Hours @ 85% Productivity:
- 1,646 3,291 4,937
- 1,452 2,904 4,356
- 1,162 2,323 3,485

---

**Fixed Charges**

Often called manufacturing overhead, Fixed Charges represent depreciation on equipment as well as the occupancy costs of your building or space (things like rent or mortgage interest, utilities, insurance, and property taxes).

**Line 1 Depreciation**

The *conventional presses* in this study have been depreciated based on a 10-year, straight-line depreciation write-off at 10% per year for a one shift operation, 12.5% per year for two shifts, and 15% per year for three shifts. The *digital presses*, *copier-printers*, and *wide format printers* have been depreciated at 20% per year.

\[
\text{Total Investment Cost} \times \% \text{ Depreciation}
\]

In comparing your rates, be certain to reconcile the investment costs used in this book with your purchase cost. See “Adjusting for Investment Cost” later in these instructions.
Constructing Your Own Cost Rate: In calculating your own hourly cost rate, apply the percent depreciation you actually use. If you depreciate a press faster than 10 years, NAPL still recommends using the 10-year method in your study, since it keeps you on a more level playing field with competitors. Using a shorter period will raise your hourly rates and, hence, your prices.

In the same light, once equipment has already been fully depreciated, NAPL recommends that you keep depreciating it, based either on the original investment cost or on a reasonable replacement cost. The machine will need replacement at some time, and you don’t want to pass that cost on to the customer.

Line 2 Rent and Heat
The top of each page for each equipment entry shows the square footage allocated. This includes the footprint of the machine along with an allowance for working area around the machine (in other words, the square footage of the whole cost center). The square footage is then multiplied by the cost per square foot of occupying the building or space annually. For this study, we used $10.50 per square foot for Area-A, $7.00 for Area-B, and $5.00 for Area-C.

<table>
<thead>
<tr>
<th>Sq. Ft. of the Cost Center</th>
<th>Cost Per Sq. Ft. Annually (i.e., $10.50, Area-A; $7.00, Area-B; or $5.00, Area-C)</th>
<th>Rent &amp; Heat Cost Annually for the Cost Center</th>
</tr>
</thead>
</table>

Constructing Your Own Cost Rate: To complete the above formula, for your operation, you need to first determine your Cost Per Square Foot.

If you own your building: divide the total square footage of the building into the combined annual sum of your mortgage interest, the cost of depreciation on the building, taxes, insurance, maintenance and repairs to the building, and utilities.

If you rent your building: divide the total square footage of the building or space into the combined sum of your annual rent, utilities, building insurance, amortization for improvements, and any other building-related costs.

Line 3 Fire and Sprinkler Insurance
For this study, we have used a rate of $4.00 per thousand dollars of equipment investment cost (in the cost center) to cover Fire and Sprinkler Insurance. This rate is an estimate, since it is difficult to determine a truly factual rate due to the differences in building construction methods, the distance from your location to fire-fighting equipment, the company’s past experience rating, and so forth. Here is the formula we used:

\[
\frac{\text{Total Investment Cost}}{\text{for equip. in cost center}} \times \frac{\$4.00}{\text{per } \$1,000 \text{ of equip. invest.}} = \frac{\text{Annual Cost for Fire & Sprinkler Insurance in the Cost Center}}{\$1,000 \text{ of Investment}}
\]

Constructing Your Own Cost Rate: Your own actual rate for Fire & Sprinkler Insurance can be obtained directly from your insurance policies. You will then need to calculate your own cost per thousand dollars of equipment investment. This can be done quickly with the following formula:

\[
\frac{\text{Annual Cost of Fire & Sprinkler Insurance}}{\text{Total Equipment Investment Cost - Whole Plant}} \times 1,000 = \frac{\text{Insurance Cost Per } \$1,000 \text{ of Equipment Investment}}{\text{Equipment Investment}}
\]

Variable Charges
Also known as “out of pocket” costs, Variable Charges include things like employee wages and benefits, equipment power, direct supplies, and repairs or maintenance to equipment. They are explained on Lines 4-to-15 below.

Line 4 Direct Labor
The top of each cost study page illustrates the complement and cost of Direct Labor. These are averaged from various industry surveys and studies, and from the documentation and experience of NAPL’s own on-site consultants. Based on the same information, we have included a night shift premium for operations with second shifts and third shifts ranging from 6% to 8%. This is why the wages shown in the columns for “2 Shifts” and “3 Shifts” are not exactly double and triple, respectively, the wages in the “1 Shift” column.
Constructing Your Own Cost Rate: In computing Direct Labor costs for your operation, refer to the chart at the beginning of these instructions, titled, “How We Calculated the Productive Hours.” The following factors must be taken into account:

- hourly wages paid to employees,
- total payroll hours annually,
- complement of persons on equipment, and
- vacations, holidays, and personal days paid by the company.

Frequently Asked Question: If two or three employees are used in a cost center, should the productive hours be doubled or tripled? The answer is no, because the employees are working together on the equipment as a team. The productive hours of the equipment, not the employees, are used in the cost studies. Keep this in mind when creating your cost centers.

Line 5 Indirect Labor
This line is for the cost of departmental and plant supervisory personnel as well as miscellaneous labor in the cost center being studied. The dollar value we apply is based on a weighted average of the Direct Labor cost. For this study we have used 20% of Direct Labor for a one-shift operation, 15% of Direct Labor for a two-shift operation, and 10% for a three-shift operation. No additional productive hours are added, just the estimated portion of wages and benefits. The percentages we use decrease—from 20%, to 15%, to 10%—due to the economies of scale realized by continuing to run.

\[
\begin{array}{ccc}
\text{Indirect Labor} & \text{Direct Labor} & \text{Indirect Labor} \\
(20\% \text{ for one shift}, 15\% \text{ for two shifts}, 10\% \text{ for three shifts}) & \times & \text{Indirect Labor Cost} \\
\end{array}
\]

Constructing Your Own Cost Rate: In your own study, you should determine the actual percentage to use for Indirect Labor in your operation from your own payroll records and reporting systems. Do not attempt to arbitrarily use our percentages.

Line 6 Pension Fund
This line adds a cost for any form of company pension plan offered to employees. As with Indirect Labor, the Pension Fund cost is expressed as a percentage of Direct Labor. We used 5% in Area A, 3% in Area B, and 2% in Area C.

\[
\begin{array}{ccc}
\text{Pension Fund} & \text{Direct Labor} & \text{Pension Fund} \\
(5\% \text{ for Area-A}, 3\% \text{ for Area-B}, 2\% \text{ for Area-C}) & \times & \text{Pension Fund Cost} \\
\end{array}
\]

Constructing Your Own Cost Rate: In your cost study, you can determine an average of what you are actually paying, per cost center, for any employee pension fund and apply it on this line.

\[
\begin{array}{ccc}
\text{Annual Cost of Pension Fund (Whole Plant)} & \text{Number of Employees (Whole Plant)} & \text{Annual Pension Fund Cost for that Cost Center} \\
\end{array}
\]

Line 7 Welfare Benefits
Welfare Benefits include educational training, hospitalization insurance, sickness and accident insurance, life insurance, and major medical insurance. For this study, we have used an $90.00 per week cost for Area A, $60.00 per week cost for Area B, and $45.00 per week cost for Area C. For example, in Area A the formula would be as follows:

\[
\text{\$90 per wk. (Area-A) \times 52 (wks. per yr.) \times No. of Employees = Welfare Benefits Cost}
\]

Constructing Your Own Cost Rate: When compiling your own rates, you should scrutinize all your insurance policies and monthly accounts payable vouchers to ensure the inclusion of all costs toward employee welfare benefits. It’s not necessary to use an exact figure for each employee. Use an average of all your employees’ welfare benefits to arrive at a single figure per employee.

\[
\begin{array}{ccc}
\text{Annual Cost of Welfare Benefits (Whole Plant)} & \text{Number of Employees (Whole Plant)} & \text{Annual Welfare Benefits Cost for that Cost Center} \\
\end{array}
\]
Line 8 Payroll Taxes
Because relatively few employees will be over the Federal Insurance Contribution Act maximum ($97,500), and since virtually all employees will be over both the State Unemployment Insurance maximum ($10,000 average) and Federal Unemployment Insurance maximum ($7,000), we have used a single, blended rate of 8.3% to represent all Payroll Taxes. This represents the composite rate for a person earning $40,000 annually, calculated as follows:

\[
\begin{align*}
\text{Federal Insurance Contribution Act:} & \quad 6.20\% \times 40,000 = 2,480 \\
\text{Medicare} & \quad 1.45\% \times 40,000 = 580 \\
\text{State Unemployment Insurance:} & \quad 2.00\% \times 10,000 = 200 \\
\text{Federal Unemployment Insurance:} & \quad 0.80\% \times 7,000 = 56 \\
\hline
\text{TOTAL:} & \quad $3,316 / 40,000 = 8.3\% \\
\end{align*}
\]

In this cost study, we then use the following formula to calculate Payroll Taxes:

\[
8.3\% \times (\text{Direct Labor} + \text{Indirect Labor}) = \text{Payroll Taxes}
\]

Constructing Your Own Cost Rate: The guidelines above can be used in calculating your own cost for Payroll Taxes in the cost center being studied. However, you should use your own actual percentages for FICA, Medicare, and so forth.

Line 9 Workers’ Compensation Insurance
Workers’ Compensation Insurance costs vary drastically from one state to another and, as a matter of fact, may vary drastically from one plant to another in the same state. Factors that can affect this fluctuation are the accident experience and claims of a particular plant and the accident and claims experience of all the plants insured by a particular carrier collectively.

For Workers’ Compensation Insurance, in this study, we have used a rate of $40.00 per thousand dollars of labor (both Direct Labor and Indirect Labor). We feel this is a fair industry average. The formula we used in this cost study is as follows:

\[
\frac{\text{Direct Labor} + \text{Indirect Labor}}{1,000} \times 40 = \text{Workers’ Comp. Insurance Cost}
\]

Constructing Your Own Cost Rate: Use your own actual rates for your cost study. Your compensation insurance policy would show the applicable rate broken down by class of personnel (such as plant, clerical, salespeople, drivers, etc.).

Line 10 Power Cost (Based on HP)
In this study, power costs are based mainly on the kWh or the horsepower requirements of the particular machine. We also assume the equipment will be running for only 60% of the productive hours. The price for electricity varies across the country. For this study, we have selected a reasonable cost of $0.07 per kWh. Here is the formula we used based on horsepower:

\[
\text{Based on HP Rating:} \\
\frac{\text{HP rating of machine}}{\text{in one HP}} \times 0.746 \times (\text{the kWhs in one HP}) \times (\text{e.g. “1,603” for Area-A, One Shift}) \times (\text{hrs. equip. running}) \times (\text{cost per kWh}) = \text{Annual Power Cost}
\]

For example, if a machine is 50 HP, annual power use would be calculated in this cost study as follows for Area-A, One Shift.

\[
50 \text{ HP} \times 0.746 \times 1,603 \times 60\% \times 0.07 = 2,511 \text{ Annual Light/Power Cost}
\]

Constructing Your Own Cost Rate: In calculating your own hourly cost rates, you do not need to follow NAPL’s method. You can simply ignore Line 10 and incorporate equipment power costs into either Rent & Heat (Line 2) or General Factory Expenses (Line 15) along with your other utilities costs.
Line 11  Power Cost (Based on kWh)
Most manufacturers surveyed for this study provide equipment power requirements in kWhs. A slightly different calculation is used to determine annual power costs when using kWhs. As in Line 10, we assume the equipment will be running for only 60% of the productive hours and we use an average, reasonable cost for electricity of $0.07 per kWh. Here is the formula:

\[
\text{Annual Power Cost} = \text{kWh} \times \text{Productive Hrs.} \times 0.60 \times 0.07
\]

Constructing Your Own Cost Rate: In calculating your own hourly cost rates, you do not need to follow NAPL’s method. You can simply ignore Line 10 and incorporate equipment power costs into either Rent & Heat (Line 2) or General Factory Expenses (Line 15) along with your other utilities costs.

Line 12  Direct Supplies
Direct Supplies are supplies that can be identified and charged to a specific cost center. They do not include any materials that you can charge to a particular job. They are department-related and not job-related. The annual costs for Direct Supplies in this study represent estimates based upon experience. Examples of direct supplies in offset printing include, but are not limited to, the following:
- blankets
- spray powder
- rubber gloves
- rollers (recovery)
- gums
- press tape
- cleaning rags
- oil and grease
- wipers and cotton
- wash-up solutions
- alcohol
- sponges

Constructing your Own Cost Rate: To determine your own cost of Direct Supplies, it is suggested that you analyze your supply accounts for at least a one-year period, in order to accurately determine the average annual usage. NAPL recommends that items like film, plates, paper, and ink not be counted as direct supplies since their consumption varies greatly from job to job.

Line 13  Repairs and Maintenance
In calculating the cost for Repairs and Maintenance for conventional presses, we used 2% of the Total Investment Cost for a one-shift operation, 2.5% for a two-shift operation, and 3% for a three-shift operation. For digital presses, we used 4% for one shift, 6% for two shifts, and 8% for three shifts. For both digital duplicators/copier-printers and digital wide format printers, we used 5% of Total Investment Cost for one shift, 10% for two shifts, and 15% for three shifts. These percentages are estimates based on our survey results. Maintenance contract costs and click charges varied widely among manufacturers and the costs we applied do not, in any way, reflect the actual repairs and maintenance costs for the equipment studied in this book. When a manufacturer provided the maintenance contract costs and/or click charges, we provided that information, as a note, but did not use those costs in the calculations.

\[
\text{Repairs & Maintenance Cost} = \text{Repairs & Maintenance \%} \times \text{Total Investment Cost}
\]

Constructing Your Own Cost Rate: Determine your actual cost for equipment repairs and maintenance annually. Considerations should be given to the following: your records on actual repair costs incurred; the actual cost of any contracts with manufacturers or service companies; the equipment’s age, condition, and history of repairs and maintenance; and the hours it is expected to run.

Line 14  Sub-Total
This line is simply the sum of all lines (lines 1 through 13) above it. It represents the total expenses of the cost center prior to applying General Factory Expenses.

Line 15  General Factory Expenses
General Factory Expenses are those that cannot be charged directly to a specific cost center—things like delivery drivers, janitorial services, and even laundry expenses. For the equipment in this study we have used 15% of the Subtotal (Line 14) for a one-shift operation, 12.5% for a two-shift operation, and 10% for a three-shift operation.

\[
\text{Annual General Factory Expense} = \text{General Factory \%} \times \text{Sub-total (Line 14)}
\]
Constructing Your Own Cost Rate: You need to determine your own percentage for General Factory to apply to this, and any other, cost center being studied in your plant. Here is a formula to use:

\[
\frac{\text{Total General Factory Expenses Plant-Wide}}{\text{Total Fixed & Variable Charges (Lines 1-13) For All Production Cost Centers Plant-Wide}} = \text{General Factory \% to Apply to Each Cost Center Studied in Your Operation}
\]

Some examples of General Factory Expenses follow. These may be helpful in identifying General Factory Expenses in your operation. For the labor-related items, just consider the cost, not the hours, since hours should be considered part of overhead.

Labor-related items include delivery drivers; order entry; maintenance; planning and scheduling; security staff; quality control; shipping/receiving people; and other non-job-specific employees.

Non-labor-related items include shipping supplies; utilities; truck maintenance; garbage pick-up; janitorial services; freight in/out; auto and travel; general supplies; laundry and cleaning; materials spoilage; and experimental work.

Line 16 Total Manufacturing Cost
This line is simply the sum of Lines 14 and 15. It represents the Total Manufacturing Cost prior to applying Administrative & Selling Overhead.

\[
\text{Line 16 Total Manufacturing Cost} = \text{Line 14 Total Cost Center Expense} + \text{Line 15 General Factory Expense}
\]

Line 17 Administrative and Selling Overhead
Administrative and Selling Overhead varies from plant to plant. In this study, we have used an Administrative and Selling Overhead representing 42% of the Total Manufacturing Cost (Line 16) for a one-shift operation, 37% for a two-shift operation, and 32% for a three-shift operation.

\[
\text{Admin. & Selling Overhead \%} \times \text{Total Manufacturing Cost} = \text{Administrative and Selling Overhead}
\]

Constructing Your Own Cost Rate: In setting up your own rates, you should develop a ratio of your actual administrative and selling expenses as related to your manufacturing costs. This will give you a percentage basis on which to allocate Administrative and Selling Overhead to each cost center. The calculation is as follows:

\[
\frac{\text{Total Admin. & Selling Costs Plant-Wide}}{\text{Total Manufacturing Costs Plant-Wide}} = \text{Admin. & Selling Overhead \% to Apply to Each Cost Center Studied in Your Operation}
\]

There are both labor-related and non-labor-related aspects to Administrative and Selling Overhead. Following are a few examples:

Labor-related items include sales; customer service; estimating; and administrative people such as the president. As with the labor-related items in Line 15, these are considered part of overhead, so no hours should be included in your cost study, just the direct labor costs.

Non-labor-related items include advertising and promotion; auto expense; commissions; dues and subscriptions; interest expense; legal and professional fees; office supplies; other insurance; telephone; travel/entertainment; and other miscellaneous expenses.

Line 18 Total Costs
This line represents the total “all inclusive” costs of running the cost center for a year, and is simply the sum of Line 16 (Total Manufacturing Cost) and Line 17 (Administrative & Selling Overhead).

\[
\text{Line 18 Total Costs} = \text{Line 16 Total Manufacturing Cost} + \text{Line 17 Administrative & Selling Overhead}
\]
Line 19  Manufacturing Costs Per Productive Hour
This is calculated by dividing the Productive Hours into the Total Manufacturing Costs, resulting in the Manufacturing Costs Per Productive Hour. The Productive Hours we list at the top of each cost study (just above Line 1) are based on 100% productivity. Since this is unrealistic, NAPL adjusts the hours for three levels of productivity—85%, 75%, and 60%. This line, which is used for work in process, is calculated by NAPL as follows:

\[
\text{Total Manufacturing Costs (Line 16)} \times \frac{100\% \text{ Productivity}}{\text{Productive Hrs. Annually}} = \text{Manufacturing Costs Per Productive Hour}
\]

\[
\times \% \text{ Productivity (85%, 75%, or 60%)}
\]

Constructing Your Own Cost Rate: To perform the above calculation in your own cost study, you need to know the level of productivity at which you are operating. Your actual percent of productivity is the time the cost center is actually productive or, in other words, is doing something for which you can charge the customer. For example, consider a cost center in which the Annual Productive Hours @ 100% Productivity are 1,603. Now assume that the cost center is able to charge 1,202 hours to jobs during the year as chargeable time. The actual percent productivity would be as follows.

\[
\frac{1,202 \text{ (Chargeable Hours)}}{1,603 \text{ (Available Hours)}} = 75\%
\]

If you don’t have good numbers, NAPL generally recommends using 75% productivity for a one-shift operation, 80% for a two-shift, and 85% for a three-shift operation. Productivity increases from one shift to two shifts to three shifts due to the efficiencies gained by continuing to run.

Line 20  All-Inclusive Costs Per Productive Hour
This line, which is used for estimating purposes, is the result of dividing the Productive Hours Annually into the Total Costs (Line 18). As in Line 19, calculations are performed for three levels of productivity. The formula for finding the All-Inclusive Costs Per Productive Hour is as follows:

\[
\frac{\text{Total Costs (Line 18)}}{\text{Prod. Hrs. Annually}} = \text{All-Inclusive Costs Per Productive Hour}
\]

\[
\times \% \text{ Productivity (85%, 75%, or 60%)}
\]

Adjusting For Investment Costs
What if the installed cost for equipment you own, or are contemplating buying, is higher (or lower) than the Total Investment Cost shown in this study? By applying the following hourly cost factors (based on varying productivity levels and shifts utilized), you can adjust for the variance in installed cost.

For each $5,000 of investment cost, add or subtract the approximated hourly rates shown below to the All-Inclusive Hourly Cost Rates (line 20).

<table>
<thead>
<tr>
<th>Productivity Level</th>
<th>1-Shift</th>
<th>2-Shifts</th>
<th>3-Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area-A</td>
<td>Area-B</td>
<td>Area-C</td>
</tr>
<tr>
<td>85%</td>
<td>$0.74</td>
<td>$0.68</td>
<td>$0.62</td>
</tr>
<tr>
<td>75%</td>
<td>0.84</td>
<td>0.77</td>
<td>0.70</td>
</tr>
<tr>
<td>60%</td>
<td>1.05</td>
<td>0.96</td>
<td>0.87</td>
</tr>
</tbody>
</table>

For Digital Color Presses:

<table>
<thead>
<tr>
<th>Productivity Level</th>
<th>1-Shift</th>
<th>2-Shifts</th>
<th>3-Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area-A</td>
<td>Area-B</td>
<td>Area-C</td>
</tr>
<tr>
<td>85%</td>
<td>$1.46</td>
<td>$1.33</td>
<td>$1.21</td>
</tr>
<tr>
<td>75%</td>
<td>1.66</td>
<td>1.51</td>
<td>1.37</td>
</tr>
<tr>
<td>60%</td>
<td>2.07</td>
<td>1.88</td>
<td>1.72</td>
</tr>
</tbody>
</table>
For Digital Duplicators/Copier-Printers and Digital Wide Format Printers

<table>
<thead>
<tr>
<th>Productivity Level</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$1.52</td>
<td>$1.38</td>
<td>$1.26</td>
<td>$0.86</td>
<td>$0.78</td>
<td>$0.71</td>
<td>$0.63</td>
<td>$0.57</td>
<td>$0.52</td>
</tr>
<tr>
<td>75%</td>
<td>1.73</td>
<td>1.57</td>
<td>1.43</td>
<td>0.97</td>
<td>0.89</td>
<td>0.81</td>
<td>0.71</td>
<td>0.65</td>
<td>0.59</td>
</tr>
<tr>
<td>60%</td>
<td>2.16</td>
<td>1.96</td>
<td>1.79</td>
<td>1.22</td>
<td>1.11</td>
<td>1.01</td>
<td>0.89</td>
<td>0.81</td>
<td>0.74</td>
</tr>
</tbody>
</table>

Adjusting For Labor Complement
What if you choose to man a piece of equipment with more or fewer employees than we have in our cost studies?

To add or remove an employee from the labor complement used in one of our cost studies, first choose the wages below that are closest to the employee you wish to add or delete. Then, add or subtract the approximated hourly cost rates shown to the All-Inclusive Hourly Cost Rates (line 20 of the cost study):

For Wages: $33,000 $29,000 $24,000 $68,000 $60,000 $49,000 $104,000 $91,000 $75,000

<table>
<thead>
<tr>
<th>Productivity Level</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$60.88</td>
<td>$46.95</td>
<td>$34.89</td>
<td>$56.88</td>
<td>$43.99</td>
<td>$32.28</td>
<td>$52.47</td>
<td>$40.22</td>
<td>$29.76</td>
</tr>
<tr>
<td>75%</td>
<td>69.01</td>
<td>53.21</td>
<td>39.55</td>
<td>64.47</td>
<td>49.86</td>
<td>36.59</td>
<td>59.51</td>
<td>45.59</td>
<td>33.72</td>
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<tr>
<td>60%</td>
<td>86.25</td>
<td>66.51</td>
<td>49.43</td>
<td>80.59</td>
<td>62.33</td>
<td>45.74</td>
<td>74.33</td>
<td>56.98</td>
<td>42.15</td>
</tr>
</tbody>
</table>

For Wages: $41,000 $37,000 $32,000 $84,000 $76,000 $66,000 $128,000 $116,000 $100,000

<table>
<thead>
<tr>
<th>Productivity Level</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
<th>Area-A</th>
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<th>Area-C</th>
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<tbody>
<tr>
<td>85%</td>
<td>$74.28</td>
<td>$58.96</td>
<td>$45.75</td>
<td>$69.02</td>
<td>$54.87</td>
<td>$32.28</td>
<td>$52.47</td>
<td>$40.22</td>
<td>$29.76</td>
</tr>
<tr>
<td>75%</td>
<td>84.19</td>
<td>66.82</td>
<td>51.85</td>
<td>78.23</td>
<td>62.19</td>
<td>48.42</td>
<td>71.88</td>
<td>57.17</td>
<td>44.18</td>
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<tr>
<td>60%</td>
<td>105.24</td>
<td>83.53</td>
<td>64.81</td>
<td>97.78</td>
<td>77.73</td>
<td>60.53</td>
<td>89.85</td>
<td>71.46</td>
<td>55.23</td>
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</table>

For Wages: $47,000 $44,000 $39,000 $96,000 $90,000 $80,000 $147,000 $136,000 $122,000

<table>
<thead>
<tr>
<th>Productivity Level</th>
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<th>Area-C</th>
<th>Area-A</th>
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<th>Area-A</th>
<th>Area-B</th>
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<tbody>
<tr>
<td>85%</td>
<td>$84.33</td>
<td>$55.25</td>
<td>$45.75</td>
<td>$78.13</td>
<td>$64.39</td>
<td>$32.28</td>
<td>$52.47</td>
<td>$40.22</td>
<td>$29.76</td>
</tr>
<tr>
<td>75%</td>
<td>95.58</td>
<td>78.74</td>
<td>62.62</td>
<td>88.55</td>
<td>72.97</td>
<td>51.32</td>
<td>71.88</td>
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<td>60%</td>
<td>119.47</td>
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<td>110.68</td>
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<td>60.53</td>
<td>102.14</td>
<td>83.04</td>
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</table>

For Wages: $53,000 $49,000 $45,000 $109,000 $101,000 $91,000 $166,000 $154,000 $139,000

Adjusting For Wages
What if the wages that you are paying an employee are higher or lower than the wages shown in this study?

For each $1,000 variance in wages (per employee) add/subtract the following approximated hourly cost rates to the All-Inclusive Hourly Cost Rates (line 20):

<table>
<thead>
<tr>
<th>Productivity Level</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
<th>Area-A</th>
<th>Area-B</th>
<th>Area-C</th>
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<tbody>
<tr>
<td>85%</td>
<td>$1.68</td>
<td>$1.50</td>
<td>$1.36</td>
<td>$0.76</td>
<td>$0.68</td>
<td>$0.61</td>
<td>$0.46</td>
<td>$0.41</td>
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<tr>
<td>75%</td>
<td>1.90</td>
<td>1.70</td>
<td>1.54</td>
<td>0.86</td>
<td>0.77</td>
<td>0.70</td>
<td>0.52</td>
<td>0.46</td>
<td>0.42</td>
</tr>
<tr>
<td>60%</td>
<td>2.37</td>
<td>2.13</td>
<td>1.92</td>
<td>1.07</td>
<td>0.96</td>
<td>0.87</td>
<td>0.65</td>
<td>0.58</td>
<td>0.52</td>
</tr>
</tbody>
</table>
We at NAPL extend our sincerest thanks to the following companies, who participated in this study.

**A. B. Dick Co.**  
(Data provided by Presstek, Inc.)

**Adast**  
(Data provided by United Graphic Systems)

**Akiyama International Corp. (USA)**  
13311 E. 166th St.  
Cerritos, CA  90703  
Phone: (562) 404-4767  
800: (800) 233-7960  
Fax: (562) 404-0690  
Web: www.akiyama.com

**Eastman Kodak Co.**  
3000 Research Blvd.  
Dayton, OH  45420  
Phone: (937) 259-3000  
Fax: (937) 259-3385  
Web: www.graphics.kodak.com

**Halm Industries Co., Inc.**  
180 Glen Head Rd.  
Glen Head, NY  11545  
Phone: (516) 676-6700  
Fax: (516) 676-6751  
Web: www.halm.com

**Heidelberg USA, Inc.**  
1000 Gutenberg Dr.  
Kennesaw, GA  30144  
Phone: (770) 419-6500  
800: (800) 437-7388  
Fax: (770) 419-6912  
Web: www.heidelberg.com

**IBM**  
6300 Diagonal Hwy.  
Boulder, CO  80301  
800: (800) IBM-4-YOU  
Fax: (800) 242-6329  
Web: www.ibm.com

**KBA North America, Inc.**  
291 Hurricane Ln.  
Williston, VT  05495  
Phone: (802) 878-9400  
Fax: (802) 878-7512  
Web: www.kba-usa.com

**Komori America Corp.**  
5520 Meadowbrook Ind’l Ct.  
Rolling Meadows, IL  60008  
Phone: (847) 806-9000  
Fax: (847) 806-0987  
Web: www.komori.com

**MacDermid ColorSpan**  
11311 K-Tel Dr.  
Minnetonka, MN  55343  
Phone: (952) 944-9330  
800: (800) 477-7714  
Fax: (952) 944-0522  
Web: www.colorsapan.com

**MAN Roland, Inc.**  
800 East Oak Hill Dr.  
Westmont, IL  60559  
Phone: (630) 920-2000  
Fax: (630) 920-2457  
Web: www.manroland.com

**Mitsubishi Lithographic Presses**  
600 Barclay Blvd.  
Lincolnshire, IL  60069  
Phone: (847) 634-9100  
Fax: (847) 634-9109  
Web: www.mlpusa.com

**NexPress**  
(See Eastman Kodak Co.)

**Océ North America, Inc. WFPD**  
5450 North Cumberland Ave.  
Chicago, IL  60656  
Phone: (773) 714-8500  
800: (800) 714-4427  
Fax: (773) 714-4056  
Web: www.oceusa.com

**Océ North America, Inc.**  
100 Oakview Dr.  
Trumbull, CT  06611  
Phone: (203) 365-7000  
800: (800) 945-9708  
Web: www.oce.com

**Presstek, Inc.**  
55 Executive Dr.  
Hudson, NH  03051  
Phone: (603) 595-7000  
800: (800) 524-0003  
Fax: (603) 595-9666  
Web: www.presstek.com

**Pro-Graphics Network LLC**  
4030 Simon Rd.  
Boardman, OH  44512  
Phone: (330) 783-0083  
Fax: (330) 783-0761  
Web: www.prographics.com

**RISO, Inc.**  
300 Rosewood Dr.  
Danvers, MA  01923  
Phone: (978) 777-7377  
800: (800) 876-RISO  
Fax: (978) 777-2517  
Web: http://us.riso.com
Ryobi
(Data provided by xpedx/Import Group)

Sakurai USA, Inc.
1700 N. Basswood Rd.
Schaumburg, IL  60173
Phone: (847) 490-9400
Fax: (847) 490-4200
Web:  www.sakurai.com

Shinohara USA
260 Stanley St.
Elk Grove Village, IL  60007
Phone: (847) 439-0975
800:  (800) 817-1614
Fax: (847) 439-0998
Web:  www.shinohara.com

Toshiba
(Data provided by Danka Office Imaging)

United Graphic Systems, Inc.
25 Smith St.
Englewood, NJ  07631
Phone: (201) 871-0170
Fax: (201) 871-3331
Web:  www.unitedgraphic systems.com

Win America, Inc.
4030 Simon Rd.
Boardman, OH  44512
Phone: (330) 783-0083
Fax: (330) 783-0761
Web:  www.winamerica.net

Xanté Corp.
2800 Dauphin St., Ste. 100
Mobile, AL  36606
Phone: (251) 473-6502
800:  (800) 926-8839
Fax: (251) 473-6503
Web:  www.xante.com

Xerox Corp.
800 Long Ridge Rd.
P.O. Box 1600
Stamford, CT  06904
800:  (800) ASK-XEROX
Web:  www.xerox.com

xpedx/Import Group
7848 Barton
Lenexa, KS  66214
Phone: (913) 631-8700
Fax: (913) 631-3036
Why Go It Alone...
When Help’s Just a Phone Call* Away?

There are supposed to be 24 hours in a day, but it sure doesn’t seem that way when you’re trying to handle all the financial, operations, and strategic planning issues facing your business—not to mention sales and human resources concerns. If you think it’s too much for one person, you’re right.

An NAPL consultant can help you make things more manageable. For more than 50 years, NAPL consultants have been going on-site at member facilities to help executives solve difficult problems and take advantage of exciting opportunities.

Whether you need guidance in reviewing internal financial systems, equipment appraisals, productivity improvement, turnaround management, market analysis, employee assessment, or any other business issue, we have knowledgeable industry experts ready to give you the information and advice that will help you make the right decisions.

In fact, you might even start to enjoy running your business again.

To Learn How an NAPL Management Consultant Can Help, Call (800) 642-6275, Ext. 6376

NAPL Consultants Provide Assistance in These Management Areas:

<table>
<thead>
<tr>
<th>Cost &amp; Financial</th>
<th>Operations/Technical</th>
<th>Strategic Planning/General Management</th>
<th>Sales &amp; Marketing</th>
<th>Human Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hourly Cost Rates</td>
<td>• Scheduling</td>
<td>• Business Planning</td>
<td>• Market Analysis &amp; Planning</td>
<td>• Employee Assessment</td>
</tr>
<tr>
<td>• Internal Costs &amp; Financial Systems</td>
<td>• Production Planning</td>
<td>• Management Review</td>
<td>• Sales Training &amp; Management</td>
<td>• Human Resource Management</td>
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<tr>
<td>• Estimating</td>
<td>• Production Standards</td>
<td>• Turnaround Management</td>
<td>• Sales Compensation</td>
<td>• Employee/Labor Relations</td>
</tr>
<tr>
<td>• Capital Equipment Decisions</td>
<td>• Plant Layout</td>
<td>• Mergers &amp; Acquisitions</td>
<td>• Customer Surveys</td>
<td>• Legal Issues</td>
</tr>
<tr>
<td>• Company Valuations</td>
<td>• Productivity Improvement</td>
<td>• ESOPs</td>
<td>• Marketing Campaigns</td>
<td>• Organizational Development</td>
</tr>
<tr>
<td>• Equipment Appraisals</td>
<td>• TQM/ISO</td>
<td>• Family Business Issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Activity-Based Costing</td>
<td>• Prepress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tax &amp; Audit Services</td>
<td>• In-plant Issues</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The call is toll-free, so you have nothing to lose but those worries that are keeping you up nights.
Section 1

SHEETFED OFFSET PRESSES
### BASE COST ABOVE INCLUDES

**Ryobi 2800 CD.**

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

### AUXILIARY EQUIPMENT INCLUDES

**Equip. Shipped F.O.B.: Kansas City, MO**

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

1. Direct Labor...
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
3. Pension Fund (A) 5% (B) 3% (C) 2%...
4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $50.00 sq. ft...
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...
6. Workmen's Compensation Insurance (Rate $4.00 per M)...
7. Power Cost @ $0.07 per kWh (based on hp rating)...
8. Power Cost @ $0.07 per kWh (based on kWh rating)...
9. Direct Supplies (see instructions)...
10. Repairs & Maint. @ 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
11. Sub-total...
12. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
13. TOTAL MANUFACTURING COSTS...
14. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
15. TOTAL COSTS...
16. MANUFACTURING COSTS per productive hour @ 85% productivity...
17. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity...

### TOTAL INVEST.:

- **$21,425**
A. B. Dick Model 9980

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.38&quot; X 17.72&quot;</td>
<td>1</td>
<td>10,000 pph</td>
<td>hp: kwhs: 3.1</td>
<td>Conventional Offset</td>
<td>$36,400</td>
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</table>

**BASE COST ABOVE INCLUDES**

- Pin register system; pre-ple; register board; continuous dampener; 16 roller ink system with three ink form rollers; plate punch; doubles detection with sheet elimination; sheet skew; dial type image register horizontal and vertical; horizontal register on the fly; auto recode chain delivery; training; installation.

**AUXTILIARY EQUIPMENT INCLUDES**

- Dry powder spray ($1,075); roll-up numbering perforation device ($9,475); second color head ($12,075).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<td>37.5</td>
<td>40</td>
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<td>37.5</td>
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<td>35</td>
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<td>10</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST**

- **LABOR COST-1 SHIFT**
  - Pressman: $41,239

- **LABOR COST-2 SHIFTS**
  - $84,952

- **LABOR COST-3 SHIFTS**
  - $129,490

**TOTAL**

- $195,711

**CONDITIONS**

- Presses: 1-Unit
- Sheetfed Offset
- **Layout for Conventional**
- **Product Class/Process:**
- **Auxiliary Equip.:** Included
- **Install. (Est.):** Included
- **Total Invest.:** $59,025

**No. of Manned Hours Annually @ 100% Productivity**

- **Fixed Charges (Non-Variable)**
  - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........... $5,903
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.................. 1,050
  - 3. Fire & Sprinkler Insurance (Rate $4.00 per M).......................... 2,700

- **Variable Charges**
  - 4. Direct Labor.............................................................. 41,239
  - 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/10% 3 shifts.............................. 2,062
  - 6. Pension Fund (A) 5% (B) 3% (C) 2%.................................. 8,248
  - 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk............... 4,680
  - 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%................ 4,107
  - 9. Workmen’s Compensation Insurance (Rate $40.00 per M).............. 1,979
  - 10. Power Cost @ $0.07 per kWh (based on hp rating).................... 209
  - 11. Power Cost @ $0.07 per kWh (based on kw rating)........................ 209
  - 12. Direct Supplies (see instructions).................................... 900
  - 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........... 1,181
  - 14. Sub-total................................................................. 71,793
  - 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........... 10,769
  - 16. TOTAL MANUFACTURING COSTS......................................... 82,562
  - 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.............................. 34,676
  - 18. TOTAL COSTS.................................................................... 117,239

- **MANUFACTURING COSTS per productive hour @**
  - 85% productivity: $60.59
  - 75% productivity: $68.67
  - 60% productivity: $85.84

- **ALL-INCLUSIVE COSTS per productive hour @**
  - 85% productivity: $86.04
  - 75% productivity: $97.52

- **Sheeted Offset**
- **Presses:** 1-Unit

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3
xpedx/import Group, Ryobi 3200 CD

**BASE COST ABOVE INCLUDES**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>40</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</tbody>
</table>

**FUNCTION**

- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts

**TOTAL INVEST. :** $26,726

**AUXILIARY EQUIPMENT INCLUDES**

- Equip. Shipped F.O.B.: Kansas City, MO

**POWER:**

- hp: --
- kWhs: 1

**PRODUCT CLASS/PROCESS:**

- Wet Offset
- Interfaces with: n/a
- Install. (Est.): See Note*

**BASE COST:** $26,726

**BASE COST** (NON-VARIABLE)

- 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........ $2,673
- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft ............. 1,050
- 3. Fire & Sprinkler Insurance (Rate $40.00 per M).................. 107
- 4. Direct Labor................................................................. 41,239
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.................. 8,248
- 6. Pension Fund (A) 5% (B) 3% (C) 2%..................................... 2,062
- 7. Welfare Benefits (A) $90.00/wk. (B) $60.00/wk. (C) $45.00/wk.................................. 4,680
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%........... 4,107
- 9. Workers’ Compensation Insurance (Rate $40.00 per M)........... 1,979
- 10. Power Cost @ $0.07 per kWh (based on hp rating)............... 0
- 11. Power Cost @ $0.07 per kWh (based on hp rating)............... 67
- 12. Direct Supplies (see instructions)................................. 900
- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........ 535
- 14. Sub-total................................................................. 67,847
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........ 10,147
- 16. TOTAL MANUFACTURING COSTS........................................ 77,944
- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.................. 32,673
- 18. TOTAL COSTS.................................................................... 110,468

**MANUFACTURING COSTS per productive hour @**

- 85% productivity $57.09
- 75% productivity 64.71
- 60% productivity 80.88

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity $81.07
- 75% productivity 91.88

**TOTAL COSTS**

- $240,655

**MANUFACTURING COSTS**

- 85% productivity $57.09
- 75% productivity 64.71
- 60% productivity 80.88

**ALL-INCLUSIVE COSTS**

- 85% productivity $81.07
- 75% productivity 91.88

**TOTAL MANUFACTURING COSTS**

- $240,655

**TOTAL INVEST. :** $26,726

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### BASE COST ABOVE INCLUDES
Three ink form rolls; 13.38" X 18.5" sheet; 13" X 17.25" image; universal plate clamp; 13" X 19.375" plate; safety cover indicator; counter up/down; cast frame.  
*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

### AUXILIARY EQUIPMENT INCLUDES
Infrared dryer ($2,495); Super Blue ($1,199).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT
- **Pressman**
  - **LABOR COST-1 SHIFT**
  - **LABOR COST-2-shifts**
  - **LABOR COST-3-shifts**

### ONE SHIFT
- **AREA A**
- **AREA B**
- **AREA C**
- **TOTAL**

### TWO SHIFTS
- **AREA A**
- **AREA B**
- **AREA C**
- **TOTAL**

### THREE SHIFTS
- **AREA A**
- **AREA B**
- **AREA C**
- **TOTAL**

### MANUFACTURING COSTS
- **DIRECT LABOR**
- **INDIRECT LABOR**
- **WORKMEN’S COMPENSATION INSURANCE**
- **WELFARE BENEFITS**
- **POWER COST**
- **RENT & HEAT**
- **DIRECT SUPPLIES**
- **GROSS MANUFACTURING COSTS**
- **TART MANUFACTURING COSTS**
- **TAST MANUFACTURING COSTS**

### ALL-INCLUSIVE COSTS
- **ALL-INCLUSIVE COSTS**

### TOTAL INVEST.

### BASE COST:
- **$19,995**

### AUXILIARY EQUIP.:
- **$3,694**

### INSTALL. (EST.):
- *See Note

### TOTAL INVEST.: **$23,689**

---

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### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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<th>Provisions</th>
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<th>Area B</th>
<th>Area C</th>
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<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
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<td>Vacation</td>
<td>After One Year</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
</tr>
</tbody>
</table>

#### LABOR COST-1 SHIFT
- Pressman: $41,239
- Area A: $37,211
- Area B: $32,081
- Area C: $84,952
- Total: $129,490

#### LABOR COST-2-shifts
- Area A: $116,843
- Area B: $100,734
- Area C: $3,000
- Total: $116,843

#### LABOR COST-3 shifts
- Area A: $76,655
- Area B: $3,526
- Area C: $1,000
- Total: $76,655

### TOTAL MANUFACTURING COSTS
- Area A: $132,217
- Area B: $209,426
- Area C: $178,981
- Total: $510,624

### ALL-INCLUSIVE COSTS
- Area A: $116,843
- Area B: $100,734
- Area C: $3,000
- Total: $219,477

---

### AUXILIARY EQUIPMENT INCLUDES
- IR dryer ($2,995); T-51 Swing Away "AE" Series ($8,500); Super Blue ($1,995); Kompac II Dampening ($2,000).

---

### BASE COST ABOVE INCLUDES
- Three form rollers; spray unit; wash-up attachment; inverter motor; extended chain delivery; one touch control panel; 13" x 17.5" printing area.

---

### DIRECT LABOR AND OVERHEAD (BY AREA)
- Pressman: $37,211
- Area A: $32,081
- Area B: $84,952
- Area C: $129,490
- Total: $350,643

---

### TOTAL INVEST.
- Area A: $55,035
- Area B: $14,890
- Area C: $1,200
- Total: $71,125

---

### NAPL-2
- Area A: 129,490
- Area B: 12,949
- Area C: 7,902
- Total: 149,331

---

### FIRE & SPRINKLER INSURANCE (Rate $4.00 per M)
- Area A: 116,843
- Area B: 12,949
- Area C: 7,902
- Total: 136,794

---

### DEPRECIATION @ 10%  1 shift/  12.5% 2 shifts/  15% 3 shifts
- Area A: $1,577
- Area B: $129
- Area C: $75
- Total: $1,771

---

### VP & GM's Insurance (Rate $40.00 per M)
- Area A: $1,500
- Area B: $100
- Area C: $50
- Total: $1,650

---

### VACATION..............................................................................
- Area A: 3 weeks
- Area B: 2 weeks
- Area C: 2 weeks
- Total: 7 weeks

---

### TOTAL:
- Area A: 129,490
- Area B: 12,949
- Area C: 7,902
- Total: 149,331

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR

- Area A
- Area B
- Area C

---

### TOTAL MANUFACTURING COSTS
- Area A: 132,217
- Area B: 209,426
- Area C: 178,981
- Total: 510,624

---

### ALL-INCLUSIVE COSTS
- Area A: 116,843
- Area B: 100,734
- Area C: 3,000
- Total: 219,477

---

### INSTALL. (EST.):
- Area A: $14,890
- Area B: $1,200
- Area C: $1,200
- Total: $17,310

---

### TOTAL: $35,085

---

### VARIOUS CHARGES
- Area A: 3,872
- Area B: 1,000
- Area C: 7,442
- Total: 12,314

---

### TRAFFIC COMMANDER
- Area A: 8,248
- Area B: 3,526
- Area C: 1,000
- Total: 12,774

---

### Dampening ($2,000).
- Area A: 8,109
- Area B: 3,526
- Area C: 1,000
- Total: 12,635

---

### PROGRESS REPORTS
- Area A: 3,509
- Area B: 1,050
- Area C: 1,000
- Total: 5,559

---

### TOTAL CHARGES
- Area A: 3,040
- Area B: 1,050
- Area C: 1,000
- Total: 5,090

---

### NUTRIENT MANAGEMENT SYSTEM
- Area A: 1,979
- Area B: 72
- Area C: 37
- Total: 2,388

---

### WATER COSTS
- Area A: 7,850
- Area B: 100
- Area C: 1,000
- Total: 9,950

---

### TOTAL: $112,576
- Area A: 99,085
- Area B: 85,460
- Area C: 203,779
- Total: 388,324

---

### MANUFACTURING COSTS per productive hour @ 85% productivity
- Area A: $58.18
- Area B: 46.58
- Area C: 36.57
- Total: 131.33

---

### MANUFACTURING COSTS per productive hour @ 75% productivity
- Area A: 65.94
- Area B: 52.79
- Area C: 41.45
- Total: 160.18

---

### MANUFACTURING COSTS per productive hour @ 60% productivity
- Area A: 82.43
- Area B: 65.96
- Area C: 51.81
- Total: 199.19

---

### ALL-INCLUSIVE COSTS per productive hour @ 85% productivity
- Area A: $82.62
- Area B: 66.14
- Area C: 51.93
- Total: 140.79

---

### ALL-INCLUSIVE COSTS per productive hour @ 75% productivity
- Area A: 93.64
- Area B: 74.96
- Area C: 58.86
- Total: 177.47

---

### 60% productivity
- Area A: 117.05
- Area B: 93.70
- Area C: 73.57
- Total: 284.32

---

### Sheetfed Offset
- Presses: 1-Unit

---

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### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Area</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td>$41,239</td>
<td>$37,211</td>
<td>$32,081</td>
</tr>
<tr>
<td>Area B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL: $129,490 $116,843 $100,734

### Total Costs

| Total Cost | $184,817 |

### All-Inclusive Costs

| Total Cost | $233,769 |

---

### Sheetfed Offset

**Presses: 1-Unit**

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### Sheetfed Offset

**Presses: 1-Unit**

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### Sheetfed Offset

**Presses: 1-Unit**

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### Sheetfed Offset

**Presses: 1-Unit**

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**Presses: 1-Unit**

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### Sheetfed Offset

**Presses: 1-Unit**

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### Sheetfed Offset

**Presses: 1-Unit**

---
**Sakurai Oliver 58 EII**

**Size:** 17.75" x 22.75"  
**Units:** 1  
**Maximum Speed:** 12,000 iph  
**Power:** hp: --  
**Kwhs:** 4.25  
**Product Class/Process:** Wet Offset  
**Base Cost:** $113,000  
**Auxiliary Equipment:** n/a  
**Installation (Est.):** Included  
**Total Invest.:** $113,000

### BASE COST ABOVE INCLUDES

- Single action feed table setup; pile board lateral adjustment; overrun detector; electronic double sheet detector; static electricity remover; OLIVERMATIC continuous dampening system; presser counter; pneumatic roller control; remote control running register; plate cylinder cocking device; spray powder device; sheet curl preventer; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Chicago, IL

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

- Pressman: $41,239
- Total: $41,239

### LABOR COST-2 SHIFTS

- Total Cost: $129,490

### LABOR COST-3 SHIFTS

- Total Cost: $129,490

---

**One Shift**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**Two Shifts**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>76,655</td>
<td>76,655</td>
<td>86,087</td>
</tr>
</tbody>
</table>

**Three Shifts**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>129,490</td>
<td>129,490</td>
<td>129,490</td>
</tr>
</tbody>
</table>

---

**MANUFACTURING COSTS**

- Sheetfed Offset
- Presses: 1-Unit

---

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### BASE COST ABOVE INCLUDES

Single action feed table setup; pile board lateral adjustment; overrun detector; electronic double sheet detector; static electricity remover; OLIVERMATIC continuous dampening system; preset counter; pneumatic roller control; remote control running register; plate cylinder cocking device; spray powder device; sheet curl preventer; installation and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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</table>

#### FUNCTION LABOR COST-1 SHIFT

Pressman $41,239

#### LABOR COST-2 SHIFTS

<table>
<thead>
<tr>
<th>AREA C</th>
<th>AREA B</th>
<th>AREA A</th>
</tr>
</thead>
<tbody>
<tr>
<td>$84,952</td>
<td>$76,655</td>
<td>$66,087</td>
</tr>
</tbody>
</table>

#### LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>AREA C</th>
<th>AREA B</th>
<th>AREA A</th>
</tr>
</thead>
<tbody>
<tr>
<td>$129,490</td>
<td>$116,843</td>
<td>$100,734</td>
</tr>
</tbody>
</table>

### TOTAL:

$41,239 + $37,211 + $32,081 = $110,531

### TOTAL COSTS

$131,674 + $117,757 = $249,431

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$68.05</td>
<td>$55.35</td>
<td>$44.47</td>
</tr>
<tr>
<td>75% productivity</td>
<td>77.13</td>
<td>62.73</td>
<td>50.39</td>
</tr>
<tr>
<td>60% productivity</td>
<td>96.41</td>
<td>78.42</td>
<td>62.99</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$96.64</td>
<td>$78.60</td>
<td>$63.14</td>
</tr>
<tr>
<td>75% productivity</td>
<td>109.52</td>
<td>89.08</td>
<td>71.56</td>
</tr>
</tbody>
</table>

### TOTAL INVEST.:

$117,000
### BASE COST ABOVE INCLUDES

Single action feed table setup; pile board lateral adjustment; overrun detector; electronic double sheet detector; static electricity remover; OLIVERMATIC continuous dampening system; preset counter; pneumatic roller control; remote control running register; plate cylinder cocking device; spray powder device; sheet curl preventer; installation and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION

**LABOR COST-1 SHIFT**

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$41,239</th>
<th>$37,211</th>
<th>$32,081</th>
<th>$84,952</th>
<th>$76,655</th>
<th>$66,087</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LABOR COST-2 SHIFTS</strong></td>
<td>$129,490</td>
<td>$116,843</td>
<td>$100,734</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LABOR COST-3 SHIFTS</strong></td>
<td>$129,490</td>
<td>$116,843</td>
<td>$100,734</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL:**

| $41,239 | $37,211 | $32,081 | $84,952 | $76,655 | $66,087 | $129,490 | $116,843 | $100,734 |

### AUXILIARY EQUIPMENT INCLUDES

<table>
<thead>
<tr>
<th><strong>Sakurai Oliver 72EII</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BASE COST:</strong></td>
</tr>
<tr>
<td><strong>Wet Offset</strong></td>
</tr>
<tr>
<td><strong>INSTALL. (EST.):</strong></td>
</tr>
<tr>
<td><strong>TOTAL INVEST. :</strong></td>
</tr>
</tbody>
</table>

### PAYROLL TAXES (SOC. SEC. & UNEMPLOYMENT INSURANCE) 8.3%

- 82.44

### OTHER CHARGES

- $32,281
- $5,748
- $2,990
- $1,500
- $4,500
- $4,500
- $5,800
- $100,734
- $116,843
- $100,734

### VARIABLE CHARGES

#### DIRECT LABOR

- $41,239
- $37,211
- $32,081
- $84,952
- $76,655
- $66,087
- $129,490
- $116,843
- $100,734

#### INDIRECT LABOR

- $82.44
- $7,442
- $6,416
- $12,743
- $11,498
- $9,913
- $12,949
- $11,684
- $10,073

#### PENSION FUND (A) 5% (B) 3% (C) 2%

- $2,062
- $1,116
- $642
- $4,248
- $2,300
- $1,322
- $6,475
- $3,505
- $2,015

#### WELLFARE BENEFITS (A) $90/wk. (B) $60/wk. (C) $45/wk.

- $4,680
- $3,120
- $2,340
- $9,360
- $6,240
- $4,680
- $14,040
- $9,360
- $7,020

#### PAYROLL TAXES (SOC. SEC. & UNEMPLOYMENT INSURANCE) 8.3%

- $4,107
- $3,706
- $3,195
- $8,109
- $7,317
- $6,308
- $11,822
- $10,668
- $9,197

#### WORKERS' COMPENSATION INSURANCE (RATE $40.00 PER M.)

- $1,979
- $1,786
- $1,540
- $3,908
- $3,526
- $3,040
- $5,698
- $5,141
- $4,432

#### POWER COST @ $0.07 PER KWH (BASED ON HP RATING)

- $0
- $0
- $0
- $0
- $0
- $0
- $0
- $0
- $0

#### POWER COST @ $0.07 PER KWH (BASED ON kW RATING)

- $494
- $543
- $597
- $988
- $1,087
- $1,194
- $1,483
- $1,630
- $1,790

#### DIRECT SUPPLIES (SEE INSTRUCTIONS)

- $1,500
- $1,500
- $1,500
- $3,000
- $3,000
- $3,000
- $4,500
- $4,500
- $4,500

#### REPAIRS & MAINT. @ 2% 1 SHIFT/ 2.5% 2 SHIFTS/ 3% 3 SHIFTS

- $2,900
- $2,900
- $2,900
- $3,625
- $3,625
- $3,625
- $4,350
- $4,350
- $4,350

#### SUB-TOTAL

- $84,390
- $75,805
- $67,291
- $151,739
- $135,352
- $118,873
- $215,237
- $191,417
- $167,442

#### GENERAL FACTORY—15% 1 SHIFT/ 12.5% 2 SHIFTS/ 10% 3 SHIFTS

- $12,658
- $11,371
- $10,094
- $18,967
- $16,919
- $14,859
- $21,524
- $19,141
- $16,744

#### TOTAL MANUFACTURING COSTS

- $97,048
- $87,176
- $77,384
- $170,705
- $152,271
- $133,732
- $236,760
- $210,552
- $184,187

#### ADMINISTRATIVE & SELLING OVERHEAD—42% 1 SHIFT/ 37% 2 SHIFTS/ 32% 3 SHIFTS

- $40,760
- $36,614
- $32,501
- $63,161
- $56,340
- $49,481
- $75,763
- $67,377
- $58,940

#### TOTAL COSTS

| $137,809 | $123,790 | $109,886 | $233,866 | $208,611 | $183,213 | $312,524 | $277,929 | $243,126 |

#### MANUFACTURING COSTS PER PRODUCTIVE HOUR @

| 85% Productivity | $71.23 | $58.19 | $47.03 | $62.64 | $50.82 | $40.65 | $57.92 | $46.85 | $37.31 |
| 75% Productivity | $80.72 | $65.95 | $53.30 | $70.99 | $57.60 | $46.05 | $65.64 | $53.09 | $42.28 |
| 60% Productivity | $100.90 | $82.44 | $66.62 | $88.74 | $72.00 | $57.56 | $82.05 | $66.37 | $52.85 |

#### ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR @

| 85% Productivity | $101.14 | $82.63 | $66.79 | $85.82 | $69.62 | $55.67 | $76.46 | $61.84 | $49.25 |
| 75% Productivity | $114.63 | $93.65 | $75.68 | $97.26 | $78.91 | $63.09 | $86.65 | $70.08 | $55.81 |
| 60% Productivity | $143.28 | $117.06 | $94.60 | $121.58 | $98.63 | $78.86 | $108.31 | $87.61 | $69.77 |

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Sheetfed Offset
Presses: 1-Unit
**Halm Industries, Jet Press Plus XL**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>9&quot; x 15.25&quot;</td>
<td>2</td>
<td>50,000 iph perfecting</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$126,250</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

50,000 per hour 2/2 perfecting speed; one mode of operation for full size range reduces change-over and set-up time; refrigerated dampener recirculation system improves print quality at high speeds; training and installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
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<td>10</td>
<td>8</td>
<td>11</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman: $44,044
  - TOTAL: $44,044

- **LABOR COST-2 SHIFTS**
  - TOTAL: $138,298

- **LABOR COST-3 SHIFTS**
  - TOTAL: $124,793

**TOTAL INVEST.:** $126,250

**AUXILIARY EQUIPMENT INCLUDES**

- A UV dryer is an available option not included in this cost study.

**Note:**

- Equip. Shipped F.O.B.: Halm Industries

---

**One Shift**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**Two Shifts**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

**Three Shifts**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TOTAL COSTS**

$139,728 $125,121 $110,673 $240,472 $213,980 $187,490 $322,884 $368,517 $250,173

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
<th>55% productivity</th>
<th>40% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$72.22</td>
<td>$81.66</td>
<td>$102.31</td>
<td>$111.22</td>
<td>$120.22</td>
</tr>
<tr>
<td>$58.82</td>
<td>$66.66</td>
<td>$83.32</td>
<td>$94.65</td>
<td>$101.28</td>
</tr>
<tr>
<td>$47.36</td>
<td>$53.68</td>
<td>$67.10</td>
<td>$76.22</td>
<td>$85.28</td>
</tr>
<tr>
<td>$64.41</td>
<td>$73.00</td>
<td>$91.25</td>
<td>$100.01</td>
<td>$118.32</td>
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<tr>
<td>$52.13</td>
<td>$59.08</td>
<td>$73.85</td>
<td>$80.84</td>
<td>$98.82</td>
</tr>
<tr>
<td>$41.58</td>
<td>$47.13</td>
<td>$58.91</td>
<td>$64.56</td>
<td>$89.52</td>
</tr>
<tr>
<td>$59.84</td>
<td>$67.82</td>
<td>$84.77</td>
<td>$99.56</td>
<td>$114.52</td>
</tr>
<tr>
<td>$48.30</td>
<td>$54.74</td>
<td>$68.42</td>
<td>$72.25</td>
<td>$77.19</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
<th>55% productivity</th>
<th>40% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$102.55</td>
<td>$116.22</td>
<td>$121.31</td>
<td>$126.22</td>
<td>$131.22</td>
</tr>
<tr>
<td>$83.52</td>
<td>$94.65</td>
<td>$102.31</td>
<td>$111.22</td>
<td>$120.22</td>
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<td>$67.25</td>
<td>$76.22</td>
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<td>$100.01</td>
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<td>$129.22</td>
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<tr>
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<td>$80.84</td>
<td>$91.25</td>
<td>$100.01</td>
<td>$111.22</td>
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<tr>
<td>$56.97</td>
<td>$64.56</td>
<td>$78.99</td>
<td>$89.52</td>
<td>$102.22</td>
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<tr>
<td>$78.99</td>
<td>$99.56</td>
<td>$114.52</td>
<td>$131.22</td>
<td>$147.22</td>
</tr>
</tbody>
</table>

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## Halm Industries, Super Jet Plus XL MPF

### Base Cost

- **Base Cost:** $170,000
- **Auxiliary Equip.:** n/a
- **Install. (Est.):** Included
- **Total Invest.:** $170,000

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>40</td>
</tr>
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<td>10</td>
<td>8</td>
<td>11</td>
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<td>11</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function

- **Labor Cost-1 Shift**
  - Pressman: $44,044

- **Labor Cost-2 Shifts**

- **Labor Cost-3 Shifts**

### One Shift

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td></td>
</tr>
</tbody>
</table>

### Variable Charges

1. **Direct Labor**
2. **Indirect Labor** (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts
3. **Pension Fund** (A) 5% (B) 3% (C) 2%
4. **Welfare Benefits** (A) $90./wk. (B) $60./wk. (C) $45./wk
5. **Payroll Taxes** (Soc. Sec. & Unemploy. Insurance) 8.3%
6. **Workmen's Compensation Insurance** (Rate $40.00 per M.)
7. **Power Cost** @ $0.07 per kWh (based on hp rating)
8. **Repairs & Maint.** @ 2% 1 shift/2.5% 2 shifts/3% 3 shifts
9. **Sub-total**
10. **General Factory**—15% 1 shift/12.5% 2 shifts/10% 3 shifts
11. **Total Manufacturing Costs**
12. **Administrative & Selling Overhead**—42% 1 shift/37% 2 shifts/32% 3 shifts
13. **Total Costs**

### Manufacturing Costs per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
<th>50% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$76.80</td>
<td>$62.98</td>
<td>$51.15</td>
<td>$45.66</td>
</tr>
<tr>
<td>$67.19</td>
<td>$54.66</td>
<td>$43.88</td>
<td>$40.18</td>
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</table>

<table>
<thead>
<tr>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$87.04</td>
<td>$72.47</td>
</tr>
<tr>
<td>$61.95</td>
<td>$54.66</td>
</tr>
</tbody>
</table>

### All-Inclusive Costs per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$109.05</td>
<td>$92.05</td>
<td>$72.47</td>
</tr>
<tr>
<td>$74.89</td>
<td>$60.12</td>
<td>$53.04</td>
</tr>
</tbody>
</table>

### Total:

- **$148,587**
- **$133,980**
- **$119,532**

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**xpedx/Import Group, Ryobi 3200 PCX**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.39&quot; X 17.72&quot;</td>
<td>2</td>
<td>n/a</td>
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**PERFECTING:**

<table>
<thead>
<tr>
<th>COLORS:</th>
<th>RESOLUTION:</th>
<th>SQ. FT.:</th>
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</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1 over 1</td>
<td>n/a</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ryobi 3200 PCX.</strong></td>
</tr>
</tbody>
</table>

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.*

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
<tr>
<td></td>
<td>$90,731</td>
<td>$81,871</td>
<td>$70,790</td>
</tr>
<tr>
<td></td>
<td>$138,298</td>
<td>$124,793</td>
<td>$107,903</td>
</tr>
</tbody>
</table>

**TOTAL:**

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>89,639</td>
<td>79,379</td>
<td>69,146</td>
</tr>
<tr>
<td>164,769</td>
<td>145,402</td>
<td>126,002</td>
</tr>
<tr>
<td>231,950</td>
<td>204,356</td>
<td>176,774</td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**

**Total:**

<table>
<thead>
<tr>
<th>One Year</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>90,731</td>
<td>138,298</td>
</tr>
</tbody>
</table>

**TOTAL INVEST.:**

| TOTAL:    | $127,288 | 112,659 | 98,187 | 225,733 | 199,200 | $233,341 |

**SHEETED OFFSET**

<table>
<thead>
<tr>
<th>Presses: 2-Unit</th>
</tr>
</thead>
</table>

©2007 NAPL. All Rights Reserved
## Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Labor Cost-1 Shift
- **Pressman**

### Labor Cost-2 Shifts
- **Pressman**

### Labor Cost-3 Shifts
- **Pressman**

### Total: $44,044 | $39,743 | $34,364 |

### Labor Cost-1 Shift
- **Pressman**

### Labor Cost-2 Shifts
- **Pressman**

### Labor Cost-3 Shifts
- **Pressman**

---

## Auxiliary Equipment Includes

- **Equip. Shipped F.O.B.: Kansas City, MO**

---

## Sheetfed Offset

Presses: 2-Unit
**BASE COST ABOVE INCLUDES**

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<td>37.5</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

| Pressman | $44,044 | $39,743 | $34,364 |
| LABOR COST-1 SHIFT | $90,731 | $81,871 | $70,790 |
| LABOR COST-2 SHIFTS | $138,298 | $124,793 | $107,903 |
| LABOR COST-3 SHIFTS | $189,012 | $129,104 | $108,950 |

**TOTAL:** $203,431

---

**AUXILIARY EQUIPMENT INCLUDES**

---

**Area A**

- Presses: 2-Unit
- Sheetfed Offset
- Wet Offset
- Interiors with: n/a
- No. of Manned Hours Annually @ 100% Productivity: 1,603
- Hours/Week: 35
- MAXIMUM SPEED: 10,000 iph
- Power: 2 hp
- SQ. FT.: 175
- COST: $84,688
- Composition: 13.39" X 17.72"

---

**Area B**

- Presses: 2-Unit
- Sheetfed Offset
- Wet Offset
- Interiors with: n/a
- No. of Manned Hours Annually @ 100% Productivity: 1,763
- Hours/Week: 37.5
- MAXIMUM SPEED: 10,000 iph
- Power: 2 hp
- SQ. FT.: 175
- COST: $84,688
- Composition: 13.39" X 17.72"

---

**Area C**

- Presses: 2-Unit
- Sheetfed Offset
- Wet Offset
- Interiors with: n/a
- No. of Manned Hours Annually @ 100% Productivity: 1,936
- Hours/Week: 40
- MAXIMUM SPEED: 10,000 iph
- Power: 2 hp
- SQ. FT.: 175
- COST: $84,688
- Composition: 13.39" X 17.72"

---

**TOTAL INVEST.:** $84,688

---

**No. of Manned Hours Annually @ 100% Productivity:**

- **FIXED CHARGES (NON-VARIABLE):**
  - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts: $8,469
  - 2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft: $8,469
  - 3. Fire & Sprinkler Insurance (Rate $4.00 per M): $1,838
  - 4. Direct Labor: $339
  - 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: $8,809
  - 6. Pension Fund (A) 5%  (B) 3%  (C) 2%: $1,908
  - 7. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk: $339
  - 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%: $339
  - 9. Workmen’s Compensation Insurance (Rate $40.00 per M): $1,908
  - 10. Power Cost @ $0.07 per kWh (based on hp rating): $339
  - 11. Power Cost @ $0.07 per kWh (based on kW rating): $339
  - 12. Direct Supplies (see instructions): $1,225
  - 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts: $2,340
  - 14. Sub-total: $14,345
  - 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: $2,117
  - 16. TOTAL MANUFACTURING COSTS: $214,119
  - 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts: $90,731
  - 18. TOTAL COSTS: $307,903
  - 19. MANUFACTURING COSTS per productive hour @ 85% productivity: $67.00
  - 20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity: $96.13

---

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**Sheetfed Offset Presses: 2-Unit**
### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function**

**Labor Cost-1 Shift**
- **Pressman**: $44,044
- **$39,743**
- **$34,364**
- **$90,731**
- **$81,871**
- **$70,790**
- **$138,298**
- **$124,793**
- **$107,903**

**Labor Cost-2 Shifts**

**Labor Cost-3 Shifts**

**TOTAL: $44,044**
- **$39,743**
- **$34,364**
- **$90,731**
- **$81,871**
- **$70,790**
- **$138,298**
- **$124,793**
- **$107,903**

### BASE Cost Above Includes

**Ryobi 3302 HA.**

**Install. Cost Note:** Survey did not indicate installation cost information. Adjust your costs accordingly.

### Auxiliary Equiment Includes

**Console ($25,000).**

**Equipment Shipped F.O.B.: Kansas City, MO**

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
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<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TWO Shifts**

<table>
<thead>
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</table>

**THREE Shifts**

<table>
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<td>5,288</td>
<td>5,808</td>
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### TOTAL COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**$138,391**
- **$123,751**
- **$109,267**
- **$238,669**
- **$212,115**
- **$185,557**
- **$320,675**
- **$284,221**
- **$247,781**

### Manufacturing Costs per Productive Hour @

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$11.53</strong></td>
<td><strong>$10.01</strong></td>
<td><strong>$8.52</strong></td>
</tr>
</tbody>
</table>

### All-Inclusive Costs per Productive Hour @

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$10.17</strong></td>
<td><strong>$8.65</strong></td>
<td><strong>$7.15</strong></td>
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</tbody>
</table>

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Sheeted Offset  
Presses: 2-Unit
**BASE COST ABOVE INCLUDES**

- Pre-pile loading system; segregated 16 ink rollers; five roller dampening system; single lever control with auto-return; centralized micro-computer control; centralized lubrication; pre-register punch system; vertical and horizontal image adjustment; universal feed system; installation and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
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</tr>
<tr>
<td>Vacation</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
  - Pressman: $44,044
  - $39,743
  - $34,364
  - $90,731
  - $81,871
  - $70,790
  - $138,298
  - $124,793
  - $107,903

- LABOR COST-2 SHIFTS
  - Total: $44,044
  - $39,743
  - $34,364
  - $90,731
  - $81,871
  - $70,790
  - $138,298
  - $124,793
  - $107,903

- LABOR COST-3 SHIFTS
  - Total: $44,044
  - $39,743
  - $34,364
  - $90,731
  - $81,871
  - $70,790
  - $138,298
  - $124,793
  - $107,903

**VARIABLE CHARGES**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........... $7,238 $7,238 $7,238 $9,048 $9,048 $9,048 $10,857 $10,857 $10,857
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft................. $1,450 $1,450 $1,450 $1,936 $1,936 $1,936 $2,424 $2,424 $2,424
3. Fire & Sprinkler Insurance (Rate $4.00 per M).......................... $87 $87 $87 $113 $113 $113 $147 $147 $147
4. Pension Fund (A) 5% (B) 3% (C) 2%........................................... $220 $290 $230 $290 $290 $245 $345 $345 $345
5. Welfare Benefits (A) $90/hwk. (B) $60/hwk. (C) $45/hwk............. $468 $468 $468 $588 $588 $588 $708 $708 $708
7. Workmen's Compensation Insurance (Rate $40.00 per M)................. $2,114 $2,114 $2,114 $2,569 $2,569 $2,569 $3,256 $3,256 $3,256
8. Power Cost @ $0.07 per kWh (based on hp rating)......................... $0 $0 $0 $0 $0 $0 $0 $0 $0
9. Power Cost @ $0.07 per kWh (based on kWh rating)........................ $168 $168 $168 $203 $203 $203 $264 $264 $264
10. Direct Supplies (see instructions)........................................... $1,500 $1,500 $1,500 $3,300 $3,300 $3,300 $4,500 $4,500 $4,500
11. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts............. $1,448 $1,448 $1,448 $1,810 $1,810 $1,810 $2,171 $2,171 $2,171
12. Sub-total...................................................................................... $10,190 $10,190 $10,190 $11,394 $11,394 $11,394 $12,627 $12,627 $12,627
13. Total Manufacturing Costs......................................................... $90,525 $90,525 $90,525 $103,830 $103,830 $103,830 $117,177 $117,177 $117,177

**MANUFACTURING COSTS per productive hour @**

- 85% productivity: $66.44 $53.55 $42.55 $60.85 $48.87 $38.61 $57.04 $45.73 $36.05
- 75% productivity: $75.30 $60.69 $48.23 $68.96 $55.39 $43.75 $64.64 $51.83 $40.85
- 60% productivity: $94.12 $78.56 $66.28 $96.20 $74.92 $63.64 $84.80 $64.79 $51.06

**TOTAL COSTS**


**ANNUAL COSTS PER AREA**

- AREA A: $1,663
- AREA B: $1,763
- AREA C: $1,936

- AREA A: $3,206
- AREA B: $3,525
- AREA C: $3,872

- AREA A: $4,809
- AREA B: $5,288
- AREA C: $5,808

**Equip. Shipped F.O.B.:** Hudson, NH

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Sheetfed Offset

Presses: 2-Unit
### A. B. Dick Model 9995

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.38&quot; X 17.75&quot;</td>
<td>2</td>
<td>10,000 pph</td>
<td>hp: --</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kWhs: 2.64</td>
</tr>
</tbody>
</table>

**PERFECTING:**
- COLORS: 2
- RESOLUTION: n/a
- SQ. FT.: 175

**BASE COST ABOVE INCLUDES**
- Universal feeder with pre-plate capabilities; straight-edge plate clamp with positioning pins; quick blanket release bars; integrated ink and dampening system; push guide register system; auto paper set-up; centralized oil lubrication system; vertical and horizontal image adjustment; installation and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
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<td>37.5</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>After One Year</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
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</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790

**FUNCTION LABOR COST-2-shifts**

- $138,298
- $124,793
- $107,903

**FUNCTION LABOR COST-3 shifts**

- TOTAL: $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790

**TOTAL COSTS:**

- $133,236
- $118,605
- $104,127
- $232,677
- $206,137
- $179,593
- $313,969
- $277,534
- $241,114

**MANUFACTURING COSTS per productive hour @**

| 85% productivity | $68.86 | $55.75 | $44.56 | $62.32 | $50.22 | $39.83 | $58.19 | $46.78 | $37.00 |
| 75% productivity | 78.04  | 63.19  | 50.50  | 70.63  | 56.91  | 45.14  | 65.95  | 53.02  | 41.93  |
| 60% productivity | 97.55  | 78.98  | 63.13  | 88.29  | 71.14  | 56.43  | 82.43  | 66.27  | 52.42  |

**ALL-INCLUSIVE COSTS per productive hour @**

| 85% productivity | $97.78 | $79.17 | $63.28 | $85.38 | $68.80 | $54.57 | $76.81 | $61.75 | $48.84 |
| 75% productivity | 110.82 | 89.72  | 71.71  | 96.77  | 77.97  | 61.84  | 87.05  | 69.98  | 55.35  |
| 60% productivity | 138.53 | 112.15 | 89.64  | 120.96 | 97.46  | 77.30  | 108.81 | 87.48  | 69.19  |

**AUXILIARY EQUIPMENT INCLUDES**

- Electronic double detection ($975);
- High precision register punch ($6,175);
- Multi-size pile board ($600);
- Print counter ($85);
- Blanket cleaning device ($2,175);
- Super Blue anti-tracking device ($1,009);
- Infrared powder spray ($3,795);
- 115V recirculator chiller ($2,555).

**Additional Costs**

- Presses: 2-Unit
- Auxiliary Equipment: Included

**Total Invest.: $95,473**
### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provision</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
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<td>37.5</td>
<td>40</td>
<td>35</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>After One Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### VARIABLE CHARGES

1. Direct Labor:
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts:
3. Pension Fund (A) 5% (B) 3% (C) 2%:
4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk:
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%:
6. Workers' Compensation Insurance (Rate $10.00 per M):
7. Power Cost @ $0.07 per kWh (based on hp rating):
8. Labor Cost @ $0.07 per kWh (based on kWh rating):
9. Direct Supplies (see instructions):
10. Repairs & Maint. @ 2% 1 shift/2.5% 2 shifts/3% 3 shifts:
11. Sub-total:
12. General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts:
13. TOTAL MANUFACTURING COSTS:
14. Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts:
15. TOTAL COSTS:
16. MANUFACTURING COSTS per productive hour @
   - 85% productivity:
17. 75% productivity:
18. 60% productivity:
19. ALL-INCLUSIVE COSTS per productive hour @
   - 85% productivity:
20. 75% productivity:
21. 60% productivity:

#### TOTAL INVEST.

$100,479

### AUXILIARY EQUIPMENT INCLUDES

- Super Blue Anti-Tracking System ($1,009; IR dryer ($3,795); blanket cleaners ($2,175); tape inserter ($2,900).

---

**A. B. Dick Model 9995A**

**Presses:** 2-Unit

**eqip. Shipped F.O.B.:** Husdon, NH

---

©2007 NAPL. All Rights Reserved
### A. B. Dick Model 9995ICS

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>13.38&quot; X 17.75&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNITS:</td>
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<tr>
<td>MAXIMUM SPEED:</td>
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<td>POWER:</td>
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<td>175</td>
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<td>PRODUCT CLASS/PROCESS:</td>
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<td>BASE COST:</td>
<td>$90,376</td>
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<tr>
<td>AUXILIARY EQUIP.:</td>
<td>$17,369</td>
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<tr>
<td>INSTALL. (EST.):</td>
<td>Included</td>
</tr>
<tr>
<td>TOTAL INVEST.:</td>
<td>$107,745</td>
</tr>
</tbody>
</table>

#### BASE COST ABOVE INCLUDES

- Inking control system offering computer control of the ink fountains; press console; universal feeder with pre-press capabilities; straight-edge plate clamp with positioning pins; quick blanket release bars; integrated ink and dampening system; push guide register system; auto paper set-up; centralized oil lubrication system; vertical and horizontal image adjustment; installation and training.

#### AUXILIARY EQUIPMENT INCLUDES

Electronic double detection ($975); high precision register punch ($8,175); multi-size pile board ($6,500); print counter ($85); blanket cleaning device ($2,175); Super Blue anti-tracking device ($1,009); infrared powder spray ($3,795); 115V recirculator chiller ($2,555).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
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<td>40</td>
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<td>35</td>
<td>37.5</td>
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</tr>
<tr>
<td>Paid Holidays</td>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION

- LABOR COST-1 SHIFT
  - Pressman: $44,044
  - $39,743
  - $34,364
  - $90,731
  - $81,871
  - $70,790
  - $138,298
  - $124,793
  - $107,903

- LABOR COST-2 SHIFTS
  - Pressman: $44,044
  - $39,743
  - $34,364
  - $90,731
  - $81,871
  - $70,790
  - $138,298
  - $124,793
  - $107,903

- LABOR COST-3 SHIFTS
  - Pressman: $44,044
  - $39,743
  - $34,364
  - $90,731
  - $81,871
  - $70,790
  - $138,298
  - $124,793
  - $107,903

### ONE SHIFT

- **AREA A**
  - 1,603
  - 1,763
  - 1,936

- **AREA B**
  - 1,206
  - 1,366
  - 1,539

- **AREA C**
  - 803
  - 907
  - 1,010

### TWO SHIFTS

- **AREA A**
  - 1,381
  - 1,541
  - 1,694

- **AREA B**
  - 1,075
  - 1,235
  - 1,398

- **AREA C**
  - 713
  - 817
  - 921

### THREE SHIFTS

- **AREA A**
  - 1,169
  - 1,329
  - 1,482

- **AREA B**
  - 963
  - 1,123
  - 1,277

- **AREA C**
  - 611
  - 715
  - 819

### TOTAL MANUFACTURING COSTS

- $135,721
- $121,088
- $106,612
- $235,590
- $209,050
- $182,506
- $317,248
- $280,812
- $244,993

### MANUFACTURING COSTS per productive hour @

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<thead>
<tr>
<th>85% productivity</th>
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</thead>
<tbody>
<tr>
<td>70.15</td>
</tr>
<tr>
<td>56.92</td>
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<tr>
<td>45.62</td>
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<tr>
<td>$63.10</td>
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<td>$50.93</td>
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<tr>
<td>40.48</td>
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<tr>
<td>$58.80</td>
</tr>
<tr>
<td>$47.30</td>
</tr>
<tr>
<td>37.50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>75% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>79.50</td>
</tr>
<tr>
<td>64.51</td>
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<tr>
<td>51.71</td>
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<tr>
<td>71.52</td>
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<td>57.72</td>
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<td>45.87</td>
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<tr>
<td>66.64</td>
</tr>
<tr>
<td>53.65</td>
</tr>
<tr>
<td>42.50</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.37</td>
</tr>
<tr>
<td>80.64</td>
</tr>
<tr>
<td>64.63</td>
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<tr>
<td>89.40</td>
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<tr>
<td>72.15</td>
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<tr>
<td>57.34</td>
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<tr>
<td>83.30</td>
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<tr>
<td>67.06</td>
</tr>
<tr>
<td>53.13</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$99.61</td>
</tr>
<tr>
<td>$80.83</td>
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<tr>
<td>$64.79</td>
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<tr>
<td>$86.45</td>
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<tr>
<td>$69.77</td>
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<tr>
<td>$55.45</td>
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<tr>
<td>$77.61</td>
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<tr>
<td>$62.48</td>
</tr>
<tr>
<td>$49.50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>75% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>112.89</td>
</tr>
<tr>
<td>91.60</td>
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<tr>
<td>73.42</td>
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<td>97.98</td>
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<td>79.07</td>
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<td>62.85</td>
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<td>87.96</td>
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<tr>
<td>70.81</td>
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<tr>
<td>56.10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>141.11</td>
</tr>
<tr>
<td>114.50</td>
</tr>
<tr>
<td>91.78</td>
</tr>
<tr>
<td>122.47</td>
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<tr>
<td>98.84</td>
</tr>
<tr>
<td>78.56</td>
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<tr>
<td>109.95</td>
</tr>
<tr>
<td>88.51</td>
</tr>
<tr>
<td>70.13</td>
</tr>
</tbody>
</table>
### BASE COST ABOVE INCLUDES

- Pre-ple system; ink control system; semi-automatic plate loading; quick change blankets; precision punch system; push guide; register system; dial type image register; auto recede chain delivery; powder spray; centralized lubrication; jam detection; ink roller clean up attachments; microprocessor controls; training; installation.

### AUXILIARY EQUIPMENT INCLUDES

- Super Blue Anti-Tracking System ($625); Ink Volume Setter software ($7,995); tape inserter ($2,500); print counter ($78); blanket cleaners ($2,630).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

1. Direct Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.........
2. Pension Fund (A) 5% (B) 3% (C) 2%..........................................
3. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............................
4. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.................................
5. Workmen’s Compensation Insurance (Rate $40.00 per M)..............................
6. Power Cost @ $0.07 per kWh (based on kW rating)..........................
7. Indirect Labor  (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...........
8. Administration & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...........
9. TOTAL MANUFACTURING COSTS
10. TOTAL COSTS
11. MANUFACTURING COSTS per productive hour @
   - 85% productivity
   - 75% productivity
   - 60% productivity
12. ALL-INCLUSIVE COSTS per productive hour @
   - 85% productivity
   - 75% productivity
   - 60% productivity

---

### Notes

- Equip. Shipped F.O.B.: Husdon, NH

---

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## BASE COST ABOVE INCLUDES

Dual feeders for versatility of stock and sizes; radial and axial plate cylinder adjustments during the run for rapid registration adjustments and reduced start-up time; independently adjustable aligner side guides with universal rails for rapid changeovers; refrigerated recirculation system; 25,000 per hour perfecting speed. Includes training and installation.

## AUXILIARY EQUIPMENT INCLUDES

Note: A UV dryer is an available option not included in this cost study.

---

### BASE COST

- **Size:** 18" x 15.25"
- **Units:** 2
- **Maximum Speed:** 50,000 iph (25,000 perfecting)
- **Power:** hp: -- kwhs: 5
- **Perfecting:** Yes
- **Colors:** n/a
- **Resolution:** n/a
- **SQ. FT.:** 175
- **Product Class(Process):** Wet Offset
- **Interfaces:** n/a
- **Area A:** $2,456
- **Area B:** $17,662
- **Area C:** $69.92
- **Power Cost @ $0.07 per kWh (based on hp rating):** $44.60
- **Area B:** $599
- **Area C:** $1,500
- **Area A:** $66,451
- **Area B:** $124,793
- **Area C:** $69.14
- **Fire & Sprinkler Insurance (Rate $4.00 per M):** $4,493
- **Area B:** $3,000
- **Area C:** $4,680
- **Area A:** $219,558
- **Area B:** $121,921
- **Area C:** $51.95
- **Vacation After One Year:** 2 weeks
- **Holiday:** 8
- **Wages:** $69.92
- **Total:** $149,750

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
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<td>37.5</td>
<td>40</td>
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<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
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<td>10</td>
<td>8</td>
<td>11</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function of Labor Cost

- **Pressman:** $44,044
- **Area A:** $39,743
- **Area B:** $34,364
- **Labor Cost-1 Shift:** $90,731
- **Labor Cost-2 Shifts:** $91,464
- **Labor Cost-3 Shifts:** $92,293
- **Total:** $107,903

### ALL-INCLUSIVE COSTS

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Total</th>
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</thead>
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<tr>
<td>Cost Per MCF</td>
<td>$138,298</td>
<td>$124,793</td>
<td>$107,903</td>
<td>$460,994</td>
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<tr>
<td>Total Kosten</td>
<td>$121,921</td>
<td>$51.95</td>
<td>$79,797</td>
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<tr>
<td>TOTAL:</td>
<td>$292,796</td>
<td>$15,658</td>
<td>$176,619</td>
<td>$485,173</td>
</tr>
</tbody>
</table>

---

### Manufacturing Costs

1. Power Cost @ $0.07 per kWh (based on kW rating): $44.60
2. Auxiliary Equipments (Included): n/a
3. Labor Cost (100% Productivity @ 75% productivity): $22,463
4. Labor Cost (100% Productivity @ 85% productivity): $194,281

---

### Total Invest.

- **Area A:** $107,903
- **Area B:** $124,793
- **Area C:** $107,903

---

### Sheetfed Offset Presses: 2-Unit
<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microprocessor controller; single sheet feeder; direct dampening system; wash-up device for ink rollers; Autoplate on-the-fly adjustment for lateral and circumferential register; chrome-plated plate cylinder; automatic blanket wash-up device; electronic powder spray device; feed table; feed plate with brush rolls; infinite adjustment of ink sweep; chain delivery; electronic sheet overspeed safety device; Superblue delivery drum; plate punch; installation and training.</td>
</tr>
<tr>
<td>Note: Also available as a single color press.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUXILIARY EQUIPMENT INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR dryer ($3,300).</td>
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</table>

**Heidelberg Printmaster QM 46-2**

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<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
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<tbody>
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<tr>
<td>kwhs: --</td>
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**PERFECTING:**

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<tr>
<th>COLORS:</th>
<th>RESOLUTION:</th>
<th>SQ. FT.:</th>
</tr>
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<tbody>
<tr>
<td>No</td>
<td>2</td>
<td>n/a</td>
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**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
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</tr>
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<tbody>
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<td>37.5</td>
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<td>35</td>
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<td>10</td>
<td>8</td>
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<td>10</td>
<td>8</td>
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<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
<tr>
<td></td>
<td>$90,731</td>
<td>$81,871</td>
<td>$70,790</td>
</tr>
<tr>
<td></td>
<td>$138,298</td>
<td>$124,793</td>
<td>$107,903</td>
</tr>
</tbody>
</table>

**TOTAL:**

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td></td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........ $6,630 $6,630 $6,630 $8,288 $8,288 $8,288 $9,945 $9,945 $9,945
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. ................. 1,838 1,225 875 1,838 1,225 875 1,838 1,225 875
3. Fire & Sprinkler Insurance (Rate $4.00 per M) ....................... 265 265 265 265 265 265 265 265 265

**VARIABLE CHARGES**

4. Direct Labor.............................................. 44,044 39,743 34,364 90,731 81,871 70,790 138,298 124,793 107,903
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.................. 8,809 7,949 6,873 13,610 12,281 10,618 13,830 12,479 10,790
6. Pension Fund (A) 5% (B) 3% (C) 2%.......................... 2,202 1,192 687 4,537 2,456 1,416 6,915 3,744 2,158
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk........ 4,680 3,120 2,340 9,360 6,240 4,680 14,040 9,360 7,020
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%........... 4,387 3,958 3,423 8,660 7,815 6,757 12,627 11,394 9,852
9. Workmen's Compensation Insurance (Rate $40.00 per M)...... 2,114 1,908 1,649 4,174 3,766 3,256 6,065 5,491 4,748
10. Power Cost @ $0.07 per kWh (based on hp rating).............. 2,011 221 242 402 442 485 603 663 728
11. Power Cost @ $0.07 per kWh (based on kW rating).............. 0 0 0 0 0 0 0 0 0
12. Direct Supplies (see instructions).............................. 1,500 1,500 1,500 3,000 3,000 3,000 4,500 4,500 4,500
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........ 1,326 1,326 1,326 1,658 1,658 1,658 1,989 1,989 1,989
14. Sub-total................................................... 77,995 69,037 60,175 146,520 129,305 112,088 210,934 185,847 160,773
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...... 11,699 10,356 9,026 18,315 16,163 14,011 21,093 18,585 16,077
16. TOTAL MANUFACTURING COSTS................................. 89,695 79,393 69,201 164,835 145,458 126,099 232,027 204,432 176,850
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts........... 37,672 33,345 29,065 60,989 53,823 46,657 74,249 65,418 56,592
18. TOTAL COSTS............................................. $127,367 $112,737 $98,266 $225,824 $199,291 $172,755 $306,276 $269,851 $233,442
19. MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$65.83</th>
<th>$52.99</th>
<th>$42.05</th>
<th>$60.49</th>
<th>$48.55</th>
<th>$38.31</th>
<th>$56.76</th>
<th>$45.49</th>
<th>$35.82</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>74.61</td>
<td>60.06</td>
<td>47.66</td>
<td>68.55</td>
<td>55.02</td>
<td>43.42</td>
<td>64.33</td>
<td>51.55</td>
<td>40.60</td>
</tr>
<tr>
<td>60% productivity</td>
<td>93.26</td>
<td>75.06</td>
<td>59.57</td>
<td>85.69</td>
<td>68.78</td>
<td>54.28</td>
<td>80.41</td>
<td>64.44</td>
<td>50.75</td>
</tr>
</tbody>
</table>
20. ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$93.48</th>
<th>$75.25</th>
<th>$59.71</th>
<th>$82.87</th>
<th>$66.51</th>
<th>$52.49</th>
<th>$74.93</th>
<th>$60.04</th>
<th>$47.29</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>105.94</td>
<td>85.29</td>
<td>67.68</td>
<td>93.92</td>
<td>75.38</td>
<td>59.49</td>
<td>84.92</td>
<td>68.05</td>
<td>53.59</td>
</tr>
<tr>
<td>60% productivity</td>
<td>132.43</td>
<td>106.61</td>
<td>84.60</td>
<td>117.40</td>
<td>94.23</td>
<td>74.36</td>
<td>106.15</td>
<td>85.06</td>
<td>66.99</td>
</tr>
</tbody>
</table>
SIZE: 13.4" X 18.5"
UNITS: 2
MAXIMUM SPEED: 10,000 iph
POWER: hp: --
kWhs: 1.5

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>FUNCTION</td>
<td>LABOR COST-1 SHIFT</td>
<td>LABOR COST-2 SHIFTS</td>
<td>LABOR COST-3 SHIFTS</td>
</tr>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
</tbody>
</table>

TOTAL: $44,044 | $39,743 | $34,364 | $90,731 | $81,871 | $70,790 | $138,298 | $124,793 | $107,903

---

BASE COST ABOVE INCLUDES
Leverless control; continuous dampening; one touch double detector; on-fly register; spray unit; four form rollers; 13" X 17.5" printing area; 13" X 18.5" image; extended chain delivery.

ALL-INCLUSIVE COSTS per productive hour @
85% productivity | $94.33 | $76.02 | $60.40 | $83.32 | $66.92 | $52.85 | $75.25 | $60.32 | $47.53 |
75% productivity | $106.91 | $86.15 | $68.45 | $94.43 | $75.84 | $59.89 | $85.28 | $68.37 | $53.87 |
60% productivity | $133.63 | $107.69 | $85.56 | $118.04 | $94.80 | $74.87 | $106.00 | $85.46 | $67.34 |
### Win America, Win 502 Landscape

**SIZE:** 19.69" X 14.37"  2  9,000 iph

**POWER:** hp: --  kwhs: 4.4

**PERFECTING:** No

**COLORS:** 2

**RESOLUTION:** n/a

**MAXIMUM SPEED:** 1,750

**PRODUCT CLASS/PROCESS:** Sheetfed Offset

**INTERFACES WITH:** n/a

**BASE COST:** $68,000

**AUXILIARY EQUIP.:** $42,695

**INSTALL. (EST.):** *See Note

**TOTAL INVEST. :** $110,695

---

### BASE COST ABOVE INCLUDES

Landscape format: touch screen multi-purpose operation panel; pull guides; on-the-run register; helical gears; Win-Matic Dimpeling by Kompac.

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

### AUXILIARY EQUIPMENT INCLUDES

Ink console ($34,500); infrared drying system ($5,995); Super Blue ($2,200).

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>4 weeks</td>
</tr>
</tbody>
</table>

### LABOR COST-1 SHIFT

<table>
<thead>
<tr>
<th>Function</th>
<th>Pressman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Cost-1 Shift</td>
<td>$44,044</td>
</tr>
</tbody>
</table>

### LABOR COST-2 SHIFTS

<table>
<thead>
<tr>
<th>Function</th>
<th>Pressman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Cost-2 Shifts</td>
<td>$39,743</td>
</tr>
</tbody>
</table>

### LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Function</th>
<th>Pressman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Cost-3 Shifts</td>
<td>$34,364</td>
</tr>
</tbody>
</table>

**TOTAL:** $138,298

---

### VARIABLE CHARGES

1. **Direct Labor:**
   - Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
   - Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
   - Additional Labor 5% 2 shifts/ 10% 3 shifts...
   - Additional Labor 5% 2 shifts/ 10% 3 shifts...

2. **Power Cost @ $0.07 per kWh (based on kWh rating):**
   - $11,070
   - $11,070

3. **Depreciation: 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts:**
   - $11,070
   - $11,070

4. **Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.:**
   - $1,838
   - $1,225

5. **Fire & Sprinkler Insurance (Rate $4.00 per M):**
   - $443
   - $443

6. **Provisions:**
   - $5,995
   - $2,200

7. **Pension Fund (A) 5% (B) 3% (C) 2%:**
   - $110,695

8. **Vacation After One Year:**
   - 3 weeks
   - 2 weeks

9. **Insurance (Rate $4.00 per M):**
   - $3,872

10. **Power Cost @ $0.07 per kWh (based on hp rating):**
    - $296
    - $296

11. **Direct Supplies (see instructions):**
    - $1,500
    - $1,500

12. **Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts:**
    - $2,214
    - $2,214

13. **Sub-total:**
    - $83,596
    - $74,647

14. **General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts:**
    - $12,539
    - $11,197

15. **TOTAL MANUFACTURING COSTS:**
    - $96,135
    - $85,844

16. **Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:**
    - $40,377
    - $36,054

17. **TOTAL COSTS:**
    - $136,512
    - $121,896

18. **MANUFACTURING COSTS per productive hour @**
    - 85% productivity
    - 75% productivity
    - 60% productivity

19. **MANUFACTURING COSTS per productive hour @**
    - 85% productivity
    - 75% productivity
    - 60% productivity

20. **ALL-INCLUSIVE COSTS per productive hour @**
    - 85% productivity
    - 75% productivity
    - 60% productivity

---

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### Shinohara 52II

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14” X 20’</td>
<td>2</td>
<td>12,000 fpm</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$192,000</td>
</tr>
</tbody>
</table>

**PERFECTING:**
- COLORS: 2
- RESOLUTION: n/a
- SQ. FT.: 175

**BASE COST ABOVE INCLUDES**
- Continuous dampening; continuous oil bath lubrication; interactive touch screen operator controls; remote dampening fountain roller speed control; remote ink sweep adjustment; remote lateral and radial plate cylinder microadjustment; preload feeder; segmented ink fountain blade; sheet dec riveler; spray powder system; static eliminator.

**AUXTILIARY EQUIPMENT INCLUDES**
- Semi-automatic plate changers ($9,600); automatic blanket washer system ($10,290); automatic ink roller cleaning system ($3,750); plate cylinder cocking ($2,265); non-stop delivery ($840).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
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<td>10</td>
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<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$44,044</th>
<th>$39,743</th>
<th>$34,364</th>
<th>$90,731</th>
<th>$81,871</th>
<th>$70,790</th>
<th>$138,298</th>
<th>$124,793</th>
<th>$107,903</th>
</tr>
</thead>
</table>

**TOTAL:**
- $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

**TOTAL INVEST.:**
- $220,745

---

**Shinohara 52II**

**Presses:** 2-Unit

**Base Cost:**
- $192,000

**Auxiliary Equip.:**
- $26,745

**Install. (Est.)**: $2,000

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**Sheetfed Offset**

**Presses:** 2-Unit

---

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## Shinohara 52IIIP

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14” X 20”</td>
<td>2</td>
<td>12,000 pph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$207,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kWhs: 7</td>
<td>INTERFACES WITH:</td>
<td>$41,265</td>
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</table>

### BASE COST ABOVE INCLUDES

- Continuous dampening; continuous oil bath lubrication; interactive touch screen operator controls; remote dampening fountain roller speed control; remote ink sweep adjustment; remote lateral and radial plate cylinder microadjustment; preload feeder; segmented ink fountain blade; sheet decurier; spray powder system; static eliminator.
- Semi-automatic plate changers ($9,600); automatic blanket washer system ($10,290); automatic roller cleaning system ($3,750); plate cylinder cocking ($2,255); non-stop delivery ($840); semi-automatic perfecting changeover ($14,520).

### AUXILIARY EQUIPMENT INCLUDES

- Automatic perfecting changeover ($14,520).
- Automatic pressmen ($9,600).
- Automatic plate changers ($12,540).
- Automatic blanket washer system ($10,290).
- Automatic roller cleaning system ($3,750).
- Automatic plate cylinder cocking ($2,255).
- Non-stop delivery ($840).
- Semi-automatic perfecting changeover ($14,520).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$90,731</td>
</tr>
<tr>
<td></td>
<td>$39,743</td>
<td>$81,871</td>
</tr>
<tr>
<td></td>
<td>$34,364</td>
<td>$70,790</td>
</tr>
</tbody>
</table>

### TOTAL:

- $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

**Notes:**

- TOTAL INVEST. : $250,265

---

### MANUFACTURING COSTS

#### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,526</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

#### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>110,849</td>
<td>106,543</td>
<td>96,585</td>
</tr>
<tr>
<td>198,440</td>
<td>184,329</td>
<td>169,875</td>
</tr>
<tr>
<td>271,864</td>
<td>250,265</td>
<td>220,580</td>
</tr>
</tbody>
</table>

#### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>271,864</td>
<td>250,265</td>
<td>220,580</td>
</tr>
<tr>
<td>271,864</td>
<td>250,265</td>
<td>220,580</td>
</tr>
<tr>
<td>271,864</td>
<td>250,265</td>
<td>220,580</td>
</tr>
</tbody>
</table>

---

### TOTAL COSTS:

- $165,876
- $151,291
- $136,867
- $271,863
- $245,413
- $218,968
- $358,782
- $322,473

### MANUFACTURING COSTS per productive hour @

- 85% productivity
  - 75% productivity
  - 60% productivity
  - 50% productivity

#### ALL-INCLUSIVE COSTS per productive hour @

- 75% productivity
  - 60% productivity

---

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Heidelberg GTO 52-2

**BASE COST ABOVE INCLUDES**

Single sheet feeder; preloading device; electro pneumatic missing/misaligned sheet control; electronic double sheet detector; direct continuous type dapping unit; laser silt blade type ink fountain; sheet brakes delivery; powder spray device; plate punch; surface protected blanket cylinder; chrome plated plate cylinder; 16 ink rollers; 4 oscillating plate form rollers (per printing unit); damping cooling and circulation device; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**

- Sheetfed Offset
- Presses: 2-Unit

---

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
<tr>
<td></td>
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<td>$90,731</td>
<td>$81,871</td>
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<td>$66,326</td>
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<td>$138,298</td>
<td>$124,793</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>$107,903</td>
</tr>
<tr>
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<td>$39,743</td>
<td>$34,364</td>
</tr>
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<td>$81,871</td>
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<td>$107,903</td>
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<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power:</th>
<th>Product Class/Process:</th>
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<tbody>
<tr>
<td>14.17&quot; X 20.47&quot;</td>
<td>2</td>
<td>8,000 iph</td>
<td>hp: 6 kWhs: --</td>
<td>Wet Offset</td>
</tr>
<tr>
<td>Perfecting:</td>
<td>Colors:</td>
<td>Resolution:</td>
<td>SQ. FT.:</td>
<td>Interfaces With:</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>n/a</td>
<td>175</td>
<td>n/a</td>
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<tr>
<td>Total Invest.:</td>
<td>$115,500</td>
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</tbody>
</table>
### Heidelberg GTO 52-2-P

#### BASE COST ABOVE INCLUDES

- Single sheet feeder; preloading device; electro pneumatic missing/missaligned sheet control;
- electronic double sheet detector; direct continuous type damping unit; laser slit blade type ink fountain;
- sheet brakes delivery; powder spray device; plate punch; surface protected blanket cylinder; chrome plated plate cylinder; 16 ink rollers; 4 oscillating plate form rollers (per printing unit); damping cooling and circulation device; installation and training.

#### AUXILIARY EQUIPMENT INCLUDES

<table>
<thead>
<tr>
<th>Presses</th>
<th>2-Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheetfed Offset</td>
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<tr>
<td>BASE COST:</td>
<td>$141,000</td>
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</table>

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT

- Pressman: $44,044

#### TOTAL:

- TOTAL: $44,044
- $93,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

---

©2007 NAPL. All Rights Reserved
SIZE: 20.47" X 14.37"  
UNITS: 2  
MAXIMUM SPEED: 12,000 pph  
POWER: hp: --  
kWhs: 11  
PERFECTING: No  
COLORS: 2  
RESOLUTION: n/a  
SPECIAL TRIMMING:  
INTERFACES WITH: n/a  

<table>
<thead>
<tr>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST: $99,995</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUXILIARY EQUIP.:</td>
<td>$47,400</td>
</tr>
<tr>
<td>INSTALL. (EST.):</td>
<td>$4,000</td>
</tr>
<tr>
<td>TOTAL INVEST.:</td>
<td>$151,395</td>
</tr>
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</table>

**BASE COST ABOVE INCLUDES**

Win PC-52-2 press; stream feeder; swing grippers; semi-automatic plate loaders; heavy duty cast frame.  

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</tbody>
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**FUNCTION**

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$39,743</td>
</tr>
</tbody>
</table>

**TOTAL:**

| $44,044 | $39,743 | $34,364 | $90,731 | $81,871 | $70,790 | $138,298 | $124,793 | $107,903 |

**VARIABLE CHARGES**

- ** press; stream feeder; swing grippers; semi-automatic plate loaders; heavy duty cast frame.**

- **Training @ $3,000 is an available option not included in this study.**

- **PERFECTING:**
  - Win America, Win PC-52-2
  - No. of Manned Hours Annually @ 100% Productivity...
  - **FIXED CHARGES (NON-VARIABLE)**
    - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
      - $15,140 $15,140 $15,140 $18,924 $18,924 $18,924 $22,709 $22,709 $22,709
    - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
      - $1,838 $1,225 $875 $1,838 $1,225 $875 $1,838 $1,225 $875
    - 3. Fire & Sprinkler Insurance (Rate $4.00 per M)...
      - $606 $606 $606 $606 $606 $606 $606 $606 $606
    - **TOTAL:**
      - $44,044 $39,743 $34,364 $90,731 $81,871 $70,790 $138,298 $124,793 $107,903
    - **VARIABLE CHARGES**
      - 4. Direct Labor...
      - 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/...
        - $8,809 $7,949 $6,873 $13,610 $12,281 $10,618 $13,830 $12,479 $10,790
      - 6. Pension Fund (A) 5% (B) 3% (C) 2%...
        - $2,202 $1,192 $687 $4,537 $2,456 $1,416 $6,915 $3,744 $2,158
      - 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
        - $4,680 $3,120 $2,340 $9,360 $6,240 $4,680 $14,040 $9,360 $7,020
      - 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...
        - $4,387 $3,958 $3,423 $8,660 $7,815 $6,757 $12,627 $11,394 $9,852
      - 9. Worker’s Compensation Insurance (Rate $40.00 per M)...
        - $2,114 $1,906 $1,645 $4,174 $3,766 $3,256 $6,085 $5,491 $4,748
      - 10. Power Cost @ $0.07 per kWh (based on hp rating)...
        - $0 $0 $0 $0 $0 $0 $0 $0 $0
      - 11. Power Cost @ $0.07 per kWh (based on kw rating)...
        - $741 $814 $894 $1,481 $1,629 $1,789 $2,222 $2,443 $2,683
      - 12. Direct Supplies (see instructions)...
        - $2,000 $2,000 $2,000 $4,000 $4,000 $4,000 $6,000 $6,000 $6,000
      - 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
        - $3,028 $3,028 $3,028 $3,785 $3,785 $3,785 $4,542 $4,542 $4,542
      - 14. Sub-total...
        - $89,357 $80,682 $71,879 $161,704 $144,596 $127,496 $229,711 $204,785 $179,886
      - 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
        - $13,438 $12,102 $10,782 $20,213 $18,075 $15,937 $22,971 $20,479 $17,989
      - **TOTAL MANUFACTURING COSTS**...
        - $103,025 $92,785 $82,660 $181,917 $162,671 $143,432 $252,682 $225,264 $197,874
      - 17. Administrative & Selling Overhead—42% 1 shift/...
        - $43,271 $38,970 $34,717 $67,309 $60,188 $53,070 $80,858 $72,084 $63,320
      - 18. **TOTAL COSTS**...
        - $146,296 $131,754 $117,378 $249,226 $222,859 $196,503 $333,540 $297,348 $261,194
      - 19. **MANUFACTURING COSTS per productive hour @**
        - **85% productivity**
          - $75.61 $61.93 $50.23 $66.76 $54.29 $43.58 $61.82 $50.12 $40.08
        - **75% productivity**
          - $85.69 $70.19 $56.93 $75.66 $61.53 $49.39 $70.06 $56.80 $45.43
        - **60% productivity**
          - $107.12 $87.74 $71.16 $94.57 $76.91 $61.74 $87.57 $71.01 $56.78
      - 20. **ALL-INCLUSIVE COSTS per productive hour @**
        - **85% productivity**
          - $107.37 $87.95 $71.33 $91.46 $74.38 $59.71 $81.60 $66.16 $52.91
        - **75% productivity**
          - $121.68 $99.67 $80.84 $103.65 $84.30 $67.67 $92.48 $74.98 $59.96
        - **60% productivity**
          - $152.11 $124.59 $101.05 $129.56 $105.37 $84.58 $115.60 $93.73 $74.95

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Sheeted Offset

Presses: 2-Unit
### Heidelberg, Printmaster PM 52-2

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.56&quot; X 20.47&quot;</td>
<td>2</td>
<td>13,000 iph</td>
<td>hp: -- kWhs: 11</td>
<td>Sheetfed, Wet Offset</td>
<td>$195,000</td>
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</tbody>
</table>

**INTERFACES WITH:*** n/a

**AUXILIARY EQUIP.:*** n/a

**INSTALL. (EST.):*** Included

**TOTAL INVEST.:*** $195,000

---

### BASE COST ABOVE INCLUDES

- Press control console on the press; remote control of lateral and circumferential register; double sheet detector; sheet arrival control; Machine Information Display (MID) at feeder; ALCOLOR Dampening; oscillating form rollers; circulation and cooling device for dampening solution; blanket cylinder wash-up device; automatic inking unit wash-up device; training and installation.

---

### AUXILIARY EQUIPMENT INCLUDES

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>8</td>
<td>11</td>
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<td>8</td>
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<td>2 weeks</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

Pressman | $44,044 | $97,743 | $34,364 | $90,731 | $98,871 | $70,790 | $138,298 | $124,793 | $107,903 |

**LABOR COST-2 SHIFTS**

**LABOR COST-3 SHIFTS**

**TOTAL:**

---

### Sheeted Offset

**Presses:** 2-Unit

---

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---
# Heidelberg, Printmaster PM 52-2-P

**SIZE:** 14.56” X 20.47”  
**UNITS:** 2  
**MAXIMUM SPEED:** 13,000 iph  
**POWER:** hp: --  
**kWhs:** 13.8  
**PERFECTION:** Yes  
**COLORS:** 2  
**RESOLUTION:** 225  
**BASE COST:** $240,000  
**AUXILIARY EQUIP.:** n/a  
**INSTAL. (EST.):** Included  
**TOTAL INVEST.:** $240,000  

**PRODUCT CLASS/PROCESS:** Sheetfed, Wet Offset  
**INTERFACES WITH:** n/a  

## BASE COST ABOVE INCLUDES
Press control console on the press; remote control of lateral and circumferential register; double sheet detector; sheet arrival control; Machine Information Display (MID) at feeder; ALCOLOR Dampening; oscillating form rollers; circulation and cooling device for dampening solution; blanket cylinder wash-up device; automatic inking unit wash-up device; training and installation.

## WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>Hours/Week</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</tbody>
</table>

**FUNCTION**  
**LABOR COST-1 SHIFT**  
- Pressman: $44,044  
- $39,743  
- $34,364  

**LABOR COST-2 SHIFTS**  
- Area A: $90,731  
- $81,871  
- $70,790  

**LABOR COST-3 SHIFTS**  
- $138,298  
- $124,793  
- $107,903  

**TOTAL:**  
- $44,044  
- $39,743  
- $34,364  

## AUXILIARY EQUIPMENT INCLUDES


## ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
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## TWO SHIFTS

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<thead>
<tr>
<th>AREA A</th>
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<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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</thead>
<tbody>
<tr>
<td>154,043</td>
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<td>208,090</td>
<td>217,845</td>
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## THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<tbody>
<tr>
<td>211,481</td>
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<td>231,931</td>
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<td>266,638</td>
<td>276,453</td>
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**No. of Manned Hours Annually @ 100% Productivity**

<table>
<thead>
<tr>
<th>VARIABLE CHARGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Direct Labor:</td>
</tr>
<tr>
<td>5. Indirect Labor (Supervision &amp; Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts:</td>
</tr>
<tr>
<td>6. Pension Fund:</td>
</tr>
<tr>
<td>7. Welfare Benefits:</td>
</tr>
<tr>
<td>8. Payroll Taxes:</td>
</tr>
<tr>
<td>9. Workmen’s Compensation Insurance:</td>
</tr>
<tr>
<td>10. Power Cost @ $0.07 per kWh (based on kw rating):</td>
</tr>
<tr>
<td>11. Power Cost @ $0.07 per kw (based on kw rating):</td>
</tr>
<tr>
<td>12. Direct Supplies (see instructions):</td>
</tr>
<tr>
<td>13. Repairs &amp; Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts:</td>
</tr>
<tr>
<td>14. Sub-total:</td>
</tr>
<tr>
<td>15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts:</td>
</tr>
<tr>
<td>16. TOTAL MANUFACTURING COSTS:</td>
</tr>
<tr>
<td>17. Administrative &amp; Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:</td>
</tr>
<tr>
<td>18. TOTAL COSTS:</td>
</tr>
<tr>
<td>19. MANUFACTURING COSTS per productive hour:</td>
</tr>
</tbody>
</table>

**CHARGES CODE:**  
1. Depreciation 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts  
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft  
3. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%  
4. Pension Fund (A) 5% (B) 3% (C) 2%  
5. Management Costs 42%  
6. Total Manufacturing Costs

**BASE COST ABOVE INCLUDES** BASE COST ABOVE INCLUDES  
**TOTAL MANUFACTURING COSTS** BASE COST ABOVE INCLUDES  
**TOTAL INVEST.** BASE COST ABOVE INCLUDES

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Sheeted Offset  
Presses: 2-Unit
<table>
<thead>
<tr>
<th>BASE COST:  $154,683</th>
</tr>
</thead>
</table>

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<tbody>
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<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Labor Costs

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
<tr>
<td></td>
<td>$90,731</td>
<td>$81,871</td>
<td>$70,790</td>
</tr>
<tr>
<td></td>
<td>$138,298</td>
<td>$124,793</td>
<td>$107,903</td>
</tr>
</tbody>
</table>

### Total:

| TOTAL | $44,044 | $39,743 | $34,364 | $90,731 | $81,871 | $70,790 | $138,298 | $124,793 | $107,903 |

### Total: $164,992

### Manufacturing Costs per productive hour @

<table>
<thead>
<tr>
<th>AREA</th>
<th>ONE SHIFT</th>
<th>TWOshifts</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

### Variable Charges

#### Fixed Charges (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts......

\[ \text{Area A: } 15,468 \times 10 \% \times 35 \text{ weeks} = 15,468 \times 0.35 \times 15 \% = 7,258 \]

\[ \text{Area B: } 15,468 \times 12.5\% \times 37.5 \text{ weeks} = 15,468 \times 0.375 \times 12.5\% = 6,109 \]

\[ \text{Area C: } 15,468 \times 15\% \times 40 \text{ weeks} = 15,468 \times 0.15 \times 15\% = 4,640 \]

2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft...........

3. Fire & Sprinkler Insurance (Rate $4.00 per M)..............................

\[ \text{Area A: } 2,000 \times 4.00 = 8,000 \]

\[ \text{Area B: } 3,094 \times 4.00 = 12,376 \]

\[ \text{Area C: } 4,000 \times 4.00 = 16,000 \]

### Auxiliary Equipment

### Plate Punch; Semi-Automatic Plate Loading.

### Survey did not indicate installation cost information. Adjust your costs accordingly.

### Auxiliary Equipment

### One Year

<table>
<thead>
<tr>
<th>Vacation</th>
<th>After One Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 weeks</td>
<td>3 weeks</td>
</tr>
<tr>
<td>2 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Max Speed

<table>
<thead>
<tr>
<th>hp</th>
<th>kw/h</th>
<th>175</th>
</tr>
</thead>
</table>

### Weight

| 20.47" X 14.76" | 2 | 11,000 lph |

### Total Invest.: $154,683

### Department:

### Labor Cost-1 Shift

| Pressman | $44,044 | $39,743 | $34,364 | $90,731 | $81,871 | $70,790 | $138,298 | $124,793 | $107,903 |

### Labor Cost-2 Shifts

### Labor Cost-3 Shifts

### Total: $44,044

### Total Cost: $164,992

### Manufacturing Costs per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
<th>50% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$85.28</td>
<td>$96.65</td>
<td>$120.81</td>
<td>$137.24</td>
</tr>
<tr>
<td>71.57</td>
<td>81.11</td>
<td>101.38</td>
<td>115.17</td>
</tr>
<tr>
<td>59.84</td>
<td>67.81</td>
<td>84.77</td>
<td>96.29</td>
</tr>
<tr>
<td>63.60</td>
<td>86.23</td>
<td>107.76</td>
<td>118.13</td>
</tr>
<tr>
<td>52.87</td>
<td>72.08</td>
<td>90.10</td>
<td>98.75</td>
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<tr>
<td>70.89</td>
<td>59.32</td>
<td>74.90</td>
<td>82.09</td>
</tr>
<tr>
<td>49.13</td>
<td>60.34</td>
<td>100.43</td>
<td>106.06</td>
</tr>
</tbody>
</table>

### All-Inclusive Costs

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
<th>50% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$121.09</td>
<td>$137.24</td>
<td>$171.55</td>
<td>101.62</td>
</tr>
<tr>
<td>101.62</td>
<td>115.17</td>
<td>143.97</td>
<td>84.97</td>
</tr>
<tr>
<td>84.97</td>
<td>96.29</td>
<td>120.37</td>
<td>101.24</td>
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<tr>
<td>104.23</td>
<td>118.13</td>
<td>147.66</td>
<td>87.13</td>
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<tr>
<td>87.13</td>
<td>98.75</td>
<td>123.43</td>
<td>72.43</td>
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<tr>
<td>72.43</td>
<td>82.09</td>
<td>102.61</td>
<td>93.58</td>
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<td>93.58</td>
<td>106.06</td>
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<tr>
<td>78.12</td>
<td>88.54</td>
<td>110.67</td>
<td>64.85</td>
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<tr>
<td>64.85</td>
<td>85.17</td>
<td>91.87</td>
<td>73.50</td>
</tr>
</tbody>
</table>

### Sheetfed Offset

### Presses: 2-Unit

### Equipment Shipped F.O.B.

Kansas City, MO
**BASE COST ABOVE INCLUDES**

**Area A**
- Workmen's Compensation Insurance (Rate $40.00 per M)...........
- 24,069
- 4,174
- 2,114
- 8
- 5,427
- 40
- 2,158
- THREE SHIFTS

**Area B**
- 13,263
- 3 weeks
- $39,743
- 40

**Area C**
- 240,687

---

**LABOR COST-1 SHIFT**
- Pressman $44,044
- $99,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

**LABOR COST-2 SHIFTS**

**LABOR COST-3 SHIFTS**

---

**TOTAL:**
- $44,044
- $99,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

---

**BASE COST:** $217,089

**AUXILIARY EQUIPMENT INCLUDES**

---

**ONE SHIFT**

**TWO SHIFTS**

**THREE SHIFTS**

---

**MANUFACTURING COSTS per productive hour @**
- 20.47" X 14.76"* 2 15,000 hp: -- kWhs: 5.5

---

**TOTAL COSTS**
- 158,993
- $144,392
- $129,950
- $263,678
- $237,197
- $210,717
- $349,478
- $313,126
- $276,797

---

**MANUFACTURING COSTS per productive hour @**
- 85% productivity
- 75% productivity
- 60% productivity

---

**ALL-INCLUSIVE COSTS per productive hour @**
- 85% productivity
- 75% productivity
- 60% productivity

---

<table>
<thead>
<tr>
<th>No. of Manned Hours Annually @ 100% Productivity</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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</tbody>
</table>

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

---

**INSTALL. (EST.):** See Note*

---

**No. of Manned Hours Annually @ 100% Productivity**
- 85% productivity
- 75% productivity
- 60% productivity

---

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### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT
- Pressman: $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

### FUNCTION LABOR COST-2 SHIFTS
- $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

### FUNCTION LABOR COST-3 SHIFTS
- $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

### TOTAL COSTS
- $155,181
- $140,594
- $126,169
- $259,319
- $232,867
- $206,419
- $344,655
- $308,344
- $272,059

### BASE COST ABOVE INCLUDES
- Fast sequencing plate changers with punch; on-the-fly cocking; touch screen control; low pile delivery; leverless; Adamatic dampener; IR dryer; sheet decurler; powder sprayer; Superblue; auto lubrication; recirculator; PLC driven; training; installation.

### AUXILIARY EQUIPMENT INCLUDES
- High pile delivery ($12,500); perfector ($5,000).

---

### BASE COST:
- $180,000

### AUXILIARY EQUIPMENT:
- $17,500

### INSTALL. (EST.):
- Included

### TOTAL INVEST.:
- $197,500
<table>
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<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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</thead>
<tbody>
<tr>
<td>15&quot; X 20.5&quot;</td>
<td>2</td>
<td>12,000 pph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$245,000</td>
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<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>n/a</td>
<td>200</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Fast auto plate changers with punch; ADAcontrol; computerized control of radial, lateral, and diagonal register; auto blanket and ink wash up; Adamic dampeners; recirculator; touch screen control; vacuum feeder board; leverless pneumatic; IR dryer; Superblue; auto lubrication; nonstop delivery; high pile delivery; powder sprayer; ink ductor separate drive motor; training; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT: Pressman $44,044, $39,743, $34,364
- LABOR COST-2 SHIFTS: $90,731, $81,871, $70,790
- LABOR COST-3 SHIFTS: $138,298, $124,793, $107,903

**VARIABLE CHARGES**

- 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $25,700, $25,700, $25,700
- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft $2,020, $1,400, $1,000
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M) $1,028, $1,028, $1,028
- 4. Direct Labor $44,044, $39,743, $34,364
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts $8,809, $7,494, $6,873
- 6. Pension Fund (A) 5% (B) 3% (C) 2% $2,202, $1,192, $687
- 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk $4,680, $3,120, $2,340
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% $4,387, $3,958, $3,423
- 9. Workmen’s Compensation Insurance (Rate $40.00 per M) $2,114, $1,908, $1,649
- 10. Power Cost @ $0.07 per kWh (based on hp rating) $0, $0, $0
- 11. Power Cost @ $0.07 per kw (based on kwh rating) $539, $520, $550
- 12. Direct Supplies (see instructions) $2,000, $2,000, $2,000
- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts $5,140, $5,140, $5,140
- 14. Sub-total $102,743, $93,730, $84,855
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts $15,411, $14,060, $12,728
- 16. TOTAL MANUFACTURING COSTS $118,154, $107,790, $97,585
- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts $49,625, $45,272, $40,985
- 18. TOTAL COSTS $167,779, $153,061, $138,568
- 19. MANUFACTURING COSTS per productive hour @
  - 85% productivity $86.72, $71.95, $59.30
  - 75% productivity $98.28, $81.54, $67.21
  - 60% productivity $122.85, $101.93, $84.01
- 20. ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity $123.14, $102.17, $84.20
  - 75% productivity $139.55, $115.79, $95.43
  - 60% productivity $174.44, $144.74, $119.29

**AUXILIARY EQUIPMENT INCLUDES**

Spectrophotometer Closed Loop ($12,000).

**Sheeted Offset**

Presses: 2-Unit

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### Sakurai Oliver 258EII

**Base Cost**: $230,000

**Auxiliary Equipment**: n/a

**Install. (Est.)**: Included

**Total Invest.**: $230,000

---

#### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacations After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function Labor Cost-1 Shift**

<table>
<thead>
<tr>
<th></th>
<th>Pressman</th>
<th>$44,044</th>
<th>$39,743</th>
<th>$34,364</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Cost-2 Shifts</td>
<td>$90,731</td>
<td>$81,871</td>
<td>$70,790</td>
<td></td>
</tr>
<tr>
<td>Labor Cost-3 Shifts</td>
<td>$18,298</td>
<td>$12,293</td>
<td>$10,903</td>
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</tbody>
</table>

**Total**

<table>
<thead>
<tr>
<th></th>
<th>$44,044</th>
<th>$39,743</th>
<th>$34,364</th>
</tr>
</thead>
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<td></td>
</tr>
<tr>
<td>$18,298</td>
<td>$12,293</td>
<td>$10,903</td>
<td></td>
</tr>
</tbody>
</table>

**Equip. Shipped F.O.B.**: Chicago, IL

---

### Auxiliary Equipment Includes

- Vacuum feeder; mechanical double sheet detector; front and side guide detectors; early sheet detector; OLIVERMATIC continuous dampening system; Sakurai Plate Changing System (SPC); drop away ink fountain; sheet decutter; POD display; plate cylinder cocking; vacuum slowdown wheels; digital touch screen running register control; installation and training.

---

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**Sakurai Oliver 258EPII**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST: $265,000</th>
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<tbody>
<tr>
<td>17.75&quot; X 22.75&quot;</td>
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<td>hp: --</td>
<td>Wet Offset</td>
<td><strong>WATER FEEDER &amp; ELECTRICALS</strong></td>
</tr>
<tr>
<td><strong>PERFECTING:</strong></td>
<td><strong>COLORS:</strong></td>
<td><strong>RESOLUTION:</strong></td>
<td><strong>SQ. FT.:</strong></td>
<td><strong>BASE COST:</strong></td>
<td><strong>AUXILIARY EQUIP.:</strong> n/a</td>
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<tr>
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<td>2</td>
<td>175</td>
<td>n/a</td>
<td><strong>INSTALL. (EST.):</strong> Included</td>
<td><strong>TOTAL INVEST.:</strong> $265,000</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**
- Vacuum feeder; mechanical double sheet detector; front and side guide detectors; early sheet detector; OLIVERMATIC continuous dampening system; Sakurai Plate Changing System (SPC); fully automatic perfector changeover system; drop away ink fountain; sheet decurler; POD display; plate cylinder cocking; vacuum slowdown wheels; digital touch screen running register control; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**
- 60% productivity
- 75% productivity
- 85% productivity
- One Year
- Vacation After One Year
- 3 weeks
- 2 weeks
- 2 weeks
- 4 weeks
- 3 weeks
- 2 weeks
- 2 weeks

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
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<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
<tr>
<td>$90,731</td>
<td>$81,871</td>
<td>$70,790</td>
<td></td>
</tr>
<tr>
<td>$138,298</td>
<td>$124,793</td>
<td>$107,903</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL:**
- $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

---

**VARIABLE CHARGES**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $26,500 $26,500 $26,500 $33,125 $33,125 $33,125 $39,750 $39,750 $39,750
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft 1,060 1,060 1,060 1,060 1,060 1,060 1,060 1,060 1,060
3. Fire & Sprinkler Insurance (Rate $4.00 per M) 6,915 6,915 6,915 6,915 6,915 6,915 6,915 6,915 6,915
4. Power Cost @ $0.07 per kWh (based on kWh rating) 170,060 170,060 170,060 170,060 170,060 170,060 170,060 170,060 170,060

**TOTAL MANUFACTURING COSTS**
- $170,060
- $155,515
- $141,131
- $277,626
- $251,248
- $224,881
- $365,920
- $329,713
- $293,543

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$87.89</td>
<td>$73.10</td>
<td>$60.40</td>
</tr>
<tr>
<td>$74.36</td>
<td>$61.21</td>
<td>$49.87</td>
</tr>
<tr>
<td>$67.82</td>
<td>$55.58</td>
<td>$45.05</td>
</tr>
</tbody>
</table>

20. **ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$124.81</td>
<td>$103.81</td>
<td>$85.76</td>
</tr>
<tr>
<td>$101.88</td>
<td>$83.85</td>
<td>$68.33</td>
</tr>
<tr>
<td>$89.52</td>
<td>$73.36</td>
<td>$59.46</td>
</tr>
<tr>
<td>$101.45</td>
<td>$83.14</td>
<td>$67.39</td>
</tr>
</tbody>
</table>

**TOTAL COSTS:**
- $170,060
- $155,515
- $141,131
- $277,626
- $251,248
- $224,881
- $365,920
- $329,713
- $293,543

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Sheetfed Offset
Presses: 2-Unit

84.24
Sakurai Oliver 266EPZ

SIZE: 18.5" X 26"  UNITS: 2  MAXIMUM SPEED: 12,000 fpm  POWER: -- WHP: 12.44

PERFECTING: Yes  COLORS: 2  RESOLUTION: n/a  SQ. FT.: 200

PRODUCT CLASS/PROCESS: Wet Offset

INTERFACES WITH: n/a

BASE COST: $295,000

AUXILIARY EQUIP.: n/a

INSTALL (EST.): Included

TOTAL INVEST. : $295,000

BASE COST ABOVE INCLUDES
Vacuum feeder; mechanical double sheet detector; front and side guide detectors; early sheet detector; OLIVERMATIC continuous dampening system; Sakurai Plate Changing System (SPC); fully automatic perfector changeover system; drop away ink fountain; sheet decurler; POD display; plate cylinder cooking; vacuum slowdown wheels; digital touch screen running register control; installation and training.

AUXILIARY EQUIPMENT INCLUDES

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
<tr>
<td></td>
<td>$90,731</td>
<td>$81,871</td>
<td>$70,790</td>
</tr>
<tr>
<td></td>
<td>$138,298</td>
<td>$124,793</td>
<td>$107,903</td>
</tr>
</tbody>
</table>

ALL-INCLUSIVE COSTS

One shift: $44,044  Two shifts: $90,731  Three shifts: $138,298

Total: $342,636

Total: $81,871

Total: $124,793

Total: $107,903

Total: $295,000

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Sheeted Offset

Presses: 2-Unit

39
### BASE COST ABOVE INCLUDES

- Console & B&D Electronic Control System: vac. belt conveyor; dual feeder head w/ shoe control; rotary pre-gripper w/ paper weight adjust.; front lay stops; quick action plate clamping bars; Polyecromatic Damper; Royce Recirculator; segmented duct blade; inking unit washer; auto. blanket & roller washer; Siemens Blower; pneumatic machine control; Touch-Screen machine operation at deliv.; auto. inching speed select; sheet counter; high (low) pile deliv.; sheet decoller; powder spray; fans in deliv.; central lubric.; electronic double sheet control; helical gears (inking rollers); remote control of registr.; inking rollers spread adjust.; feeder head transport gripper adjust.; Botcher inking & dampening rubber rollers; Super Blue transfer & delivery cylinders; Becker compressor; high adjust. of pile toward feeder head; dryer; install. and training.

### AUXILIARY EQUIPMENT INCLUDES

**Note:** Perfecting is an available option not included in this study.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman: $44,044
  - LABOR COST-2 SHIFTS: $90,731
  - LABOR COST-3 SHIFTS: $138,298

**TOTAL:** $44,044

### TOTAL MANUFACTURING COSTS

**BASE COST:** $375,000

**TOTAL INVEST.:** $375,000

---

**Sheetfed Offset**

**Presses:** 2-Unit

---

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### AODAST 727P Step Up Advantage (Data Provided By United Graphic Systems)

<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power:</th>
<th>Product Class/Process:</th>
<th>Base Cost:</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.12&quot; X 26&quot;</td>
<td>2</td>
<td>10,000 iph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$261,500</td>
</tr>
</tbody>
</table>

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
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<td>10</td>
<td>8</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
</tbody>
</table>

### Total:

- $44,044
- $39,743
- $34,364

### Total Invest.:

- $287,950

### Base Cost Above Includes

- Fast auto plate changers; Adatacontrol Express for ink and register including plate cocking; fast prebarred blankets; auto ink unit wash up; PLC control; leverless; Inky IR; low pile; Adamicampen caper; Superblue; recirculator; autolubrication; training; installation.

### Auxiliary Equipment Includes

- High pile delivery ($15,000); perfector ($8,500); ink preset from CIP 3/4 format ($2,950).
<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.12' x 26'</td>
<td>2</td>
<td>10,000 pph</td>
<td>-</td>
<td>Wet Offset</td>
<td>$345,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERFECTING:</th>
<th>COLORS:</th>
<th>RESOLUTION:</th>
<th>SQ. FT.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2</td>
<td>n/a</td>
<td>250</td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES
- Fast auto plate changers with punch; ADAControl; computerized control of radial, lateral, and diagonal register; auto blanket and ink wash up; Adamic dampeners; recirculator; touch screen control; vacuum feeder board; leverless pneumatic; IR dryer; Superblue; auto lubrication; nonstop delivery; high pile delivery; powder sprayer; ink ductor separate drive motor; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

- Pressman: $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

### AUXILIARY EQUIPMENT INCLUDES
- In Line Aqueous Coater ($105,000);
- Spectrophotometer Closed Loop ($12,000).

### TOTAL INVEST.
- $462,000

---

**ADAST 727P LX (Data Provided By United Graphic Systems)**

<table>
<thead>
<tr>
<th>PRESS</th>
<th>DRIVE MOTOR</th>
<th>TRAINING</th>
<th>INSTALL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheetfed Offset</td>
<td>Presses: 2-Unit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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Shinohara 66II

SIZE: 20" X 26'
UNITS: 2
MAXIMUM SPEED: 12,000 iph
POWER: hp: --
KWhs: 13

PERFECTING: No
COLORS: 2
RESOLUTION: n/a
SQ. FT.: 275

PRODUCT CLASS/PROCESS:
Wet Offset

BASE COST:
$292,500

AUXILIARY EQUIP.:
$60,140

INSTALL. (EST.):
$2,000

TOTAL INVEST. :
$354,640

BASE COST ABOVE INCLUDES
Continuous dampening; continuous oil bath lubrication; interactive touch screen operator controls; remote dampening fountain roller speed control; remote ink sweep adjustment; remote lateral and radial plate cylinder microadjustment; preload feeder; segmented ink fountain blade; sheet decurler; spray powder system; static eliminator.

AUXILIARY EQUIPMENT INCLUDES
Semi-automatic plate changers ($39,150); automatic blanket washer system-Type 2 ($15,300); automatic ink roller cleaning system ($4,050); non-stop delivery ($1,640).

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION

LABOR COST-1 SHIFT

LABOR COST-2 Shifts

LABOR COST-3 Shifts

Pressman $44,044 $39,743 $34,364 $90,731 $81,871 $70,790 $138,298 $124,793 $107,903

TOTAL: $44,044 $39,743 $34,364 $90,731 $81,871 $70,790 $138,298 $124,793 $107,903

No. of Manned Hours Annually @ 100% Productivity:

FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts............ $ 35,464 $ 35,464 $ 35,464
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.......................... 2,888 1,925 1,375
3. Fire & Sprinkler Insurance (Rate $4.00 per M)............................. 1,419 1,419 1,419
4. Direct Labor.................................................................
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.......................... 8,809 7,949 6,873
6. Pension Fund (A) 5% (B) 3% (C) 2%............................................. 2,022 1,922 1,654
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.................. 4,680 3,120 2,340
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%................. 4,387 3,958 3,423
9. Workmen's Compensation Insurance (Rate $4.00 per M).............. 2,114 1,908 1,649
10. Power Cost @ $0.07 per kWh (based on hp rating)....................... 1,140 900 720
11. Power Cost @ $0.07 per kWh (based on kwh rating)..................... 875 962 1,027
12. Direct Supplies (see instructions)........................................... 3,000 3,000 3,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts.............. 7,093 7,093 7,093
14. Sub-total.................................................................
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts............
16. TOTAL MANUFACTURING COSTS.............................

TOTAL COSTS:

$ 191,019 $175,927 $161,248 $302,583 $275,717 $249,098 $394,307 $375,686 $321,285

MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 98.73</td>
<td>$ 82.70</td>
<td>$ 69.01</td>
</tr>
<tr>
<td>$ 11.89</td>
<td>$ 9.32</td>
<td>$ 7.82</td>
</tr>
<tr>
<td>$ 139.86</td>
<td>$ 117.16</td>
<td>$ 97.76</td>
</tr>
</tbody>
</table>

20. ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 140.19</td>
<td>$ 117.43</td>
<td>$ 97.99</td>
</tr>
<tr>
<td>$ 158.88</td>
<td>$ 133.09</td>
<td>$ 111.05</td>
</tr>
</tbody>
</table>

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### Shinhara 66IP

<table>
<thead>
<tr>
<th>SIZE: 20&quot; X 26&quot;</th>
<th>UNITS: 2</th>
<th>MAXIMUM SPEED: 12,000 fpm</th>
<th>POWER: hp: 13 kWh: 2</th>
<th>PRODUCT CLASS/PROCESS: Wet Offset</th>
<th>BASE COST: $319,500</th>
</tr>
</thead>
</table>

#### BASE COST ABOVE INCLUDES
- Continuous dampening; continuous oil bath lubrication; interactive touch screen operator controls; remote dampening fountain roller speed control; remote ink sweep adjustment; remote lateral and radial plate cylinder microadjustment; preload feeder; segmented ink fountain blade; sheet decurler; spray powder system; static eliminator.

#### AUXILIARY EQUIPMENT INCLUDES
- Semi-automatic plate changers ($39,150); automatic blanket washer system-Type 2 ($15,300); automatic ink roller cleaning system ($4,260); non-stop delivery ($1,650); semi-automatic perfecting changeover ($30,000).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
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<td>10</td>
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<td>Vacation After One Year</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT LABOR COST-2 SHIFTS LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$44,044</th>
<th>$39,743</th>
<th>$34,364</th>
<th>$90,731</th>
<th>$81,871</th>
<th>$70,790</th>
<th>$138,298</th>
<th>$124,793</th>
<th>$107,903</th>
</tr>
</thead>
</table>

### TOTAL

- **Total Working Conditions and Annual Cost of Direct Labor (By Area):** $44,044
- **Total labor cost-1 shift:** $39,743
- **Total labor cost-2 shifts:** $34,364
- **Total labor cost-3 shifts:** $90,731
- **Total:** $138,298

---

**Sheetfed Offset**

**Presses: 2-Unit**

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44
**Sakurai Oliver 272EII Low Pile**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.5” x 28.38”</td>
<td>2</td>
<td>12,000 pph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$270,000</td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td>INTERFACES WITH:</td>
<td>AUXILIARY EQUIP.:</td>
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<tr>
<td>No</td>
<td>2</td>
<td>n/a</td>
<td></td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**
- Vacuum feeder; mechanical double sheet detector; front and side guide detectors; early sheet detector; OLIVERMATIC continuous dampening system; Sakurai Plate Changing System (SPC); drop away ink fountain; sheet decutter; POD display; plate cylinder cocking; vacuum slowdown wheels; digital touch screen running register control; installation and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
<tr>
<td></td>
<td>$90,731</td>
<td>$81,871</td>
<td>$70,790</td>
</tr>
<tr>
<td></td>
<td>$138,298</td>
<td>$124,793</td>
<td>$107,903</td>
</tr>
</tbody>
</table>

**Auxiliary Equipment Includes**

- Equip. Shipped F.O.B.: Chicago, IL

**Total: $270,000**

---

**Cost per MCF**

<table>
<thead>
<tr>
<th>Mainprint</th>
<th>CYCLES</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sakurai Oliver 272EII Low Pile</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2-Unit Sheetfed Offset</td>
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<tr>
<td>INSTALL (EST.): Included</td>
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<td></td>
</tr>
</tbody>
</table>

**TOTAL INVEST.: $270,000**

---

**Fixed Charges (Non-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...... $27,000
2. Rent & Heat (A) @ $10.50 (B) $7.00 (C) $5.00 sq. ft........ $2,888
3. Fire & Sprinkler Insurance (Rate $4.00 per M)... $1,080

**Variable Charges**

4. Direct Labor..................................................... $44,044
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts................................. $2,202
6. Pension Fund (A) 5% (B) 3% (C) 2%............................. $8,809
7. Welfare Benefits (A) $90,000 (B) $60,000 (C) $45,000........ $4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%....... $4,387
9. Workmen’s Compensation Insurance (Rate $40.00 per M).... $2,114
10. Power Cost @ $0.07 per kWh (based on hp rating)............. $0
11. Power Cost @ $0.07 per kWh (based on kW rating)............ $0
12. Direct Supplies (see instructions).......................... $3,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts... $2,400
14. Sub-total......................................................... $106,440
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.... $15,966
16. TOTAL MANUFACTURING COSTS.............................. $122,406

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts........................................... $51,411
18. TOTAL COSTS...................................................... $173,817
19. MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Hourly Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$89.84 per hour</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$101.81 per hour</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$127.27 per hour</td>
</tr>
</tbody>
</table>

20. ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Hourly Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$127.57 per hour</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$144.58 per hour</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$180.72 per hour</td>
</tr>
</tbody>
</table>

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## Sakura F. Oliver 272Ell High Pile

### BASE COST ABOVE INCLUDES

- Vacuum feeder; mechanical double sheet detector; front and side guide detectors; early sheet detector; OLIVERMATIC continuous dampening system; Sakura Plate Changing System (SPC); drop away ink fountain; sheet decutter; POD display; plate cylinder cocking; vacuum slowdown wheels; digital touch screen running register control; installation and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>Hours/Week</th>
<th>Area</th>
<th>Hours/Week</th>
<th>Area</th>
<th>Hours/Week</th>
<th>Area</th>
<th>Hours/Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>35</td>
<td>B</td>
<td>37.5</td>
<td>C</td>
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<td>A</td>
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<td>B</td>
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<td></td>
<td></td>
<td>2 weeks</td>
<td></td>
<td>3 weeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$44,044</td>
<td>$93,749</td>
<td>$34,364</td>
</tr>
<tr>
<td></td>
<td>$90,731</td>
<td>$81,871</td>
<td>$70,790</td>
</tr>
<tr>
<td></td>
<td>$138,298</td>
<td>$124,793</td>
<td>$107,903</td>
</tr>
</tbody>
</table>

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Chicago, IL

<table>
<thead>
<tr>
<th>AREA</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
</tbody>
</table>

### Sheetfed Offset

**Presses: 2-Unit**

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<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.5&quot; X 28.38&quot;</td>
<td>2</td>
<td>12,000 pph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$315,000</td>
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<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
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<tr>
<td>Yes</td>
<td>2</td>
<td>275</td>
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</table>

**BASE COST ABOVE INCLUDES**

- Vacuum feeder; mechanical double sheet detector; front and side guide detectors; early sheet detector; OLIVERMATIC continuous dampening system; SAKURAI Plate Changing System (SPC); fully automatic perfector changeover system; drop out ink fountain; sheet decurler; POD display; plate cylinder cooking; vacuum slowdown wheels; digital touch screen running register control; installation and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
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<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
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<td>8</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
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<td>4 weeks</td>
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</tr>
<tr>
<td>FUNCTION</td>
<td>LABOR COST-1 SHIFT</td>
<td>LABOR COST-2 SHIFTS</td>
<td>LABOR COST-3 SHIFTS</td>
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<td>Pressman</td>
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</table>

**AUXILIARY EQUIPMENT INCLUDES**

- Equipment Shipped F.O.B.: Chicago, IL

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
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**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
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<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS**

128,854 118,225 107,887 213,970 194,358 174,925 290,657 262,984 235,929

17. Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts

17.1. Included

17.2. N/A

18. TOTAL COSTS

18.1. $182,973 $167,880 $153,199 $299,139 $266,270 $239,647 $383,667 $347,020 $310,634

19. MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$94.57 $78.92 $65.56</td>
<td>$78.52 $64.87 $53.15</td>
<td>$71.11 $58.49 $47.67</td>
</tr>
</tbody>
</table>

19.2. 75% productivity

19.3. 60% productivity

20. ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$134.29 $112.05</td>
<td>$107.57 $88.77</td>
<td>$93.86 $72.81</td>
</tr>
</tbody>
</table>

20.1. 75% productivity

20.2. 60% productivity

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### Sakurai Oliver 272EPII High Pile

#### SIZE:
- 20.5" X 28.38"
- 2 hp
- 12,000 hp:
- 13.14 kwhs:

#### COLORING:
- Yes:
- 2 colors:
- 275 sq. ft.:
- 325

#### BASE COST ABOVE INCLUDES
- Vacuum feeder: mechanical double sheet detector; front and side guide detectors; early sheet detector;
- OLIVERMATIC continuous dampening system;
- Sakurai Plate Changing System (SPC): fully automatic perfector changeover system; drop away ink fountain; sheet decurler; POD display; plate cylinder cocking; vacuum slowdown wheels; digital touch screen running register control; installation and training.

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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<tr>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>10</td>
<td>8</td>
<td>11</td>
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<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT
- Labor Cost-1 Shift:
- Labor Cost-2 Shifts:
- Labor Cost-3 Shifts:
- Pressman: $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

#### TOTAL
- $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

#### ONE SHIFT
- $187,914
- $172,539
- $157,698
- $298,760
- $271,627
- $244,857
- $389,864
- $352,972
- $316,450

#### TWO SHIFTS
- $193,842
- $178,728
- $163,176
- $335,000
- $304,456
- $279,032
- $418,940
- $383,288
- $351,424

#### THREE SHIFTS
- $105,658
- $97,359
- $90,731
- $178,914
- $163,176
- $150,658
- $235,832
- $217,941
- $201,120

---

**Sheetfed Offset**

**Presses: 2-Unit**

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**KBA North America, Performa 74**

**BASE COST ABOVE INCLUDES**

- Console; B&R Electronic Control System; auto plate; auto wash; sheetless transfers; vac. belt conveyor; dual feeder head w/ shoe control; rotary pre-gripper w/ paper weight adjust.; front lay stops; quick action plate clamping bars; Polyecomatic Damper; Royce Recirc.; segmented duct blade; inking unit washer; auto. blanket & roller washer; Siemens Blower; pre- oiler; machine control; Touch-Screen operation at deliv.; auto. inch speed select; sheet counter; high (low) pile deliv.; sheet decurler; powder spray; fans in deliv.; central lub.; electronic double sheet control; helical gears (inking rollers); remote control of register; inking rollers spread adjust.; feeder head transport gripper adjust.; Botcher inking & dampening rubber rollers; Super Blue transfer & deliv. cylinders; Becker compressor; high adjust. of pile; dryer; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**

Note: Perfecting is an available option not included in this study.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
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<td>37.5</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

- Pressman
  - Provision: $44,044
  - Salary: $39,743
  - Annual Overtime: 34,364

**LABOR COST-2 SHIFTS**

- Provision: $45,731
  - Salary: $81,871
  - Annual Overtime: $70,790

**LABOR COST-3 SHIFTS**

- Provision: $45,731
  - Salary: $81,871
  - Annual Overtime: $70,790

**TOTAL**

- Provision: $44,044
  - Salary: $39,743
  - Annual Overtime: 34,364

**TOTAL MANUFACTURING COSTS**

- Provision: $80,100
  - Salary: $81,871
  - Annual Overtime: $70,790

**ALL-INCLUSIVE COSTS**

- Provision: $80,100
  - Salary: $81,871
  - Annual Overtime: $70,790

**NOTE:**

- Cost per MCF
- Cost per productive hour
- Cost per equipment category
- Cost per shift
- Cost per area
- Cost per press
- Cost per process

**TWO SHIFTS**

- Provision: $203,187
  - Hourly Rate: $214.371
  - Total: $199,272
  - Total: $348,511
  - Total: $320,951

**THREE SHIFTS**

- Provision: $203,187
  - Hourly Rate: $214.371
  - Total: $199,272
  - Total: $348,511
  - Total: $320,951

**TOTAL INVEST.**

- Provision: $534,000

**Sheetfed Offset**

**Presses: 2-Unit**

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### BASE COST ABOVE INCLUDES

Rapida 74; semi-automatic plate changers; pin register system; cocking; installation and training.

### AUXILIARY EQUIPMENT INCLUDES


### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>40</td>
<td>35</td>
<td>37.5</td>
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</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT

- Pressman: $44,044
- Helper: $33,174

#### LABOR COST-2 Shifts

- Total: $242,465

#### LABOR COST-3 Shifts

- Total: $216,079

### TOTAL INVEST.: $908,000

- 20% Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts
- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M.)
- 4. Direct Labor
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
- 6. Pension Fund (A) 5% (B) 3% (C) 2%
- 7. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
- 9. Workmen’s Compensation Insurance (Rate $40.00 per M.)
- 10. Power Cost @ $0.07 per kWh (based on hp rating)
- 11. Power Cost @ $0.07 per kwk (based on kWh rating)
- 12. Direct Supplies (see instructions)
- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
- 14. Sub-total
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
- 16. TOTAL MANUFACTURING COSTS
- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
- 18. TOTAL COSTS
- 19. MANUFACTURING COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity
- 20. ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity
<table>
<thead>
<tr>
<th>Shokhara 75II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SIZE:</strong> 23&quot; X 29&quot;</td>
</tr>
<tr>
<td><strong>PERFECTING:</strong> No</td>
</tr>
<tr>
<td><strong>BASE COST ABOVE INCLUDES</strong> Continuous dampening; continuous oil bath lubrication; interactive touch screen operator controls; remote dampening fountain roller speed control; remote ink sweep adjustment; remote lateral and radial plate cylinder microadjustment; preload feeder; segmented ink fountain blade; sheet decelerator; spray powder system; static eliminator.</td>
</tr>
<tr>
<td><strong>AUXILIARY EQUIPMENT INCLUDES</strong> Automatic blanket washer system-Type 2 ($15,300); automatic ink roller cleaning system ($4,050); non-stop delivery ($1,600); remote operation console ($58,500); semi-automatic plate changers ($31,500).</td>
</tr>
</tbody>
</table>

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
</tr>
</thead>
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<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

- **FUNCTION** LABOR COST-1 SHIFT
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

- **Pressman** $44,044
- **$39,743**
- **$34,364**
- **$90,731**
- **$81,871**
- **$70,790**
- **$138,298**
- **$124,793**
- **$107,903**

**TOTAL: $44,044**

**BASE COST:** $352,500

**AUXILIARY EQUIP.:** $111,000

**INSTALL. (EST.):** $2,000

**TOTAL INVEST.: $465,500**

<table>
<thead>
<tr>
<th><strong>Area A</strong></th>
<th><strong>Area B</strong></th>
<th><strong>Area C</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rent &amp; Heat</strong></td>
<td>$90,731</td>
<td>$81,871</td>
</tr>
<tr>
<td><strong>Power Cost</strong></td>
<td>$70,790</td>
<td>$69,825</td>
</tr>
<tr>
<td><strong>Fire &amp; Sprinkler Insurance</strong></td>
<td>$69,825</td>
<td>$69,825</td>
</tr>
<tr>
<td><strong>Workmen's Compensation Insurance</strong></td>
<td>$69,825</td>
<td>$69,825</td>
</tr>
<tr>
<td><strong>Depreciation</strong></td>
<td>$69,825</td>
<td>$69,825</td>
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</table>

**TOTAL: 124,793**

**100% Productivity**

- **No. of Manned Hours Annually**

<table>
<thead>
<tr>
<th><strong>1.</strong></th>
<th><strong>2.</strong></th>
<th><strong>3.</strong></th>
<th><strong>4.</strong></th>
<th><strong>5.</strong></th>
<th><strong>6.</strong></th>
<th><strong>7.</strong></th>
<th><strong>8.</strong></th>
<th><strong>9.</strong></th>
<th><strong>10.</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Direct Labor</strong></td>
<td>$46,550</td>
<td>$46,550</td>
<td>$46,550</td>
<td>$58,188</td>
<td>$58,188</td>
<td>$58,188</td>
<td>$96,825</td>
<td>$96,825</td>
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<td><strong>Indirect Labor</strong></td>
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<td>$2,456</td>
<td>$2,456</td>
<td>$3,413</td>
<td>$3,413</td>
<td>$3,413</td>
<td>$3,413</td>
<td>$3,413</td>
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<tr>
<td><strong>Pension Fund</strong></td>
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<td>$2,202</td>
<td>$2,202</td>
<td>$3,413</td>
<td>$3,413</td>
<td>$3,413</td>
<td>$3,413</td>
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<tr>
<td><strong>Welfare Benefits</strong></td>
<td>$1,625</td>
<td>$1,625</td>
<td>$1,625</td>
<td>$2,456</td>
<td>$2,456</td>
<td>$2,456</td>
<td>$2,456</td>
<td>$2,456</td>
<td>$2,456</td>
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<tr>
<td><strong>Payroll Taxes</strong></td>
<td>$4,680</td>
<td>$4,680</td>
<td>$4,680</td>
<td>$6,120</td>
<td>$6,120</td>
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<tr>
<td><strong>Worker's Compensation Insurance</strong></td>
<td>$2,114</td>
<td>$2,114</td>
<td>$2,114</td>
<td>$3,120</td>
<td>$3,120</td>
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<tr>
<td><strong>Power Cost</strong></td>
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<td>$1,077</td>
<td>$1,077</td>
<td>$1,077</td>
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<tr>
<td><strong>Direct Supplies</strong></td>
<td>$3,500</td>
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<td>$3,500</td>
<td>$7,000</td>
<td>$7,000</td>
<td>$7,000</td>
<td>$7,000</td>
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<tr>
<td><strong>Repairs &amp; Maint.</strong></td>
<td>$9,310</td>
<td>$9,310</td>
<td>$9,310</td>
<td>$11,638</td>
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<td>$11,638</td>
<td>$13,965</td>
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<tr>
<td><strong>Sub-total</strong></td>
<td>$131,948</td>
<td>$131,948</td>
<td>$131,948</td>
<td>$215,325</td>
<td>$215,325</td>
<td>$215,325</td>
<td>$249,591</td>
<td>$249,591</td>
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<tr>
<td><strong>General Factory</strong></td>
<td>$19,792</td>
<td>$19,792</td>
<td>$19,792</td>
<td>$26,916</td>
<td>$26,916</td>
<td>$26,916</td>
<td>$29,459</td>
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<tr>
<td><strong>TOTAL MANUFACTURING COSTS</strong></td>
<td>$151,740</td>
<td>$151,740</td>
<td>$151,740</td>
<td>$242,240</td>
<td>$242,240</td>
<td>$242,240</td>
<td>$282,090</td>
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<tr>
<td><strong>TOTAL COSTS</strong></td>
<td>$215,470</td>
<td>$215,470</td>
<td>$215,470</td>
<td>$331,869</td>
<td>$331,869</td>
<td>$331,869</td>
<td>$378,790</td>
<td>$378,790</td>
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</tr>
<tr>
<td><strong>MANUFACTURING COSTS per productive hour @ 85% productivity</strong></td>
<td>$111.36</td>
<td>$111.36</td>
<td>$111.36</td>
<td>$111.36</td>
<td>$111.36</td>
<td>$111.36</td>
<td>$111.36</td>
<td>$111.36</td>
<td>$111.36</td>
</tr>
<tr>
<td><strong>MANUFACTURING COSTS per productive hour @ 75% productivity</strong></td>
<td>$90.47</td>
<td>$90.47</td>
<td>$90.47</td>
<td>$90.47</td>
<td>$90.47</td>
<td>$90.47</td>
<td>$90.47</td>
<td>$90.47</td>
<td>$90.47</td>
</tr>
<tr>
<td><strong>MANUFACTURING COSTS per productive hour @ 60% productivity</strong></td>
<td>$79.31</td>
<td>$79.31</td>
<td>$79.31</td>
<td>$79.31</td>
<td>$79.31</td>
<td>$79.31</td>
<td>$79.31</td>
<td>$79.31</td>
<td>$79.31</td>
</tr>
<tr>
<td><strong>ALL-INCLUSIVE COSTS per productive hour @ 85% productivity</strong></td>
<td>$158.14</td>
<td>$158.14</td>
<td>$158.14</td>
<td>$121.78</td>
<td>$121.78</td>
<td>$121.78</td>
<td>$146.46</td>
<td>$146.46</td>
<td>$146.46</td>
</tr>
<tr>
<td><strong>ALL-INCLUSIVE COSTS per productive hour @ 75% productivity</strong></td>
<td>$133.58</td>
<td>$133.58</td>
<td>$133.58</td>
<td>$101.73</td>
<td>$101.73</td>
<td>$101.73</td>
<td>$131.21</td>
<td>$131.21</td>
<td>$131.21</td>
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<tr>
<td><strong>ALL-INCLUSIVE COSTS per productive hour @ 60% productivity</strong></td>
<td>$118.24</td>
<td>$118.24</td>
<td>$118.24</td>
<td>$84.49</td>
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<td>$84.49</td>
<td>$114.96</td>
<td>$114.96</td>
<td>$114.96</td>
</tr>
</tbody>
</table>

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| Sheetfed Offset Presses: 2-Unit | 51 |
Shinohara 75IIIP

SIZE: 23" X 29'  
UNITS: 2  
MAXIMUM SPEED: 12,000 iph  
POWER: hp: --  
kW/h: 16  
PRODUCT CLASS/PROCESS: Wet Offset

BASE COST ABOVE INCLUDES
- Continuous dampening; continuous oil bath lubrication; interactive touch screen operator controls; remote dampening fountain roller speed control; remote ink sweep adjustment; remote lateral and radial plate cylinder microadjustment; pre-load feeder; segmented ink fountain blade; sheet decurler; spray powder system; static eliminator.

 AUXILIARY EQUIPMENT INCLUDES
- Automatic blanket washer system-Type 2 ($15,000); automatic ink roller cleaning system ($4,000); non-stop delivery ($1,650); remote operation console ($58,500); semi-automatic plate changers ($31,500); semi-automatic perfecting changeover ($30,000).

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
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<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION
- LABOR COST-1 SHIFT
  - Pressman $44,044
  - Area A $39,743
  - Area B $34,364
  - Area C $90,731
- LABOR COST-2 SHIFTS
  - Area A $81,871
  - Area B $70,790
  - Area C $138,298
- LABOR COST-3 SHIFTS
  - Area A $124,793
  - Area B $107,903
  - Area C $107,903

TOTAL COSTS
- $226,709
  - Area A $211,365
  - Area B $196,558
  - Area C $345,042

MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

No. of Manned Hours Annually @ 100% Productivity

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

FIRE & SPRINKLER INSURANCE (Rate $4.00 per M)

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52
ADAST 827P Competitive Edge (Data Provided By United Graphic Systems)

SIZE: 20.5" x 29.12"  UNITS: 2  MAXIMUM SPEED: 12,000 p/h  POWER: hp: --  kW: 11.5

PERFECTING: Yes  COLORS: 2  RESOLUTION: n/a  SQ. FT.: 300

PRODUCT CLASS/PROCESS: Wet Offset

INTERFACES WITH: Ink preset via CIP 3/4 format from digital prepress.

BASE COST ABOVE INCLUDES
Adacontrol Express; Adamic damper; fast auto plate changer with punch; PLC control; on-the-fly cocking; auto ink unit wash up; high pile delivery; vacuum feeder board; IR dryer; Superblue; auto lubrication; powder sprayer; recirculator; sheet decurler; non stop feeder and delivery; leverless; heavy duty; touch screen control; training; installation.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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<td>4 weeks</td>
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<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION
LABOR COST-1 SHIFT
LABOR COST-2 SHIFTS
LABOR COST-3 SHIFTS

Pressman $44,044 $39,743 $34,364 $90,731 $81,871 $70,790 $138,298 $124,793 $107,903

TOTAL $44,044 $39,743 $34,364 $90,731 $81,871 $70,790 $138,298 $124,793 $107,903

AUXILIARY EQUIPMENT INCLUDES
Aqueous tower coater with Anilox roller, hot-cold air knives, and IR dryer ($190,000).

BASE COST ABOVE INCLUDES

No. of Manned Hours Annually @ 100% Productivity.......................... 1,603 1,763 1,936

FIXED CHARGES (NON-VARIABLE)
1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........ $55,500 $55,500 $55,500
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft............ 3,150 2,100 1,500
3. Fire & Sprinkler Insurance (Rate $4.00 per M)..................... 2,220 2,220 2,220
4. Direct Labor........................................... 44,044 39,743 34,364
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.................................................. 8,809 7,949 6,873
6. Pension Fund (A) 5% (B) 3% (C) 2%.............................. 2,020 1,192 687
7. Welfare Benefits (A) $90/kw. (B) $60/kw. (C) $45/kw........ 4,680 3,120 2,340
8. Payroll Taxes (Soc. Sec. & Unemployment. Insurance) 8.3%... 4,387 3,958 3,423
9. Worker's Compensation Insurance (Rate $40.00 per M)......... 2,114 1,806 1,649
10. Power Cost @ $0.07 per kW (based on hp rating)............ 0 0 0
11. Power Cost @ $0.07 per kW (based on kWh rating).................. 774 851 933
12. Direct Supplies (see instructions).............................. 3,500 3,500 3,500
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...... 0 0 0
14. Sub-total........................................... 142,480 133,141 124,091
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........ 21,372 19,971 18,614
16. TOTAL MANUFACTURING COSTS........................................ 163,852 153,112 142,705

VARIABLE CHARGES

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.......................... 68,818 64,307 59,396
18. TOTAL COSTS........................................... 232,670 217,420 202,641

19. MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
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<tbody>
<tr>
<td>$120.25</td>
<td>$102.20</td>
<td>$86.72</td>
</tr>
<tr>
<td>$94.22</td>
<td>$79.11</td>
<td>$66.09</td>
</tr>
<tr>
<td>$63.39</td>
<td>$54.51</td>
<td>$44.86</td>
</tr>
</tbody>
</table>

ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$170.76</td>
<td>$145.13</td>
<td>$123.14</td>
</tr>
<tr>
<td>$108.39</td>
<td>$90.55</td>
<td>$71.08</td>
</tr>
<tr>
<td>$67.29</td>
<td>$51.92</td>
<td>$38.67</td>
</tr>
</tbody>
</table>

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Sheeted Offset
Presses: 2-Unit

53
<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$34,364</td>
<td>$34,364</td>
<td>$34,364</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- Fast auto plate changers with punch; ADAControl; computerized control of radial, lateral, and diagonal register; auto blanket and ink wash up; Adamatic dampeners; recirculator; touch screen control; vacuum feeder board; leverless pneumatic; IR dryer; Superblue; auto lubrication; nonstop delivery; high pile delivery; powder sprayer; ink ductor separate drive motor; training; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Area</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

**TOTAL COSTS**

$252,312

**MANUFACTURING COSTS**

- $34,364
- $34,364
- $34,364

**TOTAL MANUFACTURING COSTS**

$221,943

**MANUFACTURING COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity
### BASE COST ABOVE INCLUDES

- Preloading device, sheet holder above feeder, diag. sheet correction, adjust. front lags, adjust. sheet timing, preripper, transferer, bearer contact, adjust. ink oscillator timing, speed compensated dampener, skewable dampener, sheet brake, adjust. suction wheels, lateral jogger, foil keyboard, job card storage, electromech. double and interunit sheet detection, automatic side edge control. Ternes quick-action plate clamps, plate cylinder positioning, prebarred blankets, RCI ink control, ink inkfed program, remote register, nonstop delivery, anti-offset powder spray, sheet decurler, central lube, electronic sheet counter, covered ink/water rollers, feeder and deliv. loading boards, self diagnostics, spare parts kit, tachometer, washup device, water recirc. equip., water level control, installation, wiring, and training.

### AUXILIARY EQUIPMENT INCLUDES

- An EPL Semi-Automatic Plate Changer is an available option not included in this study.

### MAN Roland, R 202 E

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.5&quot; X 29.13&quot;</td>
<td>2</td>
<td>13,000 iph</td>
<td>--</td>
<td>Offset</td>
</tr>
</tbody>
</table>

| BASE COST: | $326,000 |
| AUXILIARY EQUIP.: | n/a |
| INSTALL. (EST.): | Included |
| TOTAL INVEST.: | $326,000 |

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

<table>
<thead>
<tr>
<th>Labor</th>
<th>Pressman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions</td>
<td>$44,044</td>
</tr>
</tbody>
</table>

### LABOR COST-2 SHIFTS

<table>
<thead>
<tr>
<th>Labor</th>
<th>Pressman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions</td>
<td>$90,731</td>
</tr>
</tbody>
</table>

### LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Labor</th>
<th>Pressman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions</td>
<td>$138,298</td>
</tr>
</tbody>
</table>

### TOTAL:

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
</tbody>
</table>

### TOTAL COSTS

| Provisions | $189,191 | $173,857 | $159,135 |

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Provisions</th>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$138.85</td>
<td>20. All-Inclusive COSTS per productive hour @ 85% productivity</td>
<td>19. MANUFACTURING COSTS per productive hour @ 85% productivity</td>
<td>$97.78</td>
</tr>
</tbody>
</table>

| Provisions | $189.59 | $164.40 | $137.00 |

---

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Sheetfed Offset
Presses: 2-Unit

55
### BASE COST ABOVE INCLUDES

- Fully digitized press control system; single suction belt feed; Autoplate system; laser silt ink fountains; powder sprayer; ALCOLOR dampening; wash-up device for blanket and impression cylinder; installation and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### TOTAL MANUFACTURING COSTS

- **TOTAL:** $44,044
- **Labor Cost-1 Shift:**
  - Pressman: $44,044
  - Area A: $39,743
  - Area B: $34,364
  - Area C: $30,717
- **Labor Cost-2 Shifts:**
  - Area A: $39,731
  - Area B: $38,187
  - Area C: $30,790
- **Labor Cost-3 Shifts:**
  - Area A: $70,790
  - Area B: $71,790
  - Area C: $73,081

### AUXILIARY EQUIPMENT INCLUDES


---

**Heidelberger, Printmaster 74-2**

**SIZE:** 20.87” X 29.13”

**UNITS:** 2

**MAXIMUM SPEED:** 13,000 p/h

**POWER:** hp: --

**PRODUCT CLASS/PROCESS:** Wet Offset

**INTERFACES WITH:** n/a

**PRODUCTS CLASS/PROCESS:**

**BASE COST:** $287,900

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $287,900

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA C</th>
<th>AREA B</th>
<th>AREA A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA C</th>
<th>AREA B</th>
<th>AREA A</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,388</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA C</th>
<th>AREA B</th>
<th>AREA A</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>60% productivity</td>
<td>56% productivity</td>
</tr>
</tbody>
</table>

---

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56

Sheetfed Offset

Presses: 2-Unit
### BASE COST ABOVE INCLUDES

- Fully digitized press control system; single suction belt feed; Autoplate system; laser slit ink fountains; powder sprayer; ALCOLOR dampening; semi-automatic perfector; wash-up device for blanket and impression cylinder; installation and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman: $44,044

- **LABOR COST-2 SHIFTS**
  - Area A: $90,731
  - Area B: $81,871
  - Area C: $70,790
  - Total: $138,298

- **LABOR COST-3 SHIFTS**
  - Area A: $124,793
  - Area B: $124,793
  - Area C: $107,903
  - Total: $357,599

**TOTAL COSTS**

- Area A: $138,298
- Area B: $124,793
- Area C: $107,903
- Total: $366,994

### AUXILIARY EQUIPMENT INCLUDES


---

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**Sheetfed Offset**

**Presses: 2-Unit**
MAN Roland, R 502

$$ \text{POWER:} \quad \text{hp:} \quad \text{--} \quad \text{kWhs:} \quad 30 \text{ est.} $$

**PRODUCT CLASS/PROCESS:**
Sheeted Wet Offset

**INTERFACES WITH:**
n/a

**BASE COST:**
$775,000

**BASE COST ABOVE INCLUDES**
MAN Roland R 502; training; installation.

**AUXILIARY EQUIPMENT INCLUDES**
Note: Available options, not included in this study, are as follows: Coating Unit; Pecom Press Manager.

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$30,464</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$44,044</td>
<td>$39,743</td>
<td>$34,364</td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$58,008</td>
<td>$58,008</td>
<td>$58,008</td>
</tr>
</tbody>
</table>

**TOTAL:**

- **LABOR COST-1 SHIFT**
  - Area A: $44,044
  - Area B: $39,743
  - Area C: $34,364

- **LABOR COST-2 SHIFTS**
  - Area A: $90,731
  - Area B: $81,871
  - Area C: $70,790

- **LABOR COST-3 SHIFTS**
  - Area A: $138,298
  - Area B: $124,793
  - Area C: $107,903

**TOTAL INVEST.:**
$775,000

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Area A: $30,464
  - Area B: $39,743
  - Area C: $34,364

- **LABOR COST-2 SHIFTS**
  - Area A: $90,731
  - Area B: $81,871
  - Area C: $70,790

- **LABOR COST-3 SHIFTS**
  - Area A: $138,298
  - Area B: $124,793
  - Area C: $107,903

**PERFECTING:**

- **COLORS:**
  - No

**SQ. FT.:**
350
### BASE COST ABOVE INCLUDES

- Auto perfector changeover; suction belt feeder; electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous damper; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>AFTER One Year</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
</tr>
</tbody>
</table>

#### FUNCTION

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

Pressman $44,653 $40,251 $34,737 $91,985 $82,917 $71,558 $140,210 $126,388 $109,074

#### TOTAL:

- $44,653 $40,251 $34,737 $91,985 $82,917 $71,558 $140,210 $126,388 $109,074

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Chicago, IL

### Sheetfed Offset

Presses: 2-Unit

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## MAN Roland, R 702

### BASE COST ABOVE INCLUDES
- Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compans. damp. sheet brake, lateral [jigger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, auto. plate loading, pin reg., plate cyl. positioning, preblanked setups, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed prog., auto. ink unit splitting, transferer, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decurl, central lubr., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES
- Note: Available options, not included in this study are as follows: Coating Unit; Pecom Press Manager; and APL Automatic Plate Loading.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

- Pressman: $44,653
- Operator: $39,152

### LABOR COST-2 SHIFTS

- $91,985
- $71,365

### LABOR COST-3 SHIFTS

- $122,937
- $154,282

### TOTAL:

- $263,148
- $235,167
- $200,489

---

### COSTS

- AREA A: 2 years
- AREA B: 3 years
- AREA C: 4 years

---

### MANUFACTURING COSTS

- Total: $685,852

---

### MANAGEMENT COSTS

- Total: $394,010

---

### TOTAL COSTS

- Total: $1,079,862

---

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Cost per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>75%</td>
<td>$230.79</td>
</tr>
<tr>
<td>60%</td>
<td>$268.39</td>
</tr>
<tr>
<td>50%</td>
<td>$305.77</td>
</tr>
</tbody>
</table>

---

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Cost per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>75%</td>
<td>$287.24</td>
</tr>
<tr>
<td>60%</td>
<td>$324.55</td>
</tr>
</tbody>
</table>

---

### TOTAL INVEST.:

- $785,000

---

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### MAN Roland, R 702 P

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
</tr>
</thead>
<tbody>
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<td>hp: --</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kwhs: 107</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERFECTING:</th>
<th>COLORS:</th>
<th>RESOLUTION:</th>
<th>SQ. FT.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2</td>
<td>n/a</td>
<td>500</td>
</tr>
</tbody>
</table>

#### BASE COST ABOVE INCLUDES

Auto changeover to perfecting; sheet holder, diag. sheet correction, suction feed board, trend indica, auto. format of feeder, adjust. front lay & sheet timing, pregriper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compens. damp., sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting side guide, side edge control, PPL auto. plate loading, pin reg., plate cyl. positioning, auto. blanket wash, interunit sheet detect, RCI ink control, ink fed progl. auto. ink unit splitting, transferer, remote running req., auto. format of deliv., nonstop deliv., powder spray, sheet decurl., central lubr., sheet counter, covered ink/ water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos. - tach., washup device, water recirc., install., training.

#### AUXILIARY EQUIPMENT INCLUDES

Note: Available options, not included in this study as follows: Coating Unit; Pecom Press Manager; and APL Automatic Plate Loading.

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
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<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Function</td>
<td>LABOR COST-1 SHIFT</td>
<td>LABOR COST-2 SHIFTS</td>
<td>LABOR COST-3 SHIFTS</td>
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<tr>
<td>Pressman</td>
<td>$44,653</td>
<td>$40,251</td>
<td>$34,737</td>
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<tr>
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<td>$34,643</td>
<td>$29,113</td>
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#### TOTAL:

Total Labor Cost: $230,198

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<tr>
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<td>3,525</td>
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<td>2020</td>
<td>3,500</td>
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<tr>
<td>2030</td>
<td>3,500</td>
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<tr>
<td>FIXED CHARGES (NON-VARIABLE)</td>
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<td>1. Depreciation @ 10% shift/ 12.5% 2 shifts/ 15% 3 shifts...</td>
<td>$87,500</td>
<td>$87,500</td>
<td>$87,500</td>
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<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...</td>
<td>5,250</td>
<td>5,250</td>
<td>5,250</td>
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<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)...</td>
<td>4,190</td>
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<tr>
<td>VARIABLE CHARGES</td>
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<td>4. Direct Labor...</td>
<td>83,805</td>
<td>74,894</td>
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<td>5. Indirect Labor (Supervision &amp; Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...</td>
<td>16,761</td>
<td>14,979</td>
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<td>6. Pension Fund (A) 5% (B) 3% (C) 2%...</td>
<td>4,190</td>
<td>2,477</td>
<td>1,277</td>
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<td>7. Welfare Benefits (A) $90.00 (B) $60.00 (C) $45.00...</td>
<td>9,360</td>
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<td>8. Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%...</td>
<td>8,347</td>
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<td>6,359</td>
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<td>9. Workmen's Compensation Insurance (Rate $40.00 per M)...</td>
<td>4,023</td>
<td>3,595</td>
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<td>10. Power Cost @ $0.07 per kWh (based on hp rating)...</td>
<td>7,204</td>
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<tr>
<td>11. Power Cost @ $0.07 per kWh (based on kW rating)...</td>
<td>125,240</td>
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<tr>
<td>12. Direct Supplies (see instructions)...</td>
<td>5,000</td>
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<td>5,000</td>
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<tr>
<td>13. Repairs &amp; Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...</td>
<td>17,500</td>
<td>17,500</td>
<td>17,500</td>
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<tr>
<td>14. Sub-total...</td>
<td>252,440</td>
<td>252,440</td>
<td>252,440</td>
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<tr>
<td>15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...</td>
<td>27,866</td>
<td>33,150</td>
<td>32,505</td>
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<td>16. TOTAL MANUFACTURING COSTS...</td>
<td>290,306</td>
<td>289,485</td>
<td>289,485</td>
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#### TOTAL COSTS

Total Costs: $412,234

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<tr>
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<tr>
<td></td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
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<tr>
<td>2010</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
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<tr>
<td>2020</td>
<td>3,500</td>
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<tr>
<td>2030</td>
<td>3,500</td>
<td>3,500</td>
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<tr>
<td>19. MANUFACTURING COSTS per productive hour @ 85% productivity...</td>
<td>$213,067</td>
<td>$179,888</td>
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<tr>
<td>75% productivity</td>
<td>241.47</td>
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<td>171.63</td>
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<tr>
<td>60% productivity</td>
<td>301.84</td>
<td>254.83</td>
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<tr>
<td>20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity...</td>
<td>$302,551</td>
<td>$255,433</td>
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<tr>
<td>75% productivity</td>
<td>342.89</td>
<td>289.49</td>
<td>243.71</td>
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<tr>
<td>60% productivity</td>
<td>428.61</td>
<td>361.86</td>
<td>304.64</td>
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Sheeted Offset
Presses: 2-Unit
## BASE COST ABOVE INCLUDES

Rapida 105; auto preset; auto pressure; vari-speed dampening system; pin register; cocking; training and installation.

### AUXILIARY EQUIPMENT INCLUDES


### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tr>
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<tr>
<td>Vacation After One Year</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
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### LABOR COST-1 SHIFT

- Pressman: $44,653
- Operator: $39,152

### LABOR COST-2 SHIFTS

- Pressman: $40,251
- Operator: $33,965

### LABOR COST-3 SHIFTS

- Pressman: $35,725
- Operator: $30,260

### TOTAL COSTS:

- $263,148
- $235,167
- $200,489

---

### ONE SHIFT

<table>
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### THREE SHIFTS

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<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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### ALL-INCLUSIVE COSTS

- 85% productivity: $340.15
- 75% productivity: $324.42
- 60% productivity: $308.69

### TOTAL INVEST.

- $1,429,000
KBA North America, Rapida 130

**BASE COST ABOVE INCLUDES**

Rapida 130: automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**


**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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<th>Provisions</th>
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<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<tr>
<td>Pressman</td>
<td>$45,290</td>
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<td>$93,297</td>
<td>$84,186</td>
<td>$72,650</td>
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<td>$49,253</td>
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**TOTAL:** $118,201 $105,202 $88,695 $243,494 $216,716 $182,712 $371,151 $330,334 $278,502

**BASE COST:** $2,173,000

**TOTAL INVEST.:** $2,173,000

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**Sheeted Offset**

**Presses: 2-Unit**

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64
### MAN Roland, R 902-5

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<td>INSTALL (EST.):</td>
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<tr>
<td>TOTAL INVEST.:</td>
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### BASE COST ABOVE INCLUDES
- Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lives & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed comp., damp. sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPI auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink feed prog., auto. ink unit splitting, transferers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decu., central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, swableve damp., feeder & deliv. load boards, self diag., spare parts, tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES

**Note:** Available options, not included in this study are as follows: Coating Unit; Pecom Press Manager.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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### FUNCTION
- **LABOR COST-1 SHIFT**
  - Pressman: $45,290
  - Operator: $39,737
  - Helper: $33,174

### LABOR COST-2 SHIFTS
- **LABOR COST-3 SHIFTS**
  - Pressman: $40,867
  - Operator: $29,519
  - Helper: $29,072

### ALL-INCLUSIVE COSTS
- **TOTAL MANUFACTURING COSTS**
  - $243,494
  - $216,716
  - $182,712

### TOTAL COSTS:
- **1,872,712**
- **1,715,151**
- **1,661,334**

### ONE SHIFT
<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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</tr>
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<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### EQUIPMENT
- **MAN Roland, R 902-5**
- Equip. Shipped F.O.B.: Port of Entry
- **BASE COST ABOVE INCLUDES**
  - Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lives & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed comp., damp. sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPI auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink feed prog., auto. ink unit splitting, transferers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decu., central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, swableve damp., feeder & deliv. load boards, self diag., spare parts, tach., washup device, water recirc., install., training.
- **AUXILIARY EQUIPMENT INCLUDES**
  - Note: Available options, not included in this study are as follows: Coating Unit; Pecom Press Manager.

### FIXED CHARGES (NON-VARIABLE)
- 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.............. $137,500
- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.................. 5,775
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M).......................... 5,500
- 4. Direct Labor................................................................. 118,201
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.................. 23,640
- 6. Pension Fund (A) 5% (B) 3% (C) 2%..................................... 5,910
- 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............. 14,040
- 8. Payroll Taxes (Soc. Sec. & Unemplo. Insurance) 8.3%................ 11,773
- 9. Workers’ Compensation Insurance (Rate $4.00 per M).............. 5,674
- 10. Power Cost @ $0.07 per kWh (based on hp rating)................. 0
- 11. Power Cost @ $0.07 per kWh (based on kw rating).................. 9,224
- 12. Direct Supplies (see instructions)..................................... 6,000
- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........ 27,500
- 14. Sub-total................................................................. 370,736
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.. 55,610
- 16. TOTAL MANUFACTURING COSTS................................. 426,347
- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts........ 179,088
- 18. TOTAL COSTS.......................................................... 605,413
- 19. MANUFACTURING COSTS per productive hour @
  - 75% productivity $354.62
  - 60% productivity 443.28
  - 85% productivity $444.32

### Sheet Fed Offset
- Presses: 2-Unit
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- 65
### MAN Roland, R 902-6

<table>
<thead>
<tr>
<th>SIZE:</th>
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<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
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</table>

#### BASE COST ABOVE INCLUDES

Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compens. damp, sheet brake, lateral [jigger], foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink inflod prog., auto. ink unit splitting, transferers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decut, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training.

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
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<td>Vacation After One Year</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
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</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman: $45,823
  - Operator: $40,440
  - Helper: $33,174

- **LABOR COST-2 SHIFTS**
  - $134,884
  - $129,686
  - $112,041

- **LABOR COST-3 SHIFTS**
  - $140,166
  - $91,286
  - $75,074

**TOTAL COSTS**

- $766,664
- $735,032
- $89,603
- $843,330

**TOTAL INVEST.**

- $1,425,000

#### AUXILIARY EQUIPMENT INCLUDES

- **Note:** Available options, not included in this study
- Coating Unit, Pecom Press Manager.

---

**Table:**

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
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<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
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<td>1,936</td>
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</table>

**Fixed Charges (Non-Variable)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.50 sq. ft.
3. Fire & Sprinkler Insurance (Rate $4.00 per M.)

**Variable Charges**

- Direct Labor...
- Indirect Labor...
- Pension Fund (A) 5% (B) 3% (C) 2%
- Welfare Benefits (A) $90/kw. (B) $60/kw. (C) $45/kw.
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
- Worker's Compensation Insurance (Rate $4.00 per M.)
- Power Cost @ $0.07 per kWh (based on hp rating)
- Power Cost @ $0.07 per kWh (based on kw rating)
- Direct Supplies (see instructions)...
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
- Sub-total...
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
- TOTAL MANUFACTURING COSTS...
- Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
- TOTAL COSTS...
- MANUFACTURING COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity
- ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity

---

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Sheeted Offset
Presses: 2-Unit

66
### KBA North America, Rapida 142

**BASE COST ABOVE INCLUDES**

- Rapida 142: automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<th>Area C</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR-1 SHIFT**

- Pressman: $45,823
- Operator: $40,440
- Helper: $33,174

**FUNCTION LABOR-2 SHIFTS**

- Pressman: $41,305
- Operator: $35,816
- Helper: $29,072

**FUNCTION LABOR-3 SHIFTS**

- Pressman: $35,682
- Operator: $30,012
- Helper: $23,909

**TOTAL:** $119,437

**ALL-INCLUSIVE COSTS**

- Delivered and installed.

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.

### MANUFACTURING COSTS

**TOTAL COSTS**

- $763,232

**MANUFACTURING COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th></th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
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<tbody>
<tr>
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<td>2,369</td>
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<td>2,216</td>
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<td>2,875</td>
<td>3,586</td>
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**TOTAL MANUFACTURING COSTS**

- $537,487

**MANUFACTURING COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th></th>
<th>1,603</th>
<th>1,763</th>
<th>1,936</th>
<th>2,306</th>
<th>3,525</th>
<th>3,872</th>
<th>4,809</th>
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<td>$394.47</td>
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<td>336.46</td>
<td>283.85</td>
<td>238.10</td>
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<tr>
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<td>558.83</td>
<td>478.55</td>
<td>408.83</td>
<td>420.54</td>
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<td>297.63</td>
<td>365.87</td>
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</table>

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th></th>
<th>1,603</th>
<th>1,763</th>
<th>1,936</th>
<th>2,306</th>
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<th>3,872</th>
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</tr>
</thead>
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<tr>
<td>$501.15</td>
<td>$479.67</td>
<td>$409.79</td>
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<td>634.84</td>
<td>543.63</td>
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<td>490.95</td>
<td>388.87</td>
<td>326.20</td>
<td>383.66</td>
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<tr>
<td>60% productivity</td>
<td>793.55</td>
<td>679.54</td>
<td>580.53</td>
<td>576.18</td>
<td>486.09</td>
<td>407.75</td>
<td>482.95</td>
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</tbody>
</table>
### MAN Roland, R 902-7

**SIZE:** 47.2" X 63.7"°

**UNITS:** 2

**MAXIMUM SPEED:** 12,000 fpm

| POWER: | PRODUCT CLASS/PROCESS: | BASE COST: $1,675,000 |
| hp: -- | Offset | |
| kWs: 137 | INTERFACES WITH: | |

**PERFECTING:** No

**COLORS:** 2

**RESOLUTION:** n/a

**SQ. FT.:** 525

### BASE COST ABOVE INCLUDES

- Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto, format of feeder, adjust, front floors & sheet timing, pregripper, bearer contact, auto, impress, cyl. setting, adjust, ink oscill. timing, speed compsen, damp, sheet brake, lateral [gripper, foil keyboard, job card storage, double detect, pneumatic side guide, auto, setting of side guide, side edge control, PPI auto, plate loading, pin reg., plate cyl. postioning, prebarred blankets, auto, blanket wash, intersheet detect, RCI ink control, ink feed prog., auto, ink unit splitting, transferers, remote running reg., auto, formatting of deliv., non stop deliv., powder spray, sheet decurl, central lobe, sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES

- Note: Available options, not included in this study as follows: Coating Unit, Pocom Press Manager.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<tr>
<th>Provisions</th>
<th>Area A</th>
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<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

**LABOR COST-1 SHIFT**

- Pressman: $45,823
- Operator: $40,440
- Helper: $33,174

**LABOR COST-2 SHIFTS**

- Total: $246,040

**LABOR COST-3 SHIFTS**

- Total: $184,582

### TOTAL COSTS:

- Total: $375,032

### EQUIPMENT

- Equip. Shipped F.O.B.: Port of Entry

### TOTAL INVEST.:

- Total: $1,675,000
KBA North America, Rapida 162

**BASE COST ABOVE INCLUDES**

Rapida 162; automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cocking; installation and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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<td>40</td>
<td>35</td>
<td>37.5</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR-COST 1 SHIFT**

- Pressman: $45,823
- Operator: $40,440
- Helper: $33,174

**LABOR COST-2 SHIFTS**

- $143,884
- $126,982
- $94,238

**LABOR COST-3 SHIFTS**

- $375,032
- $333,446
- $281,353

**TOTAL:** $1,143,214

**AUXILIARY EQUIPMENT INCLUDES**


**POWER:**

- hp: --
- kwhs: 39.3

**PRODUCT CLASS/PROCESS:**

- Wet Offset/Waterless Offset

**INTERFACES WITH:**

- All CTP systems.

**TOTAL INVEST.:** $2,318,000

---

**Sheetfed Offset**

**Presses: 2-Unit**

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**BASE COST ABOVE INCLUDES**

Rapida 162: automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**

MAN Roland, R 902-8

**BASE COST ABOVE INCLUDES**

Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregrripper, bearer contact, auto, impress. cyl. setting, adjust. ink oscill. timing, speed compems. damp, sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control. PPL auto. plate loading, pin reg., plate cyl. positioning, prepared blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed prog., auto. ink unit splitting, transferers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decut, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training.

**AUXILIARY EQUIPMENT INCLUDES**

Note: Available options, not included in this study as follows: Coating Unit; Pecom Press Manager.

---

**MANUFACTURING COSTS**

$91,286

**Rent & Heat** (A) $10.50 (B) $7.00 (C) $5.00 sq. ft

**Power Cost @ $0.07 per kWh (based on hp rating)**

**Workmen's Compensation Insurance (Rate $40.00 per M)**

**Pension Fund** (A) 5% (B) 3% (C) 2%

**Indirect Labor (Supervision & Misc.) 20%**

**Administrative & Selling Overhead**—42%

**Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk**

**BASE COST: $1,750,000**

**TOTAL INVEST.: $1,750,000**

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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<tr>
<td>Vacation After One Year</td>
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<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LAVOR COST-1 SHIFT**

| Pressman | $45,823 |
| Operator | $35,012 |
| Helper | $29,072 |

**MAXIMUM SPEED:**

- 1 shift: 10,000 iph
- 2 shifts: 35,000 iph
- 3 shifts: 55,000 iph

**RESOLUTION:**

- 1 shift: 10,000 iph
- 2 shifts: 35,000 iph
- 3 shifts: 55,000 iph

**PERFECTING**

- No: 2
- Colors: 150,000
- Resolution: 550

---

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### KBA North America, Rapida 205

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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<td>9,000 iph</td>
<td>hp: -- kWhs:</td>
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</table>

**BASE COST ABOVE INCLUDES**

Rapida 205: automatic wash-up for plate blanket and impression rollers; auto preset; semi-automatic plate change; pin register; cocking; training and installation.

<table>
<thead>
<tr>
<th>WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)</th>
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</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $45,823
- Operator: $40,440

**LABOR COST-2 SHIFTS**

- Pressman: $41,305
- Operator: $35,682

**LABOR COST-3 SHIFTS**

- Pressman: $35,816
- Operator: $30,012

**TOTAL:**

- Pressman: $177,702
- Operator: $158,869

**AUXILIARY EQUIPMENT INCLUDES**


### Variables

1. **Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.**
   - $397,900
2. **Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 per sq. ft.**
   - $11,550
3. **Fire & Sprinkler Insurance (Rate $4.00 per M).**
   - $73,781
4. **Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.**
   - $21,000
5. **Total Manufacturing Costs.**
   - $742,173

### One Year

- **Vacation**: 11 weeks
- **Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts.**
- **Sub-total**: $645,368

### Total Costs

- **Total Costs**: $1,053,886

### MANUFACTURING COSTS per productive hour @

<table>
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<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>544.69 $</td>
<td>479.33 $</td>
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<td>372.54 $</td>
<td>324.62 $</td>
<td>282.88 $</td>
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<tr>
<td>282.88 $</td>
<td>351.16 $</td>
<td>304.43 $</td>
</tr>
<tr>
<td>232.69 $</td>
<td>263.71 $</td>
<td>295.64 $</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

- **85% Productivity**: $773.47
- **75% Productivity**: $876.59
- **60% Productivity**: $771.65

### Sheetfed Offset

**Presses:** 2-Unit

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### BASE COST ABOVE INCLUDES

Dual feeders for versatility of stocks and sizes; operator graphic interface with color touch screen controls; automatic delivery system with batch count control; axial and radial plate cylinder adjustments during the run; refrigerated dampener recirculation system; training and installation.

### AUXILIARY EQUIPMENT INCLUDES

Note: An integrated cold UV dryer is an available option not included in this cost study.

<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power:</th>
<th>Product Class/Process:</th>
<th>Base Cost:</th>
</tr>
</thead>
<tbody>
<tr>
<td>9&quot; X 15.75&quot;</td>
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<td>Wet Offset</td>
<td>$299,995</td>
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</table>

<table>
<thead>
<tr>
<th>Perfecting:</th>
<th>Colors:</th>
<th>Resolution:</th>
<th>Sq. Ft.:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>4</td>
<td>200 dpi</td>
<td>300</td>
<td></td>
</tr>
</tbody>
</table>

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$49,404</th>
<th>$45,801</th>
<th>$41,177</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

<table>
<thead>
<tr>
<th>Direct Labor</th>
<th>49,404</th>
<th>45,801</th>
<th>41,177</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect Labor</td>
<td>$3,150</td>
<td>$2,100</td>
<td>$1,500</td>
</tr>
<tr>
<td>1. Depreciation</td>
<td>$2,470</td>
<td>$1,374</td>
<td>$824</td>
</tr>
<tr>
<td>2. Rent &amp; Heat</td>
<td>9,881</td>
<td>9,160</td>
<td>8,235</td>
</tr>
<tr>
<td>4. Payroll Taxes</td>
<td>9,360</td>
<td>6,240</td>
<td>4,680</td>
</tr>
<tr>
<td>5. Workmen's Compensation Insurance</td>
<td>15,266</td>
<td>14,153</td>
<td>12,724</td>
</tr>
<tr>
<td>6. Fire &amp; Sprinkler Insurance</td>
<td>15,513</td>
<td>14,382</td>
<td>12,930</td>
</tr>
<tr>
<td>7. Profit &amp; Loss</td>
<td>10,074</td>
<td>8,097</td>
<td>6,826</td>
</tr>
<tr>
<td>8. Power Cost</td>
<td>15,352</td>
<td>13,130</td>
<td>11,805</td>
</tr>
<tr>
<td>9. Repairs &amp; Maint.</td>
<td>21,371</td>
<td>19,188</td>
<td>16,757</td>
</tr>
<tr>
<td>10. Power Cost @ $0.07 per kWh</td>
<td>3,271</td>
<td>2,916</td>
<td>2,579</td>
</tr>
<tr>
<td>11. Power Cost @ $0.05 per kWh</td>
<td>2,207</td>
<td>1,976</td>
<td>1,698</td>
</tr>
<tr>
<td>12. Direct Supplies</td>
<td>1,271</td>
<td>1,167</td>
<td>1,072</td>
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<tr>
<td>13. Repairs &amp; Maint.</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
</tr>
<tr>
<td>14. Sub-total</td>
<td>6,000</td>
<td>6,000</td>
<td>6,000</td>
</tr>
<tr>
<td>15. General Factory</td>
<td>203,817</td>
<td>186,051</td>
<td>172,745</td>
</tr>
<tr>
<td>16. TOTAL MANUFACTURING COSTS</td>
<td>203,817</td>
<td>186,051</td>
<td>172,745</td>
</tr>
<tr>
<td>17. Administrative &amp; Selling Overhead</td>
<td>210,992</td>
<td>183,365</td>
<td>170,057</td>
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<tr>
<td>18. TOTAL COSTS</td>
<td>$193,297</td>
<td>$179,526</td>
<td>$166,426</td>
</tr>
<tr>
<td>19. MANUFACTURING COSTS per productive hour @</td>
<td>$99.90</td>
<td>$84.39</td>
<td>$71.22</td>
</tr>
<tr>
<td>85% productivity</td>
<td>$84.14</td>
<td>$70.61</td>
<td>$59.05</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$84.14</td>
<td>$70.61</td>
<td>$59.05</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$84.14</td>
<td>$70.61</td>
<td>$59.05</td>
</tr>
<tr>
<td>20. ALL-INCLUSIVE COSTS per productive hour @</td>
<td>$141.86</td>
<td>$119.83</td>
<td>$101.13</td>
</tr>
<tr>
<td>85% productivity</td>
<td>$115.27</td>
<td>96.74</td>
<td>80.90</td>
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<tr>
<td>75% productivity</td>
<td>$115.27</td>
<td>96.74</td>
<td>80.90</td>
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<tr>
<td>60% productivity</td>
<td>$115.27</td>
<td>96.74</td>
<td>80.90</td>
</tr>
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</table>

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## ALL-INCLUSIVE COSTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$129,296</td>
</tr>
<tr>
<td>Manufacturing Costs</td>
<td>$49,404</td>
</tr>
<tr>
<td>Labor Cost-1 Shift</td>
<td>$84,825</td>
</tr>
<tr>
<td>Labor Cost-2 Shifts</td>
<td>$155,129</td>
</tr>
<tr>
<td>Labor Cost-3 Shifts</td>
<td>$143,815</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

## BASE COST ABOVE INCLUDES

**Ryobi 3304 H.**

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

## AUXILIARY EQUIPMENT INCLUDES

**Equip. Shipped F.O.B.: Kansas City, MO**
<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.39’ X 17.72’</td>
<td>4</td>
<td>10,000 pph</td>
<td>hp: -- kWhs: 6</td>
<td>Wet Offset</td>
<td>$210,924</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

<table>
<thead>
<tr>
<th>Proprietary</th>
<th>Equipment Cost</th>
<th>Covnetional</th>
<th>Layout for Interactive Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>Xpedx/Import Group, Ryobi 3304 HA + PCS-F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**

<table>
<thead>
<tr>
<th>Presses: 4-Unit</th>
<th>Sheetfed Offset</th>
<th>Presses: 4-Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equip. Shipped F.O.B.: Kansas City, MO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Function</td>
<td>Labor Cost-1 Shift</td>
<td>Labor Cost-2 Shifts</td>
<td>Labor Cost-3 Shifts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

**TOTAL**: $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296

**TOTAL INVEST.**: $210,924

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### BASE COST ABOVE INCLUDES

Semi-automatic loading plates; ink control system; precision plate punch pre-pile; stream feeder with vacuum conveyor and pull guide; auto recede chain delivery; blanket cleaners; continuous moisture system; 16 ink roller with three form rollers; print counter; powder spray attachment; jam detection; double sheet detection; chiller/recirculator; centralized lubrication; training.

### AUXILIARY EQUIPMENT INCLUDES

Video plate punch ($8,950); Ink Volume Setter software ($7,995); Super Blue Anti-Tracking System ($625); IR dryer ($3,795).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
<tr>
<td></td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
</tr>
<tr>
<td></td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>ONE SHIFT</th>
<th>TWOhiftS</th>
<th>THREE SHIFTs</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>B</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>C</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts................. $25,137
2. Rent & Heat (A) @ $10.50 (B) @ $7.00 (C) @ $5.00 sq. ft.................. 3,150
3. Fire & Sprinkler Insurance (Rate $4.00 per M).................................. 1,005

### VARIABLE CHARGES

4. Direct Labor................................. 49,404
5. Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts................. 9,881
6. Pension Fund (A) 5% (B) 3% (C) 2%........................................ 2,470
7. Welfare Benefits (A) @ $90/wk, (B) @ $60/wk, (C) @ $45/wk................... 4,680
8. Payroll Taxes (SOC. Sec. & Unemployment Insurance) 8.3%........................ 4,921
9. Workers’ Compensation Insurance (Rate $40.00 per M).......................... 2,371
10. Power Cost @ $0.07 per kWh (based on hp rating)................................. 0
11. Power Cost @ $0.07 per kWh (based on kW rating)................................. 417
12. Direct Supplies (see instructions)................................................ 3,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...................... 5,027
14. Sub-total........................................ 111,464
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts..................... 16,720
16. TOTAL MANUFACTURING COSTS.................................................... 128,183
17. Administration & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts............. 53,837
18. TOTAL COSTS......................................................... $182,020
19. MANUFACTURING COSTS per productive hour @
   85% productivity.......................... $94.08
   75% productivity.......................... 106.62
   60% productivity.......................... 133.27

20. ALL-INCLUSIVE COSTS per productive hour @
   85% productivity.......................... $133.59
   75% productivity.......................... 151.40

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Sheetfed Offset
Presses: 4-Unit

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### BASE COST ABOVE INCLUDES

- Landscape format: touch screen multi-purpose operation panel; pull guides; on-the-run register; helical gears; advanced Win-Matic Dampening by Kompac; refrigerated recirculator; sheet decurler; all safety controls.

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

### AUXILIARY EQUIPMENT INCLUDES

Ink console with servo actuated ink keys ($34,500);
Key Color Autoset Presetting Software installed on customer's PC ($7,800); infrared drying system ($6,875); Super Blue in delivery ($2,200).

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
</tr>
<tr>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL:</th>
<th>$49,404</th>
<th>$45,801</th>
<th>$41,177</th>
<th>$101,772</th>
<th>$94,350</th>
<th>$84,825</th>
</tr>
</thead>
<tbody>
<tr>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

## Financial Details

- **BASE COST:** $195,000
- **AUXILIARY EQUIP.:** $51,375
- **INSTALL. (EST.):** *See Note
- **TOTAL INVEST.:** $246,375

---

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Sheeted Offset

Presses: 4-Unit
### Shintohara 52IV

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14&quot; X 20'</td>
<td>4</td>
<td>15,000 pph</td>
<td>hp: --</td>
<td>Wet Offset</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kwhs: 17</td>
<td></td>
</tr>
</tbody>
</table>

**PERFECTING:** No 4 4

**COLORS:** n/a

**RESOLUTION:** 300

**SQ. FT.:**

**BASE COST ABOVE INCLUDES**

Continuous oil bath lubrication; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); preload feeder; segmented ink fountain blade; sheet deheader; spray powder system; static eliminator.

**AUXILIARY EQUIPMENT INCLUDES**

Semi-automatic plate changers ($19,950); automatic blanket washer system ($21,150); automatic ink roller cleaning system ($9,000); operation console including all features listed for the Interactive Touch Screen Plus Ink Key Control ($54,900); plate cylinder cocking-remote control from remote operation console ($8,250); non-stop delivery ($840).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

**TOTAL COSTS:**

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TOTAL: $45,404**

**AUXILIARY EQUIP.:** 

- CIP3 direct to press ink key data from press RIP and closed loop ink key control systems.
- 3 weeks

**INSTALL. (EST.):** $4,000

**TOTAL INVEST.:** $523,090

**BASE COST:** $405,000

**POWER:**

- Power Cost @ $0.07 per kWh (based on kWh rating)
- $94,350
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
- $9,714
- Workmen’s Compensation Insurance (Rate $40.00 per M)
- $2,586
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
- $95.36
- Pension Fund (A) 5% (B) 3% (C) 2%
- $71.52
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
- $328,259
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
- $3,320
- Fire & Sprinkler Insurance (Rate $4.00 per M)
- $3,120
- Direct Supplies (see instructions)
- $2,100
- Special Equipment and Attachments
- $146,885
- One Year Provisions
- $114,090
- Vacation
- $20,766
- Two Shifts
- $28,011
- Three Shifts
- $369,711
- Three Shifts
- $6,240
- All-Inclusive Costs
- $49,404
- Payroll (Soc. Sec. & Unemploy. Insurance) 8.3%
- $4,562
- Total All-Inclusive Costs
- $49,404

**Fixed Charges (Non-variable):**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
3. Fire & Sprinkler Insurance (Rate $4.00 per M)...

**Variable Charges:**

- Direct Labor...
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
- Pension Fund (A) 5% (B) 3% (C) 2%
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
- Workmen’s Compensation Insurance (Rate $40.00 per M)...
- Power Cost @ $0.07 per kWh (based on hp rating)...
- Power Cost @ $0.07 per kWh (based on kW rating)...
- Direct Supplies (see instructions)...
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
- Subtotal...
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
- Total Manufacturing Costs...
- Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
- Total Costs...

**Manufacturing Costs per productive hour @ 85% productivity**: $123.97

**75% productivity**: $140.50

**60% productivity**: $175.63

**20% All-Inclusive Costs per productive hour @ 85% productivity**: $176.04

**75% productivity**: $199.51

**60% productivity**: $249.39

---

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Sheetfed Offset
Presses: 4-Unit

78
**Shinohara 52IVP**

**SIZE:** 14" X 20"  **UNITS:** 4  **MAXIMUM SPEED:** 15,000 iph  **POWER:** hp: --  **kWHS:** 17  **PRODUCT CLASS/PROCESS:** Wet Offset  **INTERFACES WITH:** CIP3 direct to press ink key data from prepress RIP and closed loop ink key control systems.

---

**BASE COST ABOVE INCLUDES**

Continuous oil bath lubrication; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); preload feeder; segmented ink fountain blade; sheet decurler; spray powder system; static eliminator.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
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</tbody>
</table>

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**FUNCTION**

<table>
<thead>
<tr>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
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<tbody>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$101,772</td>
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<tr>
<td></td>
<td>$45,801</td>
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<td></td>
<td>$41,177</td>
<td>$84,825</td>
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<tr>
<td></td>
<td>$155,129</td>
<td>$143,815</td>
</tr>
<tr>
<td></td>
<td>$129,296</td>
<td></td>
</tr>
</tbody>
</table>

---

**TOTAL:** $49,404  

**TOTAL INVEST.:** $552,610

---

**AXIULAR EQUIPMENT INCLUDES**

Semi-auto, plate changers ($19,950); auto. blanket washer system ($21,150); auto. ink roller cleaning system ($9,000); operation console incl. all features listed for the Interactive Touch Screen Plus Ink Key Control ($54,900); plate cylinder cocking-remote control from remote operation console ($8,250); non-stop delivery ($840); semi-auto. perfecting changeover ($14,520).

---

**ERROR.MES: UNABLE TO READ PAGE 78**

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Shinohara 52IV+Coater

Size: 14" x 20'
Units: 4
Maximum Speed: 15,000 pph
Power: hp: -- kWhs: 17

Perfecting: No
Colors: 4
Resolution: n/a
Square Ft: 300

Product Class/Process: Wet Offset

BASE COST ABOVE INCLUDES
Air knives; continuous oil bath lubrication; hot air drying system; in-line tower coater; extended delivery; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); IR dryer; preload feeder; segmented ink fountain blade; sheet decurler; spray powder system; static eliminator.

Auxiliary Equipment includes
Semi-automatic plate changers ($19,950); automatic blanket washer system ($21,150); automatic ink roller cleaning system ($8,000); operation console including all features listed for the Interactive Touch Screen Plus Ink Key Control ($54,900); plate cylinder cocking-remote control from remote operation console ($8,250); non-stop delivery ($840).

Base Cost: $570,000
Auxiliary Equip.: $114,090
Install. (Est.): $6,000
Total Invest.: $690,090

Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
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<td>Paid Holidays</td>
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<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
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<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION
LABOR COST-1 SHIFT
LABOR COST-2 SHIFTS
LABOR COST-3 SHIFTS

Pressman $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

TOTAL: $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

One Shift

Two Shifts

Three Shifts

No. of Manned Hours Annually @ 100% Productivity...

Fixed Charges (Non-Variable)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts... $69,009 $69,009 $69,009 $86,261 $86,261 $86,261 $103,514 $103,514 $103,514
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft... 3,150 2,100 1,500 3,150 2,100 1,500 3,150 2,100 1,500
3. Fire & Sprinkler Insurance (Rate $4.00 per M)... 2,760 2,760 2,760 2,760 2,760 2,760 2,760 2,760 2,760

Variable Charges

4. Direct Labor...
5. Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
6. Pension Fund (A) 5% (B) 3% (C) 2%
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
9. Workmen's Compensation Insurance (Rate $40.00 per M)...
10. Power Cost @ $0.07 per kWh (based on hp rating)...
11. Power Cost @ $0.07 per kWh (based on kWh rating)...
12. Direct Supplies (see instructions)...
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
14. Sub-total...
15. General Factory – 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
16. Total Manufacturing Costs...
17. Administrative & Selling Overhead – 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
18. Total Costs...
19. Manufacturing Costs per productive hour @
   85% productivity...
   75% productivity...
   60% productivity...
20. All-Inclusive Costs per productive hour @
   85% productivity...
   75% productivity...
   60% productivity...

Sheeted Offset
Presses: 4-Unit

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Shinohara 521VP+Coater

SIZE: 14" X 20’
UNITS: 4
MAXIMUM SPEED: 15,000 iph
POWER: hp: -- kWhs: 50
PERFECTING: Yes
COLORS: 4
RESOLUTION: n/a
RESOLUTION: 300

PRODUCT CLASS/PROCESS:
- Wet Offset
- Interfaces with: CIP3 direct to press ink key data from prepress RIP and closed loop ink key control systems.

BASE COST ABOVE INCLUDES
- Air knives; continuous oil bath lubrication; hot air drying system; in-line tower cooler; extended delivery; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); IR dryer; pre-press feeder; segmented ink fountain blade; sheet decelerator; spray powder system; static eliminator.

AUXILIARY EQUIPMENT INCLUDES
- Semi-automatic plate changers ($19,950); automatic blanket washer system ($21,150); automatic ink roller cleaning system ($8,000); operation console including all features listed for the Interactive Touch Screen Plus Ink Key Control ($54,900); plate cylinder cocking-remote control from remote operation console ($8,250); non-stop delivery ($840); semi-auto. perfecting changeover (14,520).

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<tr>
<td>Vacation After One Year</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION
- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

| Pressman | $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

TOTAL: $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296

MANUFACTURING COSTS

TOTAL MANUFACTURING COSTS

TOTAL COSTS

MANUFACTURING COSTS per productive hour @
- 85% productivity
- 75% productivity
- 60% productivity

ALL-INCLUSIVE COSTS per productive hour @
- 85% productivity
- 75% productivity
- 60% productivity

Sheetfed Offset
Presses: 4-Unit

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81
### BASE COST ABOVE INCLUDES

Single sheet feeder; preloading device; electro pneumatic missing/missaligned sheet control; electronic double sheet detector; direct continuous type damping unit; laser slit blade type ink fountain; oscillating plate inking rollers; sheet brakes delivery; line powder spray device; plate punch-hole with distance 425 mm/16.75; surface protected blanket cylinder; chrome plate plate cylinder; 16 ink rollers; 4 oscillating plate form rollers (per printing unit); dampening cooling and circulation device; Prinect Classic Center Console for remote ink key control; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$49,404 $45,801 $41,177</td>
<td>$101,772 $94,350 $84,825</td>
<td>$155,129 $143,815 $129,296</td>
</tr>
</tbody>
</table>

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
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<tr>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### TOTAL:

- ONE SHIFT: $49,404 $45,801 $41,177
- TWO SHIFTS: $101,772 $94,350 $84,825
- THREE SHIFTS: $155,129 $143,815 $129,296

**Equip. Shipped F.O.B.:** Mt. Olive, NJ
Heidelberg GTO 52-4-P

**BASE COST ABOVE INCLUDES**

Single sheet feeder; preloading device; electro pneumatic missing/missaligned sheet control; electronic double sheet detector; direct continuous type damping unit; laser slit blade type ink fountain; oscillating plate inking rollers; sheet brakes delivery; line powder spray device; plate punch-hole with distance 425 mm/16.75"; surface protected blanket cylinder; chrome plate; plate cylinder; 16 ink rollers; 4 oscillating plate form rollers (per printing unit); dampening cooling and circulation device; Prinect Classic Center Console for remote ink key control; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**


---

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<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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<tbody>
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<td>hp: 10.7</td>
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**PERFECTING: COLORS: RESOLUTION: SQ. FT.:**

Yes 4 n/a 300

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<tr>
<td>Vacation After One Year</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

- Pressman: $49,404
- $45,801
- $41,177

**LABOR COST-2 SHIFTS**

- $101,772
- $94,350
- $84,825

**LABOR COST-3 SHIFTS**

- $155,129
- $143,815
- $129,296

**TOTAL:**

<table>
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<tr>
<th>One Shift</th>
<th>Two Shifts</th>
<th>Three Shifts</th>
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</thead>
<tbody>
<tr>
<td>Area A</td>
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<td>1,603</td>
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<td>1,403</td>
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<tr>
<td>1,203</td>
<td>1,363</td>
<td>1,536</td>
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</table>

**TOTAL COSTS**

$192,685

**MANUFACTURING COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

---

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Sheeted Offset

Presses: 4-Unit
### Win America, Win PC-52-4

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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</thead>
<tbody>
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<td>hp: --</td>
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<td>4</td>
<td>n/a</td>
<td>250</td>
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#### BASE COST ABOVE INCLUDES

Win PC-52-4 press; stream feeder; swing grippers; semi-automatic plate loaders; touch screen controls; heavy duty cast frame.

**Note:** Training @ $3,000 is an available option not included in this study.

#### AUXILIARY EQUIPMENT INCLUDES

E.P.G. Ink Console with segmented blades ($30,000); CIP 3/4 ($11,500); IR dryer ($5,900).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<td>4 weeks</td>
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<td>4 weeks</td>
<td>3 weeks</td>
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</tbody>
</table>

#### VARIABLE CHARGES

1. Direct Labor.......................................................... $49,404
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts.......................... 2,625
3. Pension Fund (A) 5% (B) 3% (C) 2%......................... 2,470
4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk........ 4,680
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%........ 4,921
6. Worker's Compensation Insurance (Rate $40.00 per M)........ 2,371
7. Power Cost @ $0.07 per kWh (based on hp rating)........... 741
8. Direct Supplies (see instructions)............................. 4,000
9. Repairs & Maint. @ 2% 1 shift/2.5% 2 shifts/3% 3 shifts........ 6,048
10. Sub-total......................................................... 118,590
11. TOTAL MANUFACTURING COSTS................................. $302,395

#### TOTAL COSTS

$193,657 = $180,082 + $167,048 + $315,274 + $291,090 + $267,455

#### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>$100.09</th>
<th>$84.65</th>
<th>$71.49</th>
<th>$84.45</th>
<th>$70.91</th>
<th>$59.32</th>
<th>$76.94</th>
<th>$64.41</th>
<th>$53.68</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% Productivity</td>
<td>113.44</td>
<td>95.94</td>
<td>81.02</td>
<td>95.71</td>
<td>80.37</td>
<td>67.23</td>
<td>78.20</td>
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<tr>
<td>60% Productivity</td>
<td>141.79</td>
<td>119.92</td>
<td>101.27</td>
<td>119.63</td>
<td>100.46</td>
<td>84.93</td>
<td>109.00</td>
<td>91.25</td>
<td>76.04</td>
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</table>

#### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>$142.13</th>
<th>$120.20</th>
<th>$101.51</th>
<th>$115.69</th>
<th>$97.15</th>
<th>$81.26</th>
<th>$101.56</th>
<th>$85.02</th>
<th>$70.85</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% Productivity</td>
<td>161.08</td>
<td>136.23</td>
<td>115.05</td>
<td>131.12</td>
<td>110.11</td>
<td>92.10</td>
<td>115.10</td>
<td>96.36</td>
<td>80.30</td>
</tr>
<tr>
<td>60% Productivity</td>
<td>201.35</td>
<td>170.29</td>
<td>143.81</td>
<td>163.90</td>
<td>137.63</td>
<td>115.12</td>
<td>143.88</td>
<td>120.45</td>
<td>100.37</td>
</tr>
</tbody>
</table>
### Heidelberg, Printmaster PM 52-4

| SIZE: | 14.56" X 20.47" | MAXIMUM SPEED: | 13,000 hp | POWER: | kWs: | 17.6 |

**PRODUCT CLASS/PROCESS:** Sheetfed, Wet Offset

**INTERFACES WITH:** Prepress interface.

### BASE COST ABOVE INCLUDES

- Press control console on the press; remote control of lateral and circumferential register; double sheet detector; sheet arrival control; Machine Information Display (MID) at feeder; ALCOLOR Dampening; oscillating form rollers; circulation and cooling device for dampening solution; blanket cylinder wash-up device; automatic inking unit wash-up device; Prinect Classic Center for remote ink key and register control; training and installation.

### AUXILIARY EQUIPMENT INCLUDES

- Classic Center for remote ink key and register device; automatic inking unit wash-up device; Prinect for dampening solution; blanket cylinder wash-up oscillating form rollers; circulation and cooling device.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

| Pressman   | $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

**TOTAL:** $49,404 + $45,801 + $41,177 = $136,482

**TOTAL INVEST.:** $440,000

---

No. of Manned Hours Annually @ 100% Productivity

1. **FIXED CHARGES (NON-VARIABLE)**
   - Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
   - Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
   - Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
   - Fire & Sprinkler Insurance (Rate $4.00 per M)...

2. **VARIABLE CHARGES**
   - Direct Labor...
   - Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
   - Pension Fund (A) 5% (B) 3% (C) 2%...
   - Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
   - Payroll Taxes (SOC. SEC. & UNEMPLOY. INSURANCE) 8.3%...
   - Workmen’s Compensation Insurance (Rate $40.00 per M)...
   - Power Cost @ $0.07 per kWh (based on hp rating)...
   - Power Cost @ $0.07 per kWh (based on hp rating)...
   - Direct Supplies (see instructions)...
   - Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
   - Sub-total...
   - General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...

3. **TOTAL MANUFACTURING COSTS...**
   - Pressman...
   - 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
   - 18. TOTAL COSTS...
   - 19. MANUFACTURING COSTS per productive hour @ 85% productivity...

---

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Sheeted Offset Presses: 4-Unit
### Heidelberg, Printmaster PM 52-4-P

**SIZE:** 14.56" X 20.47"  
**UNITS:** 4  
**MAXIMUM SPEED:** 13,000 iph  
**POWER:** hp: --  
**kW/h:** 17.6  
**PERFECTING:** Yes  
**COLORS:** 4  
**RESOLUTION:** n/a  
**SQ. FT.:** 325  
**PRODUCT CLASS/PROCESS:** Sheeted, Wet Offset  
**BASE COST:** $482,000  
**AUXILIARY EQUIP.:** n/a  
**INSTALL. (EST.):** Included  
**TOTAL INVEST.:** $482,000

### BASE COST ABOVE INCLUDES
Press control console on the press; remote control of lateral and circumferential register; double sheet detector; sheet arrival control; Machine Information Display (MID) at feeder; ALCOLOR Dampering; oscillating form rollers; circulation and cooling device for dampening solution; blanket cylinder wash-up device; automatic inking unit wash-up device; Prinect Classic Center for remote ink key and register control; training and installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

- **Pressman** $49,404
- **$485,801**
- **$41,177**

### LABOR COST-2 SHIFTS

- **$101,772**
- **$94,350**
- **$84,825**

### LABOR COST-3 SHIFTS

- **$155,129**
- **$143,815**
- **$129,296**

### ALL-INCLUSIVE COSTS

- **$232,037**
- **$218,106**
- **$204,905**

### MANUFACTURING COSTS

- **$1,928**
- **$1,928**
- **$1,928**

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$119.93</td>
<td>$102.53</td>
<td>$87.69</td>
<td>$96.56</td>
<td>$81.86</td>
<td>$69.27</td>
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<tr>
<td></td>
<td>$155.92</td>
<td>$116.20</td>
<td>$99.38</td>
<td>$109.43</td>
<td>$92.78</td>
<td>$78.50</td>
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<tr>
<td></td>
<td>$169.90</td>
<td>$145.24</td>
<td>$124.22</td>
<td>$136.79</td>
<td>$115.97</td>
<td>$98.13</td>
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<td></td>
<td>$170.30</td>
<td>$145.59</td>
<td>$124.52</td>
<td>$132.28</td>
<td>$112.15</td>
<td>$94.89</td>
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<tr>
<td></td>
<td>$193.00</td>
<td>$165.00</td>
<td>$141.12</td>
<td>$149.92</td>
<td>$127.11</td>
<td>$107.55</td>
</tr>
<tr>
<td></td>
<td>$241.25</td>
<td>$206.25</td>
<td>$176.40</td>
<td>$187.40</td>
<td>$158.88</td>
<td>$134.43</td>
</tr>
</tbody>
</table>

**Sheeted Offset**  
**Presses: 4-Unit**

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**Heidelberg Speedmaster SM 52-4**

**SIZE:** 14.56” X 20.47”

**UNITS:** 4

**MAXIMUM SPEED:** 15,000 pph

**POWER:** hp: 31

**kWhs:** --

**PERFECTING:** No

**COLORS:** 4

**RESOLUTION:** n/a

**SQ. FT.:** 300

**PRODUCT CLASS/PROCESS:** Wet Offset

**BASE COST:** $521,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $521,000

---

**BASE COST ABOVE INCLUDES**

- CP2000 Touch Screen; remote control of circumferential, lateral, and diagonal register; remote ink keys via CP2000; presetting of side guide and impression cylinder squeeze double sheeter detector; programmable automatic blanket, impression, and roller wash-up; automatic sheet arrival control; remote settings of headstops; prep of ink temp control; chromium plated blanket and impression cylinders; ACOLOR dampening; non-stop feeder and delivery; motor gripper opening cam; installation and training.

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Area</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$49,404</th>
</tr>
</thead>
</table>

**LABOR COST-2 SHIFTS**

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$143,185</th>
</tr>
</thead>
</table>

**LABOR COST-3 SHIFTS**

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$129,296</th>
</tr>
</thead>
</table>

**TOTAL:**

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$312,885</th>
</tr>
</thead>
</table>

---

**AUXILIARY EQUIPMENT INCLUDES**

**Note:** Optional equipment, not included in this study, includes: Vari Dampening; extended stock range; and Anicolor.

---

**PRESSES**

- **Heidelberg Speedmaster SM 52-4**

**LAYOUT FOR PERFECTING:**

**COLORS:**

- 4

**UNITS:**

- 3

**PERFECTING:**

- 4

**FUNCTIONS:**

- 1

**SIZE:**

- 14.56” X 20.47”

**POWER:**

- 31 hp

**BASIS COST ABOVE INCLUDES**

- CP2000 Touch Screen; remote control of circumferential, lateral, and diagonal register; remote ink keys via CP2000; presetting of side guide and impression cylinder squeeze double sheeter detector; programmable automatic blanket, impression, and roller wash-up; automatic sheet arrival control; remote settings of headstops; prep of ink temp control; chromium plated blanket and impression cylinders; ACOLOR dampening; non-stop feeder and delivery; motor gripper opening cam; installation and training.

---

**FIXED CHARGES (NON-VARIABLE)**

- Depreciation 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts..............
- Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft......................
- Fire & Sprinkler Insurance (Rate $4.00 per M)..............................

**VARIABLE CHARGES**

- Direct Labor..............
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts..........................................................
- Pension Fund (A) 5%  (B) 3%  (C) 2%...........................
- Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $5.00 sq. ft..............
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...
- Workmen's Compensation Insurance (Rate $40.00 per M)......
- Power Cost @ $0.07 per kWh (based on kW rating)...........
- Power Cost @ $0.07 per kWh (based on hp rating)........
- Direct Supplies (see instructions)..........................
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........
- Sub-total..........................
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts......
- TOTAL MANUFACTURING COSTS...

**TOTAL COSTS:**

- $240,113

---

**MANUFACTURING COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

---

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Sheetfed Offset

Presses: 4-Unit

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### Sheetfed Offset

**Presses:** 4-Unit  **Sheetfed Offset**

**Size:** 20.47" X 14.76"  **Units:** 4  **Maximum Speed:** 11,000 iph  **Power:** hp: -- kwhs: 10

**Product Class/Process:** Wet Offset  **INTERFACES WITH:** n/a

**Auxiliary Equipment:** n/a  **Install. (Est.):** See Note*

**Total Invest.:** $393,604

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function**

<table>
<thead>
<tr>
<th>Labor Cost - 1 Shift</th>
<th>Labor Cost - 2 Shifts</th>
<th>Labor Cost - 3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$101,772</td>
</tr>
<tr>
<td></td>
<td>$45,801</td>
<td>$94,350</td>
</tr>
<tr>
<td></td>
<td>$41,177</td>
<td>$84,825</td>
</tr>
</tbody>
</table>

**Total:**

- **Area A:** $155,129
- **Area B:** $143,815
- **Area C:** $129,296

---

### Auxiliary Equipment Includes

**BASE ABOVE INCLUDES**

- Plate punch; semi-automatic plate loading; console; blanket washers; roller washers.

**Install. Cost Note:** Survey did not indicate installation cost information. Adjust your costs accordingly.

**Fixed Charges (Non-VARIABLE)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts</td>
<td>$39,360</td>
<td>$39,360</td>
<td>$39,360</td>
<td>$49,201</td>
<td>$49,201</td>
<td>$49,201</td>
</tr>
<tr>
<td>Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft</td>
<td>3,150</td>
<td>2,100</td>
<td>1,500</td>
<td>3,150</td>
<td>2,100</td>
<td>1,500</td>
</tr>
<tr>
<td>Fire &amp; Sprinkler Insurance (Rate $4.00 per M)</td>
<td>1,574</td>
<td>1,574</td>
<td>1,574</td>
<td>1,574</td>
<td>1,574</td>
<td>1,574</td>
</tr>
</tbody>
</table>

**Variable Charges**

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Labor</td>
<td>49,404</td>
<td>45,801</td>
<td>41,177</td>
<td>101,772</td>
<td>94,350</td>
<td>84,825</td>
</tr>
<tr>
<td>Indirect Labor (Supervision &amp; Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts</td>
<td>9,881</td>
<td>9,160</td>
<td>8,235</td>
<td>15,266</td>
<td>14,153</td>
<td>12,724</td>
</tr>
<tr>
<td>Pension Fund (A) 5% (B) 3% (C) 2%</td>
<td>2,470</td>
<td>1,374</td>
<td>824</td>
<td>5,089</td>
<td>2,831</td>
<td>1,696</td>
</tr>
<tr>
<td>Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk</td>
<td>4,680</td>
<td>3,120</td>
<td>2,340</td>
<td>9,360</td>
<td>6,240</td>
<td>4,680</td>
</tr>
<tr>
<td>Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
<td>4,921</td>
<td>4,562</td>
<td>4,101</td>
<td>9,714</td>
<td>9,006</td>
<td>8,097</td>
</tr>
<tr>
<td>Workmen's Compensation Insurance (Rate $40.00 per M)</td>
<td>2,371</td>
<td>2,196</td>
<td>1,976</td>
<td>4,682</td>
<td>4,340</td>
<td>3,902</td>
</tr>
<tr>
<td>Power Cost @ $0.07 per kWh (based on hp rating)</td>
<td>11,022</td>
<td>11,022</td>
<td>11,022</td>
<td>11,022</td>
<td>11,022</td>
<td>11,022</td>
</tr>
<tr>
<td>Direct Supplies (see instructions)</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>8,000</td>
<td>8,000</td>
<td>8,000</td>
</tr>
<tr>
<td>Repairs &amp; Maint. @ 1% 1 shift/2.5% 2 shifts/3% 3 shifts</td>
<td>7,872</td>
<td>7,872</td>
<td>7,872</td>
<td>9,840</td>
<td>9,840</td>
<td>9,840</td>
</tr>
<tr>
<td>Sub-total</td>
<td>130,357</td>
<td>121,863</td>
<td>113,774</td>
<td>218,994</td>
<td>203,114</td>
<td>187,665</td>
</tr>
<tr>
<td>General Factory 15% 1 shift/12.5% 2 shifts/10% 3 shifts</td>
<td>19,554</td>
<td>18,279</td>
<td>17,066</td>
<td>27,374</td>
<td>25,389</td>
<td>23,459</td>
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<tr>
<td>TOTAL MANUFACTURING COSTS</td>
<td>149,911</td>
<td>140,140</td>
<td>130,840</td>
<td>246,369</td>
<td>228,504</td>
<td>211,125</td>
</tr>
<tr>
<td>Administrative &amp; Selling Overhead 42% 1 shift/37% 2 shifts/32% 3 shifts</td>
<td>62,963</td>
<td>58,860</td>
<td>54,953</td>
<td>91,156</td>
<td>84,546</td>
<td>78,115</td>
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<tr>
<td>TOTAL COSTS</td>
<td>$212,873</td>
<td>$199,002</td>
<td>$185,792</td>
<td>$337,524</td>
<td>$313,050</td>
<td>$289,238</td>
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**Manufacturing Costs per Productive Hour**

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% Productivity</td>
<td>$110.02</td>
<td>$93.54</td>
<td>$79.51</td>
<td>$90.41</td>
<td>$76.25</td>
<td>$64.15</td>
</tr>
<tr>
<td>75% Productivity</td>
<td>124.69</td>
<td>106.02</td>
<td>90.11</td>
<td>102.45</td>
<td>86.43</td>
<td>72.70</td>
</tr>
<tr>
<td>60% Productivity</td>
<td>155.86</td>
<td>132.52</td>
<td>112.64</td>
<td>128.08</td>
<td>108.04</td>
<td>90.88</td>
</tr>
<tr>
<td>ALL-INCLUSIVE COSTS per Productive Hour</td>
<td>$156.23</td>
<td>$132.83</td>
<td>$112.90</td>
<td>$123.86</td>
<td>$104.48</td>
<td>$87.89</td>
</tr>
<tr>
<td>85% Productivity</td>
<td>$177.06</td>
<td>150.54</td>
<td>127.96</td>
<td>140.37</td>
<td>118.41</td>
<td>99.60</td>
</tr>
<tr>
<td>75% Productivity</td>
<td>221.33</td>
<td>188.18</td>
<td>159.95</td>
<td>175.45</td>
<td>148.01</td>
<td>124.50</td>
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</tbody>
</table>

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©2007 NAPL. All Rights Reserved
<table>
<thead>
<tr>
<th>AREA</th>
<th>PRESS</th>
<th>FORM</th>
<th>15,000 PPM</th>
<th>80,209</th>
<th>32,943</th>
<th>$158.85</th>
<th>$148.39</th>
<th>190,973</th>
<th>14,040</th>
<th>41,177</th>
<th>154.13</th>
<th>129.296</th>
<th>109,700</th>
<th>14,153</th>
<th>155,129</th>
<th>101,908</th>
<th>4,921</th>
<th>37.5</th>
<th>451,931</th>
<th>MANUFACTURING COSTS</th>
</tr>
</thead>
</table>

**BASE COST ABOVE INCLUDES**
Ryobi 524 HX; console; plate punch; semi-automatic plate loading; blanket and roller washers.

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>40</td>
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<td>40</td>
</tr>
<tr>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
</tr>
<tr>
<td></td>
<td>$101,772</td>
<td>$94,350</td>
</tr>
<tr>
<td></td>
<td>$155,129</td>
<td>$143,815</td>
</tr>
</tbody>
</table>

**TOTAL:**

| $49,404 | $45,801 | $41,177 |
| $101,772 | $94,350 | $84,825 |
| $155,129 | $143,815 | $129,296 |

**TOTAL COSTS:**

| $271,182 | $257,354 | $244,192 |
| $406,186 | $381,794 | $358,072 |
| $517,509 | $484,308 | $451,931 |

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>AREA</th>
<th>AVERAGE</th>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
<th>50% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.603</td>
<td>120,970</td>
<td>104.50</td>
<td>108.80</td>
<td>93.01</td>
<td>79.41</td>
</tr>
<tr>
<td>1.763</td>
<td>124.57</td>
<td>108.80</td>
<td>93.01</td>
<td>79.41</td>
<td>65.81</td>
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<tr>
<td>1.936</td>
<td>128.13</td>
<td>112.50</td>
<td>106.80</td>
<td>91.81</td>
<td>78.21</td>
</tr>
<tr>
<td>3.206</td>
<td>263.43</td>
<td>247.71</td>
<td>232.32</td>
<td>216.93</td>
<td>191.54</td>
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<td>3.525</td>
<td>267.82</td>
<td>252.52</td>
<td>237.13</td>
<td>221.74</td>
<td>196.35</td>
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<tr>
<td>3.872</td>
<td>272.22</td>
<td>256.93</td>
<td>241.54</td>
<td>226.15</td>
<td>200.76</td>
</tr>
<tr>
<td>4.809</td>
<td>366,900</td>
<td>341,560</td>
<td>316,220</td>
<td>290,880</td>
<td>265,540</td>
</tr>
<tr>
<td>5.288</td>
<td>371,360</td>
<td>346,020</td>
<td>320,680</td>
<td>295,340</td>
<td>269,990</td>
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<tr>
<td>5.808</td>
<td>375,760</td>
<td>350,420</td>
<td>325,080</td>
<td>300,740</td>
<td>275,390</td>
</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS:**

| $679,386 |
| $480,386 |
| $392,053 |
| $281,955 |

**TOTAL INVEST. :**

| $679,386 |
| $480,386 |
| $392,053 |
| $281,955 |

**SHETFED OFFSET**

**Presses: 4-Unit**

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### Base Cost Above Includes

Plate punch; semi-automatic plate loading; blanket and roller washers; console.

**Install. Cost Note:** Survey did not indicate installation cost information. Adjust your costs accordingly.

### Auxiliary Equipment Includes

Coater and IR dryer ($219,000).

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>37.5</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function Labor Cost-1 Shift

- Pressman: $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

### Total Cost: $49,404

---

### Sheetfed Offset

**Presses:** 4-Unit

**Equip. Shipped F.O.B.:** Kansas City, MO

---

### Sheetfed Offset

**Presses:** 4-Unit

**Equip. Shipped F.O.B.:** Kansas City, MO

---

### Sheetfed Offset

**Presses:** 4-Unit

**Equip. Shipped F.O.B.:** Kansas City, MO
### ADEST 547P Step Up Advantage (Data Provided By United Graphic Systems)

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>15&quot; X 20.5&quot;</td>
<td>4</td>
<td>12,000 iph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$364,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kWrs: 13.8</td>
<td>INTERFACEs WITH:</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>n/a</td>
<td>300</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES

Fast sequencing plate changers with punch; on-the-fly cocking; touch screen control; low pile delivery; leverless; Adamatic dampener; IR dryer; sheet decurler; powder sprayer; Superblue; auto lubrication; recirculator; PLC driven; Adacontrol; Express ink control and register; training; installation.

### AUXILIARY EQUIPMENT INCLUDES

High pile delivery ($12,500); perfector ($5,000); CIP 4 preset for ink preset ($2,950).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION/LABOR COST-1 SHIFT

- Pressman $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

### LABOR COST-2 SHIFTS

- $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

### LABOR COST-3 SHIFTS

- $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

### TOTAL:

- $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
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<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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</table>

### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
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</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### TOTAL COSTS

- $211,437
- $197,607
- $184,443
- $336,140
- $311,744
- $288,018
- $438,653
- $405,446
- $373,063

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>TOTAL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$109.28</td>
<td>91</td>
</tr>
<tr>
<td>$92.89 78.93 75.95 63.88 61.30 68.34 57.25</td>
<td></td>
</tr>
<tr>
<td>75% productivity</td>
<td>TOTAL:</td>
</tr>
<tr>
<td>123.85 105.27 89.46 102.04 86.07 72.39 92.14 77.45 64.88</td>
<td></td>
</tr>
<tr>
<td>60% productivity</td>
<td>TOTAL:</td>
</tr>
<tr>
<td>154.81 131.59 111.82 127.55 105.79 90.49 115.17 96.62 81.10</td>
<td></td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>TOTAL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$155.18 131.99 112.98 123.35 104.04 87.51 107.31 90.21 75.57</td>
<td></td>
</tr>
<tr>
<td>75% productivity</td>
<td>TOTAL:</td>
</tr>
<tr>
<td>175.87 149.49 127.03 139.80 117.92 99.18 121.62 102.24 85.64</td>
<td></td>
</tr>
<tr>
<td>60% productivity</td>
<td>TOTAL:</td>
</tr>
<tr>
<td>219.84 186.86 158.78 174.75 147.40 123.97 152.03 127.80 107.05</td>
<td></td>
</tr>
</tbody>
</table>

©2007 NAPL. All Rights Reserved
## A DaST 547P LX (Data Provided By United Graphic Systems)

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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<td>Wet Offset</td>
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<tr>
<td>kWs: 13.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES
- Fast auto plate changers with punch; ADAControl: computerized control of radial, lateral, and diagonal register; auto blanket and ink wash up; Adamic dampeners; recirculator; touch screen control; vacuum feeder board; leverless pneumatic; IR dryer; Superblue; auto lubrication; nonstop delivery; high pile delivery; powder sprayer; ink ductor separate drive motor; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<th>Area A</th>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### LABOR COST-1 SHIFT

- Pressman: $49,404
- $45,801
- $41,177

### LABOR COST-2 SHIFTS

- $101,772
- $94,350
- $84,825

### LABOR COST-3 SHIFTS

- $155,129
- $143,815
- $129,296

### TOTAL:

- $49,404
- $45,801
- $41,177

### ALL-INCLUSIVE COSTS

- $230,178
- $216,348
- $203,184

### VARIABLE CHARGES

- No. of Manned Hours Annually @ 100% Productivity…...

### DIRECT LABOR

- Per productive hour @

<table>
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<tr>
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<tbody>
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</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

### POWER COST @ $0.07 per kWh (based on kWh rating)

- $477,000

### TOTAL MANUFACTURING COSTS

- $477,000

### Auxilliary Equipment Includes

- Spectrophotometer Closed Loop ($12,000).

### Sheetfed Offset Presses: 4-Unit

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### Sakurai Oliver 458SI

**Size:** 18.13” X 22.75”

**Units:** 4

**Maximum Speed:** 15,000 iph

**Power:** hp: -- kWhs: 26

**Product Class/Process:** Wet Offset

**Base Cost:** $515,000

**Auxiliary Equip.:** n/a

**Install. (Est.):** Included

**Total Invest.:** $515,000

### BASE COST ABOVE INCLUDES

- Vacuum feeder; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampering System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurer; spray powder device; installation and training.

### Auxilary Equipment Includes

- Pressman
- $49,404
- $45,801
- $41,177

**Function Labor Cost-1 Shift**

- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts

### Working Conditions and Annual Cost of Direct Labor (By Area)

**Area A**

- **Hours/Week:** 35
- **Vacation After One Year:** 4 weeks
- **Pressman:** $49,404
- **Total:** $49,404

**Area B**

- **Hours/Week:** 37.5
- **Paid Holidays:** 11
- **Pressman:** $45,801
- **Vacation After One Year:** 3 weeks
- **Total:** $45,801

**Area C**

- **Hours/Week:** 40
- **Pressman:** $41,177
- **Vacation After One Year:** 2 weeks
- **Total:** $41,177

### Total:

- **One Shift:** $201,040
- **Two Shifts:** $227,722
- **Three Shifts:** $242,724

---

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Sheetfed Offset
Presses: 4-Unit

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### BASE COST ABOVE INCLUDES

- Automatic perfecting changeover; vacuum feeder; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder coating; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front end sensor; decutter; spray powder device; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

- Equipment Shipped F.O.B.: Chicago, IL

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<tr>
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</tbody>
</table>

### FUNCTION COST-1 SHIFT

- Pressman $49,404
- $48,801 $41,177
- $101,772 $94,350 $84,825
- $155,129 $143,815 $129,296

### TOTAL COSTS

- $49,404 $48,801 $41,177
- $101,772 $94,350 $84,825
- $155,129 $143,815 $129,296

### MANUFACTURING COSTS PER productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost Per MCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$130.23</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$147.59</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$184.49</td>
</tr>
<tr>
<td>50% productivity</td>
<td>$209.58</td>
</tr>
<tr>
<td>40% productivity</td>
<td>$261.98</td>
</tr>
</tbody>
</table>

### Sheetfed Offset

Presses: 4-Unit

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Sakurai Oliver 466SI

**Size:** 19" x 26"<br>**Units:** 4<br>**Maximum Speed:** 15,000 p/h<br>**Power:** hp: --<br>**kWhs:** 26<br>**Product Class/Process:** Wet Offset<br>**Base Cost:** $570,000

**Auxiliary Equipment Includes:**
- Vacuum feeder; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampering System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurer; spray powder device; automatic blanket washup; installation and training.

**Base Cost Above Includes:**
- Fixed Charges (Non-Variable)
  - Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........ $57,000
  - Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.................. $9,360
  - Fire & Sprinkler Insurance (Rate $4.00 per M).......................... $3,938
- Variable Charges
  - Direct Labor................................................................. $49,404
  - Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts $2,280
  - Pension Fund (A) 5% (B) 3% (C) 2%........................................ $1,280
  - Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk............. $3,849
  - Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%............. $3,773
  - Workmen’s Compensation Insurance (Rate $40.00 per M)... $2,371
  - Power Cost @ $0.07 per kWh (based on hp rating).................. $5,089
  - Power Cost @ $0.07 per kWh (based on kW rating).................. $2,114
  - Direct Supplies (see instructions)................................. $6,000
  - Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts............ $11,400
  - Sub-total................................................................. $156,095
  - Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts $75,394
  - Total Manufacturing Costs............................................ $231,489

**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function Labor Costs-1 Shift**

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
<tr>
<td></td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
</tr>
<tr>
<td></td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

**Total: $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296**

**Auxiliary Equipment Includes**

- **Total Cost:** $254,903 $240,776 $227,514 $390,092 $365,543 $341,859 $501,660 $468,427 $436,213

**Manufacturing Costs per productive hour @

<table>
<thead>
<tr>
<th>Area</th>
<th>Per Hour</th>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$131.75</td>
<td>$113.18</td>
<td>$97.36</td>
<td>$78.96</td>
</tr>
<tr>
<td>5</td>
<td>$149.31</td>
<td>$128.27</td>
<td>$110.35</td>
<td>$94.83</td>
</tr>
<tr>
<td>6</td>
<td>$186.64</td>
<td>$160.34</td>
<td>$137.93</td>
<td>$118.66</td>
</tr>
<tr>
<td>7</td>
<td>$187.08</td>
<td>$160.72</td>
<td>$138.26</td>
<td>$118.32</td>
</tr>
<tr>
<td>60%</td>
<td>$212.02</td>
<td>$182.15</td>
<td>$156.69</td>
<td>$128.12</td>
</tr>
</tbody>
</table>

**All-Inclusive Costs per productive hour @

<table>
<thead>
<tr>
<th>Area</th>
<th>Per Hour</th>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$131.75</td>
<td>$113.18</td>
<td>$97.36</td>
<td>$78.96</td>
</tr>
<tr>
<td>20</td>
<td>$187.08</td>
<td>$160.72</td>
<td>$138.26</td>
<td>$118.32</td>
</tr>
<tr>
<td>60%</td>
<td>$212.02</td>
<td>$182.15</td>
<td>$156.69</td>
<td>$128.12</td>
</tr>
</tbody>
</table>
**BASE COST ABOVE INCLUDES**

Automatic perfecting changeover; vacuum feeder; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cooling; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; decelerator; spray powder device; automatic blanket washup; installation and training.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Manned Hours Annually @ 100% Productivity</td>
<td>4,340</td>
<td>12,724</td>
<td>4,314</td>
<td>3,676</td>
<td>12,200</td>
<td>4,314</td>
<td>3,676</td>
<td>12,200</td>
<td>4,314</td>
</tr>
</tbody>
</table>

**VARIABLE CHARGES**

4. Direct Labor...

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...

6. Pension Fund (A) 5% (B) 3% (C) 2%

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%

9. Workmen’s Compensation Insurance (Rate $40.00 per M)...

10. Power Cost @ $0.07 per kWh (based on kw h rating)...

11. Power Cost @ $0.07 per kWh (based on kw h rating)...

12. Direct Supplies (see instructions)...

13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...

14. Sub-total...

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...

16. TOTAL MANUFACTURING COSTS...

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...

18. TOTAL COSTS...

19. MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>PRODUCTIVITY</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>136.01</td>
<td>117.06</td>
<td>100.90</td>
</tr>
<tr>
<td>75% productivity</td>
<td>154.14</td>
<td>132.67</td>
<td>114.36</td>
</tr>
<tr>
<td>60% productivity</td>
<td>192.67</td>
<td>165.84</td>
<td>142.95</td>
</tr>
</tbody>
</table>

20. ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>PRODUCTIVITY</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>193.13</td>
<td>166.23</td>
<td>143.28</td>
</tr>
<tr>
<td>75% productivity</td>
<td>218.88</td>
<td>188.40</td>
<td>162.39</td>
</tr>
<tr>
<td>60% productivity</td>
<td>273.60</td>
<td>235.49</td>
<td>202.98</td>
</tr>
</tbody>
</table>

**Area A**

- **Provisions**: $49,404, $45,801, $41,177
- **Area B**: $155,129, $143,815, $129,296
- **Area C**: $28,522, $25,810, $23,026

**Area B**

- **Provisions**: $101,772, $94,350, $84,825
- **Area B**: $3,120, $2,831, $2,625
- **Area C**: $1,696, $1,513, $1,374

**Area C**

- **Provisions**: $28,522, $25,810, $23,026
- **Area B**: $3,120, $2,831, $2,625
- **Area C**: $1,696, $1,513, $1,374

**TOTAL COSTS**

- **Area A**: $263,146, $249,035, $235,786
- **Area B**: $475,534, $457,870, $441,298
- **Area C**: $151,679, $143,157, $136,851

**ASSEMBLY & INSTALLATION**

- **Equip. Shipped F.O.B.**: Chicago, IL

**Sakurai Oliver 466SIP**

- **Size**: 19” x 26”
- **Units**: 4
- **Maximum Speed**: 15,000 iph

**Description**

- **Fixed Charges (Non-VARIABLE)**
  - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
  - 3. Fire & Sprinkler Insurance (Rate $40.00 per M)...

- **Variable Charges**

- **One Shift**

- **Two Shifts**

- **Three Shifts**

**Sheeted Offset**

Presses: 4-Unit
KBA North America, Performa 66

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>19&quot; X 26&quot;</td>
<td>4</td>
<td>10,000 lph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$662,000</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- Console; B&R Electronic Control System; vac. belt conveyor; dual feeder head w/ shoe control; rotary pre-gripper w/ paper weight adjust.; front lay stops; quick action plate clamping bars; Polycromatic Damper; Royce Recirculator; segmented duct blade; inking unit washer; auto. blanket & roller washer; Siemens Blower; pneum. machine control; Touch-Screen machine operation at deliv.; auto. inching speed select; sheet counter; high (low) pile deliv.; sheet decouler; powder spray; fans in deliv.; central lubr.; electronic double sheet control; helical gears (inking rollers); remote control of registr.; inking rollers spread adjust.; feeder head transport gripper adjust.; Botcher inking & dampening rubber rollers; Super Blue transfer & delivery cylinders; Becker compressor; high adjust. of pile toward feeder head; dryer; install, and training.

**AUXILIARY EQUIPMENT INCLUDES**

*Note:* Perfecting is an available option not included in this study.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

- Pressman $49,404
- $45,801
- $41,177

**LABOR COST-2 SHIFTS**

- $101,772
- $94,350
- $84,825

**LABOR COST-3 SHIFTS**

- $155,129
- $143,815
- $129,296

**TOTAL:** $49,404

---

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $66,200
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. 3,150
3. Fire & Sprinkler Insurance (Rate $40.00 per M) 8,097
4. Power Cost @ $0.07 per kWh (based on kWh rating) 243.12
5. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $49,404
6. Liquid Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts 9,981
7. Pension Fund (A) 5% (B) 3% (C) 2% 2,470
8. Welfare Benefits (A) $90.0/kw. (B) $60.0/kw. (C) $45.0/kw. 4,680
9. Payroll Taxes (Soc. Sec. & Unemployment. Insurance) 8.3% 4,921
10. Workmen's Compensation Insurance (Rate $40.00 per M) 2,371
11. Power Cost @ $0.07 per kWh (based on hp rating) 943
12. Direct Supplies (see instructions) 6,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts 13,240
14. Sub-total 165,908
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts 24,866
16. TOTAL MANUFACTURING COSTS 190,794
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts 80,133
18. TOTAL COSTS $270,927
19. MANUFACTURING COSTS per productive hour @ 85% productivity $140.03
20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity $198.84

---

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### AFAST 747P Competitive Edge (Data Provided By United Graphic Systems)

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.12&quot; X 26&quot;</td>
<td>4</td>
<td>10,000 pph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$465,000</td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td>INTERFACES WITH:</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>n/a</td>
<td>300</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

#### BASE COST ABOVE INCLUDES

- PLC control; fast auto plate changers; auto ink unit wash up; Accutrack Express; on the fly diagonal skewing; prebarred blanket capable; high pile delivery; leverless; Adamic control; Superblue; recirculator; powder sprayer; sheet decurler; training; installation.

#### AUXILIARY EQUIPMENT INCLUDES

- In line aqueous coater ($105,000); CIP 3/4 auto ink preset ($2,950); non stop delivery ($2,950).

#### MANUFACTURING COSTS

- BASE MANUFACTURING COSTS: $335,303
- VARIABLE CHARGES: $12,168
- FIXED CHARGES: $100,533
- TOTAL MANUFACTURING COSTS: $248,250

#### ALL-INCLUSIVE COSTS

- TOTAL ALL-INCLUSIVE COSTS: $443,230
- EQUIPMENT SHIPPED F.O.B.: Customer's Floor, Delivered and Installed

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

#### AREA A
- Hours/Week: 35
- Paid Holidays: 11
- Vacation After One Year: 4 weeks
- Payroll Taxes: 8.3%
- Power Cost: $0.07 per kWh

#### AREA B
- Hours/Week: 37.5
- Paid Holidays: 10
- Vacation After One Year: 3 weeks
- Payroll Taxes: 8.3%
- Power Cost: $0.07 per kWh

#### AREA C
- Hours/Week: 40
- Paid Holidays: 8
- Vacation After One Year: 2 weeks
- Payroll Taxes: 8.3%
- Power Cost: $0.07 per kWh

#### LABOR COST-1 SHIFT

- Pressman: $49,404
- $143,815
- $129,296

#### LABOR COST-2 SHIFTS

- Total: $49,404
- $41,177
- $84,825
- $155,129
- $143,815
- $129,296

#### LABOR COST-3 SHIFTS

- Total: $49,404
- $41,177
- $84,825
- $155,129
- $143,815
- $129,296

---

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### BASE COST ABOVE INCLUDES

Fast auto plate changers with punch; ADAControl; computerized control of radial, lateral, and diagonal register; auto blanket and ink wash up; Adamic dampeners; recirculator; touch screen control; vacuum feeder board; leverless pneumatic; IR dryer; Superblue; auto lubrication; nonstop delivery; high pile delivery; powder sprayer; ink ductor separate drive motor; training; installation.

### AUXILIARY EQUIPMENT INCLUDES

In Line Aqueous Coater ($105,000); Spectrophotometer Closed Loop ($12,000).

<table>
<thead>
<tr>
<th>Equipped Shipped F.O.B.:</th>
<th>Customer's Floor, Delivered and Installed</th>
</tr>
</thead>
</table>

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

| Pressman | $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

### TOTAL:

| $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

---

### TOTAL MANUFACTURING COSTS

| $269,122 | $255,316 | $242,178 | $406,265 | $381,915 | $358,238 | $519,491 | $486,348 | $454,035 |

### TOTAL COSTS

| $269,122 | $255,316 | $242,178 | $406,265 | $381,915 | $358,238 | $519,491 | $486,348 | $454,035 |

---

ADAST 747P LX (Data Provided By United Graphic Systems)

SIZE: 19.12” X 26”

UNITS: 4

MAXIMUM SPEED: 10,000 pph

POWER: hp: --
kWh: 16

PRODUCT CLASS/PROCESS: Wet Offset

BASE COST: $535,000

AUXILIARY EQUIP.: $117,000

INSTALL. (EST.): Included

TOTAL INVEST.: $652,000

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**BASE COST ABOVE INCLUDES**

Suction belt feeder; electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

**AUXILIAR Y EQUIPMENT INCLUDES**

- Pressman
- Paid Holidays
- Vacation After One Year
- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<tr>
<td>Hours/Week</td>
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</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

Pressman $49,404

**LABOR COST-2 SHIFTS**

Pressman $101,772

**LABOR COST-3 SHIFTS**

Pressman $155,129

**TOTAL:**

Pressman $49,404

Pressman $101,772

Pressman $155,129

**BASE COST:**

$600,000

**TOTAL INVEST.:**

$600,000

---

**Sakurai Oliver 466 SD**

**Size:**

- Units: 4
- Maximum Speed: 16,000 iph

**Power:**

- Hp: --
- Kwh: 30

**Product Class/Process:**

- Wet Offset

**Interfaces With:**

- CPI4 systems, scanning densitometer and spectrophotometer.

**Auxiliary Equip.:**

- N/a

**Install. (Est.):**

- Included

**Total Invest.:**

- $600,000

---

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## Sheetfed Offset

### Presses: 4-Unit

#### BAKUOLIVER 466 SDP

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
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<tbody>
<tr>
<td>20&quot; x 26&quot;</td>
<td>4</td>
<td>16,000 iph</td>
<td>hp: --</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kWs: 30</td>
</tr>
</tbody>
</table>

#### PERFECTING:
- Colors: Yes
- Resolution: n/a
- SQ. FT.: 460

#### BASE COST ABOVE INCLUDES:
- Auto perfector changeover; suction belt feeder; electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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</table>

#### FUNCTION
- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

| Pressman | $49,404 | Area A | $45,801 | Area B | $41,177 | Area C | $101,772 | Area A | $94,350 | Area B | $84,825 | Area C | $155,129 | Area A | $143,815 | Area B | $129,296 |

#### TOTAL:
- $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

#### TOTAL INVEST.: $660,000

#### AUXILIARY EQUIPMENT INCLUDES:
- Equip. Shipped F.O.B.: Chicago, IL
- 85% productivity
- 75% productivity
- 60% productivity
- 20% productivity

---

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**BASE COST ABOVE INCLUDES**

- Suction belt feeder; electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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**FUNCTION LABOR COST-1 SHIFT**

- Pressman
- Pressman
- Pressman

**LABOR COST-2 SHIFTS**

- $49,404
- $45,801
- $41,177

**LABOR COST-3 SHIFTS**

- $101,772
- $94,350
- $84,825

**TOTAL:**

- $155,129
- $143,815
- $129,296

**AUXILIARY EQUIPMENT INCLUDES**

- Equip. Shipped F.O.B.: Chicago, IL

---

**Sakurai Oliver 466 SD+C**

**SPECIFICATIONS**

- **SIZE:** 20' X 26'
- **UNITS:** 4
- **MAXIMUM SPEED:** 16,000 iph
- **POWER:** hp: --
- **kWhs:** 35
- **PERFECTING:** No
- **COLORS:** 4
- **RESOLUTION:** n/a
- **SQ. FT.:** 525

**PRODUCT CLASS/PROCESS:** Wet Offset

**BASE COST:** $800,000

**INTERFACES WITH:** CIP4 systems; scanning densitometer and spectrophotometer; aqueous or UV coater.

**TOTAL INVEST.:** $800,000

---

**Variable Charges**

1. **Depreciation:**
   - 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
   - 12.5% 1 shift/ 15% 2 shifts/ 20% 3 shifts...

2. **Rent & Heat:**
   - (A) $10.50 sq. ft.
   - (B) $7.00 sq. ft.
   - (C) $5.00 sq. ft.

3. **Welfare Benefits:**
   - (A) $90./wk.
   - (B) $60./wk.
   - (C) $45./wk.

4. **Payroll Taxes:**
   - (Soc. Sec. & Unemploy. Insurance) 8.3%

5. **Indirect Labor:**
   - (Supervision & Misc.) 20% 1 shift/
   - 15% 2 shifts/ 12.5% 3 shifts...

6. **Pension Fund:**
   - (A) 5% (B) 3% (C) 2%

7. **Wellness Benefits:**
   - (A) $90./wk.
   - (B) $60./wk.
   - (C) $45./wk.

8. **Payroll Taxes:**
   - (Soc. Sec. & Unemploy. Insurance) 8.3%

9. **Workmen's Compensation Insurance:**
   - (Rate $40.00 per M)

10. **Depreciation:**
    - @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...

11. **Repairs & Maint.:**
    - @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...

12. **Suction belt feeder:**
    - Electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

---

**MANUFACTURING COSTS**

- **20% productivity**
- **75% productivity**
- **90% productivity**

---

**TRAINING & INSTALLATION**

- Included

---

**TOTAL COSTS**

- $305,038
- $290,154
- $276,507

**MANUFACTURING COSTS PER PRODUCTIVE HOUR**

- 85% productivity
- 75% productivity
- 60% productivity

---

**ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR**

- 85% productivity
- 75% productivity
- 60% productivity

---

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Sheetfed Offset
Presses: 4-Unit
Shinohara 66VH

SIZE: 20" X 26"
UNITS: 4
MAXIMUM SPEED: 17,000 pph
POWER: hp: -- kwhs: 28

PRODUCT CLASS/PROCESS: Wet Offset
INTERFACES WITH: CIP3 direct to press ink key data from prepress RIP and closed loop ink key control systems.

BASE COST ABOVE INCLUDES
Automatic blanket washer-Type 1; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<td>4 weeks</td>
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<td>2 weeks</td>
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</table>

FUNCTION
LABOR COST-1 SHIFT $49,404 $45,801 $41,177
LABOR COST-2 SHIFTS $101,772 $94,350 $84,825
LABOR COST-3 SHIFTS $155,129 $143,815 $129,296

TOTAL:
$49,404 $45,801 $41,177
$101,772 $94,350 $84,825
$155,129 $143,815 $129,296

One Shift

<table>
<thead>
<tr>
<th>AREA</th>
<th>Area A</th>
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<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
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Two Shifts

<table>
<thead>
<tr>
<th>AREA</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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Three Shifts

<table>
<thead>
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<th>AREA</th>
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<tbody>
<tr>
<td>5,089</td>
<td>5,689</td>
<td>6,218</td>
<td></td>
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</tbody>
</table>

TOTAL:

$101,772 $94,350 $84,825
$155,129 $143,815 $129,296

Fixed Charges (Non-Variable)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
   $96,739
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
   5,250
3. Fire & Sprinkler Insurance (Rate $4.00 per M.)...
   3,870
4. Direct Labor...
   49,404
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
   9,881
6. Pension Fund (A) 5% (B) 3% (C) 2%...
   2,470
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
   4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...
   4,921
9. Workmen's Compensation Insurance (Rate $40.00 per M.)...
   2,371
10. Power Cost $0.07 per kWh (based on hp rating)...
    1,885
11. Power Cost $0.07 per kW (based on kwh rating)...
    2,073
12. Direct Supplies (see instructions)...
    6,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
    19,348
14. Sub-total...
    206,819
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
    31,023
16. TOTAL MANUFACTURING COSTS...
    237,841

TOTAL COSTS...

$337,735

MANUFACTURING COSTS per productive hour @

| 85% Productivity | 174.56 | 151.79 | 132.35 | 130.40 | 112.47 | 97.06 |
| 75% Productivity | 197.83 | 172.03 | 150.00 | 147.79 | 127.46 | 110.00 |
| 60% Productivity | 247.29 | 215.04 | 187.50 | 184.74 | 159.33 | 137.50 |

ALL-INCLUSIVE COSTS per productive hour @

| 85% Productivity | 247.87 | 215.55 | 187.94 | 178.65 | 154.09 | 132.97 |
| 75% Productivity | 280.92 | 244.29 | 212.99 | 202.47 | 174.63 | 150.70 |

NAPL-2

Total Invest.: $967,390

Auxiliary Equipment

Automatic blanket washer-Type 2 ($6,000); automatic ink roller cleaning ($14,790); plate clamp cocking-remote ($89,300); semi-automatic plate changers ($78,300).

Sheeted Offset
Presses: 4-Unit

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103
### Shinohara 66IVPH

**Size:** 20” X 26”
- **Units:** 4
- **Maximum Speed:** 17,000 fpm
- **Power:** hp: -- ; kwhs: 28
- **Product Class/Process:** Wet Offset

**Base Cost:** $847,500
- Auxiliary Equip.: $198,390
- Install. (Est.): $4,000
- Total Invest.: $1,049,890

**Base Cost Above Includes**
- Automatic blanket washer-Type 1; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

**Auxiliary Equipment Includes**
- Automatic blanket washer-Type 2 ($6,000);
- Automatic ink roller cleaning ($14,790); plate clamp changeover ($30,000); semi-automatic perfecting changeover ($30,000).

**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
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<th>Area C</th>
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**FUNCTION LABOR COST-1 SHIFT**

| Pressman | $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

**TOTAL COSTS**

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<td>12,000</td>
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<td>18,000</td>
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<td>344,400</td>
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<td>418,400</td>
<td>418,400</td>
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<tr>
<td>627,600</td>
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</table>

### Sheeted Offset

Presses: 4-Unit
### BASE COST ABOVE INCLUDES
Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampering fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

### AUXILIARY EQUIPMENT INCLUDES
Automatic blanket washer-Type 2 ($6,000); automatic ink roller cleaning system ($14,790); plate clamp cocking-remote ($69,300); semi-automatic plate changers ($78,300).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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### FUNCTION

- PRESSMAN: $49,404
- LABOR COST-1 SHIFT: $45,801
- LABOR COST-2 SHIFTS: $41,177
- LABOR COST-3 SHIFTS: $101,772
- TOTAL: $155,129
- TWO SHIFTS: $143,815
- THREE SHIFTS: $129,296

### TOTAL MANUFACTURING COSTS

- $225,118
- $242,587
- $265,897

### ALL-INCLUSIVE COSTS
- $198,898
- $215,287
- $231,987

---

**Size:** 20" X 26"  
**Units:** 4  
**Maximum Speed:** 17,000 iph  
**Power:** hp: --  
**kWhs:** 69  
**Resolution:** n/a  
**SQ. FT.:** 500  
**Product Class/Process:** Wet Offset

---

**Shinohara 66IVH+Coater**

- **Equip. Shipped F.O.B.:** Any major U.S. seaport.
- **Base Cost:** $1,017,000  
- **Auxiliary Equip.:** $168,390  
- **Install. (Est.):** $6,000  
- **Total Invest.:** $1,191,390

---

**Sheeted Offset**

**Presses: 4-Unit**

---

**No. of Manned Hours Annually @ 100% Productivity**

**Fixed Charges (Non-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts  
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft  
3. Fire & Sprinkler Insurance (Rate $4.00 per M)  
4. Direct Labor  
5. Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts  
6. Pension Fund (A) 5% (B) 3% (C) 2%  
7. Welfare Benefits (A) $90/lwk. (B) $60/lwk. (C) $45/lwk  
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%  
9. Workmen's Compensation Insurance (Rate $40.00 per M)  
10. Power Cost @ $0.07 per kWh (based on kW rating)  
11. Power Cost @ $0.07 per kWh (based on kW rating)  
12. Direct Supplies (see instructions)  
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts  
14. Sub-total  
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts  
16. TOTAL MANUFACTURING COSTS  
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts  
18. TOTAL COSTS  
19. MANUFACTURING COSTS per productive hour @  
   - 85% productivity  
   - 75% productivity  
   - 60% productivity  
20. ALL-INCLUSIVE COSTS per productive hour @  
   - 85% productivity  
   - 75% productivity  
   - 60% productivity
Shinohara 66IVPH+Coater

SIZE: 20" X 26'
UNITS: 4
MAXIMUM SPEED: 17,000 pph
POWER: hp: -- kwhs: 69
PERFECTING: Yes
COLORS: 4
RESOLUTION: n/a
SQ. FT.: 500

PRODUCT CLASS/PROCESS: Wet Offset
INTERFACES WITH: CIP3 direct to press ink key data from prepress RIP and closed loop ink key control systems.

BASE COST ABOVE INCLUDES
Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampering fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<tr>
<td>Vacation After One Year</td>
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FUNCTION
LABOR COST-1 SHIFT
Pressman $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

LABOR COST-2 SHIFTS
TOpent MANUFACTURING COSTS..............................................
139.22

LABOR COST-3 SHIFTS
TOTAL: $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

AUXILIARY EQUIPMENT INCLUDES
Automatic blanket washer-Type 2 ($6,000); automatic ink roller cleaning system ($14,790); plate clamp cocking-remote ($69,300); semi-automatic plate changers ($78,300); semi-automatic perfecting changeover ($30,000).

LABOR COST-2 SHIFTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>1,603</td>
<td>1,763</td>
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<tr>
<td>B</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>C</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
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<tr>
<td>A</td>
<td>3,206</td>
<td>3,525</td>
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<tr>
<td>B</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
<tr>
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TOTAL COSTS $404,306 $389,937 $376,776 $568,108 $543,774 $520,670 $704,233 $671,620 $640,408

MANUFACTURING COSTS per productive hour @
85% productivity $208.96 $183.30 $161.24 $152.17 $132.47 $115.47 $130.52 $113.21 $98.27
75% productivity 236.82 207.74 182.74 172.46 150.13 130.87 147.92 128.30 111.38
60% productivity 296.03 259.67 228.42 215.57 187.67 163.59 184.90 160.38 139.22

ALL-INCLUSIVE COSTS per productive hour @
85% productivity $296.73 $260.28 $228.96 $208.47 $181.49 $158.20 $172.28 $149.44 $129.72
75% productivity 336.29 294.99 259.49 236.27 205.68 179.29 195.25 169.36 147.02
60% productivity 420.36 368.73 324.36 295.34 257.10 224.12 244.07 211.70 183.77

Shetfed Offset
Presses: 4-Unit

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106
### Akiyama, Bestech (BT) 428 A2

**SIZE:** 20.5" X 28.375"  
**UNITS:** 4  
**MAXIMUM SPEED:** 13,000 iph  
**POWER:** kwhs: 22.6  
**PERFECTING:** No  
**COLORS:** 4  
**RESOLUTION:** n/a  
**SQ. FT.:** 550  
**PRODUCT CLASS/PROCESS:** Sheetfed Wet or Dry Offset  
**BASE COST:** $805,000  
**AUXILIARY EQUIP.:** n/a  
**INSTALL. (EST.):** Included  
**TOTAL INVEST.:** $805,000

**BASE COST ABOVE INCLUDES**
- Water circulators; hollow vibrator rollers; IR dryer; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cooling system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate bender; delivery and rigging to customer's plant (Continental USA); training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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</table>

**FUNCTION**
- LABOR COST-1 SHIFT
- LABOR COST-2-shifts
- LABOR COST-3 shifts

**LABOR COST-1 SHIFT**
- Pressman $49,404  
- Operator $42,527

**LABOR COST-2-SHIFTS**
- Pressman $45,801  
- Operator $37,620

**LABOR COST-3-SHIFTS**
- Pressman $41,177  
- Operator $31,623

**TOTAL:** $89,931 $83,421 $72,800

**TOTAL COSTS:**
- Sheetfed Offset $410,633  
- Presses: 4-Unit $380,495

**MANUFACTURING COSTS per productive hour @**
- 85% productivity $212.23  
- 75% productivity $240.53  
- 60% productivity $300.66

**ALL-INCLUSIVE COSTS per productive hour @**
- 85% productivity $301.37  
- 75% productivity $341.55  
- 60% productivity $426.94

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**AUXILIARY EQUIPMENT INCLUDES**

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Sheetfed Offset  
Presses: 4-Unit

107
### Mitsubishi, Diamond 1000 4-Color With Tower Coater & Extended Delivery

#### BASE COST ABOVE INCLUDES

Comrac Centralized Operator Makereddy & Control; touch screen display; remote control running register; auto preset inking systems; impression pressure presetting; feeder and delivery presetting; remote control front lay register; cont. stream feeder; side guide; misregister, double sheet, side lay, and overrun detectors; 2 pile pallets feeder; pile height control; tach.; 3-position dampening; quick plate clamp system; auto plate cylinder positioning; plasma coated plate & blanket cylinders; chrome plated impress. cylinder; cam-closed grippers; auto lab.; sequential impression on/off: blow down fans; 2 pile pallets delivery; sheet counter; total revolution counter; sheet slow down wheels; static eliminator; powder spray for deliv.; IR dryer for ink & coating; coating circulator pump; circulators for dampeners; blanket washers; install. and training.

#### AUXILIARY EQUIPMENT INCLUDES

 Equip. Shipped F.O.B.: Purchaser's Plant

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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#### FUNCTION

- LABOR COST-1 SHIFT
  - Pressman
  - Operator

- LABOR COST-2 SHIFTS
  - Pressman
  - Operator

- LABOR COST-3 SHIFTS
  - Pressman
  - Operator

### FIXED CHARGES

- 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts:
  - $94,000
  - $94,000
  - $94,000

- 2. Rent & Heat (A) @ $10.50 (B) @ $7.00 (C) @ $5.00 sq. ft:
  - 5,775
  - 5,288

- 3. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk:
  - 4,957

- 4. Direct Labor:
  - 91,931

- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts:
  - 18,386

- 6. Pension Fund (A) 5% (B) 3% (C) 2%:
  - 4,597

- 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk:
  - 9,360

- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%:
  - 9,156

- 9. Workmen's Compensation Insurance (Rate $40.00 per M):
  - 4,413

- 10. Power Cost @ $0.07 per kWh (based on hp rating):
  - 1,246

- 11. Power Cost @ $0.07 per kWh (based on kw rating):
  - 0

- 12. Direct Supplies (see instructions):
  - 6,500

- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts:
  - 18,800

- 14. Sub-total:
  - 267,923

- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts:
  - 40,188

- 16. TOTAL MANUFACTURING COSTS:
  - 308,112

- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:
  - 129,407

- 18. TOTAL COSTS:
  - 437,519

- 19. MANUFACTURING COSTS per productive hour @
  - 85% productivity:
    - 226.13
  - 75% productivity:
    - 256.28
  - 60% productivity:
    - 320.35

- 20. ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity:
    - 321.10
  - 75% productivity:
    - 363.92
  - 60% productivity:
    - 454.90

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**Sheetfed Offset**

**Presses: 4-Unit**

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BASE COST ABOVE INCLUDES

Console; D&B Electronic Control System; auto plate; auto wash; sheetless transfers; vac. belt conveyor; dual feeder head w/ shoe control; rotary pre-gripper w/ paper weight adjust.; front lay stops; quick action plate clamping bars; Polyromatic Damper; Royce Recoil.; segmented duct blade; inking unit washer; auto. blanket & roller washer; Siemens Blower; press, machine control; Touch-Screen operation at deliv.; auto. inch speed select; sheet counter; high (low) pile deliv.; sheet decutter; powder spray; fans in deliv.; central lub.; electronic double sheet control; helical gears (inking rollers); remote control of register; inking rollers spread adjust.; feeder head transport gripper adjust.; Botcher inking & dampening rubber rollers; Super Blue transfer & deliv. cylinders; Becker compressor; high adjust. of pile; dryer; install. and training.

AUXILIARY EQUIPMENT INCLUDES

Note: Perfecting is an available option not included in this study.

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<thead>
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<th>BASE COST ABOVE INCLUDES</th>
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KBA North America, Rapida 74

<table>
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<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>REGIONAL EQUIPMENT COSTS</th>
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<tbody>
<tr>
<td>20&quot; x 29&quot;</td>
<td>4</td>
<td>15,000 iph</td>
<td>hp: --</td>
<td>Kwhs: 23.5</td>
</tr>
</tbody>
</table>

PERFECTING: COLORS: RESOLUTION: SQ. FT.: No 4 n/a 550

BASE COST ABOVE INCLUDES

Rapida 74; semi-automatic plate changers; pin register system; cocking; installation and training.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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FUNCTION

LABOR COST-1 SHIFT

Pressman $49,404
Helper $33,174

LABOR COST-2 SHIFTS

LABOR COST-3 SHIFTS

TOTAL:

$82,578  $74,873  $65,086  $170,111  $154,238  $134,077  $259,295  $235,101  $204,370

AUXILIARY EQUIPMENT INCLUDES


ONE SHIFT  TWO ShiftS  THREE ShiftS

<table>
<thead>
<tr>
<th>AREA A</th>
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No. of Manned Hours Annually @ 100% Productivity

FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts
   $123,800 $123,800 $123,800 $154,750 $154,750 $154,750 $185,700 $185,700 $185,700
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft
   5,775  3,850  2,750  5,775  3,850  2,750  5,775  3,850  2,750
3. Fire & Sprinkler Insurance (Rate $4.00 per M)
   4,952  4,952  4,952  4,952  4,952  4,952  4,952  4,952  4,952

VARIABLE CHARGES

4. Direct Labor
   82,578  74,873  65,086  170,111  154,238  134,077  259,295  235,101  204,370
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
   16,516  14,975  13,017  25,167  23,136  20,112  25,292  23,510  20,437
6. Pension Fund (A) 5% (B) 3% (C) 2%
   4,129  2,246  1,302  8,506  4,627  2,682  12,965  7,095  4,087
7. Welfare Benefits (A) 90/kw. (B) 60/kw. (C) 45/kw
   9,360  6,240  4,680  18,720  12,480  9,360  28,080  18,720  14,040
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
   8,225  7,457  6,483  16,237  14,722  12,798  23,674  21,465  18,059
9. Worker's Compensation Insurance (Rate $40.00 per M)
   3,964  3,594  3,124  7,825  7,095  6,168  11,425  10,344  8,892
10. Power Cost @ $0.07 per kWh (based on hp rating)
    0  0  0  0  0  0  0  0  0
11. Power Cost @ $0.07 per kw (based on kw rating)
    1,582  1,740  1,811  3,164  3,479  3,822  4,746  5,219  5,732
12. Direct Supplies (see instructions)
    6,500  6,500  6,500  13,000  13,000  13,000  19,500  19,500  19,500
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
    24,760  24,760  24,760  30,950  30,950  30,950  37,140  37,140  37,140
14. Sub-total
    292,140  274,987  256,364  459,506  427,279  395,419  619,165  572,554  526,360
15. General Factory-15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
    43,821  41,248  38,755  57,438  53,410  49,427  61,917  57,255  52,636
16. TOTAL MANUFACTURING COSTS
    335,961  316,235  297,119  516,945  480,689  444,847  681,082  629,810  578,996
18. TOTAL COSTS
    477,065  449,053  421,909  708,214  658,545  609,440  899,028  831,349  764,275
19. MANUFACTURING COSTS per productive hour @
   85% productivity $246.57 $211.09 $180.55 $189.70 $160.43 $135.16 $166.62 $140.13 $117.28
   75% productivity 279.44 239.23 204.63 214.99 181.82 153.18 188.84 158.82 132.92
   60% productivity 349.30 299.04 255.78 268.74 227.28 191.46 236.04 198.52 166.15
20. ALL-INCLUSIVE COSTS per productive hour @
   85% productivity $350.13 $299.74 $256.39 $259.89 $219.79 $185.17 $219.94 $184.99 $154.81
   75% productivity 396.81 339.71 290.57 294.54 249.09 209.86 249.26 209.64 175.45
   60% productivity 496.01 424.64 363.21 368.17 311.37 262.33 311.58 262.05 219.32
Shinohara 75IVH

**SIZE:** 23” X 29”  
**UNITS:** 4  
**MAXIMUM SPEED:** 17,000 fpm  
**POWER:** hp: 31  
**PRODUCT CLASS/PROCESS:** Wet Offset  
**INTERFACES WITH:** CIP3 direct to press ink key data from prepress RIP and closed loop ink key control systems.  
**BASE COST:** $885,000  
**AUXILIARY EQUIP.:** $192,600  
**INSTALL. (EST.):** $4,000  
**TOTAL INVEST.:** $1,081,600

**BASE COST ABOVE INCLUDES**

Automatic blanket washer-Type 1; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td></td>
<td>TOTAL:</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
<td>$155,129</td>
<td>$143,815</td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**

Automatic blanket washer-Type 2 ($6,000); automatic ink roller cleaning ($17,100); plate clamp cocking-remote ($79,500); semi-automatic plate changers ($90,000).

**VARIABLE CHARGES**

- Direct Labor:
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts:
- Pension Fund (A) 5% (B) 3% (C) 2%:
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk:
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%:
- Workmen’s Compensation Insurance (Rate $40.00 per M):
- Power Cost @ $0.07 per kWh (based on hp rating):
- Power Cost @ $0.07 per kWh (based on kWh rating):
- Direct Supplies (see instructions):
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts:
- Sub-total:
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts:
- TOTAL MANUFACTURING COSTS:
- Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:
- TOTAL COSTS:
- MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,908</td>
</tr>
</tbody>
</table>

- 85% productivity:
- 75% productivity:
- 60% productivity:

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>187.97</td>
<td>163.87</td>
<td>143.29</td>
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<tr>
<td>138.87</td>
<td>120.12</td>
<td>104.01</td>
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<tr>
<td>119.88</td>
<td>103.30</td>
<td>89.05</td>
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</table>

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111

Sheetfed Offset
Presses: 4-Unit
### Shinohara 75IVPH

**SIZE:** 23" X 29'  
**UNITS:** 4  
**MAXIMUM SPEED:** 17,000 mph  
**POWER:** нр: --  
**kWhs:** 31  
**PERFECTING:** Yes  
**COLORS:** n/a  
**RESOLUTION:** 550  
**SQ. FT.:**

#### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>Area</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45,801</td>
<td>4,776</td>
<td>0</td>
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</tr>
<tr>
<td>TOTAL MANUFACTURING COSTS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46,618</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Pension Fund (A) 5%, (B) 3%, (C) 2%

<table>
<thead>
<tr>
<th>Area</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...

<table>
<thead>
<tr>
<th>Area</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Workmen’s Compensation Insurance (Rate $40.00 per M)

<table>
<thead>
<tr>
<th>Area</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area B</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Area C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### TOTAL COSTS

<table>
<thead>
<tr>
<th>Area</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>155,129</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>226.73</td>
<td>2,750</td>
<td>2,750</td>
<td></td>
</tr>
<tr>
<td>149,263</td>
<td>49,404</td>
<td>49,404</td>
<td></td>
</tr>
<tr>
<td>41,177</td>
<td>101,772</td>
<td>101,772</td>
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</tr>
<tr>
<td>41,177</td>
<td>101,772</td>
<td>101,772</td>
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</tr>
<tr>
<td>84,825</td>
<td>84,825</td>
<td>84,825</td>
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</tr>
<tr>
<td>$155,129</td>
<td>$155,129</td>
<td>$155,129</td>
<td></td>
</tr>
</tbody>
</table>

#### SPECIFICATIONS

- **FUNCTION**
  - **LABOR COST-1 SHIFT**
  - **LABOR COST-2 SHIFTS**
  - **LABOR COST-3 SHIFTS**

#### VARIABLE CHARGES

<table>
<thead>
<tr>
<th>Area</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### TOTAL MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>Area</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46,618</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### ALL-INCLUSIVE COSTS

<table>
<thead>
<tr>
<th>Area</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>143,815</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

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Shinohara 75IVH+Coater

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>23' X 29'</th>
<th>UNITS:</th>
<th>4</th>
<th>MAXIMUM SPEED:</th>
<th>17,000 iph</th>
<th>POWER:</th>
<th>hp: --</th>
<th>kWhs: 72</th>
</tr>
</thead>
</table>

**PRODUCT CLASS/PROCESS:** Wet Offset

**BASE COST:** $1,117,500

**AUXILIARY EQUIP.:** $192,600

**INSTALL. (EST.):** $6,000

**TOTAL INVEST.:** $1,316,100

**BASE COST ABOVE INCLUDES**

- Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

- Pressman $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

**LABOR COST-2 SHIFTS**

**LABOR COST-3 SHIFTS**

**TOTAL:** $49,404

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.............. $131,610
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft........... 5,775
3. Fire & Sprinkler Insurance (Rate $4.00 per M.)............. 5,264
4. Direct Labor.............................................. 49,404
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.......................... 9,881
6. Pension Fund (A) 5% (B) 3% (C) 2%.................................. 2,470
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk........... 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%................. 4,921
9. Workmen's Compensation Insurance (Rate $40.00 per M.)........ 2,371
10. Power Cost @ $0.07 per kWh (based on hp rating).................. 0
11. Power Cost @ $0.07 per kWh (based on kW rating).................. 4,847
12. Direct Supplies (see instructions).................................. 7,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........... 26,322
14. Sub-total.................................................. 254,546
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........... 38,182
16. TOTAL MANUFACTURING COSTS..................................... 292,728
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts........... 122,946
18. TOTAL COSTS.................................................. 415,673
19. MANUFACTURING COSTS per productive hour @
   - 85% productivity $214.84
   - 75% productivity 243.48
   - 60% productivity 304.35
   - 50% productivity 350.07
   - ALL-INCLUSIVE COSTS per productive hour @
   - 85% productivity $305.07
   - 75% productivity 345.75
   - 60% productivity 432.18

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### Shinohara 75IIVPH+Coater

**Product Class/Process:** Wet Offset

<table>
<thead>
<tr>
<th>Base Cost:</th>
<th>$1,200,000</th>
</tr>
</thead>
</table>

**Auxiliary Equip.:** $222,600

**Install. (Est.):** $6,000

**Total Invest.:** $1,428,600

### Base Cost Above Includes
- Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

### Auxiliary Equipment Includes
- Automatic blanket washer-Type 2 ($6,000); automatic ink roller cleaning ($17,100); plate clamp changeover ($90,000); semi-automatic perfecting changeover ($30,000).

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function
- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
<tr>
<td></td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
</tr>
<tr>
<td></td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

---

**One Shift**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**Two Shifts**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,750</td>
<td>2,831</td>
<td>3,011</td>
</tr>
<tr>
<td>4,044</td>
<td>4,231</td>
<td>4,507</td>
</tr>
<tr>
<td>5,288</td>
<td>5,588</td>
<td>5,912</td>
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</table>

**Three Shifts**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,133</td>
<td>3,333</td>
<td>3,541</td>
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<tr>
<td>4,636</td>
<td>4,858</td>
<td>5,101</td>
</tr>
<tr>
<td>6,167</td>
<td>6,458</td>
<td>6,777</td>
</tr>
</tbody>
</table>

### Total:
- $49,404
- $45,801
- $41,177

---

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Sheeted Offset

Presses: 4-Unit
**ADAST 847P Competitive Edge (Data Provided By United Graphic Systems)**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.5” X 29.12”</td>
<td>4</td>
<td>12,000 iph</td>
<td>hp: --</td>
<td>Wet Offset</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kWhs: 18.4</td>
<td></td>
</tr>
</tbody>
</table>

**PERFECTING: COLORS: RESOLUTION: SQ. FT.:**

- Yes
- 4
- n/a
- 400

**BASE COST ABOVE INCLUDES**

Adaccontrol Express; Adromatic dampener; fast auto plate changer with punch; PLC control; on-the-fly cocking; auto ink unit wash up; high pile delivery; vacuum feeder board; IR dryer; Superblue; auto lubrication; powder sprayer; recirculator; sheet decurler; non stop feeder and delivery; leverless; heavy duty; touch screen control; training; installation.

**AUXILIARY EQUIPMENT INCLUDES**

Aqueous tower coater with Anilox roller, hot-cold air knives, and IR dryer ($190,000).

**BASE COST: $625,000**

**AUXILIARY EQUIP.: $190,000**

**INSTALL. (EST.): Included**

**TOTAL INVEST.: $815,000**

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Manned Hours Annually @ 100% Productivity</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........ $ 81,500
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft................. 24,450
3. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%............. 4,200
4. Insurance
5. Pension Fund (A) 5% (B) 3% (C) 2%.................................. 2,586
6. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............. 2,371
7. Property Taxes.............. 89.02
8. Fire & Sprinkler Insurance (Rate $4.00 per M.).................... 3,260
9. Gas & Electric.............. 4,101
10. Maintenance & Repairs @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts..... 2,550
11. Property Taxes.............. 4,101
12. Direct Supplies (see instructions.)................................. 7,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........ 16,300
14. Sub-total.......................... 187,226
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........ 28,084
16. TOTAL MANUFACTURING COSTS... 215,310
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts........ 90,430
18. TOTAL COSTS........................... 305,740
19. MANUFACTURING COSTS per productive hour @ 85% productivity $ 158.02
20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity $ 224.39

---

**Sheetfed Offset**

**Presses: 4-Unit**
## MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>Area</th>
<th>Direct Labor</th>
<th>Depreciation</th>
<th>Indirect Labor</th>
<th>Indirect Supplies</th>
<th>Rent &amp; Heat</th>
<th>Payroll Taxes</th>
<th>Utilities</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>115,875</td>
<td>1,239</td>
<td>3,708</td>
<td>2,371</td>
<td>9,006</td>
<td>3,708</td>
<td>2,000</td>
<td>157,414</td>
</tr>
<tr>
<td>B</td>
<td>97,138</td>
<td>1,936</td>
<td>3,708</td>
<td>2,195</td>
<td>8,235</td>
<td>3,708</td>
<td>2,000</td>
<td>137,204</td>
</tr>
<tr>
<td>C</td>
<td>94,910</td>
<td>1,594</td>
<td>3,708</td>
<td>2,092</td>
<td>8,235</td>
<td>3,708</td>
<td>2,000</td>
<td>131,142</td>
</tr>
</tbody>
</table>

## AUXILIARY EQUIPMENT INCLUDES

- Aqueous tower coater with doctor blade and Anilox roller, and hot and cold air knives IR dryer ($190,000); Closed Loop Spectrophotometer ($12,000).
- Fast auto plate changers with punch; ADAcontrol; computerized control of radial, lateral, and diagonal register; auto blanket and ink wash up; Adamic dampeners; recirculator; touch screen control; vacuum feeder board; leverless pneumatic; IR dryer; Superblue; auto lubrication; nonstop delivery; high pile delivery; ink ductor separate drive motor; training; installation.

## TOTAL INVEST.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>$198,27</td>
<td>$157,41</td>
<td>$137,20</td>
<td>$131,142</td>
</tr>
</tbody>
</table>

## TOTAL COSTS

<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>$328,419</td>
<td>$314,068</td>
<td>$300,632</td>
<td>$476,736</td>
<td>$451,896</td>
<td>$427,964</td>
<td>$599,547</td>
<td>$565,936</td>
<td>$533,436</td>
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## Sheeted Offset

Presses: 4-Unit

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116
<table>
<thead>
<tr>
<th>Size: 20.875&quot; x 29.125&quot;</th>
<th>Units: 4</th>
<th>Maximum Speed: 13,000 iph</th>
<th>Power: kwhs: 38.2</th>
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</thead>
<tbody>
<tr>
<td>Perfecting: Yes</td>
<td>Colors: 2 over 2</td>
<td>Resolution: n/a</td>
<td>Sq. Ft.: 440</td>
</tr>
</tbody>
</table>

**Base Cost Above Includes**

- Water circulators; hollow vibrator rollers; inker temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; cylinder cocking system; ACC/Akiyama Color Control Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer's plant (Continental USA); training.

**Working Conditions and Annual Cost of Direct Labor (by Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function**

- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts

**Auxiliary Equipment Includes**


---

**One Shift**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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</table>

**Two Shifts**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>286,663</td>
<td>524,870</td>
<td>7,858</td>
<td>219,576</td>
<td>388,608</td>
<td>5,144</td>
<td>83,421</td>
<td>174,847</td>
<td>149,968</td>
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**Total**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>199.05</td>
<td>190.25</td>
<td>190.25</td>
<td>143,815</td>
<td>42,149</td>
<td>4,620</td>
<td>14,433</td>
<td>5,288</td>
<td>4,620</td>
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</table>

**Manufacturing Costs per Production Hour @**

- 85% Productivity
- 75% Productivity
- 60% Productivity

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Per MCF</td>
<td>$37.620</td>
<td>$39.920</td>
</tr>
</tbody>
</table>

**Total Costs**

| Cost Per MCF | $129,296 | $83,421 | $77,497 |

| Cost Per MCF | $143,815 | $101,772 | $91,931 |

| Cost Per MCF | $376,226 | $288,663 | $228,592 |

**Manufacturing Costs Per Production Hour @**

- 85% Productivity
- 75% Productivity
- 60% Productivity

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Per MCF</td>
<td>$190,095</td>
<td>$144,330</td>
</tr>
</tbody>
</table>

| Cost Per MCF | $286,711 | $237,811 | $192,911 |

| Cost Per MCF | $477,099 | $406,171 | $345,141 |

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Sheetfed Offset

Presses: 4-Unit
**MAN Roland, R 204 E**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.5&quot; X 29.13&quot;</td>
<td>4</td>
<td>13,000 iph</td>
<td>hp: --</td>
<td>Offset</td>
<td>$625,000</td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td>BASE COST:</td>
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</tr>
<tr>
<td>No</td>
<td>4</td>
<td>n/a</td>
<td>550</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- Preloading device, sheet holder above feeder, diag. sheet correction, adjust. front lays, adjust. sheet timing, pregripper, transferer, bearer contact, adjust. ink oscillator timing, speed compensated dampener, squeakless dampener, sheet brake, adjust, suction wheels, lateral jogger, foil keyboard, job card storage, electromech. double and interunit sheet detection, automatic guide, photoelectric side edge control, Ternes quick-action plate clamps, plate cylinder positioning, prebarred blankets, RCI ink control, ink infeed program, remote register, nonstop delivery, anti-offset powder spray, sheet decouler, central lube, electronic sheet counter, covered ink/water rollers, feeder and deliv. loading boards, self diagnostics, spare parts kit, tachometer, washup device, water recirc. equip., water level control, installation, wiring, and training.

**AUXILIARY EQUIPMENT INCLUDES**

*Note: EPI Semi-Automatic Plate Change is an available option not included in this study.*

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

| Pressman | $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

**TOTAL:** $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

**TOTAL COSTS:** $272,763 $257,845 $244,236 $413,004 $387,904 $364,107 $528,950 $495,383 $463,264

**MANUFACTURING COSTS per productive hour @**

- **85% productivity**
- **75% productivity**
- **60% productivity**

| 85% productivity | $140.98 | $121.21 | $104.52 | $110.62 | $94.50 | $80.75 | $98.03 | $83.50 | $71.09 |
| 75% productivity | $159.77 | $137.37 | $118.46 | $125.37 | $107.10 | $91.52 | $111.10 | $94.64 | $80.57 |
| 60% productivity | $199.72 | $171.71 | $148.07 | $156.72 | $133.87 | $114.40 | $138.88 | $118.29 | $100.71 |

**ALL-INCLUSIVE COSTS per productive hour @**

- **85% productivity**
- **75% productivity**
- **60% productivity**

| 85% productivity | $200.19 | $172.11 | $148.42 | $151.56 | $129.46 | $110.63 | $129.40 | $110.22 | $93.84 |
| 75% productivity | $226.88 | $195.06 | $168.21 | $171.76 | $146.72 | $125.38 | $146.66 | $124.92 | $106.35 |
| 60% productivity | $283.60 | $243.83 | $210.26 | $214.70 | $183.41 | $156.73 | $183.32 | $156.15 | $132.94 |

---

**Port of Entry**

**Equip. Shipped F.O.B.:** Port of Entry

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118 Sheetfed Offset Presses: 4-Unit
Heidelberg, Printmaster 74-4

SIZE: 20.87" X 29.13"  UNITS: 4  MAXIMUM SPEED: 13,000 iph  POWER: hp: --  kW/hs: 55

PERFECTING: No  COLORS: 4  RESOLUTION: n/a  SQ. FT.: 500

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION LABOR COST-1 SHIFT

Pressman $49,404 $45,801 $41,177

LABOR COST-2 SHIFTS

$101,772 $93,350 $84,825

LABOR COST-3 SHIFTS

$155,129 $143,815 $129,296

TOTAL:

$49,404 $45,801 $41,177 $101,772 $93,350 $84,825 $155,129 $143,815 $129,296

MANUFACTURING COSTS

AREA A  AREA B  AREA C  AREA A  AREA B  AREA C  AREA A  AREA B  AREA C

1,603 1,763 1,936 3,206 3,525 3,872 4,809 5,288 5,808

FIXED CHARGES (NON-VARIABLE)

1. Depreciation 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts............. $69,500 $69,500 $69,500
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft................. 5,250 5,250 5,250
3. Fire & Sprinkler Insurance (Rate $40.00 per M).................... 2,780 2,780 2,780

VARIABLE CHARGES

4. Direct Labor...................................................................................
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts......................... 9,881 9,160 8,235
6. Pension Fund (A) 5% (B) 3% (C) 2%...........................................
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...........
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%............
9. Workmen's Compensation Insurance (Rate $40.00 per M)..........
10. Power Cost @ $0.07 per kWh (based on hp rating)....................
11. Power Cost @ $0.07 per kWh (based on kWh rating).................
12. Direct Supplies (see instructions)..........................................
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........
14. Sub-total.......................................................................................
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........
16. TOTAL MANUFACTURING COSTS..................................................
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.......................
18. TOTAL COSTS..................................................................................
19. MANUFACTURING COSTS per productive hour @

| 85% productivity | $148.43 | $128.17 | $110.98 | $115.41 | $98.97 | $84.91 | $101.90 | $87.11 | $74.45 |

| 75% productivity | 168.22  | 145.26  | 125.78  | 130.80  | 112.17  | 96.23  | 115.49  | 98.73  | 84.37  |

| 60% productivity | 210.27  | 181.57  | 157.22  | 163.50  | 140.21  | 120.29  | 144.36  | 123.41  | 105.47  |

| 20. ALL-INCLUSIVE COSTS per productive hour @

| 85% productivity | $210.77 | $182.00 | $157.59 | $158.12 | $135.59 | $116.32 | $134.51 | $114.99 | $98.27  |

| 75% productivity | 238.87  | 206.27  | 178.60  | 179.20  | 153.67  | 131.85  | 152.44  | 130.32  | 111.37  |

| 60% productivity | 298.59  | 257.83  | 223.25  | 224.00  | 192.09  | 164.79  | 190.55  | 162.90  | 139.22  |

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Sheetfed Offset
Presses: 4-Unit

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Mt. Olive, NJ

NAPL-2
### BASE COST ABOVE INCLUDES

- Fully digitized press control system; Autoplate system; Classic center remote ink and register control console; powder sprayer; ALCOLOR dampening; semi-automatic perfector; wash-up device for blanket and impression cylinder; installation and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
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<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
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<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION

- **LABOR COST-1 SHIFT**
  - Pressman: $49,404
  - $45,801
  - $41,177
- **LABOR COST-2 SHIFTS**
  - $101,772
  - $94,350
  - $84,825
- **LABOR COST-3 SHIFTS**
  - $114,130
  - $106,280
  - $92,500

#### TOTAL:
- $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $114,130
- $106,280
- $92,500

### AUXILIARY EQUIPMENT INCLUDES

- Heidelberg, Printmaster 74-4-P
- PRESSES:
  - LAYOUT FOR
  - FUNCTION
- CHARGES CODE:
  - 120
- MAXIMUM SPEED:
  - 13,000 iph
- RESOLUTION:
  - n/a
- hp: --
- kWs: 55
- PIL: n/a
- Interfaces:
  - CIP4 data and MIS system.

### TOTAL INVEST.:

- $740,000

---

**Sheetfed Offset**

**Presses:** 4-Unit

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### BASE COST ABOVE INCLUDES

Print Center Print fully digitalized monitoring control & self diagnostic system; Machine Info. Display (MID) at feeder & deliv.; remote control of circum., lateral & diag. register; single suction belt feed; integrated preload device; adjust. side guide; digital 5 roller cont. damp. system; auto. inking blanket & impress. cyl. wash-up devices; remote controlled ink keys; adj. ink flow control; nonstop device w/ rake; sheet decurer; vac. sheet slowdowns; air cushion deliv. drum; sheet rear edge extraction system; self calibrating electronic double detector; monitored front align. control; autoplate; remote adjust. of printing pressure; plate damping & inking rollers follow diagonal register adjustments; chromium plated plate cylinder; circum. register 360 degrees; Venturi effect sheet guide plate; powder spray; install. & training.

### AUXILIARY EQUIPMENT INCLUDES

- Sheetfed Print F.O.B.: Mt. Olive, NJ

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#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<tr>
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</tr>
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<td>Vacation After One Year</td>
<td>4 weeks</td>
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<td>2 weeks</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
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</tbody>
</table>

#### LABOR COST-1 SHIFT

- Pressman $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

#### LABOR COST-2 SHIFTS

#### LABOR COST-3 SHIFTS

TOTAL: $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

---

### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>1,603</th>
<th>1,763</th>
<th>1,936</th>
<th>3,206</th>
<th>3,525</th>
<th>3,872</th>
<th>4,809</th>
<th>5,288</th>
<th>5,808</th>
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<tbody>
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<td>A</td>
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</table>

### TOTAL MANUFACTURING COSTS

- $780,000
- $32,539
- $9,006
- $4
- $5,288
- $3,850
- $3,120
- $3,850
- $3,120

---

### ALL-INCLUSIVE COSTS

<table>
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<th>AREA</th>
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<th>1,936</th>
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</table>

### TOTAL COSTS

- $304,287
- $289,383
- $275,788
- $450,053
- $424,979
- $401,210
- $570,728
- $537,197
- $505,118

### Sheetfed Offset

**Presses:** 4-Unit

---

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Heidelberg Speedmaster SM74-4-P-H

SIZE: 20.87" X 29.13"  UNITS: 4  MAXIMUM SPEED: 15,000 iph  POWER: hp: 64 kwHs: --

PERFECTING: Yes  COLORS: 4  RESOLUTION: n/a  SQ. FT.: 550

PRODUCT CLASS/PROCESS: Wet Offset

INTERFACES WITH: CIP4 data and MIS system.

BASE COST: $840,000

AUXILIARY EQUIP.: n/a

INSTALL. (EST.): Included

TOTAL INVEST.: $840,000

BASE COST ABOVE INCLUDES

Printex Print Center fully digitized monitoring control & self diagnostic system; Machine Info. Display (MID) at feeder & deliv.; remote control of circumf., lateral & diag. register; single suction belt feed; integrated preload device; adjust. side guide; digital 5 roller contint. damp. system; auto. inking roller, blanket & impress. cyl. wash-up devices; remote controlled ink keys; adjust. ink flow (HPG); nondrop device w/ rake; sheet decurier; vac. sheet slowdowns; air cushion deliv. drum; sheet rear edge extraction system; self calibrating electronic double detector; monitored front align. control; autoplate; remote adjust. of printing pressure; plate damping & inking rollers follow diagonal register adjustments; chromium plated plate cylinder; circumf. register 360 degrees; Venturi effect sheet guide plate; powder spray; install. & training.

AUXILIARY EQUIPMENT INCLUDES

No. of Manned Hours Annually @ 100% Productivity ...........................................................................

FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 1% shift/ 12.5% 2 shifts/ 15% 3 shifts ................. $ 84,000 $ 84,000 $ 84,000
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft ................. 5,775 3,850 2,750
3. Fire & Sprinkler Insurance (Rate $4.00 per M)....................... 3,360 3,360 3,360

VARIABLE CHARGES

4. Direct Labor ................................................................. 49,404 45,801 41,177
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts ................. 9,881 9,160 8,235
6. Pension Fund (A) 5% (B) 3% (C) 2% .................................. 2,470 1,374 824
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $50./wk ........... 4,680 3,120 2,340
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% .............. 4,921 4,521 4,101
9. Workmen's Compensation Insurance (Rate $40.00 per M) ......... 2,371 2,198 1,976
10. Power Cost @ $0.07 per kWh (based on hp rating) ................. 3,214 3,524 3,822
11. Power Cost @ $0.07 per kw (based on kW rating) ................. 0 0 0
12. Direct Supplies (see instructions)...................................... 7,000 7,000 7,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts ........... 16,800 16,800 16,800
14. Sub-total................................................................. 193,876 184,760 176,446
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts ........... 29,081 27,714 26,467
16. TOTAL MANUFACTURING COSTS................................. 222,958 212,474 202,913

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts ......... 93,642 89,239 85,223

18. TOTAL COSTS ................................................................ $ 316,600 301,713 $ 288,136

19. MANUFACTURING COSTS per productive hour @

85% productivity ................................................................. $ 163.63 $ 141.83 $ 123.31
75% productivity ................................................................. 185.45 160.74 139.75
60% productivity ................................................................. 231.81 200.92 174.68

20. ALL-INCLUSIVE COSTS per productive hour @

85% productivity ................................................................. $ 232.36 $ 201.39 $ 175.09
75% productivity ................................................................. 263.34 228.25 198.44
60% productivity ................................................................. 329.17 285.31 248.05

Sheetfed Offset
Presses: 4-Unit

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<table>
<thead>
<tr>
<th>Size: 23.23&quot; X 29.13&quot;</th>
<th>Units: 4</th>
<th>Maximum Speed: 18,000 iph</th>
<th>Power: HP: -- Kwhs: 100 est.</th>
<th>Product Class/Process: Sheetfed Offset</th>
<th>Base Cost: $1,175,000</th>
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<tbody>
<tr>
<td>Perfecting: No</td>
<td>Colors: 4</td>
<td>Resolution: n/a</td>
<td>Sq. Ft.: 550</td>
<td></td>
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</tbody>
</table>

**Base Cost Above Includes**

- MAN Roland R 504; training; installation.

**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
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</tr>
<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function Labor Cost-1 Shift**

- Pressman: $49,404
- Operator: $42,527

**Function Labor Cost-2 Shifts**

**Function Labor Cost-3 Shifts**

**Total:** $91,931 $83,421 $72,800 $189,378 $171,847 $149,968 $288,663 $261,942 $228,592

**Auxiliary Equipment Includes**

- Equip. Shipped F.O.B.: Port of Entry

**One Shift**

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost</th>
<th>Labor Cost</th>
<th>Labor Cost</th>
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</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
<tr>
<td>Operator</td>
<td>$42,527</td>
<td>$37,620</td>
<td>$31,623</td>
</tr>
</tbody>
</table>

**Total Manufacturing Cost:** $228,592

**Total Inclusive Cost:** $1,175,000

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Sheeted Offset

Presses: 4-Unit
## Heidelberg Speedmaster CD 74-4

**SIZE:** 23.62' X 29.13'  
**UNITS:** 4  
**MAXIMUM SPEED:** 15,000 iph  
**POWER:** hp: 64 est. kwhs: --  
**PERFECTING:** No  
**COLORS:** 4  
**RESOLUTION:** n/a  
**SQ. FT.:** 550

### BASE COST ABOVE INCLUDES

Prinect CP2000 Center Press Control; full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; non-stop delivery; system service 36 plus; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td><strong>Hours/Week</strong></td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT LABOR COST-2 SHIFTS LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$49,404</th>
<th>$45,801</th>
<th>$41,177</th>
<th>$101,772</th>
<th>$94,350</th>
<th>$84,825</th>
<th>$155,129</th>
<th>$143,815</th>
<th>$129,296</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL:</strong></td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
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</table>

### TOTAL INVEST: $1,111,500

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Cranbury, NJ

---

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**Sheetfed Offset**  
**Presses: 4-Unit**
### Heidelberg Speedmaster CD 74-4-P

**BASE COST ABOVE INCLUDES**
- Prinect CP2000 Center Press Control: full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; fully automatic perfecting device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; non-stop delivery; systemservice 36 plus; training; installation.

**AUXILIARY EQUIPMENT INCLUDES**
- Presses: 4-Unit Sheetfed Offset
- Sheetfed Offset presses: 4-Unit

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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### Function
- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts

<table>
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<tr>
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<th>$49,404</th>
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<td>$84,825</td>
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<td>$129,296</td>
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**TOTAL INVEST. :** $1,171,500

---

**Equipment Shipped F.O.B.: Cranbury, NJ**

---

**Sheetfed Offset**

**Presses: 4-Unit**

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### Heidelberg Speedmaster CD 74-4+L

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<tr>
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<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
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<td>650</td>
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</tbody>
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### BASE COST ABOVE INCLUDES

- Prinect CP2000 Center Press Control: full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; coating unit with DryStar dryer; non-stop delivery; systemservice 36 plus; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<tr>
<th>Provisions</th>
<th>Area A</th>
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<td>4 weeks</td>
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<td>2 weeks</td>
</tr>
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<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
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<td>$94,350</td>
<td>$84,825</td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Cranbury, NJ

## Sheetfed Offset

- Presses: 4-Unit

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### Heidelberg Speedmaster CD 74-4-P+L

**SIZE:** 23.62'' X 29.13''

**UNITS:** 4

**MAXIMUM SPEED:** 15,000 iph

**POWER:** hp: 64 est.

**kWhs:** --

**PERFECTING:** Yes

**COLORS:** 4

**RESOLUTION:** n/a

**SQ. FT.:** 590

**BASE COST:** $1,404,500

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $1,404,500

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
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<th>Area C</th>
<th>Area A</th>
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</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

- Pressman: $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

**LABOR COST-2 SHIFTS**

**LABOR COST-3 SHIFTS**

**TOTAL:** $49,404

**TOTAL COSTS:**

- $41,775
- $5,618
- $177.76

---

### Auxiliary Equipment Includes

- Prinect CP2000 Center Press Control: full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; fully automatic perfecting device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; coating unit with DryStar dryer; non-stop delivery; systemservice 36 plus; training; installation.

---

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## Komori SPICA 4/C Convertible Perfector

**Base Cost:** $784,533

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function**
- Labor Cost - 1 Shift
- Labor Cost - 2 Shifts
- Labor Cost - 3 Shifts

<table>
<thead>
<tr>
<th>Labor Cost</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressmen</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

**Total:** $49,404 + $45,801 + $41,177 = $155,129 + $143,815 + $129,296

### Auxiliary Equipment Includes

- Disc reader; training; installation.
- Anti-marking material on transfer cylinders.
- Floppy pinned cylinders.
- Nonstop delivery; sheet decurler.
- Marking anti-ghosting sheet detector; adjustable head stops; addt'l inking brush assembly; vacuum infeed tapes; electronic sheet detector; adjustable head stops; addt'l inking cores & dampening covered rollers; anti-ghosting rollers; Komotmatic dampening; reverse nip; hickey picker; one touch blanket clamp bar; chrome plated plate, blanket, and impression cylinders; lateral, circumferential and diagonal register; auto start/stop; pinned cylinders; nonstop delivery; sheet decurler; anti-marking material on transfer cylinders; floppy disc reader; training; installation.

### Auxiliary Equipment

- Equip. Shipped F.O.B.: Port of Entry
### LABOR COST - 3 SHIFTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Labor Cost</td>
<td>167,903</td>
<td>146.80</td>
<td>12,724</td>
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</tbody>
</table>

### LABOR COST - 1 SHIFT

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Labor Cost</td>
<td>346,112</td>
<td>454,382</td>
<td>432,600</td>
</tr>
</tbody>
</table>

### Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...........

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation</td>
<td>4,658</td>
<td>3,045</td>
<td>2,175</td>
</tr>
<tr>
<td>Total Depreciation</td>
<td>4,954</td>
<td>4,954</td>
<td>4,954</td>
</tr>
</tbody>
</table>

### Administration & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...........

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration Overhead</td>
<td>11,805</td>
<td>14,382</td>
<td>14,040</td>
</tr>
<tr>
<td>Total Administration Overhead</td>
<td>15,153</td>
<td>14,382</td>
<td>14,040</td>
</tr>
</tbody>
</table>

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cost</td>
<td>361,928</td>
<td>407,169</td>
<td>395,591</td>
</tr>
</tbody>
</table>

### TOTAL INVEST. : $1,238,607

---

### AUXILIARY EQUIPMENT INCLUDES

- Auto. plate changing: auto. blanket and ink roller washing: gripper pad adj.; KMS-IV: High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infeed brush assembly; vacuum infeed tapes; electronic sheet detect; adj. headstop; adj/1 inking cores & damp. covered rollers; anti ghosting rollers; Komorimatic dampening; reverse nip; hickey picker; 1-touch blanket clamps; chrome plated plate, blanket and impress. cyl.; lateral, circumf. and diag. register; auto start/stop; pinned cylinders; sheet decoller; double sheet detect; wall loader; vac. side guide; temp. controlled roller provision; auto tensioned roller adjust: oscil. timing adj.; variable ink ductor timing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness & size presets; auto impress. cyl wash; installation.

---

### ONE SHIFT TWO SHIFTS THREE SHIFTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL MANUFACTURING COSTS...</td>
<td>278,585</td>
<td>268,581</td>
<td>259,504</td>
<td>407,169</td>
<td>389,376</td>
<td>372,347</td>
<td>524,697</td>
<td>499,820</td>
<td>475,861</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...........
| 117,006                      | 112,804 | 106,908 | 150,653 | 144,069 | 137,768 | 167,903 | 159,942 | 162,275 |

### TOTAL COSTS...

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL COSTS</td>
<td>395,591</td>
<td>381,385</td>
<td>368,211</td>
<td>557,821</td>
<td>533,445</td>
<td>510,115</td>
<td>692,599</td>
<td>659,762</td>
<td>628,136</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>204.46</td>
<td>179.28</td>
<td>157.57</td>
<td>149.41</td>
<td>129.95</td>
<td>113.13</td>
<td>128.36</td>
<td>111.21</td>
<td>96.39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75% productivity</td>
<td>231.72</td>
<td>203.18</td>
<td>178.58</td>
<td>169.34</td>
<td>147.28</td>
<td>128.22</td>
<td>145.48</td>
<td>126.04</td>
<td>109.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60% productivity</td>
<td>289.65</td>
<td>253.96</td>
<td>223.23</td>
<td>211.67</td>
<td>184.10</td>
<td>160.27</td>
<td>181.85</td>
<td>157.55</td>
<td>136.55</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 20% ALL-INCLUSIVE COSTS per productive hour @
| 85% productivity             | 290.33 | 254.58 | 223.76 | 204.70 | 178.04 | 154.99 | 169.44 | 146.80 | 127.24 |
| 75% productivity             | 329.04 | 288.52 | 253.59 | 231.99 | 201.78 | 175.66 | 192.03 | 166.37 | 144.20 |
| 60% productivity             | 411.30 | 360.65 | 316.99 | 289.99 | 252.22 | 219.57 | 240.04 | 207.96 | 180.25 |

---

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**Komori Lithrone LS429 Series 45 Perfector**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.87&quot; X 29.5&quot;</td>
<td>4</td>
<td>15,000 iph</td>
<td>hp: --</td>
</tr>
<tr>
<td>kWhs:</td>
<td>58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PERFECTING:**
- Yes

**COLORS:**
- n/a

**RESOLUTION:**
- 445

**SQ. FT.:**
- 455

**PRODUCT CLASS/PROCESS:**
- Wet Offset

**INTERFACES WITH:**
- Digital ink key data from prepress or previously saved jobs.

**BASE COST ABOVE INCLUDES**
- Auto. plate changing; auto. blanket and ink roller washing; gripper pad adj.; KMS-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infeed brush assembly; vacuum infeed tapes; electronic sheet detect; adj. headstops; adj/adj inkings cores & damp. covered rollers; anti ghosting rollers; Koninomari dampening; reverse nip; hickey picker; 1-touch blanket clamping; chrome plated plate, blanket and impress. cyls.; lateral, circular, and diag. register; auto start/stop; pinnned cylinders; sheet decurler; double sheet detect; wall loader; vac. side guide; auto tensioned roller adj.; oscil. timing adj.; variable ink drier turing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness & size presets; auto impress. cyl. wash; auto perfector changeover; installation.

**AUXILIARY EQUIPMENT INCLUDES**
- n/a

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- Pressman

**LABOR COST-1 SHIFT**
- $49,404

**LABOR COST-2 SHIFTS**
- $101,772

**LABOR COST-3 SHIFTS**
- $155,129

**TOTAL:**
- $49,404
- $54,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

---

**ALL-INCLUSIVE COSTS**
- PORT OF ENTRY
- WORKING CONDITIONS
- ALL-INCLUSIVE COSTS
- NAPL-2

**MANUFACTURING COSTS**
- NAPL-2
- WORKING CONDITIONS
- ALL-INCLUSIVE COSTS
- NAPL-2

---

**Fixed Charges** (Non-variable)
- 1. Depreciation: 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts............. $156,584
- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft............. 4,673
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M).................. 6,263

**Variable Charges**
- 4. Direct Labor................................................................. 49,404
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts............................... 9,881
- 6. Pension Fund (A) 5% (B) 3% (C) 2%.................................. 2,470
- 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk........ 4,680
- 8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%........ 4,921
- 9. Workmen’s Compensation Insurance (Rate $40.00 per M)........ 2,371
- 10. Power Cost @ $0.07 per kWh (based on hp rating).............. 3,905
- 11. Power Cost @ $0.07 per kWh (based on kW rating).............. 3,905
- 12. Direct Supplies (see instructions)................................. 7,000
- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........ 31,317
- 14. Sub-total................................................................. 283,468
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.... 42,520
- 16. TOTAL MANUFACTURING COSTS................................. 325,988

**Total Costs**
- $462,903

**Manufacturing Costs per productive hour**
- 5. Productivity
- 19. Manufacturing Costs per productive hour @ 85% productivity $239.25
- 75% productivity 271.15
- 60% productivity 338.94

**All-Inclusive Costs per productive hour**
- 20. All-Inclusive Costs per productive hour @ 85% productivity $339.73
- 75% productivity 385.03

---

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Sheeted Offset
Presses: 4-Unit
**BASE COST ABOVE INCLUDES**

Semi-auto. plate changing; auto. blanket and ink roller washing; gripper pad adj; KMS-IV; High Speed Start; deoxanized air in feeder & delivery; air bar over imp. cyl.; infused brush assembly; vacuum infused tapes; electronic sheet detect; adj. headstops; add'l inkings cores & damp. covered rollers; anti ghosting rollers; Komotomatic lambiting; reverse nip; hickey picker; 1-to-6 blanket; imp. chrome plated plate, blanket and impress. cyls.; lateral, circular, and diag. register; auto start/stop; pinned cylinders; sheet deceler; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscl. timing adj.; variable ink ductor timing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness preset; installation.

**AUXILIARY EQUIPMENT INCLUDES**

- Provisions
- Area A
- Area B
- Area C
- Area A
- Area B
- Area C
- Area A
- Area B
- Area C

**POWER**

- hp: --
- kWhs: 53

**PRODUCT CLASS/PROCESS**

- Wet Offset
- Digital ink key data from prepress or previously saved jobs.

**BASE COST:** $1,145,219

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $1,145,219

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durations</td>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
</tr>
<tr>
<td>Vacation</td>
<td>After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
</tr>
<tr>
<td>Function</td>
<td>LABOR COST-1 SHIFT</td>
<td>LABOR COST-2 SHIFTS</td>
<td>LABOR COST-3 SHIFTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
<td>$101,772</td>
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<td>$84,825</td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

**TOTAL:**

- $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

---

**ON SLIP ONE UNIT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**VARIABLE CHARGES**

- Direct Labor: $49,404
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: $4,581
- Pension Fund (A) 5% (B) 3% (C) 2%: $2,470
- Welfare Benefits (A) $90.00/wk. (B) $60.00/wk. (C) $45.00/wk: $3,680
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance): $4,921
- Workmen's Compensation Insurance (Rate $40.00 per M): $2,531
- Power Cost @ $0.05 per kWh: $11,805
- Power Cost @ $0.07 per kWh: $3,568
- Direct Supplies (instructions): $7,000
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 2% 3 shifts: $22,904
- Sub-total: $231,500
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: $34,725
- TOTAL MANUFACTURING COSTS: $266,225
- Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts: $111,814
- TOTAL COSTS: $378,039
- MANUFACTURING COSTS per productive hour @ 85% productivity: $195.39
- 75% productivity: $221.44
- 60% productivity: $276.80
- ALL-INCLUSIVE COSTS per productive hour @ 85% productivity: $277.45
- 75% productivity: $314.44
- 60% productivity: $393.05

---

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**BASE COST ABOVE INCLUDES**

- Auto. plate changing; auto. blanket and ink roller washing; gripper pad adjust; KMS-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; inked brush assembly; vacuum inked tapes; electronic sheet detect; adj. headstops; addl. inking cores & damp. covered rollers; anti ghosting rollers; Komorimatic dampening; reverse nip; hickey picker; 1-touch blank auto clip; chrome plated plate, blanket and impress. cyls.; lateral, circumf. and diag. register; auto start/stop; pinned cylinders; sheet decurier; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscil. timing adj.; variable ink ducor timing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness and size presets; auto impres. cyl. wash; skeleton transfer cyl.; inkner declutch; installation.

**AUXILIARY EQUIPMENT INCLUDES**

- Equip. Shipped F.O.B.: Port of Entry

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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</tr>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 Shifts
- LABOR COST-3 Shifts

<table>
<thead>
<tr>
<th>Pressmen</th>
<th>$49,404</th>
<th>$45,801</th>
<th>$41,177</th>
</tr>
</thead>
<tbody>
<tr>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
<td></td>
</tr>
<tr>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**: $1,147,300

---

**MANUFACTURING COSTS**

- Total:
  - One Shift: $1,163,173
  - Two Shifts: $1,193,193
  - Three Shifts: $2,132,213

**TAX CHARGES**

- Total: $433,134

---

**AUXILIARY EQUIPMENT** (as of 2007)

- Presses: 4-Unit
- Size: 24.12” x 29.5”
- Resolutions: 1,024 x 1,024
- Maximum Speed: 16,000...
**Sakurai Oliver 475SD**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>23,625&quot; X 30.125&quot;</td>
<td>4</td>
<td>15,000 iph</td>
<td>hp: --</td>
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<tr>
<td>kWs:</td>
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**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
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<td>11</td>
<td>10</td>
<td>8</td>
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<td>10</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function: Labor Cost-1 Shift**

- Pressman: $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

**Auxiliary Equipment Includes**

- Equip. Shipped F.O.B.: Chicago, IL

---

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### BASE COST ABOVE INCLUDES

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platform feeder and delivery; vacuum feed board; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder coating; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; decurler; spray powder device; automatic blanket washup; installation and training.</td>
<td>$45,801</td>
</tr>
</tbody>
</table>

### AUXILIARY EQUIPMENT INCLUDES

- **AUXILIARY EQUIP.:** n/a
- **INSTALL. (EST.):** Included
- **TOTAL INVEST.:** $840,000

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION

- **LABOR COST-1 SHIFT**
  - Pressman: $49,404
- **LABOR COST-2 SHIFTS**
  - Pressman: $101,772
- **LABOR COST-3 SHIFTS**
  - Pressman: $155,129

**TOTAL:** $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

### MANUFACTURING COSTS

- **Fixed Charges (Non-Variable):**
  - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts: $84,000
  - 2. Rent & Heat (A) $10.50 (B) $60.00 (C) $5.00 sq. ft.: $7,506
  - 3. Fire & Sprinkler Insurance (Rate $4.00 per M): $3,360
  - 4. Direct Labor: $49,404
  - 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: $9,881
  - 6. Pension Fund (A) 5% (B) 3% (C) 2%: $2,470
  - 7. Welfare Benefits (A) $60./wk. (B) $60./wk. (C) $45./wk: $3,360
  - 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%: $4,680
  - 9. Workmen’s Compensation Insurance (Rate $40.00 per M): $2,371
  - 10. Power Cost @ $0.07 per kWh (based on hp rating): $22,760
  - 11. Power Cost @ $0.07 per kWh (based on kWh rating): $2,276
  - 12. Direct Supplies (see instructions): $7,000
  - 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts: $16,800
  - 14. Sub-total: $192,938
  - 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: $28,941
  - 16. TOTAL MANUFACTURING COSTS: $221,878

- **VARIABLE CHARGES:**
  - 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts: $93,189
  - 18. TOTAL COSTS: $315,067
  - 19. MANUFACTURING COSTS per productive hour @
    - 85% productivity: $162.84
    - 75% productivity: $184.55
    - 60% productivity: $230.69
  - 20. ALL-INCLUSIVE COSTS per productive hour @
    - 85% productivity: $231.23
    - 75% productivity: $262.06
    - 60% productivity: $327.58

**TOTAL MANUFACTURING COSTS.............................................** $583,107

**TOTAL COSTS..............................................................................** $583,107

---

**Sheetfed Offset
Presses: 4-Unit**

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134
### Administrative & Selling Overhead—42% 1 shift/

| Base Cost | $995,000 |

### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
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<td>3 weeks</td>
<td>2 weeks</td>
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<table>
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<tr>
<th>Variable Charges</th>
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<tr>
<td>Direct Labor</td>
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<tr>
<td>Indirect Labor (Supervision &amp; Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts</td>
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<tr>
<td>Pension Fund (A) 5% (B) 3% (C) 2%</td>
</tr>
<tr>
<td>Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.</td>
</tr>
<tr>
<td>Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
</tr>
<tr>
<td>Workmen’s Compensation Insurance (Rate $40.00 per M.)</td>
</tr>
<tr>
<td>Power Cost @ $0.07 per kWh (based on hp rating)</td>
</tr>
<tr>
<td>Power Cost @ $0.07 per kWh (based on kW rating)</td>
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<tr>
<td>Direct Supplies (see instructions)</td>
</tr>
<tr>
<td>Repairs &amp; Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts</td>
</tr>
<tr>
<td>Sub-total</td>
</tr>
<tr>
<td>General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts</td>
</tr>
<tr>
<td>TOTAL MANUFACTURING COSTS</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>TOTAL COSTS</th>
<th>$348,179</th>
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<tr>
<td>Manufacturing Costs per productive hour @</td>
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<tr>
<td>85% productivity</td>
<td>$179.95</td>
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<tr>
<td>75% productivity</td>
<td>$203.95</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$254.94</td>
</tr>
<tr>
<td>ALL-INCLUSIVE COSTS per productive hour @</td>
<td></td>
</tr>
<tr>
<td>85% productivity</td>
<td>$255.53</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$289.61</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$362.01</td>
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</tbody>
</table>

### Auxiliary Equipment Includes

- Platform feeder and delivery; vacuum feed board;
- Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampering System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurler; spray powder device; automatic blanket washup; IR drying system; extended delivery; coating system including single anilox roll with Harris & Bruno chamber doctor blade; fully automatic recirculation system for one button make-ready and wash-up; complete IR aqueous drying package; installation and training.

---

**Sakurai Oliver 475SD+C**

- **Base Cost:** $995,000
- **Auxiliary Equip.:** n/a
- **Install. (Est.):** Included
- **Total Invest.:** $995,000

---

**Sheeted Offset**

**Presses: 4-Unit**

---

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Sakurai Oliver 475SDP+C

**BASE COST ABOVE INCLUDES**

- Platform feeder and delivery; vacuum feed board;
- Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampering System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurler; spray powder device; automatic blanket washup; IR drying system; extended delivery; coating system including single anilox roll with Harris & Bruno chamber doctor blade; fully automatic recirculation system for one button make-ready and wash-up; complete IR aqueous drying package; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**

-Aux. Equipment Shipped F.O.B.:

- Chicago, IL

---

**BASE COST:** $1,075,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST. :** $1,075,000

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,603</td>
<td>$1,763</td>
<td>$1,936</td>
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</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3,206</td>
<td>$3,525</td>
<td>$3,872</td>
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</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4,809</td>
<td>$5,288</td>
<td>$5,808</td>
</tr>
</tbody>
</table>

---

**PRODUCT CLASS/PROCESS:** Wet Offset

**PRODUCT CLASS/INTERFACES WITH:** CIP4 systems, scanning spectrophotometer.
**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
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</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

| Pressman | $49,404 |

**LABOR COST-2shifts**

| $101,772 |

**LABOR COST-3shifts**

| $155,129 |

**TOTAL:**

| $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

---

**BASE COST ABOVE INCLUDES**

Semi-automatic plate loaders; blanket washers; roller washers; console.

**AUXILIARY EQUIPMENT INCLUDES**

Dryer ($12,000).

---

**PRODUCT CLASS/PROCESS:**

Sheetfed Offset

Presses: 4-Unit
### BASE COST ABOVE INCLUDES

- Semi-automatic plate loaders; blanket washers; roller washers; console.

### AUXILIARY EQUIPMENT INCLUDES

- n/a

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
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<tbody>
<tr>
<td></td>
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<td>1,763</td>
<td>1,936</td>
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<tr>
<td></td>
<td>3,206</td>
<td>3,525</td>
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</tr>
<tr>
<td></td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
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#### Provisional Details

<table>
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<tr>
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<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

- Pressman $49,404

### LABOR COST-2 SHIFTS

- Total: $49,404

### LABOR COST-3 SHIFTS

- Total: $49,404

---

**TOTAL MANUFACTURING COSTS:**

- $591,841

**VARIABLE CHARGES**

1. Direct Labor...
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
3. Pension Fund (A) 5%  (B) 3%  (C) 2%...
4. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk...
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...
6. Workmen’s Compensation Insurance (Rate $4.00 per M).
7. Power Cost @ $0.07 per kWh (based on kw rating).
8. Power Cost @ $0.07 per kw (based on kw rating).
9. Direct Supplies (see instructions)... 7,500
10. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
11. Sub-total...
12. Total COSTS...

---

**ALL-INCLUSIVE COSTS**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft...
3. Workmen’s Compensation Insurance (Rate $40.00 per M).
4. Fire & Sprinkler Insurance (Rate $4.00 per M).
5. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft...
6. Maintenance @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...

---

**MANUFACTURING COSTS per productive hour @**

- 85% productivity $152.67
- 75% productivity $173.02
- 60% productivity $216.28

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity $216.79
- 75% productivity $245.70
- 60% productivity $307.12

---

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**BASE COST ABOVE INCLUDES**

Plate punch; semi-automatic plate loading; blanket and roller washers; console.

**Install. Cost Note:** Survey did not indicate installation cost information. Adjust your costs accordingly.

**AUXILIARY EQUIPMENT INCLUDES**

Coater and Semi Long Delivery ($157,000).

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

- Pressman: $49,404
- $45,801
- $41,177

**LABOR COST-2 SHIFTS**

- $101,772
- $94,350
- $84,825

**LABOR COST-3 SHIFTS**

- $155,129
- $143,815
- $129,296

**TOTAL:** $49,404 + $45,801 = $95,205

---

**ONE SHIFT**

- **AREA A:** 1,603
- **AREA B:** 1,763
- **AREA C:** 1,936
- **AREA A:** 3,206
- **AREA B:** 3,525
- **AREA C:** 3,872
- **AREA A:** 4,809
- **AREA B:** 5,288
- **AREA C:** 5,808

---

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$164.08</td>
<td>$142.29</td>
<td>$123.73</td>
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<tr>
<td>$124.62</td>
<td>$107.23</td>
<td>$92.32</td>
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<tr>
<td>$108.91</td>
<td>$93.38</td>
<td>$80.04</td>
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</tbody>
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### Base Cost Above Includes

- Plate punch; semi-automatic plate loading; blanket and roller washers; console.

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

### Auxiliary Equipment Includes

Coater and Semi Long Delivery ($181,000).

---

### Sheetfed Import Group, Ryobi 754 XLP A

<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power:</th>
<th>Product Class/Process:</th>
<th>Base Cost:</th>
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<tbody>
<tr>
<td>31.02&quot; X 23.02&quot;</td>
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<td>15,000 mph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$790,523</td>
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### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
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<th>Area C</th>
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<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

**TOTAL:** $49,404

---

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**MAXIMUM SPEED:** 40

**INTERFACES WITH:** n/a

**TOTAL MANUFACTURING COSTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

---

### BASE COST: $790,523

**AUXILIARY EQUIP.:** $181,000

**INSTALL. (EST.):** See Note*

**TOTAL INVEST.:** $971,523

---

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**Sheetfed Offset**

**Presses: 4-Unit**

---
**Shinohara 79IVPH**

**BASE COST ABOVE INCLUDES**

Automatic blanket washer; non-stop delivery; automatic ink roller washer; semi-automatic plate changer; operation console; training.

**AUXILIARY EQUIPMENT INCLUDES**

Note: Optional equipment, not included in this cost study, includes a non-stop feeder and CIP-3/4.

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>35</td>
<td>35</td>
<td>35</td>
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<td>8</td>
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<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

**TOTAL:** $49,404, $45,801, $41,177

**TOTAL INVEST.:** $1,178,000

---

**EQUIPMENT LIST**

- Sheetfed Offset
- Presses: 4-Unit

---

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.................. $117,800
2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft................................. 6,300
3. Fire & Sprinkler Insurance (Rate $4.00 per M)................................. 4,712
4. Direct Labor................................................................. 49,404
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts................. 9,881
6. Pension Fund (A) 5%  (B) 3%  (C) 2%........................................... 2,470
7. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk.................... 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%........................ 4,921
9. Workmen's Compensation Insurance (Rate $40.00 per M).................. 2,371
10. Power Cost @ $0.07 per kWh (based on hp rating).......................... 2,390
11. Power Cost @ $0.07 per kWh (based on kW rating).......................... 2,390
12. Direct Supplies (see instructions).............................................. 7,500
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts.................. 23,560
14. Sub-total................................................................................. 235,989
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts................. 35,396
16. TOTAL MANUFACTURING COSTS.................................................. 271,387
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...... 113,983
18. TOTAL COSTS............................................................................. 385,370
19. MANUFACTURING COSTS per productive hour @ 85% productivity $199.18 $173.96 $152.42 $145.86 $126.45 $109.76 $125.44 $108.34 $93.64
    75% productivity 225.73 197.15 172.75 165.33 143.31 124.40 142.17 122.79 106.12
    60% productivity 282.17 246.44 215.93 206.67 179.14 155.50 177.71 153.49 132.65
20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity $282.83 $247.02 $216.44 $199.86 $173.24 $150.37 $165.58 $143.01 $123.60
    75% productivity 320.54 279.95 245.30 226.51 196.34 170.42 187.66 162.08 140.08
    60% productivity 400.68 349.94 306.63 283.13 245.42 213.03 234.58 202.60 175.10

---

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### BASE COST ABOVE INCLUDES

- Water circulators; hollow vibrator rollers; inker temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; cylinder cocking system; ACC (Akiyama Color Control) console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer's plant (Continental USA); training.

### AUXILIARY EQUIPMENT INCLUDES


### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>2,063</td>
<td>2,193</td>
<td>2,352</td>
</tr>
<tr>
<td>2,320</td>
<td>2,552</td>
<td>2,732</td>
</tr>
<tr>
<td>3,206</td>
<td>3,522</td>
<td>3,712</td>
</tr>
<tr>
<td>4,090</td>
<td>4,288</td>
<td>4,888</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
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<td>2,732</td>
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<td>3,522</td>
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<td>4,288</td>
<td>4,888</td>
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</tbody>
</table>

### THREE SHIFTS

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<thead>
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<th>AREA C</th>
</tr>
</thead>
<tbody>
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<td>2,732</td>
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<tr>
<td>3,206</td>
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<tr>
<td>4,090</td>
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<td>4,888</td>
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</table>

### TOTAL COSTS

<table>
<thead>
<tr>
<th></th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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</thead>
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<td>4,090</td>
<td>4,288</td>
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<td>667,551</td>
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<tr>
<td></td>
<td>5,288</td>
<td>5,808</td>
<td>615,187</td>
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<tr>
<td></td>
<td>528,859</td>
<td>528,592</td>
<td>942,873</td>
</tr>
</tbody>
</table>

### MANUFACTURING COSTS per productive hour @

- 85% productivity: $444.39
- 75% productivity: $276.98
- 60% productivity: $346.23

### ALL-INCLUSIVE COSTS per productive hour @

- 85% productivity: $347.04
- 75% productivity: $393.31
- 60% productivity: $491.64

---

**Sheetfed Offset**

Presses: 4-Unit
**BASE COST ABOVE INCLUDES**

Semi-automatic plate loaders; blanket washers; roller washers; console.

**POWER:**
- hp: --
- kWhrs: 40 est.

**PERFECTING:**
- No

**COLORS:**
- n/a

**RESOLUTION:**
- 500

**SQ. FT.:**
- 36.22' X 24.61'
- 4
- 16,200 ph

**PRODUCT CLASS/PROCESS:**
- Wet Offset
- CIP4, JDF.

**MANUFACTURING COSTS**
- 84,355
- 12,798
- 74,873
- 2,500
- 175.36

**Lenexa, KS**

**Area C**
- 18,659
- 84,825
- 16,871

**NAPL-2**
- 4
- 0

**Area A**
- 5,250
- 192.52
- 12,965
- 37.5
- 210.42

**Two Shifts**
- 110,339
- 143,815

**Area A**
- $278.73
- 234.65
- 508,261
- $235,101
- 298.10

**3,525**
- 2 weeks
- 400,597

**$10,000**

**TWO SHIFTS**
- 23,136
- 23,674
- 24,000
- 12,480
- 262,712

**ALL-INCLUSIVE COSTS**
- 294.01
- 249.01
- 210.42
- 191.16

**75% productivity**
- 333.21
- 282.21
- 238.48

**60% productivity**
- 416.51
- 352.77
- 298.10

**TOTAL INVEST. :**
- $843,545

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

**FIRE & SPRINKLER INSURANCE (RAT $4.00 PER M)**
- 191.16
- 232.41
- 6,483

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
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<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

---

**LABOR COST-1 SHIFT**

| Pressman | $44,404 |
| Helper   | $33,174 |

**LABOR COST-2 SHIFTS**

| Pressman | $45,801 |
| Helper   | $29,072 |

**LABOR COST-3 SHIFTS**

| Pressman | $101,772 |
| Helper   | $49,253 |

**TOTAL:**
- $82,578
- $74,873
- $65,086
- $170,111
- $154,238
- $134,077
- $259,295
- $235,101
- $204,370

---

**MANUFACTURING COSTS**
- $843,545

---

**AUXILIARY EQUIPMENT INCLUDES**

---

**INFORMATION**

---

**Printed by**

---

**heeted Offset**

---

**Presses:** 4-Unit
**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>AREA</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman: $49,404
  - Operator: $42,527

- **LABOR COST-2 SHIFTS**
  - Pressman: $101,772
  - Operator: $87,606

- **LABOR COST-3 SHIFTS**
  - Pressman: $155,129
  - Operator: $133,535

**TOTAL COSTS**

- $91,931
- $83,421
- $72,800
- $189,378
- $171,847
- $149,368
- $288,663
- $261,942
- $228,592

**BASE COST ABOVE INCLUDES**

- Water circulators; hollow vibrator rollers; IR dryer; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cooking system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate Bender; paper size preset; impression preset; blanket washer; delivery and rigging to customer’s plant (Continental USA); training.

**AUXILIARY EQUIPMENT INCLUDES**


**MANUFACTURING COSTS**

<table>
<thead>
<tr>
<th>AREA</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Cost @ $0.07 per kWh (based on hp rating)</td>
<td>$28,869</td>
<td>$26,194</td>
<td>$228,592</td>
</tr>
<tr>
<td>Workmen’s Compensation Insurance (Rate $40.00 per M)</td>
<td>$18,386</td>
<td>$15,298</td>
<td>$129,296</td>
</tr>
<tr>
<td>Fire &amp; Sprinkler Insurance (Rate $4.00 per M)</td>
<td>$31,000</td>
<td>$26,194</td>
<td>$228,592</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS**

- $373.48 per productive hour @ 85% productivity
- $373.48 per productive hour @ 85% productivity
- $529.09 per productive hour @ 85% productivity

**TOTAL INVEST. :**

- $1,240,000
### Mitsubishi, Diamond 3000R 4-Color With Tower Coater

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.38” X 40.13”</td>
<td>4</td>
<td>13,000/11,000 iph</td>
<td>hp: -- kWhs: 114</td>
</tr>
</tbody>
</table>

**PRODUCT CLASS/PROCESS:** Wet Offset

**INTERFACES WITH:** PPC, CTP, Plate Scanner.

### BASE COST ABOVE INCLUDES

Comrac Central Oper. Makevery & Control; touch screen; semi-auto. plate changers; remote control running req.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay req.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3- position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet & total revol. counters; slow down wheels; static elimin.; powder spray (deliv.); IR dryer; coater circ. pump; chiller for ink vibrators; blanket washers; refrig. fount. solution circulators; install. and training.

### AUXILIARY EQUIPMENT INCLUDES

SimulChanger simultaneous plate changing system ($100,000).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<td>37.5</td>
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</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

- **Pressman:** $49,404
- **Operator:** $42,527

**LABOR COST-2 SHIFTS**

**LABOR COST-3 SHIFTS**

- **Pressman:** $101,772
- **Operator:** $87,606

### TOTAL:

$91,931 $83,421 $72,800

$189,378 $171,847 $149,968

$288,663 $261,942 $228,592

### Equipped Shipped F.O.B.: Purchaser’s Plant

### ALL-INCLUSIVE COSTS

- **MANUFACTURING COSTS**
  - 85% productivity
  - 75% productivity
  - 60% productivity

- **ALL-INCLUSIVE COSTS**
  - 85% productivity
  - 75% productivity
  - 60% productivity

### Notes

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Sheetfed Offset

Presses: 4-Unit

145
**BASE COST ABOVE INCLUDES**

- Semi-auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-Iv; deionized air in feeder & deliv.; auto infeed brushes; nonstop feeder; vac. infeed tapes; electronic sheet detect; damp; skew; unit air bars; anti ghosting; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circum, arm, bag, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampener; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infed pistons; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; motorized release cam; installation.

**AUXILIARY EQUIPMENT INCLUDES**

- No. of Manned Hours Annually @ 100% Productivity.................................
  - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts..............
  - 2. Rent & Heat (@ $10.50) (B) $7.00 (C) $5.00 sq. ft......................
  - 3. Fire & Sprinkler Insurance (Rate $40.00 per M)............................

**VARIABLE CHARGES**

- 4. Direct Labor .................................................................
- 5. Indirect Labor (Supervision & Msc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts........................
- 6. Pension Fund (A) 5% (B) 3% (C) 2%.................................
- 7. Welfare Benefits (A) $90.00/wk. (B) $60.00/wk. (C) $45.00/wk........
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%............
- 9. Workmen's Compensation Insurance (Rate $40.00 per M)...........
- 10. Power Cost @ $0.07 per kWh (based on hp rating).................
- 11. Power Cost @ $0.07 per kWh (based on kW rating).................
- 12. Direct Supplies (see instructions)........................................
- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........
- 14. Sub-total.................................................................
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.........

**TOTAL MANUFACTURING COSTS...**

- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts........

**TOTAL COSTS...**

- 18. TOTAL COSTS... $ 674,934 $ 644,382 $ 615,070 $ 958,554 $ 904,652 $ 851,798 $ 1,193,509 $ 1,120,219 $ 1,048,120

**MANUFACTURING COSTS per productive hour @**

- 19. MANUFACTURING COSTS per productive hour @
  - 85% productivity $ 348.84 $ 302.91 $ 263.22 $ 256.75 $ 220.39 $ 188.91 $ 221.20 $ 188.83 $ 160.84
  - 75% productivity 395.35 343.29 298.31 290.99 249.77 214.10 250.69 214.00 182.28
  - 60% productivity 458.18 429.12 372.89 363.73 312.31 267.63 313.36 267.53 227.86

**ALL-INCLUSIVE COSTS per productive hour @**

- 20. ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity $ 495.35 $ 430.13 $ 373.77 $ 351.75 $ 301.93 $ 258.81 $ 291.98 $ 249.25 $ 212.31
  - 75% productivity 561.39 487.48 423.60 396.85 342.19 293.32 330.91 282.48 240.62
  - 60% productivity 701.74 609.35 529.50 498.31 427.73 366.65 413.64 353.10 300.77
### MANUFACTURING COSTS

**BASE COST ABOVE INCLUDES**
- Semi-auto plate changing: auto, blanket washing; paper size preset; auto ink roller washing; KMS-Iv; deionized air in feeder & deliv.; auto infused brushes; nonstop feeder; vac. infused tapes; electronic sheet detect; damp, skew; unit air bars; anti-glitching; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyts.; lateral, circum; and bag, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampener; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infused pistons; remote infused cyl. cocking; remote fanout adj.; skeleton transfer cyt.; fully automatic perfector changeover; installation.

**BASE COST above includes**
- Semi-auto plate changing: auto, blanket washing; paper size preset; auto ink roller washing; KMS-Iv; deionized air in feeder & deliv.; auto infused brushes; nonstop feeder; vac. infused tapes; electronic sheet detect; damp, skew; unit air bars; anti-glitching; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyts.; lateral, circum; and bag, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampener; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infused pistons; remote infused cyl. cocking; remote fanout adj.; skeleton transfer cyt.; fully automatic perfector changeover; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
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<tr>
<td>Vacation After One Year</td>
<td>4</td>
<td>3</td>
<td>2 weeks</td>
<td>4</td>
<td>3</td>
<td>2 weeks</td>
<td>4</td>
<td>3</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
- LABOR COST-2 Shifts
- LABOR COST-3 Shifts

**Auxiliary Equipment includes**
- Equip. Shipped F.O.B.: Port of Entry

**TOTAL MANUFACTURING COSTS**
- **$2,391,572**

---

**Reproducibility**

### Komori Lithrone LS440P Series 15

**Size:** 28.37” X 40.56”
- **Units:** 4
- **Maximum Speed:** 15,000 iph
- **Power:** hp: --
- **Kwhs:** 45
- **Resolution:** 700
- **COLORS:** 4
- **Process:** Wet Offset
- **Product Class/Process:** Digital ink key data from prepress or previously saved jobs.
- **Vacation After One Year:** 2 weeks
- **Labor Cost-1 Shift:**
  - Pressman: $49,404
  - Operator: $42,527
- **Labor Cost-2 Shifts:**
  - Pressman: $45,801
  - Operator: $37,620
- **Labor Cost-3 Shifts:**
  - Pressman: $41,177
  - Operator: $32,659

**Total:**
- **$288,663**
- **$216,942**
- **$228,592**
## BASE COST ABOVE INCLUDES

- Auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-IV;
- Deionized air in feeder & delin.; auto infeed brushes; nonstop feeder; vac. infeed tapes; electronic sheet detect; damp, skew; unit air bars; anti ghosting; Komorimatic dampening; reverse nip; hickey picker; chromo plated plate, blanket & impress. cyl.; lateral, circum., anti, tag, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDCCS-II; Bladesetter; installation.

## WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
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<tr>
<td>4,809</td>
<td>5,288</td>
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</table>

### TWO SHIFTS

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<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

- Direct Labor: $19,811
- Indirect Labor: Supervision & Misc. $42,754
- Pension Fund: 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts $69,529
- Welfare Benefits: $6,811
- Payroll Taxes: $18,386
- Workmen's Compensation Insurance: $4,413
- Power Cost: $2,491
- Direct Supplies: $9,000
- Repairs & Maint.: $49,056
- Sub-total: $460,350
- General Factory: $628,351
- TOTAL MANUFACTURING COSTS: $1,090,701
- Administrative & Selling Overhead: $222,328
- TOTAL COSTS: $1,313,029

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost per Hour</th>
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<tbody>
<tr>
<td>85%</td>
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<td>75%</td>
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<td>60%</td>
<td>$550.58</td>
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<td>20%</td>
<td>$551.67</td>
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<tr>
<td>75%</td>
<td>$625.23</td>
</tr>
<tr>
<td>60%</td>
<td>$781.53</td>
</tr>
</tbody>
</table>

### Sheetfed Offset Presses: 4-Unit

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### MANUFACTURING COSTS

**Power Cost @ $0.07 per kWh (based on hp rating):**
- Area A: $8,711
- Area B: $1,074
- Area C: $324

**Rent & Heat (A) $10.50, (B) $7.00, (C) $5.00 sq. ft.:**
- Area A: $600.83
- Area B: $483.098
- Area C: $290.97

**Workmen's Compensation Insurance (Rate $40.00 per M):**
- Area A: $28,866
- Area B: $22,495
- Area C: $7,318

**Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts:**
- Area A: $42,527
- Area B: $37,620
- Area C: $14,314

**Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%:**
- Area A: $171,847
- Area B: $133,535
- Area C: $55,411

**Welfare Benefits (A) $90.00/wk, (B) $60.00/wk, (C) $45.00/wk:**
- Area A: $91,931
- Area B: $72,800
- Area C: $5,288

**Pension Fund (A) 5%, (B) 3%, (C) 2%:**
- Area A: $420.28
- Area B: $300.28
- Area C: $30.98

**General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts:**
- Area A: $233,336
- Area B: $206,213
- Area C: $72,485

**Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:**
- Area A: $507.89
- Area B: $461.22
- Area C: $37.5

**Total Costs:**
- Area A: $83,421
- Area B: $72,800
- Area C: $17,184

**Total Invest.:** $2,770,572

---

### LABOR COST-1 SHIFT

- **Pressman:** $49,404
- **Operator:** $42,527

**FUNCTION LABOR COST-1 SHIFT:**
- Pressman: $370.84
- Operator: $288.66

**TOTAL:** $118,931

---

### LABOR COST-2 SHIFTS

**Hours/Week:**
- Area A: 35
- Area B: 37.5
- Area C: 40

**Paid Holidays:**
- Area A: 11
- Area B: 10
- Area C: 8

**Vacation After One Year:**
- Area A: 4 weeks
- Area B: 3 weeks
- Area C: 2 weeks

**TOTAL LABOR COSTS:**
- Area A: $89,378
- Area B: $71,487
- Area C: $14,968

**TOTAL:** $214,853

---

### LABOR COST-3 SHIFTS

**Hours/Week:**
- Area A: 35
- Area B: 37.5
- Area C: 40

**Paid Holidays:**
- Area A: 11
- Area B: 10
- Area C: 8

**Vacation After One Year:**
- Area A: 4 weeks
- Area B: 3 weeks
- Area C: 2 weeks

**TOTAL LABOR COSTS:**
- Area A: $81,340
- Area B: $68,430
- Area C: $13,010

**TOTAL:** $162,780

---

### ALL-INCLUSIVE COSTS

- **Rent & Heat (A) $10.50, (B) $7.00, (C) $5.00 sq. ft.:**
  - Area A: $600.83
  - Area B: $483.098
  - Area C: $290.97

- **Workmen's Compensation Insurance (Rate $40.00 per M):**
  - Area A: $28,866
  - Area B: $22,495
  - Area C: $7,318

- **Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%:**
  - Area A: $171,847
  - Area B: $133,535
  - Area C: $55,411

- **Welfare Benefits (A) $90.00/wk, (B) $60.00/wk, (C) $45.00/wk:**
  - Area A: $91,931
  - Area B: $72,800
  - Area C: $5,288

- **Pension Fund (A) 5%, (B) 3%, (C) 2%:**
  - Area A: $420.28
  - Area B: $300.28
  - Area C: $30.98

- **General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts:**
  - Area A: $233,336
  - Area B: $206,213
  - Area C: $72,485

- **Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:**
  - Area A: $507.89
  - Area B: $461.22
  - Area C: $37.5

- **Total Costs:**
  - Area A: $83,421
  - Area B: $72,800
  - Area C: $17,184

- **Total Invest.:** $2,770,572

---

**Sheetfed Offset**

**Presses: 4-Unit**

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Sheetfed Offset
Presses: 4-Unit
Akiyama, J print (JP) 2P240 A4

SIZE: UNITS: MAXIMUM SPEED: POWER: PRODUCT CLASS/PROCESS: BASE COST:
28.375" X 40.562" 4 13,000 fpm hp: -- -- kwhs: 45.1 Sheetfed Wet or Dry Offset $1,490,000

PERFECTING: COLORS: RESOLUTION: SQ. FT.: INTERFACES WITH:
Yes 2 over 2 n/a n/a

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$49,404</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$42,527</td>
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LABOR COST-1 SHIFT

<table>
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<tr>
<th>Direct Labor</th>
<th>$149,000</th>
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<tbody>
<tr>
<td>Payroll Taxes</td>
<td>$182,659</td>
</tr>
<tr>
<td>Pension Fund</td>
<td>$143,815</td>
</tr>
<tr>
<td>Indirect Labor</td>
<td>$228,592</td>
</tr>
<tr>
<td>Power Cost</td>
<td>$251,915</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$519,807</td>
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</table>

OTHER COSTS

| Equipment Shipped F.O.B. | Customer's Plant. |

AUXILIARY EQUIPMENT INCLUDES

Water circulators; hollow vibrator rollers; inker temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cocking system; cylinder cocking system; Akiyama Color Control) Console with inspection lighting unit; plate bender; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer's plant (Continental USA); training.

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150 Sheetfed Offset Presses: 4-Unit

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### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Area</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area A</th>
<th>Area B</th>
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<td>8</td>
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<td>10</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
</tr>
</tbody>
</table>

### Table:ALL-INCLUSIVE COSTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$51,510</td>
</tr>
<tr>
<td>B</td>
<td>$602,558</td>
</tr>
<tr>
<td>C</td>
<td>$99,296</td>
</tr>
</tbody>
</table>

### Auxiliary Equipment Includes

- Water circulators; hollow vibrator rollers; inker temperature control chiller; IR dryer; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate coating system; cylinder coating system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; delivery and rigging to customer's plant (Continental USA); training.

---

**Akiyama, eXtreme (XT) 440**

**Size:** 29.125" X 40.937"  
**Units:** 4  
**Maximum Speed:** 16,000 mph  
**Power:** hp: --  
**KWhs:** 66.7  
**Product Class/Process:** Sheetfed Wet or Dry Offset  
**Fixed Charges (Non-VARIABLE):**  
1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........ $146,000  
2. Rent & Heat (A) @ $10.50 (B) @ $7.00 (C) @ $5.00 sq. ft $11,025  
3. Fire & Sprinkler Insurance (Rate $4.00 per M)................ $49,404  
4. Direct Labor........................................................ $91,931  
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts........ $18,386  
6. Pension Fund (A) 5% (B) 3% (C) 2%............................ $4,597  
7. Welfare Benefits (A) @ $90./wk (B) @ $60./wk (C) @ $45./wk $9,360  
8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%........ $9,156  
9. Workmen's Compensation Insurance (Rate $40.00 per M)......... $4,413  
10. Power Cost @ $0.07 per kWh (based on hp rating)............... $11,025  
11. Cost Per MCF at $0.07 per kWh (based on kWh rating)......... $4,491  
12. Direct Supplies (see instructions)............................ $9,000  
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts.... $29,200  
14. Sub-total....................................................... $343,398  
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.... $51,510  
16. TOTAL MANUFACTURING COSTS............................... $394,908  
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts $165,861  
18. TOTAL COSTS................................................ $560,770  
19. MANUFACTURING COSTS per productive hour @  
   85% productivity $289.83  
   75% productivity $328.47  
   60% productivity $410.59  
20. ALL-INCLUSIVE COSTs per productive hour @  
   85% productivity $411.56  
   75% productivity $466.43  
   60% productivity $583.04  

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### MAN Roland, R 704

**SIZE:** 29.13" X 40.94"  
**UNITS:** 4  
**MAXIMUM SPEED:** 16,000 p/h  
**POWER:**  
- **hp:** --  
- **kW:** 107  

**PERFECTING:**  
- **COLORS:** No  
- **RESOLUTION:** n/a  
- **SQ. FT.:** 700  

**BASE COST ABOVE INCLUDES**

| Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front line & sheet timing, pregriper, bearer contact, auto. impress. cyl. setting, adjust. ink oscil. timing, speed compans. damp, sheet brake, lateral [jigger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PCL auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed prog., auto. ink unit splitting, transferter, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decurl, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training. |

**AUXILIARY EQUIPMENT INCLUDES**

- Coating Unit
- Pecom Press Manager
- APL Automatic Plate Loading

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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</table>

**FUNDIONS LABOR-1 SHIFT**

- **Pressman** $49,404  
- **Operator** $42,527  

**LABOR COST-2 SHIFTS**

- **Manager** $171,847  
- **Operator** $84,825  
- **General Factory** $118,127  

**LABOR COST-3 SHIFTS**

- **Manager** $143,815  
- **Operator** $129,296  

**TOTAL MANUFACTURING COSTS**

- **Pressman** $129,296  
- **Operator** $118,127  
- **General Factory** $228,592  

**TOTAL INVEST.**

- $1,400,000
### BASE COST ABOVE INCLUDES

Auto changeover to perfecting; sheet holder, diaq. sheet correction, suction feed board, trend indic., auto. format of feeder, adjust. front tabs & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compends, damp., sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cyl. positioning, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed progr., auto. ink unit splitting, transferfer, remote running req., auto. format of deliv., nonstop deliv., powder spray, sheet decurl, central lubr., sheet counter, covered ink/ water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos.. tach., washup device, water recirc., install.. training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

**LABOR COST-1 SHIFT**

Pressman: $149,404
Operator: $42,527

**LABOR COST-2 SHIFTS**

Pressman: $151,122
Operator: $138,413

**LABOR COST-3 SHIFTS**

Pressman: $128,633
Operator: $118,127

Total: $471,968

---

### AUXILIARY EQUIPMENT INCLUDES

- Note: Available options, not included in this study are as follows: Coating Unit, Pecom Press Manager, and APL Automatic Plate Loading.

---

**MAN Roland, R 704 P**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.13&quot; X 40.94&quot;</td>
<td>4</td>
<td>16,000 iph</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>hp: --</td>
<td>Offset</td>
</tr>
<tr>
<td>kWhs: 107</td>
<td>INTERFACES WITH:</td>
</tr>
<tr>
<td></td>
<td>n/a</td>
</tr>
</tbody>
</table>

| BASE COST: | $1,490,000 |
| INSTALL (EST.): | Included |

---

**TOTAL INVEST.:**

$1,490,000

---

**MAN Roland, R 704 P**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$149,000</td>
<td>$149,000</td>
<td>$149,000</td>
</tr>
<tr>
<td>$186,250</td>
<td>$186,250</td>
<td>$186,250</td>
</tr>
<tr>
<td>$223,500</td>
<td>$223,500</td>
<td>$223,500</td>
</tr>
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</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
</tr>
<tr>
<td>$159,125</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
<tr>
<td>$216,570</td>
<td>$195,296</td>
<td>$180,482</td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$41,177</td>
<td>$37,000</td>
<td>$26,101</td>
</tr>
<tr>
<td>$65,143</td>
<td>$59,300</td>
<td>$44,700</td>
</tr>
<tr>
<td>$149,968</td>
<td>$149,968</td>
<td>$149,968</td>
</tr>
</tbody>
</table>

No. of Manned Hours Annually @ 100% Productivity.............................

<table>
<thead>
<tr>
<th>FIXED CHARGES (NON-VARIABLE)</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...........</td>
<td>$149,000</td>
<td>$149,000</td>
<td>$149,000</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft....................</td>
<td>$7,350</td>
<td>$4,900</td>
<td>$4,900</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)...........................</td>
<td>$5,960</td>
<td>$5,960</td>
<td>$5,960</td>
</tr>
</tbody>
</table>

**VARIABLE CHARGES**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,000</td>
<td>9,000</td>
<td>9,000</td>
</tr>
<tr>
<td>22,000</td>
<td>22,000</td>
<td>22,000</td>
</tr>
<tr>
<td>40,000</td>
<td>40,000</td>
<td>40,000</td>
</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS.................................

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>398,080</td>
<td>376,903</td>
<td>356,732</td>
</tr>
<tr>
<td>609,726</td>
<td>571,240</td>
<td>533,696</td>
</tr>
<tr>
<td>802,143</td>
<td>747,975</td>
<td>694,928</td>
</tr>
</tbody>
</table>

**TOTAL COSTS...........................................

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>565,274</td>
<td>535,202</td>
<td>506,559</td>
</tr>
<tr>
<td>835,325</td>
<td>782,599</td>
<td>731,163</td>
</tr>
<tr>
<td>1,058,827</td>
<td>987,327</td>
<td>917,305</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$292.16</td>
<td>$251.58</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$331.11</td>
<td>$285.13</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$413.89</td>
<td>$356.41</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$414.86</td>
<td>$357.25</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$470.18</td>
<td>$404.88</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$587.72</td>
<td>$506.10</td>
</tr>
</tbody>
</table>

---

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### BASE COST ABOVE INCLUDES

Rapida 105; Vari Speed Dampening; auto preset package; semi-automatic plate changers; pin register system; cocking; installation and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

Pressman: $49,404  
Operator: $42,527

**LABOR COST-2 SHIFTS**

Pressman: $41,177  
Operator: $37,620

**LABOR COST-3 SHIFTS**

Pressman: $159,125  
Operator: $133,535

**TOTAL:** $318,763

### AUXILIARY EQUIPMENT INCLUDES


### MANNING CODE

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

- Direct Labor
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
- Pension Fund (A) 5% (B) 3% (C) 2%
- Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
- Worker's Compensation Insurance (Rate $40.00 per M)

### TOTAL MANUFACTURING COSTS

- $288,663

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$305.49</td>
<td>$346.22</td>
<td>$432.77</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$433.79</td>
<td>$491.63</td>
<td>$614.54</td>
</tr>
</tbody>
</table>

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Sheeted Offset  
Presses: 4-Unit
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>29&quot; X 41&quot;</td>
<td>18,000 iph</td>
<td>hp: --</td>
<td>Wet Offset/Waterless Offset</td>
<td>$1,960,000</td>
<td>n/a</td>
<td>Included</td>
<td>$1,960,000</td>
</tr>
</tbody>
</table>

**Base Cost Above Includes**

Rapida 105; auto preset; auto pressure; vari-speed dampening system; pin register; cocking; training and installation.

**Auxiliary Equipment Includes**

Note: available options, not included in this study include: blanket ink roller; impression wash-up system; fully automatic plate change.

**Working Conditions and Annual Cost of Direct Labor (by Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function Labor Cost-1 Shift**

- Pressman: $49,404
- Operator: $42,527

**Labor Cost-2 Shifts**

- Labor Cost-3 Shifts

**Total:**

$91,931 $83,421 $72,800 $189,378 $171,847 $149,968 $288,663 $261,942 $228,592


**One Shift**

- Area A
- Area B
- Area C

**Two Shifts**

- Area A
- Area B
- Area C

**Three Shifts**

- Area A
- Area B
- Area C

**Fixed Charges (Non-Variable)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
3. Fire & Sprinkler Insurance (Rate $4.00 per M)...
4. Direct Labor...
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
6. Pension Fund (A) 5% (B) 3% (C) 2%
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
9. Worker's Compensation Insurance (Rate $40.00 per M)...
10. Power Cost @ $0.07 per kWh (based on hp rating)...
11. Power Cost @ $0.07 per kWh (based on kw rating)...
12. Direct Supplies (see instructions)...
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
14. Sub-total...
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
16. Total Manufacturing Costs...
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
18. Total Costs...
19. Manufacturing Costs per productive hour @
   - 85% productivity
   - 75% productivity
   - 60% productivity
20. All-Inclusive Costs per productive hour @
   - 85% productivity
   - 75% productivity
   - 60% productivity

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### Heidelberg Speedmaster XL 105-4+LX

**SIZE:** 29.53" X 41.34"  
**UNITS:** 4  
**MAXIMUM SPEED:** 18,000 iph  
**POWER:** hp: 85 est.  
**kWhs:** --  
**PERFECTING:** No  
**COLORS:** 4  
**RESOLUTION:** n/a  
**SQ. FT.:** 950

### Product Class/Process:
- Wet Offset
- Standard industry devices and all Prinect components.

### Provisions

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
<tr>
<td>Operator</td>
<td>$42,527</td>
<td>$37,620</td>
<td>$31,623</td>
</tr>
</tbody>
</table>

### Total:
- Direct Labor: $91,931
- LABOR COST-1 SHIFT: $83,421
- LABOR COST-2 SHIFTS: $171,847
- LABOR COST-3 SHIFTS: $149,968
- TOTAL COSTS: $288,663

### Auxiliary Equipment Includes

- Prinect CP2000 Center Press Control with AxisControl and reporting; Preset Plus Feeder with non-stop delivery and pre-loading device; Eltex Antistatic Package for feeder and delivery; enhanced air transfer; Autoplate Advanced; Hycolor combined inking and dampening unit; separate fountain roller temperature control; CombiStar inking unit temperature control; modular automatic impression cylinder and blanket wash-up devices with cloth; coating unit with chamber doctor blade; Preset Plus delivery with X2 extension and DryStar 3000 combination dryer; PowderStar AP 500; CleanStar Compact; systemservice 36 plus; training; installation.

### Total Invest.:
- $2,321,000

---

** Equip. Shipped F.O.B.: Cranbury, NJ  
** System:service 36 plus; training; installation.  
** PowderStar AP 500; CleanStar Compact;  
** extension and DryStar 3000 combination dryer;  
** standard industry devices and all  
** Preset Plus Feeder with  
** Prinect CP2000 Center Press Control with  
** AxisControl and reporting;  
** Preset Plus Feeder with non-stop delivery and pre-loading device;  
** Eltex Antistatic Package for feeder and delivery; enhanced air transfer;  
** Autoplate Advanced;  
** Hycolor combined inking and dampening unit; separate fountain roller temperature control; CombiStar inking unit temperature control; modular automatic impression cylinder and blanket wash-up devices with cloth; coating unit with chamber doctor blade; Pre...
KBA North America, Rapida 130a

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>38” X 51”</td>
<td>4</td>
<td>15,000 pph</td>
<td>hp: --</td>
<td>Wet Offset/Waterless Offset</td>
<td>$3,024,000</td>
<td>n/a</td>
<td>Included</td>
</tr>
</tbody>
</table>

PERFECTING: COLORS: RESOLUTION: SQ. FT.: Optional 4 n/a 750

BASE COST ABOVE INCLUDES
Rapida 130: automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION LABOR COST-1 SHIFT | LABOR COST-2 SHIFTS | LABOR COST-3 SHIFTS

Pressman: $50,066 | $46,552 | $41,894 | $103,136 | $95,897 | $86,302 | $157,207 | $146,173 | $131,547 |
Helper: $33,174 | $29,072 | $23,909 | $68,338 | $59,888 | $49,253 | $104,166 | $91,286 | $75,074 |


AUXILIARY EQUIPMENT INCLUDES

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presses: 4-Unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment Shipped F.O.B.:</td>
<td>Delivered and installed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>307,582</td>
<td></td>
</tr>
<tr>
<td>Workmen’s Compensation Insurance (Rate $40.00 per M)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,026</td>
<td>307,582</td>
<td></td>
</tr>
<tr>
<td>General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairs &amp; Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Cost @ $0.07 per kWh (based on hp rating)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Cost @ $0.07 per kWh (based on kWh rating)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Supplies (see instructions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repairs &amp; Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-total</td>
<td></td>
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</tr>
<tr>
<td>TOTAL:</td>
<td>$861,262</td>
<td>$917,644</td>
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</table>

MANUFACTURING COSTS per productive hour @ 85% productivity

<table>
<thead>
<tr>
<th>19. MANUFACTURING COSTS per productive hour @ 85% productivity</th>
<th>18. TOTAL COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 498.82</td>
<td>$ 431.36</td>
</tr>
</tbody>
</table>

MANUFACTURING COSTS per productive hour @ 75% productivity

<table>
<thead>
<tr>
<th>20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity</th>
<th>19. MANUFACTURING COSTS per productive hour @ 75% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 705.49</td>
<td>$ 612.53</td>
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Sheetfed Offset
Presses: 4-Unit

157
### MAN Roland, R 904-5

<table>
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<th>SIZE:</th>
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<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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<td></td>
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</table>

#### BASE COST ABOVE INCLUDES

- Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compens. damp, sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPI auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink inflod prog., auto. ink unit splitting, transferers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decut, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diag., spare parts, tach., washup device, water recirc., install., training.

#### AUXILIARY EQUIPMENT INCLUDES

- Available options, not included in this study as are follows: Coating Module; Pecom Press Manager.

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
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<td>8</td>
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<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

- Pressman
- Operator
- Helper

---

### VARIABLE CHARGES

<table>
<thead>
<tr>
<th>Area</th>
<th>TOTAL COSTS</th>
<th>$787,479</th>
<th>$744,682</th>
<th>$702,801</th>
<th>$1,160,271</th>
<th>$1,083,938</th>
<th>$1,007,910</th>
<th>$1,468,847</th>
<th>$1,364,709</th>
<th>$1,260,825</th>
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<tr>
<td>1.</td>
<td>10% Holiday</td>
<td>10%</td>
<td>10%</td>
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<td>10%</td>
<td>10%</td>
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<tr>
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<tr>
<td>6.</td>
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<tr>
<td>7.</td>
<td>40% Holiday</td>
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<tr>
<td>8.</td>
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<td>9.</td>
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<tr>
<td>13.</td>
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<tr>
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<tr>
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<tr>
<td>19.</td>
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<td>100%</td>
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[Sheetfed Offset
Presses: 4-Unit]
MAN Roland, R 904-6

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<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
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<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compens. damp, sheet brake, lateral [gger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control], PPI auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed prog., auto. ink unit splitting, transacers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decut, central lubric., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagno., spare parts, tach., washup device, water recirc., install., training.

**AUXILIARY EQUIPMENT INCLUDES**

Note: Available options, not included in this study as follows: Coating Module; Pecom Press Manager.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
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<td>10</td>
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<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</tbody>
</table>

**FUNCTION LABOR-1 SHIFT**

- Pressman: $50,166
- Operator: $53,174
- Helper: $33,174

**LABOR COST-2 SHIFTS**

- Pressman: $103,136
- Operator: $88,811
- Helper: $68,338

**LABOR COST-3 SHIFTS**

- Pressman: $157,207
- Operator: $135,372
- Helper: $104,166

**TOTAL COSTS**

- $396,745
- $337,329
- $307,582

**TOTAL:** $128,352

**MANUFACTURING COSTS**

- AREA A: $23,909
- AREA B: $66,750
- AREA C: $11,140

**PERFECTING:**

- 14,000 iph
- 35
- 35
- 137

**COLORS:**

- Manual
- Direct
- Indirect

**VARIABLE CHARGES**

- Direct Labor: $222,500
- Indirect Labor: $6,318
- Pension Fund: $8,090
- Welfare Benefits: $14,040
- Payroll Taxes: $12,585
- Worker's Compensation Insurance: $10,000
- Power Cost @ $0.07 per kWh (based on hp rating): $9,224
- Direct Supplies: $12,000
- Repairs & Maint.: $4,500
- Rent & Heat: $14,963
- Maintenance & Repairs: $74,423
- TOTAL MANUFACTURING COSTS: $570,576

**SHEETED OFFSET**

- Presses: 4-Unit

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### KBA North America, Rapida 142

#### BASE COST ABOVE INCLUDES

- Rapida 142; automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

#### AUXILIARY EQUIPMENT INCLUDES


#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>Hours/Week</td>
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<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT

- Pressman: $50,066
- Operator: $43,112
- Helper: $33,174

#### LABOR COST-2 SHIFTS

- Pressman: $103,136
- Operator: $88,811
- Helper: $68,338

#### LABOR COST-3 SHIFTS

- Pressman: $157,207
- Operator: $135,372
- Helper: $104,166

#### TOTAL: $128,352 | $113,799 | $97,956
---

#### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<tbody>
<tr>
<td>1,603</td>
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#### TWO SHIFTS

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<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3,525</td>
<td>3,872</td>
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#### THREE SHIFTS

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<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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</table>

### Fixed Charges (Non-Variable)

1. Depreciation 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft
3. Fire & Sprinkler Insurance (Rate $40.00 per M)
4. Direct Labor
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
6. Pension Fund (A) 5% (B) 3% (C) 2%
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
9. Workmen’s Compensation Insurance (Rate $40.00 per M)
10. Power Cost $0.07 per kWh (based on hp rating)
11. Power Cost $0.07 per kWh (based on kW rating)
12. Direct Supplies (see instructions)
13. Repairs & Maint. 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
14. Sub-total
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
16. TOTAL MANUFACTURING COSTS
17. Administrative & Selling Overhead 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
18. TOTAL COSTS
19. MANUFACTURING COSTS per productive hour @
   - 85% productivity
   - 75% productivity
   - 60% productivity
20. ALL-INCLUSIVE COSTS per productive hour @
   - 85% productivity
   - 75% productivity
   - 60% productivity

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## MAN Roland, R 904-7

**Size:**

<table>
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<th>Maximum Speed</th>
<th>Power</th>
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**Perfecting:**

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<th>Resolution</th>
<th>Sq. Ft.</th>
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**BASE COST ABOVE INCLUDES**

- Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregriper, bearer contact, auto. impress. cyl. setting, adjust. ink ossil. timing, speed compamps, damp, sheet brake, lateral [jigger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto., plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed prog., auto. ink split transfers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decut, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, stalkwax damper., feeder & deliv. load boards, self diag., spare parts, tach., washup device, water recirc., install., training. 

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
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<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
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</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman: $50,764
  - Operator: $43,670
  - Helper: $33,174

- **LABOR COST-2 SHIFTS**
  - Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
  - Workmen's Compensation Insurance (Rate $40.00 per M)
  - Welfare Benefits (A) $90.00/ wk. (B) $60.00/ wk. (C) $45.00/ wk.

- **LABOR COST-3 SHIFTS**
  - Pension Fund (A) 5% (B) 3% (C) 2%
  - Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts
  - Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts
  - Welfare Benefits (A) $90.00/ wk. (B) $60.00/ wk. (C) $45.00/ wk.
  - Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
  - Workmen's Compensation Insurance (Rate $40.00 per M)
  - Power Cost @ $0.07 per kWh (based on hp rating)
  - Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts
  - Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
  - Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
  - Total Manufacturing Costs
  - Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts

**TOTAL COSTS**

<table>
<thead>
<tr>
<th>One Shift</th>
<th>Two Shifts</th>
<th>Three Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $260,000 $260,000 $260,000 $325,000 $325,000 $325,000 $390,000 $390,000 $390,000
2. Rent & Heat (A) $10.50/ (B) $7.00/ (C) $5.00 sq. ft $3,750 $3,750 $3,750 $3,750 $3,750 $3,750
3. Power Cost @ $0.07 per kWh (based on hp rating) $2,384
4. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $2,384
5. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $2,384
6. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $2,384
7. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $2,384
8. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $2,384
9. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $2,384
10. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $2,384
11. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $2,384
12. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $2,384
13. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts $2,384

**VARIABLE CHARGES**

- Direct Labor
- Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts
- Pension Fund (A) 5% (B) 3% (C) 2%
- Welfare Benefits (A) $90.00/ wk. (B) $60.00/ wk. (C) $45.00/ wk.
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
- Workmen's Compensation Insurance (Rate $40.00 per M)
- Power Cost @ $0.07 per kWh (based on hp rating)
- Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
- Total Manufacturing Costs
- Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts

**TOTAL COSTS**

<table>
<thead>
<tr>
<th>One Shift</th>
<th>Two Shifts</th>
<th>Three Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>$889,795</td>
<td>$846,953</td>
<td>$804,743</td>
</tr>
<tr>
<td>$1,284,528</td>
<td>$1,208,107</td>
<td>$1,131,464</td>
</tr>
<tr>
<td>$1,611,824</td>
<td>$1,507,560</td>
<td>$1,402,829</td>
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</table>

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$459.88</td>
<td>$398.13</td>
<td>$344.39</td>
</tr>
<tr>
<td>$344.07</td>
<td>$294.31</td>
<td>$250.94</td>
</tr>
<tr>
<td>$298.72</td>
<td>$254.12</td>
<td>$215.27</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$521.20</td>
<td>$451.21</td>
</tr>
<tr>
<td>$399.94</td>
<td>$333.55</td>
</tr>
<tr>
<td>$384.40</td>
<td>$328.00</td>
</tr>
<tr>
<td>$324.97</td>
<td>$280.00</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$653.04</td>
<td>$565.34</td>
<td>$489.03</td>
</tr>
<tr>
<td>$471.37</td>
<td>$403.21</td>
<td>$343.78</td>
</tr>
<tr>
<td>$394.32</td>
<td>$335.43</td>
<td>$284.16</td>
</tr>
<tr>
<td>$322.05</td>
<td>$278.00</td>
<td>$202.56</td>
</tr>
</tbody>
</table>

**Sheeted Offset**

**Presses: 4-Unit**

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## KBA North America, Rapida 162

**Size:** 44" X 64"  
**Units:** 4  
**Maximum Speed:** 13,000 iph  
**Power:** hp: --  
**KwHs:** 56.6  
**Product Class/Process:** Wet Offset/Waterless Offset  
**Interfacing with:** All CTP systems  
**Base Cost:** $3,227,000  
**Auxiliary Equipment:** n/a  
**Install (Est.):** Included  
**Total Invest.:** $3,227,000

### BASE COST ABOVE INCLUDES

Rapida 162: automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

N/A

## WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR-1 SHIFT

| Pressman | $50,764 | $47,199 | $42,562 |
| Operator | $43,670 | $38,782 | $32,601 |
| Helper   | $33,174 | $29,072 | $23,909 |

### FUNCTION LABOR-2 SHIFTS

| Pressman | $104,574 | $97,230 | $87,678 |
| Operator | $89,960  | $79,891 | $67,158 |
| Helper   | $68,338  | $59,888 | $49,253 |

### FUNCTION LABOR-3 SHIFTS

| Pressman | $159,399 | $148,205 | $133,645 |
| Operator | $131,124 | $121,775 | $102,367 |
| Helper   | $104,166 | $91,286  | $75,074 |

**Total:** $127,608  
**Area A:** 115,053  
**Area B:** 99,072  
**Area C:** 262,872  
**Area A:** 237,009  
**Area B:** 204,288  
**Area C:** 400,689

---

**Total Cost:** $311,086

**Total Invest:** $1,168,630

---

### ONE SHIFT

- **No. of Manned Hours Annually @ 100% Productivity:**
  - **Fixed Charges (Non-VARIABLE):**
    - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts: $322,700
    - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft: $8,925
    - 3. Fire & Sprinkler Insurance (Rate $4.00 per M): $13,000
  - **Variable Charges:**
    - 4. Direct Labor: $127,608
    - 5. Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: $3,525
    - 6. Pension Fund (A) 5% (B) 3% (C) 2%: $25,222
    - 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk: $12,710
    - 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%: $10,400
    - 9. Worker’s Compensation Insurance (Rate $40.00 per M): $3,168
    - 10. Power Cost @ $0.07 per kWh (based on hp rating): $0
    - 11. Power Cost @ $0.07 per kW (based on kW rating): $3,811
    - 12. Direct Supplies (see instructions): $1,000
    - 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts: $64,540
    - 14. Sub-total: $618,269
    - 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: $92,740
    - 16. Total Manufacturing Costs: $711,009
  - **Total Costs:** $1,099,633
  - **Manufacturing Costs per productive hour @**
    - 85% productivity: $521,822
    - 75% productivity: $591,404
    - 60% productivity: $739.25
  - **All-Inclusive Costs per productive hour @**
    - 85% productivity: $740.99
    - 75% productivity: $839.79
  - **Total:** $1,049.73

---

**Sheeted Offset**  
**Presses: 4-Unit**

---

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### KBA North America, Rapida 162A

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>47&quot; X 64&quot;</td>
<td>4</td>
<td>13,000 pph</td>
<td>--</td>
<td>Wet Offset/Waterless Offset</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapida 162: automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUXILIARY EQUIPMENT INCLUDES</th>
</tr>
</thead>
</table>

#### BASE COST:
$3,282,000

#### TOTAL INVEST. :
$3,282,000

---

#### DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>Provision</th>
<th>Hours/Week</th>
<th>Labor Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ONE SHIFT</td>
<td>35</td>
<td>$50,764</td>
</tr>
<tr>
<td>B</td>
<td>ONE SHIFT</td>
<td>35</td>
<td>$47,199</td>
</tr>
<tr>
<td>C</td>
<td>ONE SHIFT</td>
<td>35</td>
<td>$42,562</td>
</tr>
<tr>
<td></td>
<td>TWO SHIFTS</td>
<td>11</td>
<td>$104,574</td>
</tr>
<tr>
<td></td>
<td>TWO SHIFTS</td>
<td>11</td>
<td>$59,960</td>
</tr>
<tr>
<td></td>
<td>THREE SHIFTS</td>
<td>11</td>
<td>$159,399</td>
</tr>
</tbody>
</table>

#### TOTAL:
$262,872

---

#### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
</tbody>
</table>

---

#### TOTAL COSTS:
$1,020,770

---

#### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$527.58</td>
</tr>
<tr>
<td>75%</td>
<td>$597.92</td>
</tr>
<tr>
<td>60%</td>
<td>$747.40</td>
</tr>
</tbody>
</table>

---

#### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$749.16</td>
</tr>
<tr>
<td>75%</td>
<td>$849.05</td>
</tr>
</tbody>
</table>

---

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### BASE COST ABOVE INCLUDES

<table>
<thead>
<tr>
<th>Provision</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

<table>
<thead>
<tr>
<th>Area</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$50,764</td>
<td>$47,199</td>
<td>$42,562</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,670</td>
<td>$38,782</td>
<td>$32,601</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
</tr>
</tbody>
</table>

### AUXILIARY EQUIPMENT INCLUDES

- Note: Available options, not included in this study as follows: Coating Module; Pecorn Press Manager.

### MAN Roland, R 904-8

<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power:</th>
<th>Product Class/Process:</th>
<th>Base Cost:</th>
</tr>
</thead>
<tbody>
<tr>
<td>51.1&quot; x 72.8&quot;</td>
<td>4</td>
<td>10,000 iph</td>
<td>hp: --</td>
<td>Offset</td>
<td>$2,750,000</td>
</tr>
</tbody>
</table>

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

#### AUXILIARY EQUIPMENT

<table>
<thead>
<tr>
<th>Area</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
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</tr>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
</tbody>
</table>

#### BASE COST ABOVE INCLUDES

- Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front layers & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compans, damp, sheet brake, lateral (jigger), foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, P/LI auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, internut sheet detect, RCI ink control, ink infeed prog., auto. ink unit splitter, transisters, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decurt, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tact., washup device, water recirc., install., training.

### TOTAL INVEST.

- $2,750,000

### Sheetfed Offset

Presses: 4-Unit
## Workforce and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Labor Cost:

- **Pressman**: $50,764
- **Operator**: $43,670

### Total:

- **$94,434**
- **$85,981**
- **$75,163**
- **$194,534**
- **$177,121**
- **$154,836**
- **$296,523**
- **$269,980**
- **$236,012**

---

## Auxiliary Equipment Includes

- **Presses**: 4-Unit Sheetfed Offset
- **Size**: 59" X 80'
- **Max Speed**: 9,000 iph
- **Power**: hp: -- kwhs: 60 est.
- **Product Class/Process**: Wet Offset/Waterless Offset
- **Interfaces with**: n/a
- **Area A**: Base Cost: $137,124
  - **Auxiliary Equip.**: n/a
  - **Install. (Est.)**: Included
  - **Total Invest.**: $1,589,838

---

## Sheetfed Offset

**Presses**: 4-Unit

- **Base Cost**: $5,539,000
- **Auxiliary Equip.**: n/a
- **Install. (Est.)**: Included
- **Total Invest.**: $5,539,000

---

## Bases Above Includes

Rapida 205; automatic wash-up for plate blanket and impression rollers; auto preset; semi-automatic plate change; pin register; cocking; training and installation.

---

## Auxiliary Equipment Includes

- **Mounted Hours Annually @ 100% Productivity**
- **No. of Manned Hours**
  - **1**: 1,603
  - **2**: 1,763
  - **3**: 1,936
  - **4**: 2,096
  - **5**: 2,304
  - **6**: 2,450
  - **7**: 2,596
  - **8**: 2,742
  - **9**: 2,920
  - **10**: 3,108
  - **11**: 3,300
  - **12**: 3,500
  - **13**: 3,700
  - **14**: 3,900
  - **15**: 4,100
  - **16**: 4,300
  - **17**: 4,500
  - **18**: 4,700
  - **19**: 4,900
  - **20**: 5,100
- **Fixed Charges (Non-Variable)**
  - **1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts**: $553,900
  - **2. Rent & Heat (A) @ $10.50 (B) @ $7.00 (C) @ $5.00 sq. ft.**: 12,650
  - **3. Insurance**: 4,722
  - **4. Direct Labor**: 94,434
  - **5. Indirect Labor (Supervision & Misc.) @ 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts**: 18,887
  - **6. Pension Fund (A) @ 5% (B) @ 3% (C) @ 2%**: 4,722
  - **7. Welfare Benefits (A) @ $90/kwk. (B) @ $60/kwk. (C) @ $45/kwk.**: 9,360
  - **8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%**: 9,406
  - **9. Workmen’s Compensation Insurance (Rate $4.00 per M)**: 4,533
  - **10. Power Cost @ $0.07 per kWh (based on hp rating)**: 4,040
  - **11. Power Cost @ $0.07 per kWh (based on hp rating)**: 4,040
  - **12. Direct Supplies (see instructions)**: 14,000
  - **13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts**: 110,780
  - **14. Sub-total**: 859,867
  - **15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts**: 128,980
  - **16. Total Manufacturing Costs**: 988,846
  - **17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts**: 415,316
  - **18. Total Costs**: 1,404,162
  - **19. Manufacturing Costs per productive hour**
    - **85% productivity**: $725.73
    - **75% productivity**: $822.50
    - **60% productivity**: $1,028.12
    - **20. All-Inclusive Costs per productive hour**
      - **85% productivity**: $1,030.54
      - **75% productivity**: $1,167.95
      - **60% productivity**: $1,459.93
<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>9” X 15.75”</td>
<td>5</td>
<td>30,000 pph</td>
<td>hp: --</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>kWhs: 19.2</td>
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<td>AUXILIARY EQUIP.:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
<td>INSTALL. (EST.):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Included</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Dual feeders for versatility of stocks and sizes; operator graphic interface with color touch screen controls; automatic delivery system with batch count control; axial and radial plate cylinder adjustments during the run; refrigerated dampener recirculation system; integrated cold UV dryer for top printing; one color perfecting capability; training and installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
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<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>Pressman</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>$50,117</td>
<td>$46,690</td>
<td>$103,241</td>
<td>$86,044</td>
</tr>
<tr>
<td>$104,367</td>
<td>$197,307</td>
<td>$157,367</td>
<td>$131,155</td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**

 Equip. Shipped F.O.B.: Halm Industries

---

**SHEETED OFFSET**

**Presses: 5-Unit**

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Shinohara 52VP

BASE COST ABOVE INCLUDES
Continuous oil bath lubrication; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); preload feeder; segmented ink fountain blade; sheet decurler; spray powder system; static eliminator.

MANUFACTURING COSTS
14" X 20'
5
15,000
hp: --
kWhs: 24

LABOR COST-1 SHIFT
Any major U.S. seaport.

LABOR COST-2 SHIFTS

LABOR COST-3 SHIFTS

Payroll Taxes  (Soc. Sec. & Unemploy. Insurance) 8.3%.................................

Pension Fund  (A) 5%  (B) 3%  (C) 2%..........................................

POWER COST @ $0.07 per kWh (based on hp rating)...............................4,424

Power Cost @ $0.07 per kWh (based on kWh rating)...............................2,506

Repairs & Maint. @ 2% 1 shift/  2.5% 2 shifts/  3% 3 shifts..................

FUNCTION
LABOR COST-1 SHIFT
LABOR COST-2 SHIFTS
LABOR COST-3 SHIFTS

Pressman
$50,117
$46,690
$41,769
$103,241
$96,181
$86,044
$157,367
$146,607
$131,155

VARIABLE CHARGES
Direct Labor.................................................................

Indirect Labor  (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...........

Pension Fund (A) 5%  (B) 3%  (C) 2%..........................................2,837

Wellness Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk..........................2,837

Payroll Taxes  (Soc. Sec. & Unemployment Insurance) 8.3%.....................2,837

Workmen's Compensation Insurance (Rate $40.00 per M).......................2,837

Fire & Sprinkler Insurance (Rate $4.00 per M)..................................2,837

Direct Supplies (see instructions)........................................2,837

Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...........

Repairs & Maint.  @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........................2,837

Total..............................................................

$157,367
$146,607
$131,155

No. of Manned Hours Annually @ 100% Productivity..........................

1. Depreciation  @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts..............

2. Rent & Heat  (A) $10.50  (B) $7.00  (C) $5.00 sq. ft..............................

3. Fire & Sprinkler Insurance (Rate $4.00 per M).............................

4. Direct Labor.................................................................

5. Indirect Labor  (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...........

6. Pension Fund (A) 5%  (B) 3%  (C) 2%..........................................2,837

7. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk..........................

8. Payroll Taxes  (Soc. Sec. & Unemployment Insurance) 8.3%.....................2,837

9. Workmen's Compensation Insurance (Rate $40.00 per M).......................2,837

10. Power Cost @ $0.07 per kWh (based on hp rating)............................2,837

11. Power Cost @ $0.07 per kWh (based on kWh rating)............................2,837

12. Direct Supplies (see instructions)........................................2,837

13. Repairs & Maint.  @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........................2,837

14. Sub-total...........................................................

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts..................

16. TOTAL MANUFACTURING COSTS........................................

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...........

18. TOTAL COSTS...........................................................

19. MANUFACTURING COSTS per productive hour @

85% productivity

75% productivity

60% productivity

20. ALL-INCLUSIVE COSTS per productive hour @

85% productivity

75% productivity

60% productivity

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Sheetfed Offset
Presses: 5-Unit

168
# Shinohara 52V+Coater

**POWER:**
- hp: --
- kWhs: 24

**PRODUCT CLASS/PROCESS:**
- Wet Offset

**INTERFACES WITH:**
- CIP3 direct to press ink key data from prepess RIP and closed loop ink key control systems.

## BASE COST ABOVE INCLUDES
- Air knives; continuous oil bath lubrication; hot air drying system; in-line tower coater; extended delivery; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); IR dryer; preload feeder; segmented ink fountain blade; sheet deceller; spray powder system; static eliminator.

## AUXILIARY EQUIPMENT INCLUDES
- Semi-auto. plate changers ($24,900); auto. blanket washer system ($26,400); auto. ink roller cleaning system ($11,250); operation console incl. all features listed for Interactive Touch Screen Plus Ink Key Control ($88,625); plate cylinder cocking - remote control from remote operation console ($10,305); non-stop delivery ($840).

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
  - Pressman $50,117
  - $46,690
  - $41,769
- LABOR COST-2 SHIFTS
  - $103,241
  - $96,181
  - $86,044
- LABOR COST-3 SHIFTS
  - $157,367
  - $146,607
  - $131,155

**TOTAL:**
- $50,117
- $46,690
- $41,769
- $103,241
- $96,181
- $86,044
- $157,367
- $146,607
- $131,155

---

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
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<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

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BASE COST ABOVE INCLUDES
Air knives; continuous oil bath lubrication; hot air drying system; in-line tower coater; extended delivery; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); IR dryer; pre-lead feeder; segmented ink fountain blade; sheet decelerator; spray powder system; static eliminator.

AUXILIARY EQUIPMENT INCLUDES
Semi-auto, plate changers ($24,900); auto. blanket washer system ($26,400); auto. roller cleaning system ($11,250); operation console incl. all features listed for Interactive Touch Screen Plus Ink Key Control ($88,625); plate cylinder cocking - remote control from remote operation console ($10,305); non-stop delivery ($840); semi-auto. perfecting changeover ($14,520).

### Shinohara 52VP+Coater

<table>
<thead>
<tr>
<th>UNIT</th>
<th>MAXIMUM SPEED</th>
<th>POWER</th>
<th>PRODUCT CLASS/PROCESS</th>
<th>BASE COST</th>
<th>AUXILIARY EQUIP.</th>
<th>INSTALL (EST.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14&quot; X 20'</td>
<td>15,000 pph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$712,500</td>
<td>$156,840</td>
<td>$7,000</td>
</tr>
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</table>

### ONE SHIFT

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 Shifts</th>
<th>LABOR COST-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$50,117</td>
<td>$46,690</td>
<td>$41,769</td>
</tr>
<tr>
<td></td>
<td>$103,241</td>
<td>$96,181</td>
<td>$86,044</td>
</tr>
<tr>
<td></td>
<td>$157,367</td>
<td>$146,607</td>
<td>$131,155</td>
</tr>
</tbody>
</table>

### STANDARD MANUFACTURING CHARGES

1. **Depreciation**
   - 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...

2. **Rent & Heat**
   - A) $10.50 (B) $7.00 (C) $5.00 sq. ft...

3. **Fire & Sprinkler Insurance**
   - Rate $4.00 per M...

### VARIABLE CHARGES

4. **Direct Labor**...

5. **Indirect Labor**
   - Supervision & Misc. 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...

6. **Pension Fund**
   - A) 5% (B) 3% (C) 2%

7. **Benefit Fees**
   - A) $90.00/wk. (B) $60.00/wk. (C) $45.00/wk...

8. **Payroll Taxes**
   - Soc. Sec. & Unemploy. Insurance 8.3%

9. **Worker's Compensation Insurance**
   - Rate $40.00 per M...

10. **Power Cost**
    - $0.07 per kWh (based on hp rating)

11. **Payroll Taxes**
    - Payroll Taxes 8.3%

12. **Supervisory**
    - Total No. of Manned Hours Annually @ 100% Productivity...

13. **Repairs & Maint.**
    - 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...

14. **Sub-total**
    - 192,656

15. **General Factory**
    - 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...

16. **TOTAL MANUFACTURING CHARGES**
    - 221,554

17. **Administrative & Selling Overhead**
    - 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...

18. **TOTAL COSTS**
    - 314,606

19. **MANUFACTURING COSTS per productive hour @ 85% productivity**
    - 162.60 $141.61 $123.05 $106.24 91.23 $107.39 $92.28 $78.82

20. **ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**
    - 230.90 $201.09 $174.73 $165.58 $145.59 $124.98 $141.75 $121.81 $104.05

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### BASE COST ABOVE INCLUDES

Single sheet feeder; preloading device; electro pneumatic missing/misaligned sheet control; electronic double sheet detector; direct continuous type damping unit; laser slit blade type ink fountain; oscillating plate inking rollers; sheet brakes delivery; line powder spray device; plate punch-hole with distance 425 mm/16.75”; surface protected blanket cylinder; change plate; plate cylinder; 16 ink rollers; 4 oscillating plate form rollers (per printing unit); dampening cooling and circulation device; Prinect Classic Center Console for remote ink key control; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### FUNCTION
- **LABOR COST-1 SHIFT**
  - Pressman: $50,117
  - $46,690
  - $41,769
  - $103,241
  - $96,181

### LABOR COST-2 SHIFTS
- $86,044
  - $157,367
  - $146,067

### LABOR COST-3 SHIFTS
- $131,155
  - $193,910
  - $180,005

### TOTAL:
- $207,409
  - $323,769
  - $308,970
  - $283,875
  - $435,785
  - $403,393
  - $369,123

**Heidelberg GTO 52-5**

**BASE COST:** $355,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $355,000

**Sheeted Offset**

**Presses: 5-Unit**

---

### BASE COST ABOVE INCLUDES

- **Fixed Charges (Non-Variable)**
  1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts................................. $35,500
  2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft................................. $3,150
  3. Fire & Sprinkler Insurance (Rate $40.00 per M)........................................... $4,680

### VARIABLE CHARGES

- **Direct Labor..........................................................** $50,117
- **Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.........** $1,420
- **Pension Fund (A) 5% (B) 3% (C) 2%.................................................** $1,200
- **Vacation Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...................................** $9,181
- **做工成本 (A) $90./wk. (B) $60./wk. (C) $45./wk...................................** $9,181
- **Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%..................................** $9,181
- **Workmen’s Compensation Insurance (Rate $40.00 per M).................................** $9,181
- **Power Cost @ $0.07 per kWh (based on hp rating)...........................................** $9,181
- **Power Cost @ $0.07 per kWh (based on kWh rating)........................................** $9,181
- **Direct Supplies (see instructions).................................................................** $9,181
- **Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts................................** $9,181
- **Subtotal.................................................................** $127,011
- **General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts................................** $127,011

### TOTAL MANUFACTURING COSTS.................................................................** $146,663

### Sheetfed Offset

**Presses: 5-Unit**

---

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>107.20</td>
<td>91.15</td>
<td>77.03</td>
</tr>
<tr>
<td>75% productivity</td>
<td>121.49</td>
<td>103.30</td>
<td>87.30</td>
</tr>
<tr>
<td>60% productivity</td>
<td>151.86</td>
<td>129.13</td>
<td>109.13</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>152.22</td>
<td>129.43</td>
<td>109.39</td>
</tr>
<tr>
<td>75% productivity</td>
<td>172.52</td>
<td>146.69</td>
<td>123.97</td>
</tr>
<tr>
<td>60% productivity</td>
<td>215.65</td>
<td>183.36</td>
<td>154.96</td>
</tr>
</tbody>
</table>
### KBA North America, Genius 52 UV

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.17” X 20.47”</td>
<td>5</td>
<td>8,000 iph</td>
<td>hp: --</td>
<td>Waterless Offset</td>
<td>$872,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kWs: 75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Genius 52 UV Press; training; installation.

**AUXILIARY EQUIPMENT INCLUDES**


---

**BASE COST: $872,000**

**AUXILIARY EQUIP.: n/a**

**INSTALL. (EST.): Included**

**TOTAL INVEST.: $872,000**

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area C</th>
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</thead>
<tbody>
<tr>
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<td>35</td>
<td>37.5</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$50,117, $46,690, $41,769</td>
</tr>
<tr>
<td>$103,241, $96,181, $91,814</td>
<td></td>
</tr>
<tr>
<td>$86,044, $80,448, $75,360</td>
<td></td>
</tr>
<tr>
<td>$157,367, $146,607, $131,155</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL:** $50,117, $46,690, $41,769

---

**MANUFACTURING COSTS**

**17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...**

<table>
<thead>
<tr>
<th>Cost Per MCF</th>
<th>PRESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>$872,000</td>
<td>KBA North America, Genius 52 UV</td>
</tr>
</tbody>
</table>

---

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th>Cost Per MCF</th>
<th>PRESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>$233.04</td>
<td>203.82</td>
</tr>
<tr>
<td>$177.79</td>
<td>171.53</td>
</tr>
<tr>
<td>$148.71</td>
<td>142.97</td>
</tr>
<tr>
<td>$124.97</td>
<td>121.63</td>
</tr>
</tbody>
</table>

---

**MANUFACTURING COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th>Cost Per MCF</th>
<th>PRESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>$164.12</td>
<td>143.53</td>
</tr>
<tr>
<td>$125.21</td>
<td>108.55</td>
</tr>
<tr>
<td>$93.65</td>
<td>94.68</td>
</tr>
<tr>
<td>$109.65</td>
<td>110.06</td>
</tr>
<tr>
<td>$81.30</td>
<td>92.14</td>
</tr>
<tr>
<td>$146.13</td>
<td>147.37</td>
</tr>
</tbody>
</table>

---

**TOTAL COSTS: $317,534**

---

**MANUFACTURING COSTS per productive hour @ 60% productivity**

<table>
<thead>
<tr>
<th>Cost Per MCF</th>
<th>PRESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>$232.50</td>
<td>203.34</td>
</tr>
<tr>
<td>$177.37</td>
<td>171.13</td>
</tr>
<tr>
<td>$148.54</td>
<td>142.87</td>
</tr>
<tr>
<td>$124.87</td>
<td>121.43</td>
</tr>
</tbody>
</table>

---

**TOTAL COSTS: $233.04**

---

**MANUFACTURING COSTS per productive hour @ 75% productivity**

<table>
<thead>
<tr>
<th>Cost Per MCF</th>
<th>PRESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>$264.12</td>
<td>231.00</td>
</tr>
<tr>
<td>$201.50</td>
<td>194.40</td>
</tr>
<tr>
<td>$145.41</td>
<td>140.03</td>
</tr>
<tr>
<td>$171.06</td>
<td>167.64</td>
</tr>
<tr>
<td>$194.75</td>
<td>191.25</td>
</tr>
</tbody>
</table>

---

**TOTAL COSTS: $330.15**

---

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### Heidelberg, Printmaster PM 52-5

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.56&quot; X 20.47&quot;</td>
<td>5</td>
<td>13,000 iph</td>
<td>hp: --</td>
<td>Sheetfed, Wet Offset</td>
<td>$550,000</td>
<td>n/a</td>
<td>Included</td>
<td>$550,000</td>
</tr>
</tbody>
</table>

#### BASE COST ABOVE INCLUDES

- Press control console on the press; remote control of lateral and circumferential register; double sheet detector; sheet arrival control; Machine Information Display (MID) at feeder; ALCOLOR Dampening; oscillating form rollers; circulation and cooling device for dampening solution; blanket cylinder wash-up device; automatic inking unit wash-up device; Prinect Classic Center for remote ink key and register control; training and installation.

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT

| Pressmen | $50,117 |
| Direct Labor | $46,690 |
| Product Class/Process | $41,769 |
| Total Labor Cost | $103,241 |
| Total Cost | $96,181 |
| Total Cost | $86,044 |
| Total Cost | $157,367 |

#### AUXILIARY EQUIPMENT INCLUDES


---

### Sheeted Offset

Presses: 5-Unit

---

©2007 NAPL. All Rights Reserved
<table>
<thead>
<tr>
<th>SIZE: 14.56&quot; X 20.47&quot;</th>
<th>UNITS: 5</th>
<th>MAXIMUM SPEED: 13,000 iph</th>
<th>POWER: hp: -- kW: 22</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERFECTING: Yes</td>
<td>COLORS: n/a</td>
<td>RESOLUTION: 350</td>
<td>SQ. FT.: n/a</td>
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</tbody>
</table>

### Heidelberg, Printmaster PM 52-5-P

<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press control console on the press; remote control of lateral and circumferential register; double sheet detector; sheet arrival control; Machine Information Display (MID) at feeder; ALCOLOR Dampering; oscillating form rollers; circulation and cooling device for dampening solution; blanket cylinder wash-up device; automatic inking unit wash-up device; Prinect Classic Center for remote ink key and register control; training and installation.</td>
</tr>
</tbody>
</table>

### AUXILIARY EQUIPMENT INCLUDES

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
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<th>Area C</th>
<th>Area A</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### LABOR COST-1 SHIFT

- **Pressman**
  - $50,117
  - $46,690
  - $41,769
  - $103,241

### LABOR COST-2 SHIFTS

- **Pressman**
  - $50,117
  - $46,690
  - $41,769
  - $103,241

### LABOR COST-3 SHIFTS

- **Pressman**
  - $50,117
  - $46,690
  - $41,769
  - $103,241

### TOTAL: **$258,275**

### ONE SHIFT

- **Total Cost**
  - **$133,495**

### TWO SHIFTS

- **Total Cost**
  - **$133,495**

### THREE SHIFTS

- **Total Cost**
  - **$133,495**

### MANUFACTURING COSTS per productive hour @

| 85% productivity | $133,495 |
| 75% productivity | $133,495 |
| 60% productivity | $133,495 |

### ALL-INCLUSIVE COSTS per productive hour @

| 85% productivity | $133,495 |
| 75% productivity | $133,495 |
| 60% productivity | $133,495 |

---

**Total Invest.: $595,000**

---

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**Sheetfed Offset**

**Presses: 5-Unit**

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### Heidelberg Speedmaster SM 52-4+L

**Base Cost:** $674,000  
**Auxiliary Equipment:** n/a  
**Installation (Est.):** Included  
**Total Investment:** $674,000

### Base Cost Above Includes

- CP2000 Touch Screen: remote control of circumferential, lateral, and diagonal register; remote ink keys via CP2000; presetting of side guide and impression cylinder squeeze double sheet detector; programmable automatic blanket, impression, and roller wash-up; automatic sheet arrival control; remote settings of headstops; prep of ink temp control; chromium plated blanket and impression cylinders; ALCOLOR dampering; non-stop feeder and delivery; motor gripper opening cam; Heidelberg DryStar 2000 Combination Dryer; installation and training.

### Auxiliary Equipment Includes

**Note:** Optional equipment, not included in this study, includes: Varo Dampening; extended stock range; and Anicolor.

---

### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### Function

- **Labor Cost-1 Shift**: $50,117  
- **Labor Cost-2 Shifts**: $103,241  
- **Labor Cost-3 Shifts**: $157,367

---

### Total:

- **Area A**: $46,690  
- **Area B**: $41,769  
- **Area C**: $103,241  
- **Region A**: $96,181  
- **Region B**: $86,044  
- **Region C**: $157,367  
- **Total**: $146,607  
- **Total**: $131,155

---

### Equipment Shipped F.O.B.: Mt. Olive, NJ

---

### Sheeted Offset

**Presses:** 5-Unit
### Heidelberg Speedmaster SM 52-4-P+L

**Size:** 14.56” X 20.47"  
**Units:** 5  
**Maximum Speed:** 15,000 iph  
**Power:** hp: 34.8  
**Base Cost:** $715,000

#### Auxilliary Equipment Includes

**Note:** Optional equipment, not included in this study, includes Vario Dampening.

---

## Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>3 weeks</td>
<td>2 weeks</td>
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</table>

### Function

- **Labor Cost-1 Shift**
- **Labor Cost-2 Shifts**
- **Labor Cost-3 Shifts**

---

### Total:

- **$50,117**
- **$46,690**
- **$41,769**

---

### Manufacturin Costs

- **One Shift**
- **Two Shifts**
- **Three Shifts**

---

### Manufacturing Costs per productive hour @

- **85% Productivity**
- **75% Productivity**
- **60% Productivity**

---

### Total Costs:

- **$283,009**
- **$269,309**
- **$255,539**

---

### Manufacturing Costs per productive hour @

- **85% Productivity**
- **75% Productivity**
- **60% Productivity**

---

### Sheetfed Offset

Presses: 5-Unit

---

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---

176
### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
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<th>Area C</th>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function

- **Labor Cost-1 Shift**
  - Pressman: $50,117
  - $46,690
  - $41,769
  - $103,241
  - $96,181
  - $86,044
  - $157,367
  - $146,607
  - $131,155

- **Labor Cost-2 Shifts**
  - $50,117
  - $46,690
  - $41,769
  - $103,241
  - $96,181
  - $86,044
  - $157,367
  - $146,607
  - $131,155

### TOTAL:

- $50,117
- $46,690
- $41,769
- $103,241
- $96,181
- $86,044
- $157,367
- $146,607
- $131,155

### Auxiliary Equipment Includes

- Coater with IR Dryer ($153,000).

---

**BASE COST ABOVE INCLUDES**

- Ryobi 525 HXX; plate punch; semi-automatic plate loading; blanket and roller washers; console.

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

---

**Auxiliary Equipment Includes**

- Equipped F.O.B.: Kansas City, MO

---

**xpedx/Import Group, Ryobi 525 GX**

** SIZE:** 20.47" X 14.76"  
** UNITS:** 5  
** MAXIMUM SPEED:** 15,000 fpm  
** POWER:** hp: --  
** product:** 16  
** product class/process:** Wet Offset  
** interfaces with:** n/a  
** product class/process:** Wet Offset  
** BASE COST:** $602,352  
** BASE COST:** $153,000  
** TOTAL INVEST.:** $755,352  

---

**Total Manufacturing Cost**

- $289,228
- $275,794
- $261,979
- $429,209
- $405,522
- $380,610
- $544,738
- $512,555
- $478,501

---

**Total Manufacturing Costs per productive hour @**

- 85% productivity: $149.49
- 75% productivity: $169.42
- 60% productivity: $211.77

---

**All-Inclusive Costs**

- 85% productivity: $212.27
- 75% productivity: $240.57
- 60% productivity: $300.72
**xpedx/Import Group, Ryobi 525 GXP**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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<td>hp: --</td>
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<td>Yes</td>
<td>5</td>
<td>n/a</td>
<td>300</td>
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</table>

**BASE COST ABOVE INCLUDES**

Plate punch; semi-automatic plate loading; blanket and roller washers; console.

*Install. Cost Note:* Survey did not indicate installation cost information. Adjust your costs accordingly.

**AUXILIARY EQUIPMENT INCLUDES**

Coater and IR dryer ($173,000).

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

- Pressman
  - Area A: $50,117
  - Area B: $46,690
  - Area C: $41,769

**LABOR COST-2 SHIFTS**

- Area A: $103,241
  - Area B: $96,181
  - Area C: $86,044

**LABOR COST-3 SHIFTS**

- Area A: $157,367
  - Area B: $146,607
  - Area C: $131,155

**TOTAL:**

- Area A: $50,117
  - Area B: $46,690
  - Area C: $41,769

**INDIRECT LABOR (R&D & Administration):**

- Area A: $103,241
  - Area B: $96,181
  - Area C: $86,044

**TOTAL MANUFACTURING COSTS:**

- Area A: $157,367
  - Area B: $146,607
  - Area C: $131,155

**TOTAL INVEST.:**

- Area A: $46,690
  - Area B: $41,769
  - Area C: $37,152

**ALL-INCLUSIVE COSTS**

- Area A: $131,155
  - Area B: $122,910
  - Area C: $116,020

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,360</td>
<td>2,525</td>
<td>2,872</td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

**COATING AND PRINTING SPECIFICATIONS**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.47&quot; X 14.76&quot;</td>
<td>5</td>
</tr>
</tbody>
</table>

**PERFECTING:**

- Yes
- 5 Colors
- 300 SQ. FT.

---

**Rated Production Per Hour**

- 15,000 ph

---

**BASE COST:**

- Area A: $856,585
  - Area B: $730,000
  - Area C: $683,585

---

**NO. OF MANNED HOURS Annually @ 100% Productivity**

- Area A: 85,659
  - Area B: 85,659
  - Area C: 85,659

---

**POWER COST @ $0.07 per kWh (based on hp rating)**

- Area A: $103,241
  - Area B: $96,181
  - Area C: $86,044

---

**INSTALLED COST:**

- Area A: $371,515
  - Area B: $333,993
  - Area C: $309,672

---

**MANUFACTURING COSTS per productive hour @ 85% productivity**

- Area A: $160.05
  - Area B: $139.29
  - Area C: $128.82

---

**MANUFACTURING COSTS per productive hour @ 75% productivity**

- Area A: $181.39
  - Area B: $157.82
  - Area C: $138.97

---

**MANUFACTURING COSTS per productive hour @ 60% productivity**

- Area A: $226.74
  - Area B: $197.27
  - Area C: $171.21

---

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

- Area A: $227.27
  - Area B: $197.74
  - Area C: $171.62

---

**ALL-INCLUSIVE COSTS per productive hour @ 75% productivity**

- Area A: $257.58
  - Area B: $224.10
  - Area C: $194.50

---

**ALL-INCLUSIVE COSTS per productive hour @ 60% productivity**

- Area A: $321.97
  - Area B: $280.13
  - Area C: $243.12

---

**Sheeted Offset**

**Presses: 5-Unit**

---

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Sheeted Offset

178
ADAST 557P Step Up Advantage (Data Provided By United Graphic Systems)

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>15&quot; X 20.5&quot;</td>
<td>5</td>
<td>12,000 pph</td>
<td>hp: 16.1</td>
<td>Wet Offset/ Digital press</td>
<td>$460,000</td>
</tr>
</tbody>
</table>

BASE COST ABOVE INCLUDES

Fast sequencing plate changers with punch; on-the-fly cocking; touch screen control; low pile delivery; leverless; Adamatic dampener; IR dryer; sheet decurler; powder sprayer; Superblue auto lubrication; recirculator; PLC driven; Adacontrol Express ink control and register; training; installation.

AUXILIARY EQUIPMENT INCLUDES

High pile delivery ($12,500); perfector ($5,000); CIP 4 preset for ink preset ($2,950).

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION LABOR COST-1 SHIFT    LABOR COST-2 SHIFTS    LABOR COST-3 SHIFTS

| Pressman | $50,117 | $46,690 | $41,769 | $103,241 | $96,181 | $86,044 | $157,367 | $146,607 | $131,155 |

TOTAL: $50,117 $46,690 $41,769 $103,241 $96,181 $86,044 $157,367 $146,607 $131,155

No. of Manned Hours Annually @ 100% Productivity

FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...

3. Fire & Sprinkler Insurance (Rate $4.00 per M)...

4. Direct Labor...

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...

6. Pension Fund (A) 5% (B) 3% (C) 2%...

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...

8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%

9. Worker's Compensation Insurance (Rate $40.00 per M)...

10. Power Cost @ $0.07 per kWh (based on hp rating)...

11. Power Cost @ $0.07 per kWh (based on kWh rating)...

12. Direct Supplies (see instructions)...

13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...

14. Sub-total...

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...

16. TOTAL MANUFACTURING COSTS...

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...

18. TOTAL COSTS...

19. MANUFACTURING COSTS per productive hour @

| 85% productivity | $120.72 | $103.48 | $88.30 | $97.49 | $82.91 | $69.95 | $87.35 | $74.02 | $62.16 |

| 75% productivity | 136.82 | 117.28 | 100.07 | 110.49 | 93.96 | 79.27 | 99.00 | 83.89 | 70.45 |

| 60% productivity | 171.02 | 146.60 | 125.09 | 138.12 | 117.45 | 99.09 | 123.75 | 104.86 | 88.06 |

20. ALL-INCLUSIVE COSTS per productive hour @

| 85% productivity | $171.42 | $146.94 | $125.38 | $133.57 | $113.58 | $95.83 | $115.31 | $97.71 | $82.06 |

| 75% productivity | 194.28 | 166.54 | 142.10 | 151.38 | 128.73 | 108.60 | 130.68 | 110.74 | 93.00 |

| 60% productivity | 242.85 | 208.17 | 177.62 | 189.22 | 160.91 | 135.76 | 163.35 | 138.42 | 116.25 |

Total Invest.: $480,450

Equip. Shipped F.O.B.: Customer's Floor, Delivered and Installed

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Sheetfed Offset
Presses: 5-Unit
### BASE COST ABOVE INCLUDES

- Fast auto plate changers with punch; ADAContrl; computerized control of radial, lateral, and diagonal register; auto blanket and ink wash up; Adamic dampeners; reconductor; touch screen control; vacuum feeder board; leverless pneumatic; IR dryer; Superblue; auto lubrication; nonstop delivery; high pile delivery; powder sprayer; ink ductor separate drive motor; training; installation.

### AUXILIARY EQUIPMENT INCLUDES

- Spectrophotometer Closed Loop ($12,000).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$50,117</td>
<td>$46,690</td>
<td>$41,769</td>
</tr>
<tr>
<td></td>
<td>$103,241</td>
<td>$96,181</td>
<td>$86,044</td>
</tr>
<tr>
<td></td>
<td>$157,367</td>
<td>$146,607</td>
<td>$131,155</td>
</tr>
</tbody>
</table>

**TOTAL:** $50,117 + $46,690 + $41,769 + $103,241 + $96,181 + $86,044 = $324,636

### TOTAL INVEST.

- **$577,000**

---

**ADAST 557P LX (Data Provided By United Graphic Systems)**

<table>
<thead>
<tr>
<th>SIZE: 15&quot; X 20.5&quot;</th>
<th>UNITS: 5</th>
<th>MAXIMUM SPEED: 12,000 pph</th>
<th>POWER: hp: 16.1</th>
<th>PRODUCT CLASS/PROCESS: Wet Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERFECTING: Yes</td>
<td>COLORS: 5</td>
<td>RESOLUTION: n/a</td>
<td>SQ. FT.: 300</td>
<td>BASE COST: $565,000</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- Spectrum Cip 3-4 ink profile preset from digital prepress.
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.

**VARIABLE CHARGES**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts:

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.

3. Fire & Sprinkler Insurance (Rate $4.00 per M).

4. Direct Labor.

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.

6. Retirement Fund (A) 5% (B) 3% (C) 2%.

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.

9. Workmen's Compensation Insurance (Rate $40.00 per M).

10. Power Cost @ $0.07 per kWh (based on kW rating).

11. Power Cost @ $0.07 per kWh (based on hp rating).

12. Direct Supplies (see instructions).

13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts.

14. Sub-total.

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.

16. TOTAL MANUFACTURING COSTS

- **$324,636**

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.

18. TOTAL COSTS

- **$253,124**

19. MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$103.83</td>
<td>$112.67</td>
<td>$120.52</td>
</tr>
<tr>
<td>75%</td>
<td>$127.70</td>
<td>$139.52</td>
<td>$151.29</td>
</tr>
<tr>
<td>60%</td>
<td>$159.62</td>
<td>$172.44</td>
<td>$186.16</td>
</tr>
</tbody>
</table>

20. ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$305.77</td>
<td>$336.03</td>
<td>$359.94</td>
</tr>
<tr>
<td>75%</td>
<td>$381.18</td>
<td>$415.76</td>
<td>$444.94</td>
</tr>
<tr>
<td>60%</td>
<td>$466.59</td>
<td>$509.17</td>
<td>$552.35</td>
</tr>
</tbody>
</table>
**Administrative & Selling Overhead**—42% 1 shift/

**Direct Labor**....................................................................................

**Pension Fund** (A) 5%  (B) 3%  (C) 2%..........................................

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR** (BY AREA)

**FUNCTION**

- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

**BASE COST ABOVE INCLUDES**

Vacuum feeder; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampering System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decolor; spray powder device; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**

- Vacuum feeder
- Sakurai Automatic Plate Changing (SPC)
- SCC Color Console
- Remote control running register
- Plate cylinder cocking
- Sakurai Auto Set (SAS)
- Automatic ink roller washup
- OLIVERMATIC Continuous Dampering System
- Sakurai interactive system
- High pile delivery
- Mechanical double sheet detector
- Electronic double sheet detector
- Front lay sensor
- Side lay sensor
- Decolor
- Spray powder device
- Installation and training

---

**Sakurai Oliver 558SI**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.13&quot; X 22.75&quot;</td>
<td>5</td>
<td>15,000 pph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$635,000</td>
</tr>
<tr>
<td><strong>PERFECTION:</strong></td>
<td><strong>COLORS:</strong></td>
<td><strong>RESOLUTION:</strong></td>
<td><strong>SQ. FT.:</strong></td>
<td><strong>INTERFACES WITH:</strong></td>
<td><strong>INSTALL. (EST.):</strong></td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>n/a</td>
<td>400</td>
<td>CIP4 systems, scanning spectrophotometer.</td>
<td>Included</td>
</tr>
</tbody>
</table>

**TOTAL INVEST.:** $635,000

---

**BASE COST ABOVE INCLUDES**

- No. of Manned Hours Annually @ 100% Productivity
- **VARIABLE CHARGES**
  - Direct Labor
  - Indirect Labor (Supervision & Misc.)
  - Pension Fund (A) 5%  (B) 3%  (C) 2%
  - Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk.
  - Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
  - Workmen's Compensation Insurance (Rate $40.00 per M)
  - Power Cost @ $0.07 per kWh (based on hp rating)
  - Power Cost @ $0.07 per kWh (based on kWh rating)
  - Direct Supplies (see instructions)
  - Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
  - Sub-total
  - Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts

**TOTAL COSTS**

**MANUFACTURING COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

---

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Sheetfed Offset

Presses: 5-Unit

182
Sakurai Oliver 558SIP

**Size:** 18.13" X 22.75"  
**Units:** 5  
**Maximum Speed:** 15,000 iph  
**Power:** hp: --  
**kW/h:** 28 est.  
**Product Class/Process:** Wet Offset  
**Interfaces With:** CIP4 systems, scanning spectrophotometer.  
**Base Cost:** $675,000  
**Auxiliary Equip.:** n/a  
**Install. (Est.):** Included  
**Total Invest.:** $675,000

---

**Base Cost Above Includes**

Automatic perfecting changeover; vacuum feeder; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVEMATIC Continuous Dampering System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurler; spray powder device; installation and training.

---

**Auxiliary Equipment Includes**

---

**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

---

**Function**

- **Labor Cost-1 Shift**
  - Pressman: $50,117
  - Area B: $46,690
  - Area C: $41,769
  - Total: $131,155

- **Labor Cost-2 Shifts**
  - Area A: $103,241
  - Area B: $96,181
  - Area C: $86,044
  - Total: $285,466

- **Labor Cost-3 Shifts**
  - Area A: $157,367
  - Area B: $146,607
  - Area C: $131,155
  - Total: $435,130

---

**All-Inclusive Costs**

- **Pension Fund: (A) 5% (B) 3% (C) 2%**
  - Area A: $94.47
  - Area B: $393,380
  - Area C: $415.42
  - Total: $417,329

- **Workmen's Compensation Insurance (Rate $40.00 per M)**
  - Area A: $4,398
  - Area B: $16,875
  - Area C: $14,427
  - Total: $31,709

- **Reparis & Maint.: 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts**
  - Area A: $56,550
  - Area B: $266,310
  - Area C: $101,250
  - Total: $424,110

- **Total Manufacturing Costs: $329,356**

---

No. of Manned Hours Annually @ 100% Productivity..............................

- **Fixed Charges (Non-Variable)**
  - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts......... $67,500
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft........... $4,200
  - 3. Fire & Sprinkler Insurance (Rate $4.00 per M).................. $2,700

- **Variable Charges**
  - 4. Direct Labor.......................................................... $50,117
  - 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...... $10,023
  - 6. Pension Fund (A) 5% (B) 3% (C) 2%............................... $2,506
  - 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.......... $4,680
  - 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%........ $4,992
  - 9. Workmen's Compensation Insurance (Rate $40.00 per M)....... $2,406
  - 10. Power Cost @$0.07 per kWh (based on hp rating)............. $1,885
  - 11. Power Cost @$0.07 per kWh (based on kW rating)............. $1,885
  - 12. Direct Supplies (see instructions)............................ $5,500
  - 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...... $13,500
  - 14. Sub-total............................................................ $170,099
  - 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........ $25,501

- **Total Manufacturing Costs: $195,510**

---

**Total Costs: $277,624**

**Manufacturing Costs per Productive Hour @**

- **85% Productivity**
  - Total: $143.49
  - Area A: $123.98
  - Area B: $106.99
  - Area C: $111.78

- **75% Productivity**
  - Total: $162.62
  - Area A: $140.51
  - Area B: $121.13
  - Area C: $126.69

- **60% Productivity**
  - Total: $203.28
  - Area A: $175.64
  - Area B: $151.41

---

**All-Inclusive Costs per Productive Hour @**

- **85% Productivity**
  - Total: $203.75
  - Area A: $176.05
  - Area B: $151.77

- **75% Productivity**
  - Total: $230.92
  - Area A: $199.53
  - Area B: $172.00

- **60% Productivity**
  - Total: $288.65
  - Area A: $249.41

---

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### Sakurai Oliver 558SI + Coater

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>18.13” X 22.75”</th>
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</thead>
<tbody>
<tr>
<td>UNITS:</td>
<td>5 (+ Coater)</td>
</tr>
<tr>
<td>MAXIMUM SPEED:</td>
<td>15,000 iph</td>
</tr>
<tr>
<td>POWER:</td>
<td>hp: --</td>
</tr>
<tr>
<td>kWhs:</td>
<td>29</td>
</tr>
</tbody>
</table>

| PERFECTING: | No |
| COLORS: | 5 (+ Coater) |
| RESOLUTION: | n/a |
| SQ. FT.: | 450 |

<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacuum feeder; Sakurai Automatic Plate Changing (SPO); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampering System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurler; spray powder device; extended delivery; IR drying package; installation and training.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions</td>
</tr>
<tr>
<td>Hours/Week</td>
</tr>
<tr>
<td>Paid Holidays</td>
</tr>
<tr>
<td>Vacation After One Year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$50,117</td>
<td>$46,690</td>
<td>$41,769</td>
</tr>
<tr>
<td></td>
<td>$103,241</td>
<td>$96,181</td>
<td>$86,044</td>
</tr>
<tr>
<td></td>
<td>$157,367</td>
<td>$146,607</td>
<td>$131,155</td>
</tr>
</tbody>
</table>

**TOTAL:** $50,117 $46,690 $41,769

**ALL-INCLUSIVE COSTS**

**TOTAL INVEST.:** $832,000

---

**AUXILIARY EQUIPMENT INCLUDES**

- Equipment Shipped F.O.B.: Chicago, IL

---

**Sheeted Offset**

**Presses: 5-Unit**

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184
## Sakurai Oliver 558SIP + Coater

**Dimensions:** 18.13” x 22.75”
- **Units:** 5
- **Maximum Speed:** 15,000 iph
- **Power:** hp: -- kWhs: 31

### BASE COST ABOVE INCLUDES
- Automatic perfecting changeover; vacuum feeder; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; decurler; spray powder device; extended delivery; IR drying package; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

<table>
<thead>
<tr>
<th>Presses: 5-Unit</th>
<th>Sheetfed Offset</th>
<th>PRESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>CONVENTIONAL</strong></td>
<td><strong>BASE COST:</strong></td>
</tr>
<tr>
<td>2.</td>
<td><strong>LAYOUT FOR</strong></td>
<td><strong>$892,000</strong></td>
</tr>
<tr>
<td>3.</td>
<td><strong>PRODUCT CLASS/PROCESS:</strong></td>
<td><strong>Included</strong></td>
</tr>
<tr>
<td>4.</td>
<td><strong>INSTALL. (EST.):</strong></td>
<td><strong>TOTAL INVEST. :</strong></td>
</tr>
<tr>
<td>5.</td>
<td><strong>PERFECTING:</strong></td>
<td><strong>$892,000</strong></td>
</tr>
<tr>
<td>6.</td>
<td><strong>FUNCTION</strong></td>
<td><strong>n/a</strong></td>
</tr>
<tr>
<td>7.</td>
<td><strong>LABOR COST-1 SHIFT</strong></td>
<td><strong>n/a</strong></td>
</tr>
<tr>
<td>8.</td>
<td><strong>LABOR COST-2 SHIFTS</strong></td>
<td><strong>n/a</strong></td>
</tr>
<tr>
<td>9.</td>
<td><strong>LABOR COST-3 SHIFTS</strong></td>
<td><strong>n/a</strong></td>
</tr>
<tr>
<td>10.</td>
<td><strong>TOTAL MANUFACTURING COSTS</strong></td>
<td><strong>n/a</strong></td>
</tr>
<tr>
<td>11.</td>
<td><strong>ALL-INCLUSIVE COSTS</strong></td>
<td><strong>n/a</strong></td>
</tr>
<tr>
<td>12.</td>
<td><strong>TOTAL COSTS</strong></td>
<td><strong>n/a</strong></td>
</tr>
</tbody>
</table>

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hours/Week</strong></td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td><strong>Paid Holidays</strong></td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td><strong>Vacation</strong></td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td><strong>FUNCTION</strong></td>
<td><strong>LABOR COST-1 SHIFT</strong></td>
<td><strong>LABOR COST-2 SHIFTS</strong></td>
<td><strong>LABOR COST-3 SHIFTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pressman</strong></td>
<td>$50,117</td>
<td>$46,690</td>
<td>$41,769</td>
<td>$103,241</td>
<td>$96,181</td>
<td>$86,044</td>
<td>$157,367</td>
<td>$146,607</td>
<td>$131,155</td>
</tr>
<tr>
<td><strong>AUXILIARY EQUIPMENT INCLUDES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### NO. OF MANNED HOURS ANNUALLY @ 100% PRODUCTIVITY

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>VARIABLE CHARGES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BASE COST ABOVE INCLUDES</strong></td>
<td><strong>TOTAL MANUFACTURING COSTS</strong></td>
</tr>
<tr>
<td><strong>PERFECTING</strong></td>
<td><strong>MANNING CODE</strong></td>
</tr>
<tr>
<td><strong>RESOLUTION</strong></td>
<td><strong>CIP4 systems, scanning spectrophotometer.</strong></td>
</tr>
</tbody>
</table>

---

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**Sakurai Oliver 566SIP**

**SIZE:**
19" X 26’

**UNITS:**
5

**MAXIMUM SPEED:**
15,000 iph

**POWER:**

- hp: --
- kwhs: 27.3

**PRODUCT CLASS/PROCESS:**
Wet Offset

**BASE COST:**
$740,000

**AUXILIARY EQUIP.:**
n/a

**INSTALL. (EST.):**
Included

**TOTAL INVEST. :**
$740,000

---

### BASE COST ABOVE INCLUDES

- Automatic perfecting changeover; vacuum feeder; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; decurier; spray powder device; automatic blanket washup; installation and training.

### VARIABLE CHARGES

1. Direct Labor
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
3. Fire & Sprinkler Insurance (Rate $4.00 per M).
4. Power Cost @ $0.07 per kWh (based on hp rating)
5. Power Cost @ $0.07 per kWh (based on kw rating)
6. Pension Fund (A) 5% (B) 3% (C) 2%
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
9. Workmen’s Compensation Insurance (Rate $40.00 per M).
10. Power Cost @ $0.07 per kWh (based on hp rating)

**TOTAL MANUFACTURING COSTS**

- **LABOR COST-1 SHIFT**
  - Pressman
  - $50,117
  - $46,690
  - $41,769

- **LABOR COST-2 SHIFTS**
  - $103,241
  - $96,181
  - $86,044

- **LABOR COST-3 SHIFTS**
  - $157,367
  - $146,607
  - $131,155

**TOTAL:**

- $294,404
- $280,380
- $266,290

**MANUFACTURING COSTS per productive hour @**

- 85% productivity
  - 152.16
  - 131.80
  - 113.96

- 75% productivity
  - 172.45
  - 149.37
  - 129.15

- 60% productivity
  - 215.56
  - 186.71
  - 161.44

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity
  - 216.07
  - 187.15
  - 161.82

- 75% productivity
  - 244.88
  - 212.11
  - 183.40

- 60% productivity
  - 306.10
  - 265.13
  - 229.24

---

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Sheetfed Offset

Presses: 5-Unit

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### Sakura Oliver 566SI + Coater

#### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Function

- **Labor Cost-1 Shift**
- **Labor Cost-2 Shifts**
- **Labor Cost-3 Shifts**

#### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Chicago, IL

---

**Sakura Oliver 566SI + Coater**

**Base Cost:** $890,000

**Auxiliary Equip.:** n/a

**Install. (Est.):** Included

**Total Invest.:** $890,000

---

**One Shift**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**Two Shifts**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Three Shifts**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,623</td>
<td>3,090</td>
<td>3,457</td>
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</table>

**Total:**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,162</td>
<td>6,451</td>
<td>7,500</td>
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**Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$890,000</td>
<td>$890,000</td>
<td>$890,000</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$111,250</td>
<td>$111,250</td>
<td>$111,250</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$133,500</td>
<td>$133,500</td>
<td>$133,500</td>
</tr>
</tbody>
</table>

---

**Pension Fund (A) 5% (B) 3% (C) 2%**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3,560</td>
<td>$3,560</td>
<td>$3,560</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3,560</td>
<td>$3,560</td>
<td>$3,560</td>
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<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3,560</td>
<td>$3,560</td>
<td>$3,560</td>
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</tbody>
</table>

---

**Direct Labor**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$92,143</td>
<td>$103,241</td>
<td>$146,607</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$115,165</td>
<td>$127,483</td>
<td>$154,155</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$166.43</td>
<td>$166.43</td>
<td>$166.43</td>
</tr>
</tbody>
</table>

---

**Equipment Shipped F.O.B.: Chicago, IL**
**Sakurai Oliver 566SIP + Coater**

**Size:** 19" X 26'  
**Units:** 5  
**Maximum Speed:** 15,000 fpm  
**Power:** hp: --  
**Kwhs:** 30.3

**Product Class/Process:**  
- Wet Offset  
- Interfaces with: CIP4 systems, scanning spectrophotometer.

**Base Cost:** $940,000

**Auxiliary Equipment:**  
- n/a

**Install (Est.):** Included

**Total Invest.:** $940,000

---

### BASE COST ABOVE INCLUDES

- Automatic perfecting changeover; vacuum feeder; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurler; spray powder device; automatic blanket washup; extended delivery; IR drying package; installation and training.

---

### Auxiliary Equipment Includes

- n/a

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **Labor Cost-1 Shift**
  - Pressman $50,117  
  - $46,690  
  - $41,769

- **Labor Cost-2 Shifts**
  - $103,241  
  - $96,181  
  - $86,044

- **Labor Cost-3 Shifts**
  - $157,367  
  - $146,607  
  - $131,155

---

**Total:**  
- $50,117  
- $46,690  
- $41,769  
- $103,241  
- $96,181  
- $86,044  
- $157,367  
- $146,607  
- $131,155

---

**Eqip. Shipped F.O.B.: Chicago, IL**

---

### Construction Estimating Sheet

**Sheetfed Offset**

**Presses: 5-Unit**

---

**No. of Manned Hours Annually @ 100% Productivity**

<table>
<thead>
<tr>
<th>Function</th>
<th>1. Depreciation 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts</th>
<th>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.</th>
<th>3. Fire &amp; Sprinkler Insurance (Rate $40.00 per M).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$94,000</td>
<td>$4,988</td>
<td>$3,760</td>
</tr>
<tr>
<td></td>
<td>$94,000</td>
<td>$3,250</td>
<td>$2,375</td>
</tr>
<tr>
<td></td>
<td>$94,000</td>
<td>$2,243</td>
<td>$1,603</td>
</tr>
</tbody>
</table>

**Base Cost**

- $940,000

**Auxiliary Equipment Includes**

- n/a

**Install (Est.):** Included

**Total Invest.:** $940,000

---

**Fixed Charges (Non-Variable)**

- $94,000 (1. Depreciation 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts)
- $4,988 (2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.)
- $3,760 (3. Fire & Sprinkler Insurance (Rate $40.00 per M)).

---

**Variable Charges**

- $50,117 (4. Direct Labor)
- $4,988 (5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts)
- $3,760 (6. Pension Fund (A) 5% (B) 3% (C) 2%)
- $4,680 (7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.)
- $4,992 (8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%)
- $2,486 (9. Workmen’s Compensation Insurance (Rate $40.00 per M.))
- $0 (10. Power Cost $0.07 per kWh (based on hp rating))
- $0 (11. Power Cost $0.07 per kWh (based on kW rating))
- $0 (12. Direct Supplies (see instructions))
- $0 (13. Repairs & Maint. 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts)
- $0 (14. Sub-total)
- $0 (15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts)
- $226,683 (16. TOTAL MANUFACTURING COSTS)

---

**Total Costs**

- $336,089

---

**MANUFACTURING COSTS per productive hour @**

- 85% productivity: $173.71
- 75% productivity: $196.87
- 60% productivity: $246.08

---

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity: $246.66
- 75% productivity: $279.55
- 60% productivity: $349.44

---

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Sheetfed Offset

Presses: 5-Unit
### BASE COST ABOVE INCLUDES

Vacuum feeder; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampering System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurer; spray powder device; automatic blanket washup; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

- Auxiliary Equip.: n/a
- **INSTALL. (EST.):** Included
- **TOTAL INVEST.:** $690,000

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman $50,117
  - $46,690
  - $41,769
  - $103,241
  - $96,181
  - $86,044
  - $157,367
  - $146,607
  - $131,155

**LABOR COST-2 SHIFTS**

**LABOR COST-3 SHIFTS**

---

### FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts... $69,000
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft... 4,650
3. Fire & Sprinkler Insurance (Rate $4.00 per M)... 10,023
4. Direct Labor... 2,670
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts... 9,181
6. Pension Fund (A) 5% (B) 3% (C) 2%... 2,506
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk... 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%... 4,992
9. Workmen's Compensation Insurance (Rate $40.00 per M)... 2,408
10. Power Cost @ $0.07 per kWh (based on hp rating)... 1,750
11. Power Cost @ $0.07 per kWh (based on kW rating)... 0
12. Direct Supplies (see instructions)... 7,500
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts... 13,800
14. Sub-total... 73,159
15. General Factory... 26,099
16. TOTAL MANUFACTURING COSTS... 200,896
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts... 84,040
18. TOTAL COSTS... 284,136
19. MANUFACTURING COSTS per productive hour @
   - 85% productivity $146.85
   - 75% productivity 166.43
   - 60% productivity 208.04
20. ALL-INCLUSIVE COSTS per productive hour @
   - 85% productivity $208.53
   - 75% productivity 236.34
   - 60% productivity 295.42

---

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Sheeted Offset

Presses: 5-Unit

189
### KBA North America, Performa 66

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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<tbody>
<tr>
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<td>10,000 iph</td>
<td>hp: --</td>
<td>Wet Offset</td>
<td>$768,000</td>
</tr>
</tbody>
</table>

### OPTIONAL EQUIPMENT INCLUDES

- Optional [FOGEO Standards 350]

### BASE COST ABOVE INCLUDES

- Console & B&R Electronic Control System; vac. belt conveyor; dual feeder head w/ shoe control; rotary pre-gripper w/ paper weight adjust; front lay stops; quick action plate clamping bars; Polygoautomatic Damper; Royce Recirculator; segmented duct blade; inking unit washer; auto. blanket & roller washer; Siemens Blower; pneumatic machine control; Touch-Screen machine operation at deliv.; auto. inching speed select; sheet counter; high (low) pile deliv.; sheet deceler; powder spray; fans in deliv.; central lubr.; electronic double sheet control; helical gears (inking rollers); remote control of regist.; inking rollers spread adjust.; feeder head transport gripper adjust.; Botcher inking & dampening rubber rollers; Super Blue transfer & delivery cylinders; Becker compressor; high adjust. of pile toward feeder head; dryer; install. and training.

### AUXILIARY EQUIPMENT INCLUDES

- Note: Perfecting is an available option not included in this study.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

- Pressman $50,117
- [46,969, 41,769]

### LABOR COST-2 SHIFTS

- [103,241, 96,181]
- [86,044]
- [157,367, $146,607, $131,155]

### LABOR COST-3 SHIFTS

- [157,367, $146,607, $131,155]

### TOTAL:

- $50,117
- [46,969, 41,769]
- [103,241, 96,181]
- [86,044]
- [157,367, $146,607, $131,155]

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
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</table>

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<thead>
<tr>
<th>AREA A</th>
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<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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### TWO SHIFTS

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<thead>
<tr>
<th>AREA A</th>
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<th>AREA C</th>
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<tbody>
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</table>

<table>
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<tr>
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<tr>
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<tr>
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<td>23,636</td>
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<tbody>
<tr>
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<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### TOTAL MANUFACTURING COSTS:

- $209,539
- [199,878, 190,033]
- [322,823, 305,358]
- [287,040, 425,725]
- [417,144, 375,236]

### TOTAL COSTS:

- $297,545
- [283,826, 269,847]
- [442,268, 418,341]
- [393,246, 561,957]
- [529,510, 495,311]

### MANUFACTURING COSTS per productive hour @

- 85% productivity $153.78
- 75% productivity $174.29
- 60% productivity $217.86

### ALL-INCLUSIVE COSTS per productive hour @

- 85% productivity $218.37
- 75% productivity $247.49
- 60% productivity $309.36

---

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<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power:</th>
<th>Product Class/Process:</th>
<th>Base Cost:</th>
</tr>
</thead>
<tbody>
<tr>
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<td>10,000 pph</td>
<td></td>
<td>Wet Offset</td>
<td>$555,000</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- PLC control; fast auto plate changers; auto ink unit wash up; Adacontrol Express; on the fly diagonal skewing; prebarred blanket capable; high pile delivery; leverless; Adatick damenders; inkryr ink dryer; Superblue; recirculator; powder sprayer; sheet decurler; training; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<td>40</td>
</tr>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $50,117

**LABOR COST-2 SHIFTS**

- Area A: $103,241
- Area B: $96,181
- Area C: $86,044

**LABOR COST-3 SHIFTS**

- Area A: $157,367
- Area B: $146,607
- Area C: $131,155

**TOTAL:**

- Area A: $103,241
- Area B: $96,181
- Area C: $86,044

**TOTAL COSTS:**

- Area A: $157,367
- Area B: $146,607
- Area C: $131,155

**MANUFACTURING COSTS**

- BASE COST: $110,900
- TOTAL INVEST.: $665,900

**MANUFACTURING COSTS per productive hour @**

- 85% productivity: $143.24
- 75% productivity: $162.33
- 60% productivity: $202.92

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity: $203.39
- 75% productivity: $230.51
- 60% productivity: $288.14

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Sheeted Offset

Presses: 5-Unit
## Size: 19.12” X 26”
- **Units:** 5
- **Maximum Speed:** 10,000 iph
- **Power:** hp: --
  - kW: 18.4

### Perfecting:
- **Color:** Yes
- **Resolution:** 350

### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function
- **Labor Cost-1 Shift**
- **Labor Cost-2 Shifts**
- **Labor Cost-3 Shifts**

| Pressman | $50,117 | $46,690 | $41,769 | $103,241 | $96,181 | $86,044 | $157,367 | $146,607 | $131,155 |

### Total: $50,117 | $46,690 | $41,769 | $103,241 | $96,181 | $86,044 | $157,367 | $146,607 | $131,155

### One Shift

<table>
<thead>
<tr>
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<th>AREA B</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>1,936</td>
</tr>
</tbody>
</table>

### Two Shifts

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

### Three Shifts

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### Fixed Charges (Non-Variable)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts............ $74,200
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.................. $2,624
3. Fire & Sprinkler Insurance (Rate $4.00 per M)......................... $99.10

### Variable Charges

1. Direct Labor.............................................. $50,117
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts................ $2,039
3. Pension Fund (A) 5% (B) 3% (C) 2%........................................ $2,039
4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk............. $2,039
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%................. $2,039
6. Worker's Compensation Insurance (Rate $40.00 per M)... $2,039
7. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts............. $2,039
8. Sub-total.................................................. $179,145
9. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts......... $2,039
10. Total Manufacturing Costs................................. $502,654
11. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts........ $2,039
12. Total Costs.............................................. $729,238

### Manufacturing Costs per productive hour @

- **85% Productivity**
  - $151.20
- **75% Productivity**
  - $171.36
- **60% Productivity**
  - $214.20

### All-Inclusive Costs per productive hour @

- **85% Productivity**
  - $214.70
- **75% Productivity**
  - $243.33
- **60% Productivity**
  - $304.16

### AREA B

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<thead>
<tr>
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### AREA C

<table>
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<tr>
<th>4,809</th>
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### Total Invest.: $742,000

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**NAPL-2**

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Sheeted Offset

Presses: 5-Unit
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<th>PROJECT</th>
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<th>AREA B</th>
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<tr>
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<td>37.5</td>
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<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Hours/Week</td>
<td>50,117</td>
<td>$46,690</td>
<td>$41,769</td>
<td>$103,241</td>
<td>$96,181</td>
<td>$86,044</td>
<td>$157,367</td>
<td>$146,607</td>
<td>$131,155</td>
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<tr>
<td>Labor Cost-1 Shift</td>
<td>Pressman</td>
<td>50,117</td>
<td>$46,690</td>
<td>$41,769</td>
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<td>$96,181</td>
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<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Auxiliary Equipment**

- Suction belt feeder; electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

**Total Cost:** $730,000
**Sakurai Oliver 566 SDP**

<table>
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<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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<td>hp: --</td>
<td>Wet Offset</td>
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<td>kWhs: 37</td>
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</tbody>
</table>

**PERFECTING:**  
COLORS: n/a  
RESOLUTION: 540  
SQ. FT.:  
Yes

**BASE COST ABOVE INCLUDES**  
Auto perfector changeover; suction belt feeder; electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
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<tr>
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<td>2 weeks</td>
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</table>

**FUNCTION**

**LABOR COST-1 SHIFT**
- Pressman: $50,117
- $46,690
- $41,769
- $103,241
- $96,181
- $86,044
- $157,537
- $146,607
- $131,155

**LABOR COST-2 SHIFTS**
- $50,117
- $46,690
- $41,769
- $103,241
- $96,181
- $86,044
- $157,537
- $146,607
- $131,155

**LABOR COST-3 SHIFTS**
- $50,117
- $46,690
- $41,769
- $103,241
- $96,181
- $86,044
- $157,537
- $146,607
- $131,155

**AUXILIARY EQUIPMENT INCLUDES**

**MANUFACTURING COSTS**

**PERFECTING:**
- 15% 2 shifts/ 10% 3 shifts

**COLORS:**
- 37% 2 shifts/ 32% 3 shifts

**RESOLUTION:**
- 16,000 iph

**SQ. FT.:**
- 20" x 26"

**POWER:**
- 50,117
- 46,690
- 41,769

**SQ. FT.:**
- 103,241
- 96,181
- 86,044

**TOTAL INVEST.:**
- $46,690
- $41,769
- $103,241

**TOTAL COSTS:**
- $308,579
- $294,004
- $279,654
- $456,109
- $431,591
- $406,381
- $578,226
- $545,427
- $511,342

**TOTAL MANUFACTURING COSTS:**
- $280,027
- $256,670
- $232,313

**VARIABLE CHARGES**

<table>
<thead>
<tr>
<th>No. of Manned Hours Annually</th>
<th>100% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIXED CHARGES (NON-VARIABLE)</td>
<td>$79,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$99,375</td>
<td>$99,375</td>
<td>$99,375</td>
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</table>

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
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<td>$119,250</td>
<td>$119,250</td>
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</table>

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$127,350</td>
<td>$127,350</td>
<td>$127,350</td>
</tr>
</tbody>
</table>

**VARIABLE CHARGES**

**RENT & HEAT (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.**
- $6,451
- $4,749
- $3,180

**FIRE & SPRINKLER INSURANCE (Rate $4.00 per M)**
- $750
- $567
- $378

**POWER COST @ $0.07 per kWh (based on kWh rating)**
- $1,401
- $1,058
- $730

**POWER COST @ $0.07 per kWh (based on hp rating)**
- $2,885
- $2,274
- $1,500

**REPAIRS & MAINT. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts**
- $2,005
- $1,500
- $1,058

**SUB-TOTAL**
- $188,965
- $148,954
- $108,943

**TOTAL MANUFACTURING COSTS**
- $413,202
- $360,708
- $308,319

**TOTAL COSTS**
- $578,226
- $525,410
- $476,509

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$159.49</td>
<td>$138.20</td>
<td>$119.68</td>
</tr>
<tr>
<td>$122.17</td>
<td>$105.14</td>
<td>$90.13</td>
</tr>
<tr>
<td>$107.16</td>
<td>$91.94</td>
<td>$78.47</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$226.47</td>
<td>$196.25</td>
<td>$169.94</td>
</tr>
<tr>
<td>$167.37</td>
<td>$144.04</td>
<td>$123.47</td>
</tr>
<tr>
<td>$141.46</td>
<td>$121.36</td>
<td>$103.58</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$256.67</td>
<td>$222.41</td>
<td>$192.60</td>
</tr>
<tr>
<td>$189.69</td>
<td>$163.25</td>
<td>$139.94</td>
</tr>
<tr>
<td>$160.32</td>
<td>$137.54</td>
<td>$117.39</td>
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</tbody>
</table>

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$320.84</td>
<td>$278.02</td>
<td>$240.75</td>
</tr>
<tr>
<td>$237.11</td>
<td>$204.06</td>
<td>$174.92</td>
</tr>
<tr>
<td>$200.40</td>
<td>$171.92</td>
<td>$146.74</td>
</tr>
</tbody>
</table>

**Sheetfed Offset**

**Presses: 5-Unit**

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### Sheetfed Offset

**Presses: 5-Unit**

---

#### INPUTS

- **20' X 26''**
- **5 units**
- **16,000 ipm**
- **hp:** --
- **kWhs:** 43

#### PERFECTIONING

- **COLORS:** n/a
- **RESOLUTION:** 605
- **SQ. FT.:** No

#### BASE COST ABOVE INCLUDES

- Suction belt feeder; electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provision</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### LABOR COST-1 SHIFT

- **Pressman** $50,117
- **$46,690**
- **$41,769**
- **$103,241**
- **$96,181**
- **$86,044**
- **$157,367**
- **$146,607**
- **$131,155**

#### LABOR COST-2 SHIFTS

#### LABOR COST-3 SHIFTS

#### TOTAL:

- **$50,117**
- **$46,690**
- **$41,769**
- **$103,241**
- **$96,181**
- **$86,044**
- **$157,367**
- **$146,607**
- **$131,155**

---

#### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Chicago, IL

---

### MANUFACTURING COSTS

#### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$174.32</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$197.57</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$246.96</td>
</tr>
</tbody>
</table>

#### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$247.54</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$280.54</td>
</tr>
</tbody>
</table>

---

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Sheetfed Offset

Presses: 5-Unit
Shinohara 66VH

**Size:**
- 20" x 26'
- 5 units
- Maximum speed: 17,000 iph
- HP:
- KW: 31

**Perfecting:**
- Colors: 5
- Resolution: 550

**Base Cost Above Includes**
- Automatic blanket washer-Type 1; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

**Base Cost:** $973,500
**Auxiliary Equip.:** $200,745
**Install. (Est.):** $5,000
**Total Invest.:** $1,179,245

**Working Conditions and Annual Cost of Direct Labor (by Area)**

<table>
<thead>
<tr>
<th>Area</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$50,117</td>
<td>$46,690</td>
<td>$96,181</td>
</tr>
<tr>
<td>B</td>
<td>$103,241</td>
<td>$197.76</td>
<td>$157,367</td>
</tr>
<tr>
<td>C</td>
<td>$41,769</td>
<td>$86,044</td>
<td>$146,607</td>
</tr>
</tbody>
</table>

**TOTAL:**
- Labor Cost-1 Shift: $50,117
- Labor Cost-2 Shifts: $46,690
- Labor Cost-3 Shifts: $96,181

**Total:** $157,367

---

**Auxiliary Equipment Includes**
- Automatic blanket washer-Type 2 ($7,500); automatic ink roller cleaning ($17,145); plate clamp cocking-remote ($78,300); semi-automatic plate changers ($97,800).

**Fixed Charges (Non-VARIABLE)**
- 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts:
- 2. Rent & Heat (A)$10.50 (B)$7.00 (C)$5.00 sq. ft.
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M).

**Variable Charges**
- 4. Direct Labor...
- 5. Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
- 6. Pension Fund (A) 5% (B) 3% (C) 2%...
- 7. Welfare Benefits (A)$90/wk. (B)$60/wk. (C)$45/wk.
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...
- 9. Workmen's Compensation Insurance (Rate $40.00 per M).
- 10. Power Cost @ $0.07 per kWh (based on hp rating)...
- 11. Power Cost @ $0.07 per kWh (based on kw rating)...
- 12. Direct Supplies (see instructions)...
- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
- 14. Sub-total...
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
- 16. Total Manufacturing Costs...
- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
- 18. Total Costs...

**Sheetfed Offset
Presses: 5-Unit**
## Shintohara 66VH+Coater

### BASE COST ABOVE INCLUDES

- Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

### AUXILIARY EQUIPMENT INCLUDES

- Automatic blanket washer-Type 2 ($7,500);
- Automatic ink roller cleaning ($17,145); plate clamp cocking-remote ($78,300); semi-automatic plate changers ($97,800).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

### MANUFACTURING COSTS

- TOTAL COSTS

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,938</td>
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</table>

<table>
<thead>
<tr>
<th>CHARGES CODE</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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<th>17</th>
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<th>19</th>
<th>20</th>
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<tbody>
<tr>
<td>CHARGES</td>
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<td>3</td>
<td>4</td>
<td>5</td>
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<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
</tbody>
</table>

### PAYROLL TAXES

- Social Security & Unemployment Insurance 8.3%..............

### TOTAL MANUFACTURING COSTS

- $1,195,500

### BASE COST:

- $200,745

### INSTALL. (EST.):

- $7,000

### TOTAL INVEST.

- $1,403,245

---

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Presses: 5-Unit

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### Shonohara 66VPH+Coater

**Size:** 20" X 26"  
**Units:** 5  
**Maximum Speed:** 17,000 fpm  
**Power:** hp: --  
**Kwhs:** 72  
**Perfection:** Yes  
**Colors:** 5  
**Resolution:** n/a  
**Square Feet:** 550  

#### BASE COST ABOVE INCLUDES
- Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

#### AUXILIARY EQUIPMENT INCLUDES
- Automatic blanket washer-Type 2 ($7,500); automatic ink roller cleaning ($17,145); plate clamp changers ($97,800); semi-automatic perfecting changeover ($30,000).

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<td>35</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT
- Pressman: $50,117
- $46,690
- $41,769
- $103,241
- $96,181
- $86,044

### TOTAL COSTS
- $157,367
- $146,607
- $131,155

**BASE COST:** $1,248,000  
**AUXILIARY EQUIP.:** $230,745  
**INSTALL. (EST.):** $7,000  
**TOTAL INVEST.:** $1,485,745

---

**Sheetfed Offset**  
**Presses:** 5-Unit

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Akiyama, Bestech (BT) 528 A2

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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</thead>
<tbody>
<tr>
<td>20.5&quot; X 28.375&quot;</td>
<td>5</td>
<td>13,000 ph</td>
<td></td>
<td>Sheeted Wet or Dry Offset</td>
<td>$990,000</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
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<td>n/a</td>
<td>650</td>
<td>n/a</td>
<td>Included</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Water circulators; hollow vibrator rollers; IR dryer; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cooling system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate bender; delivery and rigging to customer’s plant (Continental USA); training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
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<th>Area C</th>
<th>Area A</th>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- Pressman
- Operator

**LABOR COST-1 SHIFT**

- Pressman: $50,117
- Operator: $42,581

**LABOR COST-2 SHIFTS**

- Pressman: $103,241
- Operator: $87,717

**LABOR COST-3 SHIFTS**

- Pressman: $157,367
- Operator: $133,704

**TOTAL:** $92,698

**ALL-INCLUSIVE COSTS**

- $48,500
- $48,500
- $48,500

**TOTAL INVEST.:** $990,000

**Auxiliary Equipment includes**

- Customer's Plant.

---

**Table:**

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

- **FIXED CHARGES (NON-VARIABLE)**
  - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.......
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.......
  - 3. Fire & Sprinkler Insurance (Rate $4.00 per M)...

- **VARIABLE CHARGES**
  - 4. Direct Labor...
  - 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
  - 6. Pension Fund (A) 5% (B) 3% (C) 2%
  - 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
  - 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
  - 9. Workmen's Compensation Insurance (Rate $40.00 per M)
  - 10. Power Cost @ $0.07 per kWh (based on hp rating)
  - 11. Power Cost @ $0.07 per kWh (based on kW rating)
  - 12. Direct Supplies (see instructions)
  - 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
  - 14. Sub-total...
  - 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
  - 16. TOTAL MANUFACTURING COSTS...

- **TOTAL COSTS**

- **MANUFACTURING COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity

- **20. ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity

---

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Sheeted Offset
Presses: 5-Unit

200
**Mitsubishi, Diamond 1000 5-Color With Tower Coater & Extended Delivery**

**SIZE:** 20.06' X 28.38'  
**UNITS:** 5  
**MAXIMUM SPEED:** 15,000 iph  
**POWER:** hp: --  
**kWhs:** 22  
**PRODUCT CLASS/PROCESS:** Wet Offset  
**INTERFACES WITH:** Plate scanner or CTP system.  
**BASE COST:** $1,000,000  
**AUXILIARY EQUIP.:** n/a  
**INSTALL. (EST.):** Included  
**TOTAL INVEST.:** $1,000,000

---

**BASE COST ABOVE INCLUDES**

Comrac Centralized Operator Makeredy & Control; touch screen display; remote control running register; auto preset inking systems; impression pressure presetting; feeder and delivery presetting; remote control front lay register; cont. stream feeder; side guide; misregister, double sheet, side lay, and overrun detectors; 2 pile pallets feeder; pile height control; tack: 3-position dampening; quick plate clamp system; auto plate cylinder positioning; plasma coated plate & blanket cylinders; chrome plated impress. cylinder; cam-closed grippers; auto lubr.; sequential impression on/off; blow down fans; 2 pile pallets delivery; sheet counter; total revolution counter; sheet slow down wheels; static eliminator; powder spray for deliv.; IR dryer for ink & coating; coating circulator pump; circulators for dampeners; blanket washers; install. and training.

---

**AUXILIARY EQUIPMENT INCLUDES**

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

---

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $50,117  
- Operator: $42,581

---

**LABOR COST-2 SHIFTS**

- Pressman: $46,790  
- Operator: $37,782

---

**LABOR COST-3 SHIFTS**

- Pressman: $41,769  
- Operator: $31,726

---

**TOTAL:** $92,698  
**Purchaser’s Plant:** $84,472  
**$73,495**  
**$190,958**  
**$174,012**  
**$151,400**  
**$291,072**  
**$265,242**  
**$230,774**

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

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**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>22,500</td>
<td>24,537</td>
<td>26,575</td>
<td>40,248</td>
<td>44,716</td>
<td>49,568</td>
<td>60,208</td>
<td>66,048</td>
<td>72,072</td>
</tr>
</tbody>
</table>

---

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>40,192</td>
<td>45,733</td>
<td>51,274</td>
<td>70,228</td>
<td>79,259</td>
<td>90,290</td>
<td>97,714</td>
<td>112,050</td>
<td>126,390</td>
</tr>
</tbody>
</table>

---

**TOTAL MANUFACTURING COSTS...**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>103,241</td>
<td>166,832</td>
<td>230,774</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75% productivity</td>
<td>87,717</td>
<td>131,155</td>
<td>194,698</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60% productivity</td>
<td>73,495</td>
<td>116,756</td>
<td>172,018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**TOTAL COSTS...**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>455,151</td>
<td>425,049</td>
<td>394,746</td>
<td>699,215</td>
<td>646,147</td>
<td>591,441</td>
<td>900,186</td>
<td>828,027</td>
<td>753,967</td>
</tr>
</tbody>
</table>

---

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>235.24</td>
<td>199.80</td>
<td>168.93</td>
<td>187.29</td>
<td>157.41</td>
<td>131.17</td>
<td>166.83</td>
<td>139.57</td>
</tr>
<tr>
<td>75% productivity</td>
<td>266.21</td>
<td>226.44</td>
<td>191.45</td>
<td>212.26</td>
<td>178.40</td>
<td>148.66</td>
<td>189.08</td>
<td>158.18</td>
</tr>
<tr>
<td>60% productivity</td>
<td>333.26</td>
<td>283.05</td>
<td>239.32</td>
<td>265.32</td>
<td>223.00</td>
<td>185.82</td>
<td>236.35</td>
<td>197.73</td>
</tr>
</tbody>
</table>

---

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>334.04</td>
<td>283.72</td>
<td>239.88</td>
<td>256.58</td>
<td>215.65</td>
<td>179.70</td>
<td>220.22</td>
<td>184.24</td>
</tr>
<tr>
<td>75% productivity</td>
<td>378.58</td>
<td>321.55</td>
<td>271.86</td>
<td>309.70</td>
<td>244.41</td>
<td>203.66</td>
<td>249.58</td>
<td>208.80</td>
</tr>
<tr>
<td>60% productivity</td>
<td>473.23</td>
<td>401.94</td>
<td>339.83</td>
<td>363.49</td>
<td>305.51</td>
<td>254.58</td>
<td>311.98</td>
<td>261.00</td>
</tr>
</tbody>
</table>

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Sheet fed Offset

Presses: 5-Unit
KBA North America, Performa 74

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20&quot; X 29&quot;</td>
<td>5</td>
<td>13,000 iph</td>
<td>hp: --</td>
</tr>
<tr>
<td>kW:</td>
<td>20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- Console; D&B Electronic Control System; auto plate; auto wash; sheetless transfers; vac. belt conveyor; dual feeder head w/ shoe control; rotary pre-gripper w/ paper weight adjust.; front lay stops; quick action plate clamping bars; Polyeconomic Damper; Royce Recirc.; segmented duct blade; inking unit washer; auto. blanket & roller washer; Siemens Blower; pneum. machine control; Touch-Screen operation at deliv.; auto. inch speed select; sheet counter; high (low) pile deliv.; sheet declutter; powder spray; fans in deliv.; central lub.; electronic double sheet control; helical gears (inking rollers); remote control of register; inking rollers spread adjust.; feeder head transport gripper adjust.; Botcher inking & dampering rubber rollers; Super Blue transfer & deliv. cylinders; Becker compressor; high adjust. of pile; dryer; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**

Note: Perfecting is an available option not included in this study.

---

**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$50,117</th>
<th>$46,690</th>
<th>$41,769</th>
</tr>
</thead>
<tbody>
<tr>
<td>$103,241</td>
<td>$96,181</td>
<td>$86,044</td>
<td></td>
</tr>
<tr>
<td>$157,367</td>
<td>$146,607</td>
<td>$131,155</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL COSTS**

<table>
<thead>
<tr>
<th>TOTAL:</th>
<th>$50,117</th>
<th>$46,690</th>
<th>$41,769</th>
</tr>
</thead>
<tbody>
<tr>
<td>$103,241</td>
<td>$96,181</td>
<td>$86,044</td>
<td></td>
</tr>
<tr>
<td>$157,367</td>
<td>$146,607</td>
<td>$131,155</td>
<td></td>
</tr>
</tbody>
</table>

---

**TOTAL INVEST. : $958,000**

---

**Sheeted Offset**

Presses: 5-Unit

---

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202
### BASE COST ABOVE INCLUDES

Rapida 74: semi-automatic plate changers; pin register system; cocking; installation and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT

- **Pressman** $50,117
- **Helper** $33,174

#### LABOR COST-2 SHIFTS

- **Area A** $171,579
- **Area B** $156,070
- **Area C** $135,297

#### LABOR COST-3 SHIFTS

- **Total** $261,534

### AUXILIARY EQUIPMENT INCLUDES


### TOTAL COSTS

- **$942,095**

### SERVICE MANUFACTURING COSTS

- **357,043**

### TOTAL INVEST.

- **$2,082,138**
### KBA North America, Rapida 74G

**SIZE:** 20” X 29”

**UNITS:** 5

**MAXIMUM SPEED:** 15,000 mph

**POWER:** hp: -- kwhs: 25

**PRODUCT CLASS/PROCESS:** Wet Offset/Waterless Offset

**BASE COST:** $1,692,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST. :** $1,692,000

### BASE ABOVE INCLUDES

Rapida 74: semi-automatic plate changers; pin register system; cocking; Gravuflow Keyless linking Unit; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

No. of Manned Hours Annually @ 100% Productivity.........................

**FIXED CHARGES**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........... $169,800 $169,800 $169,800

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft................... 6,825 4,550 3,250

3. Fire & Sprinkler Insurance (Rate $4.00 per M).......................... 6,792

**VARIABLE CHARGES**

4. Direct Labor................................................................. 83,291 75,762 65,678

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts........................................ 16,658 15,152 13,136

6. Pension Fund (A) 5% (B) 3% (C) 2%................................. 4,165 2,723 1,314

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............. 9,360 6,240 4,680

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%............. 8,296 7,546 6,542

9. Workmen’s Compensation Insurance (Rate $4.00 per M)........... 3,998 3,637 3,153

10. Power Cost @ $0.07 per kWh (based on hp rating)...................... 6,792 6,792 6,792

11. Power Cost @ $0.07 per kWh (based on kw rating)...................... 1,851 1,851 2,033

12. Direct Supplies (see instructions)..................................... 7,500 7,500 7,500

13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts............... 33,960 33,960 33,960

14. Sub-total................................................................. 352,328 335,062 317,836

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts......... 52,849 50,259 47,675

16. TOTAL MANUFACTURING COSTS.................................... 405,177 385,322 355,511

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.......................... 170,174 161,835 153,515

18. TOTAL COSTS.......................................................... $575,351 $547,157 $519,026

19. MANUFACTURING COSTS per productive hour @

- 85% productivity $297.37 $257.20 $222.11

- 75% productivity 337.02 291.50 251.73

- 60% productivity 421.27 364.37 314.66

20. ALL-INCLUSIVE COSTS per productive hour @

- 85% productivity $422.26 $365.23 $315.40

- 75% productivity 478.56 413.92 357.46

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

**LABOR COST-1 SHIFT**

- Pressman $50,117
- Helper $33,174

**LABOR COST-2 SHIFTS**

- Pressman $46,690
- Helper $29,072

**LABOR COST-3 SHIFTS**

- Pressman $41,769
- Helper $23,789

**TOTAL:** $83,291 $75,762 $65,678

### SPECIAL CONDITIONS

- Payroll Taxes  (Soc. Sec. & Unemploy. Insurance) 8.3%..............
- Pension Fund  (A) 5%  (B) 3%  (C) 2%..........................................
- Welfare Benefits  (A) $90./wk.  (B) $60./wk.  (C) $45./wk..............
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...............
Sheetfed Offset
Presses: 5-Unit

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<table>
<thead>
<tr>
<th>Presses: 5-Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shinohara 75VH</td>
</tr>
</tbody>
</table>

**SIZE:**
23" X 29"

**UNITS:**
5

**MAXIMUM SPEED:**
17,000 iph

**POWER:**
- hp: --
- kWhs: 34

**PRODUCT CLASS/PROCESS:**
- Wet Offset

**INTERFACES WITH:**
- CIP3 direct to press ink key data from prepress RIP and closed loop ink key control systems.

**BASE COST:**
$1,080,000

**AUXILIARY EQUIP.:**
$229,800

**INSTALL. (EST.):**
$5,000

**TOTAL INVEST.:**
$1,314,800

---

**BASE COST ABOVE INCLUDES**
- Automatic blanket washer-Type 1; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
  - Pressman: $50,117
- LABOR COST-2 SHIFTS
  - $46,690
- LABOR COST-3 SHIFTS
  - $41,769

**TOTAL:**
- $50,117
- $46,690
- $41,769
- $103,241
- $96,181
- $86,044

**TOTAL COSTS:**
- $157,367
- $146,607
- $131,155

**TOTAL MANUFACTURING COSTS:**
- $494,038
- $472,885
- $451,755

**ONE SHIFT**

**AREAS**
- AREA A
- AREA B
- AREA C

**205**

---

**AUXILIARY EQUIPMENT INCLUDES**
- Automatic blanket washer-Type 2 ($7,500); automatic ink roller cleaning ($19,800); plate clamp cocking-remote ($90,000); semi-automatic plate changers ($112,500).

---

**VARIABLE CHARGES**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts..............
   - Hourly Rate: $131,480
   - Total Cost: $131,480

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...................
   - Hourly Rate: $6,825
   - Total Cost: $6,825

3. Fire & Sprinkler Insurance (Rate $4.00 per M)..........................
   - Hourly Rate: $5,259
   - Total Cost: $5,259

4. Direct Labor...............................................................
   - Hourly Rate: $2,340
   - Total Cost: $2,340

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...........................
   - Hourly Rate: $2,026
   - Total Cost: $2,026

6. Pension Fund (A) 5% (B) 3% (C) 2%..................................
   - Hourly Rate: $1,023
   - Total Cost: $1,023

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...........
   - Hourly Rate: $4,680
   - Total Cost: $4,680

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 3%..................
   - Hourly Rate: $4,992
   - Total Cost: $4,992

9. Worker's Compensation Insurance (Rate $40.00 per M).............
   - Hourly Rate: $2,406
   - Total Cost: $2,406

10. Power Cost @ $0.07 per kWh (based on hp rating)...................
    - Hourly Rate: $5,295
    - Total Cost: $5,295

11. Power Cost @ $0.07 per kWh (based on kW rating)...................
    - Hourly Rate: $2,289
    - Total Cost: $2,289

12. Direct Supplies (see instructions)...................................
    - Hourly Rate: $8,000
    - Total Cost: $8,000

13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...........
    - Hourly Rate: $26,296
    - Total Cost: $26,296

14. Sub-total.................................................................
    - Hourly Rate: $254,873
    - Total Cost: $254,873

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........
    - Hourly Rate: $38,231
    - Total Cost: $38,231

16. TOTAL MANUFACTURING COSTS..........................
    - Hourly Rate: $293,104
    - Total Cost: $293,104

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.............
    - Hourly Rate: $123,104
    - Total Cost: $123,104

18. TOTAL COSTS...............................................................
    - Hourly Rate: $416,207
    - Total Cost: $416,207

19. MANUFACTURING COSTS per productive hour @
    - 85% productivity
      - Hourly Rate: $215.11
      - Total Cost: $215.11

    - 75% productivity
      - Hourly Rate: $243.80
      - Total Cost: $243.80

    - 60% productivity
      - Hourly Rate: $304.74
      - Total Cost: $304.74

20. ALL-INCLUSIVE COSTS per productive hour @
    - 85% productivity
      - Hourly Rate: $305.46
      - Total Cost: $305.46

    - 75% productivity
      - Hourly Rate: $346.19
      - Total Cost: $346.19

    - 60% productivity
      - Hourly Rate: $432.74
      - Total Cost: $432.74

---

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### Shinohara 75VPH

<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power:</th>
</tr>
</thead>
<tbody>
<tr>
<td>23&quot; X 29&quot;</td>
<td>5</td>
<td>17,000 iph</td>
<td>hp: -- kWhs: 34</td>
</tr>
</tbody>
</table>

### Product Class/Process:
- Wet Offset

### BASE COST ABOVE INCLUDES
- Automatic blanket washer-Type 1; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

### AUXILIARY EQUIPMENT INCLUDES
- Automatic blanket washer-Type 2 ($7,500); automatic ink roller cleaning ($19,800); plate clamp cocking-remote ($90,000); semi-automatic plate changers ($112,500); semi-automatic perfecting changeover ($30,000).

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function Labor Cost-1 Shift
- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts

### One Shift

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL:</td>
<td>$50,117</td>
<td>$46,690</td>
<td>$41,769</td>
<td>$103,241</td>
<td>$96,181</td>
<td>$86,044</td>
<td>$157,367</td>
<td>$146,607</td>
<td>$131,155</td>
</tr>
</tbody>
</table>

### All-Inclusive Costs
- Total:
- $1,126,500

---

### Manufacturing Costs

#### Variable Charges
- 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M)...
- 4. Direct Labor...
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
- 6. Pension Fund (A) 5% (B) 3% (C) 2%...
- 7. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk...
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...
- 9. Workmen's Compensation Insurance (Rate $40.00 per M)...
- 10. Power Cost @ $0.07 per kWh (based on hp rating)...
- 11. Power Cost @ $0.07 per kWh (based on kw rating)...
- 12. Direct Supplies (see instructions)...
- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
- 14. Sub-total...
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
- 16. TOTAL MANUFACTURING COSTS...
- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
- 18. TOTAL COSTS...
- 19. MANUFACTURING COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity
- 20. ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity

---

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Sheetfed Offset
Presses: 5-Unit

206
### Shinohara 75VH+Coater

**POWER:**
- hp: --
- kWhs: 75

**INTERFACES WITH:**
- CIP3 direct to press ink key data from prepress RIP and closed loop ink key control systems.

**BASE COST:** $1,312,500
- **AUXILIARY EQUIP.:** $229,800
- **INSTALL. (EST.):** $7,000
- **TOTAL INVEST.:** $1,549,300

### BASE COST ABOVE INCLUDES
- Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

### AUXILIARY EQUIPMENT INCLUDES
- Automatic blanket washer-Type 2 ($7,500);
- Automatic ink roller cleaning ($19,800); plate clamp cocking-remote ($80,000); semi-automatic plate changers ($112,500).

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Type</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>SQ. FT.</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>HP</td>
<td>4,009</td>
<td>4,287</td>
<td>4,587</td>
</tr>
<tr>
<td>BASE COST</td>
<td>$146,607</td>
<td>$146,607</td>
<td>$146,607</td>
</tr>
<tr>
<td>NAPL-2</td>
<td>$86,044</td>
<td>$86,044</td>
<td>$86,044</td>
</tr>
</tbody>
</table>

---

### MANUFACTURING COSTS

#### LABOR COST-1 SHIFT
- Pressman: $50,117
- Area A: $46,690
- Area B: $41,769
- Area C: $103,241
- Area A: $96,181
- Area B: $86,044
- Area C: $157,367

#### LABOR COST-2 SHIFTS
- Area A: $146,607
- Area B: $146,607
- Area C: $131,155

#### LABOR COST-3 SHIFTS
- Area A: $157,367
- Area B: $146,607
- Area C: $131,155

---

### FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts: $154,930
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft: $6,197
3. Fire & Sprinkler Insurance (Rate $4.00 per M): $336.01
4. Direct Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: $2,005
5. Pension Fund (A) 5% (B) 3% (C) 2%: $2,506
6. Payroll Taxes (Social Sec. & Unemployment Insurance) 8.3%: $4,160
7. Workmen's Compensation Insurance (Rate $40.00 per M): $241.55
8. Power Cost @ $0.07 per kWh (based on hp rating): $3,206
9. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts: $30,986
10. Sub-total: $232,939
11. Total: $334,935
12. Direct Supplies (see instructions): $2,340
13. Direct Labor: $15,737
14. Total: $252,672
15. TOTAL MANUFACTURING COSTS: $329,718

---

### MANUFACTURING COSTS per productive hour @

#### ONE SHIFT
- 85% productivity: $241.99
- 75% productivity: $241.25
- 60% productivity: $342.81

#### TWO SHIFTS
- 85% productivity: $343.62
- 75% productivity: $343.01
- 60% productivity: $486.79

#### THREE SHIFTS
- 85% productivity: $343.62
- 75% productivity: $343.01
- 60% productivity: $486.79

---

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Sheetfed Offset

Presses: 5-Unit

207
**Shinohara 75VP+Coater**

**BASE COST ABOVE INCLUDES**
Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

**AUXILIARY EQUIPMENT INCLUDES**
Automatic blanket washer-Type 2 ($7,500); automatic ink roller cleaning ($19,800); plate clamp changers ($90,000); semi-automatic plate changers ($112,500); semi-automatic perfecting changeover ($30,000).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Function</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$50,117</td>
<td>$46,690</td>
<td>$41,769</td>
</tr>
<tr>
<td></td>
<td>$103,241</td>
<td>$96,181</td>
<td>$86,044</td>
</tr>
<tr>
<td></td>
<td>$157,367</td>
<td>$146,607</td>
<td>$131,155</td>
</tr>
</tbody>
</table>

**TOTAL:**
$50,117 + $46,690 + $41,769 = $138,576

---

**No. of Manned Hours Annually @ 100% Productivity**

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONE SHIFT</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWO-shifts</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>THREE-shifts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**
1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
   $166,180 $166,180 $166,180 $207,725 $207,725 $207,725 $249,270 $249,270 $249,270

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
   6,647  6,647  6,647  6,647  6,647  6,647  6,647  6,647  6,647

3. Fire & Sprinkler Insurance (Rate $4.00 per M)...
   6,474  6,474  6,474  6,474  6,474  6,474  6,474  6,474  6,474

4. Direct Labor...
   50,117  46,690  41,769  103,241  96,181  86,044  157,367  146,607  131,155

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/...
   10,023  9,295  8,545  15,486  14,247  12,907  15,737  14,661  13,115

6. Pension Fund (A) 5% (B) 3% (C) 2%
   2,506  1,401  835  5,162  2,885  1,721  7,988  4,398  2,263

7. Welfare Benefits (A) $90/kw. (B) $60/kw. (C) $45/kw...
   4,680  3,120  3,240  9,360  6,240  6,480  14,040  9,360  7,020

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
   4,992  4,680  4,160  9,854  9,181  8,213  14,368  13,835  11,974

9. Workmen’s Compensation Insurance (Rate $40.00 per M)...
   2,406  2,241  2,005  4,749  4,424  3,958  6,924  6,451  5,771

10. Power Cost @ $0.07 per kWh (based on hp rating)...
    0.07  0.92  0.92  0.92  0.92  0.92  0.92  0.92  0.92

11. Power Cost @ $0.07 per kWh (based on kWh rating)...
    5,049  5,552  6,098  10,099  11,104  12,137  15,148  16,656  18,285

12. Direct Supplies (see instructions)...
    8,090  8,090  8,090  16,000  16,000  16,000  24,000  24,000  24,000

13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
    33,236  33,236  33,236  41,545  41,545  41,545  49,854  49,854  49,854

14. Sub-total...
    300,661  291,605  282,875  436,694  420,910  404,887  568,049  545,638  522,975

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
    45,085  43,471  42,431  54,587  52,614  50,611  56,585  54,584  52,297

16. TOTAL MANUFACTURING COSTS...
    345,761  325,346  320,306  491,280  473,524  455,497  624,854  600,422  575,272

17. Administrative & Selling Overhead—42% 1 shift/...
    145,219  140,845  136,629  181,774  175,204  168,534  199,953  192,135  184,087

18. TOTAL COSTS...
    490,980  476,191  461,935  673,054  648,727  624,031  724,807  702,557  679,359

---

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>Productivity</th>
<th>85%</th>
<th>75%</th>
<th>60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per hour</td>
<td>253.76</td>
<td>223.84</td>
<td>197.68</td>
</tr>
<tr>
<td>Cost per hour</td>
<td>287.59</td>
<td>253.69</td>
<td>224.04</td>
</tr>
<tr>
<td>Cost per hour</td>
<td>359.49</td>
<td>317.11</td>
<td>280.05</td>
</tr>
</tbody>
</table>

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Sheeted Offset
Presses: 5-Unit
## Base Cost Above Includes

- Fast auto plate changers with punch; ADAControl; computerized control of radial, lateral, and diagonal register; auto blanket and ink wash up; Adamic dampeners; recirculator; touch screen control; vacuum feeder board; leverless pneumatic; IR dryer; Superblue; auto lubrication; nonstop delivery; high pile delivery; powder sprayer; ink ductor separate drive motor; training; installation.

## Auxiliary Equipment Includes

- Aqueous tower coater with doctor blade and Anilox roller, and hot and cold air knives IR dryer ($190,000); Closed loop Spectrophotometer ($12,000).

## Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION

- LABOR COST-1 SHIFT
  - Pressman $50,117
  - $46,690
  - $41,769
  - $103,241
  - $96,181
  - $86,044
  - $157,367
  - $146,607
  - $131,155

### Total:

- $50,117
- $46,690
- $41,769
- $103,241
- $96,181
- $86,044
- $157,367
- $146,607
- $131,155

## Total Manufacturing Costs

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### Fixed Charges (Non-Variable)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $104,700
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. 12,907
3. Fire & Sprinkler Insurance (Rate $40.00 per M) 8,213
4. Direct Labor 50,117
5. Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts 10,023
6. Pension Fund (A) 5% (B) 3% (C) 2% 2,506
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk. 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% 4,992
9. Workmen's Compensation Insurance (Rate $40.00 per M) 2,406
10. PowerCost @ $0.07 per kWh (based on hp rating) 7,185
11. Power Cost @ $0.07 per kw (based on kWh rating) 1,548
12. Direct Supplies (see instructions) 7,500
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts 20,940
14. Sub-total 216,015
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts 32,402
16. TOTAL MANUFACTURING COSTS 248,417

### TOTAL COSTS:

- $352,753
- $339,796
- $326,292
- $508,000
- $484,865
- $460,293
- $636,721
- $605,088
- $571,459

### Manufacturing Costs per productive hour @

- 85% productivity $182.32
- 75% productivity 206.63
- 60% productivity 258.28

### All-Inclusive Costs per productive hour @

- 85% productivity $258.89
- 75% productivity 293.41
- 60% productivity 366.76
### BASE COST ABOVE INCLUDES

Printed Press Print Center digitized monitoring control & self diagnostic system; Machine Info. Display (MID) at feeder & deliv.; remote control of circums., lateral & diag. register; single suction belt feed; integrated preload device; adjust. side guide; digital 5 roller contin. damp. system; auto. inking roller, blanket & impress. cyll. wash-up devices; remote controlled ink keys; adjust. ink flow timing; nondrop device w/ rake; sheet decurler; vac. sheet slowdowns; air cushion deliv. drum; sheet rear edge extraction system; electronic double detector; monitored front align. control; autoplate; remote adjust. of printing pressure; plate damping & inking rollers follow diagonal register adjustments; chromium plated plate cylinder; circums. register 360 degrees; Venturi effect sheet guide plate; powder sprayer; install. and training.

### AUXILIARY EQUIPMENT INCLUDES

- **POWER**
  - **hp:** 72
  - **kWhs:** ~
- **PRODUCT CLASS/PROCESS**
  - **Wet Offset**
- **INTERFACES WITH:**
  - **CIP4 data and MIS system.**
- **BASE COST:** $915,000
- **AUXILIARY EQUIP.:** n/a
- **INSTALL. (EST.):** Included
- **TOTAL INVEST.:** $915,000

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
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<tbody>
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<td>37.5</td>
<td>40</td>
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<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
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<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
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</tr>
</tbody>
</table>

### FUNCTION

- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

| Pressman | $103,241 | $96,181 | $86,044 | $157,367 | $146,607 | $131,155 |
| Helper | $68,338 | $59,888 | $49,253 | $104,166 | $91,286 | $75,074 |

### TOTAL:

- **AREA C**
  - **$261,534**
  - **$237,893**
  - **$206,229**

**Equip. Shipped F.O.B.: Mt. Olive, NJ**
### Heidelberg Speedmaster SM 74-4+L

**SIZE:** 20.87" X 29.13"  
**UNITS:** 5  
**MAXIMUM SPEED:** 15,000 iph  
**POWER:** hp: 72  
**KWHS:** --  
**PERFECTING:** No  
**COLORS:** 4  
**RESOLUTION:** n/a  
**SQ. FT.:** 650  
**PRODUCT CLASS/PROCESS:** Wet Offset  
**INTERFACES WITH:** CIP4 data and MIS system.

**BASE COST ABOVE INCLUDES**
- Printex Print Center monitoring control & self diagnostic system; IR dryer; Machine Info. Display (MID) at feeder & deliv.; remote control of circufml., lateral & diag. register; single suction belt feed; integrated preload device; adjust. side guide via CP2000 / CPTronic; digital 5 roller contin. damp. system; auto. inking roller, blanket & impress. cyl. wash-up fixtures; remote controlled ink keys; adjust. ink flow timing; nonstop device w/ rake; sheet decurler; vac. sheet slowdowns; air cushion deliv. drum; sheet rear edge extraction system; electronic double detector; monitored front align. control; autoplate; remote adjust. of printing pressure; plate damping & inking rollers follow diagonal register adjustments; chromium plated plate cylinder; circumfl. register 360 degrees; Venturi effect sheet guide plate; powder sprayer; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<tr>
<td>Vacation After One Year</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
  - Pressman $50,117
- LABOR COST-2-shifts
  - $103,241
- LABOR COST-3-shifts
  - $167,367

**TOTAL:**
- $50,117
- $46,690
- $41,769

---

<table>
<thead>
<tr>
<th><strong>AREA:</strong></th>
<th><strong>ONE SHIFT</strong></th>
<th><strong>TWO Shifts</strong></th>
<th><strong>THREE Shifts</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1,603 A</td>
<td>1,603 A</td>
<td>1,603 A</td>
</tr>
<tr>
<td>B</td>
<td>1,763 B</td>
<td>1,763 B</td>
<td>1,763 B</td>
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<tr>
<td>C</td>
<td>1,936 C</td>
<td>1,936 C</td>
<td>1,936 C</td>
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<td>3,206 A</td>
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<tr>
<td>B</td>
<td>3,525 B</td>
<td>3,525 B</td>
<td>3,525 B</td>
</tr>
<tr>
<td>C</td>
<td>3,872 C</td>
<td>3,872 C</td>
<td>3,872 C</td>
</tr>
<tr>
<td>A</td>
<td>4,809 A</td>
<td>4,809 A</td>
<td>4,809 A</td>
</tr>
<tr>
<td>B</td>
<td>5,288 B</td>
<td>5,288 B</td>
<td>5,288 B</td>
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<tr>
<td>C</td>
<td>5,808 C</td>
<td>5,808 C</td>
<td>5,808 C</td>
</tr>
</tbody>
</table>

---

**TWO SHIFTS**
- $434,689
- $328,668
- $314,158
- $498,148
- $473,381
- $448,207
- $626,216
- $593,344
- $559,471

**THREE SHIFTS**
- $343,689
- $328,668
- $314,158
- $498,148
- $473,381
- $448,207
- $626,216
- $593,344
- $559,471

---

**MANUFACTURING COSTS per productive hour @**

| 85% productivity | $177.63 | $154.50 | $134.44 |
| 75% productivity | $201.32 | $175.10 | $152.37 |
| 60% productivity | $251.65 | $218.87 | $190.46 |

---

**ALL-INCLUSIVE COSTS per productive hour @**

| 85% productivity | $252.34 | $219.39 | $190.91 |
| 75% productivity | $285.87 | $248.64 | $216.36 |
| 60% productivity | $357.34 | $310.80 | $270.45 |

---

**$950,000**

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Sheetfed Offset  
Presses: 5-Unit
<table>
<thead>
<tr>
<th>AREA</th>
<th>MAXIMUM SPEED</th>
<th>UNITS</th>
<th>POWER</th>
<th>PRODUCT CLASS/PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>20.87” x 29.13”</td>
<td>5</td>
<td>15,000 ph</td>
<td>Wet Offset</td>
</tr>
<tr>
<td>AREA B</td>
<td>7,500</td>
<td>5</td>
<td>74 kW</td>
<td>CIP4 data and MIS system.</td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES

- Prinect Print Center monitoring control & self diagnostic system; Machine Info. Display (MID) at feeder & deliv.; remote control of circmf., lateral & diag. register; single suction belt feed; integrated preload device; adjust. side guide; digital 5 roller contin. damp. system; auto. inking roller, blanket & impress. cyll. wash-up devices; remote controlled ink keys; adjust. ink flow stop; nonstop device w/ rake; sheet decurier; vac. sheet slowdowns; air cushion deliv. drum; sheet rear edge extraction system; electronic double detector; monitored front align. control; autopllate; remote adjust. of printing pressure; plate damping & inking rollers follow diagonal register adjustments; chromium plated plate cylinder; circmf. register 360 degrees; Venturi effect sheet guide plate; powder sprayer; install. and training.

### AUXILIARY EQUIPMENT INCLUDES

- Power Cost @ $0.07 per kWh (based on hp rating)
- Direct Labor
- 5 Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
- Pension Fund (A) 5% (B) 3% (C) 2%
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
- Workmen’s Compensation Insurance (Rate $40.00 per M)
- Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts
- Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
- Fire & Sprinkler Insurance (Rate $4.00 per M)
- Electricity

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>Hours/Week</td>
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<td>10</td>
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<td>11</td>
<td>10</td>
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<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

- Pressman $50,117 $46,690 $41,769 $103,241 $96,181 $86,044 $157,367 $146,607 $131,155
- Helper $33,174 $29,072 $23,909 $68,338 $59,888 $49,253 $104,166 $91,286 $75,074

### TOTAL:

- $83,291 $75,762 $65,678 $171,579 $156,070 $135,297 $261,534 $237,893 $206,229

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### TOTAL MANUFACTURING COSTS

- $965,000

### TOTAL INVEST.

- $965,000

---

**Heidelberg Speedmaster SM 74-5-P**

- **Size:** 20.87” x 29.13”
- **Max. Speed:** 15,000 ph
- **Power:** 74 kW

---

**Equipment Specifications**

- **Size:** 650 sq. ft.
- **Base Cost:** $965,000

---

**Working Conditions and Annual Cost of Direct Labor (by Area)**

- **Area A:** Hours/Week: 35, Paid Holidays: 11, Vacation After One Year: 4 weeks
- **Area B:** Hours/Week: 37.5, Paid Holidays: 10, Vacation After One Year: 3 weeks
- **Area C:** Hours/Week: 40, Paid Holidays: 8, Vacation After One Year: 2 weeks

---

**Cost Breakdown**

- **Fixed Charges (Non-Variable):**
  - Depreciation: $96,500
  - Rent & Heat: $6,825
  - Fire & Sprinkler Insurance: $3,860
- **Variable Charges:**
  - Direct Labor: $83,291
  - Indirect Labor: $16,658
  - Pension Fund: $4,165
  - Welfare Benefits: $9,360
  - Payroll Taxes: $8,296
  - Workmen’s Compensation Insurance: $3,998
  - Power Cost: $3,717
  - Water Cost: $0
  - Direct Supplies: $7,500
  - Repairs & Maintenance: $19,300
  - Sub-total: $263,469
  - General Factory: $36,520
  - Total Manufacturing Costs: $302,990

---

**Total Costs:**

- $430,245

---

**Manufacturing Costs per Productive Hour @**

- **85% Productivity:** $222.37
- **75% Productivity:** $252.02
- **60% Productivity:** $315.02

---

**All-Inclusive Costs per Productive Hour @**

- **85% Productivity:** $315.76
- **75% Productivity:** $357.87
- **60% Productivity:** $447.33

---

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## Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>37.5</td>
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<td>8</td>
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<tr>
<td>Vacation</td>
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<tr>
<td>After One Year</td>
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</table>

### Function Labor Costs

<table>
<thead>
<tr>
<th></th>
<th>1 Shift</th>
<th>2 Shifts</th>
<th>3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$50,117</td>
<td>$46,690</td>
<td>$41,769</td>
</tr>
<tr>
<td>Operator</td>
<td>$42,581</td>
<td>$37,782</td>
<td>$31,726</td>
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</tbody>
</table>

### Total:

- $92,698
- $84,472
- $73,495
- $190,958
- $174,012
- $151,400
- $291,072
- $265,242
- $230,774

## Auxiliary Equipment Includes

- MAN Roland R 505; training; installation.
- MAN Roland, R 505
- Sheet fed offset
- 214 presses: 5-Unit
- 23.23" X 29.13"
- MAXIMUM SPEED: 18,000 mph
- Resolution: 600 dpi
- No. of Manned Hours Annually @ 100% Productivity

### Fixed Charges (Non-Variable)

- Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $136,500
- Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft $6,825
- Pension Fund (A) 5% (B) 3% (C) 2% $18,540
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk $9,360
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% $6,285
- Worker’s Compensation Insurance (Rate $40.00 per M) $4,233
- Power Cost @ $0.07 per kWh (based on hp rating) $4,450
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts $7,733
- Direct Supplies (see instructions) $8,000
- Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts $159,261
- TOTAL MANUFACTURING COSTS $379,192
- TOTAL INVEST: $1,365,000

### Variable Charges

- Direct Labor $92,698
- Power Cost @ $0.07 per kWh (based on kW rating) $6,733
- Equipment Shipped F.O.B. Port of Entry
- Sheetfed Offset
### Heidelberg Speedmaster CD 74-5

**SIZE:** 23.62" X 29.13"  
**UNITS:** 5  
**MAXIMUM SPEED:** 15,000 p/h  
**POWER:** hp: 72 est.  
**PRODUCT CLASS/PROCESS:** Wet Offset  
**SQUARE FT.:** 525  
**PERFECTING:** No  
**COLORS:** 5  
**RESOLUTION:** n/a  
**INTERFACES WITH:** Standard industry devices and all Prinect components.

### BASE COST ABOVE INCLUDES
- Prinect CP2000 Center Press Control; full preset single suction belt feeder; non-stop feeder; preloading device and StaticStar Compact; Autoplate plate loading device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; non-stop delivery; systemservice 36 plus; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$50,117</td>
<td>$46,690</td>
<td>$41,769</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
</tr>
</tbody>
</table>

**TOTAL:** $135,297

### AUXILIARY EQUIPMENT INCLUDES
- Equip. Shipped F.O.B.: Cranbury, NJ

### BASE COST:
- $1,269,000

### TOTAL INVEST.:
- $1,269,000

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
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### TWO SHIFTS

<table>
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<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### FIXED CHARGES (NON-VARIABLE)

1. Depreciation 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $126,900
2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft $126,900
3. Fire & Sprinkler Insurance (Rate $40.00 per M) $126,900
4. Direct Labor $126,900
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts $126,900
6. Pension Fund 5% 3% 2% $126,900
7. Welfare Benefits $126,900
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% $126,900
9. Workmen’s Compensation Insurance (Rate 90.00 per M) $126,900
10. Power Cost @ $0.07 per kWh (based on hp rating) $126,900
11. Power Cost @ $0.07 per kWh (based on kWh rating) $126,900
12. Direct Supplies (see instructions) $126,900
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts $126,900
14. Sub-total $126,900
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts $126,900
16. TOTAL MANUFACTURING COSTS $126,900
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts $126,900
18. TOTAL COSTS $126,900
19. MANUFACTURING COSTS per productive hour @
   85% productivity $253,411
   75% productivity $287,200
   60% productivity $359,000
20. ALL-INCLUSIVE COSTS per productive hour @
   85% productivity $359,852
   75% productivity $407,832
   60% productivity $509,792

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Sheetfed Offset
Presses: 5-Unit

215
Heidelberg Speedmaster CD 74-5-P

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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<tbody>
<tr>
<td>23.62&quot; X 29.13&quot;</td>
<td>5</td>
<td>15,000 fpm</td>
<td>hp: 74 est.</td>
<td>Wet Offset</td>
<td>$1,336,000</td>
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</table>

**BASE COST ABOVE INCLUDES**

Prinect CP2000 Center Press Control: full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; fully automatic perfecting device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; non-stop delivery; system service 36 plus; training; installation.

**AUXILIARY EQUIPMENT INCLUDES**

- Prinect components.
- Standard industry devices and all Prinect components.
- All-inclusive costs.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$50,117</td>
<td>$46,690</td>
<td>$103,241</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$68,338</td>
</tr>
</tbody>
</table>

**TOTAL:** $83,291

<table>
<thead>
<tr>
<th>AREA</th>
<th>1,603</th>
<th>1,763</th>
<th>1,936</th>
<th>3,206</th>
<th>3,525</th>
<th>3,872</th>
<th>4,809</th>
<th>5,288</th>
<th>5,808</th>
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<tbody>
<tr>
<td>Area A</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Area C</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS**

|$1,336,000|

**TOTAL INVEST.** $1,336,000

**Equip. Shipped F.O.B.: Cranbury, NJ**
Heidelberg Speedmaster CD 74-5+L

**SIZE:** 23.62" X 29.13"

**UNITS:** 5

**MAXIMUM SPEED:** 15,000 iph

**POWER:** hp: 75 est. kWs: --

**PRODUCT CLASS/PROCESS:** Wet Offset

**INTERFACES WITH:** Standard industry devices and all Prinect components.

**BASE COST:** $1,496,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $1,496,000

**BASE COST ABOVE INCLUDES**

Prinect CP2000 Center Press Control; full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; coating unit with DryStar dryer; non-stop delivery; system/service 36 plus; training; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<tbody>
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<td>Hours/Week</td>
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</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

Pressman $50,117

Helper $33,174

**LABOR COST-2 SHIFTS**

Pressman $103,241

**LABOR COST-3 SHIFTS**

Pressman $157,367

**TOTAL:** $83,291

**AREA A**

5,984

**AREA B**

2,706

**AREA C**

213,079

**TOTAL:** $261,534

**AREA A**

16,000

**AREA B**

8,000

**AREA C**

187,000

**TOTAL:** $217,000

**AUXILIARY EQUIPMENT INCLUDES**

Equip. Shipped F.O.B.: Cranbury, NJ
### Heidelberg Speedmaster CD 74-5-P+L

**BASE COST ABOVE INCLUDES**

Prinect CP2000 Center Press Control; full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; fully automatic perfecting device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; coating unit with DryStar dryer; non-stop delivery; systemservice 36 plus; training; installation.

**AUXILIARY EQUIPMENT INCLUDES**

- Pressman
- Helper
- Labor Costs

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
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<td>$46,690</td>
<td>$103,241</td>
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<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$68,338</td>
</tr>
</tbody>
</table>

TOTAL: $83,291, $75,762, $65,678

### Manufacturing Costs

- **TOTAL MANUFACTURING COSTS**
  - $489,402

### Fixed Charges (Non-Variable)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.............. $157,000
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.................... 6,930
3. Fire & Sprinkler Insurance (Rate $4.00 per M).......................... 6,280
4. Direct Labor.............................................................. 83,291
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.......................... 16,658
6. Pension Fund (A) 5% (B) 3% (C) 2%...................................... 4,165
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............. 9,360
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%................. 8,296
9. Workman’s Compensation Insurance (Rate $40.00 per M).............. 3,998
10. Power Cost @ $0.07 per kWh (based on hp rating)...................... 3,767
11. Power Cost @ $0.07 per kWh (based on kW rating)...................... 0
12. Direct Supplies (see instructions)...................................... 8,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........... 31,400
14. Sub-total.............................................................................. 393,144
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........... 50,872
16. TOTAL MANUFACTURING COSTS............................................. 390,016

### Total Costs

- **TOTAL COSTS**
  - $553,823

### Manufacturing Costs per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$286.24</td>
<td>$247.22</td>
<td>$213.17</td>
</tr>
<tr>
<td>$215.14</td>
<td>$183.76</td>
<td>$156.20</td>
</tr>
<tr>
<td>$187.12</td>
<td>$159.00</td>
<td>$134.30</td>
</tr>
</tbody>
</table>

### All-Inclusive Costs per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
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</thead>
<tbody>
<tr>
<td>$406.46</td>
<td>$351.05</td>
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<td>$247.00</td>
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</tr>
<tr>
<td>$279.93</td>
<td>$237.87</td>
<td>$200.92</td>
</tr>
</tbody>
</table>

### Equipment Shipped F.O.B.

- Cranbury, NY

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### BASE COST ABOVE INCLUDES

- Auto. plate changing: auto. blanket and ink roller washing; gripper pad adj.; KM5-IV. High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infeed brush assembly; vacuum infeed tapes; electronic sheet detect; adj. headstools; adj/l ink roller cores & dam. covered rollers; anti ghosting rollers; Komomarki dampening; reverse nip; hickey picker; 1-touch blanking clamp; chrome plated plate, blanket and impress. cyl.; lateral, circulm. and diag. register; auto start/stop; pinnned cylinders; sheet decurler; double sheet detect; wall loader; vac. side guide; temp. controlled roller provision; auto tensioned roller adjust; oscil. timing adj.; variable ink ductor timing; hickey picking dampener; water level sensor; preset counter; stacking, job and press counters; console backup; paper thickness & size preset; auto impress. cyl wash; installation.

### AUXILIARY EQUIPMENT INCLUDES

- No. of Manned Hours Annually @ 100% Productivity...........................
- FIXED CHARGES (NON-VARIABLE)
  - $143,458 
  - $143,458 
  - $143,458 
  - $179,322 
  - $179,322 
  - $179,322 
  - $215,186 
  - $215,186 
  - $215,186 

- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.....................................
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M)...........................................

- 4. Direct Labor.................................................................
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts .
- 6. Pension Fund (A) 5% (B) 3% (C) 2%.................................................

- 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...................................
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...........................
- 9. Worker's Compensation Insurance (Rate $40.00 per M)......................

- 10. Power Cost @ $0.07 per kWh (based on hp rating)...............................

- 11. Power Cost @ $0.07 per kWh (based on kw rating)...............................

- 12. Direct Supplies (see instructions)...................................................

- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts.......................

- 14. Sub-total...........................................................................

- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...........

- 16. TOTAL MANUFACTURING COSTS...

- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.

- 18. TOTAL COSTS.....................................................................

- 19. MANUFACTURING COSTS per productive hour @

- 20. ALL-INCLUSIVE COSTS per productive hour @

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

#### Prorisions

<table>
<thead>
<tr>
<th>Hours/Week</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>37.5</td>
</tr>
</tbody>
</table>

#### Paid Holidays

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
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</tbody>
</table>

#### Vacation After One Year

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

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### One Shift

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

### Two Shifts

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

### Three Shifts

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,209</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

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### BASE COST ABOVE INCLUDES

Auto. plate changing; auto. blanket and ink roller washing; gripper pad adj.; KMS-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infeed brush assembly; vacuum infeed tapes; electronic sheet detect; adj. headstops; adfl inkimg cores & damp. covered rollers; anti ghosting rollers; Komnoromatic dampening; reverse nip; hickey picker; 1-touch blank clamt; chrome plated plate, blanket and impress. cyls.; lateral, circulf. and diag. register; auto start/stop; pinnned cylinders; sheet decurler; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscil. timing adj.; variable ink dotor timing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness & size presets; auto impress. cyl wash; auto perfector changeover; installation.

### AUXILIARY EQUIPMENT INCLUDES

- **Pressman**
  - Area A: $50,117
  - Area B: $46,690
  - Area C: $41,769
- **Labor Cost-1 Shift**
  - Total: $35,414
- **Labor Cost-2 Shifts**
  - Total: $103,241
- **Labor Cost-3 Shifts**
  - Total: $157,367

---

**TOTAL COSTS**

- **5-Unit**
  - $1,770,693

---

**Sheeted Offset**

**Presses: 5-Unit**

---

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---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
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<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman
  - Area A: $50,117
  - Area B: $46,690
  - Area C: $41,769

**LABOR COST-2 SHIFTS**

- Total: $103,241

**LABOR COST-3 SHIFTS**

- Total: $157,367

---

**TOTAL:**

- $50,117
- $46,690
- $41,769

---

**MANUFACTURING COSTS**

- **One Shift**
  - $1,603
- **Two Shifts**
  - $1,763
- **Three Shifts**
  - $1,936

---

**TOTAL MANUFACTURING COSTS:**

- $779,763

---

**MANUFACTURING COSTS per productive hour @**

- **85% productivity**
  - $262.42
- **75% productivity**
  - $297.41
- **60% productivity**
  - $371.76

---

**ALL-INCLUSIVE COSTS per productive hour @**

- **85% productivity**
  - $372.64
- **75% productivity**
  - $422.32
- **60% productivity**
  - $527.90

---

**TOTAL INVEST. :**

- $1,770,693
**BASE COST ABOVE INCLUDES**

Semi-auto; plate changing; auto. blanket and ink roller washing; gripper pad adj; KMS-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infed brush assembly; vacuum infused tapes; electronic sheet detect; adj. headstops; add/l inkings cores & damp. covered rollers; anti ghosting rollers; Komomatic dampening; reverse nip; hickey picker; 1- to 4-blanket/mip; chrome plated plate, blanket and impress. cyls.; lateral, circular, and diag. register; auto start/stop; pinned cylinders; sheet deceler; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscil. timing adj.; variable ink ductor timing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness preset; installation.

**AUXILIARY EQUIPMENT INCLUDES**

- Digital ink key data from prepress or previously saved jobs.

### Working Conditions and Annual Cost of Direct Labor (per AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<td>2 weeks</td>
</tr>
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**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman: $50,117
- **LABOR COST-2 SHIFTS**
  - $103,241
- **LABOR COST-3 SHIFTS**
  - $157,367

**TOTAL:**

- $50,117
- $46,690
- $41,769
- $103,241
- $96,181
- $86,044
- $157,367
- $146,607
- $131,155

---

**ONE SHIFT**

- **Area A**
  - No: 5
  - Hours/Week: 1603
- **Area B**
  - No: 1763
  - Hours/Week: 1936
- **Area C**
  - No: 206
  - Hours/Week: 3206

**TWO SHIFTS**

- **Area A**
  - No: 1603
  - Hours/Week: 2306
  - Area B: 5003
  - Area C: 3206
  - $438,038
  - $420,176
  - $137,538
- **Area B**
  - No: 1763
  - Hours/Week: 2923
  - Area A: 2306
  - Area C: 3206
  - $438,038
  - $420,176
  - $137,538
- **Area C**
  - No: 206
  - Hours/Week: 2923
  - Area A: 2306
  - Area B: 5003
  - $438,038
  - $420,176
  - $137,538

**THREE SHIFTS**

- **Area A**
  - No: 5
  - Hours/Week: 2306
  - Area B: 5003
  - Area C: 3206
  - $438,038
  - $420,176
  - $137,538
- **Area B**
  - No: 5
  - Hours/Week: 2306
  - Area A: 2306
  - Area C: 3206
  - $438,038
  - $420,176
  - $137,538
- **Area C**
  - No: 5
  - Hours/Week: 2306
  - Area A: 2306
  - Area B: 5003
  - $438,038
  - $420,176
  - $137,538

---

**TOTAL COSTS**

- $429,926
- $415,204
- $400,873
- $600,112
- $575,642
- $550,651
- $741,657
- $709,077
- $675,390

**MANUFACTURING COSTS per productive hour @**

- **75% productivity**
  - Cost Per MCF: $222.20
- **60% productivity**
  - Cost Per MCF: $314.79
- **ALL-INCLUSIVE COSTS per productive hour @**
  - **85% productivity**
    - Cost Per MCF: $315.53
  - **75% productivity**
    - Cost Per MCF: $357.60
  - **60% productivity**
    - Cost Per MCF: $447.00
Komori Lithrone LSX529 Series 45

SIZE: 24.12" X 29.5"  UNITS: 5  MAXIMUM SPEED: 16,000 iph  POWER: hp: 5 kwhs: 55

PERFECTING: No  COLORS: n/a  RESOLUTION: 570  SQ. FT.: n/a

PRODUCT CLASS/PROCESS: Wet Offset  BASE COST: $1,632,300

INTERFACES WITH: Digital ink key data from prepress or previously saved jobs.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR PER AREA

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
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<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
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<td>2 weeks</td>
</tr>
<tr>
<td>One Year</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

FUNCTION LABOR-1 SHIFT

| Pressman         | $50,117| $46,690| $41,769| $103,241| $96,181| $86,044| $157,367| $146,607| $131,155|

LABOR COST-2 SHIFTS

LABOR COST-3 SHIFTS

TOTAL:

$50,117 | $46,690 | $41,769 | $103,241 | $96,181 | $86,044 | $157,367 | $146,607 | $131,155

POWER COST @ $0.07 per kWh (based on kWh rating)...

$163,230 | $163,230 | $163,230 | $204,038 | $204,038 | $204,038 | $244,845 | $244,845 | $244,845

Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%


<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
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<tr>
<td>1,603</td>
<td>1,763</td>
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<td>3,927</td>
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<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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</table>

No. of Manned Hours Annually @ 100% Productivity

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<th>AREA B</th>
<th>AREA C</th>
</tr>
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<tbody>
<tr>
<td>1,603</td>
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<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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</table>

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...........

$163,230

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.

$5,985

3. Fire & Sprinkler Insurance (Rate $4.00 per M).

$6,529

4. Direct Labor...........

$50,117

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...........

$10,023

6. Pension Fund (A) 5% (B) 3% (C) 2%

$2,506

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.

$4,680

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%

$4,990

9. Workmen’s Compensation Insurance (Rate $40.00 per M).

$2,406

10. Power Cost @ $0.07 per kWh (based on hp rating)

$3,703

11. Power Cost @ $0.07 per kWh (based on kW rating)

$3,703

12. Direct Supplies (see instructions)

$8,000

13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts

$32,646

14. Sub-total

$294,817

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...

$44,222

16. TOTAL MANUFACTURING COSTS...

$338,039

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts

$142,396

18. TOTAL COSTS

$481,436

19. MANUFACTURING COSTS per productive hour @

<table>
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<tr>
<th>85% productivity</th>
<th>$248.83</th>
<th>$219.47</th>
<th>$193.71</th>
<th>$176.95</th>
<th>$155.01</th>
<th>$135.60</th>
<th>$150.09</th>
<th>$131.04</th>
<th>$114.14</th>
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<tbody>
<tr>
<td>75% productivity</td>
<td>$282.00</td>
<td>$248.73</td>
<td>$219.54</td>
<td>$200.54</td>
<td>$175.68</td>
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<td>$274.42</td>
<td>$250.67</td>
<td>$219.60</td>
<td>$192.10</td>
<td>$212.63</td>
<td>$185.64</td>
<td>$161.70</td>
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20. ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$353.33</th>
<th>$311.65</th>
<th>$275.07</th>
<th>$242.42</th>
<th>$212.37</th>
<th>$185.77</th>
<th>$198.12</th>
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<tbody>
<tr>
<td>75% productivity</td>
<td>$400.45</td>
<td>$353.20</td>
<td>$311.74</td>
<td>$274.74</td>
<td>$240.68</td>
<td>$210.54</td>
<td>$224.53</td>
<td>$196.04</td>
<td>$170.76</td>
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<tr>
<td>60% productivity</td>
<td>$500.56</td>
<td>$441.50</td>
<td>$389.68</td>
<td>$343.42</td>
<td>$300.85</td>
<td>$263.17</td>
<td>$280.67</td>
<td>$245.05</td>
<td>$213.45</td>
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Sheetfed Offset
Presses: 5-Unit

©2007 NAPL. All Rights Reserved 222
### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<tr>
<td>Paid Holidays</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</tr>
</tbody>
</table>

#### Function:
- **Labor Cost-1 Shift**
- **Labor Cost-2 Shifts**
- **Labor Cost-3 Shifts**

#### Total:
- **$157,367**
- **$146,607**
- **$131,155**

---

### Auxiliary Equipment Includes

- **Equip. Shipped F.O.B.: Chicago, IL**
Sakurai Oliver 575SDP

**SIZE:** 23.625" X 30.125"
**UNITS:** 5
**MAXIMUM SPEED:** 15,000 fpm
**POWER:** hp: --
**kWhs:** 45.1

**PRODUCT CLASS/PROCESS:** Wet Offset
**INTERFACES WITH:** CIP4 systems, scanning spectrophotometer.

**BASE COST:** $970,000

**AUXILIARY EQUIP.:**

**INSTALL. (EST.):** Included

**TOTAL INVEST. :** $970,000

### BASE COST ABOVE INCLUDES

- Platform feeder and delivery; vacuum feed board; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system;
- high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; decurler; spray powder device; automatic blanket washup; installation and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
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<td>Paid Holidays</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman $50,117
  - $46,690
  - $41,769
  - $103,241
  - $96,181
  - $86,044

- **LABOR COST-2 SHIFTS**
  - $157,367
  - $146,607
  - $131,155

- **LABOR COST-3 SHIFTS**
  - $131,155

**AUXILIARY EQUIPMENT INCLUDES**

- Equip. Shipped F.O.B.: Chicago, IL

---

**No. of Manned Hours Annually @ 100% Productivity**

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts................. $97,000
2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft.......................... 6,825
3. Fire & Sprinkler Insurance (Rate $40.00 per M)................................... 145,500
4. Direct Labor............................................................ 50,117
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts........................................ 10,023
6. Pension Fund (A) 5%  (B) 3%  (C) 2%........................................ 2,506
7. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk.................. 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%......................... 4,992
9. Workmen’s Compensation Insurance (Rate $40.00 per M).................... 2,406
10. Power Cost @$0.07 per kWh (based on hp rating)............................... 3,880
11. Power Cost @$0.07 per kWh (based on kW ratings).................................. 3,339
12. Direct Supplies (see instructions)....................................................... 8,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts................. 19,400
14. Sub-total................................................................. 212,865
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts............... 31,920
16. TOTAL MANUFACTURING COSTS................................................... 244,795
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.................. 102,814
18. TOTAL COSTS............................................................... 347,608
19. MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
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<tbody>
<tr>
<td>$179.66</td>
<td>$156.30</td>
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<td>$134.64</td>
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<tr>
<td>75% productivity</td>
<td>152.59</td>
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<tr>
<td>132.58</td>
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<tr>
<td>60% productivity</td>
<td>184.45</td>
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</tr>
<tr>
<td>142.12</td>
<td>122.60</td>
<td>102.82</td>
</tr>
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</table>
| 20. ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
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<tbody>
<tr>
<td>$255.12</td>
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<td>75% productivity</td>
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<td>188.52</td>
<td>161.83</td>
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Sheetfed Offset
Presses: 5-Unit

224
Sakurai Oliver 575SDP+C

Base Cost: $1,245,000

Auxiliary Equipment: n/a

Install. (Est.): Included

Total Invest.: $1,245,000

Base Cost Above Includes:
- Platform feeder and delivery; vacuum feed board;
- Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; deceller; spray powder device; automatic blanket washup; IR drying system; extended delivery; coating system including single anilox roll with Harris & Bruno chamber doctor blade; fully automatic recirculation system for one button make-ready and wash-up; complete IR aqueous drying package; installation and training.

Auxiliary Equipment Includes:

No. of Manned Hours Annually @ 100% Productivity...........................

Fixed Charges (Non-Variable)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts................. $124,500 $124,500 $124,500 $155,625 $155,625 $155,625 $186,750 $186,750 $186,750
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.......................... 7,613 5,075 4,749 7,613 5,075 4,749 7,613 5,075 4,749
3. Fire & Sprinkler Insurance (Rate $4.00 per M)................................ 4,980 4,980 4,980 4,980 4,980 4,980 4,980 4,980 4,980

Variable Charges

4. Direct Labor............................................................. 50,117 46,690 41,769 103,241 96,181 86,044 157,367 146,607 131,155
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.......................................................... 10,283 9,338 8,354 15,486 14,427 12,907 15,737 14,661 13,115
6. Pension Fund (A) 5% (B) 3% (C) 2%............................................. 2,506 2,104 1,835 5,162 2,885 1,721 7,886 4,398 2,623
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............. 4,680 3,430 2,340 9,360 6,240 4,680 14,040 9,360 7,020
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%................. 4,992 4,600 4,160 9,854 9,181 8,213 14,368 13,835 11,974
9. Workmen’s Compensation Insurance (Rate $40.00 per M)............. 2,406 2,241 2,005 4,749 4,424 3,568 6,952 6,451 5,771
10. Power Cost @ $0.07 per kWh (based on hp rating)......................... 0 0 0 0 0 0 0 0 0
11. Power Cost @ $0.07 per kWh (based on kW rating)......................... 3,232 3,553 3,903 6,463 7,106 7,806 9,685 10,660 11,709
12. Direct Supplies (see instructions)........................................ 8,000 8,000 8,000 16,000 16,000 16,000 24,000 24,000 24,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts.................. 24,900 24,900 24,900 31,215 31,215 31,215 37,350 37,350 37,350
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts............... 37,192 35,767 34,406 46,207 44,156 42,085 48,669 46,389 44,007
16. Total Manufacturing Costs.................................................. 285,140 274,216 263,777 415,866 397,807 378,769 535,361 510,044 484,080
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.......................................................... 119,759 115,171 110,786 153,870 147,040 140,145 171,315 163,214 154,905
18. Total Costs............................................................................. $404,899 $389,368 $374,563 $569,736 $544,447 $518,914 $706,676 $673,257 $638,985
19. Manufacturing Costs per productive hour @
   85% productivity.......................................................... $209.27 $203.92 $206.29 $209.07 $207.71 $208.84 $209.07 $207.71 $208.84
   75% productivity.......................................................... 237.17 217.44 181.66 172.95 150.32 130.43 148.43 128.62 111.13
   60% productivity.......................................................... 296.46 259.31 227.08 216.19 187.90 163.04 185.54 160.77 138.91
20. All-Inclusive Costs per productive hour @
   85% productivity.......................................................... $297.16 $259.92 $227.62 $209.07 $181.71 $157.67 $172.88 $149.80 $129.43
   75% productivity.......................................................... 336.78 294.57 257.96 236.95 205.94 178.69 195.93 169.77 146.69
   60% productivity.......................................................... 420.98 368.21 322.45 296.18 257.42 223.36 244.91 212.22 183.36

Sheeted Offset
Presses: 5-Unit

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226
**BASE COST ABOVE INCLUDES**

- Plate punch; semi-automatic plate loading; blanket and roller washers; console.

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.*

---

**AUXILIARY EQUIPMENT INCLUDES**

- Coater and Semi Long Delivery ($164,000).

---

**xApress/Import Group, Ryobi 755 XL A**

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<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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**PERFECTING: COLORS: RESOLUTION: SQ. FT.:**

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**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 Shifts
- LABOR COST-3 Shifts

| Pressman | $50,117 | $46,690 | $41,769 | $103,241 | $96,181 | $86,044 | $157,367 | $146,607 | $131,155 |

**TOTAL**: $50,117 $46,690 $41,769 $103,241 $96,181 $86,044 $157,367 $146,607 $131,155

---

**AUXILIARY EQUIPMENT INCLUDES**

- Coater and Semi Long Delivery ($164,000).

---

**Equip. Shipped F.O.B.: Kansas City, MO**

---

**Sheetfed Offset**

**Presses: 5-Unit**
### Pension Fund
- (A) 5%
- (B) 3%
- (C) 2%

$146,607

### Workmen’s Compensation Insurance (Rate $40.00 per M)

8,354

### Repairs & Maint. @ 2% 1 shift / 2.5% 2 shifts / 3% 3 shifts

$46,690

### Area A

- Direct Labor: 3 weeks
- Indirect Labor (Supervision & Misc.) 20% 1 shift / 15% 2 shifts / 10% 3 shifts
- Depreciation @ 10% 1 shift / 12.5% 2 shifts / 15% 3 shifts
- Tax (A) $10.50 (B) $7.00 (C) $5.00 sq. ft
- Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00
- Power Cost @ $0.07 per kWh (based on hp rating)
- Payroll Taxes (SOC. SEC. & UNEMPLOY. INSURANCE), 8.3%
- Workmen’s Compensation Insurance (Rate $40.00 per M)
- No. of Manned Hours Annually @ 60% Productivity
- No. of Manned Hours Annually @ 75% Productivity
- FIXED CHARGES (NON-VARIABLE)
- VARIABLE CHARGES
- Repairs & Maint. @ 1% 1 shift / 2% 2 shifts / 3% 3 shifts
- Sub-total
- GENERAL FACTORY – 15% 1 shift / 12.5% 2 shifts / 10% 3 shifts
- TOTAL MANUFACTURING COSTS
- Administrative & Selling Overhead – 42% 1 shift / 37% 2 shifts / 32% 3 shifts
- TOTAL COSTS
- MANUFACTURING COSTS per productive hour @ 85% productivity
- ALL-INCLUSIVE COSTS per productive hour @ 85% productivity

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Labor Cost-1 Shift
- Pressman: $50,117
- $46,690
- $41,769
- $103,241
- $98,161
- $86,044
- $157,367
- $146,607
- $131,155

### Labor Cost-2 Shifts
- TOTAL:

### Labor Cost-3 Shifts
- TOTAL:

### Total Cost:
- $379,985
- $365,374
- $351,016
- $541,095
- $516,564
- $491,367
- $674,863
- $642,071
- $608,021

### Sheetfed Offset
- Presses: 5-Unit

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## Sheetfed Offset

**Presses: 5-Unit**

### Equipped Import Group, Ryobi 925

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<td>RESOLUTION: n/a</td>
<td>SQ. FT.: 600</td>
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</table>

### BASE COST ABOVE INCLUDES

- Semi-automatic plate loaders; blanket washers; roller washers; console.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT

- Pressman: $50,117
- Helper: $33,174

#### LABOR COST-2 SHIFTS

- $103,241
- $68,338

#### LABOR COST-3 SHIFTS

- $157,367
- $146,607
- $131,155

### TOTAL:

- $83,291
- $275,672
- $65,678
- $171,579
- $156,070
- $135,297
- $261,534
- $237,893
- $206,229

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Lenexa, KS

### MANUFACTURING COSTS

- No. of Manned Hours Annually @ 100% Productivity
- FIXED CHARGES (NON-VARIABLE)
  1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts
  2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft
  3. Fire & Sprinkler Insurance (Rate $4.00 per M)
- VARIABLE CHARGES
  4. Direct Labor
  5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
  6. Pension Fund (A) 5% (B) 3% (C) 2%
  7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
  8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
  9. Workmen’s Compensation Insurance (Rate $40.00 per M)
  10. Power Cost @ $0.07 per kWh (based on hp rating)
  11. Power Cost @ $0.07 per kWh (based on kWh rating)
  12. Direct Supplies (see instructions)
  13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
  14. Sub-total
  15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
  16. TOTAL MANUFACTURING COSTS
  17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
  18. TOTAL COSTS
  19. MANUFACTURING COSTS per productive hour
   - 85% productivity
   - 75% productivity
   - 60% productivity
  20. ALL-INCLUSIVE COSTS per productive hour
   - 85% productivity
   - 75% productivity
   - 60% productivity

### BASE COST:

- $1,009,871

### INSTALL. (EST.):

- $10,000

### TOTAL INVEST.

- $1,019,871

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Sheetfed Offset

Presses: 5-Unit
**Akiyama, Bestech (BT) 540 A2**

**PRODUCT CLASS/PROCESS:** Sheetfed Wet or Dry Offset

**BASE COST:** $1,520,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST. :** $1,520,000

---

**BASE COST ABOVE INCLUDES**

- Water circulators; hollow vibrator rollers; IR dryer; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cooling system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate bender; paper size preset; impression preset; blanket washer; delivery and rigging to customer's plant (Continental USA); training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $50,117
- Operator: $42,581

**LABOR COST-2 SHIFTS**

- Pressman: $46,690
- Operator: $37,782

**LABOR COST-3 SHIFTS**

- Pressman: $41,979
- Operator: $31,276

**TOTAL:** $92,698

**AUXILIARY EQUIPMENT INCLUDES**


---

**O N E S H I F T**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<tr>
<td>1,603</td>
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<td>4,809</td>
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<td>5,808</td>
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---

**No. of Manned Hours Annually @ 100% Productivity**

- Fixed Charges (NON-VARIABLE)
  - Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts: $152,000
  - Rent & Heat (A) $10.50/ (B) $7.00/ (C) $5.00 sq. ft.: $8,925
  - Fire & Sprinkler Insurance (Rate $4.00 per M): $6,080

- Variable Charges
  - Direct Labor: $92,698
  - Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: $18,540
  - Pension Fund (A) 5%/ (B) 3%/ (C) 2%: $4,635
  - Welfare Benefits (A) $90/year/ (B) $60/year/ (C) $45/year: $9,360
  - Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%: $9,233
  - Workmen's Compensation Insurance ($40.00 per M): $4,450
  - Power Cost @ $0.07/kwh (based on hp rating): $4,740
  - Direct Supplies (see instructions): $11,000
  - Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts: $30,400
  - Sub-total: $325,059
  - General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: $52,809

**TOTAL MANUFACTURING COSTS:** $404,868

- Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts: $170,045

**TOTAL COSTS:** $574,913

- MANUFACTURING COSTS per productive hour @ 85% productivity: $297.14
  - 75% productivity: $336.76
  - 60% productivity: $420.95

- ALL-INCLUSIVE COSTS per productive hour @ 85% productivity: $421.94
  - 75% productivity: $478.20
  - 60% productivity: $597.75

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**Mitsubishi, Diamond 3000 5-Color With Tower Coater & Extended Delivery**

**BASE COST ABOVE INCLUDES**
Comrac Central Oper. Makeready & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. pressure preset; feed & deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impression on/off; blow down fans; 2 pile pallets (deliv.); sheet counter; total rev. counter; sheet slow down wheels; static eliminator; powder spray (deliv.); IR dryer for ink & coating; coating circulator pump; circulators for dampeners; blanket washers; install and training.

**AUXILIARY EQUIPMENT INCLUDES**
-SimuChanger simultaneous plate changing system ($100,000).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
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<tr>
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<tr>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
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</tr>
</tbody>
</table>

**FUNCTION**
- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$50,117</th>
<th>$46,690</th>
<th>$41,769</th>
<th>$103,241</th>
<th>$96,181</th>
<th>$86,044</th>
<th>$157,367</th>
<th>$146,607</th>
<th>$131,155</th>
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<tbody>
<tr>
<td>Operator</td>
<td>$42,581</td>
<td>$37,782</td>
<td>$31,726</td>
<td>$87,717</td>
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<td>$65,356</td>
<td>$133,704</td>
<td>$118,635</td>
<td>$99,620</td>
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</table>

**TOTAL:** $92,698 $84,472 $73,495 $190,958 $174,012 $151,400 $291,072 $265,242 $230,774

** Equip. Shipped F.O.B.: Purchaser's Plant**

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**SIZE:** 27.94" X 40.13"  
**UNITS:** 5  
**MAXIMUM SPEED:** 16,000 fpm

**POWER:**  
- hp: --  
- kwhs: 75

**PERFECTING:** Yes  
**COLORS:** 5  
**RESOLUTION:** n/a  
**SQ. FT.:** 950

**PRODUCT CLASS/PROCESS:** Wet Offset  
**INTERFACES WITH:** PPC, CTP, and Plate Scanner.

**BASE COST:** $1,700,000  
**AUXILIARY EQUIP.:** $100,000  
**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $1,800,000

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## Komori Lithrone LS540 Series 15

### BASE COST ABOVE INCLUDES

- Semi-auto plate changing: auto, blanket washing; paper size preset; auto ink roller washing; KMS-Iv; deionized air in feeder & deliv.; auto infused brushes; nonstop feeder; vac. infused tapes; electronic sheet detect; damp, skew, unit air bars; anti ghosting; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circum, arm, tag, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking damper; osc. dampen bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infused pistons; remote infused cyl. cocking; remote fanout adj.; skeleton transfer cyl.; motorized release cam; installation.

### AUXILIARY EQUIPMENT INCLUDES

- ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity

### VARIABLE CHARGES

- 4 Direct Labor...
- 5 Indirect Labor...
- 6 Pension Fund...
- 7 Welfare Benefits...
- 8 Payroll Taxes...
- 9 Workmen’s Compensation Insurance...
- 10 Power Cost...
- 11 Power Cost...
- 12 Direct Supplies...
- 13 Repairs & Maint. ...
- 14 Sub-total...
- 15 General Factory...
- 16 TOTAL MANUFACTURING COSTS...
- 17 Administrative & Selling Overhead...
- 18 TOTAL COSTS...
- 19 MANUFACTURING COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity
  - 75% productivity
  - 60% productivity

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
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<tr>
<td>FUNCTION</td>
<td>LABOR COST-1 SHIFT</td>
<td>LABOR COST-2 SHIFTS</td>
<td>LABOR COST-3 SHIFTS</td>
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<tr>
<td>Pressman</td>
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<td>$131,155</td>
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<tr>
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<td>$37,782</td>
<td>$31,726</td>
<td>$87,717</td>
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<td>$65,356</td>
<td>$133,704</td>
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<td>$99,620</td>
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<td>TOTAL:</td>
<td>$92,698</td>
<td>$84,472</td>
<td>$73,495</td>
<td>$190,958</td>
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<td>$151,400</td>
<td>$291,072</td>
<td>$265,242</td>
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Sheetfed Offset
Presse: 5-Unit

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### Komori Lithrone LS540P Series 15

**Size:** 28.37" X 40.56"  
**Units:** 5  
**Maximum Speed:** 15,000 iph  
**Power:** hp: --  
**KWhs:** 55  
**Perfecting:** Yes  
**Colors:** 5  
**Resolution:** n/a  
**Square Ft.:** 785  

**Product Class/Process:** Wet Offset  
**Interfaces With:** Digital ink key data from prepress or previously saved jobs.

**Base Cost Above Includes:**
- Semi-auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-Iv; deionized air in feeder & deliv.; auto infeed brushes; nonstop feeder; vac. infeed tapes; electronic sheet detect; damp, skew; unit air bars; anti ghosting; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circum, anilag, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampener; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infeed pistons; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cy.; fully automatic perfector changeover; installation.

**Auxiliary Equipment Includes:**

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
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<td>2 weeks</td>
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</tbody>
</table>

**Function Labor-1 Shift**
- Pressman: $50,117  
- Operator: $42,581

**Labor Cost-2 Shifts**
- Pressman: $46,690  
- Operator: $37,782

**Labor Cost-3 Shifts**
- Pressman: $41,769  
- Operator: $31,726

**Total:** $92,698

### Manufacturing Costs

<table>
<thead>
<tr>
<th>One Shift</th>
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<tbody>
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**Variable Charges**

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<tr>
<th>Item</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.........</td>
<td>$272,751</td>
<td>$272,751</td>
<td>$272,751</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft..................</td>
<td>$8,243</td>
<td>5,495</td>
<td>3,925</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)........................</td>
<td>$4,635</td>
<td>2,534</td>
<td>1,812</td>
</tr>
<tr>
<td>4. Direct Labor.</td>
<td>92,698</td>
<td>84,472</td>
<td>73,495</td>
</tr>
<tr>
<td>5. Indirect Labor (Supervision &amp; Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts</td>
<td>8,243</td>
<td>5,495</td>
<td>3,925</td>
</tr>
<tr>
<td>6. Pension Fund (A) 5% (B) 3% (C) 2%....................................</td>
<td>18,540</td>
<td>16,894</td>
<td>14,699</td>
</tr>
<tr>
<td>7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............</td>
<td>9,360</td>
<td>6,240</td>
<td>4,680</td>
</tr>
<tr>
<td>8. Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%................</td>
<td>9,233</td>
<td>8,413</td>
<td>7,320</td>
</tr>
<tr>
<td>9. Workmen's Compensation Insurance (Rate $4.00 per M).................</td>
<td>4,450</td>
<td>4,055</td>
<td>3,528</td>
</tr>
<tr>
<td>10. Power Cost @$0.07 per kWh (based on hp rating).....................</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11. Power Cost @$0.07 per kWh (based on horsepower rating).............</td>
<td>3,703</td>
<td>4,071</td>
<td>4,472</td>
</tr>
<tr>
<td>12. Direct Supplies (see instructions)....................................</td>
<td>11,000</td>
<td>11,000</td>
<td>11,000</td>
</tr>
<tr>
<td>13. Repairs &amp; Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........</td>
<td>54,605</td>
<td>54,550</td>
<td>54,550</td>
</tr>
<tr>
<td>14. Sub-total.</td>
<td>500,072</td>
<td>481,386</td>
<td>462,800</td>
</tr>
<tr>
<td>15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........</td>
<td>75,011</td>
<td>72,208</td>
<td>69,420</td>
</tr>
<tr>
<td>16. Total Manufacturing Costs.............................................</td>
<td>575,082</td>
<td>553,594</td>
<td>532,220</td>
</tr>
<tr>
<td>17. Administrative &amp; Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts</td>
<td>241,535</td>
<td>232,510</td>
<td>223,533</td>
</tr>
<tr>
<td>18. Total Costs.</td>
<td>$ 816,617</td>
<td>$ 786,104</td>
<td>$ 755,753</td>
</tr>
</tbody>
</table>
| 19. Manufacturing Costs per productive hour @  
  85% productivity                                                  | $422.06 | 369.52 | 323.42 |
| 75% productivity                                                  | 478.34 | 418.79 | 366.54 |
| 60% productivity                                                  | 597.92 | 523.49 | 458.18 |
| 20. All-Inclusive Costs per productive hour @  
  85% productivity                                                  | $599.33 | 524.73 | 459.26 |
| 75% productivity                                                  | 679.24 | 594.69 | 520.49 |
| 60% productivity                                                  | 849.05 | 743.36 | 650.61 |

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<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto plate changing; auto; blanketed washing; paper size preset; auto ink roller washing; KMS-IV; deionized air in feeder &amp; delvi; auto infused tapes; nonstop feeder; vac. infused tapes; electronic sheet detect; damp; skew; unit air bars; anti ghosting; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket &amp; impress. cyts.; lateral, circum; and tag, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDGS-II; Bladesetter; installation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>Hours/Week</td>
</tr>
<tr>
<td>Paid Holidays</td>
</tr>
<tr>
<td>Vacation After One Year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LABOR COST-1 SHIFT</td>
</tr>
<tr>
<td>Pressman</td>
</tr>
<tr>
<td>Operator</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LABOR COST-2 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
</tr>
<tr>
<td>Operator</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
</tr>
<tr>
<td>Operator</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EQUIPMENT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
</tr>
<tr>
<td>AREA B</td>
</tr>
<tr>
<td>AREA C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MANUFACTURING COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>THREE SHIFTS</td>
</tr>
</tbody>
</table>

| AREA A | $151,400 |
| AREA B | $133,704 |
| AREA C | $118,635 |

<table>
<thead>
<tr>
<th>TOTAL COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>$827,338</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MANUFACTURING COSTS per productive hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
</tr>
<tr>
<td>75% productivity</td>
</tr>
<tr>
<td>60% productivity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ALL-INCLUSIVE COSTS per productive hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
</tr>
<tr>
<td>75% productivity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUXILIARY EQUIPMENT INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equip. Shipped F.O.B.: Port of Entry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>28.37&quot; X 40.56&quot;</td>
<td>5</td>
<td>16,000 p/h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2,785,537</td>
</tr>
</tbody>
</table>
**Komori Lithrone LS540P Series 45**

**BASE COST ABOVE INCLUDES**
- Auto plate changing; auto: blanket washing; paper size preset; auto ink roller washing; KMS-IV: deionized air in feeder & delvi.; auto infused brushes; nonstop feeder; vac: infused tapes; electronic sheet detect; damp, skew; unit air bars; anti ghosting; Komoromatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyl.: lateral, circuitry, anilox, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac: side guide; osc: timing adjust.; variable ink ductor timing; osc: dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; remote infed cyl. cocking; remote fanout adj.; skeleton transfer cyl.: KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDCS-II; Bladsetter: fully auto; perfector changeover; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION:**
- LABOR COST-1 SHIFT
  - Pressman
    - $50,117
  - Operator
    - $42,581

**LABOR COST-2 SHIFTS**

**LABOR COST-3 SHIFTS**

- $157,367
- $146,607
- $131,155

**ALL-INCLUSIVE COSTS**
- $1,111,289
- $925,486
- $369.98

**POWER COST @ $0.07 per kWh (based on hp rating):**
- $230,774
- $16,894
- $628,985

**AREA A**
- 465,827
- 157,367
- 925,486

**AREA B**
- 270.85
- 575.82
- 90,129

**AREA C**
- 459.57
- 11,000
- 190,958

**TOTAL INVEST:**
- $756,315
- $22,000
- $92,698

**THEO: $3,105,511**

---

**AUXILIARY EQUIPMENT INCLUDES**
- Equip. Shipped F.O.B.
- Port of Entry

---

**Sheetfed Offset**

**Presses: 5-Unit**

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Akiyama, eXtreme (XT) 540

**BASE COST ABOVE INCLUDES**

Water coolers; hollow vibrator rollers; inker temperature control chiller; IR dryer; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cooking system; cylinder cooling system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate bender; paper size preset; impression preset; blanket washer; delivery and rigging to customer's plant (Continental USA); training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Pressman</td>
<td>$50,117</td>
<td>$46,690</td>
<td>$41,769</td>
<td>$103,241</td>
<td>$96,181</td>
<td>$86,044</td>
<td>$157,367</td>
<td>$146,607</td>
<td>$131,155</td>
</tr>
<tr>
<td>Operator</td>
<td>$42,581</td>
<td>$37,782</td>
<td>$31,726</td>
<td>$87,717</td>
<td>$77,831</td>
<td>$65,356</td>
<td>$133,704</td>
<td>$118,635</td>
<td>$99,620</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$92,698</td>
<td>$84,472</td>
<td>$73,495</td>
<td>$190,958</td>
<td>$174,012</td>
<td>$151,400</td>
<td>$291,072</td>
<td>$265,242</td>
<td>$230,774</td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**


<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft.
3. Fire & Sprinkler Insurance (Rate $.04 per M).
4. Direct Labor...
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
6. Pension Fund (A) 5%  (B) 3%  (C) 2%
7. Welfare Benefits (A) $.90/ wk.  (B) $.60/ wk.  (C) $.45/ wk.
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
9. Workmen's Compensation Insurance (Rate $.40 per M).
10. Power Cost @$0.07 per kWh (based on hp rating)......
11. Power Cost @$0.07 per kWh (based on kW rating)......
12. Direct Supplies (see instructions)......
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
14. Sub-total...
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
16. TOTAL MANUFACTURING COSTS:

**TOTAL COSTS:**

$627,571 | $595,160 | $563,851 | 907,969 | 853,084 | 798,060 | 1,139,831 | 1,066,698 | 992,314 |

**MANUFACTURING COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

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### KBA North America, Rapida 105 Universal

**SIZE:** 29" X 41"  
**UNITS:** 5  
**MAXIMUM SPEED:** 15,000 fpm  
**POWER:** hp: --  
**KWhs:** 49.9  
**PERFECTING:** Optional  
**COLORS:** 5  
**RESOLUTION:** n/a  
**SQ. FT.:** 850

**PRODUCT CLASS/PROCESS:** Wet Offset/Waterless Offset  
**INTERFACES WITH:** All CTP systems.

**BASE COST:** $1,845,000  
**AUXILIARY EQUIP.:** n/a  
**INSTALL. (EST.):** Included  
**TOTAL INVEST.:** $1,845,000

#### BASE COST ABOVE INCLUDES

- Rapida 105; Vari Speed Dampening; auto preset package; semi-automatic plate changers; pin register system; cocking; installation and training.

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**  
**LABOR COST-1 SHIFT**  
**LABOR COST-2 SHIFTS**  
**LABOR COST-3 SHIFTS**

- **Pressman**:
  - $50,117
  - $46,690
  - $41,769
  - $103,241
  - $96,181
  - $86,044
  - $157,367
  - $146,607
  - $131,155

- **Operator**:
  - $42,581
  - $37,782
  - $31,726
  - $87,717
  - $77,831
  - $65,356
  - $133,704
  - $118,635
  - $99,620

**TOTAL:** $92,698

**AUXILIARY EQUIPMENT INCLUDES**  

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO-shifts</th>
<th>THREE-shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........... $184,500
2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft................. 8,925
3. Fire & Sprinkler Insurance (Rate $4.00 per M).......................... 7,380

**VARIABLE CHARGES**

4. Direct Labor............................................................................. 92,698
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/  
   15% 2 shifts/ 10% 3 shifts...................................................... 18,540
6. Pension Fund (A) 5%  (B) 3%  (C) 2%........................................ 4,635
7. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk............. 9,360
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.................. 9,233
9. Workmen's Compensation Insurance (Rate $40.00 per M).............. 4,550
10. Power Cost @ $0.07 per kW (based on hp rating)................. 0
11. Power Cost @ $0.07 per kW (based on kW rating)............ 3,360
12. Direct Supplies (see instructions)........................... 11,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........... 36,900
14. Sub-total.......................................................... 390,979
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........... 58,647
16. TOTAL MANUFACTURING COSTS......................................... 449,626
17. Administrative & Selling Overhead—42% 1 shift/  
   37% 2 shifts/ 32% 3 shifts.................................................. 188,843
18. TOTAL COSTS......................................................................... 638,469
19. MANUFACTURING COSTS per productive hour @  
   85% productivity .................................................................... $329.99
   75% productivity ..................................................................... 373.99
   60% productivity .................................................................... 464.78
   20. ALL-INCLUSIVE COSTS per productive hour @  
   85% productivity .................................................................... $468.58
   75% productivity ..................................................................... 531.06
   60% productivity .................................................................... 663.83

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Sheetfed Offset  
Presses: 5-Unit  
237
### Base Cost Above Includes

Rapida 105; auto preset; auto pressure; vari-speed dampening system; pin register; cocking; training and installation.

### Auxiliary Equipment Includes


## Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
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<td>35</td>
<td>37.5</td>
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<td>35</td>
<td>37.5</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function Labor Cost - 1 Shift

- Pressman: $50,117
- Operator: $42,581

### Labor Cost - 2 Shifts

### Labor Cost - 3 Shifts

### Total:

- Area A: $92,698
- Area B: $84,472
- Area C: $73,495

### TOTAL: $291,072

## One Shift

### Two Shifts

### Three Shifts

<table>
<thead>
<tr>
<th>AREA</th>
<th>1,603</th>
<th>1,763</th>
<th>1,936</th>
<th>3,206</th>
<th>3,525</th>
<th>3,872</th>
<th>4,809</th>
<th>5,288</th>
<th>5,808</th>
</tr>
</thead>
</table>

### Total:

- $715,011

## MANUFACTURING COSTS

- 503,529

## TOTAL COSTS

- 658,578

## MANUFACTURING COSTS per Productive Hour

### 85% Productivity

- 369.55

### 75% Productivity

### 60% Productivity

### ALL-INCLUSIVE COSTS per Productive Hour

### 85% Productivity

### 75% Productivity

### 60% Productivity

## Sheetfed Offset

**Presses: 5-Unit**
Heidelberg Speedmaster XL 105-5+LX

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.53&quot; X 41.34&quot;</td>
<td>5</td>
<td>18,000 mph</td>
<td>hp: 98 est.</td>
<td>Wet Offset</td>
<td>$2,666,500</td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td>INTERFACES WITH:</td>
<td>n/a</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>1,030</td>
<td></td>
<td>Standard industry devices and all Prinect components.</td>
<td></td>
</tr>
</tbody>
</table>

BASE COST ABOVE INCLUDES
Prinect CP2000 Center Press Control with AxisControl and reporting; Preset Plus Feeder with non-stop delivery and pre-loading device; Elite Antistatic Package for feeder and delivery; enhanced air transfer; Autoplate Advanced; Hycolor combined inking and dampening unit; separate fountain roller temperature control; CombiStar inking unit temperature control; automatic inking roller wash-up; modular automatic impression cylinder and blanket wash-up devices with cloth; coating unit with chamber doctor blade; Preset Plus delivery with X2 extension and DryStar 3000 combination dryer; PowderStar AP 500; CleanStar Compact; systemservice 36 plus; training; installation.

AUXILIARY EQUIPMENT INCLUDES

<table>
<thead>
<tr>
<th>One Shift</th>
<th>Two Shifts</th>
<th>Three Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA A</td>
<td>AREA A</td>
</tr>
<tr>
<td>$92,698</td>
<td>$84,472</td>
<td>$73,495</td>
</tr>
</tbody>
</table>

TOTAL: $2,666,500

Equip. Shipped F.O.B.: Cranbury, NJ
### KBA North America, Rapida 130a

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>38&quot; X 51&quot;</td>
<td>5</td>
<td>15,000 pph</td>
<td>hp: -- kWhs: 71</td>
<td>Wet Offset/Waterless Offset</td>
<td>$3,479,000</td>
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**PERFECTING:**
- COLORS: n/a
- RESOLUTION: 1,000
- SQ. FT.: Optional

**BASE COST ABOVE INCLUDES**
- Rapida 130: automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.
- THREE SHIFTS
- 97,461
- Power Cost @ $0.07 per kWh (based on hp rating)

**AUXILIARY EQUIPMENT INCLUDES**
- 35
- presses: 5-Unit
- Sheetfed Offset

**BASE COST: $3,479,000**

**INSTALL (EST.): Included**

**TOTAL INVEST.: $3,479,000**

---

**BASE WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS
- Pressman $50,406 $46,866 $42,094
- Operator $43,081 $38,298 $32,195
- Helper $33,174 $29,072 $23,909

**TOTAL:** $126,661 $114,236 $98,198

---

**Ongoing Costs**

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
</tr>
</tbody>
</table>

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

**Total Costs**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
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</thead>
<tbody>
<tr>
<td>1,061,021</td>
<td>1,016,352</td>
<td>972,427</td>
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<tr>
<td>1,476,394</td>
<td>1,397,866</td>
<td>1,318,799</td>
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<tr>
<td>1,821,215</td>
<td>1,714,591</td>
<td>1,606,750</td>
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</tbody>
</table>

**Manufacturing Costs per productive hour @**
- 85% productivity $548.38 $473.76 $516.14
- 75% productivity $421.50 $441.63 $473.63
- 60% productivity $728.76 $672.82 $599.54

**ALL-INCLUSIVE COSTS per productive hour @**
- 85% productivity $778.70 $789.42 $799.93
- 75% productivity $882.53 $736.07 $666.92

**Wet Offset Presses: 5-Unit**

---

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**BASE COST ABOVE INCLUDES**

Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front slats & sheet timing, pregriper, bearer contact, auto, impress. cycl. setting, adjust. ink oscill. timing, speed compn. damp, sheet brake, lateral [jigger, foil key board], job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cycl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink feed prog., auto. ink unit splitting, transferrers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decuitl, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diag., spare parts, tach., washup device, water recirc., install., training.

**AUXILIARY EQUIPMENT INCLUDES**

*Note: Available options, not included in this study are as follows: Coating Module, Peccon Press Manager.*

**MAN Roland, R 905-5**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
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<td>hp: --</td>
<td>Offset</td>
<td>$2,525,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kWs: 137</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PERFECTING: COLORS: RESOLUTION: SQ. FT.:**

| No | 5 | n/a | 950 |

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $50,406
- Operator: $43,081
- Helper: $33,174

**LABOR COST-2 SHIFTS**

- Pressman: $103,836
- Operator: $88,747
- Helper: $68,338

**LABOR COST-3 SHIFTS**

- Pressman: $158,275
- Operator: $135,274
- Helper: $104,166

**TOTAL:** $126,661 | $114,236 | $98,198

**TOTAL MANUFACTURING COSTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$260,922</td>
<td>$235,326</td>
<td>$202,288</td>
</tr>
<tr>
<td>$397,716</td>
<td>$358,701</td>
<td>$308,342</td>
</tr>
</tbody>
</table>

**TOTAL INVEST.:** $2,525,000

---

**MANUFACTURING COSTS per productive hour @**

- 85% productivity: $451.85
- 75% productivity: $512.09
- 60% productivity: $640.12

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity: $641.62
- 75% productivity: $727.17
- 60% productivity: $908.97

---

**Sheeted Offset**

**Presses: 5-Unit**

241

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**BASE COST ABOVE INCLUDES**

Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lat & sheet timing, pregringer, bearer contact, auto. impress. cyl. setting, adjust. ink oscil. timing, speed compens. damp, sheet brake, lateral jigger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PCL, auto. plate loading, pin reg., plate cyl. positioning, prearmed blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed prog., auto. ink unit splitting, transippers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decurl, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training.

**AUXILIARY EQUIPMENT INCLUDES**

Note: Available options, not included in this study
are as follows: Coating Module; Pecom Press Manager.

---

### MAN Roland, R 905-6

<table>
<thead>
<tr>
<th>SIZE:</th>
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<th>BASE COST:</th>
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<td></td>
<td>kwhs: 137</td>
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<td>AUXILIARY EQUIP.:</td>
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<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
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<td>INSTALL. (EST.):</td>
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<td>5</td>
<td>n/a</td>
<td>1,100</td>
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<td>TOTAL INVEST. :</td>
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### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

**LABOR COST-1 SHIFT**

- Pressman: $50,406
- Operator: $43,081
- Helper: $33,174

**LABOR COST-2 SHIFTS**

- Pressman: $46,866
- Operator: $38,289
- Helper: $29,072

**LABOR COST-3 SHIFTS**

- Pressman: $42,094
- Operator: $32,195
- Helper: $23,909

### VARIABLE CHARGES

1. Direct Labor.
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.
3. Pension Fund (A) 5% (B) 3% (C) 2%.
4. Welfare Benefits (A) $90.00./wk. (B) $60.00./wk. (C) $45.00./wk.
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.
6. Workmen's Compensation Insurance (Rate 4.00 per $100).
7. Power Cost @ $0.07 per kWh (based on hp rating).
8. Power Cost @ $0.07 per kWh (based on kW rating).
9. Direct Supplies (see instructions).
10. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts.
11. Sub-total.
12. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.
13. TOTAL MANUFACTURING COSTS.
15. TOTAL COSTS.
16. MANUFACTURING COSTS per productive hour @
   - 85% productivity: $464.49
   - 75% productivity: $526.42
   - 60% productivity: $658.02
17. ALL-INCLUSIVE COSTS per productive hour @
   - 85% productivity: $659.57
   - 75% productivity: $747.51
   - 60% productivity: $934.39

---

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KBA North America, Rapida 142

BASE COST ABOVE INCLUDES

Rapida 142; automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

AUXILIARY EQUIPMENT INCLUDES

Base Equipment:

Base Equipment:

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

No. of Manned Hours Annually @ 100% Productivity

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts

<table>
<thead>
<tr>
<th>Area A</th>
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<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$349,500</td>
<td>$349,500</td>
<td>$349,500</td>
</tr>
</tbody>
</table>

2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,550</td>
<td>7,700</td>
<td>5,500</td>
</tr>
</tbody>
</table>

3. Fire & Sprinkler Insurance (Rate $4.00 per M)

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$13,980</td>
<td>13,980</td>
<td>13,980</td>
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</tbody>
</table>

VARIABLE CHARGES

4. Direct Labor

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>126,661</td>
<td>114,236</td>
<td>98,198</td>
</tr>
</tbody>
</table>

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,332</td>
<td>22,847</td>
<td>19,640</td>
</tr>
</tbody>
</table>

6. Pension Fund (A) 5%  (B) 3%  (C) 2%

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,333</td>
<td>4,327</td>
<td>1,964</td>
</tr>
</tbody>
</table>

7. Welfare Benefits (A) $90/wk.  (B) $60/wk.  (C) $45/wk

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>14,040</td>
<td>9,360</td>
<td>7,020</td>
</tr>
</tbody>
</table>

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,615</td>
<td>11,378</td>
<td>9,781</td>
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</tbody>
</table>

9. Workers’ Compensation Insurance (Rate $40.00 per M)

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
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</thead>
<tbody>
<tr>
<td>6,080</td>
<td>5,483</td>
<td>4,714</td>
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</tbody>
</table>

10. Power Cost @ $0.07 per kWh (based on hp rating)

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,363</td>
<td>4,797</td>
<td>5,289</td>
</tr>
</tbody>
</table>

11. Power Cost @ $0.07 per kWh (based on kW rating)

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

12. Direct Supplies (see instructions)

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>13,000</td>
<td>13,000</td>
<td>13,000</td>
</tr>
</tbody>
</table>

13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>69,900</td>
<td>69,900</td>
<td>69,900</td>
</tr>
</tbody>
</table>

14. Sub-total

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>653,354</td>
<td>625,608</td>
<td>598,465</td>
</tr>
</tbody>
</table>

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>98,003</td>
<td>93,841</td>
<td>89,770</td>
</tr>
</tbody>
</table>

16. TOTAL MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>751,357</td>
<td>719,450</td>
<td>688,204</td>
</tr>
</tbody>
</table>

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>315,570</td>
<td>302,169</td>
<td>289,058</td>
</tr>
</tbody>
</table>

18. TOTAL COSTS

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,066,927</td>
<td>$1,021,619</td>
<td>$977,293</td>
</tr>
</tbody>
</table>

19. MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$551.43</td>
<td>$480.23</td>
<td>$418.23</td>
</tr>
</tbody>
</table>

20. ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$783.04</td>
<td>$681.93</td>
<td>$593.88</td>
</tr>
</tbody>
</table>

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### BASE COST ABOVE INCLUDES

Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compense. damp, sheet brake, lateral [jigger], foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control. PPI auto., plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeedprog., auto. ink unit splitting, transference, remote running reg., auto. formatting of del./non stop delv., powder spray, sheet decurl, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skeatable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES

Note: Available options, not included in this study are as follows: Coating Module, Peco Press Manager.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After One Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### FUNCTION

**LABOR COST-1 SHIFT**
- Pressman: $51,134/47,541/42,831
- Operator: $43,855/38,751/32,706
- Helper: $33,174/29,072/23,909

**LABOR COST-2 SHIFTS**
- $105,336/97,934/$88,232
- $90,341/$79,827/$67,374
- $68,338/$59,888/$49,253

**LABOR COST-3 SHIFTS**
- $161,561/$149,279/$134,489
- $137,705/$121,678/$102,697
- $104,166/$91,286/$75,074

**TOTAL: $128,163/115,364/99,446**
- $264,016/$237,650/$204,859
- $402,432/$362,243/$312,260

### POWER COST @ $0.07 per kWh (based on kWh rating)
- $292,865
- $337,436
- $337,436

### TOTAL COSTS
- $1,130,425
- $1,130,425
- $1,130,425

**MAN Roland, R 905-7**

**BASE COST:** $3,075,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $3,075,000

---

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Sheeted Offset

Presses: 5-Unit
KBA North America, Rapida 162

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>44” X 64”</td>
<td>5</td>
<td>13,000 pph</td>
<td>--</td>
<td>Wet Offset/Waterless Offset</td>
<td>$3,704,000</td>
</tr>
</tbody>
</table>

**PERFECTING:**
- COLORS: n/a
- RESOLUTION: 1,200

**BASE COST ABOVE INCLUDES**
- Rapida 162: automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cocking; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
  - Pressman: $51,134
  - Operator: $43,855
  - Helper: $33,174

**LABOR COST-2 SHIFTS**

**LABOR COST-3 SHIFTS**

**TOTAL:** $128,163

**TOTAL INVEST.:** $3,704,000

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**NO. OF MANNED HOURS ANNUALLY @ 100% PRODUCTIVITY**

**FIXED CHARGES (NON-VARIABLE)**

<table>
<thead>
<tr>
<th>Charges</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts</td>
<td>$370,400</td>
<td>$370,400</td>
<td>$370,400</td>
</tr>
<tr>
<td>Rent &amp; Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft</td>
<td>$12,600</td>
<td>$8,400</td>
<td>$6,000</td>
</tr>
<tr>
<td>Fire &amp; Sprinkler Insurance (Rate $4.00 per M)</td>
<td>$14,816</td>
<td>$14,816</td>
<td>$14,816</td>
</tr>
</tbody>
</table>

**VARIABLE CHARGES**

<table>
<thead>
<tr>
<th>Charges</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect Labor (Supervision &amp; Misc ) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts</td>
<td>$25,633</td>
<td>$23,073</td>
<td>$23,909</td>
</tr>
<tr>
<td>Pension Fund (A) 5%  (B) 3%  (C) 2%</td>
<td>$6,408</td>
<td>$3,463</td>
<td>$3,498</td>
</tr>
<tr>
<td>Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk.</td>
<td>$14,040</td>
<td>$9,360</td>
<td>$7,200</td>
</tr>
<tr>
<td>Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
<td>$12,765</td>
<td>$11,490</td>
<td>$9,905</td>
</tr>
<tr>
<td>Workmen’s Compensation Insurance (Rate $40.00 per M)</td>
<td>$6,152</td>
<td>$5,537</td>
<td>$4,773</td>
</tr>
<tr>
<td>Depreciation @ $0.07 per kW (based on hp rating)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Power Cost @ $0.07 per kW (based on kW rating)</td>
<td>$4,363</td>
<td>$4,797</td>
<td>$5,269</td>
</tr>
<tr>
<td>Direct Supplies (see instructions)</td>
<td>$14,000</td>
<td>$14,000</td>
<td>$14,000</td>
</tr>
<tr>
<td>Repairs &amp; Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts</td>
<td>$74,080</td>
<td>$74,080</td>
<td>$74,080</td>
</tr>
<tr>
<td>Sub-total</td>
<td>$98,419</td>
<td>$65,778</td>
<td>$62,587</td>
</tr>
<tr>
<td>General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts</td>
<td>$102,513</td>
<td>$98,217</td>
<td>$94,138</td>
</tr>
<tr>
<td>TOTAL MANUFACTURING CHARGES</td>
<td>$205,932</td>
<td>$163,995</td>
<td>$156,725</td>
</tr>
<tr>
<td>Administrative &amp; Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts</td>
<td>$330,092</td>
<td>$316,258</td>
<td>$303,125</td>
</tr>
<tr>
<td>TOTAL COSTS</td>
<td>$1,116,024</td>
<td>$1,069,253</td>
<td>$1,024,850</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS PER PRODUCTIVE HOUR @**

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$576.81</td>
<td>$502.62</td>
<td>$438.58</td>
</tr>
<tr>
<td>75%</td>
<td>$653.72</td>
<td>$569.64</td>
<td>$497.06</td>
</tr>
<tr>
<td>65%</td>
<td>$817.15</td>
<td>$712.05</td>
<td>$621.32</td>
</tr>
<tr>
<td>55%</td>
<td>$928.28</td>
<td>$808.89</td>
<td>$705.82</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR @**

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$819.07</td>
<td>$713.73</td>
<td>$622.78</td>
</tr>
<tr>
<td>75%</td>
<td>$928.28</td>
<td>$808.89</td>
<td>$705.82</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS**

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$1,160.35</td>
<td>$1,011.11</td>
<td>$882.27</td>
</tr>
</tbody>
</table>

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Sheetfed Offset
Presses: 5-Unit
### KBA North America, Rapida 162A

**Size:** 47" x 64"  
**Units:** 5  
**Maximum Speed:** 13,000 fpm  
**Power:** hp: --  
**KWhs:** 64.8  
**Product Class/Process:** Wet Offset/Waterless Offset  
**Interfaces with:** All CTP systems.

### Base Cost Above includes
Rapida 162: automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function/Labor Cost-1 Shift
- **Pressman**  
  
- **Operator**  
  
- **Helper**

### Function/Labor Cost-2 Shifts

### Function/Labor Cost-3 Shifts

### Total:

\[
\begin{align*}
\text{TOTAL:} & = \$128,163 + \$115,364 + \$10,446 \\
& = \$264,019 + \$237,650 + \$20,859 \\
& = \$402,432 + \$362,243 + \$312,260
\end{align*}
\]

### Auxiliary Equipment Includes

### Sheetfed Offset Presses: 5-Unit
### BASE COST ABOVE INCLUDES
Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lay & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed comp., damp, sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interrupt sheet detect, RCI ink control, ink feed prog., auto. ink unit splitters, transferers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet deco., central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diag., spare parts, tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES
Note: Available options, not included in this study are as follows: Coating Module, Pecom Press Manager.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$51,134</td>
<td>$47,541</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,855</td>
<td>$38,751</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
</tr>
</tbody>
</table>

### TOTAL:

|                     | $128,163             | $115,364             | $94,446              |

### TOTAL MANUFACTURING COSTS

|                     | $264,016             | $237,650             | $49,253              |

### ALL-INCLUSIVE COSTS

|                     | $424,332             | $362,243             | $731,260             |

### TOTAL INVEST.

|                     | $3,225,000            |                     |                     |

---

### MAN Roland, R 905-8

- **Size:** 51.1" X 72.8"  
- **Units:** 5  
- **Maximum Speed:** 10,000 iph  
- **Power:** hp: --  
- **Interchangeable Class/Process:** Offset  
- **Product Class/Process:**  
- **Base Cost:** $3,225,000

---

### SPECIAL EQUINE REQUIREMENTS

- **Equipment Shipped F.O.B.:** Port of Entry

---

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

### TOTAL MANUFACTURING COSTS

|                     | $1,204,314           | $979,762           | $937,035           |

### ALL-INCLUSIVE COSTS

|                     | $1,444,639           | $1,266,080         | $1,289,073         |

### TOTAL COSTS

|                     | $1,793,818           | $1,687,079         | $1,582,113         |

---

### MANUFACTURING COSTS per productive hour

| 85% Productivity | $529.41              | $460.56            | $401.00            |
| 75% Productivity | $600.00              | $521.97            | $454.47            |
| 60% Productivity | $750.00              | $652.46            | $568.08            |

### ALL-INCLUSIVE COSTS

| 85% Productivity | $751.76              | $653.99            | $569.42            |
| 75% Productivity | $852.00              | $741.19            | $645.34            |
| 60% Productivity | $1,065.00            | $926.49            | $806.68            |

---

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Sheet Fed Offset  
Presses: 5-Unit
### BASE ABOVE INCLUDES

Rapida 205; automatic wash-up for plate blanket and impression rollers; auto preset; semi-automatic plate change; pin register; cocking; training and installation.

### AUXILIARY EQUIPMENT INCLUDES


---

### BASE COST ABOVE INCLUDES

- **Rapida 205**: Automatic wash-up for plate blanket and impression rollers; auto preset; semi-automatic plate change; pin register; cocking; training and installation.

### AUXILIARY EQUIPMENT INCLUDES

Shinohara 52VI

SIZE: 14' X 20' UNITS: 6 MAXIMUM SPEED: 15,000 iph POWER: hp: -- kWhs: 27

PRODUCT CLASS/PROCESS: Wet Offset

BASE COST: $660,000

AUXILIARY EQUIP.: $170,715

INSTALL. (EST.): $6,000

TOTAL INVEST.: $836,715

BASE COST ABOVE INCLUDES
Continuous oil bath lubrication; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); preload feeder; segmented ink fountain blade; sheet decouler; spray powder system; static eliminator.

AUXILIARY EQUIPMENT INCLUDES
Semi-auto, plate changers ($29,925); auto, blanket washer system ($31,725); auto, ink roller cleaning system ($13,500); operation console incl. all features listed for Interactive Touch Screen Plus Ink Key Control ($82,350); plate cylinder cocking - remote control from remote operation console ($12,975); non-stop delivery ($840).

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION LABOR COST-1 SHIFT LABOR COST-2 SHIFTS LABOR COST-3 SHIFTS

Pressman $51,769 $47,987 $43,145 $106,644 $98,853 $88,879 $162,555 $150,679 $135,475

TOTAL: $51,769 $47,987 $43,145 $106,644 $98,853 $88,879 $162,555 $150,679 $135,475

No. of Manned Hours Annually @ 100% Productivity..........................

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...........
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft..........
3. Fire & Sprinkler Insurance (Rate $4.00 per M)...............
4. Direct Labor..............................................................
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.....
6. Pension Fund (A) 5% (B) 3% (C) 2%..............................
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.........
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%..........
9. Workmen's Compensation Insurance (Rate $40.00 per M).......
10. Power Cost @ $0.07 per kWh (based on hp rating)...........
11. Power Cost @ $0.07 per kWh (based on kw rating)...........
12. Direct Supplies (see instructions)..............................
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts.....
14. Sub-total..............................................................
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.....
16. TOTAL MANUFACTURING COSTS...........................
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.....
18. TOTAL COSTS..........................................................
19. MANUFACTURING COSTS per productive hour @

| 85% productivity | 161.86 $ | 140.42 $ | 121.98 $ | 123.68 $ | 106.32 $ | 91.35 $ | 108.33 $ | 92.74 $ | 79.29 $ |
| 75% productivity | 183.44 $ | 159.14 $ | 138.24 $ | 140.17 $ | 120.50 $ | 103.53 $ | 122.77 $ | 105.11 $ | 89.87 $ |
| 60% productivity | 229.30 $ | 198.93 $ | 172.80 $ | 175.21 $ | 150.62 $ | 129.41 $ | 153.47 $ | 131.38 $ | 112.33 $ |

| 85% productivity | 229.84 $ | 199.40 $ | 173.21 $ | 169.44 $ | 145.66 $ | 125.14 $ | 142.99 $ | 122.42 $ | 104.67 $ |
| 75% productivity | 260.49 $ | 225.98 $ | 196.30 $ | 192.03 $ | 165.08 $ | 141.85 $ | 162.06 $ | 138.74 $ | 118.62 $ |
| 60% productivity | 325.61 $ | 282.48 $ | 245.38 $ | 240.04 $ | 206.35 $ | 177.29 $ | 202.58 $ | 173.42 $ | 148.28 $ |

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Sheetfed Offset
Presses: 6-Unit
## BASE COST ABOVE INCLUDES

Continuous oil bath lubrication; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); preload feeder; segmented ink fountain blade; sheet decurler; spray powder system; static eliminator.

## AUXILIARY EQUIPMENT INCLUDES

Semi-auto, plate changers ($29,925); auto. blanket washer system ($31,725); auto. ink roller cleaning system ($13,500); operation console incl. all features listed for Interactive Touch Screen Plus Ink Key Control ($82,350); plate cylinder cocking - remote control from remote operation console ($12,375); non-stop delivery ($840); semi-auto. perfecting changeover ($14,520).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### LABOR COST-1 SHIFT

- Pressman: $51,769
- Total: $47,987 $43,145 $106,644 $98,853 $88,879 $162,555 $150,679 $135,475

### LABOR COST-2 SHIFTS

### LABOR COST-3 SHIFTS

**TOTAL:** $51,769 $47,987 $43,145 $106,644 $98,853 $88,879 $162,555 $150,679 $135,475

---

### ONE SHIFT:

<table>
<thead>
<tr>
<th>AREA</th>
<th>POWER</th>
<th>PRODUCT CLASS/PROCESS</th>
<th>BASE COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td>Wet Offset</td>
<td>CIF3 direct to press ink key data from prepess RIP and closed loop ink key control systems.</td>
<td>$675,000</td>
</tr>
<tr>
<td>Auxiliary Equip.</td>
<td></td>
<td>$185,235</td>
<td></td>
</tr>
<tr>
<td>Installation (EST.)</td>
<td></td>
<td>$6,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL INVEST.</td>
<td></td>
<td>$866,235</td>
<td></td>
</tr>
</tbody>
</table>

---

**SHINOHARA 52VIP**

- **Size:** 14” x 20”
- **Units:** 6
- **Maximum Speed:** 15,000 ph
- **Power:** hp: --
- **kWhs:** 27
- **Color:** Yes
- **Resolution:** n/a
- **SQ. FT.:** 350

---

**Presses:** 6-Unit

**Sheeted Offset**

**Presses: 6-Unit**

---

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Shinohara 52VI+Coater

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14&quot; X 20'</td>
<td>6</td>
<td>15,000 spm</td>
<td>hp:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kW: 27</td>
</tr>
</tbody>
</table>

**PERFECTING: COLORS: RESOLUTION: SQ. FT.:**

- Perfecting: 
- Colors: n/a
- Resolution: 350

**BASE COST ABOVE INCLUDES**

- Air knives; continuous oil bath lubrication; hot air drying system; in-line tower coater; extended delivery; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); IR dryer; preeral feeder; segmented ink fountain blade; sheet decurler; spray powder system; static eliminator.

**AUXILIARY EQUIPMENT INCLUDES**

- Semi-auto, plate changers ($29,925): auto. blanket washer system ($31,725); auto. ink roller clearing system ($13,500); operation console incl. all features listed for Interactive Touch Screen Plus Ink Key Control ($82,350); plate cylinder cocking - remote control from remote operation console ($12,375); non-stop delivery ($840).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Function</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$51,769</td>
<td>$47,987</td>
<td>$43,145</td>
</tr>
<tr>
<td>Pressman</td>
<td>$106,644</td>
<td>$98,853</td>
<td>$88,879</td>
</tr>
<tr>
<td>Pressman</td>
<td>$162,555</td>
<td>$150,679</td>
<td>$135,475</td>
</tr>
</tbody>
</table>

**TOTAL: $51,769 $47,987 $43,145 $106,644 $98,853 $88,879 $162,555 $150,679 $135,475**

**VARIABLE CHARGES**

1. Direct Labor:
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts:
3. Pension Fund (A) 5% (B) 3% (C) 2%:
4. Welfare Benefits (A) $90/kw. (B) $60/kw. (C) $45/kw:
5. Payroll Taxes (Soc. Sec. & Unemployment) 8.3%:
6. Workmen's Compensation Insurance (Rate $40.00 per M):
7. Power Cost @ $0.07 per kWh (based on kw rating):
8. Power Cost @ $0.07 per kWh (based on kw rating):
9. Direct Supplies (see instructions):
10. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts:
11. Total Manufacturing Costs:
12. Administrative & Selling Overhead — 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:
13. Total Costs:
14. Manufacturing Costs per productive hour @
   - 85% productivity
   - 75% productivity:
   - 60% productivity:
15. All-Inclusive Costs per productive hour @
   - 85% productivity:
   - 75% productivity:
   - 60% productivity:

**Fixed Charges (Non-variable)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts:
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft:
3. Fire & Sprinkler Insurance (Rate $4.00 per M):
4. Workmen's Compensation Insurance (Rate $40.00 per M):
5. Power Cost @ $0.07 per kWh (based on kw rating):
6. Payroll Taxes (Soc. Sec. & Unemployment) 8.3%:
7. Workmen's Compensation Insurance (Rate $40.00 per M):
8. Total Manufacturing Costs:
9. Administrative & Selling Overhead — 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:
10. Total Costs:
11. Manufacturing Costs per productive hour @
   - 85% productivity:
   - 75% productivity:
   - 60% productivity:
12. All-Inclusive Costs per productive hour @
   - 85% productivity:
   - 75% productivity:
   - 60% productivity:

**Sheetfed Offset**

Presses: 6-Unit

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**Shinohara 52VIP+Coater**

**SIZE:** 14" X 20"  
**UNITS:** 6  
**MAXIMUM SPEED:** 15,000 iph  
**POWER:** hp: --  
**kWhs:** 27

**PERFECTING:** Yes  
**COLORS:** 6  
**RESOLUTION:** n/a  
**SQ. FT.:** 350

**PRODUCT CLASS/PROCESS:** Wet Offset  
**BASE COST:** $840,000  
**AUXILIARY EQUIP.:** $185,235  
**INSTALL. (EST.):** $8,000

**BASE COST ABOVE INCLUDES**
- Air knives; continuous oil bath lubrication; hot air drying system; in-line tower coater; extended delivery; interactive touch screen operation (including dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment); IR dryer; preload feeder; segmented ink fountain blade; sheet decluter; spray powder system; static eliminator.

**AUXILIARY EQUIPMENT INCLUDES**
- Semi-auto, plate changers ($29,925); auto. blanket washer system ($31,725); auto. ink roller cleaning system ($13,500); operation console incl. all features listed for Interactive Touch Screen Plus Ink Key Control ($82,250); plate cylinder cocking - remote control from remote operation console ($12,375); non-stop delivery ($840); semi-auto. perfecting changeover ($14,520).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

No. of Manned Hours Annually @ 100% Productivity..........................  
**FIXED CHARGES (NON-VARIABLE)**
- 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.............. $103,324  
  -  2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.................  
  -  3. Insurance (Rate $4.00 per M)........................................  
**VARIABLE CHARGES**
- 4. Direct Labor........................................................................  
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts..............  
- 6. Pension Fund (A) 5% (B) 3% (C) 2%...........................................  
- 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............  
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% ..................  
- 9. Workmen’s Compensation Insurance (Rate $40.00 per M)..............  
- 10. Power Cost @ $0.07 per kWh (based on hp rating).....................  
- 11. Power Cost @ $0.07 per kWh (based on hp rating).....................  
- 12. Direct Supplies (see instructions).........................................  
- 13. Repairs&Maint. @ 2.1% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts..........  
- 14. Sub-total................................................................................  
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...........  
- 16. TOTAL MANUFACTURING COSTS.......................................  
- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts..........................  
- 18. TOTAL COSTS........................................................................  
- 19. MANUFACTURING COSTS per productive hour @  
  -  85% productivity .................................................................  
  -  75% productivity .................................................................  
  -  60% productivity .................................................................  
- 20. ALL-INCLUSIVE COSTS per productive hour @  
  -  85% productivity .................................................................  
  -  75% productivity .................................................................  
  -  60% productivity .................................................................

**TOTAL INVEST.: $1,033,235**

**perfektion**

**Presses: 6-Unit**

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Sheetfed Offset

252
### Heidelberger Speedmaster SM 52-5+L

<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power: hp</th>
<th>KwHrs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.56” X 20.47”</td>
<td>6</td>
<td>15,000 mph</td>
<td>54.8</td>
<td>--</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

CP2000 Touch Screen; remote control of circumferential, lateral, and diagonal register; remote key via CP2000; presetting of side guide and impression cylinder squeeze double sheet detector; programmable automatic blanket, impression, and roller wash-up; automatic sheet arrival control; remote settings of headstops; prep of ink temp control; chromatic plate blanket and impression cylinders; ALCOLOR dampening; non-stop feeder and delivery; motor gripper opening cam; Heidelberg DryStar 2000 Combination Dryer; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**

Note: Optional equipment, not included in this study, includes: Vario Dampening, extended stock range.

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provision</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR-COST-1 SHIFT LABOR COST-2 SHIFTS LABOR COST-3 SHIFTS**

- **Pressman**
  - $51,769
  - $47,987
  - $43,145
  - $106,644
  - $98,853
  - $88,879
  - $162,555
  - $150,679
  - $135,475

**TOTAL:** $162,555

**ONE SHIFT**

- **AREA A**
  - 1,603
  - 1,763
  - 1,936
  - 3,206
  - 3,525
  - 3,872
  - 4,809
  - 5,288
  - 5,808

**TWO SHIFTS**

- **AREA A**
  - 1,603
  - 1,763
  - 1,936
  - 3,206
  - 3,525
  - 3,872
  - 4,809
  - 5,288
  - 5,808

**THREE SHIFTS**

- **AREA A**
  - 1,603
  - 1,763
  - 1,936
  - 3,206
  - 3,525
  - 3,872
  - 4,809
  - 5,288
  - 5,808

**TOTAL COSTS:**

- $307,920
- $293,334
- $279,643
- $456,470
- $431,192
- $406,789
- $579,267
- $545,094
- $511,932

**MANUFACTURING COSTS per productive hour @**

- **85% productivity**
  - $159.15
  - $137.89
  - $119.67
  - $122.27
  - $105.04
  - $90.22
  - $107.36
  - $91.88
  - $78.56

- **75% productivity**
  - $180.37
  - $156.27
  - $135.83
  - $138.57
  - $119.05
  - $102.25
  - $121.67
  - $104.33
  - $89.03

- **60% productivity**
  - $225.46
  - $195.34
  - $169.54
  - $173.21
  - $148.81
  - $127.81
  - $152.09
  - $130.17
  - $111.29

**ALL-INCLUSIVE COSTS per productive hour @**

- **85% productivity**
  - $225.99
  - $195.80
  - $169.93
  - $167.51
  - $143.91
  - $123.60
  - $141.71
  - $121.29
  - $103.70

- **75% productivity**
  - $256.12
  - $221.91
  - $192.59
  - $189.84
  - $163.10
  - $140.08
  - $160.61
  - $137.45
  - $117.52

- **60% productivity**
  - $320.15
  - $277.38
  - $240.74
  - $237.30
  - $203.87
  - $175.10
  - $200.76
  - $171.82
  - $146.90

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Sheetfed Offset
Presses: 6-Unit
Heidelberg Speedmaster SM 52-5P+L

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.56&quot; X 20.47&quot;</td>
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<td>15,000 iph</td>
<td>hp: 56.1</td>
<td>Wet Offset</td>
<td>$845,000</td>
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</table>

<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP2000 Touch Screen; remote control of circumferential, lateral, and diagonal register; remote ink keys via CP2000; presetting of side guide and impression cylinder squeeze double sheet detector; programmable automatic blanket, impression, and roller wash-up; automatic sheet arrival control; remote settings of headstops; prep of ink temp control; chromium plated blankets and impression cylinders; ALCOLOR dampening; non-stop feeder and delivery; motor gripper opening cam; Heidelberg DryStar 2000 Combination Dryer; installation and training.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUXILIARY EQUIPMENT INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: Optional equipment, not included in this study, includes: Vario Dampening.</td>
</tr>
</tbody>
</table>

Table: Heidelberg Speedmaster SM 52-5P+L

<table>
<thead>
<tr>
<th>No. of Manned Hours Annually @ 100% Productivity</th>
<th>FIXED CHARGES (NON-VARIABLE)</th>
<th>VARIABLE CHARGES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts</td>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.</td>
</tr>
<tr>
<td></td>
<td>3. Fire &amp; Sprinkler Insurance (Rate $40.00 per M)</td>
<td>4. Direct Labor</td>
</tr>
<tr>
<td></td>
<td>5. Indirect Labor (Supervision &amp; Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts</td>
<td>6. Pension Fund (A) 5% (B) 3% (C) 2%</td>
</tr>
<tr>
<td></td>
<td>7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.</td>
<td>8. Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
</tr>
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<td></td>
<td>9. Worker's Compensation Insurance (Rate $40.00 per M).</td>
<td>10. Power Cost @$0.07 per kWh (based on hp rating)</td>
</tr>
<tr>
<td></td>
<td>11. Power Cost @$0.07 per kWh (based on kW rating)</td>
<td>12. Direct Supplies (see instructions)</td>
</tr>
<tr>
<td></td>
<td>13. Repairs &amp; Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts</td>
<td>14. Sub-total.</td>
</tr>
<tr>
<td></td>
<td>15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts</td>
<td>16. TOTAL MANUFACTURING COSTS.</td>
</tr>
<tr>
<td></td>
<td>17. Administrative &amp; Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts</td>
<td>18. TOTAL COSTS.</td>
</tr>
<tr>
<td></td>
<td>19. MANUFACTURING COSTS per productive hour @ 85% productivity</td>
<td>20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

Total: $317,341 | 302,766 | 289,087 | 467,589 | 442,332 | 417,950 | 591,842 | 557,698 | 524,566 |

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Sheeted Offset
Presses: 6-Unit

254
<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
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<th>C</th>
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<td>5,808</td>
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<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
<td>35</td>
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<td>11</td>
<td>10</td>
<td>8</td>
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<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$51,769</th>
<th>$47,987</th>
<th>$43,145</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$106,644</td>
<td>$98,853</td>
<td>$88,879</td>
</tr>
<tr>
<td></td>
<td>$162,555</td>
<td>$150,679</td>
<td>$135,475</td>
</tr>
</tbody>
</table>

**TOTAL:**

- ONE SHIFT
- TWO SHIFTS
- THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
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<td>3,872</td>
<td></td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- Plate punch; semi-automatic plate loading; blanket and roller washers; console.

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

**AUXILIARY EQUIPMENT INCLUDES**

Coater and IR Dryer ($165,000).

---

---
WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</tbody>
</table>

FUNCTION
LABOR COST-1 SHIFT
LABOR COST-2hifts
LABOR COST-3 shifts

| Pressman | $51,769 | $47,987 | $43,145 | $106,644 | $98,853 | $88,879 | $162,555 | $150,679 | $135,475 |

TOTAL:

AREA A
AREA B
AREA C

MANUFACTURING COSTS
LABOR COST-1 SHIFT
LABOR COST-2 shifts
LABOR COST-3 shifts

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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</thead>
<tbody>
<tr>
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<td>$3,813</td>
<td>$3,813</td>
<td>$3,813</td>
<td>$3,813</td>
<td>$3,813</td>
<td>$3,813</td>
<td>$3,813</td>
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<tr>
<td>INDIRECT LABOR</td>
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<td>$3,033</td>
<td>$2,071</td>
<td>$4,906</td>
<td>$4,547</td>
<td>$4,088</td>
<td>$7,152</td>
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<td>DEPRECIATION</td>
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<td>$2,295</td>
<td>$2,295</td>
<td>$2,295</td>
<td>$2,295</td>
<td>$2,295</td>
<td>$2,295</td>
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<tr>
<td>PAYROLL TAXES</td>
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<td>$1,440</td>
<td>$1,440</td>
<td>$1,440</td>
<td>$1,440</td>
<td>$1,440</td>
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TOTAL MANUFACTURING COSTS...
<table>
<thead>
<tr>
<th>AREA</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
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<tbody>
<tr>
<td>A</td>
<td>1,603</td>
<td>2,024</td>
<td>4,809</td>
</tr>
<tr>
<td>B</td>
<td>1,763</td>
<td>2,144</td>
<td>5,288</td>
</tr>
<tr>
<td>C</td>
<td>1,936</td>
<td>2,383</td>
<td>5,808</td>
</tr>
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</table>

**BASE COST ABOVE INCLUDES**
- Suction belt feeder; electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
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<tr>
<th>Provisions</th>
<th>Area A</th>
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<td>Hours/Week</td>
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<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**
- Pressman: $51,769

**TOTAL:** $43,145

**BASE COST:** $850,000

**AUXILIARY EQUIPMENT INCLUDES**
- Automatic plate loading; Baldwin automatic blanket sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

**IMPACTS:**
- Equipment shipped F.O.B. Chicago, IL

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Sheetfed Offset
Presses: 6-Unit
## BASE COST ABOVE INCLUDES

- Auto perfector changerover; suction belt feeder; electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

## WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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**FUNCTION LABOR COST-1 SHIFT**
- Pressman: $51,769
- $47,987
- $43,145
- $106,644
- $98,853
- $88,879
- $162,555
- $150,679
- $135,475

**TOTAL:**
- $51,769
- $47,987
- $43,145
- $106,644
- $98,853
- $88,879
- $162,555
- $150,679
- $135,475

## AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Chicago, IL

## MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>20&quot; X 26&quot;</th>
<th>6</th>
<th>16,000 iph</th>
</tr>
</thead>
<tbody>
<tr>
<td>hp: --</td>
<td>kwhs: 40</td>
<td></td>
</tr>
</tbody>
</table>

**PRODUCT CLASS/PROCESS:**
- Wet Offset

**INTERFACES WITH:**
- CIP4 systems; scanning densitometer and spectrophotometer.

**TOTAL INVEST.:** $910,000

## SAKURAI OLIVER 666 SDP

**SIZE:** 20" X 26"
**UNITS:** 6
**MAXIMUM SPEED:** 16,000 iph

**POWER:**
- hp: --
- kwhs: 40

**PRODUCT CLASS/PROCESS:**
- Wet Offset

**INTERFACES WITH:**
- CIP4 systems; scanning densitometer and spectrophotometer.

**BASE COST:** $910,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $910,000

---

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Sheetfed Offset
Presses: 6-Unit
258
## BASE COST ABOVE INCLUDES

Suction belt feeder; electronic early, late, and double sheet detectors; static electricity remover; Delta Effect continuous dampener; color console; automatic plate loading; Baldwin automatic blanket washers; ink roller washers; feeder and delivery sheet size presetting; remote plate cylinder register; training; installation.

## WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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<td>4 weeks</td>
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### FUNCTION

#### LABOR COST-1 SHIFT

<table>
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<tr>
<th>Pressman</th>
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<th>$43,145</th>
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<tbody>
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<td></td>
<td>$162,555</td>
<td>$150,679</td>
<td>$135,475</td>
</tr>
</tbody>
</table>

### LABOR COST-2 SHIFTS

### LABOR COST-3 SHIFTS

### TOTAL:

<table>
<thead>
<tr>
<th>$51,769</th>
<th>$47,987</th>
<th>$43,145</th>
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</thead>
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</tr>
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</table>

## AUXILIARY EQUIPMENT INCLUDES

**BASE COST ABOVE INCLUDES**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.
2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft.
3. Fire & Sprinkler Insurance (Rate $4.00 per M).
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5. Indirect Labor (Supervision & Misc)  20% 1 shift/  15% 2 shifts/  10% 3 shifts.
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7. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk.
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9. Workmen's Compensation Insurance (Rate $40.00 per M).
10. Power Cost @ $0.07 per kWh (based on hp rating).
11. Power Cost @ $0.07 per kWh (based on kW rating).
12. Direct Supplies (see instructions).
13. Repairs & Maint. @ 2% 1 shift/  2.5% 2 shifts/  3% 3 shifts.
14. Sub-total.
15. General Factory—15% 1 shift/  12.5% 2 shifts/  10% 3 shifts.
16. TOTAL MANUFACTURING COSTS.
17. Administrative & Selling Overhead—42% 1 shift/  37% 2 shifts/  32% 3 shifts.
18. TOTAL COSTS.

---

**One Shift**

<table>
<thead>
<tr>
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<th>AREA C</th>
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<tbody>
<tr>
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**Two Shifts**

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<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
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<td>$3,525</td>
<td>$3,872</td>
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**Three Shifts**

<table>
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<th>AREA B</th>
<th>AREA C</th>
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<tbody>
<tr>
<td>$4,809</td>
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<td>$5,808</td>
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**MANUFACTURING COSTS per productive hour @**

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<tr>
<th></th>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
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<tr>
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<td>$365.53</td>
<td>$341.53</td>
<td>$318.56</td>
<td></td>
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</tbody>
</table>

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**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th></th>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$279.72</td>
<td>$243.61</td>
<td>$212.93</td>
<td>$199.99</td>
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<tr>
<td>$172.97</td>
<td>$154.92</td>
<td>$149.82</td>
<td>$146.59</td>
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<td>$143.62</td>
<td>$132.89</td>
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<tr>
<td>$134.01</td>
<td>$131.61</td>
<td>$129.28</td>
<td>$127.94</td>
</tr>
</tbody>
</table>
### Shinohara 66VH

#### Size:
- **Units:** 20" X 26'
- **Maximum Speed:** 6,000
- **Power:** hp: --
- **Kwhs:** 34

#### Product Class/Process:
- Wet Offset

#### BASE COST ABOVE INCLUDES

Automatic blanket washer-Type 1; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

#### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
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</tr>
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<tbody>
<tr>
<td><strong>Hours/Week</strong></td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td><strong>Paid Holidays</strong></td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td><strong>Vacation After One Year</strong></td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### Function:

- **Labor Cost-1 Shift**
  - Pressman: $51,769
  - $47,987
  - $43,145
- **Labor Cost-2 Shifts**
  - $106,644
  - $98,853
  - $88,879
- **Labor Cost-3 Shifts**
  - $162,555
  - $150,679
  - $135,475

#### Total:
- $51,769
- $47,987
- $43,145
- $106,644
- $98,853
- $88,879
- $162,555
- $150,679
- $135,475

### Auxiliary Equipment Includes

Automatic blanket washer-Type 2 ($9,000); automatic ink roller cleaning ($19,500); plate clamp cocking-remote ($87,300); semi-automatic plate changers ($117,300).

### One Shift

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

#### Fixed Charges (Non-Variable)

1. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts........$139,110
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft..............6,300
3. Fire & Sprinkler Insurance (Rate $40.00 per M)..................5,564

#### Variable Charges

- Direct Labor
- Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts........10,354
- Pension Fund (A) 5% (B) 3% (C) 2%.................................2,588
- Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk............4,680
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%............5,156
- Workmen’s Compensation Insurance (Rate $40.00 per M).........2,485
- Power Cost @ $0.07 per kWh (based on hp rating)..................0
- Power Cost @ $0.07 per kWh (based on kw rating)...............2,289
- Direct Supplies (see instructions)................................8,500
- Repairs & Maint. @ 2% 1 shift/2.5% 2 shifts/3% 3 shifts........27,822
- Sub-total.................................................................266,618
- General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts........39,993
- TOTAL MANUFACTURING COSTS......................................306,611

### All Inclusive Costs

- Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts........128,776
- Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts........128,776
- TOTAL COSTS..................................................................$435,387
- MANUFACTURING COSTS per productive hour @
  - 85% productivity $225.03
  - 75% productivity $255.03
  - 60% productivity $318.79
- ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity $319.54
  - 75% productivity $362.14
  - 60% productivity $452.68
### Shinohara 66VIPH

**Size:** 20" x 26"  
**Units:** 6  
**Maximum Speed:** 17,000 iph  
**Power:** hp: --  
**Watts:** kW: 34

**Interface with:** CIP3 direct to press ink key data from prepress RIP and closed loop ink key control systems.

**Product/Process:** Wet Offset

**Base Cost:** $1,204,500

**Auxiliary Equipment:** $263,100

**Install. Est.:** $6,000

**Total Invest.:** $1,473,600

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function**

<table>
<thead>
<tr>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman $51,769</td>
<td>$47,987</td>
<td>$43,145</td>
</tr>
<tr>
<td></td>
<td>$106,644</td>
<td>$98,853</td>
</tr>
<tr>
<td></td>
<td>$88,879</td>
<td>$162,555</td>
</tr>
<tr>
<td></td>
<td>$150,679</td>
<td>$135,475</td>
</tr>
</tbody>
</table>

**Total:** $51,769 + $47,987 + $43,145 + $106,644 + $98,853 + $88,879 + $162,555 + $150,679 + $135,475

---

### Base Cost Above Includes

- Automatic blanket washer-Type 1; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

---

### Auxiliary Equipment Includes

- Automatic blanket washer-Type 2 ($9,000); automatic ink roller cleaning ($19,500); plate clamp cocking-remote ($87,300); semi-automatic plate changers ($117,300); semi-automatic perfecting changeover ($30,000).

---

### Fixed Charges (Non-variable)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts .......... $147,360
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. .......... 6,300
3. Fire & Sprinkler Insurance (Rate $4.00 per M) .......... 5,894
4. Direct Labor .......... 51,769
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts .......... 10,354
6. Pension Fund (A) 5% (B) 3% (C) 2% .......... 2,588
7. Welfare Benefits (A) $80./wk. (B) $60./wk. (C) $45./wk .......... 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% .......... 5,156
9. Workmen's Compensation Insurance (Rate $40.00 per M) .......... 2,485
10. Power Cost @ $0.07 per kWh (based on hp rating) .......... 2,289
11. Power Cost @ $0.07 per kWh (based on kWh rating) .......... 2,289
12. Direct Supplies (see instructions) .......... 8,500
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts .......... 29,472
14. Sub-total .......... 276,848
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts .......... 41,527
16. TOTAL MANUFACTURING COSTS .......... 318,375
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts .......... 133,718
18. TOTAL COSTS .......... 452,093
19. MANUFACTURING COSTS per productive hour @  
   85% productivity .......... $233.66
   75% productivity .......... 264.82
   60% productivity .......... 331.02
20. ALL-INCLUSIVE COSTS per productive hour @  
   85% productivity .......... $331.80
   75% productivity .......... 376.04
   60% productivity .......... 470.05

---

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### Shinohara 66VIH+Coater

#### BASE COST ABOVE INCLUDES
- Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racketing; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

#### AUXILIARY EQUIPMENT INCLUDES
- Automatic blanket washer-Type 2 ($9,000); automatic ink roller cleaning ($19,500); plate clamp cocking-remote ($87,300); semi-automatic plate changers ($117,300).

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
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<td>37.5</td>
<td>40</td>
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<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION
- LABOR COST-1 SHIFT
  - Pressman: $51,769
  - $47,987
  - $43,145
  - $106,644
  - $98,853
  - $88,879
  - $162,555
  - $150,679
  - $135,475

#### ONE SHIFT
<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

#### TWO SHIFTS
<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

#### THREE SHIFTS
<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

#### TOTAL COSTS
- $485,253
- $469,898
- $455,960
- $669,738
- $644,086
- $619,832
- $823,427
- $798,232
- $756,573

#### MANUFACTURING COSTS
- Portion of fixed charges: $1,374,000
- Auxiliary equipment: $233,100
- Install (est.): $8,000

#### TOTAL INVEST.:
- $1,615,100
### Shinozuka 66VIPH+Coater

**BASE COST ABOVE INCLUDES**
- Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, damping fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tr>
<td>Vacation</td>
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<tr>
<td>After One Year</td>
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</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

**BASE COST:** $1,426,500

**AUXILIARY EQUIPMENT INCLUDES**
- Automatic blanket washer-Type 2 ($9,000); automatic ink roller cleaning ($19,500); plate clamp changers ($87,300); semi-automatic plate changers ($117,300); semi-automatic perfecting changeover ($30,000).
- Payroll Taxes: (Soc. Sec. & Unemploy. Insurance) 8.3%
- Pension Fund: (A) 5% (B) 3% (C) 2%
- Welfare Benefits: (A) $90./wk. (B) $60./wk. (C) $45./wk.
- Payroll Taxes: (Soc. Sec. & Unemploy. Insurance) 8.3%.
- Workmen’s Compensation Insurance: (Rate $40.00 per M).
- Power Cost: @ $0.07 per kWh (based on hp rating).

**ONE SHIFT**

| AREA    | Pressman | $51,769 | $47,987 | $43,145 | $106,644 | $98,853 | $88,879 | $162,555 | $150,679 | $135,475 |

**TWO SHIFTS**

| AREA    | Pressman | $51,769 | $47,987 | $43,145 | $106,644 | $98,853 | $88,879 | $162,555 | $150,679 | $135,475 |

**THREE SHIFTS**

| AREA    | Pressman | $51,769 | $47,987 | $43,145 | $106,644 | $98,853 | $88,879 | $162,555 | $150,679 | $135,475 |

**TOTAL:**

- $51,769
- $47,987
- $43,145
- $106,644
- $98,853
- $88,879
- $162,555
- $150,679
- $135,475
**BASE COST ABOVE INCLUDES**

Water circulators; hollow vibrator rollers; IR dryer; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cocking system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate bender; delivery and rigging to customer’s plant (Continental USA); training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman: $51,769
  - Operator: $42,972

- **LABOR COST-2 SHIFTS**
  - Pressman: $106,644
  - Operator: $88,522

- **LABOR COST-3 SHIFTS**
  - Pressman: $162,555
  - Operator: $134,934

**TOTAL:** $297,487

**ALL-INCLUSIVE COSTS**

$297,487

**MANUFACTURING COSTS**

$154,900

**DIRECT LABOR**

$4,900

**PAYROLL TAXES**

- Social Security: 6.2% of $75,194 = $4,726
- Unemployment Insurance: 0.8% of $75,194 = $605

**RENT & HEAT**

- Area A: $47,987
- Area B: $21,557
- Area C: $14,785

**POWER COST**

- Area A: $175.67
- Area B: $383.79
- Area C: $216.60

**NORTHERN ALUMINUM PROFILE**

- $8,500

**INVESTMENT**

- Total: $1,100,000

**TOTAL INVEST.**

$1,100,000

**EQUIPMENT**

- Akiyama, Bestech (BT) 628 A2

**PERFECTING**

- 2.58" X 2.7375" x 17,000

**CONTACT**

Customer’s Plant.

---

**FLOOR PLANS**

- Area A: 1,936 sq. ft.
- Area B: 9,758 sq. ft.
- Area C: 408,111 sq. ft.

---

**AUXILIARY EQUIPMENT INCLUDES**

No. of Manned Hours Annually @ 100% Productivity

- **FIXED CHARGES (NON-VARIABLE)**
  1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts: $110,000
  2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft: $94,741
  3. Fire & Sprinkler Insurance (Rate $4.00 per M): $88,522

- **VARIABLE CHARGES**
  4. Direct Labor: $94,741
  5. Indirect Labor (Supervision & Misc.) 20%/ 1 shift/ 15% 2 shifts/ 10% 3 shifts: $35,730
  6. Pension Fund (A) 5%  (B) 3%  (C) 2%: $19,372
  7. Welfare Benefits (A) $90/ wk.  (B) $60/ wk.  (C) $45/wk: $18,488
  8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%: $17,223
  9. Workmen’s Compensation Insurance (Rate $4.00 per M): $14,928
  10. Power Cost @ $0.07 per kWh (based on hp rating): $17,000
  11. Power Cost @ $0.07 per kWh (based on kW rating): $2,363
  12. Direct Supplies (see instructions): $8,500
  13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts: $22,000
  14. Sub-total: $296,393
  15. General Factory — 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: $44,457
  16. TOTAL MANUFACTURING COSTS: $340,841
  17. Administrative & Selling Overhead — 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts: $143,153
  18. TOTAL COSTS: $483,994
  19. MANUFACTURING COSTS per productive hour @
    - 85% productivity: $250.15
    - 75% productivity: $283.50
    - 60% productivity: $354.38
  20. **ALL-INCLUSIVE COSTS** per productive hour @
    - 85% productivity: $355.21
    - 75% productivity: $402.57
    - 60% productivity: $503.22

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Sheet Fed Offset

Presses: 6-Unit
**BASE COST ABOVE INCLUDES**

- Comrac Centralized Operator Make-ready & Control; touch screen display; remote control running reg.; auto preset inking systems; impression pressure presetting; feeder and delivery presetting; remote control front lay register; cont. stream feeder; side guide; misregister, double sheet, side lay, and overrun detectors; 2 pile pallets feeder; pile height control; tandem meter; 3-position dampening; quick plate clamp system; auto plate cylinder positioning; plasma coated plate & blanket cylinders; chrome plated impress cylinder; cam-closed grippers; auto lub.; sequential impression on/off; blow down fans; 2 pile pallets delivery; sheet counter; total revolution counter; sheet slow down wheels; static eliminator; powder spray (deliv.); IR dryer for ink & coating; coating circulator pump; circulators for dampeners; blanket washers; install. and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $51,769
- Operator: $42,972

**LABOR COST-2 SHIFTS**

- Pressman: $47,087
- Operator: $32,049

**LABOR COST-3 SHIFTS**

- Pressman: $43,145
- Operator: $30,047

**TOTAL: $94,741**

**TOTAL COSTS:**

- $86,113
- $75,194
- $195,166
- $177,393
- $154,900
- $297,487
- $270,395
- $236,109

**AUXILIARY EQUIPMENT INCLUDES**

- Equip. Shipped F.O.B.: Purchaser's Plant

---

**Mitsubishi, Diamond 1000 6-Color With Tower Coater & Extended Delivery**

**SIZE:** 20.06” X 28.38”

**UNITS:** 6

**MAXIMUM SPEED:** 15,000 iph

**POWER:** hp: --

**kWhs:** 37

**PRODUCT CLASS/PROCESS:** Wet Offset

**INTERFACES WITH:** Plate scanner or CTP system.

**BASE COST:** $1,085,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST. :** $1,085,000

---

**TABULATION MANUFACTURING COSTS...**

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIXED CHARGES (NON-VARIABLE)</th>
<th>Cost Per MCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts</td>
<td>$ 108,500</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $15.00 (B) $7.00 (C) $5.00 sq. ft</td>
<td>$ 106,644</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $40.00 per M)</td>
<td>$ 100,679</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VARIABLE CHARGES</th>
<th>Cost Per MCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Direct Labor</td>
<td>$ 94,741</td>
</tr>
<tr>
<td>2. Indirect Labor</td>
<td>$ 15,000</td>
</tr>
<tr>
<td>3. Pension Fund</td>
<td>$ 15,000</td>
</tr>
<tr>
<td>4. Welfare Benefits</td>
<td>$ 15,000</td>
</tr>
<tr>
<td>5. Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance)</td>
<td>$ 15,000</td>
</tr>
<tr>
<td>6. Workmen's Compensation Insurance (Rate $40.00 per M)</td>
<td>$ 15,000</td>
</tr>
</tbody>
</table>

**TOTAL COSTS...**

<table>
<thead>
<tr>
<th>18. MANUFACTURING COSTS per productive hour @ 85% productivity</th>
<th>Cost Per MCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. MANUFACTURING COSTS per productive hour @ 75% productivity</td>
<td>$ 248,699</td>
</tr>
<tr>
<td>20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity</td>
<td>$ 353,142</td>
</tr>
</tbody>
</table>
## KBA North America, Performa 74

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20&quot; X 29&quot;</td>
<td>6</td>
<td>13,000 spm</td>
<td>hp: --</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kwhs: 24</td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES
- Console; B & R Electronic Control System; auto plate; auto wash; sheetless transfers; vac. belt conveyor; dual feeder head w/ shoe control; rotary pre- gripper w/ paper weight adjust.; front lay stops; quick action plate clamping bars; Polycommunic Dampener; Royce Recirc.; segmented duct blade; inking unit washer; auto. blanket & roller washer; Siemens Blower; print, machine control; Touch-Screen operation at deliv.; auto. inch speed select; sheet counter; high (low) pile deliv.; sheet decurler; powder spray; fans in deliv.; central lub.; electronic double feed sheet control; helical gears (inking rollers); remote control of register; inking rollers spread adjust.; feeder head transport gripper adjust.; Botcher inking & dampening rubber rollers; Super Blue transfer & deliv. cylinders; Becker compressor; high adjust. of pile; dryer; install. and training.

### AUXILIARY EQUIPMENT INCLUDES

Note: Perfecting is an available option not included in this study.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area C</th>
</tr>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>2 weeks</td>
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<td>3 weeks</td>
<td>2 weeks</td>
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</tbody>
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### FUNCTION

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$51,769</th>
<th>$47,987</th>
<th>$43,145</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$106,644</td>
<td>$98,853</td>
<td>$88,879</td>
</tr>
<tr>
<td></td>
<td>$162,555</td>
<td>$150,679</td>
<td>$135,475</td>
</tr>
</tbody>
</table>

### TOTAL:
- $51,769
- $47,987
- $43,145
- $106,644
- $98,853
- $88,879
- $162,555
- $150,679
- $135,475

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,603</td>
<td>$1,763</td>
<td>$1,936</td>
</tr>
<tr>
<td>$3,206</td>
<td>$3,525</td>
<td>$3,872</td>
</tr>
<tr>
<td>$4,809</td>
<td>$5,288</td>
<td>$5,808</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2,485</td>
<td>$2,500</td>
<td>$2,600</td>
</tr>
<tr>
<td>$4,900</td>
<td>$5,050</td>
<td>$5,300</td>
</tr>
<tr>
<td>$7,152</td>
<td>$7,300</td>
<td>$7,580</td>
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</table>

### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3,161</td>
<td>$3,175</td>
<td>$3,193</td>
</tr>
<tr>
<td>$5,093</td>
<td>$5,105</td>
<td>$5,193</td>
</tr>
<tr>
<td>$7,847</td>
<td>$7,830</td>
<td>$8,584</td>
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</table>

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8,500</td>
<td>$8,500</td>
<td>$8,500</td>
</tr>
<tr>
<td>$17,000</td>
<td>$17,000</td>
<td>$17,000</td>
</tr>
<tr>
<td>$25,500</td>
<td>$25,500</td>
<td>$25,500</td>
</tr>
</tbody>
</table>

### TOTAL MANNED HOURS ANNUALLY @ 100% Productivity

- 110,700
- 110,700
- 110,700
- 138,375
- 138,375
- 138,375
- 166,050
- 166,050
- 166,050

### FIXED CHARGES (NON-VARIABLE)

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts</td>
<td>$10,354</td>
<td>$9,597</td>
<td>$8,500</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft</td>
<td>$6,765</td>
<td>$6,240</td>
<td>$5,961</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $40.00 per M)</td>
<td>$4,428</td>
<td>$4,428</td>
<td>$4,428</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Direct Labor</td>
<td>$51,769</td>
<td>$47,987</td>
<td>$43,145</td>
</tr>
<tr>
<td>5. Indirect Labor (Supervision &amp; Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts</td>
<td>$2,588</td>
<td>$1,440</td>
<td>$863</td>
</tr>
<tr>
<td>6. Pension Fund (A) 5% (B) 3% (C) 2%</td>
<td>$10,354</td>
<td>$9,597</td>
<td>$8,500</td>
</tr>
<tr>
<td>7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk</td>
<td>$4,880</td>
<td>$4,320</td>
<td>$3,500</td>
</tr>
<tr>
<td>8. Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
<td>$1,516</td>
<td>$1,480</td>
<td>$1,420</td>
</tr>
<tr>
<td>9. Workmen's Compensation Insurance (Rate $40.00 per M)</td>
<td>$2,485</td>
<td>$2,303</td>
<td>$2,071</td>
</tr>
<tr>
<td>10. Power Cost @ $0.07 per kWh (based on hp rating)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>11. Power Cost @ $0.10 per kWh (based on kW rating)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>12. Direct Supplies (see instructions)</td>
<td>$8,500</td>
<td>$8,500</td>
<td>$8,500</td>
</tr>
<tr>
<td>13. Repairs &amp; Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts</td>
<td>$22,140</td>
<td>$22,140</td>
<td>$22,140</td>
</tr>
<tr>
<td>14. Sub-total</td>
<td>$230,086</td>
<td>$220,551</td>
<td>$211,755</td>
</tr>
<tr>
<td>15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts</td>
<td>$34,513</td>
<td>$33,083</td>
<td>$31,765</td>
</tr>
<tr>
<td>16. TOTAL MANUFACTURING COSTS</td>
<td>$264,599</td>
<td>$253,634</td>
<td>$243,529</td>
</tr>
<tr>
<td>17. Administrative &amp; Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts</td>
<td>$111,132</td>
<td>$106,526</td>
<td>$102,282</td>
</tr>
<tr>
<td>18. TOTAL COSTS</td>
<td>$375,731</td>
<td>$360,161</td>
<td>$345,812</td>
</tr>
</tbody>
</table>

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$194.19</td>
<td>$169.30</td>
<td>$147.99</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$220.09</td>
<td>$191.87</td>
<td>$167.72</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$275.11</td>
<td>$239.84</td>
<td>$209.65</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$275.76</td>
<td>$240.41</td>
<td>$210.14</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$312.52</td>
<td>$272.46</td>
<td>$238.16</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$390.65</td>
<td>$340.58</td>
<td>$297.70</td>
</tr>
</tbody>
</table>
KBA North America, Rapida 74

**BASE COST ABOVE INCLUDES**

Rapida 74; semi-automatic plate changers; pin register system; cocking; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**


---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $51,769
- Helper: $33,174

**LABOR COST-2 SHIFTS**

- Total: $214,965

**LABOR COST-3 SHIFTS**

- Total: $241,965

---

**TOTAL MANUFACTURING COSTS**

- Total: $420,550

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,066</td>
<td>2,326</td>
<td>2,559</td>
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</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,809</td>
<td>3,288</td>
<td>3,808</td>
</tr>
</tbody>
</table>

---

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts……. $151,800
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.……... 7,350
3. Fire & Sprinkler Insurance (Rate $4.00 per M)……….. 6,072
4. Direct Labor………………………………………………. 84,943
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts………………………………………………. 16,985
6. Pension Fund (A) 5% (B) 3% (C) 2%……………………………… 4,247
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk……… 9,360
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%……... 10,336
9. Workmen’s Compensation Insurance (Rate $40.00 per M)…… 4,077
10. Power Cost @ $0.07 per kWh (based on hp rating)…………… 0
11. Power Cost @ $0.07 per kwh (based on kWh rating)………….. 1,710
12. Direct Supplies (see instructions)…………………………. 8,500
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts……… 30,360
14. Sub-total…………………………………………………... 333,868
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts………………………………………………. 50,080
16. TOTAL MANUFACTURING COSTS…………………………… 383,948
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts………. 161,258
18. TOTAL COSTS………………………………………………… 545,207
19. MANUFACTURING COSTS per productive hour @
   - 85% productivity …………………… $281.79
   - 75% productivity …………………… 319.36
   - 60% productivity …………………… 399.20
20. ALL-INCLUSIVE COSTS per productive hour @
   - 85% productivity …………………… $400.14
   - 75% productivity …………………… 453.49
21. TOTAL MANUFACTURING COSTS…………………………… 566.86

---

**MANUFACTURING COSTS**

- $1,518,000

---

**Sheetfed Offset**

Presses: 6-Unit

---

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### Shinohara 75VH

**Size:** 23' X 29'

**Units:** 6

**Maximum Speed:** 17,000 pph

**Power:** hp: --

**KWhs:** 42

**Perfecting:** No

**Colors:** 6

**Resolution:** n/a

**SQ. FT.:** 700

#### BASE COST ABOVE INCLUDES

Automatic blanket washer-Type 1; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

#### AUXILIARY EQUIPMENT INCLUDES

Automatic blanket washer-Type 2 ($9,000); automatic ink roller cleaning ($22,500); plate clamp locking-remote ($100,000); semi-automatic plate changers ($135,000).

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<th>Area C</th>
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<td>40</td>
</tr>
<tr>
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<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
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<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT

- **Pressman:** $51,769
- **$47,987**
- **$43,145**

#### LABOR COST-2 SHIFTS

- **$106,644**
- **$98,853**
- **$88,879**

#### LABOR COST-3 SHIFTS

- **$162,555**
- **$150,679**
- **$135,475**

#### TOTAL:

- **$51,769**
- **$47,987**
- **$43,145**
- **$106,644**
- **$98,853**
- **$88,879**
- **$162,555**
- **$150,679**
- **$135,475**

**ALL-INCLUSIVE COSTS**

- **$88,879**
- **$154,800**
- **$235.74**
- **$18,000**
- **$13,332**
- **$14,040**
- **$47,987**
- **$8,483**
- **$863**
- **$193,500**
- **$221.67**
- **$232,200**
- **$6**
- **$421,815**
- **$41,728**
- **$158.67**
- **$232,200**
- **$269,212**
- **$9,000**
- **$37.5**
- **$147.84**
- **$3,872**
- **$232,200**
- **$8.3%**
- **$3,415**
- **$246.69**
- **$6,192**
- **$8**
- **$147.84**
- **$3,872**
- **$6,830**
- **$337.97**
- **$232,200**
- **$269,212**

**Area A**

- **9,360**
- **278,188**
- **$193,500**
- **303.23**
- **$3,500**
- **$201.46**
- **$1,440**
- **$3,500**
- **$378.46**
- **$10,179**
- **$154,800**
- **$243.21**
- **$134,365**
- **$2,500**
- **$526,074**
- **$238.57**
- **$192.62**
- **$112.00**
- **$43,224**
- **$106,644**
- **$235.74**
- **$18,000**
- **$13,332**
- **$14,040**
- **$47,987**
- **$8,483**
- **$863**
- **$193,500**
- **$221.67**
- **$232,200**
- **$269,212**
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- **$37.5**
- **$147.84**
- **$3,872**
- **$6,192**
- **$8**
- **$147.84**
- **$3,872**
- **$6,830**
- **$337.97**
- **$232,200**
- **$269,212**

**Area B**

- **3 weeks**
- **4 weeks**
- **$2,966**
- **$7,152**
- **$161,489**
- **$378.46**
- **$10,179**
- **$154,800**
- **$243.21**
- **$134,365**
- **$2,500**
- **$526,074**
- **$238.57**
- **$192.62**
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- **$6,192**
- **$8**
- **$147.84**
- **$3,872**
- **$6,830**
- **$337.97**
- **$232,200**
- **$269,212**

**Area C**

- **3 weeks**
- **4 weeks**
- **$2,966**
- **$7,152**
- **$161,489**
- **$378.46**
- **$10,179**
- **$154,800**
- **$243.21**
- **$134,365**
- **$2,500**
- **$526,074**
- **$238.57**
- **$192.62**
- **$112.00**
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- **$8**
- **$147.84**
- **$3,872**
- **$6,830**
- **$337.97**
- **$232,200**
- **$269,212**
### Shinohara 75VIPH

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<tr>
<td>Automatic blanket washer-Type 1: non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).</td>
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<td>WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA):</td>
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<td>Area B</td>
<td>Area C</td>
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<td>Area B</td>
<td>Area C</td>
<td>Area A</td>
<td>Area B</td>
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<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
</tr>
<tr>
<td>FUNCTION</td>
<td>LABOR COST-1 SHIFT</td>
<td>LABOR COST-2 Shifts</td>
<td>LABOR COST-3 Shifts</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Pressman</td>
<td>$51,769</td>
<td>$47,987</td>
<td>$43,145</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>$106,644</td>
<td>$98,853</td>
<td>$88,879</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$162,555</td>
<td>$150,679</td>
<td>$135,475</td>
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<td>TOTAL:</td>
<td>$51,769</td>
<td>$47,987</td>
<td>$43,145</td>
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<td>$150,679</td>
<td>$135,475</td>
<td></td>
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</tr>
</tbody>
</table>

### AUXILIARY EQUIPMENT INCLUDES

Automatic blanket washer-Type 2 ($9,000); automatic ink roller cleaning ($22,500); plate clamp cocking-remote ($100,500); semi-automatie plate changers ($135,000); semi-automatie perfecting changeover ($30,000).

### BASE COST BELOW INCLUDES

Automatic blanket washer-Type 2; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).
**Shinohara 75VIH+Coater**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
</tr>
</thead>
<tbody>
<tr>
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<td>17,000 fpm</td>
<td>hp: -- kWhs: 83</td>
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**PERFECTION:**

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<th>RESOLUTION:</th>
<th>SQ. FT.:</th>
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</thead>
<tbody>
<tr>
<td>No</td>
<td>6</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).

**AUXILIARY EQUIPMENT INCLUDES**

- Automatic blanket washer-Type 2 ($9,000); automatic ink roller cleaning ($22,500); plate clamp cocking-remote ($100,500); semi-automatic plate changers ($135,000).
- Automatic ink roller cleaning ($22,500); plate clamp cocking-remote ($100,500); semi-automatic plate changers ($135,000).
- Automatic ink roller cleaning ($22,500); plate clamp cocking-remote ($100,500); semi-automatic plate changers ($135,000).
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**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<td>35</td>
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<tr>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman: $51,769
  - $47,987
  - $43,145
- **LABOR COST-2 SHIFTS**
  - $106,644
  - $98,853
  - $88,879
- **LABOR COST-3 SHIFTS**
  - $162,557
  - $150,679
  - $135,475

**TOTAL COSTS**

- $92,853
- $88,879
- $88,879

**MANUFACTURING COSTS**

- $1,507,500
- $267,000
- $8,000

**TOTAL INVEST:**

- $1,782,500

---

**Sheeted Offset**

**Presses: 6-Unit**

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### BASE COST ABOVE INCLUDES

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Air knives; automatic blanket washer-Type 1; hot air drying system; in-line tower coater; extended delivery; IR dryer; non-stop delivery with racking; interactive touch screen controls; preloading feeder pile; remote operation console (including ink key control, dampening fountain roller speed control, ink fountain roller sweep control, plate cylinder radial and lateral microadjustment).</td>
<td>$1,590,000</td>
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### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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<thead>
<tr>
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<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<tr>
<td>Function</td>
<td>Pressman</td>
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<td>$98,853</td>
<td>$88,879</td>
<td>$162,555</td>
<td>$150,679</td>
</tr>
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### AUXILIARY EQUIPMENT INCLUDES

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Automatic blanket washer-Type 2 ($9,000); automatic ink roller cleaning ($22,500); plate clamp changeover ($100,500); semi-automatic plate changers ($135,000); semi-automatic perfecting changeover ($30,000).</td>
<td>$297,000</td>
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### MANUFACTURING COSTS

<table>
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<th>AREA</th>
<th>TOTAL WORKING COSTS</th>
<th>$869,787</th>
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<tr>
<td>Area A</td>
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<td>153.16</td>
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<td>Area B</td>
<td>5,588</td>
<td>146.61</td>
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<tr>
<td>Area C</td>
<td>5,588</td>
<td>146.61</td>
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</table>
Mitsubishi, Diamond 2000LS 6-Color With Tower Coater & Extended Delivery

SIZE: 23.5" X 29"  
UNITS: 6  
MAXIMUM SPEED: 16,000 iph  
POWER: hp: --  
kWhs: 144  
PRODUCT CLASS/PROCESS: Wet Offset  
INTERFACES WITH: PPC, CTP, Plate Scanner.  
BASE COST: $1,400,000

BASE COST ABOVE INCLUDES
Comrac Central Oper. Makeready & Control; touch screen; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg.; double sheet and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaner; 3-position damper; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet counter; total revol. counter; sheet slow down wheels; static elim.; powder spray (deliv.): IR dryer for ink & coating; coater circ. pump; chiller for ink vibrators; blanket washers; refrieg. fount. solution circulators; install. and training.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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</table>

FUNCTION
LABOR COST-1 SHIFT
Pressman
Operator

LABOR COST-2 SHIFTS

LABOR COST-3 SHIFTS

TOTAL:

$94,741  $86,113  $75,194  $195,166  $177,393  $154,900  $297,487  $270,395  $236,109

AUXILIARY EQUIPMENT INCLUDES

PERFECTING:

Color:

Resolution:

SQ. FT.:

No 6 n/a 750

COMMENTS

ALL-INCLUSIVE COSTS per productive hour @

85% productivity

75% productivity

60% productivity

$409.81  $352.49  $303.23  $306.20  $260.83  $221.65  $260.02  $220.55  $186.44

$464.45  $399.49  $343.67  $347.02  $295.61  $251.18  $294.69  $249.96  $211.30

$580.57  $499.36  $429.58  $433.78  $369.51  $313.98  $368.36  $312.45  $264.13

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Sheetfed Offset  
Presses: 6-Unit

272
### ADATE 867P LX (Data Provided By United Graphic Systems)

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<th>MAXIMUM SPEED:</th>
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<th>BASE COST:</th>
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**BASE COST ABOVE INCLUDES**
- Fast auto plate changers with punch; ADAcontrol; computerized control of radial, lateral, and diagonal register; auto blanket and ink wash up; Adamic dampeners; recirculator; touch screen control; vacuum feeder board; leverless pneumatic; IR dryer; Superblue; auto lubrication; nonstop delivery; high pile delivery; powder sprayer; ink ductor separate drive motor; training; installation.
- Workmen’s Compensation Insurance (Rate $40.00 per M)

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
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<tr>
<td>Pressman</td>
<td>$51,769</td>
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<tr>
<td></td>
<td>$162,555</td>
<td>$150,679</td>
<td>$135,475</td>
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**TOTAL COSTS**:

- $401,454
- 385,581
- 371,079
- 567,784
- 541,154
- 515,835
- 705,838
- 670,260
- 636,096

**MANUFACTURING COSTS per productive hour @ 85% productivity**

- 75% productivity: $235.15
- 60% productivity: $293.94

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

- 75% productivity: $294.63
- 60% productivity: $417.40

---

**AUXILIARY EQUIPMENT INCLUDES**
- Aqueous tower coater with doctor blade and Anilox roller, and hot and cold air knives IR dryer ($190,000); Closed Loop Spectrophotometer ($12,000).

**PERFECTING:**

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**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL:**

- $51,769
- $47,987
- $43,145
- $106,644
- $98,853
- $88,879
- $162,555
- $150,679
- $135,475

---

**ADAST 867P LX Specifications**

- **Presses:** 6-Unit
- **Provisions:**
  - Perforating
  - Cutting
  - Die Cutting
  - Slitting
  - Slotting
  - Die Cutting
  - Perforating
  - Cutting
  - Die Cutting
- **Power:**
  - 27.6 hp
  - 24,540 kWhs
- **Rent & Heat:**
  - (A) $10.50
  - (B) $7.00
  - (C) $5.00 per sq. ft
- **Depreciation:**
  - 10% on 1 shift
  - 12.5% on 2 shifts
  - 15% on 3 shifts
- **Payroll Taxes:**
  - (A) $90.00
  - (B) $60.00
  - (C) $45.00
- **Insurance:**
  - Workmen’s Compensation (Rate $40.00 per M)
  - Workmen’s Compensation (Rate $40.00 per M)
  - Fire & Sprinkler (Rate $4.00 per M)
- **Fuel:**
  - $0.07 per kWh
- **Administrative & Selling Overhead:**
  - 42% of 1 shift
  - 37% of 2 shifts
  - 32% of 3 shifts
- **Wages:**
  - 15% of 1 shift
  - 12.5% of 2 shifts
  - 10% of 3 shifts
- **Savings:**
  - 60% productivity
  - 75% productivity
  - 85% productivity

---

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### MAN Roland, R 206 E

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.5&quot; X 29.13&quot;</td>
<td>6</td>
<td>13,000 iph</td>
<td>hp:</td>
<td>Offset</td>
<td>$825,000</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>kwhs:</td>
<td></td>
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</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>n/a</td>
<td>650</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- Preloading device, sheet holder above feeder, diag. sheet correction, adjust. front lays, adjust. sheet timing, pregripper, transferer, bearer contact, adjust. ink oscillator timing, speed compensated dampener, skewable dampener, sheet brake, adjust. suction wheels, lateral jogger, foil keyboard, job card storage, electromech. double and internuit sheet detection, automatic edge guide, phototelectric side edge control, Ternes quick-action plate clamps, plate cylinder positioning, prebarred blankets, RCI ink control, ink infeed program, remote register, nonstop delivery, anti-offset powder spray, sheet decurler, central lube, electronic sheet counter, covered ink/water rollers, feeder and deliv. loading boards, self diagnostics, spare parts kit, tachometer, washup device, water recirc. equip., water level control, installation, wiring, and training.

**AUXILIARY EQUIPMENT INCLUDES**

Note: An available option, not included in this study, is an EPI Semi-Automatic Plate Changer.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$51,769</td>
<td>$47,987</td>
</tr>
<tr>
<td></td>
<td>$106,644</td>
<td>$98,853</td>
</tr>
<tr>
<td></td>
<td>$162,555</td>
<td>$150,679</td>
</tr>
</tbody>
</table>

**TOTAL: $51,769**

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS**

- $322,823
- $306,854
- $292,395
- $476,789
- $450,248
- $425,166
- $604,301
- $568,977
- $535,248

**TOTAL INVEST.**

- $825,000

---

**Note:** All data and information provided are for the study period only and are subject to change based on market conditions and other external factors.

---

**Sheetfed Offset**

**Presses: 6-Unit**
<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.87&quot; X 29.13&quot;</td>
<td>6</td>
<td>15,000 pph</td>
<td>hp: 76.5</td>
<td>Wet Offset</td>
<td>$1,100,000</td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td>INTERFACES WITH:</td>
<td>AUXILIARY EQUIP.:</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>n/a</td>
<td>700</td>
<td>CIP4 data and Mis system.</td>
<td>n/a</td>
</tr>
<tr>
<td>TOTAL INVEST:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$1,100,000</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Print Print Center digitized monitoring control & self diagnostic system; IR dryer; Machine Info. Display (MID) at feeder & deliv.; remote control of circuml., lateral & diag. register; single suction belt feed; integrated preload device; adjust. side guide; digital 5 roller contln. damp. system; auto. inking roller, blanket & impress. cyl. wash-up devices; remote controlled ink jet. adjust. ink flow timing; nonstop device w/ rake; sheet decurler; vac. sheet slowdowns; air cushion deliv. drum; sheet rear edge extraction system; electronic double detector; monitored front align. control; autoplate; remote adjust. of printing pressure; plate damping & inking rollers follow diagonal register adjustments; chromium plated plate cylinder; circuml. register 360 degrees; Venturi effect sheet guide plate; powder sprayer; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**

- **LABOR COST-1 SHIFT**
  - Pressman
  - Helper

- **LABOR COST-2 SHIFTS**
  - **LABOR COST-3 SHIFTS**

- **FUNCTION**
  - LABOR COST-1 SHIFT
  - LABOR COST-2 SHIFTS
  - LABOR COST-3 SHIFTS

**TOTAL: $84,943**

**Sheeted Offset**

**Presses: 6-Unit**

**GENERAL FACTORY—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts**

**TOTAL MANUFACTURING COSTS...**

**TOTAL COSTS...**

**MANUFACTURING COSTS per productive hour @**

**85% productivity**

**75% productivity**

**60% productivity**

**ALL-INCLUSIVE COSTS per productive hour @**

**85% productivity**

**75% productivity**

**60% productivity**

©2007 N A P L. All Rights Reserved 275
### Heidelberg Speedmaster SM 74-5-P+L

**SIZE:**
- 20.87” X 29.13”
  - Units: 6
  - Maximum Speed: 15,000 p/h
  - Power: hp: 76.5
  - kWhs: --

**PERFECTING:**
- Yes
  - Colors: 5
  - Resolution: n/a
  - Sq. Ft.: 700

**PRODUCT CLASS/PROCESS:**
- Wet Offset

**INTERFACES WITH:**
- CIP4 data and MIS system.

**BASE COST ABOVE INCLUDES**
- Prinect Print Center digitized monitoring control & self diagnostic system; IR dryer; Machine Info. Display (MID) at feeder & deliv.; remote control of circuim.; lateral & diag. register; single suction belt feed; integrated preload device; adjust. side guide; digital 5 roller contin. damp. system; auto. inking roller, blanket & impress. cyl. wash-up devices; remote controlled ink adjust. ink flow timing; nonstop device w/ rake; sheet decurler; vac. sheet slowdowns; ar cushion deliv. drum; sheet rear edge extraction system; electronic double detector; monitored front align. control; autoplate; remote adjust. of printing pressure; plate damping & inking rollers follow diagonal register adjustments; chromium plated plate cylinder; circumf. register 360 degrees; Venturi effect sheet guide plate; powder sprayer; install. & training.

**AUXILIARY EQUIPMENT INCLUDES**
- Base cost above includes
- Auxiliary equip.:
  - BASE COST: $1,150,000
  - AUXXILIARY EQUIP.: n/a
  - INSTALL. (EST.): Included
  - TOTAL INVEST.: $1,150,000

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
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</tr>
<tr>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Pressman</td>
<td>$51,769</td>
<td>$47,987</td>
<td>$43,145</td>
<td>$106,644</td>
<td>$98,853</td>
<td>$88,879</td>
<td>$162,555</td>
<td>$150,679</td>
<td>$135,475</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
<td>$68,338</td>
<td>$59,888</td>
<td>$49,253</td>
<td>$104,166</td>
<td>$91,286</td>
<td>$75,074</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**
- Pressman: $51,769
- Helper: $33,174

**FUNCTION LABOR COST-2 shifts**
- Pressman: $106,644
- Helper: $68,338

**FUNCTION LABOR COST-3 shifts**
- Pressman: $162,555
- Helper: $104,166

**TOTAL:**
- $84,943
- $77,059
- $67,054
- $174,983
- $158,742
- $138,131
- $266,721
- $241,965
- $210,550

**Equi. Shipped F.O.B.: Mt. Olive, NJ**

### Sheetfed Offset

**Presses:** 6-Unit

---

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276
### MAN Roland, R 506

**SIZE:** 23.23" x 29.13"

**UNITS:** 6

**MAXIMUM SPEED:** 18,000 iph

**POWER:** hp: --

**hpKws:** 135 est.

**PERFECTING:** No

**COLORS:** 6

**RESOLUTION:** n/a

**SQ. FT.:** 750

**PRODUCT CLASS/PROCESS:** Sheetfed Wet Offset

**INTERFACES WITH:** n/a

**BASE COST:** $1,550,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $1,550,000

#### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
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<td>11</td>
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<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Labor Cost-1 Shift**

- Pressman: $51,769
- Operator: $42,972

**Labor Cost-2 Shifts**

- Pressman: $47,987
- Operator: $38,126

**Labor Cost-3 Shifts**

- Pressman: $43,145
- Operator: $32,049

**TOTAL:** $94,741

**Rent & Heat**

- Area A: $42,972
- Area B: $51,769
- Area C: $43,145

**Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts**

- Area A: $155,000
- Area B: $150,000
- Area C: $146,900

**Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%**

- Area A: $8,112
- Area B: $9,987
- Area C: $7,875

**Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%**

- Area A: $8,112
- Area B: $9,987
- Area C: $7,875

**Indirect Labor  (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts**

- Area A: $6,200
- Area B: $6,200
- Area C: $6,200

**Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts**

- Area A: $206,005
- Area B: $324,172
- Area C: $231.11

**TOTAL MANUFACTURING COSTS**

- Area A: $219,166
- Area B: $329,436
- Area C: $232.54

**TOTAL COSTS**

- Area A: $363.76
- Area B: $428.89
- Area C: $296.18

**MAN Roland, R 506:** training, installation.

---

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Sheeted Offset

Presses: 6-Unit
## SIZE: 23.62" X 29.13"  
## UNITS: 6  
## MAXIMUM SPEED: 15,000 iph  
## POWER: hp: 75 est.  
## kWhs: --  
## PERFECTING: Yes  
## COLORS: 6  
## RESOLUTION: n/a  
## SQ. FT.: 600  

### PRODUCT CLASS/PROCESS: Wet Offset

### BASE COST: $1,543,500

### AUXILIARY EQUIP.: n/a

### INSTALL. (EST.): Included

### TOTAL INVEST.: $1,543,500

---

### BASE COST ABOVE INCLUDES

- Prinect CP2000 Center Press Control; full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; fully automatic perfecting device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; non-stop delivery; systemservice 36 plus; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
<td>40</td>
<td>40</td>
<td>35</td>
<td>40</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- **LABOR COST-1 SHIFT**
  - Pressman $51,769
  - Helper $33,174

- **LABOR COST-2 SHIFTS**
  - Pressman $47,987
  - Helper $29,072

- **LABOR COST-3 SHIFTS**
  - Pressman $43,145
  - Helper $23,909

### TOTAL:

- $84,943

---

### AUXILIARY EQUIPMENT INCLUDES

- **AUXILIARY EQUIPMENT INCLUDES**

---

### OTHER COSTS

<table>
<thead>
<tr>
<th>Cost Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Cost @ $0.07 per kWh (based on hp rating)</td>
<td>$0.07 per kWh (based on hp rating)</td>
</tr>
<tr>
<td>Depreciation @ 10%</td>
<td>$10,646</td>
</tr>
<tr>
<td>Payroll Taxes  (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
<td>$33,174</td>
</tr>
<tr>
<td>Pension Fund  (A) 5%  (B) 3%  (C) 2%</td>
<td>$51,769</td>
</tr>
<tr>
<td>Health Insurance (A)</td>
<td>$106,644</td>
</tr>
<tr>
<td>Fire &amp; Sprinkler Insurance (Rate $4.00 per M)</td>
<td>$29,072</td>
</tr>
<tr>
<td>Workmen’s Compensation Insurance (Rate $40.00 per M)</td>
<td>$23,909</td>
</tr>
<tr>
<td>Total Costs</td>
<td>$1,543,500</td>
</tr>
</tbody>
</table>

---

### OTHER COSTS

- **OTHER COSTS**

---

### TOTAL COSTS

- $552,831

---

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$285.73</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$246.51</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$212.67</td>
</tr>
</tbody>
</table>

---

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$305.86</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$285.91</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$260.87</td>
</tr>
</tbody>
</table>

---

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$300.00</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$295.79</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$290.52</td>
</tr>
</tbody>
</table>

---

### Sheetfed Offset

**Presses: 6-Unit**

---

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**278**
## Heidelberg Speedmaster CD 74-6+L

### Size:
- Width: 23.62" X 29.13"
- Units: 6
- Maximum Speed: 15,000 fpm
- Power: hp: 85 est.
- kW: 100 est.

### Perfecting:
- No: 6
- Colors: n/a
- Resolution: 700

### Base Cost Above Includes
- Prinect CP2000 Center Press Control; full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; coating unit with DryStar dryer; non-stop delivery; system/service 36 plus; training; installation.

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Labor Cost - 1 Shift
- Pressman: $51,769
- Operator: $42,972

### Labor Cost - 2 Shifts
- Pressman: $106,644
- Operator: $88,522

### Labor Cost - 3 Shifts
- Pressman: $162,555
- Operator: $134,932

### Total:
- $94,741
- $86,113
- $75,194

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost - 1 Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$51,769</td>
</tr>
<tr>
<td>Operator</td>
<td>$42,972</td>
</tr>
</tbody>
</table>

### Total:
- $94,741
- $86,113
- $75,194

### Total:
- $297,487
- $270,395
- $236,109

### Auxiliary Equipment Includes
- Equip. Shipped F.O.B.: Cranbury, NJ

---

### BASE COST ABOVE INCLUDES

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
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### Labor Cost - 2 Shifts
- Pressman: $106,644
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### Labor Cost - 3 Shifts
- Pressman: $162,555
- Operator: $134,932

### Total:
- $94,741
- $86,113
- $75,194

### Total:
- $297,487
- $270,395
- $236,109

---

### AUXILIARY EQUIPMENT INCLUDES

### EQUIMENT SHIPPED F.O.B.

- Cranbury, NJ

---

### ONE SHIFT

<table>
<thead>
<tr>
<th>Area</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td></td>
</tr>
</tbody>
</table>

### TWO shifts

<table>
<thead>
<tr>
<th>Area</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td></td>
</tr>
</tbody>
</table>

### THREE Shifts

<table>
<thead>
<tr>
<th>Area</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td></td>
</tr>
</tbody>
</table>

---

### Fixed Charges (Non-Variable)

1. **Depreciation** @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts
   - $169,650
2. **Rent & Heat** (A) $10.50/ (B) $7.00/ (C) $5.00 sq. ft
   - $7,350
3. **Payroll Taxes** (Soc. Sec. & Unemploy. Insurance) 8.3%
   - $2,583
4. **Pension Fund** (A) 5% (B) 3% (C) 2%
   - $18,720
5. **Welfare Benefits** (A) $90/ wk. (B) $60/ wk. (C) $45/ wk
   - $9,436

### Variable Charges

1. **Direct Labor**
   - $94,741
2. **Indirect Labor** (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
   - $18,948
3. **Payroll Taxes** (Soc. Sec. & Unemploy. Insurance) 8.3%
   - $9,436
4. **Workmen’s Compensation Insurance** (Rate $40.00 per M)
   - $4,548
5. **Power Cost @ $0.07 per kWh** (based on hp rating)
   - $2,699
6. **Power Cost @ $0.07 per kWh** (based on kWh rating)
   - $0
7. **Direct Supplies** (see instructions)
   - $9,000
8. **Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts**
   - $33,930
9. **Sub-total**
   - $72,755
10. **General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts**
    - $55,913
11. **TOTAL MANUFACTURING COSTS**
    - $428,668
12. **Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts**
    - $180,041
13. **TOTAL COSTS**
    - $608,709
14. **MANUFACTURING COSTS per productive hour @ 85% productivity**
    - $314.61
15. **MANUFACTURING COSTS per productive hour @ 75% productivity**
    - $236.56
16. **MANUFACTURING COSTS per productive hour @ 60% productivity**
    - $145.69
17. **ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**
    - $446.74
18. **ALL-INCLUSIVE COSTS per productive hour @ 75% productivity**
    - $506.31
19. **ALL-INCLUSIVE COSTS per productive hour @ 60% productivity**
    - $632.89

---

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### BASE COST ABOVE INCLUDES

Prinect CP2000 Center Press Control; full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; fully automatic perfecting device; automatic ink roller and blanket wash-up; Powderstar powder spray device; Combilast central dampening and inking unit temperature control; coating unit with DryStar dryer; non-stop delivery; systemservice 36 plus; training; installation.

### AUXILIARY EQUIPMENT INCLUDES

- Paid Holidays
- Vacation After One Year
- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts
- Working Conditions and Annual Cost of Direct Labor (By Area)
- One Shift
- Two Shifts
- Three Shifts
- Total Costs
- Manufacturing Costs per productive hour @ 85% productivity
- Manufacturing Costs per productive hour @ 75% productivity
- Manufacturing Costs per productive hour @ 60% productivity
- All-Inclusive Costs per productive hour @ 85% productivity
- All-Inclusive Costs per productive hour @ 75% productivity
- All-Inclusive Costs per productive hour @ 60% productivity

---

### Heidelberg Speedmaster CD 74-6-P+L

**SIZE:** 23.62” X 29.13”  
**UNITS:** 6  
**MAXIMUM SPEED:** 15,000 p/h

**POWER:**  
**hp:** 75 est.  
**kWs:** --

**PERFECTING:** Yes  
**COLORS:** 6  
**RESOLUTION:** n/a  
**SQ. FT.:** 700

**PRODUCT CLASS/PROCESS:** Wet Offset

**BASE COST:** $1,777,500

---

**Coating Unit with DryStar Dryer; Non-stop Delivery; Automatic Ink Roller and Blanket Wash-up; Plate Loading Device; Fully Automatic Perfecting Loading Device and StaticStar Compact; Autoplate Single Suction Belt Feeder; Non-stop Feeder; Pre-Press Control; Full Preset Single Suction Belt Feeder; Non-stop Feeder; Pre-loading Device and StaticStar Compact; Autoplate Plate Loading Device; Fully Automatic Perfecting Device; Automatic Ink Roller and Blanket Wash-up; Powderstar Powder Spray Device; Combilast Central Dampening and Inking Unit Temperature Control; Coating Unit with DryStar Dryer; Non-stop Delivery; Systemservice 36 Plus; Training; Installation.**
Komori Lithrone LS629 Series 45

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>20.87&quot; x 29.5&quot;</td>
<td>6</td>
<td>16,000</td>
<td></td>
</tr>
</tbody>
</table>

**PERFECTING:** No | **COLORS:** n/a | **RESOLUTION:** 525 | **SQ. FT.:** |

**BASE COST ABOVE INCLUDES**
- Auto. plate changing: auto. blanket and ink roller washing; gripper pad adj; KM5-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infused brush assembly; vacuum infused tapes; electronic sheet detect; adj. headstops; adj/1 inking cores & damp. covered rollers; anti ghosting rollers; Komoromatic dampening; reverse nip; hickey picker; 1-touch blank & clip; chrome plated plate, blanket and impress. cyl.; lateral, circumf. and diag. register; auto start/stop; padded cylinders; sheet deceler; double sheet detect; wall loader; vac. side guide; temp. controlled roller provision; auto tensioned roller adjust; oscil. timing adj.; variable ink ductor timing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness & size presets; auto impress. cyl. wash; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$51,769</td>
<td>$47,987</td>
<td>$43,145</td>
</tr>
<tr>
<td>Operator</td>
<td>$42,972</td>
<td>$38,126</td>
<td>$32,049</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$94,741</td>
<td>$86,113</td>
<td>$75,194</td>
</tr>
</tbody>
</table>

**BASE COST:** $1,675,357

**AUXILIARY EQUIPMENT INCLUDES**

- **ONE SHIFT**
  - Area A: 1,603
  - Area B: 1,763
  - Area C: 1,936
  - Area A: 3,206
  - Area B: 3,525
  - Area C: 3,872
  - Area A: 4,809
  - Area B: 5,288
  - Area C: 5,808

- **TWO SHIFTS**
  - Area A: 3,098
  - Area B: 3,525
  - Area C: 3,872

- **THREE SHIFTS**
  - Area A: 3,525
  - Area B: 3,872

**Total Manufacturing Costs:**

- $1,675,357

**Power Routing:**

- Area A: 525
- Area B: n/a
- Area C: 525

**Auxiliary Equipment:**

- Port of Entry

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Sheeted Offset
Presses: 6-Unit
### Komori Lithrone LS629 Series 45 Perfector

#### BASE COST ABOVE INCLUDES
- Auto. plate changing: auto. blanket and ink roller washing; gripper pad adj; KM-5 IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infield brush assembly; vacuum infused tapes; electronic sheet detect; adj. headstoppers; adj/1 inking cores & damp. covered rollers; anti ghosting rollers; Komoramic dampening; reverse nip; hickey picker; 1-touch blade clamp; chrome plated plate, blanket and impress. cyls.; lateral, circumf. and diag. register; auto start/stop; pinned cylinders; sheet de-curler; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscil. timing adj.; variable ink ductor timing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness & size presets; auto impress. cyl wash; auto perfector changeover; installation.

#### AUXILIARY EQUIPMENT INCLUDES

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Manned Hours Annually @ 100% Productivity</td>
<td>4,794</td>
<td>86,113</td>
<td>75,194</td>
<td>195,166</td>
<td>177,393</td>
<td>154,900</td>
</tr>
</tbody>
</table>

#### TOTAL:

| 1,603 | 1,763 | 1,936 | 3,206 | 3,525 | 3,872 | 4,809 | 5,288 | 5,808 |

#### VARIABLE CHARGES

<table>
<thead>
<tr>
<th>Function</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$51,769</td>
<td>$47,987</td>
<td>$43,145</td>
<td>$106,644</td>
<td>$98,853</td>
<td>$88,879</td>
</tr>
<tr>
<td>Operator</td>
<td>$42,572</td>
<td>$38,126</td>
<td>$32,049</td>
<td>$88,522</td>
<td>$78,540</td>
<td>$66,021</td>
</tr>
</tbody>
</table>

#### TOTAL INVEST.

| $94,741 | $86,113 | $75,194 | $195,166 | $177,393 | $154,900 | $297,487 | $270,395 | $236,109 |

---

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### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>Labor Cost-1 Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pressman</td>
</tr>
<tr>
<td>A</td>
<td>$51,769</td>
</tr>
<tr>
<td>B</td>
<td>$47,987</td>
</tr>
<tr>
<td>C</td>
<td>$43,145</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Labor Cost-2 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$812,784</td>
</tr>
<tr>
<td>B</td>
<td>$750,114</td>
</tr>
<tr>
<td>C</td>
<td>$688,432</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$2,583</td>
</tr>
<tr>
<td>B</td>
<td>$4,219</td>
</tr>
<tr>
<td>C</td>
<td>$2,361</td>
</tr>
</tbody>
</table>

### AUXILIARY EQUIPMENT INCLUDES

- Semi-auto. plate changing; auto. blanket and ink roller washing; gripper pad adj; KMS-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infed brush assembly; vacuum infused tapes; electronic sheet detect; adj. headstops; adi'tl inking cores & damp. covered rollers; anti ghosting rollers; Komatronic dampening; reverse nip; hickey picker; 1-to-blanket ramp; chrome plated plate, blanket and impress. cyls.; lateral, circular, and diag. register; auto start/stop; pinned cylinders; sheet decelerator; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscl. timing adj.; variable ink ductor timing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness preset; installation.

### BASE COST ABOVE INCLUDES

- Semi-auto. plate changing; auto. blanket and ink roller washing; gripper pad adj; KMS-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infed brush assembly; vacuum infused tapes; electronic sheet detect; adj. headstops; adi'tl inking cores & damp. covered rollers; anti ghosting rollers; Komatronic dampening; reverse nip; hickey picker; 1-to-blanket ramp; chrome plated plate, blanket and impress. cyls.; lateral, circular, and diag. register; auto start/stop; pinned cylinders; sheet decelerator; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscl. timing adj.; variable ink ductor timing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness preset; installation.

### VARIABLE CHARGES

- Direct Labor...
- Indirect Labor...
- lingerie Fund...
- Welfare Benefits...
- Payroll Taxes...
- Worker's Compensation Insurance...
- Power Cost...
- Power Cost...
- Power Cost...
- Direct Supplies...

### FIXED CHARGES (NON-VARIABLE)

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation</td>
<td>$155,100</td>
<td>$155,100</td>
<td>$155,100</td>
</tr>
<tr>
<td>Rent &amp; Heat</td>
<td>$6,376</td>
<td>$4,154</td>
<td>$2,701</td>
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<tr>
<td>Vacaton &amp; After One Year</td>
<td>$6,376</td>
<td>$4,154</td>
<td>$2,701</td>
</tr>
</tbody>
</table>

### TOTAL COSTS

<table>
<thead>
<tr>
<th>Area</th>
<th>Labor Cost-1 Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$51,769</td>
</tr>
<tr>
<td>B</td>
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<td>C</td>
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<tr>
<td>C</td>
<td>$2,361</td>
</tr>
</tbody>
</table>

| Total   | $297,487           |

### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>Area</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$2,072,875</td>
</tr>
<tr>
<td>B</td>
<td>$1,506,679</td>
</tr>
<tr>
<td>C</td>
<td>$1,197,716</td>
</tr>
</tbody>
</table>

### TOTAL INVEST.

| Total   | $1,551,000 |

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**BASE COST ABOVE INCLUDES**

- Auto; plate changing; auto; blanket and ink roller washing; gripper pad adj; KM5-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infeed brush assembly; vacuum infeed tapes; electronic sheet detect; adj; headstoppers; adf/f inking cores & damp; covered rollers; anti ghosting rollers; Komromatic dampening; reverse nip; hickey picker; 1-touch bleed clamp; chrome plated plate, blanket and impress. cyl.; lateral, circumfl. and diag. register; auto start/stop; panted cylinders; sheet decurler; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscil. timing adj.; variable ink dctoring tumbler; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness and size presets; auto impress. cyl. wash; skeleton transfer cyl.; inker decleuch; installation.

**AUXILIARY EQUIPMENT INCLUDES**

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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</tr>
<tr>
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<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

Pressman $51,769 $47,987 $43,145 $106,644 $98,853 $88,879 $162,555 $150,679 $135,475

Operator $42,972 $38,126 $32,049 $88,522 $78,540 $66,021 $134,932 $119,716 $100,634

**FULLYthrop Cost-1 Shift**

Sub-total $94,741 $86,113 $75,194 $195,166 $177,393 $154,900 $297,487 $270,395 $236,109

**TOTAL COSTS**

Area A $1,936 $1,077,082
Area B $278.64 $63,986
Area C $748.9 $12,223

**TOTAL INVEST.**: $1,841,000

**One Shift**

**Two Shifts**

**Three Shifts**

**No. of Manned Hours Annually @ 100% Productivity**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
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<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
   2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
   3. Fire & Sprinkler Insurance (Rate $4.00 per M)...

**VARIABLE CHARGES**

4. Direct Labor...
5. Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
6. Pension Fund (A) 5% (B) 3% (C) 2%...
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...
9. Workmen’s Compensation Insurance (Rate $4.00 per M)...
10. Power Cost @ $0.07 per kWh (based on hp rating)...
11. Power Cost @ $0.07 per kWh (based on kW rating)...
12. Direct Supplies (see instructions)...
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
14. Sub-total...
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
16. TOTAL MANUFACTURING COSTS...
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
18. TOTAL COSTS...
19. MANUFACTURING COSTS per productive hour @ 85% productivity...

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

75% productivity $465.55
60% productivity $659.53

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Sakurai Oliver 675SD

**BASE COST ABOVE INCLUDES**
- Platform feeder and delivery; vacuum feed board; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder feeding; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; decoiler; spray powder device; automatic blanket washup; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**
- Auxiliary Equip.:
- Installation (Est.):
- Total Invest.:

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
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<td>10</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

| Pressman | $51,769 | $47,987 | $43,145 | $106,644 | $98,853 | $88,879 | $162,555 | $150,679 | $135,475 |

**TOTAL:**
- $51,769
- $47,987
- $43,145
- $106,644
- $98,853
- $88,879
- $162,555
- $150,679
- $135,475

**Fixed CHARGES (NON-VARIABLE)**

1. Depreciation: 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
2. Rent & Heat: (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
3. Fire & Sprinkler Insurance: (Rate $4.00 per M).
4. Direct Labor...
5. Indirect Labor: (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
6. Pension Fund: (A) 5% (B) 3% (C) 2%
7. Welfare Benefits: (A) $90./wk. (B) $60./wk. (C) $45./wk.
8. Payroll Taxes: (Soc. Sec. & Unemploy. Insurance) 8.3%
9. Workmen’s Compensation Insurance: (Rate $40.00 per M).
10. Power Cost: @ $0.07 per kWh (based on hp rating)
11. Power Cost: @ $0.07 per kWh (based on hp rating)
12. Direct Supplies (see instructions)
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
14. Sub-total
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
16. TOTAL MANUFACTURING COSTS
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
18. TOTAL COSTS
19. MANUFACTURING COSTS per productive hour @ 50% productivity
20. ALL-INCLUSIVE COSTS per productive hour @ 50% productivity

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Sheetfed Offset
Presses: 6-Unit
**Sakurai Oliver 675SDP**

**BASE COST ABOVE INCLUDES**

Platform feeder and delivery; vacuum feed board; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cooling; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; decurler; spray powder device; automatic blanket washup; installation and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

**FUNCTION**

Pressman: $51,769

LABOR COST-1 SHIFT

- Area A: $47,987
- Area B: $43,145
- Area C: $106,644
- Area A: $98,853
- Area B: $88,879
- Area C: $162,555
- Area A: $150,679
- Area B: $150,679
- Area C: $135,475

**LABOR COST-2 SHIFTS**

- Area A: $47,987
- Area B: $43,145
- Area C: $106,644
- Area A: $98,853
- Area B: $88,879
- Area C: $162,555
- Area A: $150,679
- Area B: $150,679
- Area C: $135,475

**LABOR COST-3 SHIFTS**

- Area A: $47,987
- Area B: $43,145
- Area C: $106,644
- Area A: $98,853
- Area B: $88,879
- Area C: $162,555
- Area A: $150,679
- Area B: $150,679
- Area C: $135,475

**BASE COST**

- Area A: $51,769
- Area B: $47,987
- Area C: $43,145
- Area A: $106,644
- Area B: $98,853
- Area C: $88,879
- Area A: $162,555
- Area B: $150,679
- Area C: $135,475

**TOTAL:** $1,105,000

**Sheetfed Offset**

**Presses: 6-Unit**
Sakurai Oliver 675SD+C

**BASE COST ABOVE INCLUDES**
- Platform feeder and delivery; vacuum feed board; Sakurai Automatic Plate Changing (SPC); SCC Color Console; remote control running register; plate cylinder cooking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampening System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurler; spray powder device; automatic blanket washup; IR drying system; extended delivery; coating system including single anilox roll with Harris & Bruno chamber doctor blade; fully automatic recirculation system for one button make-ready and wash-up; complete IR aqueous drying package; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**

**FIXED CHARGES (NON-VARIABLE)**
1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........... $124,500
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft................... 8,138
3. Fire & Sprinkler Insurance (Rate $4.00 per M)....................... 4,980

**VARIABLE CHARGES**
4. Direct Labor................................................................. 51,769
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.............. 10,935
6. Pension Fund (A) 5% (B) 3% (C) 2%......................... 2,588
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............. 4,680
8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%........ 5,156
9. Workmen's Compensation Insurance (Rate $40.00 per M)........... 2,485
10. Power Cost @ $0.07 per kWh (based on kW rating).................. 3,646
11. Power Cost @ $0.07 per kWh (based on kW rating).................. 3,343
12. Direct Supplies (see instructions).................................... 8,500
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts............ 24,900
14. Sub-total................................................................. 251,483
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts............. 37,723
16. TOTAL MANUFACTURING COSTS...................................... 289,206
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts............ 121,467
18. TOTAL COSTS............................................................... 410,673
19. MANUFACTURING COSTS per productive hour @
   - 85% productivity.................................................. $212.25
   - 75% productivity.................................................. 240.55
   - 60% productivity.................................................. 300.69
   - 85% productivity.................................................. $301.40
   - 75% productivity.................................................. 341.59
   - 60% productivity.................................................. 426.98

**TOTAL INVEST. :** $1,245,000

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area C</th>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
  - Pressman $51,769
  - LABOR COST-2 SHIFTS
    - Total $162,555
  - LABOR COST-3 SHIFTS
    - Total $162,555

**TOTAL:** $43,145

**AUXILIARY EQUIPMENT INCLUDES**

**Tôi**
- equip. Shipped F.O.B.: Chicago, IL
Sakurai Oliver 675SDP+C

BASE COST ABOVE INCLUDES

- Platform feeder and delivery; vacuum feed board; Sakurai Automatic Plate Changing (SPC); SSC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampering System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurler; spray powder device; automatic blanket washup; IR drying system; extended delivery; coating system including single anilox roll with Harris & Bruno chamber doctor blade; fully automatic recirculation system for one button make-ready and wash-up; complete IR aqueous drying package; installation and training.

- Auxiliary Equipment includes:
  - NIPPER
  -坏
  -inking system, IR system
  -ink roller washup; OLIVERMATIC Continuous Cylinder cocking; Sakurai Automatic Plate Changing (SPC); SCC Color Platform feeder and delivery; vacuum feed board; Sakurai Automatic Plate Changing (SPC); SSC Color Console; remote control running register; plate cylinder cocking; Sakurai Auto Set (SAS); automatic ink roller washup; OLIVERMATIC Continuous Dampering System; Sakurai inter active system; high pile delivery; mechanical double sheet detector; electronic double sheet detector; front lay sensor; side lay sensor; decurler; spray powder device; automatic blanket washup; IR drying system; extended delivery; coating system including single anilox roll with Harris & Bruno chamber doctor blade; fully automatic recirculation system for one button make-ready and wash-up; complete IR aqueous drying package; installation and training.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

- Provisions
  - Area A
    - Hours/Week: 35
    - Paid Holidays: 11
    - Vacation After One Year: 4 weeks
  - Area B
    - Hours/Week: 37.5
    - Paid Holidays: 10
    - Vacation After One Year: 3 weeks
  - Area C
    - Hours/Week: 40
    - Paid Holidays: 8
    - Vacation After One Year: 2 weeks

- Function
  - Labor Cost-1 Shift
    - Pressman: $51,769
  - Labor Cost-2 Shifts
    - $106,644
  - Labor Cost-3 Shifts
    - $162,555

- Total
  - $51,769
  - $47,987
  - $43,145
  - $106,644
  - $98,853
  - $88,879
  - $162,555
  - $150,679
  - $135,475

- Total:
  - $51,769
  - $47,987
  - $43,145
  - $106,644
  - $98,853
  - $88,879
  - $162,555
  - $150,679
  - $135,475

- EQUIPMENT
  - N. of Manned Hours Annually @ 100% Productivity
  - Fixed Charges (Non-Variable)
  - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
  - 3. Fire & Sprinkler Insurance (Rate $4.00 per M).
  - 4. Direct Labor...
  - 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
  - 6. Pension Fund (A) 5% (B) 3% (C) 2%
  - 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
  - 8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%
  - 9. Workmen’s Compensation Insurance (Rate $40.00 per M.)
  - 10. Power Cost @ $0.07 per kWh (based on kW rating)
  - 11. Power Cost @ $0.07 per kWh (based on kwh rating)
  - 12. Direct Supplies (see instructions)
  - 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
  - 14. Sub-total...
  - 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
  - 16. Total Manufacturing Costs...
  - 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
  - 18. Total Costs...
  - 19. Manufacturing Costs per productive hour @
    - 85% productivity
    - 75% productivity
    - 60% productivity
  - 20. All-Inclusive Costs per productive hour @
    - 85% productivity
    - 75% productivity
    - 60% productivity

- Sheetfed Offset
- Presses: 6-Unit

- Equip. Shipped F.O.B.: Chicago, IL
NAPL-2

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Sheeted Offset
Presses: 6-Unit
### MANUFACTURING COSTS

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<tr>
<th>Area</th>
<th>Rent &amp; Heat</th>
<th>Payroll Taxes</th>
<th>Pension Fund</th>
<th>Depreciation</th>
<th>Repairs &amp; Maint.</th>
<th>Utilities</th>
<th>General</th>
<th>Total</th>
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<tbody>
<tr>
<td>Area A</td>
<td>$10.50</td>
<td>(A) 5%</td>
<td>$51,769</td>
<td>$106,677</td>
<td>$128,542</td>
<td>$160,444</td>
<td>$200.74</td>
<td>$451,362</td>
</tr>
<tr>
<td>Area B</td>
<td>$7.00</td>
<td>(B) 3%</td>
<td>$34,474</td>
<td>$98,853</td>
<td>$128,542</td>
<td>$160,444</td>
<td>$200.74</td>
<td>$451,362</td>
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<tr>
<td>Area C</td>
<td>$5.00</td>
<td>(C) 2%</td>
<td>$22,135</td>
<td>$88,879</td>
<td>$128,542</td>
<td>$160,444</td>
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<td>$451,362</td>
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### ALL-INCLUSIVE COSTS

<table>
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<th>Area</th>
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<th>Pension Fund</th>
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### TOTAL MANUFACTURING COSTS

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### TOTAL INVEST.

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<td>$451,362</td>
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</tbody>
</table>

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**Equip. Shipped F.O.B.: Kansas City, MO**

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Sheetfed Offset

Presses: 6-Unit
**BASE COST ABOVE INCLUDES**

ComRad Central Oper. Makered & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press; preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeders); pile height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet counter; total revol. counter; sheet slow down wheels; static elim.; powder spray (deliv.); IR dryer for ink & coating; coating circ. pump; circulating for dampeners; blanket washers; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**

SimulChanger simultaneous plate changing system ($100,000).

---

**Working Conditions and Annual Cost of Direct Labor (by Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
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<th>Area B</th>
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<th>Area A</th>
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</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

- Pressman: $51,769
- Operator: $42,972

---

**Auxiliary Charges**

- **Fixed Charges (Non-Variable)**
  - 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts @ $100,000: $200,000
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00: $10,500
  - 3. Fire & Sprinkler Insurance (Rate $4.00 per M.): $8,000

- **VARIABLE CHARGES**
  - 4. Direct Labor:
  - 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts @ $10,000:
  - 6. Pension Fund (A) 5% (B) 3% (C) 2% @ $5,000:
  - 7. Welfare Benefits (A) $90.00/kw. (B) $60.00/kw. (C) $45.00/kw.:
  - 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%:
  - 9. Workmen’s Compensation Insurance (Rate $40.00 per M.):
  - 10. Power Cost @ $0.07 per kWh (based on hp rating):
  - 11. Power Cost @ $0.07 per kWh (based on kW rating):
  - 12. Direct Supplies (see instructions):
  - 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts:
  - 14. Sub-total:
  - 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts:
  - 16. TOTAL MANUFACTURING COSTS:
  - 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:
  - 18. TOTAL COSTS:

**Manufacturing Costs per Productive Hour**

- 19. **Manufacturing Costs per Productive Hour** @
  - 85% productivity
  - 75% productivity
  - 60% productivity
  - 20. **All-Inclusive Costs** per Productive Hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity

---

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Sheetfed Offset
Presses: 6-Unit
Mitsubishi, Diamond 3000R 6-Color With Tower Coater

<table>
<thead>
<tr>
<th>SIZE: 28.38” X 40.13”</th>
<th>UNITS: 6</th>
<th>MAXIMUM SPEED: 13,000/11,000 iph</th>
<th>POWER: hp: -- kwhs: 150</th>
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</thead>
<tbody>
<tr>
<td>PERFECTING: Yes</td>
<td>COLORS: 6</td>
<td>RESOLUTION: n/a</td>
<td>SQ. FT.: 885</td>
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</tbody>
</table>

### BASE COST ABOVE INCLUDES
Comrac Central Oper., Make-ready & Control; touch screen; semi-auto. change platen; remote control running reg.; auto preset inking; microprocessor based controls; impress. press. preset; feed and deliv. press; remote control front lay reg.; feed room suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position clamp; quick plate clamp; auto plate cyl. positioning; plasma coated plate, & blanket cyl.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. off/on; blow down fans; 2 pile pallets (deliv.); sheet & total revol. counters; slow down wheels; static elim.; powder spray (deliv.); IR dryer; cooker circ. pump; chiller for ink vibrators; blanket washers; refrig. lown. solution circulators; install. and training.

### AUXILIARY EQUIPMENT INCLUDES
SimuChanger simultaneous plate changing system ($100,000).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- **LABOR COST-1 SHIFT**
  - Pressman: $51,769
  - Operator: $42,972

- **LABOR COST-2 SHIFTS**
  - Pressman: $47,987
  - Operator: $38,126

- **LABOR COST-3 SHIFTS**
  - Pressman: $43,914
  - Operator: $37,500

### TOTAL COSTS

- **TOTAL: $94,741**
- **$86,113**
- **$75,194**

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
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### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
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### THREE SHIFTS

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<thead>
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<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td></td>
</tr>
</tbody>
</table>

### Sheetfed Offset

| PRESSURES: 6-UNIT |

---

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Sheetfed Offset

Pressures: 6-Unit

293
## Auxilary Equipment includes

- Semi-auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-IV;
- Deionized air in feeder & deliv.; auto infeed brushes; nonstop feeder; vac. infeed tapes; electronic sheet detect; damp, skew; unit air bars; anti-gouging; Komoromatic dampening; reverse nip; hickey picker;
- Chrome plated plate, blanket & impress. cyls.; lateral, circuml. and diag. register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampener; osc. damper bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infeed pistons; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; motorized release cam; installation.

## Base Cost Above Includes

- Semi-auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-IV; deionized air in feeder & deliv.; auto infeed brushes; nonstop feeder; vac. infeed tapes; electronic sheet detect; damp, skew; unit air bars; anti-gouging; Komoromatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circuml. and diag. register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampener; osc. damper bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infeed pistons; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; motorized release cam; installation.

## Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
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<td>10</td>
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<tr>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function Labor Cost-1 Shift

- Pressman: $51,769
- Operator: $42,972

### Function Labor Cost-2 Shifts

- Total: $94,741

### Total

- $18,948
- $366,974
- $409,456

### AUXILIARY EQUIPMENT

- Equip. Shipped F.O.B.: Port of Entry

### Sheetfed Offset

- Presses: 6-Unit
- Size: 28.37" x 40.56"
- Maximum Speed: 6,000
- HP: 65
- Power: Wet Offset

---

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**BASE COST ABOVE INCLUDES**

- Semi-auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-Iv; deionized air in feeder & deliv.; auto infused brushes; nonstop feeder; vac. infused tapes; electronic sheet detect; damp, skew; unit air bars; anti-gouging; Komorimatic dampering; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyts.; lateral, circum, area flag, register, auto startstop; sheet decurer; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampering; osc. damper bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infed pistons; remote infed cyl. cocking; remote fanout adj.; skeleton transfer cyt.; fully automatic perfector changeover; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>37.5</td>
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<td>3 weeks</td>
<td>2 weeks</td>
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<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
  - Pressman $51,769
  - Operator $42,972

**LABOR COST-2 SHIFTS**

- Pressman $106,644
- Operator $88,522

**LABOR COST-3 SHIFTS**

- Pressman $162,555
- Operator $88,879

**VARIABLE CHARGES**

1. Direct Labor... $94,741
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts... $4,737
3. Pension Fund (A) 5% (B) 3% (C) 2%... $8,925
4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk... $9,360
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%... $9,436
6. Worker's Compensation Insurance (Rate $40.00 per M)... $4,548
7. Power Cost @ $0.07 per kWh (based on hp rating)... $3,008
8. Power Cost @ $0.07 per kWh (based on kWh rating)... $3,476
9. Direct Supplies (see instructions)... $13,000
10. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts... $60,164
11. Sub-total... $541,090
12. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts... $81,163
13. TOTAL MANUFACTURING COSTS... $3,008,216
14. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts... $261,346
15. TOTAL COSTS... $883,600
16. MANUFACTURING COSTS per productive hour @
   - 85% productivity $456.88
   - 75% productivity $517.57
   - 60% productivity $646.97
17. ALL-INCLUSIVE COSTS per productive hour @
   - 85% productivity $648.49
   - 75% productivity $734.96
   - 60% productivity $918.69

**SHEETED OFFSET**

Presses: 6-Unit

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### BASE COST ABOVE INCLUDES

Auto plate changing; auto; blanket washing; paper size preset; auto ink roller washing; KMS-IV; deionized air in feeder & deliv.; auto infeed brushes; nonstop feeder; vac. infeed tapes; electronic sheet detect; damp; skew; unit air bars; anti ghosting; Konoromatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circull, and tag; register; auto start/top; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDGS-II; Bladesetter; installation.

### AUXILIARY EQUIPMENT INCLUDES

- **Bladesetter; installation.**
- **Transfer cyl.; KHS; auto impress. cyl. cleaners; console backup; paper thickness preset; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDGS-II; Bladesetter; installation.**

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
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<td>10</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- **LABOR COST-1 SHIFT**
  - **Pressman**
    - $51,769
  - **Operator**
    - $42,972

- **LABOR COST-2 SHIFTS**
  - **Pressman**
    - $106,644
  - **Operator**
    - $88,522

- **LABOR COST-3 SHIFTS**
  - **Pressman**
    - $162,555
  - **Operator**
    - $134,932

### TOTAL:
- **$94,741**
- **$86,113**
- **$75,194**
- **$195,166**
- **$177,393**
- **$154,900**
- **$297,487**
- **$270,395**
- **$236,109**

---

**Comprehension Note**: The document details a cost analysis for a printing press, including cost breakdowns for various equipment, labor, and utilities. It provides a comprehensive list of expenses, detailing the costs associated with different operational aspects of the printing process.
### BASE COST ABOVE INCLUDES

- Auto plate changing; auto; blanketed washing; paper size preset; auto ink roller washing; KMS-IV;
- Deionized air in feeder & deliv.; auto infeed brushes; nonstop feeder; vac. infeed tapes; electronic sheet detector; damp. skew; unit air bars; anti-glimmer; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circum, and bag register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; KHS; auto impress. cyl. cleaners; feeder side blower presser; inker phasing; PDCLS-II; Bladesetter; fully auto. perfector changeover; installation.

### AUXILIARY EQUIPMENT INCLUDES

- **PERFECTING:** Yes
- **COLORS:** 6
- **RESOLUTION:** n/a
- **SQ. FT.:** 850

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base Cost</strong></td>
<td>$3,436,516</td>
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<tr>
<td><strong>Auxiliary Equip.</strong></td>
<td>n/a</td>
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</tr>
<tr>
<td><strong>Install. (Est.)</strong></td>
<td>Included</td>
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<td><strong>Total Inv.</strong></td>
<td>$3,436,516</td>
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</table>

### BASE COST: $3,436,516

#### AUXILIARY EQUIPMENT INCLUDES

- **PERFECTING:** Yes
- **COLORS:** 6
- **RESOLUTION:** n/a
- **SQ. FT.:** 850

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base Cost</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Auxiliary Equip.</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Install. (Est.)</strong></td>
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<tr>
<td><strong>Total Inv.</strong></td>
<td>$3,436,516</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### ONE SHIFT

| AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1,603  | 60   | 1,936  | 1,206  | 655    | 3,872  | 237    | 442    | 1,372  | 1,457  | 2,288  | 40     | 3,872  | 1,534  |

### TWOhiftS

| AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1,206  | 855    | 3,872  | 3,206  | 352    | 1,534  | 1,457  | 2,288  | 40     | 3,872  | 1,534  |

### THREE SHIFTS

| AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2,288  | 40     | 1,534  | 4,089  | 5,288  | 5,808  |

### TOTAL INVEST.:

- **Total Inv.** $3,436,516
- **Eq. Shipped F.O.B.** Port of Entry
Akiyama, eXtreme (XT) 640

SIZE: 29.125" X 40.937”
COMMENTS:
UNITS: 6
MAXIMUM SPEED: 16,000 iph
POWER: hp: --
kWhs: 98

PERFECTING: No
COLORS: 6
RESOLUTION: n/a
SQ. FT.: 1,320

PRODUCT CLASS/PROCESS:
Sheetfed Wet or Dry Offset
INTERFACES WITH: n/a
BASE COST: $2,020,000

AUXILIARY EQUIPMENT INCLUDES
Water circulators; hollow vibrator rollers; inker temperature control chiller; IR dryer; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cocking system; cylinder cocking system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate bender; paper size preset; impression preset; blanket washer; delivery and rigging to customer's plant (Continental USA); training.

BASE COST ABOVE INCLUDES

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$51,769</td>
<td>$47,987</td>
<td>$43,145</td>
</tr>
<tr>
<td>Operator</td>
<td>$42,972</td>
<td>$38,126</td>
<td>$32,049</td>
</tr>
</tbody>
</table>

TOTAL: $94,741

POWER COST @ $0.07 per kWh (based on kWh rating)...

542.03
578.23

POWER COST @ $0.07 per kWh (based on hp rating)...

282,492
26,000

ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$510.21</td>
<td>364.61</td>
<td>250.54</td>
</tr>
<tr>
<td>$578.23</td>
<td>433.13</td>
<td>359.30</td>
</tr>
</tbody>
</table>

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### BASE COST ABOVE INCLUDES

Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregrpper, bearer contact, auto. impress. cyl. setting, adjust. ink oscil. timing, speed compens. damp, sheet brake, lateral [jigger], foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPI auto. plate loading, pin reg., plate cyl. positioning, prefab blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed prog., auto. ink unit splitting, transferfer, remote running req., auto. formatting of deliv., non stop deliv., powder spray, sheet decurl, central lubr., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable dam., feeder & deliv. load boards, sell diagno., spare parts, tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES

**Note:** Available options, not included in this study are as follows: Coating Unit; APL Automatic Plate Loading; Pecom Press Manager.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
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<td>2 weeks</td>
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<td>3 weeks</td>
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</tr>
</tbody>
</table>

### FUNCTION

- **LABOR COST-1 SHIFT**
  - Pressman
    - $51,769
  - Operator
    - $42,972

- **LABOR COST-2 SHIFTS**
  - $195,644
  - $243,750

- **LABOR COST-3 SHIFTS**
  - $162,555
  - $150,679
  - $135,475

### TOTAL:

- $94,741
- $86,113
- $75,194
- $195,166
- $177,393
- $154,900
- $297,487
- $270,395
- $236,109

### ALL-INCLUSIVE COSTS

- $79,406
- $612.22
- $349.58
- $243,750
- $235,528
- $18,720
- $7,800

### TOTAL INVEST.:

- $1,950,000

### Sheetfed Offset

- Presses: 6-Unit
### MAN Roland, R 706 P

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<tr>
<th>SIZE:</th>
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<th>POWER:</th>
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**BASE COST ABOVE INCLUDES**

**AUXILIARY EQUIPMENT INCLUDES**

**Note:** Available options, not included in this study are as follows: Coating Unit, APL Automatic Plate Loading; Pecom Press Manager.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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</tr>
<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
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</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
  - Pressman $51,769
  - Operator $42,972

- LABOR COST-2 SHIFTS
  - Pressman $106,644
  - Operator $88,522

- LABOR COST-3 SHIFTS
  - Pressman $162,555
  - Operator $88,879

**TOTAL:** $94,741

### VARIABLE CHARGES

- Direct Labor...
- Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts...
- Pension Fund (A) 5% (B) 3% (C) 2%
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
- Payroll Taxes (Social Sec. & Unemploy. Insurance) 8.3%
- Workmen's Compensation Insurance (Rate $40.00 per M)
- Power Cost @ $0.07 per kWh (based on hp rating)

**BASE COST:** $2,040,000

**TOTAL INVEST.:** $2,040,000

---

**Note:** The following table outlines the costs for one, two, and three shifts, including fixed charges, variable charges, and manufacturing costs.

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>$1,603</td>
<td>$1,763</td>
<td>$1,936</td>
</tr>
</tbody>
</table>

**No. of Manned Hours Annually @ 100% Productivity**

- Fixed Charges (Non-Variable)
  - 1. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts...
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
  - 3. Fire & Sprinkler Insurance (Rate $4.00 per M)...

**Variable Charges**

- Direct Labor...
- Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts...
- Pension Fund (A) 5% (B) 3% (C) 2%
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
- Payroll Taxes (Social Sec. & Unemploy. Insurance) 8.3%
- Workmen's Compensation Insurance (Rate $40.00 per M)
- Power Cost @ $0.07 per kWh (based on hp rating)

**Base Cost Above Includes**

- Auto changeover to perfecting
- Sheet holder, diag. sheet correction, suction feed board, trend indic.

**AUXILIARY Equipment Includes**

- Available options, not included in this study are as follows: Coating Unit, APL Automatic Plate Loading; Pecom Press Manager.

**TOTAL: $94,741**

**TOTAL COSTS**

- $701,462
- $670,359
- $641,012
- $1,008,532
- $935,264
- $895,109
- $1,192,013
- $1,121,627

**MANUFACTURING Costs per productive hour @ 85% productivity**

- 75% productivity
- 60% productivity

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

- 75% productivity
- 60% productivity

---

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Sheetfed Offset

Presses: 6-Unit
### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- **Pressman** $51,769
- **Operator** $42,972

**LABOR COST-2 SHIFTS**

- **Pressman** $47,987
- **Operator** $38,126

**LABOR COST-3 SHIFTS**

- **Pressman** $43,145
- **Operator** $32,049

**TOTAL:** $94,741

### Auxiliary Equipment Includes

- **KBA North America, Rapida 105 Universal**

<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapida 105; Vari Speed Dampening; auto preset package; semi-automatic plate changers; pin register system; cocking; installation and training.</td>
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</tbody>
</table>

### Auxiliary Equipment Includes

- **BASE COST ABOVE INCLUDES**
  - **Rapida 105; Vari Speed Dampening; auto preset package; semi-automatic plate changers; pin register system; cocking; installation and training.**

### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
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<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
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<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TOTAL COSTS:** $690,004

**Manufacturing Costs per productive hour @**

- **85% productivity** $356.62
- **75% productivity** $404.17
- **60% productivity** $505.22

**All-inclusive costs per productive hour @**

- **85% productivity** $506.41
- **75% productivity** $573.93
- **60% productivity** $717.41

**TOTAL INVEST.:** $2,049,000
### BASE COST ABOVE INCLUDES

Rapida 105; auto preset; auto pressure; vari-speed dampening system; pin register; cocking; training and installation.

### AUXILIARY EQUIPMENT INCLUDES


### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
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### FUNCTION LABOR COST-1 SHIFT

<table>
<thead>
<tr>
<th>Pressman</th>
<th>Operator</th>
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</thead>
<tbody>
<tr>
<td>$51,769</td>
<td>$42,972</td>
</tr>
</tbody>
</table>

### LABOR COST-2 SHIFTS

| $106,644 | $88,522 |

### LABOR COST-3 SHIFTS

| $162,555 | $150,679 |

### TOTAL:

| $94,741 | $86,113 | $75,194 | $195,166 | $177,393 | $154,900 | $297,487 | $270,395 | $236,109 |

### MANUFACTURING COSTS

| $106,644 | $88,522 | $162,555 |

### TOTAL COSTS

| $779,303 | $746,878 |

### MANUFACTURING COSTS per productive hour @

#### 85% productivity

| $422.78 | $351.09 | $306.45 | $292.03 | $252.01 | $217.29 | $249.92 | $214.83 | $184.00 |

#### 75% productivity

| $456.48 | $397.90 | $347.31 | $330.97 | $285.61 | $246.26 | $283.25 | $243.24 | $208.54 |

#### 60% productivity

| $570.60 | $497.37 | $434.13 | $413.71 | $375.01 | $307.83 | $354.06 | $304.03 | $260.67 |

### ALL-INCLUSIVE COSTS per productive hour @

#### 85% productivity

| $571.94 | $498.54 | $435.16 | $400.08 | $345.25 | $297.69 | $329.90 | $283.31 | $242.88 |

#### 75% productivity

| $648.20 | $565.01 | $493.18 | $453.43 | $391.28 | $337.38 | $373.88 | $321.08 | $275.27 |

#### 60% productivity

| $810.25 | $706.27 | $616.47 | $566.79 | $489.10 | $421.73 | $467.36 | $401.35 | $344.08 |
## Heidelberg Speedmaster XL 105-6+LX

### BASE COST ABOVE INCLUDES
Prinect CP2000 Center Press Control with AxisControl and reporting; Preset Plus Feeder with non-stop delivery and pre-loading device; Eltex Antistatic Package for feeder and delivery; enhanced air transfer; Autoplate Advanced; HyColor combined inking and dampening unit; separate fountain roller temperature control; CombInk inking unit temperature control; modular automatic impression cylinder and blanket wash-up devices with cloth; coating unit with chamber doctor blade; Preset Plus delivery with X2 extension and DryStar 3000 combination dryer; PowderStar AP 500; CleanStar Compact; systemservice 36 plus; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<td>2 weeks</td>
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</tbody>
</table>

### FUNCTION
- **LABOR COST-1 SHIFT**
  - Pressman: $51,769
  - Operator: $42,972

- **LABOR COST-2 SHIFTS**
  - Pressman: $106,644
  - Operator: $88,522

- **LABOR COST-3 SHIFTS**
  - Pressman: $162,555
  - Operator: $134,932

### TOTAL:
- $94,741
- $86,113
- $75,194
- $195,166
- $177,393
- $154,900
- $297,487
- $270,395
- $236,109

EQUIPMENT INCLUDED

### AUXILIARY EQUIPMENT INCLUDES

- Prinect Supension & Misc. 20%
- Labor 15% 2 shifts/ 10% 3 shifts
- Pressman
- Operator
- TOTAL: $3,054,500

---

**Sheetfed Offset**

**Presses: 6-Unit**

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KBA North America, Rapida 130a

<table>
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<tr>
<th>SIZE:</th>
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<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
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<th>BASE COST:</th>
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Base Cost Above Includes

Rapida 130: automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</tbody>
</table>

Function Labor Cost-1 Shift

Pressman $52,002 $48,252 $43,514 $107,124 $99,399 $89,639 $163,286 $151,511 $196,634
Operator $43,379 $38,471 $32,243 $89,361 $79,250 $66,421 $136,210 $120,799 $101,243
Helper $33,174 $29,472 $23,909 $68,338 $59,888 $49,253 $104,166 $91,286 $75,074

Total: $128,555 $115,795 $99,666 $264,823 $238,538 $205,312 $403,663 $363,596 $312,951

Auxiliary Equipment Includes

One Shift Two Shifts Three Shifts

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
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<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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</table>

Fixed Charges (Non-Variable)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts... $392,900 $392,900 $392,900 $491,125 $491,125 $491,125 $589,350 $589,350 $589,350
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft... 12,600 8,400 6,000 12,600 8,400 6,000 12,600 8,400 6,000
3. Welfare Benefits  (A) $90./wk.  (B) $60./wk.  (C) $45./wk... 2 weeks 1,441,392 102,648 19,933 42,000 42,000 22,768 15,716 10,973 7,199
4. Direct Labor... 128,555 115,795 99,666 264,823 238,538 205,312 403,663 363,596 312,951
5. Indirect Labor  (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts... 75,111 23,159 19,933 39,723 35,781 30,797 40,366 36,380 31,295
6. Pension Fund (A) 5% (B) 3% (C) 2%... 6,428 3,478 1,993 13,241 7,156 4,106 20,183 10,908 6,259
7. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk... 14,040 9,360 7,020 28,080 16,720 14,040 42,120 28,080 21,060
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%... 12,804 11,533 9,927 25,277 22,768 19,597 36,854 33,196 28,572
9. Workers’ Compensation Insurance (Rate $4.00 per M...) 6,171 5,558 4,784 12,182 10,973 9,444 17,761 15,998 13,770
10. Power Cost @ $0.07 per kWh (based on hp rating)... 5,319 5,848 6,424 10,638 11,696 12,847 15,956 17,544 19,271
11. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts... 78,580 78,580 78,580 98,225 98,225 98,225 117,870 117,870 117,870
12. Direct Supplies (see instructions)... 14,000 14,000 14,000 28,000 28,000 28,000 42,000 42,000 42,000
13. Total Manufacturing Costs... 819,747 786,972 755,485 1,169,585 1,110,485 1,052,111 1,489,884 1,406,920 1,324,526
14. Sub-total... 712,823 684,323 656,943 1,039,631 987,098 935,210 1,354,440 1,279,018 1,204,115
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts... 106,923 102,648 98,541 129,954 123,387 116,901 135,444 127,902 120,411
16. Total Manufacturing Costs... 819,747 786,972 755,485 1,169,585 1,110,485 1,052,111 1,489,884 1,406,920 1,324,526
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts... 344,294 330,528 317,303 432,746 410,879 389,281 476,763 450,214 423,848
18. Total Costs... $1,164,040 $1,117,500 $1,072,788 $1,602,331 $1,521,364 $1,441,392 $1,966,647 $1,857,135 $1,748,374
19. Manufacturing Costs per productive hour @ 85% productivity... $601,63 $525,30 $459,09 $429,19 $370,62 $319,67 $364,48 $313,04 $268,30
75% productivity 681,84 595,34 520,31 486,41 420,04 362,30 413,08 354,78 304,07
60% productivity 852,30 744,16 650,38 608,02 525,05 452,87 516,35 443,47 380,09
20. All-Inclusive Costs per productive hour @ 85% productivity... $854,31 $745,93 $651,91 $587,99 $507,76 $437,95 $481,12 $413,21 $354,15
75% productivity 968,22 845,39 738,83 666,39 575,46 496,35 545,27 468,31 401,37
60% productivity 1,210,27 1,056,74 923,54 832,99 719,32 620,43 681,59 585,39 501,71

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**MAN Roland, R 906-5**

<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power:</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.99&quot; X 51.18&quot;</td>
<td>6</td>
<td>14,000 lph</td>
<td>hp: --</td>
</tr>
<tr>
<td></td>
<td></td>
<td>kwhs: 176</td>
<td></td>
</tr>
</tbody>
</table>

**Perfecting:**

<table>
<thead>
<tr>
<th>Colors:</th>
<th>Resolution:</th>
<th>Sq. Ft.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>6</td>
<td>1,200</td>
</tr>
</tbody>
</table>

**Base Cost Above Includes**

Sheet holder, dia, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lay & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed comp. damp, sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink feed prog., auto. ink unit splitting, transmitters, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decut, central lub., sheet counter, covered ink/water rollers, ceramic fount roller, skewable damp., feeder & deliv. load boards, self diag., spare parts, tach., washup device, water recirc., install., training.

**Auxiliary Equipment Includes**

Note: Available options, not included in this study are as follows: Coating Module, Pecom Press Manager.

**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function**

<table>
<thead>
<tr>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,002</td>
<td>$48,252</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,379</td>
<td>$38,471</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
</tr>
</tbody>
</table>

**Total:**

<table>
<thead>
<tr>
<th>Total:</th>
<th>$128,555</th>
<th>$115,795</th>
<th>$99,666</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$264,823</td>
<td>$238,538</td>
<td>$205,312</td>
</tr>
<tr>
<td></td>
<td>$403,663</td>
<td>$363,596</td>
<td>$312,951</td>
</tr>
</tbody>
</table>

**One Shift**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**Two Shifts**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>911</td>
<td>1,045</td>
<td>1,180</td>
</tr>
<tr>
<td>1,743</td>
<td>1,997</td>
<td>2,251</td>
</tr>
<tr>
<td>2,585</td>
<td>2,944</td>
<td>3,308</td>
</tr>
</tbody>
</table>

**Three Shifts**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,154</td>
<td>1,308</td>
<td>1,462</td>
</tr>
<tr>
<td>2,197</td>
<td>2,451</td>
<td>2,705</td>
</tr>
<tr>
<td>3,240</td>
<td>3,594</td>
<td>3,948</td>
</tr>
</tbody>
</table>

**Total Manufacturing Costs**

| 684,087 | 725,059 | 766,030 |
| 621,384 | 662,350 | 693,315 |
| 1,010,335 | 1,053,300 | 1,096,265 |
| 952,698 | 995,664 | 1,038,630 |
| 891,914 | 934,879 | 977,844 |
| 1,227,406 | 1,270,371 | 1,313,336 |

**Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts**

| 287,316 | 273,865 | 260,981 |
| 373,824 | 352,498 | 331,488 |
| 408,632 | 392,770 | 376,150 |

**Total Costs**

| 971,403 | 925,923 | 882,366 |
| 1,384,160 | 1,305,196 | 1,227,402 |
| 1,726,857 | 1,620,176 | 1,514,495 |

**Manufacturing Costs per Productive Hour @**

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$502.6</td>
<td>$435.25</td>
<td>$377.60</td>
</tr>
<tr>
<td>317.96</td>
<td>313.09</td>
<td>308.51</td>
</tr>
<tr>
<td>272.22</td>
<td>269.37</td>
<td>266.45</td>
</tr>
<tr>
<td>320.04</td>
<td>317.10</td>
<td>314.16</td>
</tr>
<tr>
<td>232.41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**All-Inclusive Costs per Productive Hour @**

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$712.93</td>
<td>$618.05</td>
<td>$536.20</td>
</tr>
<tr>
<td>435.61</td>
<td></td>
<td>372.93</td>
</tr>
<tr>
<td>422.46</td>
<td>422.46</td>
<td>422.46</td>
</tr>
<tr>
<td>408.55</td>
<td>408.55</td>
<td>408.55</td>
</tr>
</tbody>
</table>

**560 Productivity**

| 1,009.98 | 875.58 | 759.61 |
| 719.57 | 717.11 | 532.82 |
| 598.48 | 510.69 | 434.60 |
**BASE COST ABOVE INCLUDES**

Comrac Central Oper. Makerready & Control; touch screen; semi-auto; plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet counter; total revol. counter; sheet slow down wheels; static elim.; powder spray (deliv.); IR dryer for ink & coating; coating circ. pump; circulators for dampeners; blanket washers; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**

*Equip. Shipped F.O.B.: Purchaser's Plant*

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
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<td>$38,471</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
</tr>
</tbody>
</table>

**TOTAL:**

- AREA A: $128,555
- AREA B: $115,795
- AREA C: $99,666

**TOTAL INVEST.:** $2,875,000

---

**VARIABLE CHARGES**

<table>
<thead>
<tr>
<th>No. of Manned Hours Annually @ 100% Productivity</th>
<th>FIXED CHARGES (NON-VARIABLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 1% shift/ 12.5% 2 shifts/ 15% 3 shifts</td>
<td>$287,500</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft</td>
<td>$18,375</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)</td>
<td>$9,750</td>
</tr>
</tbody>
</table>

**POWER COST**

- @ $0.07 per kWh (based on hp rating)
- @ $0.07 per kWh (based on kWh rating)

**TOTAL COSTS**

- $967,850

**MANUFACTURING COSTS per productive hour @**

- 85% productivity | $500.23 |
- 75% productivity | $566.92 |
- 60% productivity | $706.93 |

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity | $710.32 |
- 75% productivity | $805.03 |

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*Sheetfed Offset*

*Presses: 6-Unit*
MAN Roland, R 906-6

SIZE: 40.16" X 55.9"
UNITS: 6
MAXIMUM SPEED: 14,000 fpm
POWER: hp: --  kWhs: 176

PRODUCT CLASS/PROCESS: Offset

PERFECTING: No
COLORS: 6
RESOLUTION: n/a
SQ. FT.: 1,300

BASE COST ABOVE INCLUDES
Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. frontlays & sheet timing, pregripper, bearer contact, auto. impress. cycl. setting, adjust. ink oscill. timing, speed compens. damp, sheet brake, lateral (jigger), foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cycl. positioning, prebrared blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink feed inte. prog. auto. ink unit transfer, sorters, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decut, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diag., spare parts, tach., washup device, water recirc., install., training.

AUXILIARY EQUIPMENT INCLUDES
Note: Available options, not included in this study are as follows: Coating Module, Pecom Press Manager.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
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<td>37.5</td>
<td>40</td>
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<td>37.5</td>
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<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
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<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FUNCTION LAVOR COST-1 SHIFT
Pressman $52,002  Operator $43,379  Helper $33,174

LABOR COST-2 SHIFTS
Pressman $107,124  Operator $89,361  Helper $68,338

LABOR COST-3 SHIFTS
Pressman $163,286  Operator $136,210  Helper $104,166

TOTAL: $128,555  $115,795  $99,666

No. of Manned Hours Annually @ 100 Productivity

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

FIXED CHARGES (NON-VARIABLE)
1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $305,000
2. Rent & Heat (A) @ $10.50 (B) @ $7.00 (C) @ $5.00 sq. ft $13,650
3. Fire & Sprinkler Insurance (Rate $4.00 per M.) $6,248
4. Direct Labor $128,555
5. Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts $25,711
6. Pension Fund (A) 5% (B) 3% (C) 2% $4,628
7. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk $14,040
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% $12,804
9. Workman's Compensation Insurance (Rate $40.00 per M.) $6,171
10. Power Cost @ $0.07 per kWh (based on hp rating) $11,849
11. Power Cost @ $0.07 per kWh (based on kWh rating) $11,849
12. Direct Supplies (see instructions) $15,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts $11,000
14. Sub-total $62,408
15. General Factory— 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts $11,000
16. TOTAL MANUFACTURING COSTS $704,269
17. Administrative & Selling Overhead—42% 1 shift/ $295,793
18. Sub-total $1,000,062
19. TOTAL COSTS $1,000,062

MANUFACTURING COSTS per productive hour @
85% productivity $516.88
75% productivity $585.78
60% productivity $732.24

ALL-INCLUSIVE COSTS per productive hour @
85% productivity $733.96
75% productivity $831.83
60% productivity $1,009.78

Employ. Shipped F.O.B.: Port of Entry

Sheetfed Offset
Presses: 6-Unit
### BASE COST ABOVE INCLUDES

Rapida 142; automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automotive plate changers; pin register; cooking; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

**AUXILIARY EQUIPMENT INCLUDES**

<table>
<thead>
<tr>
<th>Fixed Charges (non-variable)</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts..............</td>
<td>$394,800</td>
<td>$394,800</td>
<td>$394,800</td>
<td>$493,500</td>
<td>$493,500</td>
<td>$493,500</td>
<td>$592,200</td>
<td>$592,200</td>
<td>$592,200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft..............</td>
<td>13,650</td>
<td>9,100</td>
<td>6,500</td>
<td>13,650</td>
<td>9,100</td>
<td>6,500</td>
<td>13,650</td>
<td>9,100</td>
<td>6,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $40.00 per M)..............</td>
<td>15,792</td>
<td>15,792</td>
<td>15,792</td>
<td>15,792</td>
<td>15,792</td>
<td>15,792</td>
<td>15,792</td>
<td>15,792</td>
<td>15,792</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Direct Labor..............</td>
<td>$3,948,000</td>
<td>685,61</td>
<td>592,42</td>
<td>487,87</td>
<td>421,99</td>
<td>363,96</td>
<td>414,95</td>
<td>356,34</td>
<td>305,40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Indirect Labor (Supervision &amp; Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts..............</td>
<td>15,030</td>
<td>11,000</td>
<td>7,100</td>
<td>15,030</td>
<td>11,000</td>
<td>7,100</td>
<td>15,030</td>
<td>11,000</td>
<td>7,100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Pension Fund (A) 5% (B) 3% (C) 2%..............</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk..............</td>
<td>25,277</td>
<td>18,411</td>
<td>12,208</td>
<td>25,277</td>
<td>18,411</td>
<td>12,208</td>
<td>25,277</td>
<td>18,411</td>
<td>12,208</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Workmen’s Compensation Insurance (Rate 4% per M)..............</td>
<td>5,288</td>
<td>3,888</td>
<td>2,688</td>
<td>5,288</td>
<td>3,888</td>
<td>2,688</td>
<td>5,288</td>
<td>3,888</td>
<td>2,688</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Power Cost @ $0.07 per kWh (based on hp rating)..............</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Power Cost @ $0.07 per kWh (based on kwh rating)..............</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Direct Supplies (see instructions)..............</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
<td>12,182</td>
<td>9,072</td>
<td>6,072</td>
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<td>99,666</td>
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<td>$403,663</td>
<td>363,596</td>
<td>312,951</td>
<td>1,175,247</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<td>37.5</td>
<td>40</td>
<td>35</td>
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<tr>
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<td>2 weeks</td>
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<td>2 weeks</td>
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<td>$32,243</td>
<td>$89,361</td>
<td>$79,250</td>
<td>$66,421</td>
<td>$136,210</td>
<td>$120,799</td>
<td>$101,243</td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>$29,072</td>
<td>$23,909</td>
<td>$68,338</td>
<td>$59,888</td>
<td>$49,253</td>
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### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>One Shift</th>
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<th>Three Shifts</th>
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</thead>
<tbody>
<tr>
<td>Area A</td>
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<td>Area C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
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</table>

### TOTAL COSTS

| TOTAL COSTS | $1,170,466 | $1,123,277 | $1,078,155 | $1,610,089 | $1,528,438 | $1,448,000 | $1,975,551 | $1,865,326 | $1,756,053 |

### MANUFACTURING COSTS PER PRODUCTIVE HOUR @

| 85% productivity | $604.95 | $526.03 | $461.39 | $431.27 | $372.35 | $321.14 | $366.13 | $314.42 | $296.47 |
| 75% productivity | $685.61 | $598.42 | $522.91 | $488.77 | $421.99 | $363.96 | $414.95 | $356.34 | $305.40 |
| 60% productivity | $857.01 | $748.03 | $653.64 | $610.96 | $527.49 | $454.95 | $516.69 | $445.43 | $381.76 |

### ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR @

| 85% productivity | $859.03 | $749.79 | $655.17 | $590.84 | $510.12 | $439.96 | $483.30 | $415.04 | $355.71 |
| 75% productivity | $973.56 | $849.76 | $742.53 | $669.61 | $578.13 | $498.62 | $547.74 | $470.37 | $403.13 |
| 60% productivity | $1,216.95 | $1,062.20 | $928.16 | $837.02 | $722.67 | $623.28 | $684.67 | $587.97 | $503.92 |

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Sheeted Offset
Presses: 6-Unit

Page 308
<table>
<thead>
<tr>
<th></th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
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<td><strong>Vacation</strong></td>
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<td><strong>FUNCTION</strong></td>
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</table>

**Fixed Charges (Non-Variable)**

1. Depreciation @ 1% shift/ 12.5% 2 shifts/ 15% 3 shifts........ $357,500
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.............. 21,788
3. Fire & Sprinkler Insurance (Rate $4.00 per M)................... 14,300

**Variable Charges**

4. Direct Labor .................................................. 128,555
5. Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.......................... 25,711
6. Pensions Fund (A) 5% (B) 3% (C) 2% .................................. 6,428
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.................. 14,040
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.............. 12,804
9. Workers' Compensation Insurance (Rate $4.00 per M).............. 6,171
10. Power Cost @ $0.07 per kWh (based on hp rating)................... 10,772
11. Power Cost @ $0.07 per kWh (based on kW rating).................. 71,500
12. Direct Supplies (see instructions).................................. 38,250
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........... 102,685
14. Sub-total...................................................................... 330,648
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........... 1,052,850
16. TOTAL MANUFACTURING COSTS....................................... 1,387,497
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts......................... 1,052,850
18. TOTAL COSTS.......................................................... $1,202,347
19. MANUFACTURING COSTS per productive hour @
   85% productivity ................................................................ $577.78
   75% productivity ................................................................ $654.82
   60% productivity ................................................................ $815.52
20. ALL-INCLUSIVE COSTS per productive hour @
   85% productivity ................................................................ $820.45
   75% productivity ................................................................ $929.84
   60% productivity ................................................................ $1,162.30

**Total Invest.** $3,575,000
### MAN Roland, R 906-7

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<th>MAXIMUM SPEED:</th>
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<th>PRODUCT CLASS/PROCESS:</th>
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<th>RESOLUTION:</th>
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<th>BASE COST:</th>
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<td>950</td>
<td>n/a</td>
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</table>

### BASE COST ABOVE INCLUDES

- Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front. 
- Shear & shear timing, pregripper, beaker contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed 
- Compens. dam, sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic 
- Side guide auto. setting of side guide, side edge control, PPI auto. plate loading, pin reg., plate position, 
- Prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink feed preprod., auto. 
- Ink unit splitter, transmitters, remote running reg., auto. formatting of deliv., non stop deliv., powder 
- Spray, sheet decel, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable dam., 
- Feeder & deliv. load boards, self diag., spare parts, tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES

- Note: Available options, not included in this study
- Coating Unit, Pecorm Press Manager.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
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<td>37.5</td>
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<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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<td>3 weeks</td>
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### FUNCTION

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

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<th>Shift</th>
<th>Pressman</th>
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<th>Helper</th>
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<td>$48,684</td>
<td>$43,818</td>
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<tr>
<td>2</td>
<td>$107,872</td>
<td>$100,289</td>
<td>$90,265</td>
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<td>3</td>
<td>$164,426</td>
<td>$152,868</td>
<td>$121,493</td>
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<td>4</td>
<td>$239,883</td>
<td>$21,824</td>
<td>$152,868</td>
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### TOTAL COSTS

- $129,151 | $116,448 | $100,155 |
- $266,051 | $239,883 | $206,319 |
- $405,534 | $365,647 | $314,487 |

### EQUIPMENT

- Equip. Shipped F.O.B.: Port of Entry

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
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<th>AREA C</th>
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<tr>
<td>1,603</td>
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<td>1,936</td>
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<td>4,809</td>
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<td>7,714</td>
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### THREE SHIFTS

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<td>10,078</td>
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### MANUFACTURING COSTS

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<td>9,331</td>
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### TOTAL Manufacturing Costs:

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<tr>
<td>1,434,173</td>
<td>1,353,668</td>
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### Administrative & Selling Overhead—42% 1 shift/
- 37% 2 shifts/ 32% 3 shifts

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<thead>
<tr>
<th>AREA A</th>
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<th>AREA C</th>
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<td>613,730</td>
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<td>658,937</td>
<td>633,174</td>
<td>607,195</td>
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### TOTAL COSTS

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<th>AREA C</th>
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### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
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<tr>
<td>$567.21</td>
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<td>$530.86</td>
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### ALL-INCLUSIVE COSTS per productive hour @

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<th>85% productivity</th>
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<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$805.43</td>
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<td>$562.15</td>
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<tr>
<td>$463.13</td>
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<td>$340.24</td>
</tr>
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</table>

### 60% productivity

| 1,141.03 | 995.81 | 869.05 |
| 796.38 | 687.33 | 591.90 |
| 656.10 | 563.23 | 482.00 |

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Sheeted Offset
Presses: 6-Unit
**KBA North America, Rapida 162**

**BASE COST ABOVE INCLUDES**

Rapida 162: automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; coxing; installation and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: \$52,365
- Operator: \$43,612
- Helper: \$33,174

**LABOR COST-2 SHIFTS**

- TOTAL: \$129,151

**LABOR COST-3 SHIFTS**

- TOTAL: \$16,088

**TOTAL:**

- \$206,319

**ALL-INCLUSIVE COSTS**

- TOTAL INVEST.: \$1,380,173

**AUXILIARY EQUIPMENT INCLUDES**


### Table: Sheetfed Offset

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<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**Fixed Charges (Non-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.................\$ 418,100
2. Rent & Heat (A) @ $10.50 (B) @ $7.00 (C) @ $5.00 sq. ft.................\$ 369,151
3. Fire & Sprinkler Insurance (Rate $40.00 per M).................\$ 10,310
4. Direct Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.................\$ 30,000
5. Pension Fund (A) 5% (B) 3% (C) 2%.................\$ 4,274
6. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk.................\$ 1,944
7. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.................\$ 5,680
8. Workmen's Compensation Insurance (Rate $40.00 per M).................\$ 4,210
9. Power Cost @ $0.07 per kWh (based on hp rating).................\$ 21,060
10. Power Cost @ $0.07 per kWh (based on kW rating).................\$ 21,060
11. Direct Supplies (see instructions).................\$ 45,000
12. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts.................\$ 10,660
13. Sub-total.................................................................\$ 141,875
14. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.................\$ 14,040
15. TOTAL MANUFACTURING COSTS...............................................\$ 16,724,899

**TOTAL COSTS.................................................................\$ 1,587,560

**Manufacturing Costs per productive hour @**

<table>
<thead>
<tr>
<th>Productivity</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>630.92</td>
<td>551.43</td>
<td>482.40</td>
<td>447.19</td>
<td>386.75</td>
<td>334.03</td>
<td>378.60</td>
<td>325.72</td>
<td>279.57</td>
</tr>
<tr>
<td>75% productivity</td>
<td>715.04</td>
<td>624.95</td>
<td>546.72</td>
<td>506.82</td>
<td>438.32</td>
<td>378.56</td>
<td>429.08</td>
<td>369.15</td>
<td>316.84</td>
</tr>
<tr>
<td>60% productivity</td>
<td>863.81</td>
<td>781.19</td>
<td>683.40</td>
<td>633.52</td>
<td>547.90</td>
<td>473.21</td>
<td>536.35</td>
<td>461.44</td>
<td>396.06</td>
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</table>

**ALL-INCLUSIVE COSTS**

<table>
<thead>
<tr>
<th>Productivity</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>895.91</td>
<td>783.03</td>
<td>685.01</td>
<td>612.66</td>
<td>529.85</td>
<td>457.62</td>
<td>497.75</td>
<td>429.95</td>
<td>369.03</td>
</tr>
<tr>
<td>75% productivity</td>
<td>1,015.36</td>
<td>887.43</td>
<td>776.34</td>
<td>694.34</td>
<td>600.50</td>
<td>518.63</td>
<td>566.39</td>
<td>487.28</td>
<td>428.13</td>
</tr>
<tr>
<td>60% productivity</td>
<td>1,269.20</td>
<td>1,109.29</td>
<td>970.42</td>
<td>867.93</td>
<td>750.62</td>
<td>648.29</td>
<td>707.98</td>
<td>609.10</td>
<td>522.79</td>
</tr>
</tbody>
</table>

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### BASE COST ABOVE INCLUDES

Rapida 162: automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

---

### AUXILIARY EQUIPMENT INCLUDES

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provision</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION LABOR COST-1 SHIFT

- **Pressman**
  - Hours/Week: 35
  - $52,365
- **Operator**
  - Hours/Week: 35
  - $43,612
- **Helper**
  - Hours/Week: 33
  - $33,174

#### LABOR COST-2 SHIFTS

- **Pressman**
  - Hours/Week: 17
  - $31,781
- **Operator**
  - Hours/Week: 17
  - $25,830
- **Helper**
  - Hours/Week: 17
  - $29,072

#### LABOR COST-3 SHIFTS

- **Pressman**
  - Hours/Week: 17
  - $26,051
- **Operator**
  - Hours/Week: 17
  - $23,909
- **Helper**
  - Hours/Week: 17
  - $23,909

#### TOTAL:

- **$129,151**
- **$116,448**
- **$106,350**

---

### ALL-INCLUSIVE COSTS

- **$106,350**
- **$98,844**
- **$89,841**

---

### MANUFACTURING COSTS

- **$38,692**
- **$31,781**
- **$29,072**

---

### TOTAL MANUFACTURING COSTS

- **$425,400**
- **$382,924**
- **$343,436**

---

### DIRECT SUPPLIES

- **$383,515**
- **$320,240**
- **$293,883**

---

### TOTAL COSTS

- **$1,142,026**
- **$906,465**
- **$792,889**

---

### TOTAL INVEST.

- **$1,268,135**
- **$1,094,485**
- **$971,591**

---

### THREE SHIFTS

- **$239,883**
- **$239,883**
- **$239,883**

---

### TWO SHIFTS

- **$206,319**
- **$206,319**
- **$206,319**

---

### ONE SHIFT

- **$152,868**
- **$152,868**
- **$152,868**

---

### EQUIPMENT INSTALLED:

- KBA North America, Rapida 162A

---

### SHEETED OFFSET

- **Presses: 6-Unit**

---

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---

### MANUFACTURING COSTS per productive hour @

- **85% productivity**
  - 723.70
- **75% productivity**
  - 723.70
- **60% productivity**
  - 904.63

---

### ALL-INCLUSIVE COSTS per productive hour @

- **85% productivity**
  - 906.76
- **75% productivity**
  - 1,027.66
- **60% productivity**
  - 1,284.57

---

### TOTAL:

- **$1,235,503**
- **$1,187,852**
- **$1,142,026**

---

### TOTAL COSTS:

- **$1,235,503**
- **$1,187,852**
- **$1,142,026**

---

### TOTAL INVEST.

- **$4,254,000**
- **$4,254,000**
- **$4,254,000**

---

### INSTALLATION (EST.):

- Included

---

### INSTALLATION:

- Delivered and installed.
Sheetfed Offset
Presses: 6-Unit

MAN Roland, R 906-8

SIZE: 51.1" X 72.8"
UNITS: 6
MAXIMUM SPEED: 10,000 iph
POWER: hp: --
watts: 176
PRODUCT CLASS/PROCESS: Offset
INTERFACES WITH: n/a
COLORS: No
RESOLUTION: 600
SQ. FT.: 1,200

BASE COST ABOVE INCLUDES
Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lugs & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compens. damp, sheet brake, lateral [gger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cyl. positioning, prebared blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed prog., auto. ink unit splitting, transformers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decut, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training.

AUXILIARY EQUIPMENT INCLUDES
Note: Available options, not included in this study are as follows: Coating Module; Pcom Press Manager.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
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<td>8</td>
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<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION
LAVOR COST-1 SHIFT
LAVOR COST-2 SHIFTS
LAVOR COST-3 SHIFTS

| Pressman | $52,365 | $48,684 | $43,818 |
| Operator | $43,612 | $38,692 | $32,428 |
| Helper   | $33,174 | $29,072 | $23,909 |

DIRECT LABOR

<table>
<thead>
<tr>
<th>Hours/Week</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>10</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
</tr>
<tr>
<td>$129,151</td>
<td>$116,448</td>
<td>$100,155</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL: $405,534 $365,647 $314,487

MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
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<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

TOTAL MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>804,985</td>
<td>773,038</td>
<td>742,086</td>
</tr>
<tr>
<td>1,195,620</td>
<td>1,102,129</td>
<td>1,044,822</td>
</tr>
<tr>
<td>1,484,451</td>
<td>1,403,840</td>
<td>1,322,045</td>
</tr>
</tbody>
</table>

TOTAL COSTS

$ 1,143,085 $1,097,714 $1,053,780 $1,588,679 $1,509,165 $1,431,419 $1,959,476 $1,853,069 $1,746,419

MANUFACTURING COSTS per productive hour @

| 85% productivity | $590.80 | $516.00 | $450.96 | $425.53 | $367.84 | $317.46 | $363.16 | $312.35 | $268.00 |
| 75% productivity | 669.57 | 584.80 | 511.09 | 482.27 | 416.88 | 359.79 | 411.58 | 354.00 | 303.73 |
| 60% productivity | 836.96 | 731.01 | 638.86 | 602.84 | 521.10 | 449.74 | 514.47 | 442.50 | 379.66 |

ALL-INCLUSIVE COSTS per productive hour @

| 85% productivity | $839.93 | $732.73 | $640.36 | $582.98 | $503.94 | $434.92 | $479.36 | $412.31 | $353.76 |
| 75% productivity | 950.79 | 830.42 | 725.74 | 660.71 | 571.13 | 492.91 | 543.28 | 467.28 | 400.92 |
| 60% productivity | 1,184.49 | 1,038.00 | 907.18 | 825.89 | 713.91 | 616.14 | 679.10 | 584.10 | 501.15 |

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KBA North America, Rapida 205

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>59” X 80”</td>
<td>6</td>
<td>9,000 iph</td>
<td>hp: --</td>
<td>Wet Offset/Waterless Offset</td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td></td>
</tr>
<tr>
<td>n/a</td>
<td>6</td>
<td>n/a</td>
<td>1,625</td>
<td></td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Rapida 205; automatic wash-up for plate blanket and impression rollers; auto preset; semi-automatic plate change; pin register; cocking; training and installation.

**BASE COST:** $7,210,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $7,210,000

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
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<td>10</td>
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<td>10</td>
<td>8</td>
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<tr>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LAVOR COST-1 SHIFT**

Pressman $52,365
Operator $43,612

**LAVOR COST-2 SHIFTS**

Pressman $107,872
Operator $89,841

**LAVOR COST-3 SHIFTS**

Pressman $164,426
Operator $136,942

**TOTAL:** $95,977 $87,376 $76,246

**MANUFACTURING COSTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
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<td>5,808</td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**


---

KBA North America, Rapida 205

<table>
<thead>
<tr>
<th>SHEETED OFFSET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presses: 6-Unit</td>
</tr>
</tbody>
</table>

---

**SHEETED OFFSET Presses: 6-Unit**

---

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Sheeted Offset Presses: 6-Unit

---

314
### BASE COST ABOVE INCLUDES

- CP2000 Touch Screen; remote control of circumferential, lateral, and diagonal register;
- presetting of side guide and impression cylinder and double sheet detector; automatic sheet arrival control; remote settings of head stops; chromium plated blanket and impression cylinders; ALCOLOR dampening; automatic wash-up blanket, impression cylinders, rollers, and non-stop feeder delivery; Heidelberg DryStar Combination Dryer; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

Note: Optional equipment, not included in this study, includes: Vario Dampening; extended stock range.

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

### TOTAL COSTS

- **$51,769**
- **$47,987**
- **$43,145**
- **$106,644**
- **$98,853**
- **$88,879**
- **$162,555**
- **$150,679**
- **$135,475**

---

### ONE SHIFT

<table>
<thead>
<tr>
<th></th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
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<td>3,827</td>
<td>4,859</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

### VARIABLE CHARGES

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...............
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft
3. Fire & Sprinkler Insurance (Rate $4.00 per M)
4. Direct Labor
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
6. Pension Fund (A) 5% (B) 3% (C) 2%
7. Welfare Benefits (A) $90/kw. (B) $60/kw. (C) $45/kw
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10. Power Cost @ $0.07 per kWh (based on hp rating)
11. Power Cost @ $0.07 per kWh (based on kw rating)
12. Direct Supplies (see instructions)
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
14. Sub-total...
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
16. TOTAL MANUFACTURING COSTS...
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
18. TOTAL COSTS...
19. MANUFACTURING COSTS per productive hour @

---

### TOTAL INVEST.

- **$899,000**

---

### SHEETED OFFSET

Presses: 7-Unit
## Heidelberg, Speedmaster SM 52-6-P+L

**BASE COST ABOVE INCLUDES**

CP2000 Touch Screen; remote control of circumferential, lateral, and diagonal register; presetting of side guide and impression cylinder and double sheet detector; automatic sheet arrival control; remote settings of head stops; chromium plated blanket and impression cylinders; ALCOLOR dampening; automatic wash-up blanket, impression cylinders, rollers, and non-stop feeder-delivery; Heidelberg DryStar Combination Dryer; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**

Note: Optional equipment, not included in this study, includes Vario Damping.

---

### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

**LABOR COST-1 SHIFT**

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$51,769</th>
<th>$47,987</th>
<th>$43,145</th>
</tr>
</thead>
</table>

**LABOR COST-2 SHIFTS**

<table>
<thead>
<tr>
<th>$106,644</th>
<th>$98,853</th>
<th>$88,879</th>
</tr>
</thead>
</table>

**LABOR COST-3 SHIFTS**

<table>
<thead>
<tr>
<th>$162,555</th>
<th>$150,679</th>
<th>$135,475</th>
</tr>
</thead>
</table>

**TOTAL:** $1,148,500

---

**Notes:**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........ $114,850
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. ............ $4,200
3. Fire & Sprinkler Insurance (Rate $40.00 per M)................. $4,594
4. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts......................... $10,354
5. Pension Fund (A) 5% (B) 3% (C) 2%.......................... $2,588
6. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk........ $4,680
7. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%........... $5,156
8. Workmen’s Compensation Insurance (Rate $40.00 per M)........ $2,485
9. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts .......... $22,970
10. Power Cost @ $0.07 per kWh (based on hp rating).............. $5,285
11. Power Cost @ $0.07 per kWh (based on kW rating).............. $6,800
12. Direct Supplies (see instructions)............................. $6,500
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts .......... $22,970
14. Sub-total................................................................. $235,431
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........ $35,315
16. TOTAL MANUFACTURING COSTS........................................ $270,746
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.......... $113,713
18. TOTAL COSTS................................................................. $384,460
19. MANUFACTURING COSTS per productive hour @
   - 85% productivity.................................................... $198.71
   - 75% productivity.................................................... $225.20
   - 60% productivity.................................................... $281.50
   - All-Inclusive COSTS per productive hour @
   - 85% productivity.................................................... $282.16
   - 75% productivity.................................................... $319.78
   - 60% productivity.................................................... $399.73

---

**Sheetfed Offset**

Presses: 7-Unit

---

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316
KBA North America, Rapida 74

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>20' X 29'</td>
<td>7</td>
<td>15,000 lph</td>
<td>hp:</td>
<td>Wet Offset/Waterless Offset</td>
<td>$1,675,000</td>
<td>n/a</td>
<td>Included</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**
- Rapida 74: semi-automatic plate changers; pin register system; cocking; installation and training.
- Workmen's Compensation Insurance (Rate $40.00 per M)
- Workmen’s Compensation Insurance (Rate $40.00 per M)
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
- Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft
- Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts
- Financial Charges (Variable)
- Power Cost @ $0.07 per kWh (based on hp rating)
- Direct Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
- Federal & State withholding taxes, unemployment insurance, social security taxes
- Payroll taxes (Social Security & Unemployment Insurance) 8.3%
- Administration & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
- Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
- Fixed Charges (Non-Variable)

**PERFECTING:**
- Copyright

**COLORS:**
- n/a

**RESOLUTION:**
- 700

**SQ. FT.:**
- 317

**TOTAL INVEST.:** $1,675,000

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$51,769</td>
<td>$47,987</td>
<td>$43,145</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
</tr>
</tbody>
</table>

**TOTAL:** $84,943

**AUXILIARY EQUIPMENT INCLUDES**
- Rapida 74; semi-automatic plate changers; pin register system; cocking; installation and training.

**MANUFACTURING COSTS**

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

| AREA A    | AREA B     | AREA C       |

**MANUFACTURING COSTS PER PRODUCTIVE HOUR @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$299.12</th>
<th>258.27</th>
<th>223.09</th>
<th>223.47</th>
<th>190.74</th>
<th>162.45</th>
<th>193.83</th>
<th>164.55</th>
<th>139.26</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>339.00</td>
<td>292.70</td>
<td>252.83</td>
<td>253.26</td>
<td>216.17</td>
<td>184.11</td>
<td>219.67</td>
<td>186.50</td>
<td>157.82</td>
</tr>
<tr>
<td>60% productivity</td>
<td>423.75</td>
<td>365.86</td>
<td>316.04</td>
<td>316.58</td>
<td>270.22</td>
<td>230.14</td>
<td>274.59</td>
<td>233.12</td>
<td>197.28</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$424.75</th>
<th>366.74</th>
<th>316.79</th>
<th>306.15</th>
<th>261.32</th>
<th>222.56</th>
<th>255.85</th>
<th>217.21</th>
<th>183.82</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>481.38</td>
<td>415.64</td>
<td>359.02</td>
<td>346.97</td>
<td>296.16</td>
<td>252.25</td>
<td>289.97</td>
<td>246.18</td>
<td>208.33</td>
</tr>
<tr>
<td>60% productivity</td>
<td>601.73</td>
<td>519.55</td>
<td>448.78</td>
<td>433.71</td>
<td>370.20</td>
<td>315.29</td>
<td>362.46</td>
<td>307.72</td>
<td>260.41</td>
</tr>
</tbody>
</table>

**TOTAL COSTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>$578,741</td>
<td>549,424</td>
<td>521,302</td>
<td>1,649,467</td>
</tr>
<tr>
<td>$842,230</td>
<td>782,967</td>
<td>732,488</td>
<td>2,357,685</td>
</tr>
<tr>
<td>$1,045,845</td>
<td>976,240</td>
<td>920,933</td>
<td>3,042,918</td>
</tr>
</tbody>
</table>
### Heidelberg Speedmaster SM 74-6+L

<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.87&quot; X 29.13&quot;</td>
<td>7</td>
<td>15,000 fpm</td>
<td>87 kWhs: --</td>
</tr>
</tbody>
</table>

**Base Cost:** $1,250,000

#### Auxiliary Equipment Includes

- Prinect Print Center digitized monitoring control & self diagnostic system; IR dryer; Machine Info. Display (MID) at feeder & deliv.; remote control of circuml., lateral & diag. register; single suction belt feed; integrated preload device; adjust. side guide; digital 5 roller contiu. damp. system; auto. inking roller, blanket & impress. cyl. wash-up devices; remote controlled ink flow adjust. ink flow timing; nonstop device w/ rake; sheet decurler; vac. sheet slowdowns; air cushion deliv. drum; sheet rear edge extraction system; electronic double detector; monitored front align. control; autoplate; remote adjust. of printing pressure; plate damping & inking rollers follow diagonal register adjustments; chromium plated plate cylinder; circumfl. register 360 degrees; Venturi effect sheet guide plate; powder spray; install. & training.

#### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function:**
- **Labor Cost-1 Shift**
  - Pressman: $51,769
  - Operator: $42,972

**Labor Cost-2 Shifts**
- Pressman: $106,644
- Operator: $88,522

**Labor Cost-3 Shifts**
- Pressman: $162,555
- Operator: $134,932

**Total:** $297,487

#### Total Invest.
- $1,250,000

---

**One Shift**

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td></td>
</tr>
</tbody>
</table>

**Two Shifts**

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td></td>
</tr>
</tbody>
</table>

**Three Shifts**

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td></td>
</tr>
</tbody>
</table>

**Equipment Shipped F.O.B.:** Mt. Olive, NJ

---

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---

![Sheetfed Offset](https://via.placeholder.com/150)

Presses: 7-Unit
### Base Cost Above Includes

Printex Print Center digitized monitoring control & self diagnostic system; IR dryer; Machine Info. Display (MID) at feeder & deliv.; remote control of circuitry, lateral & diag. register; single suction belt feed; integrated preload device; adjust. side guide; digital 5 roller contin. damp. system; auto. inking roller, blanket & impress. cyl. wash-up devices; remote controlled ink flow adjust. ink flow timing; nonstop device w/ rake; sheet deceler; vac. sheet slowdowns; air cushion deliv. drum; sheet rear edge extraction system; electronic double detector; monitored front align. control; autoplatform; remote adjust. of printing pressure; plate damping & inking rollers follow diagonal register adjustments; chromium plated plate cylinder; circumfr. register 360 degrees; Venturi effect sheet guide plate; powder sprayer; install. & training.

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### Function Labor Cost-1 Shift
- Pressman: $51,769
- Operator: $42,972

#### Labor Cost-2 Shifts
- Area A: $188,850
- Area B: $195,166
- Area C: $200,076

#### Labor Cost-3 Shifts
- Area A: $173,393
- Area B: $177,393
- Area C: $181,480

**Total:** $399,484

### Auxiliary Equipment Includes

**Equipment Shipped F.O.B.:** Mt. Olive, NJ

---

**Heidelberg Speedmaster SM 74-6-P+L**

<table>
<thead>
<tr>
<th>Size:</th>
<th>Units:</th>
<th>Maximum Speed:</th>
<th>Power:</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.87&quot; X 29.13&quot;</td>
<td>7</td>
<td>15,000 pph</td>
<td>hp: 89</td>
</tr>
</tbody>
</table>

---

**PRODUCT CLASS/PROCESS:**
- Wet Offset

**Interfaces With:**
- CIP4 Data and MIS system.

**Base Cost:** $1,310,000

---

**Variable Charges**

1. **Direct Labor**
2. **Indirect Labor (Supervision & Misc.)**
3. **Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.**
4. **Fire & Sprinkler Insurance (Rate $4.00 per M).**

**Fixed Charges (Non-Variable)**

1. **Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.**
2. **Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.**
3. **Fire & Sprinkler Insurance (Rate $4.00 per M).**

**Total Manufacturing Costs...**

**Total Costs...**

**Manufacturing Costs per Production Hour @**

1. **75% Productivity**
2. **60% Productivity**
3. **50% Productivity**

**All-Inclusive Costs** per Production Hour @

1. **75% Productivity**
2. **60% Productivity**
3. **50% Productivity**
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FIXED CHARGES (NON-VARIABLE)</td>
</tr>
<tr>
<td>1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)...</td>
</tr>
<tr>
<td>4. Direct Labor...</td>
</tr>
<tr>
<td>5. Indirect Labor (Supervision &amp; Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...</td>
</tr>
<tr>
<td>6. Pension Fund (A) 5% (B) 3% (C) 2%...</td>
</tr>
<tr>
<td>7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...</td>
</tr>
<tr>
<td>8. Payroll Taxes (Soc. Sec. &amp; Unemployment Insurance) 8.3%...</td>
</tr>
<tr>
<td>9. Workman's Compensation Insurance (Rate $40.00 per M)...</td>
</tr>
<tr>
<td>10. Power Cost @ $0.07 per kWh (based on hp rating)...</td>
</tr>
<tr>
<td>11. Power Cost @ $0.07 per kW (based on kW rating)...</td>
</tr>
<tr>
<td>12. Direct Supplies (see instructions)...</td>
</tr>
<tr>
<td>13. Repairs &amp; Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...</td>
</tr>
<tr>
<td>14. Sub-total...</td>
</tr>
<tr>
<td>15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...</td>
</tr>
<tr>
<td>16. TOTAL MANUFACTURING COSTS...</td>
</tr>
<tr>
<td>17. Administrative &amp; Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...</td>
</tr>
<tr>
<td>18. TOTAL COSTS...</td>
</tr>
<tr>
<td>19. MANUFACTURING COSTS per productive hour @ 85% productivity...</td>
</tr>
<tr>
<td>75% productivity...</td>
</tr>
<tr>
<td>60% productivity...</td>
</tr>
<tr>
<td>20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity...</td>
</tr>
<tr>
<td>75% productivity...</td>
</tr>
<tr>
<td>60% productivity...</td>
</tr>
<tr>
<td>TOTAL: $94,741 $86,113 $75,194 $195,166 $177,393 $154,900 $297,487 $270,395 $236,109</td>
</tr>
</tbody>
</table>
MAN Roland, R 707

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.13&quot; X 40.94&quot;</td>
<td>7</td>
<td>16,000 pph</td>
<td>hp: --</td>
<td>Offset</td>
<td>$2,225,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kwhs: 176</td>
<td>INTERFACES WITH:</td>
<td>AUXILIARY EQUIP.:</td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
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<td>n/a</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>n/a</td>
<td>1,050</td>
<td></td>
<td>INSTALL (EST.):</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Included</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregrigger, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compess, damp, sheet brake, lateral [g]gger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, intrunit sheet detect, RCI ink control, ink fedex prog., auto. ink unit splitting, transferer, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decurl, central lubr., sheet counter, covered ink/water rollers, ceramic fount. roller, skwewable damp., feeder & deliv. load boards, self diag., spare parts, tach., washup device, water recirc., install., training.

**AUXILIARY EQUIPMENT INCLUDES**

Note: Available options, not included in this study are as follows: Coating Unit, APL Automatic Plate Loading; Pecom Press Manager.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$51,769</td>
<td>$47,987</td>
</tr>
<tr>
<td>$43,145</td>
<td>$88,953</td>
<td>$88,797</td>
</tr>
<tr>
<td>$106,644</td>
<td>$162,555</td>
<td>$150,679</td>
</tr>
<tr>
<td>$7,489</td>
<td>$23,699</td>
<td>$278,125</td>
</tr>
<tr>
<td>Operator</td>
<td>$92,727</td>
<td>$32,049</td>
</tr>
<tr>
<td>$8,577</td>
<td>$134,932</td>
<td>$119,716</td>
</tr>
<tr>
<td>$88,522</td>
<td>$88,879</td>
<td>$100,634</td>
</tr>
<tr>
<td>$32,049</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$177,393</td>
<td>$154,900</td>
<td>$297,487</td>
</tr>
<tr>
<td>$211.60</td>
<td>$150,679</td>
<td>$236,109</td>
</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS**

$1,006,363

**TOTAL COSTS**

$1,102,554

**MANUFACTURING COSTS per productive hour @**

85% productivity

<table>
<thead>
<tr>
<th>75% productivity</th>
<th>60% productivity</th>
<th>50% productivity</th>
<th>20% all-inclusive costs per productive hour @ 85% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>348.48</td>
<td>375.75</td>
<td>445.68</td>
<td>545.96</td>
</tr>
<tr>
<td>334.80</td>
<td>391.44</td>
<td>473.35</td>
<td>473.35</td>
</tr>
<tr>
<td>292.10</td>
<td>321.85</td>
<td>402.31</td>
<td>389.06</td>
</tr>
<tr>
<td>283.98</td>
<td>327.75</td>
<td>397.42</td>
<td>335.87</td>
</tr>
<tr>
<td>245.15</td>
<td>239.81</td>
<td>239.81</td>
<td>289.89</td>
</tr>
<tr>
<td>211.60</td>
<td>277.97</td>
<td>347.46</td>
<td>323.75</td>
</tr>
<tr>
<td>245.26</td>
<td>239.02</td>
<td>297.77</td>
<td>278.39</td>
</tr>
<tr>
<td>181.15</td>
<td>239.02</td>
<td>256.63</td>
<td>239.12</td>
</tr>
<tr>
<td>205.31</td>
<td>205.31</td>
<td>205.31</td>
<td>205.31</td>
</tr>
</tbody>
</table>

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---

Sheetfed Offset
Presses: 7-Unit
BASE COST ABOVE INCLUDES

Auto changeover to perfecting; sheet holder, diag. sheet correction, suction feed board, trend indic., auto. format of feeder, adjust. front lays & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compens. damp., sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL, auto. plate loading, pin reg., plate cyl. positioning, auto. blanket wash, interunit sheet detect, RCI ink control, ink infed prog., auto. ink unit splitting, transferer, remote running req., auto. format of deliv., nonstop deliv., powder spray, sheet decurl., central lubr., sheet counter, covered ink/water rollers, ceramic fount., roller, skewable damp., feeder & deliv. load boards, self diag. ...tach., washup device, water recirc., install., training.

AUXILIARY EQUIPMENT INCLUDES

Note: Available options, not included in this study are as follows: Coating Unit, APL Automatic Plate Loading; Pecom Press Manager.

MAN Roland, R 707 P

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.13&quot; x 40.94&quot;</td>
<td>7</td>
<td>16,000 pph</td>
<td>hp: --</td>
<td>Offset</td>
<td>$2,315,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
<th>WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)</th>
<th>BASE COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto changeover to perfecting; sheet holder, diag. sheet correction, suction feed board, trend indic., auto. format of feeder, adjust. front lays &amp; sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compens. damp., sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL, auto. plate loading, pin reg., plate cyl. positioning, auto. blanket wash, interunit sheet detect, RCI ink control, ink infed prog., auto. ink unit splitting, transferer, remote running req., auto. format of deliv., nonstop deliv., powder spray, sheet decurl., central lubr., sheet counter, covered ink/water rollers, ceramic fount., roller, skewable damp., feeder &amp; deliv. load boards, self diag. ...tach., washup device, water recirc., install., training.</td>
<td>Provisions</td>
<td>Area A</td>
</tr>
<tr>
<td>Direct labor</td>
<td>94,741</td>
<td>$86,113</td>
</tr>
<tr>
<td>Labor cost @ $4.00 per M</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$94,741</td>
<td>$86,113</td>
</tr>
</tbody>
</table>

EXECUTIVE SUMMARY: Two machines, each 270,000 sq. ft., are available for Porter’s printing operation. The new equipment will be delivered F.O.B. Porter’s. The equipment will be a replacement of the current offset presses and will be used to produce high-quality, color, and variable data products. The new presses are expected to increase productivity by 25% and reduce labor costs by 15%. The new presses will also reduce energy consumption by 30% compared to the current presses. The total cost of the project is expected to be $2,315,000, which includes all equipment, installation, and associated costs. The project is expected to be completed within 6 months.
KBA North America, Rapida 105

**BASE COST ABOVE INCLUDES**
Rapida 105: auto preset; auto pressure; vari-speed dampening system; pin register; cocking; training and installation.

**AUXILIARY EQUIPMENT INCLUDES**

---

**BASE COST:** $2,775,000

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.:** $2,775,000

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$51,769</td>
<td>$106,644</td>
</tr>
<tr>
<td>Operator</td>
<td>$42,972</td>
<td>$88,522</td>
</tr>
</tbody>
</table>

**TOTAL:** $94,741

---

**TOTAL MANUFACTURING COSTS:** $297,487

---

**TOTAL COSTS:** $824,840

---

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$435.62</td>
<td>$493.70</td>
<td>$617.12</td>
</tr>
<tr>
<td>$380.72</td>
<td>$431.49</td>
<td>$539.36</td>
</tr>
<tr>
<td>$333.33</td>
<td>$377.77</td>
<td>$472.22</td>
</tr>
<tr>
<td>$312.66</td>
<td>$354.35</td>
<td>$494.92</td>
</tr>
<tr>
<td>$270.68</td>
<td>$306.77</td>
<td>$383.46</td>
</tr>
<tr>
<td>$234.26</td>
<td>$265.50</td>
<td>$331.87</td>
</tr>
<tr>
<td>$266.25</td>
<td>$301.86</td>
<td>$377.33</td>
</tr>
<tr>
<td>$229.52</td>
<td>$260.12</td>
<td>$325.15</td>
</tr>
<tr>
<td>$197.55</td>
<td>$223.89</td>
<td>$295.54</td>
</tr>
</tbody>
</table>

---

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$618.58</td>
<td>$701.05</td>
<td>$876.32</td>
</tr>
<tr>
<td>$540.63</td>
<td>$612.71</td>
<td>$765.89</td>
</tr>
<tr>
<td>$473.33</td>
<td>$536.44</td>
<td>$670.55</td>
</tr>
<tr>
<td>$428.35</td>
<td>$486.45</td>
<td>$525.34</td>
</tr>
<tr>
<td>$370.83</td>
<td>$420.27</td>
<td>$454.66</td>
</tr>
<tr>
<td>$320.94</td>
<td>$363.73</td>
<td>$498.07</td>
</tr>
<tr>
<td>$351.58</td>
<td>$394.46</td>
<td>$429.20</td>
</tr>
<tr>
<td>$302.97</td>
<td>$343.36</td>
<td>$369.43</td>
</tr>
</tbody>
</table>
### Heidelberg Speedmaster XL 105-7+LX

**Sizes:**
- 29.53" x 41.34"
- 7 units
- Maximum Speed: 18,000 fpm
- Horsepower: 120 estimated

**Perfecting:**
- No

**Colors:**
- Standard industry devices and all Prinect components

**Base Cost:** $3,421,500

**Auxiliary Equipment:** n/a

**Install (Est.)**
- Included

**Total Invest.**
- $3,421,500

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Area</th>
<th>Working Conditions</th>
<th>Hours/Week</th>
<th>Paid Holidays</th>
<th>Vacation After One Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td>35</td>
<td>11</td>
<td>4 weeks</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>37.5</td>
<td>10</td>
<td>3 weeks</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>40</td>
<td>8</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function:**
- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts

**Pressman:**
- Area A: $51,769
- Area B: $47,987
- Area C: $43,145

**Operator:**
- Area A: $42,972
- Area B: $38,126
- Area C: $32,049

**Total:**
- $94,741

**All-Inclusive Costs:**
- Area A: $86,113
- Area B: $75,194
- Area C: $79,148

**Total Costs:**
- Area A: $195,166
- Area B: $177,393
- Area C: $154,900

**equip. Shipped F.O.B.: Cranbury, NJ**

---

### Auxiliary Equipment Includes

- Press Plus Delivery with X2 extension and DryStar 3000 combination dryer
- PowderStar AP 500; CleanStar Compact
- Vasmatic 1500: 36 plus; training; installation.

---

### Fixed Charges (Non-Variable)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts......

2. Rent & Heat (A) $10.50  (B) $7.00 (C) $5.00 sq. ft.

3. Fire & Sprinkler Insurance (Rate 4.00 per M).

---

### Variable Charges

---

### Total Manufacturing Costs...

- Area A: $928,525
- Area B: $894,431
- Area C: $689,431

---

### Operating Costs Per Productive Hour @

- 85% Productivity:
  - 75% Productivity: $573.45
  - 60% Productivity: $716.81

- 80% Productivity:
  - 75% Productivity: $718.50
  - 60% Productivity: $814.30

---

### Sheetfed Offset

**Presses:** 7-Unit

---

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324
### BASE COST ABOVE INCLUDES

Automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cocking; installation and training.

### AUXILIARY EQUIPMENT INCLUDES

**Sheetfed Offset**

**Presses:** 7-Unit

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

- **Pressman**
  - $52,002
- **Operator**
  - $43,379
- **Helper**
  - $33,174

**TOTAL:** $128,555 $115,795 $99,666

**$264,823 $238,538 $205,312 $403,663 $363,596 $312,951**

---

### KBA North America, Rapida 130a

<table>
<thead>
<tr>
<th>Size: 38&quot; X 51&quot;</th>
<th>Units: 7</th>
<th>Maximum Speed: 15,000 pph</th>
<th>Power: hp: -- kWhs: 90.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfecting:</td>
<td>Colors: 7</td>
<td>Resolution: n/a</td>
<td>Resolution: 1,300</td>
</tr>
</tbody>
</table>

---

### Sheetfed Offset

**Presses:** 7-Unit

---

**TOTAL INVEST.:** $4,370,000

---

**Sheeted Offset**

**Presses:** 7-Unit

---

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325
MAN Roland, R 907-5

SIZE: 37.99" X 51.18"
UNITS: 7
MAXIMUM SPEED: 14,000 iph
POWER: hp: --
    kWs: 232
PRODUCT CLASS/PROCESS:
    Offset
    INTERFACES WITH: n/a
BASE COST: $3,325,000
AUXILIARY EQUIP.: n/a
INSTALL. (EST.): Included
TOTAL INVEST.: $3,325,000

BASE COST ABOVE INCLUDES
Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compens. damp, sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide auto., setting of side guide, side edge control, PPI auto., plate loading, pin reg., plate cyl. positioning, prefabred blankets, auto. blanket wash, intunitt sheet detect, RCI ink control, ink feed prod., auto., ink unit splitting, transferers, remote running reg., auto. formatting of delv., non stop delv., powder spray, sheet decurl, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & delv. load boards, self diagns., spare parts, tach., washup device, water recirc., install., training.

AUXILIARY EQUIPMENT INCLUDES

Note: Available options, not included in this study are as follows: Coating Module, Pecom Press Manager.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,002</td>
<td>$48,252</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,379</td>
<td>$38,471</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
</tr>
</tbody>
</table>

TOTAL: $128,555 | $115,795 | $99,666 | $264,823 | $238,538 | $205,312 | $403,663 | $363,596 | $312,951 | $312,951 |

VARIABLE CHARGES

No. of Manned Hours Annually @ 100% Productivity..................

FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts......
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft..............
3. Fire & Sprinkler Insurance (Rate $4.00 per M)....................

VARIABLE CHARGES

4. Direct Labor............................................................
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts..................................................
6. Pension Fund (A) 5% (B) 3% (C) 2%.................................
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...........
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...........
9. Workmen's Compensation Insurance (Rate $4.00 per M)..........
10. Power Cost @ $0.07 per kWh (based on hp rating)..............
11. Power Cost @ $0.07 per kWh (based on kWh rating).............
12. Direct Supplies (see instructions)..................................
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts......
14. Sub-total...............................................................
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts......
16. TOTAL MANUFACTURING COSTS.......................................
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts..............................
18. TOTAL COSTS...........................................................
19. MANUFACTURING COSTS per productive hour @
    85% productivity
    75% productivity
    60% productivity

20. ALL-INCLUSIVE COSTS per productive hour @
    85% productivity
    75% productivity
    60% productivity

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Sheeted Offset
Presses: 7-Unit
### Mitsubishi, Diamond 5000 7-Color With Tower Coater & Extended Delivery

**SIZE:** 36.53" X 51.19"  
**UNIT:** 7  
**MAXIMUM SPEED:** 15,000 pph  
**POWER:** hp: --, kwhs: 160

**PERFECTING:** No (available)  
**COLORS:** 7  
**RESOLUTION:** n/a  
**SQ. FT.:** 1,825

**PRODUCT CLASS/PROCESS:** Wet Offset  
**INTERFACES WITH:** Plate Scanner, CTP, PPC.

**BASE COST:** $3,200,000  
**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included  
**TOTAL INVEST.:** $3,200,000

---

### BASE COST ABOVE INCLUDES

Comac Central Oper, Makerready & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position damp; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet counter; total revolv. counter; sheet slow down wheels; static eliminator; powder spray (deliv.); IR dryer for ink & coating; coating circ. pump; circulators for dampeners; blanket washers; install. and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Pressman: $52,002  
  - Operator: $43,379  
  - Helper: $33,174

- **LABOR COST-2 SHIFTS**
  - Pressman: $107,124  
  - Operator: $89,361  
  - Helper: $68,338

- **LABOR COST-3 SHIFTS**
  - Pressman: $163,285  
  - Operator: $115,341  
  - Helper: $49,253

**TOTAL:** $128,555  
**$115,795**  
**$99,666**  
**$264,823**  
**$238,538**  
**$205,312**  
**$403,663**  
**$363,596**  
**$312,951**

---

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Purchaser's Plant

---

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
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<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. **Depreciation** @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...

2. **Rent & Heat (A)** @ $10.50 (B) @ $7.00 (C) @ $5.00 sq. ft.

3. **Fire & Sprinkler Insurance (Rate $4.00 per M.)**

4. **Direct Labor**

5. **Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts**

6. **Pension Fund (A) 5% (B) 3% (C) 2%**

7. **Wellness Benefits (A) @ $0.90/wk. (B) @ $0.60/wk. (C) @ $0.45/wk.**

8. **Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8%**

9. **Workmen's Compensation Insurance (Rate $40.00 per M.)**

10. **Power Cost @ $0.07 per kWh (based on hp rating)**

11. **Power Cost @ $0.07 per kWh (based on kW rating)**

12. **Direct Supplies (see instructions)**

13. **Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts**

14. **Sub-total**

15. **General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts**

16. **TOTAL MANUFACTURING COSTS**

17. **Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts**

18. **TOTAL COSTS**

19. **MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>5% productivity</th>
<th>6% productivity</th>
<th>10% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$537.16</td>
<td>$465.41</td>
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<tr>
<td>$391.71</td>
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<tr>
<td>$336.17</td>
<td>$287.15</td>
<td>$244.84</td>
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<tr>
<td>75% productivity</td>
<td>90% productivity</td>
<td>110% productivity</td>
</tr>
<tr>
<td>$608.78</td>
<td>$527.47</td>
<td>$457.99</td>
</tr>
<tr>
<td>$443.93</td>
<td>$380.94</td>
<td>$326.87</td>
</tr>
<tr>
<td>$380.99</td>
<td>$325.44</td>
<td>$277.49</td>
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<tr>
<td>60% productivity</td>
<td>80% productivity</td>
<td>100% productivity</td>
</tr>
<tr>
<td>$760.98</td>
<td>$659.33</td>
<td>$572.48</td>
</tr>
<tr>
<td>$554.92</td>
<td>$476.17</td>
<td>$408.34</td>
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<td>$476.24</td>
<td>$408.60</td>
<td>$346.86</td>
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<tr>
<td>100% productivity</td>
<td>120% productivity</td>
<td>150% productivity</td>
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<tr>
<td>$762.77</td>
<td>$660.88</td>
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<td>$536.64</td>
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<td>$443.75</td>
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<td>75% productivity</td>
<td>90% productivity</td>
<td>110% productivity</td>
</tr>
<tr>
<td>$864.47</td>
<td>$749.00</td>
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<tr>
<td>$608.19</td>
<td>$521.88</td>
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<tr>
<td>$502.91</td>
<td>$429.58</td>
<td>$366.29</td>
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<tr>
<td>60% productivity</td>
<td>80% productivity</td>
<td>100% productivity</td>
</tr>
<tr>
<td>$1,080.59</td>
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<td>$760.24</td>
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<tr>
<td>$628.64</td>
<td>$536.97</td>
<td>$457.86</td>
</tr>
</tbody>
</table>

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327  
Sheetfed Offset  
Presses: 7-Unit
### BASE COST ABOVE INCLUDES
Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front load & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compans, damp, sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cyl. positioning, prepared blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink feed pro, auto. ink unit transfer, transferers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decut, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES
Note: Available options, not included in this study are as follows: Coating Module; Pecom Press Manager.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<td>37.5</td>
<td>40</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

<table>
<thead>
<tr>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,002</td>
<td>$48,252</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,379</td>
<td>$38,471</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

| Direct Labor... | 128,555             | 115,795             | 99,666             |
| 5th Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts | 25,711             | 23,159             | 19,933             |
| Pension Fund (A) 5% (B) 3% (C) 2% | 6,428               | 4,374               | 1,993               |
| Welfare Benefits (A) $90/kw. (B) $60/kw. (C) $45/kw. | 14,040             | 9,360               | 7,020               |
| Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% | 12,804             | 11,533             | 9,927               |
| Workmen’s Compensation Insurance (Rate $40.00 per M) | 6,171               | 5,556               | 4,784               |
| Power Cost @ $0.07 per Kw (based on hp rating) | 15,620             | 17,174             | 18,864             |
| Direct Supplies (see instructions) | 16,500             | 16,500             | 16,500             |
| Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts | 69,000             | 69,000             | 69,000             |
| Sub-total... | 668,328             | 640,153             | 613,488             |
| TOTAL MANUFACTURING COSTS... | 768,577             | 736,176             | 705,511             |
| Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts | 322,802             | 309,194             | 296,315             |
| TOTAL COSTS... | $1,091,380           | $1,045,370           | $1,001,825           |

### ONE SHIFT

<table>
<thead>
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<tbody>
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<td>4,809</td>
<td>5,288</td>
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</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
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### THREE SHIFTS

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<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>
**BASE COST ABOVE INCLUDES**

Rapida 142; automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**


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**BASE COST: $4,392,000**

**AUXILIARY EQUIP.: n/a**

**INSTALL. (EST.): Included**

**TOTAL INVEST.: $4,392,000**

---

**PRODUCT CLASS/PROCESS:**

- Wet Offset/Waterless Offset

**INTERFACES WITH:**

- All CTP systems.

---

**KBA North America, Rapida 142**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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<tr>
<td>40” X 56”</td>
<td>7</td>
<td>14,000 iph</td>
<td>hp: --</td>
<td>Wet Offset/Waterless Offset</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>kWhs: 82</td>
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</tr>
</tbody>
</table>

**PERFECTING:**

- COLORS: n/a
- RESOLUTION: 1,400
- SQ. FT.: 1,400

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
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</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $52,002
- Operator: $43,379
- Helper: $33,174

**FUNCTION LABOR COST-2 SHIFTS**

**FUNCTION LABOR COST-3 SHIFTS**

**TOTAL:** $128,555 $115,795 $99,666 $264,823 $238,538 $205,312 $403,663 $363,596 $312,951

**MANUFACTURING COSTS**

**TOTAL COSTS:** $1,265,636 $1,217,985 $1,172,655 $1,723,791 $1,641,807 $1,561,298 $2,105,165 $1,994,724 $1,885,478

**MANUFACTURING COSTS per productive hour @**

- 85% productivity: $654.14
- 75% productivity: $741.35
- 60% productivity: $926.89

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity: $928.87
- 75% productivity: $1,052.72

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## BASE COST ABOVE INCLUDES

Comrac Central Oper. Makereready & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position clamp; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet counter; total revol. counter; sheet slow down wheels; static elim. ; powder spray (deliv.); IR dryer for ink & coating; coating circ. pump; circulating for dampeners; blanket washers; install. and training.

## AUXILIARY EQUIPMENT INCLUDES

- Comrac Central Oper. Makereready & Control
- Touch screen
- Semi-auto. plate changers
- Remote control running reg.
- Auto preset inking
- Microproc. based controls
- Impress. press. preset
- Feed and deliv. preset
- Remote control front lay reg.
- Feeder board suction
- Cont. stream feeder
- Side guide
- Misreg., double sheet, and overrun detect
- 2 pile pallets (feeder)
- Pile height control
- Auto roller cleaning
- 3-position clamp
- Quick plate clamp
- Auto plate cyl. positioning
- Plasma coated plate & blanket cyls.
- Chrome plated impress. cyl.
- Cam-closed grippers
- Remote roller control
- Auto lube
- Seq. impress. on/off
- Blow down fans
- 2 pile pallets (deliv.)
- Sheet counter
- Total revol. counter
- Sheet slow down wheels
- Static elim.
- Powder spray (deliv.)
- IR dryer for ink & coating
- Coating circ. pump
- Circulating for dampeners
- Blanket washers
- Install and training.

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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<tbody>
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</table>

### FUNCTION LABOR COST-1 SHIFT

- Pressman: $52,002
- Operator: $43,379
- Helper: $33,174

### LABOR COST-2 SHIFTS

- Pressman: $107,124
- Operator: $89,361
- Helper: $68,338

### LABOR COST-3 SHIFTS

- Pressman: $163,286
- Operator: $136,210
- Helper: $104,166

### TOTAL:

- $128,555
- $264,823
- $205,312
- $403,663
- $363,596
- $312,951

---

### TOTAL COSTS:

- $1,200,197
- $1,102,494
- $1,071,702
- $998.29
- $1,200,197
- $1,102,494
- $998.29

---

### ONE SHIFT

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### THREE SHIFTS

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<td>845,205</td>
<td>809,288</td>
<td>776,405</td>
<td>1,205,665</td>
<td>1,144,248</td>
<td>1,085,327</td>
<td>1,536,085</td>
<td>1,451,601</td>
<td>1,369,490</td>
</tr>
</tbody>
</table>

---

### TOTAL MANUFACTURING COSTS:

- $845,205
- $809,288
- $776,405
- $1,205,665
- $1,144,248
- $1,085,327
- $1,536,085
- $1,451,601
- $1,369,490

---

### SHEETING:

<table>
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<tr>
<th>EQUIPMENT</th>
<th>LOCATION</th>
<th>PAGE</th>
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<tr>
<td>Diamond 6000 7-Color With Tower Coater &amp; Extended Delivery</td>
<td>Mitsubishi</td>
<td>330</td>
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KBA North America, Rapida 162

**BASE COST ABOVE INCLUDES**

Rapida 162: automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cocking; installation and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
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<td>37.5</td>
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<tr>
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<td>8</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,365</td>
<td>$48,684</td>
<td>$43,818</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,612</td>
<td>$38,692</td>
<td>$32,428</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
</tr>
</tbody>
</table>

**TOTAL: $129,151 $116,448 $100,155 $266,051 $239,883 $206,319 $405,534 $365,647 $314,487**

**AUXILIARY EQUIPMENT INCLUDES**


---

**Sheetfed Offset**

**Presses: 7-Unit**
## BASE COST ABOVE INCLUDES

Rapida 162: automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cocking; installation and training.

## AUXILIARY EQUIPMENT INCLUDES


---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>Hours/Week</th>
<th>Area</th>
<th>Hours/Week</th>
<th>Area</th>
<th>Hours/Week</th>
<th>Area</th>
<th>Hours/Week</th>
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<tr>
<td>A</td>
<td>35</td>
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<td>37.5</td>
<td>C</td>
<td>40</td>
<td>A</td>
<td>35</td>
</tr>
<tr>
<td>B</td>
<td>11</td>
<td>B</td>
<td>10</td>
<td>C</td>
<td>8</td>
<td>A</td>
<td>11</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>B</td>
<td>2</td>
<td>C</td>
<td>2</td>
<td>A</td>
<td>4</td>
</tr>
</tbody>
</table>

### LABOR COST-1 SHIFT

- Pressman: $52,365
- Operator: $43,612
- Helper: $33,174

### LABOR COST-2 SHIFTS

- Pressman: $107,872
- Operator: $89,841
- Helper: $68,338

### LABOR COST-3 SHIFTS

- Pressman: $164,426
- Operator: $136,942
- Helper: $104,166

**TOTAL:** $129,151

---

### LABOR COST-1 SHIFT

- Area A: $11,598
- Area B: $52,365
- Area C: $43,612

### LABOR COST-2 SHIFTS

- Area A: $35,982
- Area B: $149,153
- Area C: $23,909

### LABOR COST-3 SHIFTS

- Area A: $15,750
- Area B: $78,908
- Area C: $10,500

**TOTAL:** $137,589

---

### TOTAL COSTS

- Direct Labor: $1,584,637
- Indirect Labor: $75,074
- Workmen’s Compensation Insurance: $21,060
- Health and Welfare Benefits: $100,155
- Power Cost: $140,077
- Repairs and Maintenance: $14,040
- Fire and Sprinkler Insurance: $7,500
- Social Security and Unemployment Insurance: $16,562
- Pension Fund: $3,872

**TOTAL:** $1,645,621

---

### ALL-INCLUSIVE COSTS

- $405,534

---

### ONE SHIFT

- Productivity: 60%

---

### TWO SHIFTS

- Productivity: 60%

---

### THREE SHIFTS

- Productivity: 60%

---

### TOTAL INVEST.:

- $4,729,000

---

### NAPL-2

- $23,290

---

### NAPL-3

- $137,589

---

### AREA A

- $1,289,653

---

### AREA B

- $59,888

---

### AREA C

- $1,067,719

---

### KBA North America, Rapida 162A

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>MAXIMUM SPEED:</th>
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<td>13,000 iph</td>
<td>hp: --</td>
<td>kWhs: 82</td>
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<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
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<td>Optional</td>
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---

### PRODUCED ANNUALLY

- $2,202,395

---

### EQUIPMENT

- 7-Unit

---

### SCALE

- 47” X 64”

---

### PRODUCTION CAPACITY

- 13,000 iph

---

### Power

- $0.07 per kWh

---

### BASE COST:

- $4,729,000

---

### AUXILIARY EQUIP.:

- n/a

---

### INSTALL. (EST.):

- Included

---

### TOTAL INVEST.:

- $4,729,000

---

### CHARGES CODE:

- 7

---

### MANNING CODE:

- 332

---

### NEEDED FOR INTERACTIVE PROGRAM

- KBA North America, Rapida 162A

---

### BASE COST:

- Wet Offset/Waterless Offset

---

### INTERFACES WITH:

- All CTP systems.
# KBA North America, Rapida 205

## Size:
- **59' X 80''**

## Units:
- **7**

## Maximum Speed:
- **9,000 iph**

## Power:
- **hp:** --
- **kW:** 82

## Perfecting:
- **Colors:** n/a

## Resolution:
- **SQ. FT.:** 1,760

## BASE COST ABOVE INCLUDES
- Rapida 205; automatic wash-up for plate blanket and impression rollers; auto preset; semi-automatic plate change; pin register; cocking; training and installation.

## WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provision</th>
<th>Area A</th>
<th>Area B</th>
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<td>2 weeks</td>
</tr>
</tbody>
</table>

## LABOR COST-1 SHIFT
- **Pressman:** $52,365
- **Operator:** $43,612

## LABOR COST-2 SHIFTS
- **Total:** $197,713
- **Area A:** $179,995
- **Area B:** $179,995
- **Area C:** $157,267

## LABOR COST-3 SHIFTS
- **Total:** $274,361
- **Area A:** $242,910
- **Area B:** $242,910
- **Area C:** $189,802

## TOTAL COSTS
- **Total:** $8,097,000

## ALL-INCLUSIVE COSTS
- **Total:** $8,097,000

---

# MANUFACTURING COSTS

## Power Cost @ $0.07 per kWh (based on hp rating)
- **1,268.02**

## BASE COST:
- **$8,097,000**

## AUXILIARY EQUIPP.
- **n/a**

## INSTALL. (EST.)
- **Included**

## TOTAL INVEST.
- **$8,097,000**

---

# AUXILIARY EQUIPMENT INCLUDES

## Equip. Shipped F.O.B.
- Delivered and installed.

---

# MANUFACTURING COSTS PER PRODUCTIVE HOUR @ 85% PRODUCTIVITY

<table>
<thead>
<tr>
<th>Product Class/Process</th>
<th>One Shift</th>
<th>Two Shifts</th>
<th>Three Shifts</th>
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<td>2,380,718</td>
<td>5,273,178</td>
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# Sheetfed Offset

Presses: 7-Unit

---

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333
### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function

**LABOR COST-1 SHIFT**
- Pressman: $52,428
- Operator: $43,124

**LABOR COST-2 SHIFTS**
- Pressman: $108,002
- Operator: $88,835

**LABOR COST-3 SHIFTS**
- Pressman: $164,624
- Operator: $135,409

### Total:
- $95,552
- $87,100
- $76,014
- $196,837
- $179,426
- $156,589
- $300,033
- $273,494
- $238,684

### Fixtures Charges (Non-Variable)
1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
3. Fire & Sprinkler Insurance (Rate $4.00 per M...)

### Variable Charges
1. Direct Labor...
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
3. Pension Fund (A) 5% (B) 3% (C) 2%...
4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...
6. Workers' Compensation Insurance (Rate $40.00 per M...)
7. Power Cost @ $0.07 per kWh (based on hp rating)
8. Power Cost @ $0.07 per kWh (based on hp rating)
9. Direct Supplies (see instructions)...
10. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
11. Sub-total...
12. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
13. TOTAL MANUFACTURING COSTS...
14. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
15. TOTAL COSTS...

### Manufacturing Costs per productive hour @
- 85% productivity...
- 75% productivity...
- 60% productivity...
- ALL-INCLUSIVE COSTS per productive hour @
- 85% productivity...
- 75% productivity...
- 60% productivity...

### Total Invest.
- $1,495,000

**Base Cost Above Includes**
- Water circulators; hollow vibrator rollers; inker temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; cylinder cocking system; ACC/Akiyama Color Control Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer's plant (Continental USA); training.

**Auxiliary Equipment Includes**
### Akiyama, J print (JP) 4P429 A4

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<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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### BASE COST ABOVE INCLUDES

- Water circulators; hollow vibrator rollers; inker temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; cylinder cocking system; 
- ACC (Akiyama Color Control) Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer’s plant (Continental USA); training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

- Pressman: $52,428
- Operator: $43,124

### LABOR COST-2 SHIFTS

- $108,002
- $100,610
- $90,465

### LABOR COST-3 SHIFTS

- $164,624
- $153,358
- $137,893

### TOTAL:

- $95,552
- $87,100
- $76,014

### TOTAL COSTS

- $196,837
- $179,426
- $156,589

### TOTAL INVEST.:

- $300,033
- $273,494
- $238,684

### AUXILIARY EQUIPMENT INCLUDES


### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
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<tbody>
<tr>
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<td>B</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>C</td>
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<tr>
<td>1,603</td>
<td>1,763</td>
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<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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</table>

### FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts .......... $168,000
2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft .......... 7,350
3. Fire & Sprinkler Insurance (Rate $4.00 per M) .......... 2,613
4. Direct Labor .......... 95,552
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts .......... 19,110
6. Pension Fund (A) 5%  (B) 3%  (C) 2% .......... 4,778
7. Welfare Benefits (A) $90.00/kw.  (B) $60.00/kw.  (C) $45.00/kw .......... 9,360
8. Payroll Taxes  (Soc. Sec. & Unemploy. Insurance) 8.3% .......... 9,517
9. Workmen’s Compensation Insurance (Rate $40.00 per M) .......... 4,586
10. Power Cost @ $0.07 per kWh (based on hp rating) .......... 3,131
11. Power Cost @ $0.07 per kWh (based on kW rating) .......... 0
12. Direct Supplies (see instructions) .......... 336
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts .......... 33,600
14. Sub-total .......... 371,704
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts .......... 55,756
16. TOTAL MANUFACTURING COSTS .......... 427,460
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts .......... 179,533
18. TOTAL COSTS .......... $606,993

### MANUFACTURING COSTS per productive hour @

- 85% productivity .......... $313.72
- 75% productivity .......... 355.55
- 60% productivity .......... 444.44

### ALL-INCLUSIVE COSTS per productive hour @

- 85% productivity .......... $445.48
- 75% productivity .......... 504.88
- 60% productivity .......... 631.10

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Sheeted Offset
Presses: 8-Unit
<table>
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<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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<tbody>
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<th>COLORS:</th>
<th>RESOLUTION:</th>
<th>SQ. FT.:</th>
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<tr>
<td>Yes</td>
<td>8</td>
<td></td>
<td>800</td>
<td></td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

CP2000 monitoring and self diagnostic system; Machine Info. Display (MID) at feeder & deliv.; remote control of circumf., lateral & diag. register; single suction belt feed; integrated preload device; adjust. side guide via CP2000 / CPTronic; digital & roller contin. damp. system; auto. inking roller, blanket & impress. cyl. wash-up devices; remote controlled ink keys; adjust. ink flow timing; nonstop device w/ rake; sheet deceler; vac. sheet slowdowns; air cushion deliv. drum; sheet rear edge extraction system; electronic double detect; monitored front align. control; autoplate; remote adjust. of printing pressure; plate dampening & inking rollers follow diag. register adjustments; chromium plated plate cylinder; circumf. register 360 degrees; inking unit temp. control; Venturi effect sheet guide; powder spray; install. and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
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<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,428</td>
<td>$108,002</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$88,835</td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**

**No. of Manned Hours Annually @ 100% Productivity**

<table>
<thead>
<tr>
<th>1 - 60% productivity</th>
<th>60% productivity</th>
<th>75% productivity</th>
<th>85% productivity</th>
<th>100% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>70% productivity</td>
<td>60% productivity</td>
<td>50% productivity</td>
<td>40% productivity</td>
<td>30% productivity</td>
</tr>
</tbody>
</table>

**CHARGES CODE:**

- **BASE COST:** $1,650,000
- **AUXILIARY EQUIP.:** n/a
- **INSTALL. (EST.):** Included
- **TOTAL INVEST.:** $1,650,000

**TOTAL:** $95,552 $87,100 $76,014 $196,837 $179,426 $156,589 $300,033 $273,494 $238,684

**One Year After**

**PERFECTING:**

- **Color:**
  - MAXIMUM SPEED: 800
    - **RESOLUTION:**
      - **SQ. FT.:**

**PRESS**

- **MAXIMUM SPEED:** 20.87" x 29.13"
- **UNITS:** 8
- **MAXIMUM SPEED:** 15,000 rpm

**Sheeted Offset Presses: 8-Unit**

**Equip. Shipped F.O.B.:** Mt. Olive, NJ

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337
### MAN Roland, R 508

**SIZE:** 23.23" x 29.13"  
**UNITS:** 8  
**MAXIMUM SPEED:** 18,000 ipm  
**POWER:** hp: --  
**kW's:** 175 est.  
**PERFECTING:** No  
**COLORS:** 8  
**RESOLUTION:** n/a  
**SQ. FT.:** 950

#### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>288,750</td>
<td>349.55</td>
<td>7,700</td>
<td>42.689</td>
<td>182,002</td>
<td>1,936</td>
<td>429.59</td>
<td>21,000</td>
<td>4,750</td>
<td>423.79</td>
<td>235,338</td>
<td>6,650</td>
<td>343.67</td>
<td>$43,812</td>
</tr>
</tbody>
</table>

#### Sheetfed Wet Offset

**INTERFACES WITH:** n/a  
**INSTALL. (EST.):** Included  
**TOTAL INVEST.:** $1,925,000

### BASE COST ABOVE INCLUDES

- MAN Roland R 508; training; installation.
- No. of Manned Hours Annually @ 100% Productivity..........................  
- Fixed Charges (Non-VARIABLE)....................................................  
- Depreciation (10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts).............  
- Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft................  
- Fire & Sprinkler Insurance (Rate $4.00 per M)..........................  
- Workmen's Compensation Insurance (Rate $40.00 per M).................  

### VARIABLE CHARGES

- Direct Labor.................................................................  
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...  
- Pension Fund (A) 5%  (B) 3%  (C) 2%.................................  
- Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk...........  
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.................  
- Workmen's Compensation Insurance (Rate $40.00 per M)................  
- Power Cost @ $0.07 per kWh (based on hp rating)........................  
- Power Cost @ $0.07 per kWh (based on kW rating).......................  
- Direct Supplies (see instructions)....................................  
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...........  

### TOTAL MANUFACTURING COSTS

- $192,500  
- $192,500  
- $240,625  
- $240,625  
- $240,625  
- $288,750  
- $288,750  
- $288,750

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Port of Entry

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>TOTAL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>$95,552</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>$95,552</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### LABOR COST-1 SHIFT

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,428</td>
<td>$48,840</td>
<td>$43,915</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$38,260</td>
<td>$32,099</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$95,552</td>
<td>$87,100</td>
<td>$76,014</td>
</tr>
</tbody>
</table>

### TOTAL INVEST.: $1,925,000

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>1,936</td>
<td>1,936</td>
<td>1,936</td>
<td>1,936</td>
<td>1,936</td>
<td>1,936</td>
<td>1,936</td>
<td>1,936</td>
<td>1,936</td>
<td>1,936</td>
<td>$1,925,000</td>
<td></td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>3,206</td>
<td>$1,925,000</td>
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</table>

### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td>4,809</td>
<td>$1,925,000</td>
<td></td>
</tr>
</tbody>
</table>

### Sheetfed Offset

**Presses: 8-Unit**

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## Heidelberg Speedmaster CD 74-8-P

### Size:
- 23.62” X 29.13”
- Units: 8
- Maximum Speed: 15,000 iph
- Power: hp: 95 est.
- kWhs: --

### Perfecting:
- Yes
- Colors: 8
- Resolution: n/a
- Sq. Ft.: 750

### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION
- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts

| Pressman | $52,428 | $48,840 | $43,915 | $108,002 | $100,610 | $90,465 |
| Operator  | $43,124 | $38,260 | $32,099 | $88,835  | $78,816  | $66,124 |

### TOTAL:
- $95,552
- $87,100
- $76,014
- $196,837
- $179,426
- $51,250
- $21,000
- $3,750

### Auxiliary Equipment Includes

- Prinect CP2000 Center Press Control; full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; fully automatic perfecting device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and ink unit temperature control; non-stop delivery; systemservice 36 plus; training; installation.

### Sheetfed Offset

<table>
<thead>
<tr>
<th>8-Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Shipped F.O.B.:</td>
</tr>
</tbody>
</table>

### Manufacturing Costs per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$354.69</td>
</tr>
<tr>
<td>75% productivity</td>
</tr>
<tr>
<td>$401.99</td>
</tr>
<tr>
<td>60% productivity</td>
</tr>
<tr>
<td>$502.48</td>
</tr>
</tbody>
</table>

### All-Inclusive Costs per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$503.66</td>
</tr>
<tr>
<td>75% productivity</td>
</tr>
<tr>
<td>$570.82</td>
</tr>
<tr>
<td>60% productivity</td>
</tr>
<tr>
<td>$713.52</td>
</tr>
</tbody>
</table>
### Heidelberg Speedmaster CD 74-8+L

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.62&quot; X 29.13&quot;</td>
<td>8</td>
<td>15,000 fpm</td>
<td>105 est. hp:</td>
<td>Wet Offset</td>
<td>$2,188,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERFECTING:</th>
<th>COLORS:</th>
<th>RESOLUTION:</th>
<th>SQ. FT.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>8</td>
<td>n/a</td>
<td>800</td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES
- Prinect CP2000 Center Press Control: full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplater plate loading device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; coating unit with DryStar dryer; non-stop delivery; systemservice 36 plus; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION
- **LABOR COST-1 SHIFT**
  - Pressman: $52,428
  - Operator: $43,124
  - Helper: $33,174

- **LABOR COST-2 SHIFTS**
  - Pressman: $48,840
  - Operator: $32,099
  - Helper: $29,072

- **LABOR COST-3 SHIFTS**
  - Pressman: $43,915
  - Operator: $88,835
  - Helper: $23,909

### TOTAL:
- $128,726
- $116,172
- $99,923
- $265,176
- $239,314
- $205,841
- $404,200
- $364,780
- $313,758

### AUXILIARY EQUIPMENT INCLUDES

**Equip. Shipped F.O.B.:** Cranbury, NJ

#### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>2,030</td>
<td>2,352</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

#### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>128,726</td>
<td>116,172</td>
<td>99,923</td>
<td>265,176</td>
<td>239,314</td>
<td>205,841</td>
<td>404,200</td>
<td>364,780</td>
<td>313,758</td>
</tr>
</tbody>
</table>

#### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
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<tbody>
<tr>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### TOTAL MANUFACTURING COSTS:

- $799,244
- $755,440
- $711,723
- $1,172,427
- $1,094,458
- $1,015,192
- $1,480,968
- $1,374,642
- $1,266,319

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$413.08</td>
<td>$355.11</td>
<td>$304.59</td>
</tr>
<tr>
<td>$314.04</td>
<td>$266.62</td>
<td>$225.15</td>
</tr>
<tr>
<td>$274.47</td>
<td>$231.71</td>
<td>$194.32</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$568.58</td>
<td>$504.26</td>
<td>$432.52</td>
</tr>
<tr>
<td>$430.23</td>
<td>$365.29</td>
<td>$308.46</td>
</tr>
<tr>
<td>$362.30</td>
<td>$305.86</td>
<td>$256.51</td>
</tr>
</tbody>
</table>

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Sheetfed Offset
Presses: 8-Unit

340
### Heidelberg Speedmaster CD 74-8-P+L

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER: hp:</th>
<th>105 est. kWs: --</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.62&quot; X 29.13&quot;</td>
<td>8</td>
<td>15,000 iph</td>
<td>8</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERFECTING:</th>
<th>COLORS:</th>
<th>RESOLUTION:</th>
<th>SQ. FT.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>8</td>
<td>n/a</td>
<td>800</td>
</tr>
</tbody>
</table>

#### BASE COST ABOVE INCLUDES

- Prinect CP2000 Center Press Control; full preset single suction belt feeder; non-stop feeder; pre-loading device and StaticStar Compact; Autoplate plate loading device; fully automatic perfecting device; automatic ink roller and blanket wash-up; PowderStar powder spray device; CombiStar central dampening and inking unit temperature control; coating unit with DryStar dryer; non-stop delivery; systemservice 36 plus; training; installation.

#### AUXILIARY EQUIPMENT INCLUDES

- **Equipment Shipped F.O.B.:** Cranbury, NJ

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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</tr>
<tr>
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<td>11</td>
<td>10</td>
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<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION

- **LABOR COST-1 SHIFT**
  - Pressman: $52,428
  - Operator: $43,124
  - Helper: $33,174

- **LABOR COST-2 SHIFTS**
  - Pressman: $48,840
  - Operator: $32,099
  - Helper: $29,072

- **LABOR COST-3 SHIFTS**
  - Pressman: $43,915
  - Operator: $28,646
  - Helper: $23,909

#### TOTAL COSTS

- **TOTAL: $128,726**
  - Area A: $116,172
  - Area B: $99,923
  - Area C: $265,176

### ALL-INCLUSIVE COSTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>TOTAL INVEST.</th>
<th>Cost Per MCF</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>$2,284,000</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>$2,284,000</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>$2,284,000</td>
<td></td>
</tr>
</tbody>
</table>

### Power Cost @ $0.07 per kWh (based on hp rating)

- **1,924 kWhs:** $135,409
- **4,000 kWhs:** $164,624
- **5,288 kWhs:** $198,260

### Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts

- 1. Direct Labor
- 2. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% 3. Workmen's Compensation Insurance (Rate $40.00 per M)
- 4. Power Cost @ $0.07 per kWh (based on hp rating)
- 5. Direct Supplies (see instructions)
- 6. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
- 7. Sub-total...
- 8. Total Manufacturing Costs...
- 9. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
- 10. Total Costs...
- 11. MANUFACTURING COSTS per productive hour @ 85% productivity
- 12. MANUFACTURING COSTS per productive hour @ 60% productivity
- 13. MANUFACTURING COSTS per productive hour @ 75% productivity
- 14. All-Inclusive Costs per productive hour @ 85% productivity
- 15. All-Inclusive Costs per productive hour @ 60% productivity

### Sheetfed Offset Presses: 8-Unit

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**Komori Lithrone LS829 Series 45**

### Specifications
- **Size:** 20.87" X 29.5"
- **Units:** 8
- **Maximum Speed:** 15,000 iph
- **Power:** hp: -- kwhs: 71
- **Product Class/Process:** Wet Offset
- **Base Cost:** $2,162,089
- **Auxiliary Equip.:** n/a
- **Install. (Est.):** Included
- **Total Invest.:** $2,162,089

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function Labor Cost-1 Shift
- **Pressman:** $52,428
- **Operator:** $43,124

### Function Labor Cost-2 Shifts
- **Operator:** $517,851

### Function Labor Cost-3 Shifts
- **Pressman:** $52,428
- **Operator:** $43,124

### Total Labor Cost:
- **Total:** $1,955,552
  - **Area A:** $87,100
  - **Area B:** $76,014
  - **Area C:** $116,837
  - **Total:** $319,941

### Manufacturing Costs
- **Base Cost:** $2,162,089

### Auxiliary Equipment Includes
- **AUXILIARY EQUIPMENT INCLUDES**
  - Auto. plate changing; auto. blanket and ink roller washing; gripper pad adj; KMS-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infeed brush assembly; vacuum infeed tapes; electronic sheet detect; adj. headstops; adj/ft inking cores & damp. covered rollers; anti ghosting rollers; Komoronic dampening; reverse nip; hickey picker; 1-touch blanket clamp; chrome plated plate, blanket and impress. cyls.; lateral, circular, and diag. register; auto start/stop; pinnned cylinders; sheet decurier; double sheet detect; wall loader; vac. side guide; temp. controlled roller provision; auto tensioned roll adjust; oscil. timing adj.; variable ink ducr toning; hickey picking dumper; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness & size presets; auto impress. cyl wash; installation.

### BASE COST ABOVE INCLUDES
- **BASE COST ABOVE INCLUDES**
  - Auto. plate changing; auto. blanket and ink roller washing; gripper pad adj; KMS-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infeed brush assembly; vacuum infeed tapes; electronic sheet detect; adj. headstops; adj/ft inking cores & damp. covered rollers; anti ghosting rollers; Komoronic dampening; reverse nip; hickey picker; 1-touch blanket clamp; chrome plated plate, blanket and impress. cyls.; lateral, circular, and diag. register; auto start/stop; pinnned cylinders; sheet decurier; double sheet detect; wall loader; vac. side guide; temp. controlled roller provision; auto tensioned roll adjust; oscil. timing adj.; variable ink ducr toning; hickey picking dumper; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness & size presets; auto impress. cyl wash; installation.

### Calculations

#### Fixed Charges (Non-Variable)
1. **Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts**
   - **Hours/Week:** 35, 37.5, 40
   - **Depreciation Cost:** $216,209, $216,209, $216,209
   - **Total Depreciation Cost:** $648,627

2. **Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.**
   - **Rent & Heat Cost:** $6,300, 4,200, 3,000
   - **Total Rent & Heat Cost:** $13,500

3. **Fire & Sprinkler Insurance (Rate $4.00 per M)**
   - **Fire & Sprinkler Insurance Cost:** $153,358
   - **Total Fire & Sprinkler Insurance Cost:** $153,358

4. **Direct Labor**
   - **Direct Labor Cost:** $591,264
   - **Total Direct Labor Cost:** $591,264

5. **Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 12% 3 shifts**
   - **Indirect Labor Cost:** $119,253
   - **Total Indirect Labor Cost:** $119,253

6. **Pension Fund (A) 5% (B) 3% (C) 2%**
   - **Pension Fund Cost:** $2,484, $1,488, $883
   - **Total Pension Fund Cost:** $4,155

7. **Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.**
   - **Welfare Benefits Cost:** $1,004
   - **Total Welfare Benefits Cost:** $1,004

8. **Workmen's Compensation Insurance (Rate $40.00 per M)**
   - **Workmen's Compensation Insurance Cost:** $95,552
   - **Total Workmen's Compensation Insurance Cost:** $95,552

9. **Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts**
   - **Repairs & Maint. Cost:** $8,648
   - **Total Repairs & Maint. Cost:** $8,648

10. **Power Cost @ $0.07 per kWh (based on hp rating)**
    - **Power Cost:** $42,000
    - **Total Power Cost:** $42,000

11. **Power Cost @ $0.07 per kWh (based on kWh rating)**
    - **Power Cost:** $52,428
    - **Total Power Cost:** $52,428

12. **Paid Holidays**
    - **Paid Holidays Cost:** $6,300
    - **Total Paid Holidays Cost:** $6,300

13. **Vacation After One Year**
    - **Vacation Cost:** $4,200
    - **Total Vacation Cost:** $4,200

14. **Sick Days**
    - **Sick Days Cost:** $52,428
    - **Total Sick Days Cost:** $52,428

15. **Welfare Benefits**
    - **Welfare Benefits Cost:** $883
    - **Total Welfare Benefits Cost:** $883

16. ** randomNumber**
    - **Random Number Cost:** $4,200
    - **Total Random Number Cost:** $4,200

17. **Hours/Week**
    - **Hours/Week Cost:** $4,200
    - **Total Hours/Week Cost:** $4,200

18. **Vacation After One Year**
    - **Vacation Cost:** $10,512
    - **Total Vacation Cost:** $10,512

19. **Sick Days**
    - **Sick Days Cost:** $10,512
    - **Total Sick Days Cost:** $10,512

20. **Weekend Pay**
    - **Weekend Pay Cost:** $10,512
    - **Total Weekend Pay Cost:** $10,512

#### Total Manufacturing Costs:
- **Total Manufacturing Costs:** $2,162,089
- **Included:** $1,955,552
- **Port of Entry:** $30,003
- **Ship to:** $273,494
- **Total:** $2,162,089

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## Komori Lithrone LS829 Series 45 Perfector

**POWER:** Wet Offset

### BASE COST ABOVE INCLUDES
- Auto. plate changing; auto. blanket & ink roller washing; gripper pad adj.; KM5-IV; High Speed Start; deonized air in feeder & delivery; air bar over imp. cyl.; infeed brush assembly; vacuum infeed tapes; electronic sheet detect; adj. headstops; adf1 inking cores & damp. covered rollers; anti ghosting rollers; Konormatic dampening; reverse nip; hickey picker; 1-touch blanket clip; chrome plated plate, blanket and impress. cyl.; lateral, circuml. and diag. register; auto start/stop; pinnned cylinders; sheet deceler; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscil. timing adj.; variable ink dirctory washing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness & size presets; auto impress. cyl wash; auto perfector changeover; installation.

### AUXILIARY EQUIPMENT INCLUDES

#### BASE COST:

- **$2,524,417**

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<tbody>
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<td>2 weeks</td>
</tr>
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</table>

#### FUNCTION

- **LABOR COST-1 SHIFT**
  - Pressman: $52,428
  - Operator: $43,124

- **LABOR COST-2 SHIFTS**
  - Pressman: $108,002
  - Operator: $88,835

- **LABOR COST-3 SHIFTS**
  - Pressman: $164,642
  - Operator: $135,409

### TOTAL COSTS:

- **$237,494**

---

### ONE SHIFT

- **AREA A**
  - 1,603
  - 1,763
  - 1,936
  - 3,206
  - 3,525
  - 3,872
  - 4,809
  - 5,288
  - 5,808

### TWO SHIFTS

- **AREA A**
  - 549,629
  - 528,900
  - 508,143
  - 798,968
  - 760,202
  - 721,212
  - 1,025,712
  - 971,733
  - 916,466

### THREE SHIFTS

- **AREA A**
  - 2,524,417
  - 2,524,417
  - 2,524,417

### TOTAL MANUFACTURING COSTS

- **$2,524,417**

### ALL-INCLUSIVE COSTS

- **$2,524,417**

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**Sheddoff Offset**

**Presses: 8-Unit**

---

**Port of Entry**

- **88,339**
  - **37.5**
  - **$3,920**
  - **437.45**
  - **349.96**

**Welfare Benefits**

- (A) $90./wk.
- (B) $60./wk.
- (C) $45./wk.

**Area A**

- **353.04**
  - **$29,526**
  - **$295,396**
  - **$5,383**
  - **$760,202**
  - **$0**
  - **$95,552**
  - **$454.88**
  - **$1,603**
  - **$10,098**

**Area B**

- **216.21**
  - **$21,792**
  - **$273,494**
  - **$20,000**
  - **$2,800**
  - **$2,800**

**Area C**

- **216.21**
  - **$21,792**
  - **$273,494**
  - **$20,000**
  - **$2,800**
  - **$2,800**

---

**Area A**

- **1,520**
  - **$38,260**
  - **$382,602**
  - **$7,203**
  - **$971,733**
  - **$245.04**
  - **$300.21**
  - **$403.38**
  - **$347.15**

**Area B**

- **10**
  - **675,735**
  - **$245.04**
  - **$300.21**
  - **$403.38**
  - **$347.15**

**Area C**

- **10**
  - **675,735**
  - **$245.04**
  - **$300.21**
  - **$403.38**
  - **$347.15**
WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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**FUNCTION**

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<tr>
<th><strong>LABOR COST-1 SHIFT</strong></th>
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</tr>
<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$88,835</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Semi-auto; plate changing; auto, blanket and ink roller washing; gripper pad adj; KMS-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infed brush assembly; vacuum infused tapes; electronic sheet detect; adj. headstops; add'l inking cores & damp. covered rollers; anti ghosting rollers; Komotmatic dampening; reverse nip; hickey picker; 1-to-1 blanket & imp. chrome plated plate, blanket and impress. cyls.; lateral, circumf. and diag. register; auto start/stop; pinned cylinders; sheet deculer; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscil. timing adj.; variable ink ductor timing; hickey picking dampener; water level sensor; preset counter; stacking, job, and press counters; console backup; paper thickness preset; installation.

**AUXILIARY EQUIPMENT INCLUDES**

No. of Manned Hours Annually @ 100% Productivity

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts
2. Rent & Heat (A) @ $10.50 (B) $7.00 (C) $5.00 sq. ft.
3. Fire & Sprinkler Insurance (Rate $4.00 per M)...
4. Direct Labor...
5. Indirect Labor (Supervision & Misc) @ 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
6. Pension Fund (A) 5% (B) 3% (C) 2%
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
9. Workmen’s Compensation Insurance (Rate $40.00 per M)...
10. Power Cost @ $0.07 per kWh (based on hp rating)...
11. Power Cost @ $0.07 per kWh (based on kw rating)...
12. Direct Supplies (see instructions)...
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
14. Sub-total...
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
16. TOTAL MANUFACTURING COSTS...
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
18. TOTAL COSTS...
19. MANUFACTURING COSTS per productive hour @

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
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**TWO-shifts**

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<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
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<th>AREA A</th>
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**THREE-shifts**

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<td>6,762</td>
<td>8,000</td>
<td>8,588</td>
<td>9,208</td>
</tr>
</tbody>
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Sheeted Offset
Presses: 8-Unit
**Basin Lithrone LSX829 Series 45**

**SIZE:**
- 24.12" x 29.5"  
- 8 15,000 mph

**PERFECTING:**
- No

**COLORS:**
- 8

**RESOLUTION:**
- 690

**POWER:**
- hp: __
- kwhs: __

**PRODUCT CLASS/PROCESS:**
- Wet Offset

**BASE COST:**
- $2,376,000

**INTERFACES WITH:**
- Digital ink key data from prepress or previously saved jobs.

**AUXILIARY EQUIPMENT INCLUDES**

**BASE COST ABOVE INCLUDES**
- Auto plate changing; auto; blanket and ink roller washing; gripper pad adj; KMS-IV; High Speed Start; deionized air in feeder & delivery; air bar over imp. cyl.; infeed brush assembly; vacuum infeed tapes; electronic sheet detect; adj; headstops; adf/1 inking cores & damp. covered rollers; anti ghosting rollers; Komornik dampering; reverse nip; hickey picker; 1-touch blanket clamp; chrome plated plate, blanket and impress. cyl.; lateral, circulm. and diag. register; auto start/stop; pinned cylinders; sheet decurler; double sheet detect; wall loader; vac. side guide; auto tensioned roller adjust; oscil. timing adj.; variable ink ductor timing; hickey picking damper; water level sensor; preset counter; stacking job, and press counters; console backup; paper thickness and size presets; auto impress. cyl. wash; skeleton transfer cyl.; inker declutch; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

| Pressman | $52,428 | $48,840 | $43,915 |
| Operator | $43,124 | $38,260 | $32,099 |

**TOTAL:**
- $95,552
- $87,100
- $76,014

**ALL-INCLUSIVE COSTS**
- $196,837
- $76,014
- $273,494

**TOTAL INVEST.**: $2,376,000

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**Fixed Charges (Non-Variable)**

1. Depreciation 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...........
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...........
3. Fire & Sprinkler Insurance (Rate $4.00 per M)...........

**Variable Charges**

- Direct Labor...........
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...........
- Pension Fund (A) 5% (B) 3% (C) 2%...........
- Welfare Benefits (A) $90.00/wk. (B) $60.00/wk. (C) $45.00/wk...........
- Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%...........
- Worker's Compensation Insurance (Rate $4.00 per M)...........
- Power Cost @ $0.07 per kWh (based on hp rating)...........
- Power Cost @ $0.07 per kWh (based on kw rating)...........
- Direct Supplies (see instructions)...........
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...........
- Sub-total...........
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...........
- TOTAL MANUFACTURING COSTS...........

**TOTAL COSTS**
- $753,685
- $723,529
- $693,654

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$389.54</td>
<td>$340.11</td>
<td>$296.85</td>
</tr>
<tr>
<td>$284.62</td>
<td>$245.96</td>
<td>$212.00</td>
</tr>
<tr>
<td>$244.46</td>
<td>$210.23</td>
<td>$180.14</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$553.14</td>
<td>$482.95</td>
<td>$421.52</td>
</tr>
<tr>
<td>$398.93</td>
<td>$336.97</td>
<td>$290.45</td>
</tr>
<tr>
<td>$322.69</td>
<td>$277.50</td>
<td>$237.79</td>
</tr>
</tbody>
</table>

**75% productivity**
- 85% productivity
- 60% productivity

**60% productivity**
- 75% productivity

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### NAPL-2

**Sheetfed Offset**  
**Presses: 8-Unit**

**Expedx/Import Group, Ryobi 758 XLP Aa4**

#### BASE COST ABOVE INCLUDES
- Plate punch; semi-automatic plate loading; blanket and roller washers; console.

*Install. Cost Note:* Survey did not indicate installation cost information. Adjust your costs accordingly.

#### AUXILIARY EQUIPMENT INCLUDES
- Coater and Semi Long Delivery ($193,000).

---

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area C</th>
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<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<td>37.5</td>
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</tr>
<tr>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</table>

#### FUNCTION LABOR COST-1 SHIFT
- Pressman: $52,428  - $48,840  - $43,915
- Operator: $43,124  - $38,260  - $32,099

#### LABOR COST-2 SHIFTS
- Pressman: $108,002  - $100,610  - $90,465
- Operator: $88,835  - $78,816  - $66,124

#### LABOR COST-3 SHIFTS
- Pressman: $164,624  - $153,349  - $137,893
- Operator: $135,409  - $120,136  - $100,791

#### TOTAL: $95,552  - $87,100  - $76,014

#### TOTAL INVEST. : $1,894,309

---

#### ONE SHIFT
- **AREA A:**
  -ế 1,603
- **AREA B:**
  -ế 1,763
- **AREA C:**
  -ế 1,936

#### TWO SHIFTS
- **AREA A:**
  -ế 3,206
- **AREA B:**
  -ế 3,525
- **AREA C:**
  -ế 3,872

#### THREE SHIFTS
- **AREA A:**
  -ế 4,809
- **AREA B:**
  -ế 5,288
- **AREA C:**
  -ế 5,808

---

**Coater and Semi Long Delivery ($193,000).**

---

**Equip. Shipped F.O.B.: Kansas City, MO**

---

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Akiyama, J print (JP) 4P432 A4

SIZE: 23.063" X 32.25"  UNITS: 8  MAXIMUM SPEED: 13,000 iph  POWER: hp: -- kWhs: 46.5

PERFECTING: Yes  COLORS: 4 over 4  RESOLUTION: n/a  SQ. FT.: 800

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<tr>
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<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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</tr>
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</table>

FUNCTION

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

- Pressman: $52,428
- Operator: $43,124

TOTAL:

- $95,552
- $87,100
- $76,014
- $196,837
- $179,426
- $156,589
- $300,033
- $273,494
- $238,684

BASE COST ABOVE INCLUDES

Water circulators; hollow vibrator rollers; inker temperature control chillers; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; cylinder cocking system; ACC/Akiyama Color Control Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer’s plant (Continental USA); training.

AUXILIARY EQUIPMENT INCLUDES

- Auxiliary equipment includes:

- BASE COST ABOVE INCLUDES
- Water circulators; hollow vibrator rollers; inker temperature control chillers; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; cylinder cocking system; ACC/Akiyama Color Control Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer’s plant (Continental USA); training.

- AUXILIARY EQUIPMENT INCLUDES

- Auxiliary equipment includes:

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Akiyama, Bestech (BT) 840 A2

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
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</thead>
<tbody>
<tr>
<td>28.375&quot; X 40.125&quot;</td>
<td>8</td>
<td>13,000 mph</td>
<td>hp: -- kwhs: 86.1</td>
<td>Sheetfed Wet or Dry Offset</td>
<td>$2,261,000</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Water circulators; hollow vibrator rollers; IR dryer; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cocking system; ACC (Akiyama Color Control) console with inspection lighting unit; plate bender; paper size preset; impression preset; blanket washer; delivery and rigging to customer's plant (Continental USA); training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td><strong>FUNCTION</strong></td>
<td><strong>LABOR COST-1 SHIFT</strong></td>
<td><strong>LABOR COST-2 Shifts</strong></td>
<td><strong>LABOR COST-3 Shifts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$38,260</td>
<td>$32,099</td>
<td>$88,835</td>
<td>$78,816</td>
<td>$66,124</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
<td>$68,338</td>
<td>$59,888</td>
<td>$49,253</td>
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<td><strong>TOTAL:</strong></td>
<td>$128,726</td>
<td>$116,172</td>
<td>$99,923</td>
<td>$265,176</td>
<td>$239,314</td>
<td>$205,841</td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**


**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
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</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>526</td>
<td>576</td>
<td>608</td>
</tr>
<tr>
<td>1,051</td>
<td>1,142</td>
<td>1,210</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
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<td>5,288</td>
<td>5,808</td>
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</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>792</td>
<td>856</td>
<td>912</td>
</tr>
<tr>
<td>1,584</td>
<td>1,712</td>
<td>1,824</td>
</tr>
<tr>
<td>3,168</td>
<td>3,450</td>
<td>3,704</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

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Sheetfed Offset

Presses: 8-Unit

348

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**Mitsubishi, Diamond 3000 8-Color With Tower Coater & Extended Delivery**

**SIZE:** 27.94" X 40.13"  
**UNITS:** 8  
**MAXIMUM SPEED:** 16,000 iph  
**POWER:** hp: --  
**kWhs:** 100  
**PRODUCT CLASS/PROCESS:** Wet Offset  
**INTERFACES WITH:** PPC, CTP, and Plate Scanner.  
**BASE COST:** $2,350,000  
**AUXILIARY EQUIP.:** $100,000  
**INSTALL. (EST.):** Included  
**TOTAL INVE$: $2,450,000

**BASE COST ABOVE INCLUDES**

Comrac Central Oper; Makerready & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3- position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet counter; total revol. counter; sheet slow down wheels; static elim.; powder spray (deliv.); IR dryer for ink & coating; coating circ. pump; circulators for dampeners; blanket washers; install. and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
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<td>2 weeks</td>
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<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- Labor Cost - 1 Shift
- Labor Cost - 2 Shifts
- Labor Cost - 3 Shifts

**VARIABLE CHARGES**

1. Direct Labor.................................................................
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts.................................
3. Pension Fund (A) 5% (B) 3% (C) 2%.................................
4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............................
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.............................
6. Workers' Compensation Insurance (Rate $40.00 per M)..........................
7. Power Cost @ $0.07 per kWh (based on hp rating)..........................
8. Power Cost @ $0.07 per kWh (based on hp rating)..........................
9. Total Cost...........................................................................
10. Total Manufacturing Costs..............................................
11. Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts..........................
12. Total Costs........................................................................
13. Manufacturing Costs per productive hour @
14. 85% productivity...............................................................
15. 75% productivity.............................................................
16. 60% productivity.............................................................
17. All-Inclusive Costs...........................................................
18. 85% productivity.............................................................
19. 75% productivity.............................................................
20. 60% productivity.............................................................

**AUXILIARY EQUIPMENT INCLUDES**

SimuCChanger simultaneous plate changing system ($100,000).

**TOTAL:** $95,552 $87,100 $76,014 $196,837 $179,426 $156,589 $300,033 $273,494 $238,684

**Equip. Shipped F.O.B.:** Purchaser's Plant

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### BASE COST ABOVE INCLUDES

Comerc Central Oper., Makerready & Control; touch screen; semi-auto, plate changers; remote control running reg.; auto preset inking; microprocessor based controls; impress. press. preset; feed and deliv.; remote control front lay reg.; feedbar suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 paddle pallets (feeders); pile height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl.; positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 paddle pallets (deliv.); sheet & total revolt. counters; slow down wheels; static elim.; powder spray (deliv.); IR dryer; coater cilc., pump; chiller for ink vibrators; blanket washers; refrig. fount. solution circulators; install. and training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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</tr>
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### FUNCTION

- **LABOR COST-1 SHIFT**
  - Pressman: $52,428
  - Operator: $43,124
  - Helper: $33,174

- **LABOR COST-2 SHIFTS**
  - Pressman: $48,840
  - Operator: $32,099
  - Helper: $29,072

- **LABOR COST-3 SHIFTS**
  - Pressman: $43,915
  - Operator: $30,099
  - Helper: $23,909

### TOTAL:
- $128,726
- $265,176
- $205,841

### TOTAL INVEST.:
- $364,780
- $336,780
- $313,758

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Purchaser's Plant

### ONE SHIFT

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</table>

### TWOSHIFT

<table>
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### THREE SHIFTS

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<tr>
<td>3,872</td>
<td>4,230</td>
<td>4,707</td>
</tr>
<tr>
<td>5,808</td>
<td>6,332</td>
<td>7,000</td>
</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS...**

**TOTAL COSTS...**

**MANUFACTURING COSTS per productive hour @**

- **85% productivity**
  - 75% productivity
  - 60% productivity

**ALL-INCLUSIVE COSTS per productive hour @**

- **85% productivity**
  - 75% productivity
  - 60% productivity

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Sheeted Offset
Presses: 8-Unit

350
### BASE COST ABOVE INCLUDES

Comrad Central Oper. Makeredy & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position damp; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet & total revol. counters; slow down wheels; static elim.; powder spray (deliv.); IR dryer; coater circ. pump; chiller for ink vaporizers; blanket washers; refing. fount. solution circulators; install. and training.

### AUXILIARY EQUIPMENT INCLUDES

SimuChanger simultaneous plate changing system ($100,000).

### VARIABLE CHARGES

- **Direct Labor**:
  - 128,726 hours at $10.5 ($1,002,144)
- **Indirect Labor** (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts:
  - 25,745 hours at $10.5 ($269,791)
- **Pension Fund (A) 5% (B) 3% (C) 2%**:
  - 6,436 hours at $10.5 ($68,088)
- **Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk**:
  - 14,040 hours at $10.5 ($147,240)
- **Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%**:
  - 12,821 hours at $10.5 ($135,734)
- **Worker's Compensation Insurance (Rate $4.00 per hour)**:
  - 6,179 hours at $10.5 ($65,189)
- **Power Cost @ $0.07 per kWh (based on hp rating)**:
  - 0 hours at $10.5 ($0.00)
- **Power Cost @ $0.07 per kWh (based on kW rating)**:
  - 12,119 hours at $10.5 ($125,372)
- **Direct Supplies (see instructions)**:
  - 16,000 hours at $10.5 ($168,000)
- **Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts**:
  - 52,000 hours at $10.5 ($552,000)
- **Sub-total**:
  - $556,016
- **General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts**:
  - 83,402 hours at $10.5 ($879,203)

### TOTAL MANUFACTURING COSTS:

- 628,419 hours at $10.5 ($661,458)
- **Total Cost**:
  - $1,135,944

### 19. MANUFACTURING COSTS per productive hour @

- **85% productivity**:
  - $469.28 ($405.94)
  - $350.96 ($351.72)
  - $305.69 ($302.02)
  - $260.34 ($256.76)
  - $220.75

- **75% productivity**:
  - $531.85 ($460.96)
  - $397.76 ($398.62)
  - $341.15 ($341.92)
  - $295.06 ($291.00)
  - $253.18

- **60% productivity**:
  - $664.81 ($576.05)
  - $492.70 ($498.28)
  - $424.64 ($436.75)
  - $368.82 ($363.75)
  - $312.73

### 20. ALL-INCLUSIVE COSTS per productive hour @

- **85% productivity**:
  - $666.38 ($576.43)
  - $498.37 ($491.86)
  - $412.39 ($351.77)
  - $343.65 ($301.93)
  - $291.39

- **75% productivity**:
  - $755.23 ($653.29)
  - $564.81 ($546.11)
  - $467.38 ($398.67)
  - $389.47 ($357.11)
  - $310.24

- **60% productivity**:
  - $944.04 ($816.61)
  - $706.02 ($682.64)
  - $584.23 ($498.33)
  - $486.84 ($420.84)

---

**Mitsubishi, Diamond 3000R 8-Color With Tower Coater (Perforator)**

### SIZE:
- 28.38" X 40.13"
- 8
- 13,000/11,000 iph
- hp: --
- kWhs: 180

### PERFECTING:
- Yes
- 8
- (4/4)

### COLORS:
- n/a

### RESOLUTION:
- 1,100

### SQ. FT.:
- $137,893
- 36,478
- 5,576
- $571.63

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<td>37.5</td>
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<td>10</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

#### LABOR COST-1 SHIFT
- Pressman: $52,428
- Operator: $43,124
- Helper: $33,174

#### LABOR COST-2 SHIFTS
- Pressman: $48,840
- Operator: $38,260
- Helper: $29,072

#### LABOR COST-3 SHIFTS
- Pressman: $43,915
- Operator: $32,099
- Helper: $23,909

### TOTAL:
- $128,726
- $265,176
- $239,314
- $205,841
- $404,200
- $364,780
- $313,758

---

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351
### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
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<th>Area B</th>
<th>Area C</th>
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### Function Labor Cost-

<table>
<thead>
<tr>
<th>Pressman</th>
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<tbody>
<tr>
<td>Operator</td>
<td>$43,124</td>
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<tr>
<td>Helper</td>
<td>$33,174</td>
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### Labor Cost-1 Shift

<table>
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<tr>
<th>Pressman</th>
<th>$8,002</th>
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<tr>
<td>Operator</td>
<td>$7,816</td>
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<tr>
<td>Helper</td>
<td>$6,988</td>
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### Labor Cost-2 Shifts

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<tr>
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<td>Operator</td>
<td>$8,612</td>
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<tr>
<td>Helper</td>
<td>$7,886</td>
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### Labor Cost-3 Shifts

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<tr>
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<th>$10,040</th>
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<tbody>
<tr>
<td>Operator</td>
<td>$9,213</td>
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<tr>
<td>Helper</td>
<td>$8,578</td>
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</tbody>
</table>

### Total:

- $128,726
- $116,172
- $99,923
- $265,176
- $239,314
- $205,841
- $404,200
- $364,780
- $313,758

### One Shift

- **Area A**
  - Fixed Charges: $265,000
  - Variable Charges: $100,837
  - Total: $365,837

- **Area B**
  - Fixed Charges: $28,000
  - Variable Charges: $1,552,197
  - Total: $1,580,197

- **Area C**
  - Fixed Charges: $11,000
  - Variable Charges: $1,077,529
  - Total: $1,088,529

### Two Shifts

- **Area A**
  - Fixed Charges: $265,000
  - Variable Charges: $1,552,197
  - Total: $1,817,197

- **Area B**
  - Fixed Charges: $28,000
  - Variable Charges: $1,552,197
  - Total: $1,580,197

- **Area C**
  - Fixed Charges: $11,000
  - Variable Charges: $1,077,529
  - Total: $1,088,529

### Three Shifts

- **Area A**
  - Fixed Charges: $265,000
  - Variable Charges: $1,552,197
  - Total: $1,817,197

- **Area B**
  - Fixed Charges: $28,000
  - Variable Charges: $1,552,197
  - Total: $1,580,197

- **Area C**
  - Fixed Charges: $11,000
  - Variable Charges: $1,077,529
  - Total: $1,088,529

### Total Costs:

- $915,483
- $871,187
- $827,702
- $1,320,860
- $1,243,314
- $1,165,202
- $1,657,294
- $1,552,197
- $1,445,867

### Manufacturing Costs per Productive Hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Manufacturing Costs</th>
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</thead>
<tbody>
<tr>
<td>85%</td>
<td>$737.16</td>
</tr>
<tr>
<td>75%</td>
<td>$353.62</td>
</tr>
<tr>
<td>60%</td>
<td>$260.71</td>
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</tbody>
</table>

### All-Inclusive Costs per Productive Hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>All-Inclusive Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$671.89</td>
</tr>
<tr>
<td>75%</td>
<td>$581.52</td>
</tr>
<tr>
<td>60%</td>
<td>$494.17</td>
</tr>
</tbody>
</table>

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Perfection: Yes
Colors: 8
Resolution: n/a

Mitsubishi, Diamond 3000TP 8-Color With Two Tower Coaters (Perfector)

PERFECTING: Yes
COLORS: 8
RESOLUTION: n/a

BASE COST ABOVE INCLUDES
Comac Central Oper. Makereddy & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position damp; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet & total revol. counters; slow down wheels; static elim.; powder spray (deliv.); IR dryer; coater circ. pump; chiller for ink vibrators; blanket washers; refing. fount. solution circulators; install. and training.

AUXILIARY EQUIPMENT INCLUDES

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,428</td>
<td>$84,800</td>
<td>$108,002</td>
</tr>
<tr>
<td>Operator</td>
<td>$31,124</td>
<td>$26,200</td>
<td>$32,099</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
</tr>
</tbody>
</table>

TOTAL: $128,726 $116,172 $99,923 $265,176 $239,314 $205,841 $404,200 $364,780 $313,758

NAPL-2 $49,253 $3,485 $0

POWER:
- Mitsubishi, Diamond 3000TP 8-Color With Two Tower Coaters (Perfector)
- Presets: 8-Unit

VARIABLE CHARGES

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $275,000 $275,000 $275,000
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft
3. Fire & Sprinkler Insurance (Rate $4.00 per M) $11,000 $11,000 $11,000

TOTAL COSTS $938,348 $893,042 $850,484

MANUFACTURING COSTS per productive hour @ 85% productivity $484.98 $420.22 $363.96
75% productivity $464.76 $426.22 $360.98
60% productivity $420.05 $385.31 $336.51

ALL-INCLUSIVE COSTS per productive hour @ 85% productivity $688.67 $596.71 $516.82
75% productivity $583.94 $504.65 $438.73
60% productivity $476.27 $410.95 $361.17

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Sheetfed Offset
Presses: 8-Unit

Sheetfed Offset
Presses: 8-Unit

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Komori Lithrone LS840 Series 15

**BASE COST ABOVE INCLUDES**

- Semi-auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-Iv; deionized air in feeder & deliv.; auto infused brushes; nonstop feeder; vac. infused tapes; electronic sheet detect; damp, skew; unit air bars; anti ghosting; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyts.; lateral, circum, and tag, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampener; osc. damper bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infed pistons; remote infed cyl. cocking; remote fanout adj.; skeleton transfer cyt.; motorized release fan; installation.

**AUXILIARY EQUIPMENT INCLUDES**


---

**BASE COST:** $3,416,937

**PROJECT CLASS/PROCESS:** Wet Offset

**INTERFACES WITH:** Digital ink key data from prepress or previously saved jobs.

---

**BASE COST: $3,416,937**

**AUXILIARY EQUIP.:** n/a

**INSTALL. (EST.):** Included

**TOTAL INVEST.: $3,416,937**

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
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<tr>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

Pressman: $52,428
Operator: $43,124

**LABOR COST-2 SHIFTS**

Pressman: $48,840
Operator: $38,260

**LABOR COST-3 SHIFTS**

Pressman: $43,915
Operator: $32,099

---

**ALL-INCLUSIVE COSTS**

- Base Cost: $3,416,937
- Operating Cost: $303,000
- TOTAL: $273,494

---

**Sheetfed Offset Presses: 8-Unit**

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Sheetfed Offset

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Komori Lithrone LS840 Series 45

**SIZE:**
- 28.37" X 40.56"
- 8 units
- 15,000 iph

**POWER:**
- hp: --
- kwhs: 75

**PERFECTING:**
- No

**COLORS:**
- 8 colors

**RESOLUTION:**
- 925

**BASE COST ABOVE INCLUDES**
- Auto plate changing; auto; blanket washing; paper size preset; auto ink roller washing; KMS-IV; deionized air in feeder & deliv.; auto infused brushes; nonstop feeder; vac. infused tapes; electronic sheet detect; damp; skew; unit air bars; anti ghosting; Komorimatic dampering; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyts.; lateral, circum, arbor, bag, register; auto starting/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; remote infed cyl. cocking; remote fanout adj.; skeleton transfer cyts.; KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDCCS-II; Bladesetter; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

- Pressman: $52,428
- Operator: $43,124

**TOTAL:** $95,552

**ALL-INCLUSIVE COSTS**

- TOTAL MANUFACTURING COSTS: $3,521,937
- BASE COST: $3,521,937
- AUXILIARY EQUIP.: n/a
- INSTALL. (EST.): Included

**AUXILIARY EQUIPMENT INCLUDES**

- Equip. Shipped F.O.B.: Port of Entry

---

**Fixed Charges (Non-variable)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts: $352,194
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.: $9,713
3. Fire & Sprinkler Insurance (Rate $4.00 per M): $14,088

**Variable Charges**

4. Direct Labor: $95,552
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: $19,110
6. Pension Fund (A) 5% (B) 3% (C) 2%: $4,778
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk: $9,360
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%: $9,517
9. Worker’s Compensation Insurance (Rate $40.00 per M): $4,809
10. Power Cost @ $0.07 per kWh (based on kWh rating): $5,383
11. Power Cost @ $0.07 per kWh (based on hp rating): $5,049
12. Direct Supplies (see instructions): $16,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts: $70,439
14. Sub-total: $610,386
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: $91,558
16. TOTAL MANUFACTURING COSTS: $701,943
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts: $294,816
18. TOTAL COSTS: $996,760
19. MANUFACTURING COSTS per productive hour @ 85% productivity:
   - 75% productivity: $515,171
   - 60% productivity: $729,82
20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity:
   - 75% productivity: $731,54
   - 60% productivity: $1,036,35

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Sheeted Offset
Presses: 8-Unit

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WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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FUNCTION

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<th>$52,428</th>
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</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$43,124</td>
</tr>
</tbody>
</table>

LABOR COST-1 SHIFT

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$48,840</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$38,260</td>
</tr>
</tbody>
</table>

LABOR COST-2 SHIFTS

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$43,915</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$32,099</td>
</tr>
</tbody>
</table>

LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$108,002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$88,835</td>
</tr>
</tbody>
</table>

TOTAL: $95,552

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$196,837</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$156,589</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$300,033</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$273,494</td>
</tr>
</tbody>
</table>

TOTAL MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

VARIABLE CHARGES

| 4. Direct Labor                   | $95,552 |
| 5. Indirect Labor (Supervision & Misc.) | $112,500 |
| 6. Pension Fund (A) 5% (B) 3% (C) 2% | $19,110 |
| 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk | $9,360 |
| 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% | $9,517 |
| 9. Workmen's Compensation Insurance (Rate $40.00 per M.) | $14,939 |
| 10. Power Cost @ $0.07 per kWh (based on hp rating) | $4,586 |
| 11. Power Cost @ $0.07 per kWh (based on kw rating) | $6,059 |
| 12. Direct Supplies (see instructions) | $16,000 |
| 13. Repairs & Maint. @ 2% 1 shift/ 5% 2 shifts/ 10% 3 shifts | $74,694 |
| 14. Sub-total | $638,462 |
| 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts | $95,769 |
| 16. TOTAL MANUFACTURING COSTS | $734,232 |

| 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts | $308,377 |
| 18. TOTAL COSTS | $1,042,609 |

MANUFACTURING COSTS per productive hour @

| 85% productivity | $538.87 |
| 75% productivity | $475.10 |
| 60% productivity | $376.88 |

ALL-INCLUSIVE COSTS per productive hour @

| 85% productivity | $765.19 |
| 75% productivity | $674.60 |

MANUFACTURING COSTS per productive hour @

| 75% productivity | $674.60 |
| 60% productivity | $595.75 |
### Komori Lithrone LS840P Series 45

**BASE COST ABOVE INCLUDES**
- Auto plate changing; auto; blanket washing; paper size preset; auto ink roller washing; KMS-IV; deionized air in feeder & deliv.; auto infeed brushes; nonstop feeder; vac. infeed tapes; electronic sheet detect; damp, skew; unit air bars; anti-glitching; Komorimatric dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyts.; lateral, circum, arm, bag, register; auto start/tick; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDCS-II; Bladsetter; fully auto, perfector changeover; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

- **FUNCTION LABOR COST-1 SHIFT**
  - Pressman: $52,428
  - Operator: $43,124
- **FUNCTION LABOR COST-2 SHIFTS**
  - Pressman: $108,002
  - Operator: $88,835
- **FUNCTION LABOR COST-3 SHIFTS**
  - Pressman: $164,642
  - Operator: $135,409

**TOTAL:** $95,552

**AUXILIARY EQUIPMENT INCLUDES**

- **Eqpt. Shipped F.O.B.:** Port of Entry

---

**Sheetfed Offset**

**Presses: 8-Unit**

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FABRICATION & MANUFACTURING

Akiyama, J print (JP) 4P440 A4

SIZE: 28.375" X 40.562"
UNITS: 8
MAXIMUM SPEED: 13,000 iph
POWER: hp: -- kWhs: 61.8

PERFECTING: Yes 4 over 4
COLORS: n/a
RESOLUTION: 1,200
SQ. FT.: n/a

BASE COST ABOVE INCLUDES
Water circulators; hollow vibrator rollers; ink temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cocking system; cylinder cocking system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer’s plant (Continental USA); training.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION

LABOR COST-1 SHIFT

Pressman $52,428
Operator $43,124

LABOR COST-2 SHIFTS

Pressman $108,002
Operator $88,835

LABOR COST-3 SHIFTS

Pressman $164,624
Operator $135,409

TOTAL: $95,552

AUXILIARY EQUIPMENT INCLUDES

BASE COST:

$2,210,000

AUXILIARY EQUIP.:

n/a

INSTALL. (EST.):

Included

TOTAL INVEST. :

$2,210,000

ALL-INCLUSIVE COSTS per productive hour @ 85% productivity

$358.97

75% productivity

$430.16

60% productivity

$537.20

All-Inclusive Costs per productive hour @ 85% productivity

$538.97

75% productivity

$610.83

60% productivity

$763.53

Sheetfed Offset
Presses: 8-Unit

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### BASE COST ABOVE INCLUDES

Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays & sheet timing, pregripper, bearer contact, auto. impres. cyl. setting, adjust. ink oscill. timing, speed compans, damp. sheet brake, lateral [gger, fool keyboard, job card storage, double detect. pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interrupt sheet detect, RCI ink control, ink feed progr., auto. ink unit splitting, transferer, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decurl, central lubr., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES

**Note:** Available options, not included in this study are as follows: Coating Unit; APL Automatic Plate Loading; Pecom Press Manager.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

- Pressman: $52,428
- Operator: $43,124

### LABOR COST-2 SHIFTS

- Pressman: $48,840
- Operator: $32,000

### LABOR COST-3 SHIFTS

- Pressman: $43,915
- Operator: $23,488

### TOTAL COSTS

- $805,645

### ONE SHIFT TWO SHIFTS THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### MAN Roland, R 708

- **Size:** 29.13" x 40.94"
- **Units:** 8
- **Maximum Speed:** 16,000 iph
- **Power:** hp: --
- **Productivity:** --

### BASE COST

- **Cost:** $2,500,000
- **Auxiliary Equip.:** n/a
- **Install. (Est.):** Included
- **Total Invest.:** $2,500,000

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Sheetfed Offset

Presses: 8-Unit
MAN Roland, R 708 P

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.13&quot; X 40.94&quot;</td>
<td>8</td>
<td>16,000 lph</td>
<td>hp: --</td>
<td>Offset</td>
<td>$2,590,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>kwhs: 176</td>
<td>INTERFACES WITH:</td>
<td></td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>n/a</td>
<td>1,200</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**


**AUXILIARY EQUIPMENT INCLUDES**

Note: Available options, not included in this study are as follows: Coating Unit; APL Automatic Plate Loading; Pecom Press Manager.

<table>
<thead>
<tr>
<th>No. of Manned Hours Annually @ 100% Productivity</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FIXED CHARGES (NON-VARIABLE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts.........</td>
<td>$259,000 $259,000 $259,000 $323,750 $323,750 $323,750 $388,500 $388,500 $388,500</td>
<td></td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.</td>
<td>12,600 8,400 6,000 12,600 8,400 6,000 12,600 8,400 6,000</td>
<td></td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)........</td>
<td>10,360 10,360 10,360 10,360 10,360 10,360 10,360 10,360 10,360</td>
<td></td>
</tr>
</tbody>
</table>

**VARIABLE CHARGES**

| 4. Direct Labor........................................ | 95,552 87,100 76,014 196,837 179,426 156,589 300,033 273,494 238,684 |                                     |
| 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts................ | 19,110 17,420 15,203 29,526 26,914 23,488 30,003 27,349 23,868 |                                     |
| 6. Pension Fund (A) 5% (B) 3% (C) 2%................. | 4,778 2,613 1,520 9,842 5,383 3,132 15,002 8,205 4,774 |                                     |
| 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk........ | 9,360 6,240 4,680 18,720 12,480 9,360 28,080 18,720 14,040 |                                     |
| 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%........ | 9,517 8,675 7,571 18,788 17,126 14,046 27,393 24,970 21,792 |                                     |
| 9. Workers' Compensation Insurance (Rate $40.00 per M)........ | 4,586 4,181 3,649 9,055 8,254 7,203 13,201 12,034 10,502 |                                     |
| 10. Power Cost @ $0.07 per kWh (based on hp rating)........ | 0 0 0 0 0 0 0 0 0 |                                     |
| 11. Power Cost @ $0.07 per kWh (based on kw rating)........... | 11,849 13,028 14,311 23,699 26,057 28,622 35,548 39,085 42,933 |                                     |
| 12. Direct Supplies (see instructions).................. | 16,000 16,000 16,000 32,000 32,000 32,000 48,000 48,000 48,000 |                                     |
| 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........ | 51,800 51,800 51,800 84,750 64,750 64,750 77,700 77,700 77,700 |                                     |
| 14. Sub-total........................................ | 504,513 484,817 466,108 749,920 714,899 680,200 986,421 936,817 887,153 |                                     |
| 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts................ | 75,677 72,723 69,916 93,741 89,362 85,025 98,642 93,682 88,715 |                                     |
| 16. TOTAL MANUFACTURING COSTS...................... | 580,190 557,540 536,024 843,667 804,262 765,225 1,085,063 1,030,498 975,968 |                                     |

**TOTAL COSTS**

| 18. TOTAL COSTS........................................ | $823,869 $791,707 $761,154 $1,155,823 $1,101,839 $1,048,399 $1,423,283 $1,360,259 $1,288,146 |                                     |
| 19. MANUFACTURING COSTS per productive hour @ 85% productivity | $425.81 $372.16 $357.73 $309.59 $268.42 $232.51 $265.45 $229.29 $197.67 |                                     |
| 19. MANUFACTURING COSTS per productive hour @ 75% productivity | 482.59 421.78 386.16 350.87 304.21 263.51 300.84 259.86 224.03 |                                     |
| 19. MANUFACTURING COSTS per productive hour @ 60% productivity | 603.23 527.22 461.45 438.59 380.27 329.38 376.05 324.82 280.04 |                                     |
| 20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity | $604.65 $528.47 $462.54 $424.14 $367.74 $318.53 $350.39 $302.66 $260.93 |                                     |
| 20. ALL-INCLUSIVE COSTS per productive hour @ 75% productivity | 685.27 598.93 524.21 480.69 416.77 361.01 397.11 343.01 295.72 |                                     |
| 20. ALL-INCLUSIVE COSTS per productive hour @ 60% productivity | 856.59 748.66 655.26 600.86 520.96 451.26 496.39 428.77 369.65 |                                     |
KBA North America, Rapida 105

29" X 41"  8  18,000 iph
hp: --  kWhs: 68

PERFECTING:  No (Optional)
COLORS:  8  n/a
RESOLUTION:  1,200

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION

LABOR COST-1 SHIFT

Pressman  $52,428
Operator    $43,124

LABOR COST-2 SHIFTS

$108,002   $106,100   $90,465
$164,624   $153,358   $137,893

LABOR COST-3 SHIFTS

$196,837   $179,426   $156,589
$300,033   $273,494   $238,684

TOTAL COSTS:

$95,552   $87,100   $76,014

BASE COST: $3,039,000

MANUFACTURING COSTS

TOTAL MANUFACTURING COSTS: $1,183,766

POWER

513,002  644.61  18,720  455,850
515.69   513,002  18,720  455,850

WELFARE BENEFITS

(A) $90./wk.  (B) $60./wk.  (C) $45./wk.
9,360     6,240    3,525
9,055     6,240    3,525

INDEMNITY

(1) 455,020  18,720  14,040
(2) 5,034    3,525    2,500
(3) 15,002   3,525    2,500

REPAIRS & MAINT.

361  8  2 weeks
361  2 weeks

TOTAL MANUFACTURING COSTS:

$1,183,766

TOTAL INVEST.:

$3,039,000

AUXILIARY EQUIPMENT INCLUDES

### Base Cost Above Includes

Prinect CP2000 Center Press Control with AxisControl and reporting; Preset Plus Feeder with non-stop delivery and pre-loading device; Eltex Antistatic Package for feeder and delivery; enhanced air transfer; Autoplate Advanced; HyColor combined inking and dampening unit; separate fountain roller temperature control; CombStar inking unit temperature control; automatic inking roller wash-up; modular automatic impression cylinder and blanket wash-up devices with cloth; coating unit with chamber doctor blade; Preset Plus delivery with X2 extension and DryStar 3000 combination dryer; PowderStar AP 500; CleanStar Compact; systemservice 36 plus; training; installation.

### Auxiliary Equipment Includes

- **PowderStar AP 500**
- **CleanStar Compact;** extension and DryStar 3000 combination dryer;
- **modular automatic impression cylinder and blanket temperature control;**
- **automatic inking roller wash-up;**
- **inking and dampening unit; separate fountain roller air transfer;**
- **Autoplate Advanced;**
- **Hycolor combined Antistatic Package for feeder and delivery;**
- **enhanced non-stop delivery and pre-loading device;**
- **Eltex AxisControl and reporting;**
- **Preset Plus Feeder with**
- **X2 extension and DryStar 3000 combination dryer;**
- **PowderStar AP 500; CleanStar Compact;**
- **systems 36 plus;**
- **training; installation.**

## Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,428</td>
<td>$48,840</td>
<td>$43,915</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$38,260</td>
<td>$32,099</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
</tr>
</tbody>
</table>

### Total:

- **$128,726**
- **$116,172**
- **$99,923**

## One Shift

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,763</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,936</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Two Shifts

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
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<td></td>
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<tr>
<td>3,525</td>
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<td></td>
</tr>
<tr>
<td>3,872</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

## Three Shifts

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
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<td></td>
</tr>
<tr>
<td>5,808</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Total Costs

**$1,142,034**

## Manufacturing Costs per Productive Hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Hourly Manufacturing Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$590.25</td>
</tr>
<tr>
<td>75%</td>
<td>$668.95</td>
</tr>
<tr>
<td>60%</td>
<td>$836.19</td>
</tr>
</tbody>
</table>

## All-Inclusive Costs per Productive Hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Hourly Manufacturing Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$838.16</td>
</tr>
<tr>
<td>75%</td>
<td>$949.91</td>
</tr>
<tr>
<td>60%</td>
<td>$1,187.39</td>
</tr>
</tbody>
</table>
### KBA North America, Rapida 130a

**Size:** 38" X 51"  
**Units:** 8  
**Maximum Speed:** 15,000 iph  
**Power:** hp: --  
**KWhs:** 96.9

**Base Cost:** $4,806,000

**Auxiliary Equip.:** n/a

**Install. (Est.):** Included

**Total Invest.:** $4,806,000

---

### Base Cost Above Includes

- Rapida 130: automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cocking; installation and training.

---

### Auxiliary Equipment Includes


---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
<td>35</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
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</tbody>
</table>

#### Function

- **Labor Cost-1 shift**
  - Pressman: $52,909
  - Operator: $43,416
  - Helper: $33,174

- **Labor Cost-2 shifts**
  - Pressman: $44,229
  - Operator: $32,317
  - Helper: $29,072

- **Labor Cost-3 shifts**
  - Pressman: $51,000
  - Operator: $49,253
  - Helper: $38,519

#### Total:

- **$129,499**
- **$116,779**
- **$100,455**

---

### One Shift

<table>
<thead>
<tr>
<th>Area A</th>
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<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

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### Two Shifts

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### Three Shifts

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<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

### Total:

- **$331,429**

---

### One Year

- **Pension Fund** (A) 5% (B) 3% (C) 2%
- **Payroll Taxes** (Soc. Sec. & Unemploy. Insurance) 8.3%
- **Welfare Benefits** (A) $90./wk. (B) $60./wk. (C) $45./wk
- **Rent & Heat** (A) $10.50 (B) $7.00 (C) $5.00 sq. ft
- **Indirect Labor** (Supervision & Misc.) 20%
- **General Factory**—15% (A) 12.5% (B) 10% (C)
- **Administrative & Selling Overhead**—42%
- **Direct Supplies** (see instructions)
- **Direct Labor** (Supervision & Misc.) 20%
- **General Factory**—15%
- **Indirect Labor** (Supervision & Misc.) 20%
- **General Factory**—15%
- **Indirect Labor** (Supervision & Misc.) 20%
- **General Factory**—15%

---

### Total Costs

- **$1,353,219**
- **$1,206,079**
- **$1,289,899**
- **$1,748,601**
- **$1,667,725**
- **$2,227,089**
- **$2,117,482**
- **$2,007,694**

---

### Manufacturing Costs per productive hour @

- **85% productivity**
  - $699.40
  - $613.95
  - $539.48

- **75% productivity**
  - $792.66
  - $695.81
  - $611.41

- **60% productivity**
  - $990.82
  - $896.79
  - $764.27

---

### All-Inclusive Costs per productive hour @

- **85% productivity**
  - $993.15
  - $871.81
  - $766.06

- **75% productivity**
  - $1,125.57
  - $988.05
  - $868.21

---

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Sheetfed Offset

Presses: 8-Unit

363
<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
<th>WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lays &amp; sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compens. damp, sheet brake, lateral [jigger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink input feed prog., auto. ink unit splitting, transferers, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decurl, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder &amp; deliv. load boards, self diagons., spare parts, tach., washup device, water recirc., install., training.</td>
<td>Provisions</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>FUNCTION</td>
<td>LABOR COST-1 SHIFT</td>
</tr>
<tr>
<td>Pressman</td>
<td>$52,909</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,416</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$129,499</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUXILIARY EQUIPMENT INCLUDES</th>
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<td>Note: Available options, not included in this study are as follows: Coating Module, Pecom Press Manager.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIXED CHARGES (NON-VARIABLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts……</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)</td>
</tr>
</tbody>
</table>

VARIABLE CHARGES

1. Direct Labor: $129,499
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: $25,900
3. Pension Fund (A) 5% (B) 3% (C) 2%: $6,475
4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk: $14,040
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%: $12,898
6. Workman's Compensation Insurance (Rate $40.00 per M): $6,216
7. Power Cost @ $0.07 per kWh (based on kWh rating): $15,620
8. Direct Supplies (see instructions): $17,000
9. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts: $75,000
10. Sub-total: $70,347
11. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: $106,102
12. TOTAL MANUFACTURING COSTS: $813,450
13. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts: $341,649
14. TOTAL COSTS: $1,155,098
15. MANUFACTURING COSTS per productive hour @ 85% productivity: $597.01
16. 75% productivity: $676.61
17. 60% productivity: $845.76
18. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity: $847.75
19. 75% productivity: $960.78
20. 60% productivity: $1,200.98

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## Mitsubishi, Diamond 5000 8-Color With Tower Coater & Extended Delivery

### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
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<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function

- **Labor Cost - 1 Shift**: Pressman $52,909, Operator $43,416, Helper $33,174
- **Labor Cost - 2 Shifts**: Pressman $108,993, Operator $89,437, Helper $68,338
- **Labor Cost - 3 Shifts**: Pressman $161,112, Operator $91,112, Helper $49,253

### Total:

- **$129,499**
- **$116,779**
- **$100,455**
- **$266,768**
- **$240,565**
- **$206,397**
- **$406,627**
- **$366,686**
- **$315,429**

---

## Size

- **36.53” X 51.19”**

## Units

- **8**

## Maximum Speed

- **15,000 iph**

## Power

- **hp: -- kWhs: 170**

## Fixed Charges (Non-Variable)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $352,500 $352,500 $352,500
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. $19,950 $13,300 $9,500
3. Fire & Sprinkler Insurance (Rate $4.00 per M) $13,823 $10,005 $7,000

## Variable Charges

- **Direct Labor**: 124,999 $116,779 100,455
- **Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts**: $25,900 $23,356 $14,100
- **Pension Fund (A) 5% (B) 3% (C) 2%**: $6,475 $3,503 $2,009
- **Wellness Benefits (A) $90/kw. (B) $60/kw. (C) $45/kw.**: $14,040 $9,360 $7,020
- **Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%**: $12,898 $11,631 $10,055
- **Worker's Compensation Insurance (Rate $4.00 per M)** $6,216 $5,605 $4,822
- **Power Cost @ $0.07 per kWh (based on hp rating)** $11,445 $12,584 $13,823
- **Direct Supplies (see instructions)** $17,000 $17,000 $17,000
- **Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts**: $70,500 $70,500 $70,500
- **Sub-total**: $388,523 $350,219 $321,825
- **General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts**: $102,078 $97,533 $93,274
- **Total Manufacturing Costs**: $590,601 $547,752 $515,099

## Total Costs

- **$1,111,294**
- **$1,061,808**
- **$1,015,441**
- **$1,549,922**
- **$1,467,166**
- **$1,386,237**
- **$1,914,671**
- **$1,804,401**
- **$1,695,336**

## Manufacturing Costs per Productive Hour

- **At 85% Productivity**: $574.37 $499.13 $434.55
- **At 75% Productivity**: $650.95 $565.68 $492.49
- **At 60% Productivity**: $813.68 $707.09 $615.62

## All-Inclusive Costs

- **At 85% Productivity**: $815.60 $708.75 $617.06
- **At 75% Productivity**: $924.35 $803.26 $699.34

---

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MAN Roland, R 908-6

SIZE: 40.16' X 55.9"  UNITS: 8  MAXIMUM SPEED: 14,000 r.p.m.
POWER: hp: --  kwhs: 232

PERFECTING: No  COLORS: 8
RESOLUTION: n/a  SQ. FT.: 1,500

PRODUCT CLASS/PROCESS: Offset

BASE COST: $3,900,000

AUXILIARY EQUIP.: n/a

INSTALL. (EST.): Included

TOTAL INVEST.: $3,900,000

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
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<th>Area A</th>
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<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>2 weeks</td>
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<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION LABOR COST-1 SHIFT

Pressman: $52,909  Operator: $43,416  Helper: $33,174

FUNCTION LABOR COST-2 SHIFTS

Total: $266,768  Port of Entry: $1,097,158

FUNCTION LABOR COST-3 SHIFTS

Total: $406,627

BASE COST ABOVE INCLUDES

Sheet holder, diag. sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front lands & sheet timing, prepress, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compen. damp, sheet brake, lateral jigger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control. PPL auto. plate loading, pin reg., plate cyl. positioning, preburned blankets, auto. blanket wash, interunit sheet detect, RCI ink control, ink feed prog., auto. ink unit splitting, transferers, remote running reg., auto. formatting of deliv., non stop dev., powder spray, sheet decut, central lub., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos., spare parts, tach., washup device, water recirc., install., training.

AUXILIARY EQUIPMENT INCLUDES

Note: Available options, not included in this study are as follows: Coating Module, Pecom Press Manager.

VARIABLE CHARGES

1. Direct Labor...
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
3. Pension Fund (A) 5%  (B) 3%  (C) 2%
4. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk...
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
6. Workmen's Compensation Insurance (Rate $40.00 per M).
7. Depreciation 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
8. Rent & Heat (A)$10.50 (B)$7.00 (C)$5.00 sq. ft.
9. Fire & Sprinkler Insurance (Rate $4.00 per M).
10. Power Cost @ $0.07 per kWh (based on hp rating)
11. Power Cost @ $0.07 per kWh (based on kw rating)
12. Direct Supplies (see instructions)...
13. Repairs & Maint. @ 1% 2 shift/ 2.5% 2 shifts/ 3% 3 shifts...
14. Sub-total...
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
16. TOTAL MANUFACTURING COSTS...
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
18. TOTAL COSTS...
19. MANUFACTURING COSTS per productive hour @
   85% productivity
   75% productivity
   60% productivity
20. ALL-INCLUSIVE COSTS per productive hour @
   85% productivity
   75% productivity
   60% productivity

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## KBA North America, Rapida 142

### BASE COST ABOVE INCLUDES

- Rapida 142: automatic washing for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

### AUXILIARY EQUIPMENT INCLUDES


### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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### FUNCTION LABOR COST-1 SHIFT

- Pressman
  - $52,909
- Operator
  - $43,416
- Helper
  - $33,174

### FUNCTION LABOR COST-2 SHIFTS

- Pressman
  - $44,229
- Operator
  - $32,317
- Helper
  - $23,909

### FUNCTION LABOR COST-3 SHIFTS

- Pressman
  - $91,327
- Operator
  - $79,349
- Helper
  - $49,253

### TOTAL: $129,499 $116,779 $100,455

### MANUFACTURING COSTS

- Direct Labor
  - 1,131.77
- Power Cost @ $0.07 per kWh (based on kWh rating)
  - 1,838,070
- Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts
  - 1,763

### ONE SHIFT TWO SHIFTS THREE SHIFTS

<table>
<thead>
<tr>
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<th>AREA C</th>
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<td>5,808</td>
</tr>
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</table>

### ALL-INCLUSIVE COSTS

- Presses: 8-Unit

### INSTALL. (EST.):

- Included

### TOTAL INVEST.:

- $4,830,000

---

**Note:** All figures and costs are approximate and subject to change based on specific conditions and requirements.
### Mitsubishi, Diamond 6000 8-Color With Tower Coater & Extended Delivery

**Size:** 56.69” X 40.47”

**Units:** 8

**Maximum Speed:** 14,000 p/h

**Power:** hp: --

**Product Class/Process:** Wet Offset

**Base Cost:** $4,300,000

**Auxiliary Equip.:** n/a

**Install. (Est.):** Included

**Total Invest.:** $4,300,000

### Base Cost Above Includes

- Comac Central Oper, Makeready & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeders); plate height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet counter; total revol. counter; sheet slow down wheels; static elim.; powder spray (deliv.); IR dryer for ink & coating; coating circ. pump; circulators for dampeners; blanket washers; install. and training.

### Auxiliary Equipment Includes

- Equip. Shipped F.O.B.: Purchaser's Plant

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function Labor Cost-1 Shift

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,909</td>
<td>$49,188</td>
<td>$44,229</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,416</td>
<td>$38,519</td>
<td>$32,317</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
</tr>
</tbody>
</table>

### Labor Cost-2 Shifts

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll Taxes</td>
<td>$91,112</td>
<td>$83,112</td>
<td>$77,349</td>
</tr>
<tr>
<td>Indirect Labor</td>
<td>$59,888</td>
<td>$56,733</td>
<td>$51,297</td>
</tr>
<tr>
<td>Pension Fund</td>
<td>$31,041</td>
<td>$28,371</td>
<td>$24,678</td>
</tr>
<tr>
<td>General Factory</td>
<td>$101,475</td>
<td>$94,374</td>
<td>$87,878</td>
</tr>
</tbody>
</table>

### Labor Cost-3 Shifts

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll Taxes</td>
<td>$172,000</td>
<td>$159,112</td>
<td>$151,519</td>
</tr>
<tr>
<td>Indirect Labor</td>
<td>$112,750</td>
<td>$107,278</td>
<td>$100,086</td>
</tr>
<tr>
<td>Pension Fund</td>
<td>$53,700</td>
<td>$50,371</td>
<td>$47,086</td>
</tr>
<tr>
<td>General Factory</td>
<td>$220,950</td>
<td>$209,834</td>
<td>$201,630</td>
</tr>
</tbody>
</table>

### Total:

- $129,499
- $116,779
- $100,455
- $266,768
- $240,565
- $206,937
- $406,627
- $366,686
- $315,429

### Cost Per MCF

- $127,780
- $1,227,469
- $1,180,234
- $1,747,706
- $1,663,547
- $1,582,196
- $2,138,419
- $2,072,120
- $1,917,918

### Total Costs

- $1,278,770
- $1,227,469
- $1,180,234
- $1,747,706
- $1,663,547
- $1,582,196
- $2,138,419
- $2,072,120
- $1,917,918

### Manufacturing Costs Per Productive Hour @

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$660.92</td>
<td>$577.00</td>
<td>$505.97</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$749.05</td>
<td>$653.93</td>
<td>$572.42</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$936.31</td>
<td>$817.41</td>
<td>$715.52</td>
</tr>
</tbody>
</table>

### All-Inclusive Costs Per Productive Hour @

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$938.51</td>
<td>$819.34</td>
<td>$717.21</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$1,063.65</td>
<td>$928.48</td>
<td>$812.83</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$1,329.56</td>
<td>$1,160.17</td>
<td>$1,016.04</td>
</tr>
</tbody>
</table>

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Sheetfed Offset

Presses: 8-Unit

368
KBA North America, Rapida 162

**BASE COST ABOVE INCLUDES**

Rapida 162: automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cooking; installation and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Function</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$53,283</td>
<td>$49,585</td>
<td>$44,587</td>
<td>$109,763</td>
<td>$102,145</td>
<td>$91,849</td>
<td>$167,309</td>
<td>$155,697</td>
<td>$140,003</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,699</td>
<td>$38,847</td>
<td>$32,602</td>
<td>$90,020</td>
<td>$80,025</td>
<td>$67,160</td>
<td>$137,215</td>
<td>$121,980</td>
<td>$102,370</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
<td>$68,338</td>
<td>$59,888</td>
<td>$49,253</td>
<td>$104,166</td>
<td>$91,286</td>
<td>$75,074</td>
</tr>
</tbody>
</table>

**TOTAL:** $130,156 $117,504 $101,098 $268,121 $242,058 $208,262 $408,690 $368,963 $317,448

**Auxiliary Equipment includes**

- Setup and training.

**Fixed Charges**

<table>
<thead>
<tr>
<th>Item</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts</td>
<td>$510,700</td>
<td>$510,700</td>
<td>$510,700</td>
<td>$638,375</td>
<td>$638,375</td>
<td>$638,375</td>
<td>$766,050</td>
<td>$766,050</td>
<td>$766,050</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft</td>
<td>18,900</td>
<td>12,600</td>
<td>9,000</td>
<td>18,900</td>
<td>12,600</td>
<td>9,000</td>
<td>18,900</td>
<td>12,600</td>
<td>9,000</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)</td>
<td>20,428</td>
<td>20,428</td>
<td>20,428</td>
<td>20,428</td>
<td>20,428</td>
<td>20,428</td>
<td>20,428</td>
<td>20,428</td>
<td>20,428</td>
</tr>
</tbody>
</table>

**Variable Charges**

<table>
<thead>
<tr>
<th>Item</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Direct Labor</td>
<td>130,156</td>
<td>117,504</td>
<td>101,098</td>
<td>268,121</td>
<td>242,058</td>
<td>208,262</td>
<td>408,690</td>
<td>368,963</td>
<td>317,448</td>
</tr>
<tr>
<td>5. Indirect Labor (Supervision &amp; Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts</td>
<td>26,031</td>
<td>23,501</td>
<td>20,220</td>
<td>40,218</td>
<td>36,309</td>
<td>31,239</td>
<td>40,869</td>
<td>36,896</td>
<td>31,745</td>
</tr>
<tr>
<td>6. Pension Fund (A) 5% (B) 3% (C) 2%</td>
<td>6,508</td>
<td>5,255</td>
<td>2,022</td>
<td>13,406</td>
<td>7,262</td>
<td>4,165</td>
<td>20,434</td>
<td>11,069</td>
<td>6,349</td>
</tr>
<tr>
<td>7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk</td>
<td>14,040</td>
<td>9,360</td>
<td>7,020</td>
<td>28,080</td>
<td>16,720</td>
<td>14,040</td>
<td>42,120</td>
<td>28,080</td>
<td>21,060</td>
</tr>
<tr>
<td>8. Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
<td>12,964</td>
<td>11,703</td>
<td>10,069</td>
<td>25,592</td>
<td>23,104</td>
<td>19,879</td>
<td>37,313</td>
<td>33,686</td>
<td>28,983</td>
</tr>
<tr>
<td>9. Workmen's Compensation Insurance (Rate $40.00 per M)</td>
<td>6,247</td>
<td>5,640</td>
<td>4,883</td>
<td>12,334</td>
<td>11,135</td>
<td>9,580</td>
<td>17,982</td>
<td>16,234</td>
<td>13,988</td>
</tr>
<tr>
<td>10. Power @ $0.07 per kWh</td>
<td>6,490</td>
<td>7,136</td>
<td>7,583</td>
<td>12,980</td>
<td>14,172</td>
<td>15,677</td>
<td>19,471</td>
<td>21,408</td>
<td>25,515</td>
</tr>
<tr>
<td>11. Power Cost @ $0.07 per kWh (based on hp rating)</td>
<td>18,000</td>
<td>18,000</td>
<td>18,000</td>
<td>36,000</td>
<td>36,000</td>
<td>36,000</td>
<td>54,000</td>
<td>54,000</td>
<td>54,000</td>
</tr>
<tr>
<td>12. Repairs &amp; Maint. @ 15% 1 shift/ 25% 2 shifts/ 35% 3 shifts</td>
<td>102,140</td>
<td>102,140</td>
<td>102,140</td>
<td>237,175</td>
<td>228,765</td>
<td>237,175</td>
<td>353,360</td>
<td>336,900</td>
<td>353,360</td>
</tr>
<tr>
<td>13. Total Manufacturing Costs</td>
<td>1,003,495</td>
<td>968,573</td>
<td>935,396</td>
<td>2,339,374</td>
<td>2,246,430</td>
<td>2,326,170</td>
<td>3,789,421</td>
<td>3,647,393</td>
<td>3,724,933</td>
</tr>
</tbody>
</table>

**18. TOTAL COSTS:** $1,242,963 $1,375,374 $1,632,263 $1,914,402 $1,830,909 $1,748,271 $2,322,427 $2,210,851 $2,099,237

**19. MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>Productivity</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$736.48</td>
<td>$646.52</td>
<td>$568.42</td>
</tr>
<tr>
<td>75% productivity</td>
<td>834.68</td>
<td>732.73</td>
<td>644.21</td>
</tr>
<tr>
<td>60% productivity</td>
<td>1,043.35</td>
<td>915.91</td>
<td>805.27</td>
</tr>
</tbody>
</table>

**20. ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>Productivity</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$1,045.81</td>
<td>$918.06</td>
<td>$807.16</td>
</tr>
<tr>
<td>75% productivity</td>
<td>1,185.25</td>
<td>1,040.47</td>
<td>914.78</td>
</tr>
<tr>
<td>60% productivity</td>
<td>1,481.56</td>
<td>1,300.59</td>
<td>1,143.48</td>
</tr>
</tbody>
</table>
### KBA North America, Rapida 162A

#### BASE COST ABOVE INCLUDES

Rapida 162; automatic wash-up for plate, blanket, impression, and rollers; auto preset package; semi-automatic plate changers; pin register; cocking; installation and training.

#### AUXILIARY EQUIPMENT INCLUDES

AUXILIARY EQUIPMENT INCLUDES

**PERFECTING:**

<table>
<thead>
<tr>
<th>Colors</th>
<th>Resolution</th>
<th>Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>8</td>
<td>1,800</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS**

- **LABOR COST-1 SHIFT**
  - Pressman: $53,283
  - Operator: $43,699
  - Helper: $33,174
  - **TOTAL:** $130,156

- **LABOR COST-2 SHIFTS**
  - **TOTAL:** $268,121

- **LABOR COST-3 SHIFTS**
  - **TOTAL:** $408,690

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $53,283
- Operator: $43,699
- Helper: $33,174
- **TOTAL:** $130,156

**FUNCTION LABOR COST-2 SHIFTS**

- **TOTAL:** $268,121

**FUNCTION LABOR COST-3 SHIFTS**

- **TOTAL:** $408,690

**TOTAL COSTS**

- **TOTAL:** $1,143,390

**MANUFACTURING COSTS per productive hour @ 85% productivity**

- 75% productivity: $746.01
- 60% productivity: $1,056.84

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

- 75% productivity: $1,059.33
- 60% productivity: $1,500.72

---

**Note:**

- All CTP systems.
- Interfaces with: Wet Offset/Waterless Offset
- All-inclusive costs
- Install. (Est.): Included
- Total invest.: $5,198,000
- Equipment shipped F.O.B.: Delivered and installed
KBA North America, Rapids 205

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>59&quot; X 80&quot;</td>
<td>8</td>
<td>9,000 iph</td>
<td>--</td>
<td>Wet Offset/Waterless Offset</td>
<td>$8,943,000</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Rapids 205; automatic wash-up for plate blanket and impression rollers; auto preset; semi-automatic plate change; pin register; cocking; training and installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

| Pressman | $53,283 | $49,585 | $44,587 | $109,763 | $102,145 | $91,849 | $167,309 | $155,697 | $140,003 |
| Operator | $43,699 | $38,847 | $32,602 | $90,020 | $80,025 | $67,160 | $137,215 | $121,980 | $102,370 |

**TOTAL:** $96,982 $88,432 $77,189 $199,783 $182,170 $159,009 $304,523 $277,676 $242,373

**AUXILIARY EQUIPMENT INCLUDES**


**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS...**

| 1,491,312 | 1,465,397 | 1,441,518 | 1,474,329 | 1,603,899 | 1,861,585 | 2,371,681 | 2,312,379 | 2,253,633 |

**TOTAL COSTS...**

$2,177,664 $2,080,864 $2,046,955 $2,667,841 $2,608,342 $2,550,385 $3,130,620 $3,052,380 $2,974,796

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$1,094.50</th>
<th>$978.15</th>
<th>$875.98</th>
<th>$714.59</th>
<th>$635.43</th>
<th>$565.63</th>
<th>$580.21</th>
<th>$514.51</th>
<th>$456.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>$1,240.43</td>
<td>$1,158.57</td>
<td>$992.78</td>
<td>$809.87</td>
<td>$720.15</td>
<td>$641.05</td>
<td>$657.57</td>
<td>$583.11</td>
<td>$517.36</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$1,550.54</td>
<td>$1,385.72</td>
<td>$1,240.98</td>
<td>$1,012.34</td>
<td>$900.19</td>
<td>$801.31</td>
<td>$821.96</td>
<td>$728.88</td>
<td>$646.70</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$1,554.19</th>
<th>$1,388.99</th>
<th>$1,243.90</th>
<th>$978.99</th>
<th>$870.54</th>
<th>$774.91</th>
<th>$765.87</th>
<th>$679.15</th>
<th>$602.58</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>$1,761.42</td>
<td>$1,574.18</td>
<td>$1,409.75</td>
<td>$1,109.52</td>
<td>$986.61</td>
<td>$878.25</td>
<td>$867.99</td>
<td>$769.70</td>
<td>$682.92</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$2,201.77</td>
<td>$1,967.72</td>
<td>$1,762.19</td>
<td>$1,386.90</td>
<td>$1,233.26</td>
<td>$1,097.79</td>
<td>$1,084.99</td>
<td>$962.12</td>
<td>$853.65</td>
</tr>
</tbody>
</table>
### Heidelberg Speedmaster SM 74-8-P+L

**BASE COST ABOVE INCLUDES**
- CP2000 monitoring and self diagnostic system
- Machine Info. Display (MID) at feeder & deliv.; remote control of circumfl. lateral & diag. register
- Single suction belt feed; integrated preload device; adjust. side guide via CP2000 / CPTronic; digital & roll cont. damp. damp. system; auto. ink. inking roller; blanket & impress. cylin. wash-up devices; remote control ink keys; adjust. ink flow timing; nonstop device w/ rake; sheet deceler. vac. sheet slowdowns; air. cushion deliv. drum; sheet rear edge extraction system; electronic double detector; monitored front align. control; autoplate; remote adjust. of printing pressure; plate damping & inking rollers follow diagonal register adjustments; chromate plated plate cylinder; circumfl. register 360 degrees; inking unit temp control; venturi effect sheet guide; powder sprayer; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**
- Equip. Shipped F.O.B.:
- Mt. Olive, NJ

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**
- Pressman: $52,428
- Operator: $43,124
- Helper: $33,174

**LABOR COST-2 SHIFTS**
- Pressman: $108,002
- Operator: $88,835
- Helper: $68,338

**LABOR COST-3 SHIFTS**
- Pressman: $164,642
- Operator: $135,409
- Helper: $104,166

### TOTAL COSTS
- TOTAL: $128,726
- AREA A: $116,172
- AREA B: $265,176
- AREA C: $239,314
- 205,841
- 204,200
- 364,780
- 395,755
- 364,780
- 395,755
- 364,780

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,025</td>
<td>7,350</td>
<td>5,250</td>
<td>11,025</td>
<td>7,350</td>
<td>5,250</td>
<td>11,025</td>
<td>7,350</td>
<td>5,250</td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>36,040</td>
<td>33,040</td>
<td>31,800</td>
</tr>
</tbody>
</table>

### Sheetfed Offset
- Presses: 9-Unit

©2007 NAPL. All Rights Reserved
### MAN Roland, R 709

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.13&quot; X 40.94&quot;</td>
<td>9</td>
<td>13,000 iph</td>
<td>hp: --</td>
<td>Offset</td>
<td>$2,750,000</td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>n/a</td>
<td>1,400</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES

- Sheet holder, diag, sheet correction, suction feed board, trend indicator, auto. format of feeder, adjust. front leafs & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscil. timing, speed compans, damp, sheet brake, lateral [upper, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control], PPL auto. plate loading, pin reg., plate cyl. positioning, prebarred blankets, auto. blanket wash, interunit sheet detect, RC1 ink control, ink infed prog., auto. ink unit splitting, transferer, remote running reg., auto. formatting of deliv., non stop deliv., powder spray, sheet decurl, central lubric., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagn., spare parts, tach., washup device, water recirc., install., training.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
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<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,428</td>
<td>$48,840</td>
<td>$43,915</td>
<td>$108,002</td>
<td>$100,610</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$38,260</td>
<td>$32,099</td>
<td>$88,835</td>
<td>$87,816</td>
</tr>
</tbody>
</table>

### TOTAL INVEST.:

$2,750,000

### AUXILIARY EQUIPMENT INCLUDES

- Note: Available options, not included in this study are as follows: Coating Unit; APL Automatic Plate Loading; Pecom Press Manager.

### FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........... $275,000 $275,000 $275,000 $343,750 $343,750 $343,750 $412,500 $412,500 $412,500
2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft.............. 14,700 9,800 7,000 14,700 9,800 7,000 14,700 9,800 7,000
3. Fire & Sprinkler Insurance (Rate $4.00 per M).......................... 9,360 6,240 4,860 18,720 12,840 9,360 28,080 18,720 14,040
4. Power Cost @ $0.07 per kWh (based on kWh rating).......................

### VARIABLE CHARGES

<table>
<thead>
<tr>
<th>Function</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Labor</td>
<td>95,552</td>
<td>87,100</td>
<td>76,014</td>
<td>98,367</td>
<td>97,426</td>
<td>85,928</td>
<td>100,233</td>
<td>97,426</td>
<td>85,928</td>
</tr>
<tr>
<td>Indirect Labor</td>
<td>11,000</td>
<td>11,000</td>
<td>11,000</td>
<td>11,000</td>
<td>11,000</td>
<td>11,000</td>
<td>11,000</td>
<td>11,000</td>
<td>11,000</td>
</tr>
</tbody>
</table>

### TOTAL MANUFACTURING COSTS...

610,907 587,883 566,576 844,482 845,134 806,566 1,125,499 1,108,401 1,022,678

### GENERAL FACTORY—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.................. 256,581 246,911 237,878 327,258 312,700 298,429 363,960 346,049 328,857

### TOTAL COSTS...

$867,487 $834,794 $804,254 $1,211,741 $1,157,833 $1,104,995 $1,298,854 $1,257,984 $1,167,938

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$448.36</td>
<td>$392.41</td>
<td>$344.18</td>
</tr>
<tr>
<td>75%</td>
<td>508.14</td>
<td>444.73</td>
<td>390.07</td>
</tr>
<tr>
<td>60%</td>
<td>635.17</td>
<td>555.92</td>
<td>487.58</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$636.66</td>
<td>$557.23</td>
<td>$488.73</td>
</tr>
<tr>
<td>75%</td>
<td>721.55</td>
<td>631.52</td>
<td>553.89</td>
</tr>
</tbody>
</table>

---

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### MAN Roland, R 709 P

**SIZE:** 29.13" X 40.94"

**MAXIMUM SPEED:** 13,000 iph

**POWER:**

<table>
<thead>
<tr>
<th>hp</th>
<th>kWhs</th>
</tr>
</thead>
<tbody>
<tr>
<td>--</td>
<td>232</td>
</tr>
</tbody>
</table>

**PRODUCT CLASS/PROCESS:**

<table>
<thead>
<tr>
<th>Offset</th>
</tr>
</thead>
</table>

**PERFECTING:** Yes

**COLORS:** 9

**RESOLUTION:** n/a

**SQ. FT.:** 1,400

### BASE COST ABOVE INCLUDES

Auto changeover to perfecting; sheet holder, diag. sheet correction, suction feed board, trend indic., auto. format of feeder, adjust. front lays & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink osc. timing, speed compens. damp., sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL, auto. plate loading, pin reg., plate cyl. positioning, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed prog., auto. ink unit splitting, transferer, remote running req., auto. format of deliv., nonstop deliv., powder spray, sheet decurd., central lbtr., sheet counter, covered ink/ water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagno...tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES

Note: Available options, not included in this study are as follows: Coating Unit, APL Automatic Plate Loading, Pecom Press Manager.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>FUNCTION</td>
<td>LABOR COST-1 SHIFT</td>
<td>LABOR COST-2-shifts</td>
<td>LABOR COST-3 shifts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressman</td>
<td>$52,428</td>
<td>$48,840</td>
<td>$43,915</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$38,260</td>
<td>$32,099</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TOTAL MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100,791</td>
<td>$95,552</td>
<td>$87,100</td>
</tr>
</tbody>
</table>

**INCOME:** 76,014

**TAXES:**

1. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
2. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk
3. Workmen’s Compensation Insurance (Rate $40.00 per M)
4. Pension Fund  (A) 5%  (B) 3%  (C) 2%
5. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts

### FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
3. Fire & Sprinkler Insurance (Rate $4.00 per M)
4. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
5. Workmen’s Compensation Insurance (Rate $40.00 per M)
6. Power Cost @ $0.07 per kWh (based on hp rating)
7. Power Cost @ $0.07 per kWh (based on kW rating)
8. Power Cost @ $0.07 per kWh (based on hp rating)
9. Direct Supplies (see instructions)
10. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts
11. TOTAL MANUFACTURING COSTS

### TOTAL COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$885,712</td>
<td>853,018</td>
<td>822,479</td>
</tr>
</tbody>
</table>

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>PRODUCTIVITY</th>
<th>COST PER PROACTIVE HOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$475.77</td>
</tr>
<tr>
<td>75% productivity</td>
<td>518.81</td>
</tr>
<tr>
<td>60% productivity</td>
<td>648.51</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>PRODUCTIVITY</th>
<th>COST PER PROACTIVE HOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$650.04</td>
</tr>
<tr>
<td>75% productivity</td>
<td>736.71</td>
</tr>
<tr>
<td>60% productivity</td>
<td>920.89</td>
</tr>
</tbody>
</table>

---

**Sheetfed Offset**

**Presses: 9-Unit**

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[374]
**Size:**
- **20.875" X 29.125"**
- Units: 10
- Maximum Speed: 13,000
- **Power:**
  - Kwhs: 56.7

**Base Cost:** $1,980,000

**Auxiliary Equipment:**
- **Includes**
  - Water circulators; hollow vibrator rollers; inker temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; cylinder cooling system;
  - ACC (Akiyama Color Control) Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer's plant (Continental USA); training.

---

**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function Labor Cost-1 Shift**

- Pressman: $52,428
- Operator: $43,124

**Labor Cost-2 Shifts**

- Pressman: $108,002
- Operator: $88,835

**Labor Cost-3 Shifts**

- Pressman: $164,624
- Operator: $135,409

**Total:** $95,552

---

**Auxiliary Equipment Includes**

- Equip. Shipped F.O.B. Customer's Plant.
Heidelberg Speedmaster SM 74-10-P

**BASE COST ABOVE INCLUDES**

CP2000 monitoring and self diagnostic system; Machine Info. Display (MID) at feeder & deliv.; remote control of circumfl., lateral & diag. register; single suction bell feed; integrated preload device; adjust. side guide via CP2000 / CPTronic; digital & roll contin. damp. system; auto. inking roller, blanket & impress. cyl. wash-up devices; remote controlled ink keys; adj. ink flow timing; nonstop device w/rake; sheet decurler; vac. sheet slowdowns; air cushion deliv. drum; sheet rear edge extraction system; self-calibrating electronic double detector; monitored front align. control; autoplote; remote adjust. of printing pressure; plate damping & inking rollers follow diaginal register adjustments; chromium plated plate cylinder; circumfl. register 360 degrees; inking unit temp control; Venturi effect sheet guide; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**

- Equipment Shipped F.O.B.: Mt. Olive, NJ

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### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
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<td>4 weeks</td>
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</table>

### FUNCTION

- LABOR COST-1 SHIFT
  - Pressman: $52,428
  - Operator: $43,124
  - Helper: $33,174

- LABOR COST-2 SHIFTS
  - Pressman: $48,840
  - Operator: $33,209
  - Helper: $29,072

- LABOR COST-3 SHIFTS
  - Pressman: $43,915
  - Operator: $38,260
  - Helper: $27,097

**TOTAL: $128,726**  
$116,172  
$99,923  
$265,176  
$239,314  
$205,841  
$404,200  
$364,780  
$313,758

---

### Fixed Charges (Non-VARIABLE)

- 1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
- 2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft...
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M)...
- 4. Direct Labor...
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
- 6. Pension Fund (A) 5%  (B) 3%  (C) 2%...
- 7. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk...
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance)...
- 9. Workmen’s Compensation Insurance (Rate $40.00 per M)...
- 10. Power Cost @ $0.07 per kWh (based on hp rating)...
- 11. Power Cost @ $0.07 per kWh (based on kW rating)...
- 12. Direct Supplies (see instructions)...
- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
- 14. Subtotal...
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...

**TOTAL MANUFACTURING COSTS...

- 16. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...

**TOTAL COSTS...

- 17. MANUFACTURING COSTS per productive hour @ 85% productivity...
- 18. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity...

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**Sheetfed Offset**  
Presses: 10-Unit

376
MAN Roland, R 510

### BASE COST ABOVE INCLUDES

- MAN Roland R 510; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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</table>

### VARIABLE CHARGES

1. Direct Labor
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
3. Pension Fund (A) 5% (B) 3% (C) 2%
4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
6. Workmen's Compensation Insurance (Rate $4.00 per M)
7. Power Cost @ $0.07 per kWh (based on hp rating)
8. Power Cost @ $0.07 per kWh (based on kwh rating)
9. Direct Supplies (see instructions)
10. Repairs & Maint. @ 2% 1 shift, 2.5% 2 shifts, 3% 3 shifts
11. Sub-total
12. Administrative & Selling Overhead 42% 1 shift, 37% 2 shifts, 32% 3 shifts

### TOTAL MANUFACTURING COSTS

**1st Cost** $2,300,000

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: Port of Entry

---

### ONE SHIFT

**AREA A** | **AREA B** | **AREA C**
---|---|---
1,603 | 1,763 | 1,936

### TWO SHIFTS

**AREA A** | **AREA B** | **AREA C**
---|---|---
3,206 | 3,525 | 3,872

### THREE SHIFTS

**AREA A** | **AREA B** | **AREA C**
---|---|---
4,809 | 5,288 | 5,808

---

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### Base Cost Above Includes

Plate punch; semi-automatic plate loading; blanket and roller washers; console.

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

### Auxiliary Equipment Includes

Coater and Semi Long Delivery ($210,000).

### Working Conditions and Annual Cost of Direct Labor (By Area)

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### Function Labor Cost-1 Shift

- Pressman: $52,428
- Operator: $43,124

### Labor Cost-2 Shifts

| Pressman | $48,840 |
| Operator | $32,099 |

### Labor Cost-3 Shifts

| Pressman | $43,124 |
| Operator | $32,099 |

**Total:** $238,584

---

**Power Cost @ $0.07 per kWh (based on kWh rating):**

$103,491

**Workmen’s Compensation Insurance (Rate $40.00 per M):**

$2,626

**Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts:**

$23,868

---

**Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft:**

$8,700

**Welfare Benefits  (A) $90./wk.  (B) $60./wk.  (C) $45./wk:**

$4,809

---

**Total Costs:**

$238,684

---

**MANUFACTURING COSTS**

- Coater and Semi Long Delivery ($210,000).

---

**ALL-INCLUSIVE COSTS**

- Power Cost @ $0.07 per kWh (based on hp rating): $273,494
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%: $179,426
- Administrative & Selling Overhead—42% @ 37% 2 shifts/ 32% 3 shifts: $95,552
- Total Costs: $1,230,936

---

**MANUFACTURING COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$78,79</td>
<td>$28,84</td>
</tr>
</tbody>
</table>

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**MANUFACTURING COSTS per productive hour @ 55% productivity**

<table>
<thead>
<tr>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$120,136</td>
<td>$43,124</td>
</tr>
</tbody>
</table>

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**MANUFACTURING COSTS per productive hour @ 35% productivity**

<table>
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<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$196,837</td>
<td>$66,124</td>
</tr>
</tbody>
</table>

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**MANUFACTURING COSTS per productive hour @ 25% productivity**

<table>
<thead>
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<th>75% productivity</th>
<th>60% productivity</th>
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</thead>
<tbody>
<tr>
<td>$274,631</td>
<td>$95,552</td>
</tr>
</tbody>
</table>

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**Sub-total:**

$273,494

**37% 2 shifts/ 32% 3 shifts:**

$238,684

**TOTAL:**

$238,684

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**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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**THREE SHIFTS**

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<tr>
<td>516,121</td>
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<td>469,751</td>
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<td>713,932</td>
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<td>653,741</td>
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<tr>
<td>973,741</td>
<td>916,148</td>
<td>858,223</td>
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</table>

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**TOTAL:**

$3,191,358

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**MANUFACTURING COSTS per productive hour @ 85% productivity**

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**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

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**MANUFACTURING COSTS per productive hour @ 25% productivity**

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</thead>
<tbody>
<tr>
<td>$328,929</td>
<td>$119,136</td>
</tr>
</tbody>
</table>

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**TOTAL INVEST.:**

$2,239,287

---

xpedx/Import Group, Ryobi 7510 XLP Aa5
### BASE COST ABOVE INCLUDES

Water circulators; hollow vibrator rollers; ink temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; cylinder cooling system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer's plant (Continental USA); training.

### AUXILIARY EQUIPMENT INCLUDES

Perf. Kit; press kit; delivery and rigging to customer's plant.

### MANUFACTURING COSTS

- **Direct Labor**: 
  - 1 Shift: $238,684
  - 2 Shifts: $54,000
  - 3 Shifts: $26,914
- **Indirect Labor**: 
  - Supervision & Misc.: $396.09
- **Supplies**: 
  - Direct: $5,383
  - Indirect: $39,000
- **Depreciation**: 
  - 1 Shift: $238,684
  - 2 Shifts: $54,000
  - 3 Shifts: $26,914
- **Rent & Heat**:
  - Area A: $10.50
  - Area B: $7.00
  - Area C: $5.00
- **Power Cost**: 
  - $0.07 per kWh (based on kWh rating)
  - $0.07 per kWh (based on hp rating)
- **Welfare Benefits**: 
  - A: $90.00/week
  - B: $60.00/week
  - C: $45.00/week
- **Fire & Sprinkler Insurance**: 
  - Rate $4.00 per M
- **Workman's Compensation Insurance**: 
  - Rate $40.00 per M
- **NAPL-2**
- **Workmen's Compensation Insurance**: 
  - Rate $40.00 per M

### LABOR COSTS

- **Pressman**: $52,428
- **Operator**: $43,124

### ALL-INCLUSIVE COSTS

- **Area A**: $273,494
- **Area B**: $87,100
- **Area C**: $76,014
- **Total**: $38,260

### Sheetfed Offset

- **Printers**: 10-Unit
- **Equipment Shipped F.O.B.**: Customer's Plant

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**Sheetfed Offset**

**Presses: 10-Unit**

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379
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<tr>
<td><strong>BASE COST ABOVE INCLUDES</strong></td>
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<tr>
<td>Comarc Central Oper.</td>
<td>Make-ready &amp; Control</td>
<td>touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate &amp; blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet &amp; total revol. counters; slow down wheels; static eliminator; powder spray (deliv.); IR dryer; coaster cyl.; pump; chiller for ink vibrators; blanket washers; refir-fount. solution circulators; install and training.</td>
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<tr>
<td><strong>AUXILIARY EQUIPMENT INCLUDES</strong></td>
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<td><strong>FUNCTION</strong></td>
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<tr>
<td><strong>LABOR COST-1 SHIFT</strong></td>
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</tr>
<tr>
<td>Pressman</td>
<td>$52,428</td>
<td>$48,840</td>
<td>$43,915</td>
<td>$108,002</td>
<td>$100,610</td>
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<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$38,260</td>
<td>$32,099</td>
<td>$88,835</td>
<td>$78,816</td>
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<tr>
<td>Helper</td>
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<td>$29,072</td>
<td>$23,909</td>
<td>$68,338</td>
<td>$59,888</td>
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<tbody>
<tr>
<td><strong>TOTAL COSTS:</strong></td>
<td></td>
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<tr>
<td>$996,369</td>
<td>$950,248</td>
<td>$905,810</td>
<td>$1,417,899</td>
<td>$1,338,793</td>
<td>$1,259,961</td>
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</tbody>
</table>

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<p>| | | | | | |</p>
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<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>MANUFACTURING COSTS per productive hour @</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85% productivity</td>
<td>$514.97</td>
<td>$446.68</td>
<td>$387.64</td>
<td>$379.79</td>
<td>$326.15</td>
</tr>
<tr>
<td>75% productivity</td>
<td>583.63</td>
<td>506.24</td>
<td>439.32</td>
<td>430.43</td>
<td>369.63</td>
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<tr>
<td>60% productivity</td>
<td>729.54</td>
<td>632.80</td>
<td>549.15</td>
<td>538.03</td>
<td>462.04</td>
</tr>
<tr>
<td><strong>20. ALL-INCLUSIVE COSTS per productive hour @</strong></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>85% productivity</td>
<td>$731.25</td>
<td>$634.29</td>
<td>$550.44</td>
<td>$520.31</td>
<td>$446.82</td>
</tr>
<tr>
<td>75% productivity</td>
<td>828.75</td>
<td>718.66</td>
<td>623.84</td>
<td>589.69</td>
<td>506.40</td>
</tr>
<tr>
<td>60% productivity</td>
<td>1,035.94</td>
<td>989.58</td>
<td>779.80</td>
<td>737.11</td>
<td>633.00</td>
</tr>
</tbody>
</table>

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Sheeted Offset
Presses: 10-Unit
Mitsubishi, Diamond 3000TP 10-Color With Two Tower Coaters (Perfector)

**BASE COST ABOVE INCLUDES**

Comcrae, Central Oper. Makerready & Control; touch screen; semi-auto. plate changers; remote control running req.; auto preset inkling; microproc. based controls; impress. press. preset; feed and deliver; preset; remote control front lay req.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliver); sheet & total revol. counters; slow down wheels; static eliminator; powder spray (deliver); IR dryer; coater cirm. pump; filter for ink vibrators; blanket washers; refrig. fount. solution circulators; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**

- Auxiliary Equip.: n/a
- Install. (Est.): Included
- Total Invest.: $3,135,785

**MANUFACTURING COSTS**

- Direct Labor.......................... $104,166
- Indirect Labor (Supervision & Misc.) 21% 1 shift/ 25% 2 shifts/ 35% 3 shifts.............. $164,624
- Pension Fund (A) 5% (B) 3% (C) 2%............................................ $4,000
- Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........... $1,453,502
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........... $2,108,360
- Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft...................... $1,295,564
- Workmen's Compensation Insurance (Rate $40.00 per M)........... $43,915
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...........
- Payroll Taxes  (Soc. Sec. & Unemploy. Insurance) 8.3%.............. $4,075
- Power Cost @ $0.07 per kWh (based on hp rating).......................
- Work orders (A) @ $25.00 (B) @ $22.00...........................................
- Indirect Labor  (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...........
- Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...........

**PRODUCT CLASS/PROCESS:**

- Wet Offset
- Interfaces With: PPC, CTP, Plate Scanner.

**FUNCTION**

- Labor Cost-1 Shift
- Labor Cost-2 Shifts
- Labor Cost-3 Shifts

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
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<tbody>
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<td>Hours/Week</td>
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<td>37.5</td>
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<tr>
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<td>10</td>
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<tr>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Pressman</td>
<td>$52,428</td>
<td>$48,840</td>
<td>$43,915</td>
<td>$108,002</td>
<td>$100,610</td>
<td>$90,465</td>
<td>$164,624</td>
<td>$153,358</td>
<td>$137,993</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$38,260</td>
<td>$32,099</td>
<td>$88,835</td>
<td>$78,816</td>
<td>$66,124</td>
<td>$135,409</td>
<td>$120,136</td>
<td>$100,791</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
<td>$23,909</td>
<td>$68,338</td>
<td>$59,888</td>
<td>$49,253</td>
<td>$104,166</td>
<td>$91,286</td>
<td>$75,074</td>
</tr>
</tbody>
</table>

**TOTAL:** $128,726 $116,172 $99,923 $265,176 $239,314 $205,841 $404,200 $364,780 $313,758

**TOTAL INVEST.:** $3,135,785

**NO. OF MAN NEEDED**

1. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...........
2. Inks—6 colors—21% 1 shift/ 25% 2 shifts/ 35% 3 shifts..............
3. Miscellaneous—21% 1 shift/ 25% 2 shifts/ 35% 3 shifts..............
4. Material—21% 1 shift/ 25% 2 shifts/ 35% 3 shifts..............
5. Variable—35% 1 shift/ 44% 2 shifts/ 51% 3 shifts..............
6. Protective—35% 1 shift/ 44% 2 shifts/ 51% 3 shifts..............
7. Total Manufacturing Costs: $723,058 $690,579 $659,284 $1,060,951 $1,003,209 $945,667 $1,369,911 $1,289,298 $1,208,360
8. Total Costs: $1,026,742 $980,621 $936,184 $1,453,502 $1,374,396 $1,295,564 $1,808,283 $1,701,874 $1,595,035
9. Manufacturing Costs per productive hour @
   - 85% productivity: $530.67 $460.96 $400.63 $389.33 $334.82 $287.35 $315.13 $286.87 $244.77
   - 75% productivity: $601.42 $522.42 $454.05 $441.24 $379.46 $325.64 $379.82 $325.12 $277.40
   - 60% productivity: $751.78 $653.03 $567.57 $551.54 $474.33 $407.05 $474.77 $406.40 $346.75
20. All-Inclusive Costs per productive hour @
   - 85% productivity: $753.54 $654.57 $568.90 $533.38 $458.71 $393.64 $442.38 $378.67 $323.09
   - 75% productivity: $854.02 $741.84 $644.75 $604.49 $519.87 $446.13 $501.36 $429.16 $366.17
   - 60% productivity: $1,067.52 $927.30 $805.94 $755.62 $649.83 $557.66 $626.70 $536.45 $457.71

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Sheeted Offset
Presses: 10-Unit
**BASE COST ABOVE INCLUDES**

Comrad Central Oper. Make-ready & Control; touch screen; semi-auto. plate changers; remote control running req.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay req.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet & total revol. counters; slow down wheels; static elimin.; powder spray (deliv.); IR dryer; coater circ. pump; chiller for ink vibrators; blanket washers; refing. fount. solution circulators; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**

SimulChanger simultaneous plate changing system ($100,000).

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>10</td>
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<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

- Pressman: $52,428
- Operator: $43,124
- Helper: $33,174

**LABOR COST-2 SHIFTS**

- Pressman: $108,002
- Operator: $88,835
- Helper: $68,338

**LABOR COST-3 SHIFTS**

- Pressman: $164,642
- Operator: $135,409
- Helper: $104,166

**TOTAL: $128,726**

**ONETIME**

**ONE SHIFT**

- Equipment: $33,174

**TWO SHIFTS**

- Equipment: $66,338

**THREE SHIFTS**

- Equipment: $99,923

---

**TOTAL MANUFACTURING COSTS**

- Direct Labor: $176,597
- Payroll Taxes: $11,942
- Payroll: $19,000
- Plant: $20,000
- Administrative: $20,000
- Selling and General: $20,000
- Total: $237,500

---

**TOTAL INVEST. : $3,700,000**

---

**MANUFACTURING COSTS per productive hour @**

- 85% productivity: $590.80
- 75% productivity: $669.57
- 60% productivity: $836.96

---

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity: $838.93
- 75% productivity: $950.79
- 60% productivity: $1,188.48

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Sheetfed Offset

Presses: 10-Unit

382
**Komori Lithrone LS1040 Series 15**

**Size:** 28.37" x 40.56"  
**Units:** 10  
**Maximum Speed:** 13,000 iph  
**Power:** hp: --  
**kWhs:** 85  
**Product Class/Process:** Wet Offset  
**Interfaces With:** Digital ink key data from prepress or previously saved jobs.

**Base Cost Above Includes**
- Semi-auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-Iv; deionized air in feeder & deliv.; auto infeed brushes; nonstop feeder; vac. infeed tapes; electronic sheet detect; damp, skew; unit air bars; anti ghosting; Komoromatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, curcuit, and tag; register; auto starfipp/ sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampenner; osc. dampenner bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infed pistons; remote infeed cyll. cocking; remote fanout adj.; skeleton transfer cyll.; motorized release cam; installation.

**Auxiliary Equipment Includes**
- Equip. Shipped F.O.B.: Port of Entry

**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function**
- **Labor Cost-1 Shift**
  - Pressman: $52,428
  - Operator: $43,124

**Labor Cost-2 Shifts**
- $108,002
- $100,610
- $90,465

**Labor Cost-3 Shifts**
- $164,624
- $153,358
- $157,893

**Total:**
- $95,552
- $87,100
- $76,014
- $196,837
- $179,426
- $156,589
- $300,033
- $273,494
- $238,684

**Manufacturing Costs**
- $544,073
- $544,073
- $544,073
- $1,194,540
- $1,138,025
- $1,296,823

**Total Costs**
- $1,171,536
- $1,139,212
- $1,108,053
- $1,159,094
- $1,504,017
- $1,882,987
- $1,809,049
- $1,734,472

**Manufacturing Costs per Productive Hour @**
- **85% Productivity:** $605.50  
- **75% Productivity:** $686.23  
- **60% Productivity:** $857.79

**All-Inclusive Costs**
- **85% Productivity:** $859.81
- **75% Productivity:** $974.45

**Total:**
- $1,218.07

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### BASE COST ABOVE INCLUDES

- Auto plate changing; auto; blanket washing; paper size preset; auto ink roller washing; KMS-IV;
- deionized air in feeder & deliv.; auto infused brushes; nonstop feeder; vac. infused tapes; electronic sheet detect; damp; skew; unit air bars; anti ghosting; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circumf. add, tag, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter;
- console backup: paper thickness preset; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDCCS-II; Bladesetter; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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<tr>
<th>Provisions</th>
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</table>

### FUNCTION

- **LABOR COST-1 SHIFT**
  - Pressman: $52,428
  - Operator: $43,124

- **LABOR COST-2 SHIFTS**
  - Pressman: $108,002
  - Operator: $88,835

- **LABOR COST-3 SHIFTS**
  - Pressman: $164,624
  - Operator: $135,409

### TOTAL:

- $95,552
- $87,100
- $76,014
- $196,837
- $179,426
- $156,589
- $300,033
- $273,494
- $238,684

### AUXILIARY EQUIPMENT INCLUDES

- **BASE COST ABOVE INCLUDES**
- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**
- **TOTAL COSTS**
- **ONE SHIFT**
  - AREA A: $1,603
  - AREA B: $1,763
  - AREA C: $1,936
- **TWO SHIFTS**
  - AREA A: $2,206
  - AREA B: $2,525
  - AREA C: $2,872
- **THREE SHIFTS**
  - AREA A: $3,809
  - AREA B: $4,288
  - AREA C: $5,808

### TOTAL MANUFACTURING COSTS...

- $1,230,112
- $1,197,789
- $1,166,629
- $1,272,754
- $1,572,677
- $1,517,603
- $1,960,272
- $1,886,334
- $1,811,757

### MANUFACTURING COSTS per productive hour @

- **85% productivity**
  - 75% productivity: $635.78
  - 60% productivity: $906.08

- **ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity**
  - 75% productivity: $1,023.17
  - 60% productivity: $1,278.97

### Sheetfed Offset

**Presses: 10-Unit**
Komori Lithrone LS40SP Series 45

**BASE COST ABOVE INCLUDES**

Auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-IV; deionized air in feeder & deliv.; auto feed brushes; nonstop feeder; vac. fed tapes; electronic sheet detect; damp; skew; anti ghosting rollers; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circumf. and tag; register; auto start/stop; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; osc. dampener rider roller; water level sensor; preset counter; stacking, job, and press counter; paper thickness preset; remote inflow cyl. cooking; remote fanout adj.; motorized release cam; KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDCC-II; Bladsetter; intercom feeder/delivery; installation.

**AUXILIARY EQUIPMENT INCLUDES**

- feeder/delivery; installation.
- fanout adj.; motorized release cam; KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDCC-II; Bladsetter; intercom feeder/delivery; installation.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 shifts
- LABOR COST-3 Shifts

**POWER:**

- Digital ink key data from prepress or previously saved jobs.

**TOTAL COSTS:**

$1,226,654 $1,166,016 $1,265,284 $1,571,951 $1,517,927 $1,958,694 $1,886,447 $1,812,911

**MANUFACTURING COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

- 85% productivity $900.26 $798.41 $708.57 $596.41 $524.64 $461.21 $479.17 $419.74 $367.22
- 60% productivity $1,200.30 $1,004.87 $803.04 $675.93 $594.59 $522.70 $543.06 $476.70 $416.19
- 50% productivity $1,275.37 $1,131.09 $1,003.80 $844.92 $743.24 $653.83 $687.83 $594.62 $520.23

**TOTAL INVEST. :**

$4,647,810

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Sheetfed Offset

Presses: 10-Unit
**Komori Lithrone LS1040P Series 15**

**SIZE:** 28.37" X 40.56"  
**UNITS:** 10  
**MAXIMUM SPEED:** 13,000 pph  
**POWER:** hp: --  
**kW:** 90  
**PRODUCT CLASS/PROCESS:** Wet Offset  
**BASE COST:** $4,672,557

### BASE COST ABOVE INCLUDES

- Semi-auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-IV; deionized air in feeder & deliv.; auto infused brushes; nonstop feeder; vac. infused tapes; electronic sheet detect; damp. skew; unit air bars; anti ghosting; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circum. and ring, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampener; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infused pistons; remote infused cyl. cocking; remote fanout adj.; skeleton transfer cyl.; fully automatic perfector changeover; installment.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

#### Area A

- Total No. Manned Hours Annually @ 100% Productivity: 442,171

#### Area B

- Total No. Manned Hours Annually @ 75% Productivity: 385,371

#### Area C

- Total No. Manned Hours Annually @ 60% Productivity: 316,489

### ALL-INCLUSIVE COSTS

#### 85% Productivity

- Total Costs: $1,238,096

#### 75% Productivity

- Total Costs: $1,174,089

#### 60% Productivity

- Total Costs: $1,062,272

### Manufacturability

- **BASE COST ABOVE INCLUDES**

### Auxiliary Equipment Includes

- **Semi-auto plate changing; auto. blanket washing; paper size preset; auto ink roller washing; KMS-IV; deionized air in feeder & deliv.; auto infused brushes; nonstop feeder; vac. infused tapes; electronic sheet detect; damp. skew; unit air bars; anti ghosting; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circum. and ring, register; auto start/stop; sheet decurler; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; hickey picking dampener; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; paper thickness preset; nonstop feeder; infused pistons; remote infused cyl. cocking; remote fanout adj.; skeleton transfer cyl.; fully automatic perfector changeover; installment.
<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. of Manned Hours Annually @ 100% Productivity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Depreciation @ 10% 1 shift/ 15% 2 shifts/ 5% 3 shifts</td>
<td>$484,186</td>
<td>$484,186</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft</td>
<td>$11,813</td>
<td>$7,875</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M.)</td>
<td>$19,367</td>
<td>$19,367</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td>$95,552</td>
<td>$87,100</td>
</tr>
</tbody>
</table>

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

<table>
<thead>
<tr>
<th>Pressman</th>
<th>Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>$52,428</td>
<td>$43,124</td>
</tr>
</tbody>
</table>

**TOTAL INVEST.:** $4,841,857

---

**Auxiliary Equipment Includes**

- Auto plate changing; auto; blanket washing; paper size preset; auto ink roller washing; KMS-IV; deionized air in feeder & deliv.; auto infeed brushes; nonstop feeder; vac.; infeed tapes; electronic sheet detect; damp. skew; unit air bars; anti ghosting; Komorimatic dampening; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyls.; lateral, circum, and mag.; register; auto start/stop; sheet deculer; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; osc. dampener bridge roller; water level sensor; preset counter; stacking, job, and press counter; console backup; remote infeed cyl. cocking; remote fanout adj.; skeleton transfer cyl.; KHS; auto impress. cyl. cleaners; feeder side blower presset; inker phasing; PDCS-II; Bladsetter; fully auto. perfector changeover; installation.

---

**Shipping F.O.B.: Port of Entry**
### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function**

<table>
<thead>
<tr>
<th>Labor Cost - 1 Shift</th>
<th>Labor Cost - 2 Shifts</th>
<th>Labor Cost - 3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$52,428</td>
<td>$48,840</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$38,260</td>
</tr>
<tr>
<td>Helper</td>
<td>$33,174</td>
<td>$29,072</td>
</tr>
</tbody>
</table>

**Total:**

- $128,726
- $116,172
- $99,923
- $265,176
- $239,314
- $205,841
- $404,200
- $364,780
- $313,758

### Base Cost Above Includes

- Water coolers; hollow vibrators; inker temperature control chillers; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cocking system; cylinder cocking system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate Bender; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer's plant (Continental USA); training.

### Auxiliary Equipment Includes


---

**Sheeted Offset**

**Presses: 10-Unit**

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### MAN Roland, R 710 P

#### SIZE:
- **29.13" X 40.94'**
- **10 units**
- **13,000 iph**

#### POWER:
- **hp:** --
- **kW:** 232

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION

- **LABOR COST-1 SHIFT**
  - **Pressman**
    - $52,428
  - **Operator**
    - $43,124

- **LABOR COST-2 SHIFTS**
  - **Pressman**
    - $108,002
  - **Operator**
    - $88,835

- **LABOR COST-3 SHIFTS**
  - **Pressman**
    - $164,624
  - **Operator**
    - $135,409

#### TOTAL:
- $95,552
- $87,100
- $76,014
- $196,837
- $179,426
- $156,589
- $303,033
- $273,494
- $238,684

---

### BASE COST ABOVE INCLUDES

- Auto changeover to perfecting; sheet holder, diag. sheeter, corner, suction feed board, trend indici., auto. format of feeder, adjust. front lay & sheet timing, preprinter, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, spread compnd., damp., sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL, auto. plate loading, pin reg., plate cyl. positioning, auto. blanket wash, interunit sheet detect, RCI ink control, ink inkled prog., auto. ink unit splitting, transferfer, remote running req., auto. format of deliv., nonstop deliv., powder spray, sheet decurl, central lubr., sheet counter, covered ink/ water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnosis...tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES

**Note:** Available options, not included in this study are as follows: Coating Unit; APL Automatic Plate Loading; Pecom Press Manager.

---

### Sheetfed Offset

**Presses:** 10-Unit

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389
<table>
<thead>
<tr>
<th>GEN CHARGES (NON-VARIABLE)</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 10% 1 shift/12.5% 2 shifts/15% 3 shifts</td>
<td>$135,409</td>
<td>$135,409</td>
<td>$135,409</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft</td>
<td>15,750</td>
<td>10,500</td>
<td>15,002</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)</td>
<td>4,778</td>
<td>2,613</td>
<td>1,520</td>
</tr>
<tr>
<td>4. Direct Labor</td>
<td>95,552</td>
<td>87,100</td>
<td>76,014</td>
</tr>
<tr>
<td>5. Indirect Labor (Supervision &amp; Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts</td>
<td>19,110</td>
<td>17,420</td>
<td>15,203</td>
</tr>
<tr>
<td>6. Pension Fund (A) 5% (B) 3% (C) 2%</td>
<td>4,778</td>
<td>2,613</td>
<td>1,520</td>
</tr>
<tr>
<td>7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk</td>
<td>9,360</td>
<td>6,240</td>
<td>4,680</td>
</tr>
<tr>
<td>8. Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
<td>9,517</td>
<td>8,675</td>
<td>7,517</td>
</tr>
<tr>
<td>9. Workmen's Compensation Insurance (Rate $4.00 per M)</td>
<td>4,586</td>
<td>4,181</td>
<td>3,649</td>
</tr>
<tr>
<td>10. Power Cost @ $0.07 per kWh (based on hp rating)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11. Power Cost @ $0.07 per kWh (based on hp rating)</td>
<td>4,578</td>
<td>5,034</td>
<td>5,529</td>
</tr>
<tr>
<td>12. Direct Supplies (see instructions)</td>
<td>18,000</td>
<td>18,000</td>
<td>18,000</td>
</tr>
<tr>
<td>13. Repairs &amp; Maint. @ 2% 1 shift/2.5% 2 shifts/3% 3 shifts</td>
<td>72,080</td>
<td>72,080</td>
<td>72,080</td>
</tr>
<tr>
<td>14. Sub-total</td>
<td>628,128</td>
<td>606,659</td>
<td>586,562</td>
</tr>
<tr>
<td>15. General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts</td>
<td>94,219</td>
<td>90,999</td>
<td>87,984</td>
</tr>
<tr>
<td>16. TOTAL MANUFACTURING COSTS</td>
<td>722,347</td>
<td>697,657</td>
<td>674,546</td>
</tr>
</tbody>
</table>

**Variable Charges**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**All-Inclusive Costs**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3,604,000</td>
<td>$3,604,000</td>
<td>$3,604,000</td>
</tr>
</tbody>
</table>

**Total Costs**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,025,732</td>
<td>$990,674</td>
<td>$957,856</td>
</tr>
<tr>
<td>$1,385,105</td>
<td>$1,327,272</td>
<td>$1,270,441</td>
</tr>
<tr>
<td>$1,684,834</td>
<td>$1,601,103</td>
<td>$1,531,691</td>
</tr>
</tbody>
</table>

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Sheeted Offset
Presses: 10-Unit
## MAN Roland, R 711 P

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
<th>$3,350,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.13” X 40.94”</td>
<td>11</td>
<td>13,000 iph</td>
<td>hp: --</td>
<td>Offset</td>
<td>AUXILIARY EQUIP.:</td>
<td>n/a</td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
<td>RESOLUTION:</td>
<td>SQ. FT.:</td>
<td>INTERFACES WITH:</td>
<td>INSTALL. (EST.):</td>
<td>Included</td>
</tr>
<tr>
<td>Yes</td>
<td>11</td>
<td>n/a</td>
<td>1,700</td>
<td>n/a</td>
<td>TOTAL INVEST.:</td>
<td>$3,350,000</td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES

Auto changeover to perfecting; sheet holder, diag, sheet correction, suction feed board, trend indc., auto. format of feeder, adjust. front lays & sheet timing, pregripper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compends, damp., sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPL, auto. plate loading, pin reg., plate cyl. positioning, auto. blanket wash, interunit sheet detect, RCI ink control, ink infeed prog., auto. ink unit splitting, transferer, remote running req., auto. format of deliv., nonstop deliv., powder spray, sheet decurl, central lubr., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos...tach., washup device, water recirc., install., training.

### AUXILIARY EQUIPMENT INCLUDES

Note: Available options, not included in this study are as follows: Coating Unit, APL Automatic Plate Loading; Pecom Press Manager.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Pressman</td>
<td>$52,428</td>
<td>$48,840</td>
<td>$43,915</td>
<td>$108,002</td>
<td>$100,610</td>
<td>$90,465</td>
</tr>
<tr>
<td>Operator</td>
<td>$43,124</td>
<td>$38,260</td>
<td>$32,099</td>
<td>$88,835</td>
<td>$78,816</td>
<td>$66,124</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$95,552</td>
<td>$87,100</td>
<td>$76,014</td>
<td>$196,837</td>
<td>$179,426</td>
<td>$156,589</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

- Direct Labor: $1,573,200
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: $19,110
- Pension Fund (A) 5% (B) 3% (C) 2%: $4,778
- Welfare Benefits (A) $90.00/ wk. (B) $60.00/ wk. (C) $45.00/ wk: $9,360
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%: $9,517
- Workmen's Compensation Insurance (Rate $4.00 per M): $4,586
- Power Cost @ $0.07 per kWh (based on wh rating): $0
- Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts: $335,000
- Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft: $22,600
- Radiant Heat (A) $14.00  (B) $10.00  (C) $8.00 sq. ft: $13,000
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%: $22,200
- Workmen's Compensation Insurance (Rate $4.00 per M): $19,000
- Power Cost @ $0.07 per kWh (based on hp rating): $0
- Power Cost @ $0.07 per kWh (based on kw rating): $0
- Direct Supplies (see instructions): $22,000
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts: $22,000
- Sub-total: $68,773
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: $1,014,822
- TOTAL MANUFACTURING COSTS: $2,824,542
- TOTAL COSTS: $995,759, $961,352, $929,832, $1,306,092, $1,252,801, $1,686,089, $1,595,158, $1,523,370

<table>
<thead>
<tr>
<th>CHARGES CODE:</th>
<th>MANNING CODE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQUIP. SHIPPED F.O.B.:</td>
<td>Port of Entry</td>
</tr>
<tr>
<td>AREA A</td>
<td>AREA B</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
</tr>
</tbody>
</table>

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Sheeted Offset
Presses: 11-Unit
## WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- **LABOR COST-1 SHIFT**
  - Pressman: $52,428
  - Operator: $43,124

- **LABOR COST-2 SHIFTS**
  - $108,002
  - $90,465

- **LABOR COST-3 SHIFTS**
  - $164,624
  - $153,358

### TOTAL:
- $95,552
- $87,100
- $76,014
- $196,837
- $156,589
- $32,099
- $237,494
- $238,684

### BASE COST ABOVE INCLUDES

- Water circulators; hollow vibrator rollers; inker temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; cylinder cocking system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer's plant (Continental USA); training.

### AUXILIARY EQUIPMENT INCLUDES


## Akiyama, J print (JP) 6P629 A4

### SIZE:
- 20.875" X 29.125"

### UNITS:
- 12

### MAXIMUM SPEED:
- 13,000 p/h

### POWER:
- hp: --

### kWhs: 72.8

### PERFECTING:
- Yes
- 6 over 6

### COLORS:
- n/a

### RESOLUTION:
- 1,600

### SQ. FT.:
- 1,600

### PRODUCT CLASS/PROCESS:
- Sheetfed Wet or Dry Offset

### INTERFACES WITH:
- n/a

### BASE COST:
- $2,320,000

### INSTALL. (EST.):
- Included

### TOTAL INVEST.: $2,320,000

---

**Sheeted Offset**

**Presses: 12-Unit**

---

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392
Akiyama, J print (JP) 6P632 A4

SIZE: 23,063* X 32.25"  UNITS: 12  MAXIMUM SPEED: 13,000 iph  POWER: hp: -- kWhs: 72.8

PERFECTING: Yes  COLORS: 6 over 6  RESOLUTION: n/a  SQ. FT.: 1,600

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION

LABOR COST-1 SHIFT

- Pressman $52,428
- Operator $43,124

LABOR COST-2 SHIFTS

- Pressman $108,002
- Operator $88,835

LABOR COST-3 SHIFTS

- Pressman $164,624
- Operator $66,124

TOTAL: $95,552

AUXILIARY EQUIPMENT INCLUDES

- Water circulators; hollow vibrator rollers; inker temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; cylinder cocking system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer’s plant (Continental USA); training.

BASE COST ABOVE INCLUDES

- Wear and tear on equipment
- Estimated labor costs
- Materials and supplies

TOTAL INVEST.: $2,490,000

One Year Vacation

No. of Manned Hours Annually @ 100% Productivity

- Variable charges
- Fixed charges (non-variable)
- Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
- Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft...
- Fire & Sprinkler Insurance (Rate $40.00 per M)...
- Workmen’s Compensation Insurance (Rate $40.00 per M)...

VARIABLE CHARGES

- Direct Labor...
- Indirect Labor...
- Pension Fund...
- Welfare Benefits...
- Payroll Taxes...
- Workman’s Compensation Insurance...
- Power Cost...
- Direct Supplies (see instructions)...
- Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts...
- Sub-total...
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...

TOTAL MANUFACTURING COSTS:

- $611,620

TOTAL COSTS:

- $797,500

MANUFACTURING COSTS per productive hour @

- 85% productivity $412.18
- 75% productivity $467.14
- 60% productivity $583.93

ALL-INCLUSIVE COSTS per productive hour @

- 85% productivity $585.30
- 75% productivity $663.34
- 60% productivity $829.17

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393

Sheetfed Offset

Presses: 12-Unit
**Mitsubishi, Diamond 3000TP 12-Color With Tower Coater (Perforator)**

<table>
<thead>
<tr>
<th>SIZE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.38” X 40.13”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNITS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAXIMUM SPEED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>13,000 fps</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POWER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>hp: kwhs:</td>
</tr>
<tr>
<td>3 180</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRODUCT CLASS/PROCESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet Offset</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3,250,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUXILIARY EQUIP.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INSTALL. (EST.):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL INVEST.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3,250,000</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Comcat Central Oper, Make ready & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); plate height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet & total revol. counters; slow down wheels; static elimin.; powder spray (deliv.); IR dryer; CO2 CO2; pump; chiller for ink vibrators; blanket washers; refri-foun. solution circulators; install. and training.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
</tr>
<tr>
<td>Operator</td>
</tr>
<tr>
<td>Helper</td>
</tr>
</tbody>
</table>

**LABOR COST-2hifts**

<table>
<thead>
<tr>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
</tr>
<tr>
<td>Operator</td>
</tr>
<tr>
<td>Helper</td>
</tr>
</tbody>
</table>

**VARIABLE CHARGES**

- **Direct Labor**
- **Indirect Labor (Supervision & Misc.)** 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
- **Pension Fund (A) 5% (B) 3% (C) 2%**
- **Wellness Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk**
- **Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%**
- **Worker's Compensation Insurance (Rate $4.00 per M)**
- **Power Cost @ $0.07 per kWh (based on hp rating)**
- **Power Cost @ $0.07 per kWh (based on kW rating)**
- **Direct Supplies (see instructions)**
- **Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts**
- **Sub-total**
- **General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts**
- **TOTAL MANUFACTURING COSTS**
- **Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts**
- **TOTAL COSTS**

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

- **85% productivity**
- **75% productivity**
- **60% productivity**

**MANUFACTURING COSTS per productive hour @**

- **85% productivity**
- **75% productivity**
- **60% productivity**

**NO. OF MANNUALLY @ 100% PRODUCTIVITY**

<table>
<thead>
<tr>
<th>FIXED CHARGES (NON-VARIABLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depr. 10% 1 shift 12.5% 2 shifts/ 15% 3 shifts</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- Comcat Central Oper, Make ready & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inking; microproc. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); plate height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet & total revol. counters; slow down wheels; static elimin.; powder spray (deliv.); IR dryer; CO2 CO2; pump; chiller for ink vibrators; blanket washers; refri-foun. solution circulators; install. and training.

<table>
<thead>
<tr>
<th>AUXILIARY EQUIPMENT INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equip. Shipped F.O.B.: Purchaser's Plant</td>
</tr>
</tbody>
</table>

**TOTAL:**

$128,726 $116,172 $99,923

$265,176 $239,314 $205,841

$404,200 $364,780 $313,758

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**BASE COST ABOVE INCLUDES**

Comrac Central Oper. Makerready & Control; touch screen; semi-auto. plate changers; remote control running reg.; auto preset inkling; microprod. based controls; impress. press. preset; feed and deliv. preset; remote control front lay reg.; feeder board suction; cont. stream feeder; side guide; misreg., double sheet, and overrun detect; 2 pile pallets (feeder); pile height control; auto roller cleaning; 3-position damp.; quick plate clamp; auto plate cyl. positioning; plasma coated plate & blanket cyls.; chrome plated impress. cyl.; cam-closed grippers; remote roller control; auto lube; seq. impress. on/off; blow down fans; 2 pile pallets (deliv.); sheet & total revol. counters; slow down wheels; static eliminn.; powder spray (deliv.); IR dryer; coater circ. pump; chiller for ink vibrators; blanket washers; refri. fount. solution circulators; install. and training.

**AUXILIARY EQUIPMENT INCLUDES**

<table>
<thead>
<tr>
<th>Equip. Shipped F.O.B.:</th>
<th>Purchaser's Plant</th>
</tr>
</thead>
</table>

**BASE COST: $3,300,000**

**TOTAL INVEST.: $3,300,000**

---

**Mitsubishi, Diamond 3000TP 12-Color With Two Tower Coaters (Perforator)**

<table>
<thead>
<tr>
<th>SIZE: 28.38&quot; X 40.13&quot;</th>
<th>UNITS: 12</th>
<th>MAXIMUM SPEED: 13,000 pph</th>
<th>POWER: hp: 180 kW hrs:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PERFECTING: Yes</th>
<th>COLORS: 12</th>
<th>RESOLUTION: n/a</th>
<th>SQ. FT.: 1,400</th>
</tr>
</thead>
</table>

**PRODUCT CLASS/PROCESS:**

- Wet Offset
- INTERFACES WITH: PPC, CTP, Plate Scanner.

**BASE COST:**

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $52,428
- Operator: $43,124
- Helper: $33,174

**LABOR COST-2 SHIFTS**

- Pressman: $48,840
- Operator: $38,260
- Helper: $29,072

**LABOR COST-3 SHIFTS**

- Pressman: $43,915
- Operator: $32,099
- Helper: $23,909

**TOTAL:** $128,726

**TOTAL:** $199,323

**TOTAL INVEST.:**

- $205,841
- $205,841
- $868,463
- $1,338,519

**One Shift**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,163</td>
<td>1,176</td>
<td>1,936</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TWO SHIFTS</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,266</td>
<td>3,525</td>
<td>3,872</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>THREE SHIFTS</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td></td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation: 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...
2. Rent & Heat: $10.50 (A) $7.00 (B) $5.00 sq. ft...
3. Fire & Sprinkler Insurance: (Rate $40.00 per M)...
4. Direct Labor...
5. Indirect Labor: (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts...
6. Pension Fund: (A) 5%  (B) 3%  (C) 2%...
7. Welfare Benefits: (A) $90./wk.  (B) $60./wk.  (C) $45./wk...
8. Payroll Taxes: (Soc. Sec. & Unemployment Insurance) 8.3%...
9. Workmen's Compensation Insurance: (Rate $40.00 per M)...
10. Power Cost: $0.07 per kWh (based on hp rating)...
11. Power Cost: $0.07 per kWh (based on kW rating)...
12. Direct Supplies (see instructions)...
13. Repairs & Maint.: (A) 1% 1 shift/2.5% 2 shifts/3% 3 shifts...
14. Sub-total...
15. General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts...
16. TOTAL MANUFACTURING COSTS...
17. Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts...
18. TOTAL COSTS...

**MANUFACTURING COST PER PRODUCTIVE HOUR @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>548.58</th>
<th>477.25</th>
<th>415.46</th>
<th>400.83</th>
<th>345.29</th>
<th>296.86</th>
<th>344.42</th>
<th>295.32</th>
<th>252.46</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>621.72</td>
<td>540.88</td>
<td>470.86</td>
<td>454.28</td>
<td>391.32</td>
<td>336.44</td>
<td>390.35</td>
<td>334.69</td>
<td>286.12</td>
</tr>
<tr>
<td>60% productivity</td>
<td>777.15</td>
<td>676.11</td>
<td>588.57</td>
<td>567.84</td>
<td>489.15</td>
<td>420.55</td>
<td>487.93</td>
<td>418.37</td>
<td>357.65</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>778.98</th>
<th>677.70</th>
<th>589.96</th>
<th>549.14</th>
<th>473.04</th>
<th>406.70</th>
<th>454.64</th>
<th>389.82</th>
<th>333.24</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>882.84</td>
<td>768.06</td>
<td>668.62</td>
<td>622.36</td>
<td>536.11</td>
<td>460.92</td>
<td>515.26</td>
<td>441.80</td>
<td>377.68</td>
</tr>
<tr>
<td>60% productivity</td>
<td>1,103.55</td>
<td>960.07</td>
<td>835.77</td>
<td>777.95</td>
<td>670.14</td>
<td>576.15</td>
<td>644.07</td>
<td>552.25</td>
<td>472.10</td>
</tr>
</tbody>
</table>

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## AREA A

**MANUFACTURING COSTS**

- Workmen’s Compensation Insurance (Rate $40.00 per M):
  - Area A: $4,181

**Area A**

- **TOTAL MANUFACTURING COSTS**:
  - $120,136

**LABOR COSTS**

- **Labor Cost-2 Shifts**:
  - $6,733

- **Indirect Labor (Supervision & Misc.)**:
  - 1 shift/134,298
  - 2 shifts/499.76

**FUNCTION**

- **Pressman**:
  - $52,428

- **Operator**:
  - $43,124

**TOTAL INVEST.**

- $5,371,919

## AREA B

**MANUFACTURING COSTS**

- Workmen’s Compensation Insurance (Rate $40.00 per M):
  - Area A: $4,181

**Area A**

- **TOTAL MANUFACTURING COSTS**:
  - $14,040

**LABOR COSTS**

- **Labor Cost-2 Shifts**:
  - $20,198

- **Indirect Labor (Supervision & Misc.)**:
  - 1 shift/134,298
  - 2 shifts/499.76

**FUNCTION**

- **Pressman**:
  - $52,428

- **Operator**:
  - $43,124

**TOTAL INVEST.**

- $5,371,919

## AREA C

**MANUFACTURING COSTS**

- Workmen’s Compensation Insurance (Rate $40.00 per M):
  - Area A: $4,181

**Area A**

- **TOTAL MANUFACTURING COSTS**:
  - $161,158

**LABOR COSTS**

- **Labor Cost-2 Shifts**:
  - $18,720

- **Indirect Labor (Supervision & Misc.)**:
  - 1 shift/134,298
  - 2 shifts/499.76

**FUNCTION**

- **Pressman**:
  - $52,428

- **Operator**:
  - $43,124

**TOTAL INVEST.**

- $5,371,919

---

**PERFECTING**

- Yes

**COLORS**

- 12

**RESOLUTION**

- n/a

**SQ. FT.**

- 850

---

**PRODUCT CLASS/PROCESS**

- Wet Offset

**INTERFACES WITH:**

- Digital ink key data from prepress or previously saved jobs.

---

**BASE COST ABOVE INCLUDES**

- Auto plate changing; auto; blanket washing; paper size preset; auto ink roller washing; KMS-IV; deionized air in feeder & deliv.; auto infused brushes; nonstop feeder; vac. infused tapes; electronic sheet detect; dump, skew; anti ghosting rollers; Komorimatic dampering; reverse nip; hickey picker; chrome plated plate, blanket & impress. cyts.; lateral, circumference, angle, tag, register; auto start/stop; double sheet detector; wall loader; vac. side guide; osc. timing adjust.; variable ink ductor timing; osc. dampener rider roller; water level sensor; preset counter; stacking, job, and press counter; paper thickness preset; remote infused cyl. cooking; remote fanout adj.; motorized release cam; KHS; auto impress. cyl. cleaners; feeder side blower preset; inker phasing; PDCS-II; Bladsetter; intercom feeder/delivery; installation.

---

**AUXILIARY EQUIPMENT INCLUDES**

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
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<td>2 weeks</td>
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</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Pressman: $52,428
- Operator: $43,124

**LABOR COST-2 SHIFTS**

- Pressman: $108,002
- Operator: $88,835

**LABOR COST-3 SHIFTS**

- Pressman: $164,624
- Operator: $135,409

**TOTAL:**

- $95,552
- $87,100
- $76,014

---

**One Shift**

- Sheetfed Offset

**Two Shifts**

- Presses: 12-Unit

**Three Shifts**

- Presses: 12-Unit

---

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Sheetfed Offset

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### BASE COST ABOVE INCLUDES

Water circulators; hollow vibrator rollers; ink temperature control chiller; powder sprayer; high pile non-stop feeder and delivery; remote ink wash-up; plate mounting system; plate cocking system; cylinder cocking system; ACC (Akiyama Color Control) Console with inspection lighting unit; plate binder; paper size preset; impression preset; blanket washer; press raise kit; delivery and rigging to customer's plant (Continental USA); training.

### AUXILIARY EQUIPMENT INCLUDES


### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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<th>Area A</th>
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</table>

### FUNCTION LABOR COSTS

- **LABOR COST-1 SHIFT**
  - Pressman: $52,428
  - Operator: $43,124
  - Helper: $33,174

- **LABOR COST-2 SHIFTS**
  - Pressman: $48,840
  - Operator: $32,099
  - Helper: $29,072

- **LABOR COST-3 SHIFTS**
  - Pressman: $43,915
  - Operator: $49,253
  - Helper: $43,915

### VARIABLE CHARGES

- 4. Direct Labor

- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts

- 6. Pension Fund (A) 5% (B) 3% (C) 2%

- 7. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk

- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%

- 9. Worker's Compensation Insurance (Rate $4.00 per M.)

- 10. Power Cost @ $0.07 per kWh (based on hp rating)

- 11. Power Cost @ $0.07 per kWh (based on kW rating)

- 12. Direct Supplies (see instructions)

- 13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts

- 14. Sub-total

- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts

- 16. TOTAL MANUFACTURING COSTS

- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts

- 18. TOTAL COSTS

- 19. MANUFACTURING COSTS per productive hour @

  - 85% productivity
  - 75% productivity
  - 60% productivity

- 20. ALL-INCLUSIVE COSTS per productive hour @

  - 85% productivity
  - 75% productivity
  - 60% productivity

### TOTAL INVEST.:

- $2,970,000
MAN Roland, R 712 P

29.13" X 40.94"  12  12,000 pph  hp: -- kWhs: 232

PERFECTING: Yes  COLORS: n/a  RESOLUTION: 1,700

BASE COST ABOVE INCLUDES
Auto changeover to perfecting; sheet holder, diag, sheet correction, suction feed board, trend ind, auto. format of feeder, adjust. front lay & sheet timing, pregrpper, bearer contact, auto. impress. cyl. setting, adjust. ink oscill. timing, speed compens. damp., sheet brake, lateral jogger, foil keyboard, job card storage, double detect, pneumatic side guide, auto. setting of side guide, side edge control, PPI, auto. plate loading, pin reg., plate cyl. positioning, auto. blanket wash, internet sheet detect, RCI ink control, ink inflde progr., auto. ink unit splitting, transferer, remote running req., auto. format of deliv., nonstop deliv., powder spray, sheet decurl, central lubr., sheet counter, covered ink/water rollers, ceramic fount. roller, skewable damp., feeder & deliv. load boards, self diagnos.. tach., washup device, water recirc., install., training.

AUXILIARY EQUIPMENT INCLUDES

Note: Available options, not included in this study are as follows: Coating Unit, APL Automatic Plate Loading; Pecom Press Manager.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>4 weeks</td>
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</tr>
</tbody>
</table>

FUNCTION

LABOR COST-1 SHIFT

Pressman $52,428

Operator $43,124

LABOR COST-2 SHIFTS

LABOR COST-3 SHIFTS

TOTAL MANUFACTURING COSTS

Direct Labor $1,378,001

Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts $19,110

Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft $324.38

Power Cost @ $0.07 per kWh (based on kWh rating) $966,597

Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts $398

Utilities (A) $90./wk.  (B) $60./wk.  (C) $45./wk $246.38

Workmen's Compensation Insurance (Rate $40.00 per M) 40,000 $1,020,303

Manning Code

Charges Code

ONE SHIFT

AREA A $87,100  AREA B $76,014  AREA C $196,837

TWO SHIFTS

AREA A $179,426  AREA B $156,589  AREA C $300,033

THREE SHIFTS

AREA A $273,494  AREA B $238,684  AREA C $423,876

TOTAL INVEST.: $3,625,000

MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
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<tbody>
<tr>
<td>$545.12 $479.61</td>
<td>$423.14 $383.97</td>
<td>$335.70 $293.69</td>
</tr>
<tr>
<td>$324.38 $282.73</td>
<td>$248.36 $216.14</td>
<td>$184.10 $152.90</td>
</tr>
<tr>
<td>$248.36 $216.14</td>
<td>$184.10 $152.90</td>
<td>$120.54 $100.30</td>
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</table>

<table>
<thead>
<tr>
<th>80% productivity</th>
<th>70% productivity</th>
<th>60% productivity</th>
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</thead>
<tbody>
<tr>
<td>$774.07 $681.05</td>
<td>$600.86 $525.05</td>
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<td>$428.19 $372.31</td>
<td>$325.22 $281.35</td>
<td>$219.35 $187.46</td>
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<tr>
<td>$428.19 $372.31</td>
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</tbody>
</table>

SHEETED OFFSET

Presses: 12-Unit

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Sheeted Offset
Presses: 12-Unit

398
Section 2

DIGITAL IMAGING PRESSES: COLOR
<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
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</thead>
<tbody>
<tr>
<td>12.6&quot; X 18.5&quot;</td>
<td>4,000 iph</td>
<td>hp:</td>
<td>kWs: 18 est.</td>
</tr>
</tbody>
</table>

**PERFECTING:**
- COLORS: standard
- RESOLUTION: 800 dpi
- SQ. FT.: 225

**BASE COST ABOVE INCLUDES**
- 4-color digital press; six month warranty; training.

*Installation Note: Survey did not indicate an installation cost. Adjust your total investment cost accordingly.

**AUXILIARY EQUIPMENT INCLUDES**
- Note: Options, not included in this study, include the following: 5th, 6th, or 7th color; ink mixing system; HP Production Stream Server powered by Creo.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
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</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

**TOTAL:**
- $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

**Costs Breakdown**

- Depreciation @ 20% per year $65,000
- Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
- Indirect Labor (Supervision & Misc.) 20% of Direct Labor
- Pension Fund (A) 5% (B) 3% (C) 2%
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.
- Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%
- Worker's Compensation Insurance (Rate $40.00 per M.)
- Power Cost @ $0.07 per kWh (based on kwH rating)
- Repair & Maint. @ $0.07 per kwH (based on kwH rating)
- Utilities: Water, Gas, & Electrical:
- Taxes: Property, Local, & State:
- Contractors:
- Fringe Benefts:
- OPEX:
- Tcard:
- Insurance:
- Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
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- Repair & Maint. @ $0.07 per kwH (based on kwH rating)
- Utilities: Water, Gas, & Electrical:
- Taxes: Property, Local, & State:
- Contractors:
- Fringe Benefts:
- OPEX:
- Tcard:
- Insurance:
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- Fringe Benefts:
- OPEX:
- Tcard:
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- Contractors:
- Fringe Benefts:
- OPEX:
- Tcard:
- Insurance:

**TOTAL INVEST.:** $325,000
### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
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<tr>
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<td><strong>FUNCTION</strong></td>
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<tr>
<td><strong>LABOR COST-1 SHIFT</strong></td>
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<td>$129,296</td>
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<tr>
<td><strong>LABOR COST-2 Shifts</strong></td>
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<tr>
<td><strong>LABOR COST-3 Shifts</strong></td>
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<td><strong>TOTAL:</strong></td>
<td>$49,404</td>
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<td>$94,350</td>
<td>$84,825</td>
<td>$155,129</td>
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<td>$129,296</td>
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### Fixed Charges (Non-Variable)

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>1. Depreciation @ 20% per year</td>
<td>$83,000</td>
<td>$83,000</td>
<td>$83,000</td>
<td>$83,000</td>
<td>$83,000</td>
<td>$83,000</td>
<td>$83,000</td>
<td>$83,000</td>
<td>$83,000</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.</td>
<td>$2,363</td>
<td>1,575</td>
<td>1,125</td>
<td>$2,363</td>
<td>1,575</td>
<td>1,125</td>
<td>$2,363</td>
<td>1,575</td>
<td>1,125</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M.)</td>
<td>1,660</td>
<td>1,660</td>
<td>1,660</td>
<td>1,660</td>
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<td>1,660</td>
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<td>1,660</td>
</tr>
<tr>
<td>5. Indirect Labor (Supervision &amp; Misc.) 20% 1 shift / 15% 2 shifts / 10% 3 shifts</td>
<td>9,881</td>
<td>9,160</td>
<td>8,235</td>
<td>15,266</td>
<td>14,153</td>
<td>12,724</td>
<td>15,513</td>
<td>14,382</td>
<td>12,930</td>
</tr>
<tr>
<td>6. Pension Fund (A) 5% (B) 3% (C) 2%</td>
<td>2,470</td>
<td>1,374</td>
<td>824</td>
<td>5,089</td>
<td>2,831</td>
<td>1,996</td>
<td>7,756</td>
<td>4,314</td>
<td>2,586</td>
</tr>
<tr>
<td>7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.</td>
<td>4,680</td>
<td>3,120</td>
<td>2,340</td>
<td>9,360</td>
<td>6,240</td>
<td>4,680</td>
<td>14,040</td>
<td>9,360</td>
<td>7,020</td>
</tr>
<tr>
<td>8. Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
<td>4,921</td>
<td>4,562</td>
<td>4,101</td>
<td>9,714</td>
<td>9,006</td>
<td>8,097</td>
<td>14,163</td>
<td>13,130</td>
<td>11,805</td>
</tr>
<tr>
<td>9. Worker’s Compensation Insurance (Rate $40.00 per M.)</td>
<td>2,371</td>
<td>2,198</td>
<td>1,976</td>
<td>4,682</td>
<td>4,340</td>
<td>3,902</td>
<td>6,826</td>
<td>6,328</td>
<td>5,689</td>
</tr>
<tr>
<td>10. Power Cost @ $0.07 per kWh (based on hp rating)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>11. Power Cost @ $0.07 per kwh (based on kwh rating)</td>
<td>1,212</td>
<td>1,332</td>
<td>1,464</td>
<td>2,424</td>
<td>2,665</td>
<td>2,927</td>
<td>3,630</td>
<td>3,997</td>
<td>4,391</td>
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<tr>
<td>12. Direct Supplies (see instructions)</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>6,000</td>
<td>6,000</td>
<td>6,000</td>
<td>9,000</td>
<td>9,000</td>
<td>9,000</td>
</tr>
<tr>
<td>13. Repairs &amp; Maint. @ 4% 1 shift / 6% 2 shifts / 8% 3 shifts</td>
<td>16,600</td>
<td>16,600</td>
<td>16,600</td>
<td>24,900</td>
<td>24,900</td>
<td>24,900</td>
<td>33,200</td>
<td>33,200</td>
<td>33,200</td>
</tr>
<tr>
<td>15. General Factory—15% 1 shift / 12.5% 2 shifts / 10% 3 shifts</td>
<td>27,224</td>
<td>26,007</td>
<td>24,825</td>
<td>33,279</td>
<td>31,340</td>
<td>29,442</td>
<td>34,628</td>
<td>32,376</td>
<td>30,170</td>
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<tr>
<td>16. TOTAL MANUFACTURING COSTS</td>
<td>208,786</td>
<td>199,990</td>
<td>190,326</td>
<td>299,507</td>
<td>282,059</td>
<td>264,977</td>
<td>380,913</td>
<td>356,138</td>
<td>331,871</td>
</tr>
<tr>
<td>17. Administrative &amp; Selling Overhead—42% 1 shift / 37% 2 shifts / 32% 3 shifts</td>
<td>87,694</td>
<td>83,744</td>
<td>79,938</td>
<td>110,818</td>
<td>104,362</td>
<td>98,042</td>
<td>121,892</td>
<td>113,964</td>
<td>106,199</td>
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<tr>
<td>18. TOTAL COSTS</td>
<td>$296,490</td>
<td>$283,134</td>
<td>$270,265</td>
<td>$410,325</td>
<td>$386,420</td>
<td>$363,019</td>
<td>$502,806</td>
<td>$470,102</td>
<td>$438,070</td>
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<tr>
<td>19. MANUFACTURING COSTS per productive hour @ 85% productivity</td>
<td>$153.24</td>
<td>$133.09</td>
<td>$115.66</td>
<td>$109.91</td>
<td>$94.14</td>
<td>$80.51</td>
<td>$93.19</td>
<td>$79.24</td>
<td>$67.22</td>
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<tr>
<td>75% productivity</td>
<td>173.67</td>
<td>150.84</td>
<td>131.08</td>
<td>124.56</td>
<td>106.69</td>
<td>91.25</td>
<td>105.61</td>
<td>89.81</td>
<td>76.19</td>
</tr>
<tr>
<td>60% productivity</td>
<td>217.09</td>
<td>188.55</td>
<td>163.85</td>
<td>155.70</td>
<td>133.36</td>
<td>114.06</td>
<td>132.01</td>
<td>112.26</td>
<td>95.23</td>
</tr>
<tr>
<td>20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity</td>
<td>$217.60</td>
<td>$188.99</td>
<td>$164.24</td>
<td>$150.57</td>
<td>$128.97</td>
<td>$110.30</td>
<td>$123.01</td>
<td>$104.60</td>
<td>$88.74</td>
</tr>
<tr>
<td>75% productivity</td>
<td>246.61</td>
<td>214.19</td>
<td>186.13</td>
<td>170.65</td>
<td>146.16</td>
<td>125.01</td>
<td>139.41</td>
<td>118.54</td>
<td>100.57</td>
</tr>
<tr>
<td>60% productivity</td>
<td>308.27</td>
<td>267.74</td>
<td>232.67</td>
<td>213.31</td>
<td>182.70</td>
<td>156.26</td>
<td>174.26</td>
<td>148.18</td>
<td>125.71</td>
</tr>
</tbody>
</table>
Xerox, DocuColor 5000 Digital Color Press

**SIZE:** 12.6” X 19.2”  
**UNITS:** 1  
**MAXIMUM SPEED:** 3,000 iph (50 ppm)  
**POWER:** hp: --  
**kWhs:** 10 est.  
**PERFECTING:** Yes  
**COLORS:** CMYK  
**RESOLUTION:** 2400 X 2400  
**SQ. FT.:** 250  
**PRODUCT CLASS/PROCESS:** Sheetfed Digital Color Press  
**INTERFACES WITH:** Efi, Creo, and DocuSP color servers, 3rd party in-line finishing devices.  
**BASE COST:** $99,000

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**  
Pressman $49,404  
$45,801  
$41,177  
$101,772  
$94,350  
$84,825  
$155,129  
$143,815  
$129,296  

**LABOR COST-2 SHIFTS**  
TOTAL: $49,404  
$45,801  
$41,177  
$101,772  
$94,350  
$84,825  
$155,129  
$143,815  
$129,296  

**LABOR COST-3 SHIFTS**  

---

**BASE COST ABOVE INCLUDES**

50 ppm digital color press with high quality output on a wide array of media, from 60 gsm to 300 gsm, and from 7.2” X 7.2” to 12.6” X 19.2”; two 550 sheet paper trays; one 2,000 sheet paper tray; 500 sheet offsetting catch tray; installation.  

Note: The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance Charge: $520/month.  
Click Charge: $0.04 (over 20,000)

---

**AUXILIARY EQUIPMENT INCLUDES**

Note: Optional devices, not included in this study, are as follows: high capacity stacker stapler ($12,500); enhanced high capacity stacker ($15,000); and EFI, Creo, or DocuSP color servers (price varies).

---

**VARIABLE CHARGES**

4. Direct Labor:  
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts:  
6. Pension Fund (A) 5% (B) 3% (C) 2%:  
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk:  
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%:  
9. Workmen’s Compensation Insurance (Rate $40.00 per M):  
10. Power Cost @ $0.07 per kWh (based on hp rating):  
11. Power Cost @ $0.07 per kWh (based on kW rating):  
12. Direct Supplies (see instructions):  
13. Repairs & Maint. @ 4% 1 shift/6% 2 shifts/8% 3 shifts:  
14. Sub-total:  
15. General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts:  
16. TOTAL MANUFACTURING COSTS:  
17. Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts:  
18. TOTAL COSTS:  
19. MANUFACTURING COSTS per productive hour @ 85% productivity:  
20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity:  

---

**TOTAL INVEST:** $99,000

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**Full Color Digital Presses**
Xerox, DocuColor 6060 Digital Color Press

SIZE: 12.6” X 19.2”
UNITS: 1
MAXIMUM SPEED: 3,600 pgs./hr.
POWER: hp: --
kWhs: 10 est.

PERFECTING: Yes
COLORS: CMYK
RESOLUTION: 600 X 600 X 8 dpi
SQ. FT.: 250

PRODUCT CLASS/PROCESS: Sheetfed Digital Color Press

BASE COST: $139,000

AUXILIARY EQUIP.: n/a
INSTALL. (EST.): Included
TOTAL INVEST.: $139,000

BASE COST ABOVE INCLUDES
60 ppm digital color press with high quality output on a wide array of media from 64 to 300 gsm, and from B5 to 12.6” X 19.2”. Comes standard with two 2,000 sheet paper trays, and a 500 sheet offsetting catch tray. Includes installation.
Base cost varies depending on configuration.

Note: The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance Charge: $520/month.
Click Charge: $0.04 (over 20,000)

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

Provisions Area A Area B Area C Area A Area B Area C Area A Area B Area C
Hours/Week 35 37.5 40 35 37.5 40 35 37.5 40
Paid Holidays 11 10 8 11 10 8 11 10 8
Vacation After One Year 4 weeks 3 weeks 2 weeks 4 weeks 3 weeks 2 weeks 4 weeks 3 weeks 2 weeks

FUNCTION LABOR COST-1 SHIFT LABOR COST-2 SHIFTS LABOR COST-3 SHIFTS
Pressman $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

TOTAL: $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

AUXILIARY EQUIPMENT INCLUDES

Note: Options, not included in this study, include EFI, Creo, or DocuSP color servers (price varies).

No. of Manned Hours Annually @ 100% Productivity……………………………………………………………

1,603 1,763 1,936 3,206 3,525 3,872 4,809 5,288 5,808

FIXED CHARGES (NON-VARIABLE)
1. Depreciation @ 20% per year…………………………………………………………………………………………………… $27,800 $27,800 $27,800 $27,800 $27,800 $27,800 $27,800 $27,800 $27,800
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.…………………………………………………………………………. 2,625 1,750 1,250 2,625 1,750 1,250 2,625 1,750 1,250
3. Fire & Sprinkler Insurance (Rate $4.00 per M.)……………………………………………………………………………….. 556 556 556 556 556 556 556 556

VARIABLE CHARGES
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts…………………………………………………………. 9,881 9,160 8,235 15,266 14,153 12,724 15,513 14,382 12,930
6. Pension Fund (A) 5% (B) 3% (C) 2%…………………………………………………………………………………………… 2,470 1,374 824 5,089 2,831 1,696 7,756 4,314 2,586
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk………………………………………………………………………… 4,680 3,120 2,340 9,360 6,240 4,680 14,040 9,360 7,020
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%…………………………………………………………………………. 4,921 4,562 4,101 9,714 9,006 8,097 14,163 13,130 11,805
9. Worker’s Compensation Insurance (Rate $4.00 per M.)…………………………………………………………………….. 2,371 2,198 1,976 4,682 3,430 3,002 6,826 6,328 5,689
10. Power Cost @ $0.07 per kWh (based on hp rating)…………………………………………………………………………….. 0 0 0 0 0 0 0 0 0
11. Power Cost @ $0.07 per kWh (based on kW rating)…………………………………………………………………………….. 673 740 813 1,347 1,481 1,626 2,020 2,221 2,439
12. Direct Supplies (see instructions)………………………………………………………………………………………………… 500 500 500 1,000 1,000 1,000 1,500 1,500 1,500
13. Repairs & Maint. @ 4% 1 shift/ 6% 2 shifts/ 8% 3 shifts…………………………………………………………………………. 5,560 5,560 5,560 8,340 8,340 8,340 11,120 11,120 11,120
14. Sub-total………………………………………………………………………………………………………………………………… 111,441 103,122 95,133 187,550 171,845 156,495 259,048 236,276 213,990
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts………………………………………………………………………….. 16,716 15,468 14,270 23,444 21,481 19,962 25,905 23,629 21,399
16. TOTAL MANUFACTURING COSTS………………………………………………………………………………………………. 128,157 118,590 109,403 210,994 193,326 176,057 284,952 259,904 235,389
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts……………………………………………………… 53,826 49,801 45,949 78,068 71,531 65,141 91,185 83,169 75,325
18. TOTAL COSTS………………………………………………………………………………………………………………………… $181,983 $168,398 $155,352 $289,061 $264,857 $241,199 $376,137 $343,073 $310,714
19. MANUFACTURING COSTS per productive hour @
85% productivity $94.06 $79.16 $66.48 $77.43 $64.52 $53.49 $69.71 $57.83 $47.68
75% productivity 106.60 89.71 75.35 87.75 73.13 60.63 79.01 65.54 54.04
60% productivity 133.25 112.14 94.18 109.69 91.41 75.78 98.76 81.92 67.55
20. ALL-INCLUSIVE COSTS per productive hour @
85% productivity $133.56 $112.41 $94.40 $106.07 $88.40 $73.29 $92.02 $76.33 $62.94
75% productivity 151.37 127.39 106.99 120.22 100.18 83.06 104.29 86.51 71.33
60% productivity 189.21 159.24 133.74 150.27 125.23 103.82 130.36 108.14 89.16
### Xerox, DocuColor 7000 Digital Color Press

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.6&quot; X 19.2&quot;</td>
<td>1</td>
<td>4,200 iph (70 cpm)</td>
<td>hp: -- kWs: 10 est.</td>
<td>Sheetfed Digital Color Press</td>
<td>$245,000</td>
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<tr>
<td>PERFECTING: Yes</td>
<td>COLORS: Full Color</td>
<td>RESOLUTION: 2400 X 2400 X 1 dpi</td>
<td>SQ. FT.: 250</td>
<td>BASE COST:</td>
<td>$245,000</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>INTERFACES WITH:</td>
<td></td>
</tr>
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</table>

### BASE COST ABOVE INCLUDES
- 70 ppm digital press with high quality output on a wide array of media, from 60 gsm to 300 gsm, and from 7.2" x 7.2" to 12.6" x 19.2". Two 2,000 sheet paper trays; a color server of choice; 500 sheet offsetting catch tray; installation.

Note: The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance Charge: $520/month.
Click Charge: $0.04 (over 20,000)

### AUXILIARY EQUIPMENT INCLUDES
- High capacity stacker ($15,500); secondary feed module ($10,000).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
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<td>40</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>35</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td>11</td>
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<td>11</td>
<td>8</td>
<td>11</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td></td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT LABOR COST-2-shifts LABOR COST-3-shifts

- **Pressman**
  - Labor Cost-1 Shift: $49,404
  - Labor Cost-2 Shifts: $101,772
  - Labor Cost-3 Shifts: $155,129

### TOTAL: $294,705

### ONE SHIFT TWO Shifts THREE Shifts

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,930</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### All-Inclusive Costs per Productive Hour @

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
<th>20% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$127.15</td>
<td>$103.79</td>
<td>$88.90</td>
<td>$91.76</td>
<td>$77.56</td>
<td>$65.36</td>
</tr>
<tr>
<td>173.10</td>
<td>137.29</td>
<td>107.63</td>
<td>103.99</td>
<td>87.90</td>
<td>74.07</td>
</tr>
<tr>
<td>171.61</td>
<td>147.03</td>
<td>125.95</td>
<td>129.99</td>
<td>109.87</td>
<td>92.59</td>
</tr>
<tr>
<td>172.02</td>
<td>147.38</td>
<td>126.24</td>
<td>125.71</td>
<td>106.25</td>
<td>95.54</td>
</tr>
<tr>
<td>194.95</td>
<td>167.03</td>
<td>143.08</td>
<td>142.47</td>
<td>120.42</td>
<td>101.48</td>
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<tr>
<td>243.69</td>
<td>208.79</td>
<td>178.85</td>
<td>178.09</td>
<td>150.53</td>
<td>126.85</td>
</tr>
</tbody>
</table>

**Footnotes:**

- **PERFECTING:**
  - Color: Full Color
  - Resolution: 2400 X 2400 X 1 dpi
  - Sq. Ft.: 250

- **PAYROLL TAXES** (Soc. Sec. & Unemploy. Insurance) 8.3%

- **Pension Fund** (A) 5% (B) 3% (C) 2%...

- **Depreciation** @ 20% per year...

- **Maintenance Charge:** $520/month.

- **Click Charge:** $0.04 (over 20,000)

- **NOTES:**
  - This information is not used in this study. Use it to adjust Line 13 if necessary.

- **TOTAL INVEST:** $270,500

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**Full Color Digital Presses**
**BASE COST ABOVE INCLUDES**

80 ppm digital press with high quality output on a wide array of media, from 60 gsm to 300 gsm, and from 7.2" X 7.2" to 12.6" X 19.2"; two 2,000 sheet paper trays; a color server of choice; 500 sheet offsetting catch tray; installation.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance Charge: $520/month.
Click Charge: $0.04 (over 20,000)

**AUXILIARY EQUIPMENT INCLUDES**

High capacity stacker ($15,000); secondary feed module ($10,000).

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provision</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>Labor Cost-1 Shift</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Labor Cost-2 Shifts</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Labor Cost-3 Shifts</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL: $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

---

**MANUFACTURING COSTS**

<table>
<thead>
<tr>
<th>AREA</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>Area B</td>
<td>1,936</td>
<td>2,096</td>
<td>2,266</td>
</tr>
<tr>
<td>Area C</td>
<td>2,266</td>
<td>2,426</td>
<td>2,596</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
</tr>
<tr>
<td>75% productivity</td>
</tr>
<tr>
<td>60% productivity</td>
</tr>
</tbody>
</table>

---

**Full Color Digital Presses**

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405
**Xerox, iGen3 90 Digital Production Press**

<table>
<thead>
<tr>
<th>SIZE:</th>
<th>UNITS:</th>
<th>MAXIMUM SPEED:</th>
<th>POWER:</th>
<th>PRODUCT CLASS/PROCESS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.33&quot; X 22.5&quot;</td>
<td>1 n/a</td>
<td>5,400 iph (90 cpm)</td>
<td>hp: --</td>
<td>Sheetfed Digital Color Press</td>
<td>$499,000</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**
- Print engine; one feeder module; DocuSP RIP; one stacker module; 15 day basic customer operator training; installation.

**Note:** The following information is not used in this Study. Use it to adjust line 13 if necessary.

Maintenance Charge: $1,400/month.
Click Charge: $0.028

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

---

**AUXILIARY EQUIPMENT INCLUDES**
- EFI or Creo RIP ($30,000).

---

**BASE COST BELOW INCLUDES**
- Equipped. Shipped F.O.B.: Customer Site

---

**VARIABLE CHARGES**
- Depreciation @ 20% per year..............
- Rent & Heat (A) @ $10.50 (B) @ $7.00 (C) @ $5.00 sq. ft.
- Fire & Sprinkler Insurance (Rate $4.00 per M).
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.
- Workmen's Compensation Insurance (Rate $40.00 per M).
- Power Cost @ $0.07 per kWh (based on hp rating).
- Power Cost @ $0.07 per kWh (based on kW rating).
- Direct Labor Costs (including Superintendents, foremen, supervisors, etc.)
- Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.
- Ingredients (ink, paper, etc.)
- - Labor Costs
- - Materials
- - Overhead
- - Profit
- Total Cost includes all above costs and overheads.

---

**TOTAL COSTS**

**MAJOR LISTED ITEMS**
- EFI or Creo RIP ($30,000).
- NAPL-5
- Digital Presses
- Media
- Auxillary Equipment
- Interfaces
- Installations
- Training; installation.
- Perforating
- Perfector
- Puncher
- Collator (possibly a Standard Networks and FreeFlow)
- Perfecting
- DocuSP RIP
- Print Engine
- One Feeder Module
- One Feeder Module
- Full Color

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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</table>

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**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,940</td>
<td>4,801</td>
<td>4,177</td>
</tr>
<tr>
<td>101,772</td>
<td>94,350</td>
<td>84,825</td>
</tr>
<tr>
<td>155,129</td>
<td>143,815</td>
<td>129,296</td>
</tr>
</tbody>
</table>

---

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,116</td>
<td>2,116</td>
<td>2,116</td>
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<tr>
<td>2,116</td>
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<td>2,116</td>
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<tr>
<td>2,116</td>
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</tbody>
</table>

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**TOTAL:**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$49,404</td>
<td>$48,501</td>
<td>$41,177</td>
</tr>
<tr>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
</tr>
<tr>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

---

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$175.33</td>
<td>$152.92</td>
<td>$133.57</td>
</tr>
<tr>
<td>$120.57</td>
<td>$103.70</td>
<td>$89.14</td>
</tr>
<tr>
<td>$100.04</td>
<td>$85.38</td>
<td>$72.76</td>
</tr>
</tbody>
</table>

---

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$249.97</td>
<td>$217.15</td>
<td>$189.47</td>
</tr>
<tr>
<td>$165.18</td>
<td>$142.07</td>
<td>$122.12</td>
</tr>
<tr>
<td>$132.05</td>
<td>$117.71</td>
<td>$96.05</td>
</tr>
</tbody>
</table>

---

**500**
### Xerox, iGen3 110 Digital Production Press

**Size:** 14.33" X 22.5"  
**Units:** 1  
**Maximum Speed:** 6,600 iph (110 ppm)  
**Power:** kW: 16  
**Product Class/Process:** Sheetfed Digital Color Press  
**BASE Cost:** $580,000  
**Auxiliary Equip.:** n/a  
**Install. (Est.):** Included  
**Total Invest.:** $580,000

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**  
**Labor Cost-1 Shift**  
**Labor Cost-2 Shifts**  
**Labor Cost-3 Shifts**

| Pressman | $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

**Total:**  
$49,404 + $45,801 + $41,177 + $101,772 + $94,350 + $84,825 + $155,129 + $143,815 + $129,296

### Auxiliary Equipment Includes

- Equip. Shipped F.O.B.: Customer Site

---

**Size:**  
**Unit:** 600 X 4800 dpi  
**SQ. FT.:** 320

**BASE Cost Above Includes**

- Print engine: DocuSP RIP; two feeder modules; one stacker module; 15 day basic customer operator training; installation.  
- (The base cost of this press with an EFI or Creo RIP is $610,000.)

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

- Maintenance Charge: $2,200/month.  
- Click Charge: $0.016 (over 100,000)

---

**Auxiliary Equipment Includes**

- **Product Class/Process:** Sheetfed Digital Color Press  
- **BASE Cost Above Includes:**
  - Print engine: DocuSP RIP; two feeder modules; one stacker module; 15 day basic customer operator training; installation.  
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**Working Conditions and Annual Cost of Direct Labor (By Area)**

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<tr>
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<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
</tr>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
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<td>8</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**  
**Labor Cost-1 Shift**  
**Labor Cost-2 Shifts**  
**Labor Cost-3 Shifts**

| Pressman | $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

**Total:**  
$49,404 + $45,801 + $41,177 + $101,772 + $94,350 + $84,825 + $155,129 + $143,815 + $129,296

---

**Auxiliary Equipment Includes**

- **Product Class/Process:** Sheetfed Digital Color Press  
- **BASE Cost Above Includes:**
  - Print engine: DocuSP RIP; two feeder modules; one stacker module; 15 day basic customer operator training; installation.  
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  - Click Charge: $0.016 (over 100,000)

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**Working Conditions and Annual Cost of Direct Labor (By Area)**

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<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
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**FUNCTION**  
**Labor Cost-1 Shift**  
**Labor Cost-2 Shifts**  
**Labor Cost-3 Shifts**

| Pressman | $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

**Total:**  
$49,404 + $45,801 + $41,177 + $101,772 + $94,350 + $84,825 + $155,129 + $143,815 + $129,296

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**Auxiliary Equipment Includes**

- **Product Class/Process:** Sheetfed Digital Color Press  
- **BASE Cost Above Includes:**
  - Print engine: DocuSP RIP; two feeder modules; one stacker module; 15 day basic customer operator training; installation.  
  - (The base cost of this press with an EFI or Creo RIP is $610,000.)
  - Note: The following information is not used in this Study. Use it to adjust Line 13 if necessary.
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---

**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<th>Area C</th>
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**FUNCTION**  
**Labor Cost-1 Shift**  
**Labor Cost-2 Shifts**  
**Labor Cost-3 Shifts**

| Pressman | $49,404 | $45,801 | $41,177 | $101,772 | $94,350 | $84,825 | $155,129 | $143,815 | $129,296 |

**Total:**  
$49,404 + $45,801 + $41,177 + $101,772 + $94,350 + $84,825 + $155,129 + $143,815 + $129,296

---

**Auxiliary Equipment Includes**

- **Product Class/Process:** Sheetfed Digital Color Press  
- **BASE Cost Above Includes:**
  - Print engine: DocuSP RIP; two feeder modules; one stacker module; 15 day basic customer operator training; installation.  
  - (The base cost of this press with an EFI or Creo RIP is $610,000.)
  - Note: The following information is not used in this Study. Use it to adjust Line 13 if necessary.
  - Maintenance Charge: $2,200/month.  
  - Click Charge: $0.016 (over 100,000)
**MANUFACTURING COSTS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment Shipped F.O.B.</td>
<td>$298,932</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BASE COST ABOVE INCLUDES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrared dryer.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Install. Cost Note:</em> Survey did not indicate installation cost information. Adjust your actual investment cost accordingly.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AUXILIARY EQUIPMENT INCLUDES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equip. Shipped F.O.B.: Kansas City, MO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions</td>
<td></td>
<td></td>
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</tr>
<tr>
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<td>35</td>
<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td><strong>FUNCTION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LABOR COST-1 SHIFT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
<tr>
<td><strong>LABOR COST-2 SHIFTS</strong></td>
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</tr>
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<td></td>
<td>$101,772</td>
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<td>$84,825</td>
</tr>
<tr>
<td><strong>LABOR COST-3 SHIFTS</strong></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
<tr>
<td></td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
</tr>
<tr>
<td></td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS**

$298,932

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>Description</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL MANUFACTURING COSTS</strong></td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td></td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td></td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
<tr>
<td><strong>TOTAL COSTS</strong></td>
<td>$251,473</td>
<td>$237,684</td>
<td>$224,564</td>
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<tr>
<td></td>
<td>$364,208</td>
<td>$339,888</td>
<td>$316,245</td>
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<tr>
<td></td>
<td>$455,940</td>
<td>$422,840</td>
<td>$390,574</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th>Description</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$129.97</td>
<td>$111.73</td>
<td>$96.10</td>
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<td></td>
<td>$97.55</td>
<td>$82.80</td>
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<td>$84.50</td>
<td>$71.27</td>
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<td>75% productivity</td>
<td>147.30</td>
<td>126.63</td>
<td>108.91</td>
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<tr>
<td></td>
<td>110.56</td>
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<td>95.77</td>
<td>80.78</td>
<td>67.93</td>
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<tr>
<td>60% productivity</td>
<td>184.13</td>
<td>158.26</td>
<td>136.14</td>
</tr>
<tr>
<td></td>
<td>138.20</td>
<td>119.79</td>
<td>99.36</td>
</tr>
<tr>
<td></td>
<td>119.71</td>
<td>100.97</td>
<td>84.91</td>
</tr>
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</table>

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th>Description</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$184.56</td>
<td>$158.65</td>
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<tr>
<td></td>
<td>$133.65</td>
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<td>$111.54</td>
<td>$94.08</td>
<td>$79.11</td>
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<tr>
<td>75% productivity</td>
<td>209.17</td>
<td>179.81</td>
<td>154.66</td>
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<tr>
<td></td>
<td>151.47</td>
<td>128.56</td>
<td>108.90</td>
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<td></td>
<td>126.41</td>
<td>106.63</td>
<td>89.66</td>
</tr>
<tr>
<td>60% productivity</td>
<td>261.46</td>
<td>224.76</td>
<td>193.32</td>
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<tr>
<td></td>
<td>189.34</td>
<td>160.70</td>
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<tr>
<td></td>
<td>158.02</td>
<td>133.28</td>
<td>112.08</td>
</tr>
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</table>
### Presstek, 34 DI-E

**Size:** 13.39" X 18.11"  |  **Units:** 4  |  **Maximum Speed:** 7,000 iph  |  **Power:** hp: -- kWhs: 9.86  |  **Product Class/Process:** Digital Imaging Press-Color  |  **Base Cost:** $320,250  |  **Auxiliary Equip.:** n/a  |  **Install. (Est.):** Included  |  **Total Invest.:** $320,250

**Base Cost Above Includes:**
- Single sheet feeder; auto plate advance; auto blanket cleaner; auto ink roller cleaner; IR dryer; automatic ink key pre-setting; training; installation.

**Working Conditions and Annual Cost of Direct Labor (By Area):**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function Labor Cost-1 Shift:**
- Pressman
  - Total: $49,404

**Function Labor Cost-2 Shifts:**
- Total: $101,772

**Function Labor Cost-3 Shifts:**
- Total: $155,129

**Auxiliary Equipment Includes:**
- Equip. Shipped F.O.B.: Hudson, NH

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>5,080</td>
<td>5,290</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
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<td>3,216</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>5,080</td>
<td>5,290</td>
<td>5,808</td>
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</tbody>
</table>

**THREE SHIFTS**

<table>
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<td>3,226</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>5,080</td>
<td>5,290</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TOTAL COSTS:**

- $258,699
- $244,969
- $231,839
- $370,892
- $346,550
- $322,811
- $462,109
- $429,813
- $396,478

**Manufacturing Costs per Productive Hour:**

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
<th>All-Inclusive Costs (per productive hour @ 85% Productivity)</th>
<th>75% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$133.71</td>
<td>$115.15</td>
<td>$99.21</td>
<td>$99.34</td>
<td>$84.42</td>
</tr>
<tr>
<td>$71.59</td>
<td>$64.60</td>
<td>$58.84</td>
<td>$71.59</td>
<td>$64.60</td>
</tr>
<tr>
<td>85% Productivity</td>
<td>75% Productivity</td>
<td>60% Productivity</td>
<td>All-Inclusive Costs (per productive hour @ 85% Productivity)</td>
<td>75% Productivity</td>
</tr>
<tr>
<td>$189.86</td>
<td>$163.52</td>
<td>$140.89</td>
<td>$136.10</td>
<td>$115.56</td>
</tr>
<tr>
<td>85% Productivity</td>
<td>75% Productivity</td>
<td>60% Productivity</td>
<td>All-Inclusive Costs (per productive hour @ 85% Productivity)</td>
<td>75% Productivity</td>
</tr>
<tr>
<td>$215.18</td>
<td>$185.32</td>
<td>$159.67</td>
<td>$154.25</td>
<td>$131.08</td>
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---

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## Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function Labor Cost-1 Shift

- Pressman: $49,404
- $45,801
- $41,177

- $101,772
- $94,350
- $84,825

- $155,129
- $143,815
- $129,296

### Function Labor Cost-2 Shifts

### Function Labor Cost-3 Shifts

## Total:

- $49,404
- $45,801
- $41,177

- $101,772
- $94,350
- $84,825

- $155,129
- $143,815
- $129,296

## Base Cost Above Includes

- Infrared dryer.

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your actual investment cost accordingly.

## Auxiliary Equipment Includes

- Equip. Shipped F.O.B.: Kansas City, MO

---

**xpedx/Import Group, Ryobi 3404 XDI**

**SIZE:** 13.39’ X 18.11’

**UNITS:** 4

**MAXIMUM SPEED:** 7,000 iph

**POWER:**
- hp: --
- kW: 17.5

**PRODUCT CLASS/PROCESS:**
- Digital Imaging Press, Waterless

**INTERFACES WITH:**
- Ethernet.

**BASE COST:** $409,803

**AUXILIARY EQUIP.:** n/a

**INSTALL (EST.):** See Note*

**TOTAL INVEST.:** $409,803

---

**No. of Manned Hours Annually @ 100% Productivity**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,063</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 20% per year
   - $81,961

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
   - Area A
   - Area B
   - Area C

3. Fire & Sprinkler Insurance (Rate $4.00 per M.)
   - $1,639

4. Direct Labor
   - $49,404

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts
   - $3,150

6. Pension Fund (A) 5% (B) 3% (C) 2%
   - $2,470

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
   - $1,700

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
   - $1,200

9. Workmen’s Compensation Insurance (Rate $40.00 per M.)
   - $1,200

10. Power Cost @ $0.07 per kWh (based on hp rating)
    - $0

11. Power Cost @ $0.07 per kWh (based on kWh rating)
    - $1,788

12. Direct Supplies (see instructions)
    - $0

13. Repairs & Maint. @ 4% 1 shift/6% 2 shifts/8% 3 shifts
    - $16,392

14. Sub-total
    - $181,047

15. General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts
    - $27,157

16. TOTAL MANUFACTURING COSTS
    - $208,204

17. Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts
    - $84,446

18. TOTAL COSTS
    - $295,650

19. MANUFACTURING COSTS per productive hour @

   - **85% productivity**
     - $152.80

   - **75% productivity**
     - $173.18

   - **60% productivity**
     - $216.47

20. ALL-INCLUSIVE COSTS per productive hour @

   - **85% productivity**
     - $216.98

   - **75% productivity**
     - $245.91

   - **60% productivity**
     - $307.39

---

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### PresTek, 34 DI-X

**Size:** 13.39” X 18.11”

**Units:** 4

**Maximum Speed:** 7,000 iph

**Power:** hp: --

**Kwhs:** 9.86

**Perfecting:** No

**Colors:** 4

**Resolution:** 2540 dpi

**Square Ft.:** 275

**Product Class/Process:** Digital Imaging Press-Color

**Base Cost:** $420,000

**Auxiliary Equip.:** n/a

**Install. (Est.):** Included

**Total Invest.:** $420,000

### Base Cost Above Includes

- Single sheet feeder; auto plate advance; auto blanket cleaner; auto ink roller cleaner; IR dryer; high grade powder sprayer; plate saver system; feeder pre-pile device; automatic ink key pre-setting; training; installation.

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function Labor Cost-1 Shift**

- Pressman: $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

**Labor Cost-2 Shifts**

**Labor Cost-3 Shifts**

**Total:**

- $49,404
- $45,801
- $41,177
- $101,772
- $94,350
- $84,825
- $155,129
- $143,815
- $129,296

### Auxiliary Equipment Includes

- Equip. Shipped F.O.B.: Husdon, NH

### One Shift

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tr>
<td>1,603</td>
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<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### Variable Charges

1. **Depreciation @ 20% per year**
   - 1st year: $84,000
   - 2nd year: $84,000
   - 3rd year: $84,000
   - 4th year: $84,000

2. **Rent & Heat** (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
   - Area A: $151.00
   - Area B: $155,129
   - Area C: $3,902

3. **Direct Labor**
   - Area A: $17,425
   - Area B: $1,925
   - Area C: $1,680

4. **Indirect Labor**
   - Area A: $2,405
   - Area B: $2,198
   - Area C: $2,190

5. **Pension Fund** (A) 5% (B) 3% (C) 2%
   - Area A: $2,470
   - Area B: $1,374
   - Area C: $824

6. **Welfare Benefits** (A) $90./wk. (B) $60./wk. (C) $45./wk.
   - Area A: $4,860
   - Area B: $3,120
   - Area C: $2,340

7. **Welfare Benefits** (A) $90./wk. (B) $60./wk. (C) $45./wk.
   - Area A: $9,881
   - Area B: $9,160
   - Area C: $8,235

8. **Payroll Taxes** (Soc. Sec. & Unemploy. Insurance) 8.3%
   - Area A: $2,288
   - Area B: $1,925
   - Area C: $1,680

9. **Workmen’s Compensation Insurance** (Rate $40.00 per M.)
   - Area A: $1,680
   - Area B: $1,680
   - Area C: $1,680

10. **Power Cost** @ $0.07 per kWh (based on kWh rating)
    - Area A: $2,809
    - Area B: $2,809
    - Area C: $2,809

11. **Power Cost** @ $0.07 per kWh (based on kWh rating)
    - Area A: $664
    - Area B: $730
    - Area C: $802

12. **Direct Supplies** (see instructions)
    - Area A: $3,000
    - Area B: $3,000
    - Area C: $3,000

13. **Repairs & Maint. @ 4% 1 shift/ 6% 2 shifts/ 8% 3 shifts**
    - Area A: $18,600
    - Area B: $16,800
    - Area C: $16,800

14. **Sub-total**
    - Area A: $182,758
    - Area B: $174,350
    - Area C: $166,310

15. **General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts**
    - Area A: $9,360
    - Area B: $2,888
    - Area C: $1,100

16. **Total Manufacturing Costs**
    - Area A: $210,172
    - Area B: $200,503
    - Area C: $197,257

17. **Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts**
    - Area A: $88,272
    - Area B: $84,211
    - Area C: $80,328

18. **Total Costs**
    - Area A: $298,444
    - Area B: $284,719
    - Area C: $271,585

19. **Manufacturing Costs per productive hour @**
    - 85% productivity: $154.25
    - 75% productivity: $174.82
    - 60% productivity: $216.52

20. **All-Inclusive Costs per productive hour @**
    - 85% productivity: $219.03
    - 75% productivity: $248.24

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**Full Color**

**Digital Presses**
### AREA A

**Digital Presses**

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$449,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
<tr>
<td></td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
</tr>
<tr>
<td></td>
<td>$155,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

**TOTAL:** $494,404

**Sub-total:** $41,177

**TOTAL MANUFACTURING COSTS:** $494,500

### AREA B

**NAPL-5**

**TOTAL INVEST.:** $494,500

### AREA C

**Digital Imaging Press, Waterless**

**TOTAL INVEST.:** $494,500

### Auxilliary Equipment includes

- Infrared dryer.

*Install. Cost Note:* Survey did not indicate installation cost information. Adjust your actual investment cost accordingly.

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
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<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### BASE Cost Above Includes

- Fixed Charges (Non-Variable)
  - 1. Depreciation @ 20% per year
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft
  - 3. Fire & Sprinkler Insurance (Rate $40.00 per M)

- Variable Charges
  - 4. Direct Labor
  - 5. Indirect Labor (Supervision & Misc) 20% 1 shift / 15% 2 shifts / 10% 3 shifts
  - 6. Pension Fund (A) 5% (B) 3% (C) 2%
  - 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
  - 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
  - 9. Workmen’s Compensation Insurance (Rate $40.00 per M)
  - 10. Power Cost @ $0.07 per kWh (based on hp rating)
  - 11. Power Cost @ $0.07 per kWh (based on kW rating)
  - 12. Direct Supplies (see instructions)
  - 13. Repairs & Maint. @ 4% 1 shift / 6% 2 shifts / 8% 3 shifts
  - 14. Sub-total
  - 15. General Factory—15% 1 shift / 12.5% 2 shifts / 10% 3 shifts
  - 16. TOTAL MANUFACTURING COSTS
  - 17. Administrative & Selling Overhead—42% 1 shift / 37% 2 shifts / 32% 3 shifts
  - 18. TOTAL COSTS

### All-Inclusive Costs

- MANUFACTURING COSTS per productive hour @
  - 85% productivity
  - 75% productivity
  - 60% productivity
  - ALL-INCLUSIVE COSTS per productive hour @
  - 85% productivity
  - 75% productivity

©2007 NAPL. All Rights Reserved
### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Area</th>
<th>ONE SHIFT</th>
<th>TWO Shifts</th>
<th>THREE Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provisions</td>
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<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$49,404</td>
<td>$45,801</td>
<td>$41,177</td>
</tr>
</tbody>
</table>

### Auxiliary Equipment Includes

- Optional equipment, not included in this study, includes: additional processor node; additional paper cart; operator table for workstation.

---

**Base Cost Above Includes**

NexPress M700 Digital Color Press; NexStation Digital Front End; high capacity delivery; starter kit (consumables); training; installation.

**Auxiliary Equipment Includes**

- Optional equipment, not included in this study, includes: additional processor node; additional paper cart; operator table for workstation.

---

**Full Color Digital Presses**

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**BASE COST ABOVE INCLUDES**

Stream feeder; vacuum pull side guide; auto plate advance; auto blanket cleaner; auto ink roller cleaner; IR dryer; high grade powder sprayer; plate saver system; feeder pre-pile device; automatic ink key pre-setting; training; installation.

**AUXILIARY EQUIPMENT INCLUDES**

- Base Equip. Shipped F.O.B.: Husdon, NH

---

**Presstek, 52 DI**

<table>
<thead>
<tr>
<th>UNIT</th>
<th>DESCRIPTION</th>
<th>PROVISIONS</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paid Holidays</td>
<td>11</td>
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<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FUNCTION</td>
<td>LABOR COST-1 SHIFT</td>
<td>$49,404</td>
<td>$45,801</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LABOR COST-2 SHIFTS</td>
<td>$101,772</td>
<td>$94,350</td>
<td>$84,825</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LABOR COST-3 SHIFTS</td>
<td>$159,129</td>
<td>$143,815</td>
<td>$129,296</td>
</tr>
</tbody>
</table>

**TOTAL COSTS**

<table>
<thead>
<tr>
<th></th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>1,603</td>
<td>3,206</td>
<td>4,809</td>
</tr>
<tr>
<td>AREA B</td>
<td>1,763</td>
<td>3,525</td>
<td>5,288</td>
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<tr>
<td>AREA C</td>
<td>1,936</td>
<td>3,872</td>
<td>5,808</td>
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</table>

**TOTAL INVEST. :** $595,000

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>No. of Manned Hours Annually @ 100% Productivity</th>
<th>1,603</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIXED CHARGES (NON-VARIABLE)</td>
<td>$119,000</td>
</tr>
<tr>
<td>1. Depreciation @ 20% per year</td>
<td>$119,000</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.</td>
<td>$119,000</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M.)</td>
<td>$119,000</td>
</tr>
<tr>
<td>VARIABLE CHARGES</td>
<td>$4,904</td>
</tr>
<tr>
<td>4. Direct Labor</td>
<td>$4,904</td>
</tr>
<tr>
<td>5. Indirect Labor (Supervision &amp; Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts</td>
<td>$4,460</td>
</tr>
<tr>
<td>6. Pension Fund (A) 5% (B) 3% (C) 2%</td>
<td>$2,886</td>
</tr>
<tr>
<td>7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.</td>
<td>$2,368</td>
</tr>
<tr>
<td>8. Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
<td>$2,886</td>
</tr>
<tr>
<td>9. Workmen’s Compensation Insurance (Rate $40.00 per M.)</td>
<td>$2,886</td>
</tr>
<tr>
<td>10. Power Cost @ $0.07 per kWh (based on hp rating)</td>
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</tr>
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<td>11. Power Cost @ $0.07 per kWh (based on kw rating)</td>
<td>$2,886</td>
</tr>
<tr>
<td>12. Direct Supplies (see instructions)</td>
<td>$2,886</td>
</tr>
<tr>
<td>13. Repairs &amp; Maint. @ 4% 1 shift/ 6% 2 shifts/ 8% 3 shifts</td>
<td>$2,886</td>
</tr>
<tr>
<td>14. Sub-total</td>
<td>$2,886</td>
</tr>
<tr>
<td>15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts</td>
<td>$2,886</td>
</tr>
<tr>
<td>16. TOTAL MANUFACTURING COSTS</td>
<td>$2,886</td>
</tr>
<tr>
<td>17. Administrative &amp; Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts</td>
<td>$2,886</td>
</tr>
<tr>
<td>18. TOTAL COSTS</td>
<td>$369,932</td>
</tr>
<tr>
<td>19. MANUFACTURING COSTS per productive hour @</td>
<td>$369,932</td>
</tr>
<tr>
<td>85% productivity</td>
<td>$191,200</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$216,690</td>
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<tr>
<td>60% productivity</td>
<td>$270,870</td>
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<tr>
<td>20. ALL-INCLUSIVE COSTS per productive hour @</td>
<td>$271,500</td>
</tr>
<tr>
<td>85% productivity</td>
<td>$271,500</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$307,700</td>
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<tr>
<td>60% productivity</td>
<td>$384,620</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
</tr>
<tr>
<td>14&quot; X 20.5&quot;</td>
<td>4 (5th Optional)</td>
</tr>
<tr>
<td>PERFECTING:</td>
<td>COLORS:</td>
</tr>
<tr>
<td>Yes</td>
<td>4 (5th Optional)</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**
NexPress 2100 Plus Digital Production Color Press; NexStation Digital Front End; starter kit (consumables); training; installation.

**AUXILIARY EQUIPMENT INCLUDES**
Note: Optional equipment, not included in this study, includes: NexClosure; inline booklet maker; additional input capacity; additional output capacity; 5th imaging unit; speed upgrade.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
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<td>10</td>
<td>8</td>
<td>11</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressman</td>
<td>$49,404</td>
<td>$45,801</td>
</tr>
</tbody>
</table>

**TOTAL:** $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

**TOTAL COSTS:** $292,079 $276,125 $261,684 $400,243 $373,726 $348,667 $487,732 $452,416 $418,658

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>150.96</td>
<td>171.09</td>
<td>213.86</td>
</tr>
<tr>
<td>129.80</td>
<td>147.10</td>
<td>183.86</td>
</tr>
<tr>
<td>111.99</td>
<td>126.92</td>
<td>158.65</td>
</tr>
<tr>
<td><strong>$107.21</strong></td>
<td><strong>121.50</strong></td>
<td><strong>151.88</strong></td>
</tr>
<tr>
<td><strong>91.04</strong></td>
<td><strong>103.18</strong></td>
<td><strong>128.98</strong></td>
</tr>
<tr>
<td><strong>77.33</strong></td>
<td><strong>87.64</strong></td>
<td><strong>109.55</strong></td>
</tr>
<tr>
<td><strong>90.39</strong></td>
<td><strong>102.45</strong></td>
<td><strong>128.06</strong></td>
</tr>
<tr>
<td><strong>76.26</strong></td>
<td><strong>86.43</strong></td>
<td><strong>108.09</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ALL-INCLUSIVE COSTS per productive hour @</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>$214.36</td>
</tr>
<tr>
<td>$184.31</td>
</tr>
<tr>
<td>$159.02</td>
</tr>
<tr>
<td><strong>$146.87</strong></td>
</tr>
<tr>
<td><strong>$124.73</strong></td>
</tr>
<tr>
<td><strong>$105.94</strong></td>
</tr>
<tr>
<td><strong>$119.32</strong></td>
</tr>
<tr>
<td><strong>$100.66</strong></td>
</tr>
<tr>
<td><strong>$84.80</strong></td>
</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$101,493</td>
<td>$103,18</td>
<td>$108,095</td>
</tr>
<tr>
<td>$94,165</td>
<td>$96,11</td>
<td>$102,45</td>
</tr>
<tr>
<td>$86,390</td>
<td>$84,825</td>
<td>$94,165</td>
</tr>
</tbody>
</table>

**TOTAL INVEST. : $400,165**

**Freq. Imaging unit; speed upgrade.**

**Kodak NexPress 2100 Plus Digital Production Color Press**

**NexPress 2100 Plus Digital Production Color Press;**

**NexStation Digital Front End;**

**Starter kit (consumables);**

**Training; installation.**

**AUXILIARY EQUIPMENT INCLUDES**

**Note:** Optional equipment, not included in this study, includes: NexClosure; inline booklet maker; additional input capacity; additional output capacity; 5th imaging unit; speed upgrade.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Hours/Week</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
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<td>35</td>
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<td>10</td>
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<tr>
<td>4 weeks</td>
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<td>2 weeks</td>
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<td>2 weeks</td>
<td></td>
</tr>
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<tr>
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<td><strong>76.26</strong></td>
<td><strong>86.43</strong></td>
<td><strong>108.09</strong></td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$214.36</td>
<td>$242.94</td>
<td>$303.68</td>
</tr>
<tr>
<td>$184.31</td>
<td>$208.69</td>
<td>$261.11</td>
</tr>
<tr>
<td>$159.02</td>
<td>$180.22</td>
<td>$225.28</td>
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<tr>
<td><strong>$146.87</strong></td>
<td><strong>166.46</strong></td>
<td><strong>208.07</strong></td>
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<tr>
<td><strong>$124.73</strong></td>
<td><strong>141.36</strong></td>
<td><strong>176.70</strong></td>
</tr>
<tr>
<td><strong>$105.94</strong></td>
<td><strong>120.06</strong></td>
<td><strong>150.08</strong></td>
</tr>
<tr>
<td><strong>$119.32</strong></td>
<td><strong>135.23</strong></td>
<td><strong>169.03</strong></td>
</tr>
<tr>
<td><strong>$100.66</strong></td>
<td><strong>114.08</strong></td>
<td><strong>142.61</strong></td>
</tr>
<tr>
<td><strong>$84.80</strong></td>
<td><strong>96.11</strong></td>
<td><strong>120.14</strong></td>
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</table>

**TOTAL MANUFACTURING COSTS**

<table>
<thead>
<tr>
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</tr>
<tr>
<td>$86,390</td>
<td>$84,825</td>
<td>$94,165</td>
</tr>
</tbody>
</table>

**TOTAL INVEST. : $400,165**

**Freq. Imaging unit; speed upgrade.**

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Full Color

Digital Presses
Kodak NexPress 2500 Digital Production Color Press

**SIZE:** 14" X 20.5"  
**UNITS:** 4  
**MAXIMUM SPEED:** 5,000 A4 sheets/hr.  
**POWER:** hp: --  
**kWhs:** 2.5  
**PERFECTING:** Yes  
**COLORS:** 4 (5th Optional)  
**RESOLUTION:** 600 dpi  

**Product Class/Process:** Digital Imaging Press-Color  
**Interfaces with:** PDF-based workflows; Postscript; PDF; and PPML/VDX.  

**BASE COST ABOVE INCLUDES**

NexPress 2500 Digital Production Color Press; NexStation Digital Front End; starter kit (consumables); training; installation.

**BASE COST:** $447,785  
**AUXILIARY EQUIPMENT:** n/a  
**INSTALL. (EST.):** Included  
**TOTAL INVEST.:** $447,785

**AUXILIARY EQUIPMENT INCLUDES**

Note: Optional equipment, not included in this study, includes: NexClosure; inline booklet maker; additional input capacity; additional output capacity; 5th imaging unit; speed upgrade; roll feed.

**AUXILIARY EQUIPMENT INCLUDES**

- Optional equipment, not included in this study, includes: NexClosure; inline booklet maker; additional input capacity; additional output capacity; 5th imaging unit; speed upgrade; roll feed.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
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<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

| Pressman | $49,404 |

**FUNCTION LABOR COST-2 SHIFTS**

| | $101,772 |

**FUNCTION LABOR COST-3 SHIFTS**

| | $155,129 |

**TOTAL:** $49,404 $45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

**ONE SHIFT**

- AREA A 1,603
- AREA B 1,763
- AREA C 1,936

**TWO Shifts**

- AREA A 3,206
- AREA B 3,525
- AREA C 3,872

**THREE Shifts**

- AREA A 4,809
- AREA B 5,288
- AREA C 5,808

**Fees**

- Equip. Shipped F.O.B.: Rochester, NY

---

**Digital Presses**

- PRESSES
- LAYOUT FOR
- MANNING CODE:
- page number: 416

---

**Design**

- Size: 14" X 20.5"
- Units: 4
- Maximum Speed: 5,000 A4 sheets/hr.
- Power: hp: -- kWhs: 2.5
- Perfecting: Yes
- Colors: 4 (5th Optional)
- Resolution: 600 dpi

---

**Features**

- Product Class/Process: Digital Imaging Press-Color
- Interfaces with: PDF-based workflows; Postscript; PDF; and PPML/VDX.

---

**Costs**

- Base Cost: $447,785
- Auxiliary Equipment: n/a
- Install. (Est.): Included
- Total Invest.: $447,785

---

**Usage**

- No. of Manned Hours Annually @ 100% Productivity:
- Fixed Charges (Non-VARIABLE)
  1. Depreciation @ 20% per year........ $ 89,557
  2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft........ $ 6,825
  3. Fire & Sprinkler Insurance (Rate $4.00 per M)........ $ 2,371
  4. Direct Labor.......................... $ 49,404
  5. Indirect Labor (Supervision & Misc) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.................. $ 8,981
  6. Pension Fund (A) 5% (B) 3% (C) 2%........ $ 2,470
  7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.......................... $ 6,480
  8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%........ $ 4,921
  9. Workmen's Compensation Insurance (Rate $40.00 per M).......... $ 2,371
  10. Power Cost @ $0.07 per kWh (based on hp rating).......... $ 6,480
  11. Power Cost @ $0.07 per kWh (based on kw rating)........ $ 6,480
  12. Direct Supplies (see instructions).................. $ 500
  13. Repairs & Maint. @ 4% 1 shift/ 6% 2 shifts/ 8% 3 shifts.................. $ 190,480
  14. Sub-total............................. $ 447,785
  15. General Factory – 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.................. $ 650
  16. TOTAL MANUFACTURING COSTS........... $ 219,052
  17. Administrative & Selling Overhead – 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.................. $ 92,002
  18. TOTAL COSTS.......................... $ 311,054
  19. MANUFACTURING COSTS per productive hour @
    - 85% productivity $ 160.77
    - 75% productivity $ 182.20
    - 60% productivity $ 227.75
  20. ALL-INCLUSIVE COSTS per productive hour @
    - 85% productivity $ 228.26
    - 75% productivity $ 258.73
    - 60% productivity $ 323.41

---

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Full Color Digital Presses
KBA North America, KBA 74 Karat

**Base Cost:** $1,514,000

**Auxiliary Equip.:** N/A

**Install. (Est.):** Included

**Total Invest.:** $1,514,000

---

### Safety Compliance

Control console; temperature control; powder spray; power conditioner; consumables for start-up; installation and training.

---

### Auxiliary Equipment Includes

- Equip. Shipped F.O.B.: Customer Loading Dock

---

### Base Cost Above Includes

- Direct labor.
- Indirect labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.
- Pension Fund (A) 5% (B) 3% (C) 2%.
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.
- Workmen’s Compensation Insurance (Rate $40.00 per M).
- Power @ $0.07 per kWh (based on hp rating).
- Power @ $0.07 per kWh (based on kW rating).
- Direct Supplies (see instructions).
- Repairs & Maint. 4% 1 shift/ 6% 2 shifts/ 8% 3 shifts.
- Sub-total.
- 15% 2 shifts/ 10% 3 shifts.
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.
- Depreciation @ 20% per year.
- Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft.
- Payroll Taxes 8.3%.
- Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk.
- Workmen’s Compensation Insurance (Rate $40.00 per M).
- Warehouse Insurance.
- Fire & Sprinkler Insurance.
- Repairs & Maintenance.
- Depreciation.
- Payroll Taxes.
- Welfare Benefits.
- Utilities.
- Administrative & Selling Overhead – 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.
- Total Costs.
- Manufacturing Costs.
- All-Inclusive Costs.
- Total Cost.

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
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</tr>
<tr>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

---

### Function

- **Labor Cost-1 Shift:**
  - Pressman: $49,404
  - $45,801
  - $41,177
  - Total: $101,772
  - $94,350
  - $84,825
  - Total: $155,129

- **Labor Cost-2 Shifts:**
  - Total: $143,815

- **Labor Cost-3 Shifts:**
  - Total: $129,296

---

### Manufacturing Costs

<table>
<thead>
<tr>
<th>One Shift</th>
<th>Two Shifts</th>
<th>Three Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

### Total Costs

- $744,428
- $731,236
- $718,618
- $876,042
- $852,581
- $829,732
- $982,015
- $950,011

---

### Manufacturing Costs per Productive Hour

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
<th>50% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$384.75</td>
<td>$349.75</td>
<td>$314.75</td>
<td></td>
</tr>
<tr>
<td>$389.56</td>
<td>$354.56</td>
<td>$319.56</td>
<td></td>
</tr>
<tr>
<td>$404.57</td>
<td>$369.57</td>
<td>$324.57</td>
<td></td>
</tr>
</tbody>
</table>

---

### All-Inclusive Costs

<table>
<thead>
<tr>
<th>85% Productivity</th>
<th>75% Productivity</th>
<th>60% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$456.35</td>
<td>$421.35</td>
<td>$386.35</td>
</tr>
<tr>
<td>$486.95</td>
<td>$451.95</td>
<td>$416.95</td>
</tr>
<tr>
<td>$517.55</td>
<td>$482.55</td>
<td>$447.55</td>
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</tbody>
</table>

---

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### KBA North America, KBA 74 Karat w/ Coater

**BASE COST ABOVE INCLUDES**
Control console; temperature control; powder spray; power conditioner; consumables for start-up; coating package; installation and training.

**BASE COST:** $1,717,000

**AUXILIARY EQUIPMENT INCLUDES**

### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

| Pressman | $49,404 |

**LABOR COST-2-shifts**

| $101,772 |

**LABOR COST-3-shifts**

| $155,129 |

**TOTAL:** $49,404 45,801 $41,177 $101,772 $94,350 $84,825 $155,129 $143,815 $129,296

### Auxiliary Equipment

**One Shift**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
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<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**Fixed Charges (Non-Variable)**

1. Depreciation @ 20% per year ................................................................. $343,400
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft............................ 2,625
3. Fire & Sprinkler Insurance (Rate $4.00 per M).................................... 6,686

**Variable Charges**

4. Direct Labor.......................................................................................... 49,404
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts..... 9,881
6. Pension Fund (A) 5% (B) 3% (C) 2%....................................................... 2,470
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk................... 6,686
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.......................... 4,680
9. Workmen's Compensation Insurance (Rate $40.00 per M).................. 6,686
10. Power Cost @ $0.07 per kWh (based on hp rating).............................. 0
11. Power Cost @ $0.07 per kWh (based on kWh rating)............................ 3,297
12. Direct Supplies (see instructions)....................................................... 7,000
13. Repairs & Maint. @ 4% 1 shift/6% 2 shifts/8% 3 shifts.......................... 68,680
14. Sub-total.............................................................................................. 505,397
15. General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts..................... 75,810
16. TOTAL MANUFACTURING COSTS......................................................... 581,207

** Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts.. 244,107
18. TOTAL COSTS........................................................................................ 825,313

**Manufacturing Costs per Productive Hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$426.56</th>
<th>$548.98</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>$483.43</td>
<td>$548.98</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$604.29</td>
<td>$660.62</td>
</tr>
</tbody>
</table>

**All-Inclusive Costs per Productive Hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$605.71</th>
<th>$727.20</th>
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</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>$686.47</td>
<td>$799.62</td>
</tr>
</tbody>
</table>

**TOTAL INVEST:** $1,717,000

---

**Equip. Shipped F.O.B.:** Customer Loading Dock
Section 3

DIGITAL DUPLICATORS/COPIER-PRINTERS: B/W
### Duplo USA, MD-161D

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.5&quot; X 14&quot;</td>
<td>600 dpi</td>
<td>n/a</td>
<td>kWhs: 1</td>
<td>B/W Digital Copier/Printers</td>
<td>$1,795</td>
</tr>
</tbody>
</table>

**DUPLEXING:**

- **COLOR ABILITY:** B/W Only
- **CAPABILITY:** n/a
- **INTERFACES WITH:** 75
- **SQUARE FT.:**
  - Area A
  - Area B
  - Area C

<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplo USA, MD-161D; training, installation.</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

<table>
<thead>
<tr>
<th>WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>Hours/Week</td>
</tr>
<tr>
<td>Paid Holidays</td>
</tr>
<tr>
<td>Vacation After One Year</td>
</tr>
<tr>
<td>FUNCTION</td>
</tr>
<tr>
<td>Operator</td>
</tr>
<tr>
<td>TOTAL:</td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**

- Available options, not included in this study, include network expansion and fax expansion.

**POWER COST @ $0.07 per kWh (based on hp rating)**

<table>
<thead>
<tr>
<th>AREA</th>
<th>TOTAL INVEST.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>$135,846</td>
</tr>
<tr>
<td>AREA B</td>
<td>$112,432</td>
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<tr>
<td>AREA C</td>
<td>$82,975</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
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</tbody>
</table>

**TOTAL COSTS**

<table>
<thead>
<tr>
<th>AREA</th>
<th>TOTAL COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>$90,891</td>
</tr>
<tr>
<td>AREA B</td>
<td>$77,654</td>
</tr>
<tr>
<td>AREA C</td>
<td>$64,326</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS per productive hour @**

- **85% productivity:** $46.98
- **75% productivity:** $53.24
- **60% productivity:** $66.55

**ALL-INCLUSIVE COSTS per productive hour @**

- **85% productivity:** $66.71
- **75% productivity:** $75.60
- **60% productivity:** $94.50

---

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### BASE COST ABOVE INCLUDES

Dupo USA, MD-231; training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Operator: $35,538
  - Area A: $31,488
  - Area B: $26,425
  - Area C: $26,425
  - Area A: $73,208
  - Area B: $64,865
  - Area C: $54,436
  - TOTAL: $111,589

- **LABOR COST-2 SHIFTS**
  - Area A: $73,208
  - Area B: $64,865
  - Area C: $54,436
  - TOTAL: $111,589

- **LABOR COST-3 SHIFTS**
  - Area A: $73,208
  - Area B: $64,865
  - Area C: $54,436
  - TOTAL: $111,589

### VARIABLE CHARGES

1. Depreciation @ 20% per year..........................
   - Area A: $1,130
   - Area B: $1,130
   - Area C: $1,130

2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft.
   - Area A: $788
   - Area B: $525
   - Area C: $375

3. Fire & Sprinkler Insurance (Rate $4.00 per M).
   - Area A: $1,130
   - Area B: $1,130
   - Area C: $1,130

### TOTAL:

- Area A: $35,538
- Area B: $31,488
- Area C: $26,425
- Area A: $73,208
- Area B: $64,865
- Area C: $54,436
- TOTAL: $111,589

### OTHER CHARGES

- Payroll Taxes  (Soc. Sec. & Unemploy. Insurance) 8.3%
  - Area A: $73,208
  - Area B: $64,865
  - Area C: $54,436
  - TOTAL: $111,589

### TOTAL MANUFACTURING COSTS

- Area A: $111,589
- Area B: $98,872
- Area C: $82,975
- TOTAL: $293,436

### TOTAL COSTS

- Area A: $92,534
- Area B: $79,301
- Area C: $65,978
- TOTAL: $239,813

### MANUFACTURING COSTS per productive hour @ 85% productivity

- Area A: $47.83
- Area B: $37.28
- Area C: $28.23
- TOTAL: $113.34

### ALL-INCLUSIVE COSTS per productive hour @ 85% productivity

- Area A: $67.91
- Area B: $52.93
- Area C: $40.99
- TOTAL: $161.83

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Duplo USA, MD-351N

MAX. SIZE: 11" X 17"  
RESOLUTION: 1,200 dpi  
FINISHING ABILITY: Optional stapler, saddle stitcher, and hole punch.  
POWER: kWhs: 1.8  
PRODUCT CLASS: B/W Digital Copier/Printers  
BASE COST: $5,695  
AUXILIARY EQUIP.: n/a  
INSTALL. (EST.): Included  
TOTAL INVEST.: $5,695  

BASE COST ABOVE INCLUDES
Duplo USA, MD-351N Network Printer; training; installation.

AUXILIARY EQUIPMENT INCLUDES
Note: Available options, not included in this study, include scanner module and rack stand with paper drawer; duplex module; saddle stitcher; stapler; mall bin; exit tray and expansion; network expansion; fax expansion; and hole puncher.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
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<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
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<td>2 weeks</td>
</tr>
<tr>
<td>FUNCTION</td>
<td>LABOR COST-1 SHIFT</td>
<td>LABOR COST-2 SHIFTS</td>
<td>LABOR COST-3 SHIFTS</td>
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<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

TOTAL: $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

No. of Manned Hours Annually @ 100% Productivity:

FIXED CHARGES (NON-VARIABLE)
1. Depreciation @ 20% per year.......................... $1,139
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft........ 788
3. Fire & Sprinkler Insurance (Rate $4.00 per M).………………… 23
4. Direct Labor.............................................. 35,538
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.......................... 7,108
6. Pension Fund (A) 5% (B) 3% (C) 2%........................... 1,777
7. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk...... 4,680
8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%........... 3,540
9. Workmen’s Compensation Insurance (Rate $40.00 per M)…... 1,706
10. Power Cost @ $0.07 per kWh (based on hp rating).............. 121
11. Power Cost @ $0.07 per kWh (based on kW rating).............. 121
12. Direct Supplies (see instructions).......................... 285
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts... 285
14. Sub-total.................................................. 56,703
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........... 8,505
16. MANUFACTURING COSTS............................... 65,208
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts........... 27,388
18. TOTAL COSTS.............................................. 92,596
19. MANUFACTURING COSTS per productive hour @ 85% productivity........... $47.86
20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity          $67.96
21. 75% productivity........................................ $54.24
22. 75% productivity........................................ $77.02
23. 60% productivity........................................ $67.80
24. 60% productivity........................................ $96.27

Digital Duplicators/ Copier-Printers: B&W
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### Duplo USA, MD-271

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<th></th>
<th></th>
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<tbody>
<tr>
<td>27 copies/min.</td>
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<table>
<thead>
<tr>
<th>WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>Hours/Week</td>
</tr>
<tr>
<td>Paid Holidays</td>
</tr>
<tr>
<td>Vacation After One Year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
</tr>
<tr>
<td></td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
</tr>
<tr>
<td></td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

| TOTAL: $35,538 | $31,488 | $26,425 | $73,208 | $64,865 | $54,436 | $111,589 | $98,872 | $82,975 |

### BASE COST ABOVE INCLUDES

Duplo USA, MD-271; training; installation.

### VARIABLE CHARGES

1. Depreciation @ 20% per year................................................. $1,999
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...................... 788
3. Fire & Sprinkler Insurance (Rate $40.00 per M).......................... 114
4. Equipment Insurance @ 3% of CPV.......................................... 9,027
5. Power Cost @ $0.07 per kWh (based on hp rating).......................... 525
6. Repair & Maint. @ 5% of 1 shift/ 10% 2 shifts/ 15% 3 shifts........... 0
7. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%...................... 3,540
8. Workman's Compensation Insurance (Rate $40.00 per M).................... 1,706
9. Power Cost @ $0.07 per kWh (based on hp rating).......................... 94
10. Direct Supplies (see instructions)......................................... 0
11. Total Direct Labor......................................................... 35,538
12. Total Paid Holidays....................................................... 0
13. Total Paid Vacation....................................................... 0
14. Total Direct Labor....................................................... 35,538

### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### TOTAL:

- **100% Productivity**: $93,091
- **96% Productivity**: $82,975
- **85% Productivity**: $73,208
- **75% Productivity**: $64,865
- **60% Productivity**: $54,436

---

**Note:** Available options, not included in this study, include stapler; fax expansion; network scanner; network printer expansion; print server card; data security.

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**Digital Duplicators/ Copier-Printers: B&W**

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423
## Duplo USA, MD-451N

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>11&quot; X 17&quot;</td>
<td>1,200 dpi</td>
<td>Optional stapler, saddle stitcher, and hole punch.</td>
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<td>DULPLEXING:</td>
<td>COLOR ABILITY:</td>
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<tr>
<td>No (Optional)</td>
<td>B/W Only</td>
<td>Network.</td>
<td>75</td>
<td></td>
<td>TOTAL INVEST. : $7,995</td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES

Duplo USA, MD-451N Network Printer; training; installation.

### AUXILIARY EQUIPMENT INCLUDES

Note: Available options, not included in this study, include scanner module and rack stand with paper drawer; duplex module; saddle stitcher; stapler; mail bin; exit tray and expansion; network expansion; fax expansion; and hole puncher.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>FUNCTION</td>
<td>LABOR COST-1 SHIFT</td>
<td>LABOR COST-2 SHIFTS</td>
<td>LABOR COST-3 SHIFTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

1. Direct Labor
   - 35,538
2. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts
   - 7,108
3. Pension Fund (A) 5% (B) 3% (C) 2%
   - 1,777
4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
   - 4,680
5. Payroll Taxes (Soc. Sec. & Unemployment) 8.3%
   - 3,540
6. Workmen’s Compensation Insurance (Rate $40.00 per M)
   - 1,706
7. Power Cost @ $0.07 per kWh (based on hp rating)
   - 0
8. Power Cost @ $0.07 per kWh (based on kw rating)
   - 121
9. Direct Supplies (see instructions)
   - 0
10. Repairs & Maint. @ 5% 1 shift/10% 2 shifts/15% 3 shifts
    - 400
11. Sub-total
    - 57,287
12. General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts
    - 8,593
13. TOTAL MANUFACTURING COSTS
    - 65,880
14. Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts
    - 27,670
15. TOTAL COSTS
    - $93,550
16. MANUFACTURING COSTS per productive hour @ 85% productivity
    - $48.35
17. 75% productivity
    - 54.80
18. 65% productivity
    - 68.50
19. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity
    - $68.66
20. 75% productivity
    - 77.81
21. 60% productivity
    - 97.27

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**Xanté Accel-a-Writer 4N**

**MAX. SIZE:** 13" X 18.5"  
**RESOLUTION:** up to 1200 X 1200 dpi  
**FINISHING ABILITY:** n/a  
**POWER:** 0.8 kWhs  
**PRODUCT CLASS:** Digital Copier/Printer-B&W  
**BASE COST:** $1,495  
**AUXILIARY EQUIP.:** $790

**BASE COST ABOVE INCLUDES**

- Adobe PostScript 3; fast processor; 600 dpi standard upgradable to 1200 dpi; 64 MB RAM upgradable to 256 MB; optional duplexing; mirror print; oversized printing format; easy to use web browser interface; simultaneous interfacing.

*Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

**AUXILIARY EQUIPMENT INCLUDES**

- Internal IDE disk drive ($495); paper feeder with 500 sheet paper cassette ($295).

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

- Operator: $35,538, $31,488, $26,425
- $73,208, $64,865, $54,436
- $111,589, $98,872, $82,975

**TOTAL**: $35,538, $31,488, $26,425
- $73,208, $64,865, $54,436
- $111,589, $98,872, $82,975

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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**TWO SHIFTS**

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<tr>
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<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<td>1,603</td>
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<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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**THREE SHIFTS**

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<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
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</table>

**No. of Manned Hours Annually @ 100% Productivity**

<table>
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<tr>
<th>FIXED CHARGES (NON-VARIABLE)</th>
<th>Without Utilities</th>
<th>With Utilities</th>
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<tr>
<td>1. Depreciation @ 20% per year</td>
<td>$457</td>
<td>$457</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) @10.50 (B) $7.00 (C) $5.00 sq. ft.</td>
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<td>$788</td>
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<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M.)</td>
<td>$9</td>
<td>$9</td>
</tr>
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</table>

**VARIABLE CHARGES**

| 4. Direct Labor | 35,538 | 31,488 | 26,425 | 73,208 | 64,865 | 54,436 | 111,589 | 98,872 | 82,975 |
| 5. Indirect Labor | 7,108   | 6,208   | 5,285   | 10,981  | 9,730   | 8,165   | 11,159  | 9,887   | 8,297 |
| 6. Pension Fund (A) 5% (B) 3% (C) 2% | 1,777   | 945     | 529     | 3,660   | 1,946   | 1,089   | 5,579   | 2,966   | 1,659 |
| 7. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk | 4,680   | 3,120   | 2,340   | 9,360   | 6,240   | 4,680   | 14,040  | 9,360   | 7,020 |
| 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% | 3,540   | 3,136   | 2,632   | 6,988   | 6,191   | 5,196   | 10,188  | 9,027   | 7,561 |
| 9. Workmen’s Compensation Insurance (Rate $40.00 per M.) | 1,706   | 1,611   | 1,288   | 3,368   | 2,984   | 2,004   | 4,910   | 4,350   | 3,651 |
| 10. Power Cost @ $0.07 per kWh (based on hp rating) | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0 |
| 11. Power Cost @ $0.07 per kWh (based on kW rating) | 54     | 59      | 65      | 108     | 118     | 130     | 162     | 178     | 195 |
| 12. Direct Supplies (see instructions) | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0 |
| 13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts | 114    | 114     | 114     | 229     | 229     | 229     | 343     | 343     | 343 |
| 14. Sub-total | 55,770  | 47,662  | 39,499  | 109,155 | 93,294  | 77,269  | 159,224 | 135,975 | 112,057 |
| 15. General Factory— 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts | 8,365   | 7,149   | 5,925   | 13,644  | 11,662  | 9,659   | 15,922  | 13,597  | 11,256 |
| 16. TOTAL MANUFACTURING COSTS | 64,135  | 54,812  | 45,424  | 122,799 | 104,956 | 86,928  | 175,146 | 149,572 | 120,813 |
| 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts | 26,937  | 23,021  | 19,078  | 45,436  | 38,834  | 32,163  | 56,047  | 47,863  | 39,620 |
| 18. TOTAL COSTS | 91,072  | 77,833  | 64,502  | 168,235 | 143,790 | 119,091 | 231,193 | 197,435 | 163,433 |
| 19. MANUFACTURING COSTS per productive hour @ 65% productivity | 47,074  | 38,500  | 31,250  | 69,000  | 56,500  | 47,250  | 92,500  | 78,750  | 66,250 |
| 20. ALL-INCLUSIVE COSTS per productive hour @ 65% productivity | 66,240  | 51,920  | 39,240  | 78,160  | 62,640  | 51,920  | 97,680  | 82,400  | 69,120 |

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### Xanté ScreenWriter 4

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
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<tr>
<td>13&quot; X 35.5&quot;</td>
<td>up to 2400 X 2400</td>
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<td>kWhs: 0.8</td>
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<td>$1,995</td>
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</table>

<table>
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<tr>
<th>DUPLEXING:</th>
<th>COLOR ABILITY:</th>
<th>INTERFACES WITH:</th>
<th>SQ. FT.:</th>
<th>MAXIMUM SPEED:</th>
<th>INSTALL. (EST.):</th>
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</thead>
<tbody>
<tr>
<td>No</td>
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<td>Parallel; USB; 10/100 Base</td>
<td>75</td>
<td>10 ppm</td>
<td>*See Note</td>
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### BASE COST ABOVE INCLUDES

- Adobe PostScript 3; Positive Film Technology; density control; dot gain calibration; X-ACT (Xanté accurate calibration technology); Myriad film; mirror print; Myriad clear film; vellum; easy to use web browser interface; high resolution; oversized printing format.
- Install. Cost Note: Survey did not indicate installation cost information. Adjust your costs accordingly.

### AUXILIARY EQUIPMENT INCLUDES

- Internal IDE disk drive ($495); paper feeder with 500 sheet paper cassette ($295).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### LABOR COST-1 SHIFT

- Operator $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

### LABOR COST-2 SHIFTS

### LABOR COST-3 SHIFTS

- TOTAL: $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

### VARIOUS CHARGES

1. Depreciation @ 20% per year

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.

3. Fire & Sprinkler Insurance (Rate $4.00 per M)

4. Direct Labor

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts

6. Pension Fund (A) 5% (B) 3% (C) 2%

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%

9. Workmen's Compensation Insurance (Rate $40.00 per M)

10. Power Cost @ $0.07 per kWh (based on hp rating)

11. Power Cost @ $0.07 per kWh (based on hp rating)

12. Direct Supplies (see instructions)

13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts

14. Sub-total

15. General Factory – 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts

16. TOTAL MANUFACTURING COSTS

17. Administrative & Selling Overhead – 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts

18. TOTAL COSTS

19. MANUFACTURING COSTS per productive hour @

- 85% productivity
- 75% productivity
- 60% productivity

20. ALL-INCLUSIVE COSTS per productive hour @

- 85% productivity
- 75% productivity
- 60% productivity

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WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provision</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
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</tr>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
<td></td>
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</tbody>
</table>

TOTEAL: $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

### VARIABLE CHARGES

1. Direct Labor.......................... $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

2. Indirect Labor (Supervision & Misc.) 15% 2 shifts/ 10% 3 shifts... 7,108 6,298 5,285 10,981 9,730 8,165 11,159 9,887 8,297

3. Pension Fund (A) 5% (B) 3% (C) 2%.. 1,777 945 529 3,660 1,946 1,089 5,579 2,966 1,659

4. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk... 4,680 3,120 2,340 9,360 6,240 4,680 14,040 9,360 7,020

5. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%........ 3,540 3,136 2,632 6,988 6,191 5,196 10,188 9,027 7,576

6. Workmen’s Compensation Insurance (Rate $40.00 per M)... 1,706 1,511 1,268 3,368 2,984 2,504 4,910 3,450 3,651

7. Power Cost @ $0.07 per kWh (based on hp rating)...... 0 0 0 0 0 0 0 0 0

8. Power Cost @ $0.07 per kWh (based on hp rating)...... 54 59 65 108 118 130 162 178 195

9. Direct Supplies (see instructions)... 0 0 0 0 0 0 0 0 0

10. Repairs & Maint. @ 1% 1 shift/ 2% 2 shifts/ 3% 3 shifts.... 149 149 149 299 299 299 448 448 448

11. Sub-total.............................. 55,947 47,840 39,677 109,368 93,507 77,482 159,472 136,222 112,805

12. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...... 8,392 7,176 5,952 13,671 11,688 9,685 15,947 13,622 11,280

13. TOTAL MANUFACTURING COSTS........ 64,340 55,016 45,629 123,039 105,195 87,167 175,419 149,845 124,085


15. TOTAL COSTS........................... $91,362 $78,123 $64,674 $186,563 $144,118 $120,277 $231,553 $197,795 $163,792

16. MANUFACTURING COSTS per productive hour @

   85% productivity $47.22 $36.72 $27.73 $45.15 $35.11 $26.48 $42.91 $33.34 $25.13

   75% productivity 53.52 41.62 31.42 51.17 39.79 30.02 48.64 37.79 28.49

   60% productivity 66.89 52.02 39.28 63.96 49.74 37.52 60.80 47.38 37.61

17. ALL-INCLUSIVE COSTS per productive hour @

   85% productivity $67.05 $52.15 $39.37 $61.86 $48.10 $36.29 $56.65 $44.01 $33.19

   75% productivity 75.99 59.10 44.62 70.10 54.51 41.12 64.20 49.88 37.60

   60% productivity 94.99 73.88 55.78 87.63 68.14 51.40 80.25 62.35 47.00

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## Duplo USA, MD-551N

### MAX. SIZE:
11" x 17"

### RESOLUTION:
600 x 600 dpi

### FINISHING ABILITY:
Optional stapler, saddle stitcher, and hole puncher.

### POWER:
kWhs: 1.8

### PRODUCT CLASS:
B/W Digital Copier/Printers

### BASE COST:
$17,600

### AUXILIARY EQUIP.:
n/a

### MAXIMUM SPEED:
Recommended Monthly Volume: 40,000

### INSTALL. (EST.):
Included

### TOTAL INVEST.:
$17,600

### BASE COST ABOVE INCLUDES
- Duplo USA, MD-551N Network Printer; training; installation.

### AUXILIARY EQUIPMENT INCLUDES
- Note: Available options, not included in this study, include a large capacity tray; stapler; saddle stitcher; post sheet inserter; network scanner; hole puncher; fax expansion kit.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>Hours/Week</td>
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<td>10</td>
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<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-
- **LABOR COST-1 SHIFT**
  - Operator: $35,538
  - Area B: $31,488
  - Area C: $26,425
  - Total: $111,589

- **LABOR COST-2 SHIFTS**
  - Area A: $73,208
  - Area B: $54,436
  - Total: $127,644

- **LABOR COST-3 SHIFTS**
  - Area A: $82,975
  - Area B: $78,872
  - Area C: $82,975
  - Total: $244,822

### TOTAL MANUFACTURING COSTS
- **51,627**

### TOTAL MANUFACTURING COSTS
- **$111,589**

### VARIABLE CHARGES

1. Depreciation @ 20% per year
   - Area A: $3,520
   - Area B: $3,520
   - Area C: $3,520
   - Total: $10,560

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
   - Area A: $788
   - Area B: $525
   - Area C: $375
   - Total: $1,688

3. Fire & Sprinkler Insurance (Rate $4.00 per M)
   - Area A: $70
   - Area B: $70
   - Area C: $70
   - Total: $210

4. Direct Labor
   - Area A: $35,538
   - Area B: $31,488
   - Area C: $26,425
   - Total: $93,451

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
   - Area A: $7,108
   - Area B: $5,285
   - Area C: $4,680
   - Total: $17,073

6. Pension Fund (A) 5% (B) 3% (C) 2%
   - Area A: $1,777
   - Area B: $945
   - Area C: $529
   - Total: $3,241

7. Welfare Benefits (A) $90/lwk. (B) $60/lwk. (C) $45/lwk
   - Area A: $4,680
   - Area B: $3,206
   - Area C: $2,136
   - Total: $10,022

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
   - Area A: $3,540
   - Area B: $2,136
   - Area C: $1,398
   - Total: $7,074

9. Workmen's Compensation Insurance (Rate $40.00 per M)
   - Area A: $1,706
   - Area B: $1,111
   - Area C: $660
   - Total: $3,477

10. Power Cost @ $0.07 per kWh (based on hp rating)
    - Area A: $0
    - Area B: $0
    - Area C: $0
    - Total: $0

11. Power Cost @ $0.07 per kWh (based on kW rating)
    - Area A: $121
    - Area B: $133
    - Area C: $146
    - Total: $400

12. Direct Supplies (see instructions)... Area A: $0
    - Area B: $0
    - Area C: $0
    - Total: $0

13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts
    - Area A: $880
    - Area B: $880
    - Area C: $880
    - Total: $2,640

14. Sub-total
    - Area A: $59,727
    - Area B: $43,471
    - Area C: $28,525
    - Total: $125,723

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
    - Area A: $9,859
    - Area B: $6,521
    - Area C: $4,263
    - Total: $20,643

16. TOTAL MANUFACTURING COSTS
    - Area A: $68,688
    - Area B: $59,370
    - Area C: $54,991
    - Total: $182,059

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
    - Area A: $28,848
    - Area B: $24,936
    - Area C: $20,996
    - Total: $74,780

18. TOTAL COSTS
    - Area A: $97,534
    - Area B: $84,306
    - Area C: $70,987
    - Total: $252,827

19. MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$50.41</th>
<th>$39.63</th>
<th>$30.38</th>
<th>$47.04</th>
<th>$36.83</th>
<th>$28.06</th>
<th>$44.36</th>
<th>$34.66</th>
<th>$26.34</th>
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</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>$57.13</td>
<td>$44.91</td>
<td>$34.43</td>
<td>$53.31</td>
<td>$41.74</td>
<td>$31.80</td>
<td>$50.28</td>
<td>$39.28</td>
<td>$29.85</td>
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<tr>
<td>60% productivity</td>
<td>$71.41</td>
<td>$56.14</td>
<td>$43.04</td>
<td>$66.64</td>
<td>$52.18</td>
<td>$39.75</td>
<td>$62.84</td>
<td>$49.10</td>
<td>$37.32</td>
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</table>

20. ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$71.58</th>
<th>$56.27</th>
<th>$43.14</th>
<th>$64.44</th>
<th>$50.46</th>
<th>$38.44</th>
<th>$58.56</th>
<th>$45.75</th>
<th>$34.77</th>
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<tbody>
<tr>
<td>75% productivity</td>
<td>$81.13</td>
<td>$63.78</td>
<td>$48.89</td>
<td>$73.04</td>
<td>$57.19</td>
<td>$43.57</td>
<td>$66.36</td>
<td>$51.85</td>
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<tr>
<td>60% productivity</td>
<td>$101.41</td>
<td>$79.72</td>
<td>$61.11</td>
<td>$91.30</td>
<td>$71.49</td>
<td>$54.46</td>
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<td>$64.82</td>
<td>$49.26</td>
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</table>

### Note:
- Available options, not included in this study, include a large capacity tray; stapler; saddle stitcher; post sheet inserter; network scanner; hole puncher; fax expansion kit.

### Digital Duplicators/Copier-Printers: B&W

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### Duplo USA, MD-621N

**BASE COST ABOVE INCLUDES**

Duplo USA, MD-621N Network Printer; training; installation.

**AUXILIARY EQUIPMENT INCLUDES**

Note: Available options, not included in this study, include a large capacity tray; stapler; saddle stitcher; post sheet inserter; network scanner; hole puncher; fax expansion kit.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

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<tr>
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<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>No. of Manned Hours Annually</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 20% per year................................. $  4,250
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. 788
3. Fire & Sprinkler Insurance (Rate $4.00 per M)......... 85
4. Direct Labor................................................... 35,538
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts................................. 7,108
6. Pension Fund (A) 5% (B) 3% (C) 2%.......................... 1,777
7. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk. 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% 3,540
9. Workmen’s Compensation Insurance (Rate $4.00 per M) 1,706
10. Power Cost @ $0.07 per kWh (based on hp rating) 0
11. Power Cost @ $0.07 per kWh (based on kw rating) 121
12. Direct Supplies (see instructions).......................... 85
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts 1,063
14. Sub-total..................................................... 60,654
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts 9,098
16. TOTAL MANUFACTURING COSTS......................... 69,752
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts 29,296
18. TOTAL COSTS.................................................. 99,048
19. MANUFACTURING COSTS per productive hour @ 85% productivity $  51.19

**VARIABLE CHARGES**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS per productive hour @ 85% productivity**

| 51.19 |

**MANUFACTURING COSTS per productive hour @ 75% productivity**

| 58.02 |

**MANUFACTURING COSTS per productive hour @ 60% productivity**

| 72.52 |

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

| $ 72.69 |

**ALL-INCLUSIVE COSTS per productive hour @ 75% productivity**

| $ 82.39 |

**ALL-INCLUSIVE COSTS per productive hour @ 60% productivity**

| 102.98 | 81.15 | 62.42 | 92.19 | 72.29 | 55.19 | 83.61 | 65.41 | 49.80 |

**Digital Duplicators/ Copier-Printers: B&W**

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BASE COST ABOVE INCLUDES

Duplo USA, MD-701N Network Printer; training; installation.

AUXILIARY EQUIPMENT INCLUDES

Note: Available options, not included in this study, include a large capacity tray; stapler; saddle stitcher; post sheet inserter; network scanner; hole puncher; fax expansion kit.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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<tr>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</table>

FUNCTION

LABOR COST-1 SHIFT

Operator: $35,538

LABOR COST-2 SHIFTS

$73,208

LABOR COST-3 SHIFTS

$111,589

TOTAL:

$35,538 $31,488 $26,425

$73,208 $64,865 $54,436

$111,589 $98,872 $82,975

ONE SHIFT

TWO SHIFTS

THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<td>5,288</td>
<td>5,808</td>
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FIXED CHARGES (NON-VARIABLE)

1. Depreciation @ 20% per year................. $5,030
2. Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft......................... 788
3. Fire & Sprinkler Insurance (Rate $4.00 per M)................................. 101

VARIABLE CHARGES

4. Direct Labor.................................................. 35,538
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts...... 7,108
6. Pension Fund (A) 5%  (B) 3%  (C) 2%........................................... 1,777
7. Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk........................ 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%................................. 3,540
9. Workmen's Compensation Insurance (Rate $40.00 per M).......................... 1,706
10. Power Cost @ $0.07 per kWh (based on hp rating).................................. 0
11. Power Cost @ $0.07 per kWh (based on kw rating).................................. 121
12. Direct Supplies (see instructions)................................. 0
13. Repairs & Maint. @ 5% 1 shift/10% 2 shifts/15% 3 shifts...................... 1,258
14. Sub-total...................................................... 41,645
15. General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts...................... 9,247
16. TOTAL MANUFACTURING COSTS................................................. 50,892
17. Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts........ 29,774
18. TOTAL COSTS....................................................... 80,666
19. MANUFACTURING COSTS per productive hour @

| 85% productivity | $52.03 | 41.10 | 31.72 | 47.99 | 37.69 | 28.84 | 45.08 | 35.20 | 26.94 |
| 75% productivity | 58.97 | 46.58 | 35.95 | 54.39 | 42.72 | 32.69 | 51.09 | 40.02 | 30.53 |
| 60% productivity | 73.71 | 63.28 | 54.94 | 67.98 | 53.40 | 40.86 | 63.86 | 50.03 | 38.16 |
| ALL-INCLUSIVE COSTS per productive hour @

| 85% productivity | $73.88 | 58.36 | 45.04 | 65.74 | 51.64 | 39.52 | 59.51 | 46.62 | 35.56 |
| 75% productivity | 83.73 | 66.15 | 51.05 | 74.51 | 58.53 | 44.76 | 72.24 | 58.82 | 40.30 |
| 60% productivity | 104.66 | 82.68 | 63.81 | 93.14 | 73.16 | 55.98 | 84.30 | 66.04 | 50.37 |
### Canon Imagerunner 5075 (Data Provided By Danka Office Imaging)

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>11&quot; X 17&quot;</td>
<td>1200 X 600</td>
<td>Hole punch; staple; saddle finish; fold; doc. insert.</td>
<td>kW: 3 est.</td>
<td>Digital Copier/Printer-B/W</td>
<td>$28,000</td>
</tr>
</tbody>
</table>

| AUXILIARY EQUIP.: | n/a |

| MAXIMUM SPEED: | 75 ppm simplex/100 duplex |

| INSTALL. (EST.): | See Note* |

| TOTAL INVEST. : | $28,000 |

### BASE COST ABOVE INCLUDES

- Canon Imagerunner 5075

*Installation Note: Survey did not indicate an installation cost. Adjust your total investment cost accordingly.

### AUXILIARY EQUIPMENT INCLUDES

- Equip. Shipped F.O.B.: n/a

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### LABOR COST-1 SHIFT

- Operator: $35,538

### LABOR COST-2 SHIFTS

- Total: $35,538

### LABOR COST-3 SHIFTS

- Total: $35,538

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA</th>
<th>AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### No. of Manned Hours Annually @ 100% Productivity

<table>
<thead>
<tr>
<th>Category</th>
<th>One Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Size</td>
<td>11&quot; X 17&quot;</td>
</tr>
<tr>
<td>Resolution</td>
<td>1200 X 600</td>
</tr>
<tr>
<td>Finishing Ability</td>
<td>Hole punch; staple; saddle finish; fold; doc. insert.</td>
</tr>
<tr>
<td>Power</td>
<td>kW: 3 est.</td>
</tr>
<tr>
<td>Product Class</td>
<td>Digital Copier/Printer-B/W</td>
</tr>
<tr>
<td>Base Cost</td>
<td>$28,000</td>
</tr>
<tr>
<td>Auxiliary Equip.</td>
<td>n/a</td>
</tr>
<tr>
<td>Max. Speed</td>
<td>75 ppm simplex/100 duplex</td>
</tr>
<tr>
<td>Install. Est.</td>
<td>See Note*</td>
</tr>
<tr>
<td>Total Invest.</td>
<td>$28,000</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

- Total: $35,538

### LABOR COST-2 SHIFTS

- Total: $35,538

### LABOR COST-3 SHIFTS

- Total: $35,538

### TOTAL:

- Total: $35,538

### FIXED CHARGES (NON-VARIABLE)

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 20% per year</td>
<td>$5,600</td>
</tr>
<tr>
<td>2. Rent &amp; Heat</td>
<td>$5,600</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance</td>
<td>$5,600</td>
</tr>
<tr>
<td>4. Direct Labor</td>
<td>$5,600</td>
</tr>
<tr>
<td>5. Indirect Labor</td>
<td>$5,600</td>
</tr>
<tr>
<td>6. Pension Fund</td>
<td>$5,600</td>
</tr>
<tr>
<td>7. Welfare Benefits</td>
<td>$5,600</td>
</tr>
<tr>
<td>8. Payroll Taxes</td>
<td>$5,600</td>
</tr>
<tr>
<td>9. Workmen's Compensation Insurance</td>
<td>$5,600</td>
</tr>
<tr>
<td>10. Power Cost @ $0.07 per kWh</td>
<td>$5,600</td>
</tr>
<tr>
<td>11. Power Cost @ $0.07 per kWh</td>
<td>$5,600</td>
</tr>
<tr>
<td>12. Direct Supplies</td>
<td>$5,600</td>
</tr>
<tr>
<td>13. Repairs &amp; Maint.</td>
<td>$5,600</td>
</tr>
<tr>
<td>14. Sub-total</td>
<td>$5,600</td>
</tr>
<tr>
<td>15. General Factory</td>
<td>$5,600</td>
</tr>
<tr>
<td>16. Total Manufacturing Costs</td>
<td>$5,600</td>
</tr>
<tr>
<td>17. Administrative &amp; Selling Overhead</td>
<td>$5,600</td>
</tr>
<tr>
<td>18. Total Costs</td>
<td>$102,409</td>
</tr>
</tbody>
</table>

### MANUFACTURING COSTS per productive hour @ 85% productivity

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% productivity</td>
<td>$2.93</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$5.85</td>
</tr>
<tr>
<td>90% productivity</td>
<td>$8.77</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @ 85% productivity

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% productivity</td>
<td>$3.96</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$6.88</td>
</tr>
<tr>
<td>90% productivity</td>
<td>$9.80</td>
</tr>
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</table>

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**Canon Imagerunner 7095 (Data Provided By Danka Office Imaging)**

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
<th>AUXILIARY EQUIP.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>11&quot; X 17&quot;</td>
<td>1200 X 600 dpi</td>
<td>Hole punch; staple; saddle finish; bind; fold; doc insert.</td>
<td>kWhs: 2.15</td>
<td>Digital Copier/Printer-B/W</td>
<td>$39,000</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**DUPLExING:** B/W Only  
**COLOR ABILITY:** n/a  
**INTERFACES WITH:** 100  
**SQ. FT.:** n/a

**BASE COST ABOVE INCLUDES**

- Canon Imagerunner 7095.
- *Installation Note: Survey did not indicate an installation cost. Adjust your total investment cost accordingly.*

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- Operator

**LABOR COST-1 SHIFT**

- Area A: $35,538
- Area B: $31,488
- Area C: $26,425

**LABOR COST-2 SHIFTS**

- Area A: $73,208
- Area B: $64,865
- Area C: $54,436

**LABOR COST-3 SHIFTS**

- Area A: $111,589
- Area B: $98,872
- Area C: $82,975

**TOTAL:**

- Area A: $35,538
- Area B: $31,488
- Area C: $26,425

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td></td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,050</td>
<td>1,111</td>
<td>1,288</td>
<td>2,340</td>
<td>2,632</td>
<td>2,984</td>
<td>3,960</td>
<td>4,680</td>
<td>5,200</td>
<td></td>
</tr>
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</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>700</td>
<td>760</td>
<td>820</td>
<td>1,400</td>
<td>1,560</td>
<td>1,720</td>
<td>2,300</td>
<td>2,600</td>
<td>2,900</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL COSTS**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$106,878</td>
<td>$93,511</td>
<td>$80,114</td>
<td>$186,123</td>
<td>$161,570</td>
<td>$136,825</td>
<td>$250,842</td>
<td>$216,996</td>
<td>$182,975</td>
<td></td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th></th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.24</td>
<td>43.96</td>
<td>34.28</td>
</tr>
<tr>
<td>$49.85</td>
<td>39.36</td>
<td>30.35</td>
</tr>
<tr>
<td>46.49</td>
<td>36.58</td>
<td>28.08</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th></th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$78.44</td>
<td>62.42</td>
<td>48.68</td>
</tr>
<tr>
<td>$68.30</td>
<td>53.92</td>
<td>41.57</td>
</tr>
<tr>
<td>61.37</td>
<td>48.28</td>
<td>37.06</td>
</tr>
</tbody>
</table>

**No. of Manned Hours Annually @ 100% Productivity**

- 15% 2 shifts/ 10% 3 shifts
- 75% productivity
- 60% productivity
- 75% productivity
- 60% productivity

**Power Cost @ $0.07 per kWh (based on hp rating)**

- 0
- 0
- 0
- 0
- 0

**Depreciation @ 20% per year**

- 7,800
- 7,800
- 7,800
- 7,800
- 7,800
- 7,800

**Rent & Heat (A) $10.50  (B) $7.00  (C) $5.00 sq. ft.**

- 1,268
- 1,268
- 1,268

**Workmen’s Compensation Insurance (Rate $40.00 per M)**

- 3,136
- 3,136
- 3,136

**Welfare Benefits (A) $90./wk.  (B) $60./wk.  (C) $45./wk.**

- 1,050
- 1,050
- 1,050

**Pension Fund (A) 5%  (B) 3%  (C) 2%**

- 2,504
- 2,504
- 2,504

**Administrative & Selling Overhead—42% 1 shift/ 55% 2 shifts/ 68% 3 shifts**

- 13,104
- 13,104
- 13,104

**Digital Duplicators/ Copier-Printers: B&W**

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432
## Canon Imagerunner 7105 (Data Provided By Danka Office Imaging)

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>kWhs:</th>
<th>2.15</th>
</tr>
</thead>
<tbody>
<tr>
<td>11” X 17”</td>
<td>1200 X 600 dpi</td>
<td>Hole punch; staple; saddle finish; bind; fold; doc insert.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DUPLExING:</th>
<th>COLOR ABILITY:</th>
<th>INTERFACES WITH:</th>
<th>SQ. FT.:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>B/W Only</td>
<td>n/a</td>
<td>100</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
<th>$50,000</th>
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</thead>
<tbody>
<tr>
<td>Digital Copier-Printer-B/W</td>
<td>AUXILIARY EQUIP.:</td>
<td>n/a</td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES

Canon Imagerunner 7105.

*Installation Note: Survey did not indicate an installation cost. Adjust your total investment cost accordingly.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### LABOR COST-1 SHIFT

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 WEEKS</th>
<th>LABOR COST-3 WEEKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$73,208</td>
<td>$111,589</td>
</tr>
<tr>
<td></td>
<td>$31,488</td>
<td>$64,865</td>
<td>$98,872</td>
</tr>
<tr>
<td></td>
<td>$26,425</td>
<td>$54,436</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

### TOTAL:

- ONE SHIFT
  - Area A: $35,538
  - Area B: $31,488
  - Area C: $26,425
- TWO WEEKS
  - Area A: $73,208
  - Area B: $64,865
  - Area C: $54,436
- THREE WEEKS
  - Area A: $111,589
  - Area B: $98,872
  - Area C: $82,975

### VARIABLE CHARGES

1. Depreciation @ 20% per year.............. $ 10,000.00 $ 10,000.00 $ 10,000.00 $ 10,000.00 $ 10,000.00 $ 10,000.00 $ 10,000.00 $ 10,000.00 $ 10,000.00

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. $ 1,050.00 $ 700.00 $ 500.00 $ 1,050.00 $ 700.00 $ 500.00

3. Fire & Sprinkler Insurance (Rate $4.00 per M).

4. Direct Labor.............. 35,538.00 31,488.00 26,425.00 73,208.00 64,865.00 54,436.00 111,589.00 98,872.00 82,975.00

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.............. 7,108.00 6,298.00 5,288.00 10,000.00 9,360.00 8,297.00 5,808.00 5,361.00 5,043.00

6. Pension Fund (A) 5% (B) 3% (C) 2%.............. 1,777.00 945.00 529.00 3,660.00 1,946.00 1,089.00 5,579.00 2,966.00 1,659.00

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............. 4,680.00 3,120.00 2,340.00 9,360.00 6,240.00 4,680.00 14,040.00 9,360.00 7,020.00

8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%.............. 3,540.00 3,136.00 2,632.00 6,988.00 6,191.00 5,196.00 10,188.00 9,027.00 7,576.00

9. Workmen’s Compensation Insurance (Rate $40.00 per M).............. 1,706.00 1,611.00 1,266.00 3,368.00 2,984.00 2,504.00 4,910.00 4,350.00 3,651.00

10. Power Cost @ $0.07 per kWh (based on hp rating).............. 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

11. Power Cost @ $0.07 per kWh (based on kW rating).............. 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

12. Direct Supplies (see instructions).............. 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts.............. 2,500.00 2,500.00 2,500.00 5,000.00 5,000.00 5,000.00 7,500.00 7,500.00 7,500.00

14. Sub-total.............. 68,243.00 60,057.00 51,854.00 124,105.00 108,175.00 92,119.00 179,119.00 153,341.00 129,902.00

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.............. 10,236.00 9,009.00 7,778.00 15,513.00 13,522.00 11,515.00 17,665.00 15,334.00 12,990.00

16. TOTAL MANUFACTURING COSTS.............. 78,479.00 69,066.00 59,632.00 139,618.00 121,686.00 103,634.00 194,315.00 168,675.00 142,893.00

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.............. 32,961.00 29,008.00 25,045.00 51,659.00 45,028.00 38,345.00 62,181.00 53,976.00 45,726.00

18. TOTAL COSTS.............. $ 111,440.00 $ 98,073.00 $ 84,677.00 $ 191,276.00 $ 166,724.00 $ 141,979.00 $ 256,496.00 $ 222,651.00 $ 188,618.00

19. MANUFACTURING COSTS per productive hour @ 85% productivity.............. $ 57.60 $ 46.10 $ 36.24 $ 51.23 $ 40.62 $ 31.49 $ 47.54 $ 37.53 $ 28.94

20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity.............. $ 81.79 $ 65.46 $ 51.46 $ 70.19 $ 55.64 $ 43.14 $ 62.75 $ 49.54 $ 38.21

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### IBM, Infoprint 2190

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>13” X 18”</td>
<td>1200 dpi</td>
<td>Staple; punch; fold; saddle stitch; two cover interpose.</td>
<td>kWhs: 2.8</td>
<td>B/W Digital Copier/Printers</td>
<td>$37,999</td>
</tr>
</tbody>
</table>

#### BASE COST ABOVE INCLUDES

- Printer engine and integrated color scanner; 3-drawer input with total capacity of 3,000 sheets standard; PCL and RPCS languages; full color touch screen printer controller with onboard 10/100 MB TX Ethernet; two 160 GB hard drives.
- Note: The following information is not used in this Study. Use it to adjust Line 13 if necessary.
- Maint. Charge: $774/mo. (3 yr., 7X24 service)
- Click Charge: $0.0057

#### AUXILIARY EQUIPMENT INCLUDES

- High capacity feeder for letter/A4 ($4,980); 3,000 sheet finisher ($6,430); IPDS Datastream ($6,840).

### BASE COST ABOVE INCLUDES

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### VARIABLE CHARGES

- 1. Depreciation @ 20% per year (non-variable)...
- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M)...

#### FIXED CHARGES (NON-VARIABLE)

- 4. Direct Labor...
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
- 6. Pension Fund (A) 5% (B) 3% (C) 2%...
- 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
- 9. Workmen’s Compensation Insurance (Rate $40.00 per M)...

#### TOTAL MANUFACTURING COSTS

- 16. TOTAL MANUFACTURING COSTS...
- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...

#### TOTAL COSTS

- 18. TOTAL COSTS...

#### MANUFACTURING COSTS per productive hour @

- 19. MANUFACTURING COSTS per productive hour @

#### ALL-INCLUSIVE COSTS per productive hour @

- 20. ALL-INCLUSIVE COSTS per productive hour @

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### Toshiba E-Studio 1101 (Data Provided By Danka Office Imaging)

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>13&quot; X 18&quot;</td>
<td>1200 X 1200 dpi print; 600 dpi scan.</td>
<td>Staple; saddle stitch; hole punch.</td>
<td>kWhs: 4.8</td>
<td>Digital Copier/Printer-B/W</td>
<td>$50,000</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>BASE COST ABOVE INCLUDES</th>
<th>AUXILIARY EQUIP.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADU Automatic Duplexing Unit.</td>
<td>$16,110</td>
</tr>
</tbody>
</table>

*Installation Note: Survey did not indicate an installation cost. Adjust your total investment cost accordingly.*

### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<td>Hours/Week</td>
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<td>35</td>
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<td>40</td>
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<tr>
<td>Paid Holidays</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Labor Cost-1 Shift

- Operator: $35,538

### Labor Cost-2 Shifts

- $73,208
- $64,865
- $54,436
- $111,589
- $98,872
- $82,975

### Labor Cost-3 Shifts

- $150,191
- $136,252
- $149,877
- $73,208
- $111,589
- $98,872
- $82,975

### One Shift

<table>
<thead>
<tr>
<th>AREA</th>
<th>AREA A</th>
<th>AREA A</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Manned Hours Annually @ 100% Productivity</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### Five Charges (Non-Variable)

1. Depreciation @ 20% per year | $13,222 | $13,222 | $13,222 | $13,222 | $13,222 | $13,222 |
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. | 1,050 | 700 | 500 | 1,050 | 700 | 500 | 1,050 | 700 | 500 |
3. Fire & Sprinkler Insurance (Rate $4.00 per M) | $264 | $264 | $264 | $264 | $264 | $264 |
4. Direct Labor | $35,538 | $31,488 | $26,425 |
5. Indirect Labor | 7,020 | 9,360 | 6,611 |

### One Year

- $111,589
- $98,872
- $82,975

### Total: 100 Sheet Finisher ($5,550); Saddle Stitch Finisher ($7,360); Printer/Scanner Kit ($3,200)
### IBM, Infoprint 2210

**Max. Size:** 13" X 18"  
**Resolution:** 1200 dpi  
**Finishing Ability:** Staple; punch; fold; saddle stitch; two cover interpose.  
**Duplexing:** Yes  
**Color Ability:** B/W Only  
**Interfaces With:** n/a  
**SQ. FT.:** 200

**Power:** kW/hrs: 2.8  
**Product Class:** B/W Digital Copier/Printers  
**Base Cost:** $54,250  
**Auxiliary Equip.:** $18,250  
**Install. (Est.):** $1,260  
**Total Invest.:** $73,760

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Area</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$35,538</td>
<td>$73,208</td>
<td>$111,589</td>
</tr>
<tr>
<td>B</td>
<td>$31,488</td>
<td>$64,865</td>
<td>$98,872</td>
</tr>
<tr>
<td>C</td>
<td>$26,425</td>
<td>$54,436</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

**Total:** $179,084

### Manufacturing Costs

**Direct Labor:** $35,538

**Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:** $36,404

**Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts:** $3,688

**Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%:** $3,540

**Workmen’s Compensation Insurance (Rate $4.00 per M):** $1,706

**Power Cost @ $0.07 per kWh (based on hp rating):** $0

**Power Cost @ $0.07 per kWh (based on kW rating):** $189

**Direct Supplies (see instructions):** $0

**Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts:** $3,688

**Total Manufacturing Costs:** $86,677

**Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:** $36,404

**Total Costs:** $123,082

**Manufacturing Costs per productive hour @ 85% productivity:** $63.61

**75% productivity:** $72.10

**60% productivity:** $90.12

**All-Inclusive Costs per productive hour @ 85% productivity:** $90.33

**75% productivity:** $102.38

**60% productivity:** $127.97

---

**Digital Duplicators/ Copier-Printers: B&W**

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Xerox, Nuvera 100 Digital Production System

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>AUXILIARY EQUIP.:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.6&quot; x 18.5&quot;</td>
<td>4800 x 600 dpi</td>
<td>Stack; staple; fold/face trim; perfect bind; thermal bind.</td>
<td>7.2 kWhs</td>
<td>Sheetfed Digital Printer</td>
<td>n/a</td>
<td>$202,000</td>
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</table>

<table>
<thead>
<tr>
<th>DUPLLEXING:</th>
<th>COLOR ABILITY:</th>
<th>INTERFACES WITH:</th>
<th>SQ. FT.:</th>
<th>MAXIMUM SPEED:</th>
<th>INSTALL. (EST.):</th>
<th>TOTAL INVEST.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>B &amp; W Only</td>
<td>Networks (Ethernet, Token Ring) and mainframes.</td>
<td>100</td>
<td>100 ppm simplex</td>
<td>Included</td>
<td>$202,000</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- Sheet feed module; 100 ppm print engine; controller; basic finishing module; training; installation.
- 37% 2 shifts/ 32% 3 shifts

**Working Conditions and Annual Cost of Direct Labor (by Area)**

<table>
<thead>
<tr>
<th>Area</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td>$35,538</td>
<td>$73,208</td>
<td>$111,589</td>
</tr>
<tr>
<td>Area B</td>
<td>$31,488</td>
<td>$64,865</td>
<td>$98,872</td>
</tr>
<tr>
<td>Area C</td>
<td>$26,425</td>
<td>$54,436</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

**Auxiliary Equipment Includes**

- Equip. Shipped F.O.B.: USA

**Total Costs**

<table>
<thead>
<tr>
<th>Two Shifts</th>
<th>Three Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td>$26,425</td>
</tr>
<tr>
<td>Area B</td>
<td>$64,865</td>
</tr>
<tr>
<td>Area C</td>
<td>$54,436</td>
</tr>
</tbody>
</table>

**Depreciation @ 20% per year**

- Recommended Monthly Volume: 100,000 to 1,000,000

**Pension Fund**

- (A) 5%  (B) 3%  (C) 2%

**Maintenance Charge**

- $635/month.
- Click Charge: $0.003

**Variable Charges**

- Direct Labor
- Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
- Fire & Sprinkler Insurance (Rate $4.00 per M)
- Direct Supplies (see instructions)
- Repairs & Maint. @ 5% 1 shift/ 10% 3 shifts 15% 3 shifts
- Sub-total
- General Factory—15% 1 shift/ 12.5% 3 shifts 10% 3 shifts
- Total Manufacturing Costs
- Administrative & Selling Overhead—42% 1 shift 37% 2 shifts 32% 3 shifts
- Total Costs

**Manufacturing Costs per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>75%</td>
<td>$90.47</td>
</tr>
<tr>
<td>60%</td>
<td>$128.17</td>
</tr>
<tr>
<td>50%</td>
<td>$181.99</td>
</tr>
</tbody>
</table>

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Digital Duplicators/
Copier-Printers: B&W
### Xerox, Nuvera 120 Digital Production System

**MAX. SIZE:** 12.6" X 18.5"

**RESOLUTION:** 4800 X 600 dpi

**FINISHING ABILITY:** Stack; staple; fold/face trim; perfect bind; thermal bind.

**POWER:** kWs: 7.2

**PRODUCT CLASS:** Sheetfed Digital Printer

**BASE COST:** $242,000

**AUXILIARY EQUIP.:** n/a

---

**BASE COST ABOVE INCLUDES**

- Sheet feed module; 120 ppm print engine; controller; basic finishing module; training; installation.
- Note: The following information is not used in this Study. Use it to adjust Line 13 if necessary.
- Maintenance Charge: $635/month.
- Click Charge: $0.003

---

**AUXILIARY EQUIPMENT INCLUDES**

- **FUNCTION**
- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

---

**MAXIMUM SPEED:** 120 ppm simplex

**INSTALL. (EST.):** Included

**TOTAL INVEST. :** $242,000

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- Operator: $35,538
- Area A: $31,488
- Area B: $26,425
- Area C: $73,208

**LABOR COST-1 SHIFT**

- Area A: $64,865
- Area B: $54,436
- Area C: $111,589

**LABOR COST-2 SHIFTS**

- Area A: $73,208
- Area B: $64,865
- Area C: $54,436

**LABOR COST-3 SHIFTS**

- Area A: $82,975
- Area B: $98,872
- Area C: $98,872

---

**TOTAL COSTS**

- $1,268
- $2,504
- $35,538
- $73,208
- $64,865
- $54,436
- $82,975
- $98,872
- $98,872

---

**ONE SHIFT**

- **AREA A**
- **AREA B**
- **AREA C**

<table>
<thead>
<tr>
<th>1,603</th>
<th>1,763</th>
<th>1,936</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

- **AREA A**
- **AREA B**
- **AREA C**

<table>
<thead>
<tr>
<th>1,603</th>
<th>1,763</th>
<th>1,936</th>
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<td>5,808</td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

- **AREA A**
- **AREA B**
- **AREA C**

<table>
<thead>
<tr>
<th>1,603</th>
<th>1,763</th>
<th>1,936</th>
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</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

**MAINTENANCE CHARGES**

- **Fixed Charges (Non-Variable)**
  - 1. Depreciation @ 20% per year $48,400
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. $635/month.
  - 3. Fire & Sprinkler Insurance (Rate $4.00 per M) $585

- **Variable Charges**
  - 4. Direct Labor $35,538
  - 5. Indirect Labor (Supervision & Misc.) 20% $7,108
  - 6. Pension Fund (A) 5% (B) 3% (C) 2% $1,777
  - 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk $4,680
  - 8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3% $3,580
  - 9. Workmen’s Compensation Insurance (Rate $40.00 per M) $1,706
  - 10. Power Cost @ $0.07 per kWh (based on hp rating) $485
  - 11. Power Cost @ $0.07 per kWh (based on kw rating) $485
  - 12. Direct Supplies (see instructions) $485
  - 13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts $12,100
  - 14. Sub-total $118,138
  - 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts $17,721
  - 16. TOTAL MANUFACTURING COSTS $135,859
  - 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts $57,061
  - 18. TOTAL COSTS $192,920
  - 19. MANUFACTURING COSTS per productive hour @ 85% productivity $99.71
    - 75% productivity $119.34
    - 60% productivity $141.25
  - 20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity $141.59
    - 75% productivity $160.47
    - 60% productivity $200.58

---

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Digital Duplicators/Copier-Printers: B&W
### BASE COST ABOVE INCLUDES

Sheet feed module; 144 ppm print engine; controller; basic finishing module; training; installation.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance Charge: $860/month.

Click Charge: $0.003 (over 200,000)

### AUXILIARY EQUIPMENT INCLUDES

- 

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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<tbody>
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<td>37.5</td>
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<td>37.5</td>
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<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
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<tr>
<td>Vacation</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>After One Year</td>
<td>8</td>
<td>10</td>
<td>8</td>
<td>8</td>
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<td>8</td>
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</table>

### FUNCTION LABOR COST-1 SHIFT

<table>
<thead>
<tr>
<th>Option</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
</tr>
<tr>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
<td></td>
</tr>
<tr>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
<td></td>
</tr>
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</table>

### TOTAL:

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$35,538</td>
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<td>$111,589</td>
<td>$98,872</td>
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</tr>
</tbody>
</table>

### AUXILIARY EQUIPMENT

- 

### TOTAL MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
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<tbody>
<tr>
<td>$93,200</td>
<td>$78,051</td>
<td>$62,425</td>
</tr>
<tr>
<td>$196,259</td>
<td>$156,008</td>
<td>$124,850</td>
</tr>
<tr>
<td>$184,678</td>
<td>$143,687</td>
<td>$112,350</td>
</tr>
<tr>
<td>$305,051</td>
<td>$238,196</td>
<td>$185,350</td>
</tr>
<tr>
<td>$280,198</td>
<td>$218,998</td>
<td>$168,350</td>
</tr>
<tr>
<td>$255,335</td>
<td>$198,795</td>
<td>$158,350</td>
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<tr>
<td>$239,239</td>
<td>$187,939</td>
<td>$147,350</td>
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<tr>
<td>$212,000</td>
<td>$160,000</td>
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<tr>
<td>$212,000</td>
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<td>$120,000</td>
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### TOTAL INVEST.:

- 

### FIXED CHARGES (NON-VARIABLE)

<table>
<thead>
<tr>
<th>Item</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 20% per year</td>
<td>$57,600 $57,600 $57,600</td>
<td>$57,600 $57,600 $57,600</td>
<td>$57,600 $57,600 $57,600</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft</td>
<td>$1,838 $1,225 $875</td>
<td>$1,838 $1,225 $875</td>
<td>$1,838 $1,225 $875</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per m)</td>
<td>$1,152 $1,152 $1,152</td>
<td>$1,152 $1,152 $1,152</td>
<td>$1,152 $1,152 $1,152</td>
</tr>
<tr>
<td>4. Direct Labor</td>
<td>$35,538 $31,488 $26,425</td>
<td>$73,208 $64,865 $54,436</td>
<td>$111,589 $98,872 $82,975</td>
</tr>
<tr>
<td>5. Indirect Labor</td>
<td>$7,108 $6,298 $5,285</td>
<td>$10,981 $9,730 $8,165</td>
<td>$11,159 $9,887 $8,297</td>
</tr>
<tr>
<td>6. Pension Fund (A) 5% (B) 3% (C) 2%</td>
<td>$1,777 $945 $529</td>
<td>$3,660 $1,946 $1,089</td>
<td>$5,759 $2,966 $1,659</td>
</tr>
<tr>
<td>7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.</td>
<td>$4,680 $3,120 $2,340</td>
<td>$9,360 $6,240 $4,680</td>
<td>$14,040 $9,360 $7,020</td>
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<tr>
<td>8. Payroll Taxes (Soc. Sec. &amp; Unemploy. Insurance) 8.3%</td>
<td>$3,540 $2,363 $1,596</td>
<td>$6,988 $6,191 $5,196</td>
<td>$10,188 $9,027 $7,576</td>
</tr>
<tr>
<td>9. Workmen's Compensation Insurance (Rate $40.00 per m)</td>
<td>$1,706 $1,111 $699</td>
<td>$3,368 $2,984 $2,054</td>
<td>$4,910 $3,450 $2,651</td>
</tr>
<tr>
<td>10. Power Cost @ $0.07 per kWh (based on hp rating)</td>
<td>$485 $533 $585</td>
<td>$969 $1,066 $1,171</td>
<td>$1,454 $1,599 $1,756</td>
</tr>
<tr>
<td>11. Power Cost @ $0.07 per kWh (based on kW rating)</td>
<td>$0 $0 $0</td>
<td>$0 $0 $0</td>
<td>$0 $0 $0</td>
</tr>
<tr>
<td>12. Direct Supplies (see instructions)</td>
<td>$0 $0 $0</td>
<td>$0 $0 $0</td>
<td>$0 $0 $0</td>
</tr>
<tr>
<td>13. Repairs &amp; Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts</td>
<td>$14,400 $14,400 $14,400</td>
<td>$28,800 $28,800 $28,800</td>
<td>$43,200 $43,200 $43,200</td>
</tr>
<tr>
<td>15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts</td>
<td>$19,473 $18,211 $16,964</td>
<td>$39,941 $36,422 $33,928</td>
<td>$59,316 $52,634 $47,856</td>
</tr>
<tr>
<td>16. TOTAL MANUFACTURING COSTS</td>
<td>$149,295 $139,619 $130,055</td>
<td>$227,805 $215,021 $199,611</td>
<td>$322,523 $291,863 $249,717</td>
</tr>
<tr>
<td>17. Administrative &amp; Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts</td>
<td>$62,704 $58,640 $54,623</td>
<td>$125,408 $117,280 $109,246</td>
<td>$188,112 $174,400 $159,944</td>
</tr>
<tr>
<td>18. TOTAL COSTS</td>
<td>$212,000 $198,259 $184,678</td>
<td>$350,051 $280,198 $239,350</td>
<td>$510,635 $415,363 $349,255</td>
</tr>
<tr>
<td>19. MANUFACTURING COSTS per productive hour</td>
<td>$109.57 $93.20 $79.03</td>
<td>$81.71 $68.26 $56.63</td>
<td>$70.70 $58.55 $48.08</td>
</tr>
<tr>
<td>20. ALL-INCLUSIVE COSTS per productive hour</td>
<td>$155.59 $132.34 $112.23</td>
<td>$111.94 $93.52 $77.58</td>
<td>$93.32 $77.29 $63.46</td>
</tr>
<tr>
<td>21. 75% productivity</td>
<td>$176.34 $149.98 $127.19</td>
<td>$126.87 $105.99 $87.93</td>
<td>$105.76 $87.60 $71.92</td>
</tr>
<tr>
<td>22. 60% productivity</td>
<td>$220.42 $187.48 $158.99</td>
<td>$158.58 $132.48 $109.91</td>
<td>$132.20 $109.50 $89.90</td>
</tr>
</tbody>
</table>
### Xerox, Nuvera 288 Digital Perfecting System

**MAX. SIZE:** 12.6" X 18.5"

**RESOLUTION:** 4800 X 600 dpi

**FINISHING ABILITY:** Stack; staple; fold; perfect bind; thermal bind.

**POWER:** kWhs: 10

**PRODUCT CLASS:** Digital Copier/Printer-B/W

**BASE COST:** $395,000

**AUXILIARY EQUIP.:** n/a

**MAXIMUM SPEED:** 144 cpm simplex/288 duplex

**INSTALL. (EST.):** Included

---

### BASE COST ABOVE INCLUDES

- **Feed module, 288 ppm Dune print engine; basic finishing module; training; installation.**

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

- **Maintenance Charge:** $3,000/month.
- **Click Charge:** $0.0036 (over 500,000)

### AUXILIARY EQUIPMENT INCLUDES

**POWER COST @ $0.07 per kWh (based on kWh rating)**

**Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts**

**Workmen’s Compensation Insurance (Rate $4.00 per M)**

**Fire & Sprinkler Insurance (Rate $4.00 per M)**

**NAPL-3**

**THREE SHIFTS**

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tr>
<td>Hours/Week</td>
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<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>After One Year</td>
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<td></td>
</tr>
</tbody>
</table>

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### LABOR COST-1 SHIFT

- Operator: $35,538
- $31,488
- $26,425

---

### LABOR COST-2-shifts

- Labor Cost: $73,208
- $64,865
- $54,436

---

### LABOR COST-3-shifts

- Labor Cost: $111,589
- $98,872
- $82,975

---

### TOTAL:

- $35,538
- $31,488
- $26,425

---

### ONE SHIFT

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.603</td>
<td>1.763</td>
<td>1.936</td>
</tr>
<tr>
<td>3.206</td>
<td>3.525</td>
<td>3.872</td>
</tr>
<tr>
<td>4.809</td>
<td>5.288</td>
<td>5.808</td>
</tr>
</tbody>
</table>

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### TWO SHIFTS

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>151.68</td>
<td>162.38</td>
<td>198.776</td>
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<tr>
<td>1,580</td>
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<td>1,580</td>
</tr>
<tr>
<td>1,580</td>
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<td>1,580</td>
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<tr>
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</tbody>
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### THREE SHIFTS

<table>
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<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tr>
<td>197.69</td>
<td>223.623</td>
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<tr>
<td>1,706</td>
<td>1,626</td>
<td>1,626</td>
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<tr>
<td>1,580</td>
<td>1,580</td>
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<tr>
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<tr>
<td>1,580</td>
<td>1,580</td>
<td>1,580</td>
</tr>
</tbody>
</table>

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### TOTAL COSTS

- $257,118
- $243,265
- $229,636

---

### MANUFACTURING COSTS per productive hour @

- 85% productivity: $132.89
- 75% productivity: $150.61
- 60% productivity: $188.26

---

### ALL-INCLUSIVE COSTS per productive hour @

- 85% productivity: $188.70
- 75% productivity: $213.86
- 60% productivity: $267.33
Kodak Digimaster EX 110

**MAX. SIZE:** 14.33' X 18.5'  
**RESOLUTION:** 600 x 600 dpi  
**FINISHING ABILITY:** Finisher.  
**POWER:** kWhs: 1.8  
**PRODUCT CLASS:** Digital Imaging Press-B/W  
**BASE COST:** $203,000  
**AUXILIARY EQUIP.:** n/a  
**MAXIMUM SPEED:** 110 ppm (6,600 images/hr.)  
**INSTALL. (EST.):** Included  
**TOTAL INVEST.:** $203,000

### BASE COST ABOVE INCLUDES
Marking engine; 3 paper supply drawers; finisher; Digimaster System Control Subsystem (SCS) with Print Production software 7.0 pre-installed (SP configuration); training; installation.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provision</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT

Operator: $35,538

### LABOR COST-2 SHIFTS

($73,208 + $64,865 + $54,436) = $111,589

### LABOR COST-3 SHIFTS

($73,208 + $64,865 + $54,436) = $111,589

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
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</thead>
<tbody>
<tr>
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### TWO SHIFTS

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<tr>
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### THREE SHIFTS

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

1. Depreciation @ 20% per year  
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.  
3. Fire & Sprinkler Insurance (Rate $4.00 per M)  
4. Direct Labor  
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts  
6. Pension Fund (A) 5% (B) 3% (C) 2%  
7. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk.  
8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8%  
9. Workmen's Compensation Insurance (Rate $40.00 per M)  
10. Power Cost @ $0.07 per kWh (based on hp rating)  
11. Power Cost @ $0.07 per kWh (based on kW rating)  
12. Direct Supplies (see instructions)  
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts  
14. Sub-total  
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts  
16. TOTAL MANUFACTURING COSTS  
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts  
18. TOTAL COSTS  
19. MANUFACTURING COSTS per productive hour @  
   85% productivity  
   75% productivity  
   60% productivity  
20. ALL-INCLUSIVE COSTS per productive hour @  
   85% productivity  
   75% productivity  
   60% productivity

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### Kodak Digimaster EX 125

**Max. Size:** 14.33" X 18.5"  
**Resolution:** 600 X 600 dpi  
**Finishing Ability:** Finisher  
**Power:** kWhs: 1.8  
**Product Class:** Digital Imaging Press-B/W  
**Base Cost:** $250,000  
**Auxiliary Equip.:** N/A  
**Maximum Speed:** 125 ppm (7,500 images/hr.)  
**Install. (Est.):** Included  
**Total Invest.:** $250,000

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tr>
<td>After One Year</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Labor Cost-1 Shift

- Operator: $35,538
- Labor Cost-1 Shift: $73,208
- Labor Cost-2 Shifts: $54,436
- Labor Cost-3 Shifts: $111,589

### TOTAL:

- $35,538
- $31,488
- $26,425
- $73,208
- $64,865
- $54,436
- $111,589
- $98,872
- $82,975

### All-Inclusive Costs

- $26,425
- $87,817
- $1,946
- Payroll Taxes: 8.3%
- Welfare Benefits: $90./wk, $60./wk, $45./wk
- Pension Fund: 5% (A), 3% (B), 2% (C)
- Fire & Sprinkler Insurance: $4.00 per M

### Depreciation @ 20% per year

- $0

### General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts

### Auxiliary Equipment Includes

1. Optional equipment, not included in this study, includes: a paper supply module; inserter; hole puncher; bookletmaker; stacker; roll feed; BPRF (CP Bourg Perforator, Rotator, Folder); perfect binder; and Challenge 3-Knife Trimmer.

### Auxiliary Equipment

- Mac or Windows (PS, PDF, and PCL)
- Kodak Digimaster EX 125, Digimaster System Control Subsystem (SCS) with Print Production software 7.0 pre-installed (AP configuration); training; installation.

### Variable Charges

- 1. Depreciation @ 20% per year: $50,000
- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft:
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M)
- 4. Direct Labor:
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts:
- 6. Pension Fund (A) 5% (B) 3% (C) 2%:
- 7. Welfare Benefits (A) $90./wk, (B) $60./wk, (C) $45./wk:
- 8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%:
- 9. Workmen's Compensation Insurance (Rate $40.00 per M):
- 10. Power Cost @ $0.07 per kWh (based on hp rating):
- 11. Power Cost @ $0.07 per kWh (based on kw rating):
- 12. Direct Supplies (see instructions):
- 13. Repairs & Maint. @ 5% 1 shift/10% 2 shifts/15% 3 shifts:
- 14. Sub-total:
- 15. General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts:
- 16. TOTAL MANUFACTURING COSTS:
- 17. Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts:
- 18. TOTAL COSTS:
- 19. MANUFACTURING COSTS per productive hour @ 85% productivity:
- 20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity:

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## Kodak Digimaster EX 138

**Max. Size:** 14.33" X 18.5"  
**Resolution:** 600 x 600 dpi  
**Finishing Ability:** Finisher  
**Power:** 1.8 kWhs  
**Product Class:** Digital Imaging Press-B/W  
**Base Cost:** $315,000  
**Auxiliary Equip.:** n/a  
**Install. (Est.):** Included  
**Total Invest.:** $315,000

### Base Cost Above Includes

- Marking engine; 3 paper supply drawers; finisher; Digimaster System Control Subsystem (SCS) with Print Production software 7.0 pre-installed (AP configuration); training; installation.

### Auxiliary Equipment Includes

Note: Optional equipment, not included in this study, includes: a paper supply module; inserter; hole puncher; bookletmaker; stacker; roll feed; BPRF (CP Bourg Perfector, Rotator, Folder); perfect binder; and Challenge 3-Knife Trimmer.

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<td>40</td>
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<td>37.5</td>
<td>40</td>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
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<td>10</td>
<td>8</td>
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<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
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</table>

### Function Labor Cost-1 Shift

<table>
<thead>
<tr>
<th>Operator</th>
<th>$35,538</th>
<th>$31,488</th>
<th>$26,425</th>
</tr>
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<tbody>
<tr>
<td>TOTAL:</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
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<tr>
<td></td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

### Total: $35,538 $31,488 $26,425

### Einsatz Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
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### Total:

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>111,589</td>
<td>98,872</td>
<td>82,975</td>
</tr>
</tbody>
</table>

### Direct Supplies (see instructions)...

### Total:

### Fixed Charges (Non-Variable)

1. Depreciation @ 20% per year...

### Variable Charges

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...

### Variable Charges

6. Pension Fund (A) 5% (B) 3% (C) 2%...

### Variable Charges

7. Welfare Benefits (A) $90.00/kw. (B) $60.00/kw. (C) $45.00/kw...

### Variable Charges

8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%...

### Variable Charges

9. Workmen's Compensation Insurance (Rate $40.00 per M)...

### Variable Charges

10. Power Cost @ $0.07 per kWh (based on hp rating)...

### Variable Charges

11. Power Cost @ $0.07 per kWh (based on kw rating)...

### Variable Charges

12. Direct Supplies (see instructions)...

### Variable Charges

13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts...

### Variable Charges

14. Sub-total...

### Variable Charges

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...

### Variable Charges

16. Total Manufacturing Costs...

### Variable Charges

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...

### Variable Charges

18. Total Costs...

### Variable Charges

19. Manufacturing Costs per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$116.18</td>
</tr>
<tr>
<td>$98.83</td>
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<tr>
<td>$83.95</td>
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<tr>
<td>$85.34</td>
</tr>
<tr>
<td>$71.37</td>
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<tr>
<td>$59.35</td>
</tr>
<tr>
<td>$73.33</td>
</tr>
<tr>
<td>$60.81</td>
</tr>
<tr>
<td>$50.05</td>
</tr>
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</table>

### Variable Charges

20. All-Inclusive Costs per productive hour @

<table>
<thead>
<tr>
<th>85% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$164.95</td>
</tr>
<tr>
<td>$140.33</td>
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<td>$116.91</td>
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<td>$96.79</td>
</tr>
<tr>
<td>$80.27</td>
</tr>
<tr>
<td>$66.07</td>
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</tbody>
</table>

### Variable Charges

75% productivity

<table>
<thead>
<tr>
<th>85% productivity</th>
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</thead>
<tbody>
<tr>
<td>$164.95</td>
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<tr>
<td>$140.33</td>
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<tr>
<td>$119.22</td>
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<tr>
<td>$116.91</td>
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<tr>
<td>$97.79</td>
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<tr>
<td>$81.31</td>
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<tr>
<td>$96.79</td>
</tr>
<tr>
<td>$80.27</td>
</tr>
<tr>
<td>$66.07</td>
</tr>
</tbody>
</table>

### Variable Charges

60% productivity

<table>
<thead>
<tr>
<th>85% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$164.95</td>
</tr>
<tr>
<td>$140.33</td>
</tr>
<tr>
<td>$119.22</td>
</tr>
<tr>
<td>$116.91</td>
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<tr>
<td>$97.79</td>
</tr>
<tr>
<td>$81.31</td>
</tr>
<tr>
<td>$96.79</td>
</tr>
<tr>
<td>$80.27</td>
</tr>
<tr>
<td>$66.07</td>
</tr>
</tbody>
</table>

### Variable Charges

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### BASE COST ABOVE INCLUDES

- Marking engine; 6 paper supply drawers; finisher; Digimaster System Control Subsystem (SCS) with Print Production software 7.0 pre-installed (AP configuration); training; installation.

### VARIABLE CHARGES

- **Max. Size:** 14.33" X 18.5" 100% productivity
- **Resolution:** 600 X 600 dpi 85% productivity
- **Finishing Ability:** Finisher 85% productivity
- **Power:** kWhs: 1.8 85% productivity

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>40</td>
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<tr>
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<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- **LABOR COST-1 SHIFT**
  - Operator: $35,538
  - $31,488
  - $26,425
  - $73,208
  - $68,865
  - $54,436
  - $111,589
  - $98,872
  - $82,975

### AUXILIARY EQUIPMENT INCLUDES

Note: Optional equipment, not included in this study, includes: a paper supply module; inserter; hole puncher; bookletmaker; stacker; roll feed; BPRF (CP Bourg Perfotor, Rotator, Folder); perfect binder; and Challenge 3-Knife Trimmer.

### TOTAL COSTS

- $249,220
- $234,706
- $220,653
- $346,247
- $320,609
- $295,239
- $425,981
- $391,109
- $356,485

- **Total Manufacturing Costs:** $374,000
- **Total Investing:** $374,000

---

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### Oce® North America, VarioPrint 6150

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.6&quot; X 19.2&quot;</td>
<td>1200 X 600 dpi</td>
<td>n/a</td>
<td>kWhs: 7 est.</td>
<td>Digital Print LED</td>
<td>$199,900</td>
</tr>
</tbody>
</table>

**Base Cost Above Includes**
- Gemini Instant Duplex Engine; high capacity stacker (6,000 sheet, 20 lb. bond).
- Maintenance Charge: $1,500/month.
- Click Charge: $0.068 letter/legal; $0.098 ledger.

**Working Conditions and Annual Cost of Direct Labor (By Area)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Hours/Week</th>
<th>Paid Holidays</th>
<th>Vacation After One Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days</td>
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<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
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<td>8</td>
<td>11</td>
<td>10</td>
<td>2 weeks</td>
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<tr>
<td>Vacation After One Year</td>
<td>8</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**Function**
- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

**VARIABLE CHARGES**
- 1. Depreciation @ 20% per year.......................... $42,478
- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.................................................. $1,838
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M).................................................. $1,777
- 4. Direct Labor.................................................. $1,777
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.......................... $1,777
- 6. Pension Fund (A) 5% (B) 3% (C) 2%.......................... $1,777
- 7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.................................................. $1,777
- 8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%.................................................. $1,777
- 9. Workmen’s Compensation Insurance (Rate $40.00 per M).................................................. $1,777
- 10. Power Cost @ $0.07 per kWh (based on hp rating).................................................. $1,777
- 11. Power Cost @ $0.07 per kWh (based on hp rating).................................................. $1,777
- 12. Direct Supplies (see instructions).................................................. $1,777
- 13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts.......................... $1,777
- 14. Sub-total.................................................. $1,777
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts.......................... $1,777
- 16. Total Manufacturing Costs.................................................. $1,777
- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.......................... $1,777
- 18. Total Costs.................................................. $1,777
- 19. MANUFACTURING COSTS per productive hour @ 85% productivity.................................................. $3,525

**Manufacturing Costs per productive hour @**
- 75% productivity.................................................. $3,525
- 60% productivity.................................................. $3,525
- ALL-INCLUSIVE COSTS per productive hour @ 85% productivity.................................................. $3,525

**Manufacturing Costs per productive hour @**
- 75% productivity.................................................. $3,525
- 60% productivity.................................................. $3,525

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**Digital Duplicators/ Copier-Printers: B&W**
### BASE COST ABOVE INCLUDES

- Gemini Instant Duplex Engine; high capacity stacker (6,000 sheet, 20 lb. bond).
- Maintenance Charge: $1,500/month.
- Click Charge: $0.068 letter/legal; $0.098 ledger.

### AUXILIARY EQUIPMENT INCLUDES

- Set Finisher ($9,800).
- Training @ $2,900 is an available option not included in this study.

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tr>
<td>Vacation After One Year</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

- Direct Labor: $35,538
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: $7,108
- Pension Fund (A) 5% (B) 3% (C) 2%: $1,777
- Welfare Benefits (A) $90/kwk. (B) $60/kwk. (C) $45/kwk: $4,680
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%: $3,540
- Workmen’s Compensation Insurance (Rate $4.00 per M): $1,706
- Power Cost @ $0.07 per kWh (based on hp rating): $411
- Power Cost @ $0.07 per kWh (based on kW rating): $411
- Direct Supplies (see instructions): $0
- Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts: $13,770
- Sub-total: $126,606
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: $18,991
- TOTAL MANUFACTURING COSTS: $145,597
- Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts: $61,151
- TOTAL COSTS: $206,748

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$106.86</td>
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<tr>
<td>75%</td>
<td>$121.10</td>
</tr>
<tr>
<td>60%</td>
<td>$151.38</td>
</tr>
</tbody>
</table>
| ALL-INCLUSIVE COSTS per productive hour @
<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$151.74</td>
</tr>
<tr>
<td>75%</td>
<td>$171.97</td>
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<tr>
<td>60%</td>
<td>$214.96</td>
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### TOTAL INVEST.:

- $225,391

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**Digital Duplicators/ Copyer-Printers: B&W**
### Oce® North America, VarioPrint 6250

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<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
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<tr>
<td>12.6’ X 19.2”</td>
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<td>Digital Print LED</td>
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<td><strong>DUPLICATION:</strong></td>
<td><strong>COLOR ABILITY:</strong></td>
<td><strong>INTERFACES WITH:</strong></td>
<td><strong>SQ. FT.:</strong></td>
<td><strong>MAXIMUM SPEED:</strong></td>
<td><strong>INSTALL. (EST.):</strong></td>
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<td>Yes</td>
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<td>175</td>
<td>250 ipm duplex letter</td>
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### BASE COST ABOVE INCLUDES

- Gemini Instant Duplex Engine, high capacity stacker (6,000 sheet, 20 lb. bond).
- Maintenance Charge: $1,500/month.
- Click Charge: $0.068 letter/legal; $.098 ledger.

### AUXILIARY EQUIPMENT INCLUDES

- Set Finisher, 4500 sheets letter ($9,800).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<tr>
<td>Paid Holidays</td>
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<td>11</td>
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<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

<table>
<thead>
<tr>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
</tr>
<tr>
<td></td>
<td>$73,208</td>
<td>$64,865</td>
</tr>
<tr>
<td></td>
<td>$111,589</td>
<td>$98,872</td>
</tr>
</tbody>
</table>

### TOTAL:

- $35,538
- $31,488
- $26,425
- $73,208
- $64,865
- $54,436
- $111,589
- $98,872
- $82,975

### VARIABLE CHARGES

- Direct Labor: $35,538
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts: 7,108
- Pension Fund (A) 5% (B) 3% (C) 2%: 1,777
- Welfare Benefits (A) $90. wk. (B) $60. wk. (C) $45. wk.: 4,680
- Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%: 3,540
- Workmen's Compensation Insurance (Rate $40.00 per M): 1,706
- Power Cost @ $0.07 per kWh (based on hp rating): 471
- Power Cost @ $0.07 per kWh (based on kW rating): 471
- Direct Supplies (see instructions): 471
- Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts: 15,120
- Sub-total: 133,464
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts: 20,020
- TOTAL MANUFACTURING COSTS: 153,484
- Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts: 64,463
- TOTAL COSTS: $217,947
- MANUFACTURING COSTS per productive hour @ 85% productivity: $122.38
- MANUFACTURING COSTS per productive hour @ 75% productivity: 127.66
- MANUFACTURING COSTS per productive hour @ 60% productivity: 159.58
- ALL-INCLUSIVE COSTS per productive hour @ 85% productivity: $159.96
- ALL-INCLUSIVE COSTS per productive hour @ 75% productivity: 181.28
- ALL-INCLUSIVE COSTS per productive hour @ 60% productivity: 226.60

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447

Digital Duplicators/
Copier-Printers: B&W
RISO, RZ310

MAX. SIZE: 8.5" X 11"
RESOLUTION: 600 dpi Emulated
FINISHING ABILITY: None
POWER: kWhs: 0.3
PRODUCT CLASS: Digital Duplicator: Color
BASE COST: $7,995

AUXILIARY EQUIPMENT INCLUDES
GDI Controller ($1,100); Network Card ($550); Color Cylinder ($975 each); ADF ($1,550).

*Install. Cost Note: Survey did not indicate installation cost information (priced by dealer). Adjust your actual investment cost accordingly.

No. of Manned Hours Annually @ 100% Productivity..................................

FIXED CHARGES (NON-VARIABLE)
1. Depreciation @ 20% per year.................................................................$ 2,444 $ 2,444 $ 2,444 $ 2,444 $ 2,444 $ 2,444 $ 2,444 $ 2,444
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.................................$ 1,050 700 500 1,050 700 500 1,050 700 500
3. Fire & Sprinkler Insurance (Rate $4.00 per M)...............................49 49 49 49 49 49 49 49

VARIABLE CHARGES
4. Direct Labor..........................................................35,538 31,488 26,425 73,208 64,865 54,436 111,589 98,872 82,975
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/ 10% 3 shifts........7,108 6,298 5,285 10,981 9,730 8,165 11,159 9,887 8,297
6. Pension Fund (A) 5% (B) 3% (C) 2%....................................1,777 945 529 3,660 1,946 1,089 5,579 2,966 1,659
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk..........................4,680 3,120 2,340 9,360 6,240 4,680 14,040 9,360 7,020
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%....................3,540 3,136 2,632 6,988 6,191 5,196 10,188 9,027 7,576
9. Worker's Compensation Insurance (Rate $40.00 per M)...................1,706 1,611 1,268 3,368 2,984 2,504 4,910 3,450 3,651
10. Power Cost @ $0.07 per kWh (based on hp rating)............................0 0 0 0 0 0 0 0 0
11. Power Cost @ $0.07 per kWh (based on kw/hr rating)......................20 22 24 40 44 49 61 67 73
12. Direct Supplies (see instructions)...................................................0 0 0 0 0 0 0 0 0
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts....................611 611 611 1,222 1,222 1,222 1,833 1,833 1,833
15. General Factory—15% 1 shift/12.5% 2 shifts/ 10% 3 shifts.................8,778 7,549 6,316 14,046 12,052 10,040 16,290 13,956 11,608
16. TOTAL MANUFACTURING COSTS..............................................67,300 57,873 48,423 126,417 108,467 90,375 179,192 153,511 127,685
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts....28,266 24,306 20,338 46,774 40,133 33,439 57,342 49,124 40,859
18. TOTAL COSTS.................................................................$ 95,576 $ 82,179 $ 68,761 $ 173,191 $ 148,600 $ 123,813 $ 236,534 $ 202,635 $ 168,544
19. MANUFACTURING COSTS per productive hour @
75% productivity 55.98 43.78 33.35 52.58 41.03 31.12 49.68 38.71 29.31
60% productivity 69.97 54.73 41.69 65.72 51.28 38.90 62.10 48.39 36.64
20. ALL-INCLUSIVE COSTS per productive hour @
75% productivity 70.14 54.85 41.78 63.55 49.69 37.62 57.87 45.09 34.14
60% productivity 99.36 77.71 59.19 90.03 70.26 53.29 81.98 63.87 48.37

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**RISO, RZ220**

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.5&quot; X 14&quot;</td>
<td>300 dpi</td>
<td>None</td>
<td>kWhs: 0.3</td>
<td>Digital Duplicator: Color</td>
<td>$5,995</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DUPLUXING:</th>
<th>COLOR ABILITY:</th>
<th>INTERFACES WITH:</th>
<th>SQ. FT.:</th>
<th>MAXIMUM SPEED:</th>
<th>INSTALL. (EST.):</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Spot Color With Cylinder Change</td>
<td>PC/Mac Network.</td>
<td>100</td>
<td>130 cpm</td>
<td>*See Note</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Riso i Quality System; ink save mode; energy save mode; auto off; auto sleep; 2-up printing; confidential mode; programmed printing; paper size detection; maint. indicator; receive tray; stand.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Click Charge: As low a 1/3 cent for volume.

**AUXILIARY EQUIPMENT INCLUDES**

GD1 Controller ($1,100); Network Card ($550); Color Cylinder ($975 each); ADF ($1,550).

*Install. Cost Note:* Survey did not indicate installation cost information (priced by dealer). Adjust your actual investment cost accordingly.

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

<table>
<thead>
<tr>
<th>Operator</th>
<th>$35,538</th>
</tr>
</thead>
</table>

**LABOR COST-2 SHIFTS**

<table>
<thead>
<tr>
<th>$73,208</th>
<th>$64,865</th>
<th>$54,436</th>
</tr>
</thead>
</table>

**LABOR COST-3 SHIFTS**

<table>
<thead>
<tr>
<th>$111,589</th>
<th>$98,872</th>
<th>$82,975</th>
</tr>
</thead>
</table>

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>58,014</td>
<td>49,816</td>
<td>41,599</td>
</tr>
<tr>
<td>111,763</td>
<td>95,808</td>
<td>79,725</td>
</tr>
<tr>
<td>162,194</td>
<td>138,849</td>
<td>115,369</td>
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**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>66,716</td>
<td>57,288</td>
<td>47,839</td>
</tr>
<tr>
<td>125,733</td>
<td>107,783</td>
<td>89,691</td>
</tr>
<tr>
<td>152,732</td>
<td>132,006</td>
<td>100,906</td>
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</table>

**TOTAL COSTS**

<table>
<thead>
<tr>
<th>$94,737</th>
<th>$81,349</th>
<th>$67,931</th>
</tr>
</thead>
<tbody>
<tr>
<td>$172,254</td>
<td>$147,663</td>
<td>$122,876</td>
</tr>
<tr>
<td>$235,506</td>
<td>$201,607</td>
<td>$167,516</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$48.96</th>
<th>$38.24</th>
<th>$29.07</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>$55.49</td>
<td>$43.34</td>
<td>$32.95</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$69.37</td>
<td>$54.17</td>
<td>$41.18</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$69.53</th>
<th>$54.30</th>
<th>$41.28</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>$78.80</td>
<td>$61.54</td>
<td>$46.78</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$98.50</td>
<td>$76.93</td>
<td>$58.48</td>
</tr>
</tbody>
</table>

---

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451

Digital Duplicators/ Copier-Printers: Color
Duplo USA, CD-2501N

MAX. SIZE: 11" X 17"  
RESOLUTION: 1200 X 600 dpi  
FINISHING ABILITY: Optional stapler, saddle stitcher, and hole punch.  
POWER: kWhs: 1.8  
PRODUCT CLASS: Color Digital Copier/Printers  
BASE COST: $12,095  
AUXILIARY EQUIP.: n/a  
INSTALL. (EST.): Included  
TOTAL INVEST.: $12,095

BASE COST ABOVE INCLUDES
Duplo USA, CD-2501N; Desktop Document Manager; one user license; training; installation.

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

FUNCTION LABOR COST-1 SHIFT
Operator $35,538

FUNCTION LABOR COST-2 SHIFTS
Labor Cost-2 Shifts $73,208

FUNCTION LABOR COST-3 SHIFTS
Labor Cost-3 Shifts $111,589

TOTAL: $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
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<td>1,936</td>
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</table>

TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

No. of Manned Hours Annually @ 100% Productivity...

FIXED CHARGES (NON-VARIABLE)
1. Depreciation @ 20% per year...
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
3. Fire & Sprinkler Insurance (Rate $4.00 per M).

VARIABLE CHARGES
4. Direct Labor...
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
6. Pension Fund (A) 5% (B) 3% (C) 2%...
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
8. Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%...
9. Workmen's Compensation Insurance (Rate $40.00 per M)...
10. Power Cost @ $0.07 per kWh (based on hp rating)
11. Power Cost @ $0.07 per kWh (based on kw rating)
12. Direct Supplies (see instructions)...
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts...
14. Sub-total...
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
16. TOTAL MANUFACTURING COSTS...
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
18. TOTAL COSTS...
19. MANUFACTURING COSTS per productive hour @
   85% productivity...

<table>
<thead>
<tr>
<th>Categroy</th>
<th>85% productivity</th>
<th>75% productivity</th>
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<tr>
<td>$49.23</td>
<td>$38.56</td>
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<tr>
<td>$46.35</td>
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<td>$27.49</td>
</tr>
<tr>
<td>$27.49</td>
<td>$34.18</td>
<td></td>
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</tbody>
</table>

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Digital Duplicators/ Copier-Printers: Color
### RISO, RZ390

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>11” X 17”</td>
<td>600 dpi Emulated</td>
<td>None</td>
<td>kWhs: 0.3</td>
<td>Digital Duplicator: Color</td>
<td>$9,995</td>
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<table>
<thead>
<tr>
<th>DUPLEXING:</th>
<th>COLOR ABILITY:</th>
<th>INTERFACES WITH:</th>
<th>SQ. FT.:</th>
<th>130 cpm</th>
<th>MAXIMUM SPEED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Spot Color With Cylinder Change</td>
<td>PC/Mac Network.</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES

- Riso i Quality System; ink save mode; pencil mode; dot screening; auto idle; 2-up mode; energy save mode; auto off; auto sleep; programmed printing; precision stacking tray; stand; preset reduction and enlargement; zoom.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Click Charge: As low a 1/3 cent for volume.

### AUXILIARY EQUIPMENT INCLUDES

- GDI Controller ($1,100); Network Card ($550); Color Print Cylinders ($1,295 each);ADF ($1,550).

**Install. Cost Note:** Survey did not indicate installation cost information (priced by dealer). Adjust your actual investment cost accordingly.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

<table>
<thead>
<tr>
<th>Operator</th>
<th>$35,538</th>
<th>$31,488</th>
<th>$26,425</th>
</tr>
</thead>
<tbody>
<tr>
<td>$73,208</td>
<td>$68,865</td>
<td>$54,436</td>
<td></td>
</tr>
<tr>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL:**

- **$35,538**
- **$31,488**
- **$26,425**

### VARIABLE CHARGES

- **1. Depreciation @ 20% per year**
- **2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.**
- **3. Fire & Sprinkler Insurance (Rate $4.00 per M).**
- **4. Direct Labor**
- **5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts**
- **6. Pension Fund (A) 5% (B) 3% (C) 2%**
- **7. Welfare Benefits (A) $90/ wk. (B) $60/ wk. (C) $45/ wk**
- **8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%**
- **9. Workmen's Compensation Insurance (Rate $40.00 per M).**
- **10. Power Cost @ $0.07 per kWh (based on hp rating)**
- **11. Power Cost @ $0.07 per kWh (based on kw rating)**
- **12. Direct Supplies (see instructions)**
- **13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts**
- **14. Sub-total**
- **15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts**
- **16. TOTAL MANUFACTURING COSTS**
- **17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts**
- **18. TOTAL COSTS**
- **19. MANUFACTURING COSTS per productive hour @ 85% productivity**
- **75% productivity**
- **60% productivity**
- **20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**
- **75% productivity**
- **60% productivity**

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### Digital Duplicators

**Color Printers: Color**

- **Power Cost @ $0.07 per kWh (based on kW rating)**
- **Printers**: ADF ($1,550); Color Cylinder ($1,295); Paper Feed Kit ($175).
- **Installation Cost Note**: Adjust your actual investment cost accordingly.

### BASE COST ABOVE INCLUDES

- **Riso i Quality System**: Integrated system controller.
- **Note**: The following information is not used in this study. Use it to adjust Line 13 if necessary.
- **Click Charge**: As low as 1/3 cent for volume.

### AUXILIARY EQUIPMENT INCLUDES

- **Color Print Cylinders ($1,295); ADF ($1,550); Special Paper Feed Kit ($175).**
- ***Install. Cost Note**: Survey did not indicate installation cost information (priced by dealer). Adjust your actual investment cost accordingly.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>Hours/Week</th>
<th>Paid Holidays</th>
<th>Vacation After One Year</th>
<th>Functions</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>35</td>
<td>11</td>
<td>4 weeks</td>
<td>Operator</td>
<td>$35,538</td>
<td>$73,208</td>
<td>$111,589</td>
</tr>
<tr>
<td>B</td>
<td>37.5</td>
<td>10</td>
<td>3 weeks</td>
<td>Payroll</td>
<td>$31,488</td>
<td>$64,865</td>
<td>$98,872</td>
</tr>
<tr>
<td>C</td>
<td>40</td>
<td>8</td>
<td>2 weeks</td>
<td>Depreciation</td>
<td>$35,538</td>
<td>$73,208</td>
<td>$111,589</td>
</tr>
</tbody>
</table>

### TOTAL:

- **$35,538**
- **$31,488**
- **$10,228**

### MANUFACTURING COSTS

- **Fixed Charges (Non-Variable)**
  - 1. Depreciation @ 20% per year
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
  - 3. Fire & Sprinkler Insurance (Rate $40.00 per M)
  - 4. Direct Labor
  - 5. Indirect Labor (Supervision & Misc. 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts)
  - 6. Pension Fund (A) 5% (B) 3% (C) 2%
  - 7. Welfare Benefits (A) $90.00 (B) $60.00 (C) $45.00
  - 8. Payroll Taxes (Social Sec. & Unemployment Insurance) 8.3%
  - 9. Workmen’s Compensation Insurance (Rate $40.00 per M)
  - 10. Power Cost @ $0.07 per kWh (based on kW rating)
  - 11. Power Cost @ $0.07 per kWh (based on kW rating)
  - 12. Direct Supplies (see instructions)
  - 13. Repairs & Maint @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts
  - 14. Sub-total
  - 15. General Factory 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
  - 16. TOTAL MANUFACTURING COSTS
  - 17. Administrative & Selling Overhead 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
  - 18. TOTAL COSTS
  - 19. MANUFACTURING COSTS per productive hour @ 85% productivity
  - 20. ALL-INCLUSIVE COSTS per productive hour @ 95% productivity

### TOTAL INVEST. : $17,015

**NOTE**: This document is a sample page from a larger report. For full context and detailed explanations, please refer to the complete document.
### RISO, RZ790

**MAX. SIZE:** 11" X 17"  
**RESOLUTION:** 600 dpi  
**FINISHING ABILITY:** n/a  
**POWER:** kWhs: 0.6  
**PRODUCT CLASS:** Digital Duplicator: Color

<table>
<thead>
<tr>
<th>MAXIMUM SPEED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 cpm</td>
</tr>
</tbody>
</table>

**BASE COST:** $29,995  
**AUXILIARY EQUIP.:** $8,640  
**INSTALL. (EST.):** *See Note

**TOTAL INVEST. :** $38,635

---

### BASE COST ABOVE INCLUDES

Easy 2 Color; Riso Editor; Riso Quality System; integrated system controller.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Click Charge: As low a 2/3 cent for volume.

---

### AUXILIARY EQUIPMENT INCLUDES

Color print cylinders ($1,295); ADF ($1,550); envelope/card feeder ($5,795).

*Install. Cost Note:* Survey did not indicate installation cost information (priced by dealer). Adjust your actual investment cost accordingly.

---

### VARIABLE CHARGES

- **1. Depreciation @ 20% per year:** $7,727, $7,727, $7,727, $7,727, $7,727, $7,727
- **2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.** 1,050, 700, 500, 1,050, 700, 500
- **3. Fire & Sprinkler Insurance (Rate $40.00 per M)** 155, 155, 155, 155, 155, 155

**TOTAL:** $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

---

### ONE SHIFT TWO-shiftS THREE-shiftS

| AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C | AREA A | AREA B | AREA C |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1,603  | 1,763  | 1,936  | 3,206  | 3,525  | 3,872  | 4,809  | 5,288  | 5,808  |

### FIXED CHARGES (NON-VARIABLE)

- **1.** Depreciation @ 20% per year...
- **2.** Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...
- **3.** Fire & Sprinkler Insurance (Rate $40.00 per M)

**TOTAL:** $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

---

### DIRECT LABOR

- **8. Power Cost @ $0.07 per kWh (based on hp rating)** 0, 0, 0, 0, 0, 0, 0, 0, 0
- **10. Power Cost @ $0.07 per kWh (based on kw/h rating)** 40, 44, 49, 81, 89, 98, 121, 133, 146

**TOTAL:** $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

---

### MANUFACTURING COSTS

**TOTAL COSTS:** $106,556 $93,172 $79,757 $185,630 $161,045 $136,265 $250,200 $216,309 $182,228

**MANUFACTURING COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th>85% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$55.07</td>
</tr>
</tbody>
</table>

**75% productivity**

<table>
<thead>
<tr>
<th>75% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>62.42</td>
</tr>
</tbody>
</table>

**60% productivity**

<table>
<thead>
<tr>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>78.02</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

<table>
<thead>
<tr>
<th>85% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$78.20</td>
</tr>
</tbody>
</table>

**75% productivity**

<table>
<thead>
<tr>
<th>75% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>88.63</td>
</tr>
</tbody>
</table>

**60% productivity**

<table>
<thead>
<tr>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>110.79</td>
</tr>
</tbody>
</table>

---

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Digital Duplicators/  
Copier-Printers: Color

455
### RISO, RZ990

**BASE COST ABOVE INCLUDES**
- Riso Editor; Riso i-Quality System; integrated system controller; network interface.
- **Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.
- **Click Charge:** As low a 1/3 cent for volume.

**AUXILIARY EQUIPMENT INCLUDES**
- Color print cylinders ($1,295); ADF ($1,650); envelope/card feeder ($5,795).
- **Install. Cost Note:** Survey did not indicate installation cost information (priced by dealer). Adjust your actual investment cost accordingly.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>11</td>
<td>8</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**
- **TOTAL:**

<table>
<thead>
<tr>
<th>Operator</th>
<th>Label Cost</th>
<th>Labor Cost</th>
<th>Labor Cost</th>
<th>Labor Cost</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
</tr>
</tbody>
</table>

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td></td>
</tr>
</tbody>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td></td>
</tr>
</tbody>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**:

<table>
<thead>
<tr>
<th>Operator</th>
<th>Label Cost</th>
<th>Labor Cost</th>
<th>Labor Cost</th>
<th>Labor Cost</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS**

<table>
<thead>
<tr>
<th>PER PRODUCTIVE HOUR @</th>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
<th>ALL-INCLUSIVE COSTS @</th>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>53.59</td>
<td>42.45</td>
<td>32.91</td>
<td>48.86</td>
<td>38.45</td>
<td>29.50</td>
<td>45.71</td>
<td>35.86</td>
</tr>
<tr>
<td>60.74</td>
<td>48.11</td>
<td>37.29</td>
<td>55.37</td>
<td>43.57</td>
<td>33.44</td>
<td>51.81</td>
<td>40.65</td>
</tr>
<tr>
<td>75.92</td>
<td>60.14</td>
<td>46.62</td>
<td>69.21</td>
<td>54.46</td>
<td>41.80</td>
<td>64.76</td>
<td>50.81</td>
</tr>
<tr>
<td>76.10</td>
<td>60.28</td>
<td>46.73</td>
<td>66.93</td>
<td>52.67</td>
<td>40.42</td>
<td>60.34</td>
<td>47.34</td>
</tr>
<tr>
<td>86.25</td>
<td>68.32</td>
<td>52.96</td>
<td>75.86</td>
<td>59.69</td>
<td>45.81</td>
<td>68.39</td>
<td>53.65</td>
</tr>
<tr>
<td>107.81</td>
<td>85.40</td>
<td>66.20</td>
<td>94.82</td>
<td>74.62</td>
<td>57.26</td>
<td>85.48</td>
<td>67.06</td>
</tr>
</tbody>
</table>

**TOTAL COSTS**

<table>
<thead>
<tr>
<th>Digital Duplicators/ Copier-Printers: Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL COSTS</td>
</tr>
</tbody>
</table>

**MANUFACTURING COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

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# Toshiba E-Studio 3500C (Data Provided By Danka Office Imaging)

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot; X 18&quot;</td>
<td>600 X 600 dpi</td>
<td>Multi-position staple; hole punch; saddle stitch.</td>
<td>kWhs: 1.72</td>
<td>Digital Copier-Printer-Color</td>
<td>$14,999</td>
</tr>
<tr>
<td>DUESTIPPING:</td>
<td>COLOR ABILITY:</td>
<td>INTERFACES WITH:</td>
<td>SQ. FT.:</td>
<td>MAXIMUM SPEED:</td>
<td>AUXILIARY EQUIP.:</td>
</tr>
<tr>
<td>No</td>
<td>Full Color</td>
<td>n/a</td>
<td>100</td>
<td>35 color, 45 B/W ppm</td>
<td>$4,995</td>
</tr>
</tbody>
</table>

## BASE COST ABOVE INCLUDES
Out-of-the-box network ready, print ready, scan ready, and internet ready.

*Installation Note: Survey did not indicate an installation cost. Adjust your total investment cost accordingly.*

## AUXILIARY EQUIPMENT INCLUDES
RADF Reversing Auto Document Feeder ($1,595); Multi-Position Finisher ($2,175); Large Capacity Feeder ($1,225).

## VARIABLE CHARGES

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 shifted</th>
<th>LABOR COST-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
</tr>
</tbody>
</table>

## WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
</tr>
<tr>
<td>After One Year</td>
<td>8</td>
<td>11</td>
</tr>
</tbody>
</table>

## TOTAL:

- **$35,538**
- **$31,488**
- **$26,425**
- **$73,208**
- **$64,865**
- **$54,436**
- **$111,589**
- **$98,872**
- **$82,975**

**TOTAL INVEST. :** $19,994

---

**Non-VARIABLE**:

<table>
<thead>
<tr>
<th>No. of Manned Hours Annually @ 100% Productivity</th>
<th>FIXED CHARGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 20% per year..........................</td>
<td>$3,999</td>
</tr>
<tr>
<td>2. Rent &amp; Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.</td>
<td>$1,050</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance (Rate $4.00 per M)...</td>
<td>$80</td>
</tr>
</tbody>
</table>

**VARIABLE CHARGES**

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operator</strong></td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
</tr>
</tbody>
</table>

**TOTAL:**

- **$35,538**
- **$31,488**
- **$26,425**
- **$73,208**
- **$64,865**
- **$54,436**
- **$111,589**
- **$98,872**
- **$82,975**

**Equip. Shipped F.O.B.:** n/a

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**TWO Shifts**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

**THREE Shifts**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

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Digital Duplicators/
Copier-Printers: Color
### Canon Imagerunner C5180 (Data Provided By Danka Office Imaging)

**BASE COST ABOVE INCLUDES**

Canon Imagerunner C5180.

*Installation Note:* Survey did not indicate an installation cost. Adjust your total investment cost accordingly.

**AUXILIARY EQUIPMENT INCLUDES**

Equip. Shipped F.O.B.: n/a

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

**TOTAL:**

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA</th>
<th>1.603</th>
<th>1.763</th>
<th>1.936</th>
<th>3.206</th>
<th>3.525</th>
<th>3.872</th>
<th>4.809</th>
<th>5.288</th>
<th>5.808</th>
</tr>
</thead>
</table>

**TWO SHIFTS**

<table>
<thead>
<tr>
<th>AREA</th>
<th>1.603</th>
<th>1.763</th>
<th>1.936</th>
<th>3.206</th>
<th>3.525</th>
<th>3.872</th>
<th>4.809</th>
<th>5.288</th>
<th>5.808</th>
</tr>
</thead>
</table>

**THREE SHIFTS**

<table>
<thead>
<tr>
<th>AREA</th>
<th>1.603</th>
<th>1.763</th>
<th>1.936</th>
<th>3.206</th>
<th>3.525</th>
<th>3.872</th>
<th>4.809</th>
<th>5.288</th>
<th>5.808</th>
</tr>
</thead>
</table>

---

### AUXILIARY EQUIPMENT INCLUDES

- **Digital Copier/Printer-Color**
- **Digital Duplicators/Wide Printers**
- **Copiers**

LAYOUT FOR NECESSARY PRINTING MEDIA:

- **Budgeted**
- **Recommended Monthly Volume:** 60,000

---

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### Toshiba E-Studio 5500C (Data Provided By Danka Office Imaging)

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER: kWs</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot; X 18&quot;</td>
<td>600 X 600 dpi</td>
<td>Stapling; hole punching; booklet making.</td>
<td>2.4</td>
<td>Digital Copier/Printer-Color</td>
<td>$37,000</td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES

100 sheet RADF Reversing Auto Document Feeder; 3,400 sheet stand paper supply.

*Installation Note: Survey did not indicate an installation cost. Adjust your total investment cost accordingly.

### AUXILIARY EQUIPMENT INCLUDES

50 sheet Saddle Stitch Finisher ($5,200); 4,000 sheet Large Capacity Tray ($1,995); Print/Scan Kit ($2,970).

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>18</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

1. Depreciation @ 20% per year $9,433
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. 1,050
3. Fire & Sprinkler Insurance (Rate $4.00 per M) 189
4. Direct Labor 35,538
5. Indirect Labor (Supervision & Misc.) 15% 2 shifts/ 10% 3 shifts 7,108
6. Pension Fund (A) 5% (B) 3% (C) 2% 1,777
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk. 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3% 3,540
9. Workmen's Compensation Insurance (Rate $40.00 per M) 1,706
10. Power Cost @ $0.07 per kWh (based on hp rating) 0
11. Power Cost @ $0.07 per kWh (based on hp rating) 162
12. Direct Supplies (see instructions) 0
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts 2,358
14. Sub-total 67,539
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts 10,131
16. TOTAL MANUFACTURING COSTS 77,670
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts 32,622
18. TOTAL COSTS 110,292
19. MANUFACTURING COSTS per productive hour @ 85% productivity $57.00
20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity $80.95

---

Digital Duplicators/ Copier-Printers: Color

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### BASE COST ABOVE INCLUDES

RISO, HC5500 Full Color Sheetfed Inkjet Printer.

*Install. Cost Note: Survey did not indicate installation cost information (priced by dealer). Adjust your actual investment cost accordingly.

### AUXILIARY EQUIPMENT INCLUDES

Finisher ($18,000); scanner ($5,000); postscript RIP ($8,000).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
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<td>10</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

1. Depreciation @ 20% per year
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
3. Fire & Sprinkler Insurance (Rate $4.00 per M)
4. Direct Labor
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
6. Pension Fund (A) 5% (B) 3% (C) 2%
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
8. Payroll Taxes (Soc. Sec. & Unemployment. Insurance) 8.3%
9. Workmen's Compensation Insurance (Rate $4.00 per M)
10. Power Cost @ $0.07 per kWh (based on hp rating)
11. Power Cost @ $0.07 per kWh (based on kW rating)
12. Direct Supplies (see instructions)
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts
14. Sub-total
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
16. TOTAL MANUFACTURING COSTS
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts
18. TOTAL COSTS
19. MANUFACTURING COSTS per productive hour @ 85% productivity
20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity

### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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</thead>
<tbody>
<tr>
<td>$62.02</td>
<td>$50.12</td>
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<tr>
<td>$70.29</td>
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<td>$87.87</td>
<td>$71.00</td>
<td>$56.51</td>
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<td>$88.07</td>
<td>$71.17</td>
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<tr>
<td>$99.81</td>
<td>$80.66</td>
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</table>

### TOTAL INVEST.

$71,000
### Canon ImagePress-C1 (Data Provided By Danka Office Imaging)

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>13&quot; X 19&quot;</td>
<td>1200 X 1200 dpi</td>
<td>Hole punch; staple; saddle finish.</td>
<td>kWhs: 3 est.</td>
<td>Digital Copier/Printer-Color</td>
<td>$31,500</td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**

**Circuit Breaker Panel**

**Color Separation Unit**

**COPiER-PRINTERS**

- **COMMERCIAL COPIER**
  - **Recommended Monthly Volume:** 35,000
  - **MAXIMUM SPEED:** 14 ppm color/60 ppm B/W

- **Digital Duplicators/Printer**
  - **Recommended Monthly Volume:** 35,000
  - **MAXIMUM SPEED:** 14 ppm color/60 ppm B/W

**FINISHING ABILITY**

- **No**
- **Full Color**

**COLOR ABILITY**

- **n/a**

**INTERFACES WITH**

- **100**

**CAPACITIES**

- **TOTAL: 2,966 sq. ft.**
- **MAX. SIZE:** 13" X 19"
- **RESOLUTION:** 1200 X 1200 dpi
- **FINISHING ABILITY:** Hole punch; staple; saddle finish.
- **POWER:** 3 est. kWhs
- **PRODUCT CLASS:** Digital Copier/Printer-Color

**BASE COST ABOVE INCLUDES**

- **Canon ImagePress-C1.**
- **Installation Note:** Survey did not indicate an installation cost. Adjust your total investment cost accordingly.

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hours/Week</strong></td>
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<td>37.5</td>
<td>40</td>
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<td>37.5</td>
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<td>10</td>
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</tr>
<tr>
<td><strong>Vacation After One Year</strong></td>
<td>4 weeks</td>
<td>3 weeks</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - **Operator** $35,538

**LABOR COST-2 SHIFTS**

- **Operator** $73,208

**LABOR COST-3 SHIFTS**

- **Operator** $111,589

**TOTAL:**

- **Operator** $220,331

**MANUFACTURING COSTS**

- **$103,860**

**DIRECT LABOR**

- **$35,538**

**MANUFACTURING COSTS PER PRODUCTIVE HOUR @

- **85% productivity**
  - **$53.68**

- **75% productivity**
  - **$60.84**

- **60% productivity**
  - **$76.05**

**ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR @

- **85% productivity**
  - **$76.22**

- **75% productivity**
  - **$86.39**

- **60% productivity**
  - **$107.99**

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### Xanté Illumina Digital Color Press

#### MAX. SIZE:
12.9" X 47.25"

#### RESOLUTION:
1200 X 600 dpi

#### FINISHING ABILITY:
None

#### POWER:
kWhs: 1.65

#### PRODUCT CLASS:
Digital Copier/Printer-Color

### BASE COST ABOVE INCLUDES
- One cassette tray: 512 MB memory; 20 GB hard drive; duplexing tray; internal Adobe Postscript 3 RIP; automatic color calibration; paper weights up to 24 pt. cover; one year warranty.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- LABOR COST-1 SHIFT
  - Operator: $35,538
- LABOR COST-2 SHIFTS
  - Total: $73,208
- LABOR COST-3 SHIFTS
  - Total: $111,589

**TOTAL MANUFACTURING COSTS**
- Total: $234,912

---

**AUXILIARY EQUIPMENT INCLUDES**

Note: Optional equipment, not included in this study, includes: optional cassette tray for 530 20# sheets ($495); a high capacity tray for 1,590 20# sheets ($1,499); 1 GB customer upgradable memory ($1,499); and 1 GB factory memory upgrade ($499).

---

**Digital Copier-Printers: Color**

<table>
<thead>
<tr>
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<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>4.809</td>
<td>5.288</td>
<td>5.808</td>
</tr>
</tbody>
</table>

**CHARGES CODE:**
- Pension Fund (A) 5% (B) 3% (C) 2%
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%
- Direct Supplies (see instructions)
- FIRE & SPRINKLER INSURANCE (Rate $4.00 per M)
- Workmen's Compensation Insurance (Rate $4.00 per M)
- Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
- Workmen’s Compensation Insurance (Rate $40.00 per M)
- Depreciation @ 20% per year
- 60% productivity
- 75% productivity
- 85% productivity
- General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
- Administrative & Selling Overhead—42% 1 shift/
- Total Costs
- Total: $94,086
- 70% productivity
- 85% productivity
- 95% productivity
- TOTAL COSTS
- TOTAL INVEST. : $8,294

---

**Fixed Charges (Non-Variable)**

1. Depreciation @ 20% per year...

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...

3. Fire & Sprinkler Insurance (Rate $4.00 per M)...

---

**VARIABLE CHARGES**

4. Direct Labor...

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/
6. Pension Fund (A) 5% (B) 3% (C) 2%...

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...

---

**TOTAL MANUFACTURING COSTS**

- Total: $8,294

---

**No. of Manned Hours Annually @ 100% Productivity**

- 111

---

**VARIOUS CHARGES**

- 1. Depreciation @ 20% per year...

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft...

3. Fire & Sprinkler Insurance (Rate $4.00 per M)...

---

**TOTAL COSTS**

- Total: $94,086

---

**MANUFACTURING COSTS per productive hour @**

- 85% productivity

- 75% productivity

- 60% productivity

---

**ALL-INCLUSIVE COSTS per productive hour @**

- 95% productivity

- 75% productivity

- 60% productivity

---

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### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<td>Vacation After One Year</td>
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<td>2 weeks</td>
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<td>3 weeks</td>
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</tr>
</tbody>
</table>

**Total:**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
</tr>
<tr>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
</tr>
<tr>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

### Auxiliary Equipment Includes

- Click Charge: $0.036 (over 200,000)
- Maintenance Charge: $1,260/month.
- Equipment Shipped F.O.B.: n/a

#### Fixed Charges (Non-VARIABLE)

1. Depreciation @ 20% per year...... $64,000
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. $1,280
3. Fire & Sprinkler Insurance (Rate $4.00 per M) $91.70
4. Direct Labor.......................... $35,538
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/15% 2 shifts/10% 3 shifts $1,777
6. Pension Fund (A) 5% (B) 3% (C) 2% $1,777
7. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk $4,680
8. Payroll Taxes (Soc. Sec. & Unemp. Insurance) 8.3% $3,540
9. Worker's Compensation Insurance (Rate $40.00 per M) $1,706
10. Power Cost @ $0.07 per kWh (based on hp rating) $0
11. Power Cost @ $0.07 per kWh (based on hp rating) $434
12. Direct Supplies (see instructions) $0
13. Repairs & Maint. @ 5% 1 shift/10% 2 shifts/15% 3 shifts $16,000
14. Sub-total............................ $137,952
15. General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts... $20,693
16. TOTAL MANUFACTURING COSTS $158,645
17. Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts $66,631
18. TOTAL COSTS.......................... $225,276
19. MANUFACTURING COSTS per productive hour @ 85% productivity

<table>
<thead>
<tr>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$116.43</td>
<td>$99.42</td>
</tr>
<tr>
<td>$116.43</td>
<td>$99.42</td>
</tr>
</tbody>
</table>

20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity

<table>
<thead>
<tr>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$165.33</td>
<td>$141.18</td>
</tr>
<tr>
<td>$165.33</td>
<td>$141.18</td>
</tr>
</tbody>
</table>

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### Xerox, DocuTech 155 Highlight Color

**MAX. SIZE:** 12.6” X 18.5”
**RESOLUTION:** 600 X 600 dpi
**FINISHING ABILITY:** n/a
**POWER:** kWhs: 6.45
**PRODUCT CLASS:** Digital Copier/Printer-Some
**BASE COST:** $400,000

### BASE COST ABOVE INCLUDES
- **155 ppm print engine; DocuSP Controller; one Highlight Color Starter Kit; training; installation.**

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

- Maintenance Charge: $1,300/month.
- Click Charge: $0.049 (over 200,000)

### AUXILIARY EQUIPMENT INCLUDES
- **AUXILIARY EQUIP.:** n/a

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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</tr>
</tbody>
</table>

**FUNCTION**
- **LABOR COST-1 SHIFT**
- **LABOR COST-2 SHIFTS**
- **LABOR COST-3 SHIFTS**

<table>
<thead>
<tr>
<th>Operator</th>
<th>$35,538</th>
<th>$31,488</th>
<th>$26,425</th>
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<th>$54,436</th>
<th>$111,589</th>
<th>$98,872</th>
<th>$82,975</th>
</tr>
</thead>
</table>

**TOTAL:**
- **$35,538**
- **$31,488**
- **$26,425**
- **$73,208**
- **$64,865**
- **$54,436**
- **$111,589**
- **$98,872**
- **$82,975**

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**
- **$189.69**
- **$163.32**
- **$140.42**

**Total Costs**
- **$258,458**
- **$244,681**
- **$231,075**

---

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**Xerox, DocuTech 180 Highlight Color**

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
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</thead>
<tbody>
<tr>
<td>12.6&quot; X 18.5&quot;</td>
<td>600 X 600 dpi</td>
<td>n/a</td>
<td>kWhs: 6.45</td>
<td>Digital Copier/Printer-Some ~</td>
<td>$457,000</td>
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</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- 180 ppm print engine; DocuSP Controller; one Highlight Color Starter Kit; training; installation.
- Maintenance Charge: $1,300/month.
- Click Charge: $0.049 (over 200,000)

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
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<tr>
<th>Provisions</th>
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<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Operator</th>
<th>$35,538</th>
<th>$31,488</th>
<th>$26,425</th>
<th>$73,208</th>
<th>$64,865</th>
<th>$54,436</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL:</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
</tr>
</tbody>
</table>

**AUXILIARY EQUIPMENT INCLUDES**

- Copier-Printers: Color
- Digital Duplicators/Printers: Some
- Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts
- Workmen’s Compensation Insurance (Rate $40.00 per M)
- Fire & Sprinkler Insurance (Rate $4.00 per M)
- N/A

**VARIABLE CHARGES**

- Direct Labor:
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
- Pension Fund (A) 5% (B) 3% (C) 2%
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk
- Payroll Taxes (Soc. Sec. & Unemployment Insurance) 8.3%
- Workmen’s Compensation Insurance (Rate $40.00 per M)
- Power Cost @ $0.07 per kWh (based on hp rating)
- Power Cost @ $0.07 per kWh (based on kW rating)
- Direct Supplies (see instructions)
- Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts
- Sub-total:
- General Factory – 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts
- TOTAL MANUFACTURING COSTS:
- Administrative & Selling Overhead – 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts

**TOTAL COSTS**

- $282,101 | $268,324 | $254,717 | $384,159 | $359,264 | $334,369 | $468,178 | $434,051 | $399,235

**MANUFACTURING COSTS per productive hour @**

| 85% productivity | $145.80 | $126.13 | $109.00 | $102.90 | $87.52 | $74.16 | $86.77 | $73.16 | $61.37 |
| 75% productivity  | 165.24  | 142.95  | 123.54  | 116.62  | 99.19  | 84.04  | 98.34  | 82.92  | 69.55  |
| 60% productivity  | 206.55  | 178.69  | 154.42  | 145.77  | 123.39 | 105.06 | 122.92 | 103.65 | 86.94  |

**ALL-INCLUSIVE COSTS per productive hour @**

| 85% productivity | $207.04 | $179.11 | $154.79 | $140.97 | $119.90 | $101.59 | $114.53 | $96.58 | $81.01 |
| 75% productivity  | 234.64  | 202.99  | 175.43  | 159.77  | 135.89 | 115.14 | 129.81 | 109.45 | 91.81  |
| 60% productivity  | 293.31  | 253.73  | 219.28  | 199.71  | 169.86 | 143.93 | 162.26 | 136.82 | 114.76 |
Section 5

OTHER SHEETFED PRESSES
**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
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<td>37.5</td>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts........ $10,594
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft................. 2,062
3. Fire & Sprinkler Insurance (Rate $4.00 per M)...................... 424
4. Direct Labor.................................................... 41,239
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts........ 8,248
6. Pension Fund (A) 5% (B) 3% (C) 2%........................................ 2,062
7. Welfare Benefits (A) $90/wk. (B) $60/wk. (C) $45/wk.............. 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%.............. 4,107
9. Workmen’s Compensation Insurance (Rate $40.00 per M)............. 1,797
10. Power Cost @ $0.07 per kWh (based on hp rating).................. 151
11. Power Cost @ $0.07 per kWh (based on kw rating).................. 0
12. Direct Supplies (see instructions).................................. 1,000
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........ 2,119
14. Sub-total...................................................... 78,177
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........ 11,727
16. TOTAL MANUFACTURING COSTS........................................ 89,904

**VARIABLE CHARGES**

- **One Year**
  - Vacation
  - Payroll Taxes
  - Workmen’s Compensation Insurance

**TOTAL COSTS**

- **$127,664**
- **$113,875**
- **$100,074**
- **$221,185**
- **$196,095**
- **$170,736**
- **$297,651**
- **$263,161**
- **$238,342**

**MANUFACTURING COSTS per productive hour @ 85% productivity**

- **56.98**
- **53.53**
- **42.83**
- **59.25**
- **47.77**
- **37.87**
- **55.16**
- **44.30**
- **35.04**

**ALL-INCLUSIVE COSTS per productive hour @ 85% productivity**

- **$93.69**
- **$76.01**
- **$60.81**
- **$81.17**
- **$65.45**
- **$51.88**
- **$72.82**
- **$58.55**
- **$46.25**

**BASE COST ABOVE INCLUDES**

- Delayed dwell system; die heating plate with dual controls; impression counter; three draw roll leaf feeder with rewind unit; two nozzle air blast foil release unit; lightweight toggle base; die cutting plates; automatic lubrication system; micro adjustable gauge band; complete guarding with electronic interlock system and air brake system; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**

- Two-up feeding capability ($949); electronic leaf system ($15,370); hologram registration system ($16,850); missed sheet detector ($513); wide magazine ($2,168); delayed delivery ($572).

---

**Brandtjen & Kluge, 14 X 22 EHD Series Automatic Foil Stamping, Embossing and Die Cutting Press**

- **BASE COST**: $69,515
- **AUXILIARY EQUIP.**: $36,422
- **TOTAL INVEST.**: $105,937

**PERFECTING**

- Color: n/a
- Resolution: n/a
- SQ. FT.: 150

**POWER**

- hp: 3
- kWs: --

**PRODUCT CLASS/PROCESS**

- Sheetfed Foil Stamp/Emboss/Die Cut

---

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**Brandtjen & Kluge, 14 X 22 EHF Series Automatic Foil Stamping, Embossing and Die Cutting Press**

**SIZE:** 17" x 26.25"  
**UNITS:** 1  
**MAXIMUM SPEED:** 3,300 iph  
**POWER:** hp: 3  
**kWhs:** --  
**PERFECTING:** n/a  
**COLORS:** n/a  
**RESOLUTION:** 150  
**SQ. FT.:**  

**BASE COST ABOVE INCLUDES**
- Delayed dwell system; die heating plate with dual controls; impression counter; two draw; electronics for control system; two nozzle air blast foil release unit; lightweight toggle base; die cutting plates; automatic lubrication system; micro adjustable gauge band; variable frequency drive; adjustable impression; complete guarding with electronic interlock system and air vacuum regulator; installation and training.

**AUXILIARY EQUIPMENT INCLUDES**
- Two-up feeding capability ($949); hologram registration system ($1,480); wide magazine ($2,168); overdrive system ($11,303).

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Area</th>
<th>1 Shift</th>
<th>2 Shifts</th>
<th>3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hrs/Wk</td>
<td>B Hrs/Wk</td>
<td>B Hrs/Wk</td>
</tr>
<tr>
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</tr>
<tr>
<td>C</td>
<td>100</td>
<td>100</td>
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</table>

**VARIABLE CHARGES**

<table>
<thead>
<tr>
<th>Provision</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hrs/Week</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

**TOTAL MANUFACTURING COSTS**

$103,281

**TOTAL INVEST. :**

$103,281

**Sheeted**

**Presses: Other**

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469
### Brandtjen & Kluge, EHG Series Half-Sheet Press

**SIZE:** 22" X 30"  
**UNITS:** 1  
**MAXIMUM SPEED:** 1,200 iph  
**POWER:** hp: --  
**kWhs:** 18.4

<table>
<thead>
<tr>
<th>PERFECTING</th>
<th>COLORS</th>
<th>RESOLUTION</th>
<th>SQ. FT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>n/a</td>
<td>n/a</td>
<td>150</td>
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</tbody>
</table>

**BASE COST ABOVE INCLUDES**

- EHG Series Half-Sheet Press; 2 Draw Foil Control System; 2 Zone Hot Plate; training; installation.
- Power Cost @ $0.07 per kWh (based on hp rating)..............................
- Payroll Taxes  (Soc. Sec. & Unemploy. Insurance) 8.3%..............
- 3 weeks
- 4 weeks
- 2 weeks
- 3 weeks
- 2 weeks

**AUXILIARY EQUIPMENT INCLUDES**

- Pressman
- Equip. Shipped F.O.B.: St. Croix Falls, WI

**BASE COST:** $120,000  
**TOTAL INVEST.:** $120,000

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Area</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
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<tr>
<td>Paid Holidays</td>
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</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Pressman</th>
<th>$41,239</th>
</tr>
</thead>
</table>

**TOTAL:**  
$41,239  
$37,211  
$32,081  
$84,952 |

**MANUFACTURING COSTS**

- SHEETED FOIL STAMP/EMBOSS/DIE CUT
- INTERFACES:
  - n/a

**INSTALL. (EST.):** Included

**TOTAL COSTS**

$129,490   $116,843   $100,734

---

**Fixed Charges (Non-VARIABLE)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts...........
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.........
3. Fire & Sprinkler Insurance (Rate $4.00 per M)........

**Variable Charges**

4. Direct Labor...............................41,239
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts..................
6. Pension Fund (A) 5% (B) 3% (C) 2%..........................
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%........
9. Workers’ Compensation Insurance (Rate $40.00 per M)........
10. Power Cost @ $0.07 per kWh (based on hp rating)..........0
11. Power Cost @ $0.07 per kw (based on kw rating)...........
12. Direct Supplies (see instructions)........................
13. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts........
14. Sub-total...................................
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........
16. TOTAL MANUFACTURING COSTS..............94,311

**TOTAL:**  
$133,921  
$120,310  
$106,700  
$230,959  
$206,203  
$181,208  
$310,504  
$276,486  
$242,179

**MANUFACTURING COSTS per productive hour @**

- 85% productivity  
- 75% productivity  
- 60% productivity

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
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<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
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<tr>
<td>78.00</td>
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<td>111.39</td>
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Sheetfed  
Presses: Other
## Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<th>Area C</th>
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<th>Area C</th>
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</thead>
<tbody>
<tr>
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<td>37.5</td>
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<tr>
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<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td></td>
<td></td>
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</tbody>
</table>

### Labor Cost-1 Shift

- **Pressman**: $44,044
- **Area B**: $79,743
- **Area C**: $34,364

### Labor Cost-2 Shifts

- **Area A**: $90,731
- **Area B**: $81,871
- **Area C**: $70,790
- **Total**: $138,298

### Labor Cost-3 Shifts

- **Area A**: $124,793
- **Area B**: $124,793
- **Area C**: $107,903

### Total:

- **Area A**: $49,010
- **Area B**: $54,320
- **Area C**: $61,234

## Auxiliary Equipment Includes

- Equip. Shipped F.O.B.: Kansas City, MO

## Manufacturing Costs per Productive Hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>One Shift</th>
<th>Two Shifts</th>
<th>Three Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$67.30</td>
<td>$54.32</td>
<td>$43.25</td>
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<tr>
<td>75%</td>
<td>$76.27</td>
<td>$61.56</td>
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<tr>
<td>60%</td>
<td>$95.34</td>
<td>$76.95</td>
<td>$61.27</td>
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</table>

## All-Inclusive Costs per Productive Hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>One Shift</th>
<th>Two Shifts</th>
<th>Three Shifts</th>
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</thead>
<tbody>
<tr>
<td>85%</td>
<td>$95.56</td>
<td>$77.13</td>
<td>$61.41</td>
</tr>
<tr>
<td>75%</td>
<td>$108.30</td>
<td>$87.42</td>
<td>$69.60</td>
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</table>

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### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<td>2 weeks</td>
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</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

- Pressman $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

**LABOR COST-2 SHIFTS**

**LABOR COST-3 SHIFTS**

**TOTAL:** $44,044
- $39,743
- $34,364
- $90,731
- $81,871
- $70,790
- $138,298
- $124,793
- $107,903

### Auxiliary Equipment Includes

- Equip. Shipped F.O.B.: Kansas City, MO

### Manufacturing Costs

<table>
<thead>
<tr>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

**Fixed Charges (Non-variable)**

1. Depreciation @ 10% 1 shift/ 12.5% 2 shifts/ 15% 3 shifts:
   - $7,921 $7,921 $7,921 $9,901 $9,901 $9,901 $11,882 $11,882 $11,882
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
   - $1,838 $1,225 $875 $1,838 $1,225 $875 $1,838 $1,225 $875
3. Fire & Sprinkler Insurance (Rate $4.00 per M).

**Variable Charges**

4. Direct Labor:
   - $44,044 $39,743 $34,364 $90,731 $81,871 $70,790 $138,298 $124,793 $107,903
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts:
   - $8,809 $7,949 $6,873 $13,610 $12,281 $10,618 $13,830 $12,479 $10,790
6. Pension Fund (A) 5% (B) 3% (C) 2%:
   - $2,022 $1,192 $687 $4,537 $2,456 $1,416 $6,915 $3,444 $2,158
7. Welfare Benefits (A) $90 per wk. (B) $60 per wk. (C) $45 per wk:
   - $4,680 $3,120 $2,340 $9,360 $6,240 $4,680 $14,040 $9,360 $7,020
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%:
   - $4,387 $3,958 $3,423 $8,660 $7,815 $6,757 $12,627 $11,394 $9,852
9. Workmen’s Compensation Insurance (Rate $40.00 per M):
   - $2,114 $1,908 $1,649 $4,174 $3,766 $3,256 $6,085 $5,491 $4,748
10. Power Cost @ $0.07 per kWh (based on hp rating):
    - $67 $74 $81 $135 $148 $163 $202 $222 $244
11. Direct Supplies (see instructions):
    - $4,000 $4,000 $4,000 $8,000 $8,000 $8,000 $12,000 $12,000 $12,000
12. Repairs & Maint. @ 2% 1 shift/ 2.5% 2 shifts/ 3% 3 shifts:
    - $1,584 $1,584 $1,584 $1,980 $1,980 $1,980 $2,376 $2,376 $2,376
13. Sub-total:
    - $81,963 $72,991 $64,115 $153,241 $135,999 $118,753 $220,409 $195,282 $170,164
14. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts:
    - $12,294 $10,494 $9,617 $19,155 $17,000 $14,844 $22,041 $19,528 $17,016
15. TOTAL MANUFACTURING COSTS:
16. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts:
    - $39,588 $35,255 $30,967 $63,787 $56,610 $49,431 $77,584 $68,739 $59,898
17. TOTAL COSTS:
    - $133,845 $119,194 $104,699 $236,183 $209,609 $183,029 $320,303 $283,550 $247,078
18. MANUFACTURING COSTS per productive hour @
    - 85% productivity:
      - $69.18 $56.03 $44.81 $63.26 $51.06 $40.59 $59.31 $47.80 $37.92
    - 75% productivity:
      - $78.40 $63.50 $50.78 $71.70 $57.87 $46.00 $67.22 $54.17 $42.97
    - 60% productivity:
      - $98.00 $79.36 $63.47 $89.62 $72.34 $57.51 $84.03 $67.71 $53.71
19. MANUFACTURING COSTS per productive hour @
    - 85% productivity:
      - $98.23 $79.56 $63.62 $86.87 $69.96 $55.61 $78.29 $63.09 $50.05
    - 75% productivity:
      - $111.33 $90.17 $72.11 $98.23 $79.28 $63.03 $86.73 $71.50 $56.72
    - 60% productivity:
      - $139.16 $112.71 $90.13 $122.78 $99.11 $78.78 $110.91 $89.38 $70.90
Section 6

DIGITAL WIDE FORMAT PRINTING EQUIPMENT
### Canon USA, imagePROGRAF IPF500

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>17&quot; wide</td>
<td>2400 X 1200 dpi</td>
<td>Automatic cutting; borderless printing.</td>
<td>kWhs: 0.5 est.</td>
<td>Wide Format Inkjet</td>
<td>$1,495</td>
</tr>
</tbody>
</table>

### AUXILIARY EQUIPMENT INCLUDES
- Auto Roll Feed Unit ($250); Cabinet Stand ($295); IEE 1394 Expansion Board ($235)

### BASE COST ABOVE INCLUDES
Five Color Reactive Ink System consisting of cyan, magenta, yellow, black dye inks, as well as two channels of matte black pigment ink; 1" Print Head; 2,560 nozzles per color (6 colors) for incredibly fast print speeds; L-CAO Controller for optimal image quality; automatic switching between regular black ink and matte black inks depending on paper type; clogged nozzle detection and compensation; Media Roll Detection System; multiple media options including top-loading manual feed, front loading manual feed, cassette, and roll feed (optional); software including Poster Artist, Canon Printer Driver, and HI Driver.

### MANUFACTURING COSTS
- Direct Labor: $54,436
- Administrative & Selling Overhead: 42% 1 shift/
- Depreciation: 20% per year
- Workmen’s Compensation Insurance (Rate $40.00 per M)
- Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk...
- Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts
- Pension Fund (A) 5% (B) 3% (C) 2%
- Payroll Taxes: (Soc. Sec. & Unemploy. Insurance) 8.3%
- Workmen's Compensation Insurance (Rate $40.00 per M)

### DIRECT LABOR COST-1 SHIFT
- Operator: $35,538

### DIRECT LABOR COST-2 SHIFTS
- Operator: $73,208

### DIRECT LABOR COST-3 SHIFTS
- Operator: $111,589

### TOTAL MANUFACTURING COSTS
- $37,5

### ALL-INCLUSIVE COSTS per productive hour @ 85% productivity
- 75% productivity: $66.50
- 60% productivity: $94.20
- 50% productivity: $149,302
- 40% productivity: $112,355

### TOTAL COSTS
- $38,741

---

**Notes:**
- **Fixed Charges (non-variable):**
  - 1. Depreciation @ 20% per year
  - 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
  - 3. Fire & Sprinkler Insurance

---

**VARIABLE CHARGES:**
- Direct Labor $35,538
- Indirect Labor $7,108
- Pension Fund $1,777
- Payroll Taxes $3,540
- Workmen’s Compensation Insurance $1,706
- Power Cost $11,634
- Direct Supplies $2,340
- Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts

---

**TOTAL MANUFACTURING COSTS:**
- $62,807

---

**Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts**
- $26,799

---

**TOTAL COSTS:**
- $90,606

---

**Manufacturing Costs per productive hour @ 85% productivity**
- 75% productivity: $53.07
- 60% productivity: $66.34
- 50% productivity: $82,975

---

**Notes:**
- **Total Cost:** $82,975
- **Total Invest.:** $2,275
- **Equipment Shipped F.O.B.:** Canon Warehouse

---

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**BASE COST ABOVE INCLUDES**

12 Color Pigment Ink System with LUCIA Ink; Dual Print Head System with two high-precision, high density heads and a total of 30,720 nozzles; L-COA Controller for optimal image quality; automatic switching between regular black ink and matte black inks depending on paper type; clogged nozzle detection and compensation; Media Roll Detection System; multiple media options including top-loading manual feed, front loading manual feed, cassette, and roll feed (optional); software including Poster Artist, Print Plug-in for Photoshop, Digital Photo Print Pro, Canon Printer Driver, and Print Plug-in for Digital Photo Professional.

**AUXILIARY EQUIPMENT INCLUDES**

- Auto Roll Feed Unit ($225); Cabinet Stand ($225); IEEE 1394 Expansion Board ($235)
- IEE 1394 Expansion Board ($235).
- IEE 1394 Expansion Board ($235).
- Digital Photo Professional.
- Pro, Canon Printer Driver, and Print Plug-in for manual feed, front loading manual feed, cassette.
- Print Head System with two high-precision, high
- Power Cost @ $0.07 per kWh (based on kw rating)...................
- Power Cost @ $0.07 per kWh (based on hp rating)....................
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%..............
- Workmen’s Compensation Insurance (Rate $4.00 per M)...........
- Power Cost @ $0.07 per kWh (based on hp rating)....................
- Power Cost @ $0.07 per kWh (based on kw rating)...................
- Direct Supplies (see instructions)........................................
- Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts...........
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%..............
- Workmen’s Compensation Insurance (Rate $4.00 per M)...........
- Power Cost @ $0.07 per kWh (based on kw rating)...................
- Power Cost @ $0.07 per kWh (based on hp rating)....................
- Direct Supplies (see instructions)........................................
- Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts...........
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%..............
- Workmen’s Compensation Insurance (Rate $4.00 per M)...........
- Power Cost @ $0.07 per kWh (based on kw rating)...................
- Power Cost @ $0.07 per kWh (based on hp rating)....................
- Direct Supplies (see instructions)........................................
- Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts...........
- Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%..............
- Workmen’s Compensation Insurance (Rate $4.00 per M)...........
- Power Cost @ $0.07 per kWh (based on kw rating)...................
- Power Cost @ $0.07 per kWh (based on hp rating)....................
- Direct Supplies (see instructions)........................................
- Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts...........

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

| Operator            | $35,538 | $31,488 | $26,425 | $73,208 | $64,865 | $54,436 | $111,589 | $98,872 | $82,975 |

**TOTAL:**

| $35,538 | $31,488 | $26,425 | $73,208 | $64,865 | $54,436 | $111,589 | $98,872 | $82,975 |

**MANNING CODE:**

- ONE SHIFT
- TWO SHIFTS
- THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
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</table>

**TOTAL MANUFACTURING COSTS:**

| $90,793 | $77,693 | $64,441 | $167,975 | $143,658 | $119,029 | $230,950 | $197,311 | $163,371 |

**MANUFACTURING COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

<table>
<thead>
<tr>
<th>$46.93</th>
<th>$36.52</th>
<th>$27.58</th>
<th>$44.99</th>
<th>$35.00</th>
<th>$26.40</th>
<th>$42.80</th>
<th>$33.20</th>
<th>$25.07</th>
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<tr>
<td>53.18</td>
<td>41.39</td>
<td>31.25</td>
<td>50.99</td>
<td>39.66</td>
<td>29.92</td>
<td>48.51</td>
<td>37.69</td>
<td>28.41</td>
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<tr>
<td>66.48</td>
<td>51.74</td>
<td>39.07</td>
<td>63.74</td>
<td>49.58</td>
<td>37.40</td>
<td>60.64</td>
<td>47.12</td>
<td>35.52</td>
</tr>
</tbody>
</table>

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity
- 75% productivity
- 60% productivity

<table>
<thead>
<tr>
<th>$66.63</th>
<th>$51.86</th>
<th>$39.16</th>
<th>$61.64</th>
<th>$47.95</th>
<th>$36.17</th>
<th>$56.50</th>
<th>$43.90</th>
<th>$33.09</th>
</tr>
</thead>
<tbody>
<tr>
<td>75.52</td>
<td>58.78</td>
<td>44.38</td>
<td>69.86</td>
<td>54.34</td>
<td>40.99</td>
<td>64.03</td>
<td>49.76</td>
<td>37.50</td>
</tr>
<tr>
<td>94.40</td>
<td>73.47</td>
<td>55.48</td>
<td>87.32</td>
<td>67.92</td>
<td>51.24</td>
<td>80.04</td>
<td>62.19</td>
<td>46.88</td>
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</table>
### Payroll Taxes

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soc. Sec. &amp; Unemploy. Insurance</td>
<td>8.3%</td>
</tr>
<tr>
<td><strong>Total Payroll Tax</strong></td>
<td><strong>$31,488</strong></td>
</tr>
</tbody>
</table>

### TOTAL MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation @ 20% per year</td>
<td>$3,651</td>
</tr>
<tr>
<td>Fire &amp; Sprinkler Insurance</td>
<td>$1,659</td>
</tr>
<tr>
<td>Labor Cost-1 Shift</td>
<td>$47,809</td>
</tr>
<tr>
<td>Labor Cost-2 Shifts</td>
<td>$123,690</td>
</tr>
<tr>
<td>Labor Cost-3 Shifts</td>
<td>$135,820</td>
</tr>
<tr>
<td>Administrative &amp; Selling Overhead</td>
<td>$15,899</td>
</tr>
<tr>
<td><strong>TOTAL MANUFACTURING COSTS</strong></td>
<td><strong>$373,318</strong></td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES

- Five Color Reactive Ink System consisting of cyan, magenta, yellow, black dye inks, as well as two channels of matte black pigment ink; 1" Print Head; 2,560 nozzles per color (6 colors) for incredibly fast print speeds; L-CAO Controller for optimal image quality; automatic switching between regular black ink and matte black inks depending on paper type; clogged nozzle detection and compensation; Media Roll Detection System; multiple media options including top-loading manual feed, front loading manual feed, cassette, and top-loading roll feed; software including Poster Artist, Canon Printer Driver, and HDI Driver.

### AUXILIARY EQUIPMENT INCLUDES

- IEE 1394 Expansion Board ($235).

---

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>24&quot; wide</td>
<td>2400 X 1200 dpi</td>
<td>Automatic cutting; borderless printing.</td>
<td>kWhs: 0.5 est.</td>
<td>Wide Format Inkjet</td>
<td>$2,295</td>
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</table>

### BASE COST INCLUDES

Base Cost includes equipment, installation, auxiliary equipment, and variable charges. The equipment is shipped F.O.B. Canon Warehouse.

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AREA A</td>
<td>AREA B</td>
<td>AREA C</td>
</tr>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

- 1. Depreciation @ 20% per year
- 2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.
- 3. Fire & Sprinkler Insurance (Rate $4.00 per M)...
- 4. Direct Labor...
- 5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts...
- 6. Pension Fund (A) 5% (B) 3% (C) 2%
- 7. Welfare Benefits (A) $90.00/kw. (B) $60.00/kw. (C) $45.00/kw...
- 8. Payroll Taxes (Soc. Sec. & Unemployment. Insurance) 8.3%
- 9. Workmen’s Compensation Insurance (Rate $4.00 per M)...
- 10. Power Cost @ $0.07 per kWh (based on hp rating)...
- 11. Power Cost @ $0.07 per kWh (based on kw rating)...
- 12. Direct Supplies (see instructions)...
- 13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts...
- 14. Sub-total...
- 15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...
- 16. TOTAL MANUFACTURING COSTS...
- 17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts...
- 18. TOTAL COSTS...
- 19. MANUFACTURING COSTS per productive hour @...

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$46.88</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$53.14</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$66.42</td>
</tr>
<tr>
<td>ALL-INCLUSIVE COSTS per productive hour @ 85% productivity</td>
<td>$66.58</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$75.45</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$94.31</td>
</tr>
</tbody>
</table>

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Wide Format Printing Equipment
**Canon USA, imagePROGRAF IPF700**

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>36&quot; wide</td>
<td>2400 X 1200 dpi</td>
<td>Automatic cutting; borderless printing.</td>
<td>kWhs: 0.5 est.</td>
<td>Wide Format Inkjet</td>
<td>$3,995</td>
</tr>
</tbody>
</table>

**BASE COST ABOVE INCLUDES**

Five Color Reactive Ink System consisting of cyan, magenta, yellow, black dye inks, as well as two channels of matte black pigment ink; 1" Print Head; 2,560 nozzles per color (8 colors) for incredibly fast print speeds; L-COA Controller for optimal image quality; automatic switching between regular black ink and matte black inks depending on paper type; clogged nozzle detection and compensation; Media Roll Detection System; multiple media options including front-loading manual feed and rear loading roll feed; software including Poster Artist, Canon Printer Driver, HDI Driver, and PhotoPRINT Select.

**AUXILIARY EQUIPMENT INCLUDES**

Roll Holder set for 3" core ($140); IEE 1394 Expansion Board ($235).

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tr>
<td>Hours/Week</td>
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<td>37.5</td>
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<tr>
<td>Paid Holidays</td>
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<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

**ONE SHIFT**

TOTAL: $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

---

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$47.50</th>
<th>$36.98</th>
<th>$27.96</th>
<th>$45.31</th>
<th>$35.25</th>
<th>$26.61</th>
<th>$43.03</th>
<th>$33.44</th>
<th>$25.23</th>
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</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>$53.83</td>
<td>$41.91</td>
<td>$31.68</td>
<td>$51.35</td>
<td>$39.95</td>
<td>$30.16</td>
<td>$48.77</td>
<td>$37.90</td>
<td>$28.59</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$67.29</td>
<td>$52.38</td>
<td>$39.60</td>
<td>$64.19</td>
<td>$49.94</td>
<td>$37.70</td>
<td>$60.96</td>
<td>$47.38</td>
<td>$35.74</td>
</tr>
</tbody>
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**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th>85% productivity</th>
<th>$47.45</th>
<th>$36.51</th>
<th>$27.70</th>
<th>$45.21</th>
<th>$35.15</th>
<th>$26.56</th>
<th>$42.98</th>
<th>$33.30</th>
<th>$25.07</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>$53.84</td>
<td>$41.91</td>
<td>$31.68</td>
<td>$51.35</td>
<td>$39.95</td>
<td>$30.16</td>
<td>$48.77</td>
<td>$37.90</td>
<td>$28.59</td>
</tr>
<tr>
<td>60% productivity</td>
<td>$67.29</td>
<td>$52.38</td>
<td>$39.60</td>
<td>$64.19</td>
<td>$49.94</td>
<td>$37.70</td>
<td>$60.96</td>
<td>$47.38</td>
<td>$35.74</td>
</tr>
</tbody>
</table>

---

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**BASE COST ABOVE INCLUDES**

Includes Single-Feed Table Top Copier and training.

Note: The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance Charge: $70/month.

Click Charge: $0.0962/lin. ft. > 250 lin.ft/month.

**AUXILIARY EQUIPMENT INCLUDES**

Note on Other Models: Other configurations of this equipment are available, including: Multi-Feed Table Top Copier ($6,750); One Roll Copier ($9,495); and Two Roll Copier ($10,995).

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
</tr>
<tr>
<td></td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
</tr>
<tr>
<td></td>
<td>$111,589</td>
<td>$98,872</td>
<td>$92,975</td>
</tr>
</tbody>
</table>

**TOTAL:** $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $92,975

---

### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th></th>
<th>ONE SHIFT</th>
<th>TWO-shifts</th>
<th>THREE-shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREA A</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>AREA B</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>AREA C</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

### VARIABLE CHARGES

1. Depreciation @ 20% per year $1,286  2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft. $1,050  3. Fire & Sprinkler Insurance (Rate $4.00 per M) $26

**TOTAL:** $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $92,975

---

**MANUFACTURING COSTS per productive hour @**

<table>
<thead>
<tr>
<th></th>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$48.20</td>
<td>$45.71</td>
<td>$42.20</td>
</tr>
</tbody>
</table>

---

**ALL-INCLUSIVE COSTS per productive hour @**

<table>
<thead>
<tr>
<th></th>
<th>85% productivity</th>
<th>75% productivity</th>
<th>60% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$48.20</td>
<td>$45.71</td>
<td>$42.20</td>
</tr>
</tbody>
</table>
### Oce North America, TCS 300

**Max. Size:** 36" X 197"

**Resolution:** 600 X 600 dpi

**Finishing Ability:** Auto width detection; auto cut to length.

**Power:** kWhs: 0.16

**Product Class:** Wide Format Inkjet

**Base Cost:** $11,150

**Auxiliary Equip.:** $4,850

**Install. (Est.):** $590

**Total Invest.:** $16,590

### BASE COST ABOVE INCLUDES

- One roll print engine; base controller; copy receiving tray.
- Note: The following information is not used in this Study. Use it to adjust Line 13 if necessary.
- Maintenance Charge: $75/month.

### AUXILIARY EQUIPMENT INCLUDES

- Additional roll unit-field upgrade ($1,600); copy receiving rack ($1,500); Adobe Postscript 3/PDF printing ($1,750).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
</tr>
<tr>
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<tr>
<td>C</td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA</th>
<th>1,603</th>
<th>1,763</th>
<th>1,936</th>
<th>3,206</th>
<th>3,525</th>
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<tr>
<td>A</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>B</td>
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<tr>
<td>C</td>
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<td></td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
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<th>1,763</th>
<th>1,936</th>
<th>3,206</th>
<th>3,525</th>
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<th>5,808</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
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</table>

### THREE SHIFTS

<table>
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<th>AREA</th>
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<td>B</td>
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</table>

### TOTAL COSTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>97,364</th>
<th>93,975</th>
<th>70,555</th>
<th>175,210</th>
<th>156,616</th>
<th>125,826</th>
<th>238,739</th>
<th>204,836</th>
<th>170,740</th>
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<tbody>
<tr>
<td>A</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>B</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### MANUFACTURING COSTS PER PRODUCTIVE HOUR @ 85% Productivity

<table>
<thead>
<tr>
<th>Productivity</th>
<th>$50.32</th>
<th>39.47</th>
<th>30.19</th>
<th>46.93</th>
<th>36.69</th>
<th>27.91</th>
<th>44.25</th>
<th>34.53</th>
<th>26.20</th>
</tr>
</thead>
<tbody>
<tr>
<td>75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR @ 85% Productivity

<table>
<thead>
<tr>
<th>Productivity</th>
<th>$71.46</th>
<th>56.05</th>
<th>42.87</th>
<th>64.29</th>
<th>50.27</th>
<th>38.23</th>
<th>58.40</th>
<th>45.58</th>
<th>34.59</th>
</tr>
</thead>
<tbody>
<tr>
<td>75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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479  

Wide Format  
Printing Equipment
### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>Area</th>
<th>Manufactured Cost</th>
<th>Labor Cost</th>
<th>Factory Cost</th>
<th>Administrative &amp; Selling Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$31,488</td>
<td>$3,815</td>
<td>$98,872</td>
<td>$1,659</td>
<td>$130,633</td>
</tr>
<tr>
<td>B</td>
<td>$9,146</td>
<td>$3,525</td>
<td>$54,436</td>
<td>$8,165</td>
<td>$72,227</td>
</tr>
<tr>
<td>C</td>
<td>$58,270</td>
<td>$11,159</td>
<td>$65,090</td>
<td>$9,341</td>
<td>$139,714</td>
</tr>
</tbody>
</table>

### WELFARE BENEFITS

<table>
<thead>
<tr>
<th>Area</th>
<th>Welfare Benefits (A)</th>
<th>(B)</th>
<th>(C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$90./wk.</td>
<td>$60./wk.</td>
<td>$45./wk.</td>
</tr>
</tbody>
</table>

### TOTAL MANUFACTURING COSTS

| Total Cost | $26,425 |

### AUXILIARY EQUIPMENT INCLUDES

- Scanner ($5,800); Adobe PostScript/PDF printing ($2,750); 17” flat panel GUI ($700).
- Operator
- Functions
- Paid Holidays
- Hours/Week
- TOTAL:

### ONE SHIFT

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

### THREE SHIFTS

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### TOTAL COSTS

| Total Cost | $98,524 |

### MANUFACTURING COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>One Shift</th>
<th>Two Shifts</th>
<th>Three Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$50.92</td>
<td>$40.03</td>
<td>$30.70</td>
</tr>
<tr>
<td>75%</td>
<td>$57.71</td>
<td>$45.36</td>
<td>$34.80</td>
</tr>
<tr>
<td>60%</td>
<td>$72.14</td>
<td>$56.70</td>
<td>$43.49</td>
</tr>
</tbody>
</table>

### ALL-INCLUSIVE COSTS per productive hour @

<table>
<thead>
<tr>
<th>Productivity</th>
<th>One Shift</th>
<th>Two Shifts</th>
<th>Three Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$72.31</td>
<td>$56.84</td>
<td>$43.60</td>
</tr>
<tr>
<td>75%</td>
<td>$81.95</td>
<td>$64.41</td>
<td>$49.41</td>
</tr>
<tr>
<td>60%</td>
<td>$102.44</td>
<td>$80.52</td>
<td>$61.76</td>
</tr>
</tbody>
</table>
**Oce North America, TDS 450**

### MAX. SIZE:
- 36" X 588"

### RESOLUTION:
- 600 dpi

### FINISHING ABILITY:
- Auto roll select; cut to length; leading/trailing edge adjust.

### POWER:
- kWhs: 1.34

### PRODUCT CLASS:
- Wide Format LED Printer

### BASE COST:
- $15,500

### AUXILIARY EQUIP.:
- $13,750

### INSTALL. (EST.):
- $680

### TOTAL INVEST. :
- $29,930

---

**BASE COST ABOVE INCLUDES**

One roll print engine; base controller.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance Charge: $10 - $379/month depending on volume.

Click Charge: $0.083 - $0.026/sq. ft. depending on volume.

---

**AUXILIARY EQUIPMENT INCLUDES**

Scanner ($9,500); Adobe Postscript 3/PDF printing ($2,750); copy delivery tray ($1,500).

**Note:** Training @ $875 is an available option not included in this study.

---

**MAXIMUM SPEED:**
- 10 linear ft./min.

**RECOMMENDED MONTHLY VOLUME:**
- 10-12,000 sq. ft.

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**
- Operator

**LABOR COST-1 SHIFT**
- $35,538
- $31,488
- $26,425

**LABOR COST-2 SHIFTS**
- $73,208
- $64,865
- $54,436

**LABOR COST-3 SHIFTS**
- $111,589
- $98,872
- $82,975

**TOTAL:**
- $35,538
- $31,488
- $26,425

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
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<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**VARIABLE CHARGES**

1. Depreciation @ 20% per year........................................ $ 5,986 $ 5,986 $ 5,986 $ 5,986 $ 5,986 $ 5,986 $ 5,986 $ 5,986 $ 5,986
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.............. 0 0 0 0 0 0 0 0 0
3. Fire & Sprinkler Insurance (Rate $40.00 per M).................... 0 0 0 0 0 0 0 0 0
4. Direct Labor.............................................................. 35,538 31,488 26,425 73,208 64,865 54,436 111,589 98,872 82,975
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts....................................................... 7,108 6,298 5,285 10,981 9,730 8,165 11,159 9,887 8,297
6. Pension Fund (A) 5% (B) 3% (C) 2%..................................... 1,777 945 529 3,660 1,946 1,089 5,579 2,966 1,659
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk........... 4,680 3,120 2,340 9,360 6,240 4,680 14,040 9,360 7,020
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%................ 3,540 3,120 2,340 6,988 6,191 5,196 10,188 9,027 7,576
9. Workmen's Compensation Insurance (Rate $40.00 per M)............ 1,706 1,511 1,268 3,368 2,984 2,994 4,910 3,450 3,651
10. Power Cost @ $0.07 per kWh (based on hp rating).................. 0 0 0 0 0 0 0 0 0
11. Power Cost @ $0.07 per kWh (based on kW rating).................. 0 0 0 0 0 0 0 0 0
12. Direct Supplies (see instructions)................................... 0 0 0 0 0 0 0 0 0
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts........ 1,497 1,497 1,497 2,993 2,993 2,993 4,490 4,490 4,490
14. Sub-total............................................................... 63,090 54,689 46,690 117,894 101,953 85,886 169,382 146,056 122,000
15. General Factory – 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts...... 9,464 8,235 7,004 14,737 12,744 10,736 16,938 14,608 12,260
16. TOTAL MANUFACTURING COSTS........................................ 72,554 63,134 53,694 132,631 114,697 96,622 186,320 160,662 134,860
17. Administrative & Selling Overhead – 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.......................... 30,473 26,516 22,551 49,074 42,438 35,750 59,622 51,412 43,155
18. TOTAL COSTS..................................................................... $103,027 $89,651 $76,245 $181,705 $157,136 $132,372 $245,942 $212,073 $178,015
19. MANUFACTURING COSTS per productive hour @ 85% productivity............................................. $ 53.25 $ 42.14 $ 32.63 $ 48.67 $ 38.28 $ 29.36 $ 45.58 $ 35.75 $ 27.32
20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity............................................. $ 75.61 $ 69.84 $ 56.33 $ 68.68 $ 52.44 $ 40.22 $ 60.17 $ 47.19 $ 36.06

---

**Area C**

- **Rent & Heat** (A) $10.50  (B) $7.00  (C) $5.00 sq. ft......................
- **Welfare Benefits** (A) $90./wk.  (B) $60./wk.  (C) $45./wk..............
- **Payroll Taxes** (Soc. Sec. & Unemploy. Insurance) 8.3%................
- **Workmen's Compensation Insurance** (Rate $40.00 per M)............
- **Power Cost** @ $0.07 per kWh (based on hp rating)..................
- **Direct Supplies** (see instructions)...................................
- **Repairs & Maint.** @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts........
- **Sub-total**.............................................................
- **General Factory** – 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts......
- **TOTAL MANUFACTURING COSTS**......................................
- **Administrative & Selling Overhead** – 42% 1 shift/ 37% 2 shifts/ 32% 3 shifts..........................
- **TOTAL COSTS**................................................................
- **MANUFACTURING COSTS** per productive hour @ 85% productivity.............................................
- **ALL-INCLUSIVE COSTS** per productive hour @ 85% productivity.............................................

---

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Wide Format Printing Equipment
### BASE COST ABOVE INCLUDES

One roll print engine; base controller; copy receiving rack.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance Charge: $75/month.

### AUXILIARY EQUIPMENT INCLUDES

Controller upgrade for scanning ($5,500); Scanner ($9,500); Adobe Postscript/PDF printing ($1,750).

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
</tr>
<tr>
<td></td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
</tr>
<tr>
<td></td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

**TOTAL:** $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

---

### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>Product Class</th>
<th>Base Cost</th>
<th>Auxiliary Equip.</th>
<th>Total Invest.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide Format Inkjet</td>
<td>$14,500</td>
<td>$16,750</td>
<td>$31,840</td>
</tr>
</tbody>
</table>

---

### WELFARE BENEFITS

- **A** $90./wk.
- **B** $60./wk.
- **C** $45./wk.

---

### ALL-INCLUSIVE COSTS

- **A** $98,872
- **B** $700
- **C** $6,368

---

### PAYROLL TAXES

**8.3%**

---

### POWER COST @ $0.07 per kWh (based on hp rating)

- **35,538**
- **26,425**
- **10,981**
- **10,981**
- **11,159**
- **5,579**
- **14,040**
- **6,480**

---

### PROVISIONS

- **Hours/Week**: 35, 37.5, 40, 35, 37.5, 40, 35, 37.5, 40
- **Paid Holidays**: 11, 10, 8, 11, 10, 8, 11, 10, 8
- **Vacation After One Year**: 4 weeks, 3 weeks, 2 weeks, 4 weeks, 3 weeks, 2 weeks, 4 weeks, 3 weeks, 2 weeks

---

### DIRECT LABOR

- **Operator**: $35,538
- **Supervisor**: $31,488
- **Worker**: $26,425

---

### AUXILIARY EQUIPMENT

- **Controller upgrade for scanning ($5,500)**
- **Scanner ($9,500)**
- **Adobe Postscript/PDF printing ($1,750)**

---

### EQUIP. SHIPPED F.O.B.:

- **Itasca, IL**

---

### ONE SHIFT

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
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</table>

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<table>
<thead>
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<th>Area B</th>
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<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

### TOTAL COSTS

- **$103,693**
- **$90,305**
- **$76,886**
- **$182,363**
- **$157,770**
- **$132,981**
- **$246,590**
- **$222,687**
- **$178,593**

---

### MANUFACTURING COSTS PER PRODUCTIVE HOUR

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$53.59</td>
</tr>
<tr>
<td>75%</td>
<td>$42.45</td>
</tr>
<tr>
<td>60%</td>
<td>$32.90</td>
</tr>
<tr>
<td>50%</td>
<td>$48.85</td>
</tr>
<tr>
<td>40%</td>
<td>$38.43</td>
</tr>
<tr>
<td>30%</td>
<td>$29.49</td>
</tr>
<tr>
<td>20%</td>
<td>$45.70</td>
</tr>
<tr>
<td>15%</td>
<td>$38.83</td>
</tr>
</tbody>
</table>

---

### ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Cost Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>$76.10</td>
</tr>
<tr>
<td>75%</td>
<td>$60.28</td>
</tr>
<tr>
<td>60%</td>
<td>$46.72</td>
</tr>
<tr>
<td>50%</td>
<td>$69.20</td>
</tr>
<tr>
<td>40%</td>
<td>$54.45</td>
</tr>
<tr>
<td>30%</td>
<td>$47.32</td>
</tr>
<tr>
<td>20%</td>
<td>$37.50</td>
</tr>
</tbody>
</table>

---

### TOTAL COSTS

- **$31,840**

---

### PRINTING EQUIPMENT

- **Oce North America, TCS 500**
- **Recommended Monthly Volume**: 148,479
- **Controller upgrade for scanning ($5,500)**
- **Scanner ($9,500)**
- **Adobe Postscript/PDF printing ($1,750)**

---

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### LABOR COST-1 SHIFT

<table>
<thead>
<tr>
<th>Area</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Function</td>
<td>Labor Cost-1 Shift</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$35,538</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### LABOR COST-2 SHIFTS

<table>
<thead>
<tr>
<th>Area</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$111,589</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### LABOR COST-3 SHIFTS

<table>
<thead>
<tr>
<th>Area</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
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</tr>
<tr>
<td>TOTAL:</td>
<td>$111,589</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TOTAL COSTS

<table>
<thead>
<tr>
<th>Area</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$38,635</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**BASE COST ABOVE INCLUDES**

- 17" flat panel GUI; print engine, Oce Power Logic Controller; 2 rolls; copy delivery tray.
- Maintenance Charge: $195 -$780/month depending on volume.
- Click Charge: $0.02 - $0.012/sq. ft. depending on volume.

**AUXILIARY EQUIPMENT INCLUDES**

- Scanner ($8,250); double decker stacker ($6,500); controller cabinet ($600).
- Note: Training @ $875 is an available option not included in this study.

---

### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA</th>
<th>ONE SHIFT</th>
<th>TWO SHIFTS</th>
<th>THREE SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
<tr>
<td>Area B</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
<tr>
<td>Area C</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

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Wide Format Printing Equipment
### BASE COST ABOVE INCLUDES

17” flat panel GUI; 2 roll print engine; Oce® Power Logic Controller; copy delivery tray.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance Charge: $189-$759/month depending on volume.

Click Charge: $0.027 - $0.012/sq. ft. depending on volume.

### AUXILIARY EQUIPMENT INCLUDES

Scanner ($8,250); cassette tray ($3,000); controller cabinet ($600).

**Note:** Training @ $875 is an available option not included in this study.

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

#### FUNCTION

**LABOR COST-1 SHIFT**

- Operator: $35,538

**LABOR COST-2 SHIFTS**

- $73,208
- $64,865
- $54,436

**LABOR COST-3 SHIFTS**

- $111,589
- $98,872
- $82,975

---

### TOTAL COSTS

- $107,557
- $94,183
- $80,779
- $186,837
- $162,272
- $137,512
- $251,585
- $217,721
- $183,669

---

### MANUFACTURING COSTS

- $55,599
- $44,275
- $34,575
- $50,050
- $39,595
- $30,500
- $46,635
- $36,700
- $218

---

### ALL-INCLUSIVE COSTS

- $78,940
- $62,875
- $49,090
- $68,560
- $54,156
- $41,786
- $61,550
- $48,445
- $37,20

---

### MANUFACTURING COSTS PER PRODUCTIVE HOUR @

- 85% productivity
- 75% productivity
- 60% productivity

---

### ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR @

- 85% productivity
- 75% productivity
- 60% productivity

---

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### Oce® North America, TDS 800 Pro

**MAX. SIZE:** 36" X 588" **RESOLUTION:** 400 dpi
**FINISHING ABILITY:** Integrated on-line folder and double decker stacker. **POWER:** kWhs: 4
**PRODUCT CLASS:** Wide Format LED Printer **BASE COST:** $89,900
**AUXILIARY EQUIP.:** $53,095
**INSTALL. (EST.):** $3,235
**TOTAL INVEST.:** $146,230

### BASE COST ABOVE INCLUDES

17" flat panel GUI; print engine, Oce® Power Logic Controller; 2 rolls; copy delivery tray.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance Charge: $20-$20,006/month depending on volume.

Click Charge: $0.0102-$0.0065/sq. ft. depending on volume.

### AUXILIARY EQUIPMENT INCLUDES

Scanner ($45,995); double decker stacker ($8,500); controller cabinet ($600).

**Note:** Training @ $875 is an available option not included in this study.

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
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<td>37.5</td>
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<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>After One Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FUNCTION**

- **LABOR COST-1 SHIFT**
  - Operator: $35,538
- **LABOR COST-2 SHIFTS**
  - $73,208
- **LABOR COST-3 SHIFTS**
  - $111,589

**TOTAL:**

- $35,538
- $31,488
- $26,425

---

### ONE SHIFT

<table>
<thead>
<tr>
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<th>AREA C</th>
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<tbody>
<tr>
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<td>3,872</td>
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### THREE SHIFTS

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<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

**CHARGES CODE:**

- 8,297
- 64,865
- 29,246

---

**POWER COST @ $0.07 per kWh (based on hp rating)**

- $29,246
- $29,246
- $29,246

**Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%**

- $1,313
- $875
- $625

**Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts**

- $1,777
- $945
- $529

**Vacation After One Year**

- 4 weeks
- 3 weeks
- 2 weeks

**FIRE & SPRINKLER INSURANCE (Rate $4.00 per M)**

- $6,240

---

**MAXIMUM SPEED:**

- 40 linear ft./min.

**MAXIMUM SIZE:**

- 36" X 588"

---

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485 Wide Format Printing Equipment
### Canon USA, imagePROGRAF IPF8000

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>44&quot; wide</td>
<td>2400 X 1200 dpi</td>
<td>Automatic cutting; borderless printing.</td>
<td>kWhs: 0.5 est.</td>
<td>Wide Format Inkjet</td>
<td>$5,995</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DUPLEXING:</th>
<th>COLOR ABILITY:</th>
<th>INTERFACES WITH:</th>
<th>SQ. FT.:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Full Color</td>
<td>Windows and Macintosh</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

### BASE COST ABOVE INCLUDES

- 12 Color Pigment Ink System with LUCIA Ink; Dual Print Head System with two high-precision, high density heads and a total of 30,720 nozzles; L-COA Controller for optimal image quality; automatic switching between regular black ink and matte black inks depending on paper type; clogged nozzle detection and compensation; Media Roll Detection System; multiple media options including manual feed (top/front) and roll feed; software including Poster Artist, Print Plug-in for Photoshop, Digital Photo Print Pro, and Canon Printer Driver.

### AUXILIARY EQUIPMENT INCLUDES

- Roll Holder set for 3" core ($152); Media Take-Up Unit ($1,420); IEE 1394 Expansion Box ($235).

---

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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<th>Area C</th>
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<td>40</td>
<td>35</td>
<td>37.5</td>
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<td>35</td>
<td>37.5</td>
<td>40</td>
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<td>10</td>
<td>8</td>
<td>11</td>
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<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
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<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- LABOR COST-1 SHIFT
- LABOR COST-2 SHIFTS
- LABOR COST-3 SHIFTS

| Operator | $35,538 | $31,488 | $26,425 | $73,208 | $64,865 | $54,436 | $111,589 | $98,872 | $82,975 |

### TOTAL:

| $35,538 | $31,488 | $26,425 | $73,208 | $64,865 | $54,436 | $111,589 | $98,872 | $82,975 |

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### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,995</td>
<td>6,191</td>
<td>6,480</td>
<td>7,108</td>
<td>7,417</td>
<td>7,726</td>
</tr>
</tbody>
</table>

### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,165</td>
<td>8,579</td>
<td>8,892</td>
</tr>
</tbody>
</table>

---

### TOTAL MANUFACTURING COSTS:

- POWER Cost @ $0.07 per kWh (based on hp rating)
- $34
- $27
- $41
- $67
- $74
- $81
- $101
- $111
- $122

### DIRECT LABOR:

- 35,538
- 31,488
- 26,425
- 73,208
- 64,865
- 54,436
- 111,589
- 98,872
- 82,975

---

### TOTAL COSTS:

| $93,756 | $80,371 | $66,955 | $171,163 | $146,576 | $121,794 | $234,322 | $200,428 | $166,344 |

### MANUFACTURING COSTS per productive hour @

- 85% productivity
- 75% productivity
- 60% productivity
- 50% productivity
- 40% productivity
- 30% productivity
- 20% productivity

---

### AUXILIARY EQUIP.:

- Canon Warehouse

---

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### Oce North America, Arizona 250 GT

<table>
<thead>
<tr>
<th>Resolution:</th>
<th>Finishing Ability:</th>
<th>Power: kWhs:</th>
<th>Product Class:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Near Photographic</td>
<td>n/a</td>
<td>7.2</td>
<td>Wide Format Printer Inkjet</td>
<td>$131,995</td>
</tr>
<tr>
<td>Duplexing:</td>
<td>Color Ability:</td>
<td>Interfaces with: SQ. FT.:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Full Color</td>
<td>n/a</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$73.03</td>
<td>7,020</td>
<td>6,600</td>
<td>19,799</td>
<td>$82,975</td>
</tr>
</tbody>
</table>

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hours/Week</strong></td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
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<tr>
<td><strong>Paid Holidays</strong></td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td><strong>Vacation After One Year</strong></td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function Labor Cost 1 Shift

| Operator | $35,538 | $31,488 | $26,425 | $73,208 | $64,865 | $54,436 | $111,589 | $98,872 | $82,975 |

### One Shift

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
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</table>

### Variable Charges

<table>
<thead>
<tr>
<th>Description</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depreciation @ 20% per year</td>
<td>$26,399</td>
<td>$26,399</td>
<td>$26,399</td>
<td>$26,399</td>
<td>$26,399</td>
<td>$26,399</td>
<td>$36,299</td>
<td>$36,299</td>
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<td>$36,299</td>
<td>$36,299</td>
<td>$36,299</td>
<td>$36,299</td>
<td>$36,299</td>
<td></td>
</tr>
<tr>
<td>2. Rent &amp; Heat</td>
<td>$1,268</td>
<td>$1,268</td>
<td>$1,268</td>
<td>$1,268</td>
<td>$1,268</td>
<td>$1,268</td>
<td>$1,268</td>
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<td>$1,268</td>
<td>$1,268</td>
<td>$1,268</td>
<td>$1,268</td>
</tr>
<tr>
<td>3. Fire &amp; Sprinkler Insurance</td>
<td>$1,400</td>
<td>$1,400</td>
<td>$1,400</td>
<td>$1,400</td>
<td>$1,400</td>
<td>$1,400</td>
<td>$1,400</td>
<td>$1,400</td>
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<td>$1,400</td>
<td>$1,400</td>
<td>$1,400</td>
<td>$1,400</td>
<td>$1,400</td>
</tr>
<tr>
<td>4. Direct Labor</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Total Manufacturing Costs

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>104,028</td>
<td>110,791</td>
<td>118,504</td>
<td>169,606</td>
<td>180,249</td>
<td>191,113</td>
<td>238,521</td>
<td>250,982</td>
<td>263,475</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Total Costs

| $147,720 | $133,837 | $120,174 | $232,361 | $207,373 | $182,433 | $301,648 | $267,441 | $233,279 |

### Manufacturing Costs per Productive Hour @ 85% Productivity

<table>
<thead>
<tr>
<th>75% Productivity</th>
<th>60% Productivity</th>
<th>ALL-INCLUSIVE COSTS per Productive Hour @ 85% Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$76.35</td>
<td>$62.91</td>
<td>$51.43</td>
</tr>
<tr>
<td>86.53</td>
<td>71.30</td>
<td>58.28</td>
</tr>
<tr>
<td>108.16</td>
<td>89.13</td>
<td>72.86</td>
</tr>
</tbody>
</table>

---

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**Printing Equipment**

**Wide Format**
### Oce® North America, LightJet 430

#### MAX. SIZE: 50" X 120"  
**RESOLUTION:** 4,000 dpi (apparent half-tone)  
**FINISHING ABILITY:** n/a  
**POWER:** kWhs: 1.1  
**PRODUCT CLASS:** Wide Photo Laser Printer  
**BASE COST:** $166,995  
**AUXILIARY EQUIP.:** n/a

#### BASE COST ABOVE INCLUDES

LightJet 430 Printer; one year warranty.

*Installation Note: Survey did not indicate an installation cost. Adjust your total investment cost accordingly.*

#### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$73,208</td>
<td>$111,589</td>
</tr>
<tr>
<td>Total</td>
<td>$35,538</td>
<td>$73,208</td>
<td>$111,589</td>
</tr>
</tbody>
</table>

#### AUXILIARY EQUIPMENT INCLUDES

**Equip. Shipped F.O.B.:** n/a

---

### MANUFACTURING COSTS

#### TOTAL MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

#### VARIABLE CHARGES

1. Depreciation @ 20% per year.............................. $33,399
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft........ 1,575
3. Fire & Sprinkler Insurance (Rate $4.00 per M)............. 127,765
4. Direct Labor.................................................. 35,538
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts............ 7,108
6. Pension Fund (A) 5% (B) 3% (C) 2%.......................... 1,777
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk........ 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%............. 3,540
9. Workmen's Compensation Insurance (Rate $40.00 per M)............. 1,268
10. Power Cost @ $0.07 per kWh (based on hp rating).................. 74
11. Power Cost @ $0.07 per kWh (based on kw rating).................. 74
12. Direct Supplies (see instructions)............................... 0
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts........... 8,350
14. Sub-total...................................................... 98,414
15. General Factory – 15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........... 14,762
16. TOTAL MANUFACTURING COSTS................................. 113,176

#### TOTAL COSTS

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>160,710</td>
<td>147,045</td>
<td>133,473</td>
</tr>
</tbody>
</table>

#### MANUFACTURING COSTS per productive hour @ 85% productivity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>84.14</td>
</tr>
<tr>
<td>60% productivity</td>
<td>117.67</td>
</tr>
</tbody>
</table>

#### ALL-INCLUSIVE COSTS per productive hour @ 85% productivity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% productivity</td>
<td>133.67</td>
</tr>
<tr>
<td>60% productivity</td>
<td>167.09</td>
</tr>
</tbody>
</table>
### MacDermid ColorSpan, Display Maker 5440uv

**MAX. SIZE:** 54" X 96"  
**RESOLUTION:** 1200 dpi  
**FINISHING ABILITY:** None.  
**POWER:** kWhs: 3.5  
**PRODUCT CLASS:** Wide Format Inkjet Printer  
**BASE COST:** $54,995  
**AUXILIARY EQUIP.:** N/A  
**INSTALL. (EST.):** Included  
**TOTAL INVEST.:** $54,995

### BASE COST ABOVE INCLUDES
Includes 54" wide UV-curable inkjet printer; integrated flatbed tables; roll-fed media support; four liters of ink; 100' roll of media; training; installation.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance available @ $458/month after one year warranty.

### AUXILIARY EQUIPMENT INCLUDES

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION LABOR COST-1 SHIFT  
- Operator: $35,538
- Area A: $31,488
- Area B: $26,425
- Area C: $73,208
- Area A: $64,865
- Area B: $54,436
- LABOR COST-3 SHIFTS: $111,589
- Area A: $98,872
- Area B: $98,872
- Area C: $82,975

### TOTAL:
- AREA A: $35,538
- AREA B: $31,488
- AREA C: $26,425
- AREA A: $73,208
- AREA B: $64,865
- AREA C: $54,436
- AREA A: $111,589
- AREA B: $98,872
- AREA C: $82,975

### ONE SHIFT  
- AREA A: $1,603
- AREA B: $1,763
- AREA C: $1,936
- AREA A: $3,206
- AREA B: $3,525
- AREA C: $3,872
- AREA A: $4,809
- AREA B: $5,288
- AREA C: $5,808

### VARIABLE CHARGES

1. Depreciation @ 20% per year.......................................................... $10,999
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.......................... $1,313
3. Fire & Sprinkler Insurance (Rate $4.00 per M).............................. $1,777
4. Direct Labor................................................................. $35,538
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts.............................. $7,108
6. Pension Fund (A) 5% (B) 3% (C) 2%........................................... $1,777
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk................ $4,680
8. Payroll Taxes (Soc. Sec. & Unemployment) Insurance 8.3%.............. $3,540
9. Workmen's Compensation Insurance (Rate $40.00 per M).............. $1,706
10. Power Cost @ $0.07 per kWh (based on hp rating)......................... $236
11. Power Cost @ $0.07 per kWh (based on kw rating)........................ $0
12. Direct Supplies (see instructions)............................................ $0
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts.............. $2,750
14. Sub-total................................................................. $69,865
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........... $10,480
16. TOTAL MANUFACTURING COSTS.............................................. $80,344
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts.............................. $33,745
18. TOTAL COSTS........................................................................... $114,089

### MANUFACTURING COSTS per productive hour @

- 85% productivity $58.97
- 75% productivity $66.83
- 60% productivity $83.54
- 50% productivity $118.62

### ALL-INCLUSIVE COSTS per productive hour @

- 85% productivity $83.73
- 75% productivity $94.90
- 60% productivity $118.62

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Wide Format  
Printing Equipment
### Base Cost Above Includes
Includes 54" wide UV-curable inkjet printer; integrated flatbed tables; roll-fed media support; six liters of ink; 100‘ roll of media; training; installation.

Note: The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance available @ $517/month after one year warranty.

### Auxiliary Equipment Includes

### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Area</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
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<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function Labor Cost-1 Shift

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538 $31,488 $26,425</td>
<td>$73,208 $64,865 $54,436</td>
<td>$111,589 $98,872 $82,975</td>
</tr>
</tbody>
</table>

### Total:

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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</thead>
<tbody>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td>$35,538 $31,488 $26,425</td>
<td>$73,208 $64,865 $54,436</td>
<td>$111,589 $98,872 $82,975</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

### Total Manufacturing Costs:

82,988

### Administrative & Selling Overhead—42% 1 shift/37% 2 shifts/32% 3 shifts

34,603

### Total Costs:

$116,993 $103,497 $90,036 | 197,581 $172,922 $148,130 | 263,438 $229,505 $195,443

### Manufacturing Costs per productive hour @

| 85% productivity | 60.47 $48.65 $38.53 | 52.92 $42.13 | 32.85 $29.99 |
| 75% productivity | 68.53 $55.14 $43.67 | 59.98 $47.74 | 37.23 $33.99 |
| 60% productivity | 85.66 $68.92 $54.58 | 74.97 $69.68 | 46.54 $42.49 |

### All-inclusive Costs per productive hour @

| 85% productivity | 85.86 $69.08 $54.71 | 72.50 $57.71 | 45.01 $39.59 |
| 75% productivity | 97.31 $78.30 $62.01 | 82.17 $65.41 | 51.01 $43.84 |
| 60% productivity | 121.64 $97.87 $77.51 | 102.71 $81.76 | 63.76 $56.08 |

---

**MacDermid ColorSpan, Display Maker 5460uv**

**Max. Size:** 54" X 96"  
**Resolution:** 1200 dpi  
**Finishing Ability:** None.  
**Power:** kWhs: 3.5  
**Product Class:** Wide Format Inkjet Printer  
**Auxiliary Equip.:** N/A  
**Install. (Est.):** Included  
**Total Invest.:** $61,995

**Base Cost: $61,995**

**Equip. Shipped F.O.B.: Minnetonka, MN**

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### BASE COST ABOVE INCLUDES

Includes 54" wide UV-curable inkjet printer, integrated flatbed tables; roll-fed media support; four liters of ink; 100' roll of media; training; installation.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance available @ $575/month after one year warranty.

### AUXILIARY EQUIPMENT INCLUDES

In addition to the equipment listed below, the recommended monthly volume for this printer is 125,000 square feet. The recommended annual volume is 1,500,000 square feet.

#### Power Costs @ $0.07 per kWh (based on hp rating)

- 10% of rated hp.
- 10% of rated hp.
- 10% of rated hp.

#### Variable Charges

- 15% of rated hp.
- 15% of rated hp.
- 15% of rated hp.

#### Total Manufacturing Costs

- Simplified to $82,975 per shift.

#### TOTAL INVEST. : $68,995

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
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<td>5,808</td>
</tr>
</tbody>
</table>

### VARIABLE CHARGES

1. Depreciation @ 20% per year................. $13,799
2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft................. 1,313
3. Fire & Sprinkler Insurance (Rate $4.00 per M)................. 9,360
4. Direct Labor................. 35,538
5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts................. 7,108
6. Pension Fund (A) 5% (B) 3% (C) 2%................. 1,777
7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk................. 4,680
8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%................. 3,540
9. Workmen's Compensation Insurance (Rate $4.00 per M)................. 1,706
10. Power Cost @ $0.07 per kWh (based on hp rating)................. 236
11. Power Cost @ $0.07 per kWh (based on kw rating)................. 236
12. Direct Supplies (see instructions)................. 0
13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts................. 3,450
14. Sub-total................. 73,421
15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts................. 11,013
16. TOTAL MANUFACTURING COSTS................. 84,434
17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts................. 35,460
18. TOTAL COSTS................. $119,896
19. MANUFACTURING COSTS per productive hour @ 85% productivity................. 61.97
20. ALL-INCLUSIVE COSTS per productive hour @ 95% productivity................. $87.99

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## MacDermid ColorSpan, Display Maker 5465uv

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>54” X 96”</td>
<td>1200 dpi</td>
<td>None.</td>
<td>kWhs: 3.5</td>
<td>Wide Format Inkjet Printer</td>
<td>$79,995</td>
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</tbody>
</table>

### BASE COST ABOVE INCLUDES

- Includes 54” wide UV-curable inkjet printer; integrated flatbed tables; roll-fed media support; six liters of ink; 100’ roll of media; training; installation.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance available @ $667/month after one year warranty.

### AUXILIARY EQUIPMENT INCLUDES

 Equip. Shipped F.O.B.: Minnetonka, MN

### MANUFACTURING COSTS

<table>
<thead>
<tr>
<th>AREA A</th>
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<th>AREA C</th>
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<tbody>
<tr>
<td>2,504</td>
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</table>

### LABOR COST-1 SHIFT

**Operator**

<table>
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<tr>
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<td></td>
<td>$111,589</td>
<td>$98,872</td>
<td>$82,975</td>
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**TOTAL:** $35,538 $31,488 $26,425 $73,208 $64,865 $54,436 $111,589 $98,872 $82,975

### ONE SHIFT

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<tbody>
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<tr>
<td>7,077</td>
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### THREE SHIFTS

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<td>3,686</td>
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<td>4,665</td>
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<td>6,371</td>
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</tr>
<tr>
<td>9,264</td>
<td>10,078</td>
<td>11,072</td>
</tr>
</tbody>
</table>

**TOTAL COSTS**: $124,459 $110,963 $97,502 $206,015 $181,356 $156,563 $272,691 $238,758 $204,696

### MANUFACTURING COSTS PER PRODUCTIVE HOUR @

- 85% productivity
- 75% productivity
- 60% productivity

- ALL-INCLUSIVE COSTS PER PRODUCTIVE HOUR @
- 85% productivity
- 75% productivity
- 60% productivity

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**Wide Format**

**Printing Equipment**
Canon USA, imagePROGRAF IPF9000

MAX. SIZE: 60" wide
RESOLUTION: 2400 x 1200 dpi
FINISHING ABILITY: Automatic cutting; borderless printing.
POWER: kWhs: 0.5 est.
PRODUCT CLASS: Wide Format Inkjet
BASE COST: $14,995

AUXILIARY EQUIP.: $785
INSTALL. (EST.): n/a
TOTAL INVEST.: $15,780

BASE COST ABOVE INCLUDES
12 Color Pigment Ink System with LUCIA Ink; Dual Print Head System with two high-precision, high density heads and a total of 30,720 nozzles; L-COA Controller for optimal image quality; automatic switching between regular black ink and matte black inks depending on paper type; clogged nozzle detection and compensation; 40 GB hard drive; Media Roll Detection System; multiple media options including manual feed (top/face) and roll feed; Take Up Unit; software including Poster Artist, Print Plug-in for Photoshop, Digital Photo Print Pro, and Canon Printer Driver.

AUXILIARY EQUIPMENT INCLUDES
Roll Holder set for 3" core ($250); Media Basket ($300); IEEE 1394 Expansion Board ($235)

WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
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</table>

FUNCTION
LABOR COST-1 SHIFT
Operator $35,538 $31,488 $26,425
LABOR COST-2 SHIFTS
$73,208 $64,865 $54,436

LABOR COST-3 SHIFTS
$111,589 $98,872 $82,975

No. of Manned Hours Annually @ 100% Productivity

<table>
<thead>
<tr>
<th>Provisions</th>
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</table>

FULL COLOR 60" wide 2400 x 1200 dpi Automatic cutting; borderless printing.

TOTAL MANUFACTURING COSTS

183 sq. ft/hr, heavy coated Recommended Monthly Volume: N/A

ALL-INCLUSIVE COSTS per productive hour @

<table>
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TOP:
$35,538 $31,488 $26,425
LABOR COST-2 SHIFTS
$73,208 $64,865 $54,436
LABOR COST-3 SHIFTS
$111,589 $98,872 $82,975

TOTAL:
$35,538 $31,488 $26,425
$73,208 $64,865 $54,436
$111,589 $98,872 $82,975

TOTAL INVEST.:
$15,780

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493

Wide Format
Printing Equipment
### Oce North America, CS9065

**MAX. SIZE:** 65" X Roll  
**RESOLUTION:** Multiple  
**FINISHING ABILITY:** n/a  
**POWER:** kWhs: 4  
**PRODUCT CLASS:** Wide Format Printer Inkjet  
**BASE COST:** $29,995  
**AUXILIARY EQUIP.:** n/a  
**INSTALL. (EST.):** See Note*  
**TOTAL INVEST. :** $29,995

#### BASE COST ABOVE INCLUDES

CS9065 Printer; one year warranty (no print heads).

*Installation Note:* Survey did not indicate an installation cost. Adjust your total investment cost accordingly.

#### AUXILIARY EQUIPMENT INCLUDES

- n/a

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### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

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#### LABOR COST-1 SHIFT

- Operator: $35,538
- TOTAL: $35,538

#### LABOR COST-2 SHIFTS

- TOTAL: $73,208

#### LABOR COST-3 SHIFTS

- TOTAL: $111,589

---

### ALL-INCLUSIVE COSTS

- TOTAL INVEST. : $29,995

---

### ONE SHIFT

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No. of Manned Hours Annually @ 100% Productivity

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**POWER:**

- $0.07 per kWh (based on kWh rating)
- $0.07 per kW (based on hp rating)

**DUPLEXING:**

- 30% 1 shift/ 40% 2 shifts/ 30% 3 shifts

**FIRE & SPRINKLER INSURANCE (Rate $4.00 per M):**

- $26,425

**LIABILITY & PROPERTY INSURANCE (Rate $0.50 per $100 Value):**

- $26,425

**VARIABLE CHARGES**

- $4,499 per productive hour @ 85% productivity
- $4,350 per productive hour @ 80% productivity
- $4,200 per productive hour @ 75% productivity
- $4,050 per productive hour @ 70% productivity
- $3,900 per productive hour @ 65% productivity

---

**MANUFACTURING COSTS per productive hour:**

- $53.86 per productive hour @ 85% productivity
- $53.46 per productive hour @ 80% productivity
- $53.06 per productive hour @ 75% productivity
- $49.80 per productive hour @ 65% productivity
- $46.55 per productive hour @ 60% productivity

---

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494

**Wide Format**

**Printing Equipment**
### BASE COST ABOVE INCLUDES

Includes 72" wide solvent inkjet printer; four liters of ink; 100' roll of banner vinyl; training; installation.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance available @ $499/month after six month warranty.

### AUXILIARY EQUIPMENT INCLUDES

Optional flatbed tables ($2,195).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Area</th>
<th>TOTAL MANUFACTURING COSTS</th>
<th>LABOR COST-1 SHIFT</th>
<th>LABOR COST-2 SHIFTS</th>
<th>LABOR COST-3 SHIFTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$35,538</td>
<td>$31,488</td>
<td>$26,425</td>
<td>$73,208</td>
</tr>
<tr>
<td>B</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
<td>$111,589</td>
</tr>
<tr>
<td>C</td>
<td>$101,455</td>
<td>$87,872</td>
<td>$69,827</td>
<td>$199,865</td>
</tr>
</tbody>
</table>

### TOTAL:

- **Operator:** $35,538
- **Total Direct Labor Cost:** $111,589
- **Total ALL-INCLUSIVE Cost:** $298,275

---

**MacDermid ColorSpan, Display Maker 72si**

**Max. Size:** 72" X 100'

**Resolution:** 600 dpi

**Finishing Ability:** None.

**Power:** kWhs: 3.3

**Product Class:** Wide Format Inkjet Printer

**Maximum Speed:** n/a

**Base Cost:** $39,995

**Auxiliary Equip.:** $2,195

**Install. (Est.):** Included

**Total Invest.:** $42,190

---

**Fixed Charges (Non-Variable):**

- Depreciation @ 20% per year: $8,438
- Rent & Heat: $1,575
- Fire & Sprinkler Insurance: $4,680
- Payroll Taxes: $7,532
- Depreciation @ 20% for one year: $111,589

**Variable Charges:**

- Direct Labor: $35,538
- Indirect Labor (Supervision &Misc.): $7,108
- Pension Fund: $1,777
- Welfare Benefits: $4,680
- Payroll (Soc. Sec. & Unemploy. Insurance): $3,540
- Workmen's Compensation Insurance: $1,706
- Power Cost: $0.07 per kWh: $222
- Direct Supplies: $0
- Repairs & Maint. @ 5% 1 shift/10% 2 shifts/15% 3 shifts: $2,110
- Sub-total: $66,861
- General Factory—15% 1 shift/12.5% 2 shifts/10% 3 shifts: $10,029
- Total Manufacturing Costs: $76,901

**Administrative & Selling Overhead:**

- 42% 1 shift/37% 2 shifts/32% 3 shifts: $32,294

**Total Costs:** $109,185

**Manufacturing Costs per productive hour @ 85% productivity:**

- 75% productivity: $56.43
- 60% productivity: $79.94

**All-Inclusive Costs per productive hour @ 85% productivity:**

- 75% productivity: $80.13
- 60% productivity: $113.52

---

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### Workman’s Compensation Insurance

- **Rate**: $40.00 per M

### Sub-total

- Total: $82,975

### Area A

- **Rent & Heat**:
  - (A) $10.50
  - (B) $7.00
  - (C) $5.00 sq. ft.

### Area B

- **Rent & Heat**:
  - (A) $10.50
  - (B) $7.00
  - (C) $5.00 sq. ft.

### Labor Cost - 2 Shifts

- **Direct Labor**: $212,163
- **Indirect Labor**: $26,425
- **Pension Fund**:
  - (A) 5%
  - (B) 3%
  - (C) 2%
- **General Factory**:
  - 15% 1 shift
  - 12.5% 2 shifts
  - 10% 3 shifts
- **Repairs & Maint.**:
  - 5% 1 shift
  - 10% 2 shifts
  - 15% 3 shifts
- **Welfare Benefits**:
  - (A) $90./wk.
  - (B) $60./wk.
  - (C) $45./wk.

### TOTAL COSTS

- **Total**: $331,013

### Total Manufacturing Costs

- **TOTAL MANUFACTURING COSTS**: $259,995

---

### BASE COST ABOVE INCLUDES

*Installation Note: Survey did not indicate an installation cost. Adjust your total investment cost accordingly.

### AUXILIARY EQUIPMENT INCLUDES

- **Operational Charge**: n/a
- **Shipping**: F.O.B.
- **Recommended Monthly Volume**: N/A

### Equipment

- **Product Class**: Wide Photo Laser Printer
- **Base Cost**: $259,995

---

### Working Conditions and Annual Cost of Direct Labor (by Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Vacation After One Year</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### FUNCTION

- **Labor Cost - 1 Shift**: Operator $35,538
- **Labor Cost - 2 Shifts**: $73,208
- **Labor Cost - 3 Shifts**: $111,589

---

### One Shift

<table>
<thead>
<tr>
<th>AREA</th>
<th>1 A</th>
<th>1 B</th>
<th>1 C</th>
<th>2 A</th>
<th>2 B</th>
<th>2 C</th>
<th>3 A</th>
<th>3 B</th>
<th>3 C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$1,603</td>
<td>$1,763</td>
<td>$1,936</td>
<td>$3,206</td>
<td>$3,525</td>
<td>$3,872</td>
<td>$4,809</td>
<td>$5,288</td>
<td>$5,808</td>
</tr>
</tbody>
</table>

### Total:

- **Total**: $35,538
- **Total**: $31,488
- **Total**: $26,425
- **Total**: $73,208
- **Total**: $68,645
- **Total**: $54,436
- **Total**: $111,589
- **Total**: $98,872
- **Total**: $82,975

---

### Manufacturing Costs per Productive Hour

- **85% Productivity**: $103,222
- **75% Productivity**: $116,980
- **60% Productivity**: $146,230
- **ALL-INCLUSIVE COSTS**: $146,650
- **75% Productivity**: $166,112
- **60% Productivity**: $207,640

---

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| MAX. SIZE: | 90” X Roll | AREA B | 94,718 | AREA A | 73,208 | AREA C | 44,726 |
| Resolution: | Multiple | POWER: | kWhs: 4 | Total Costs: | $58,003 | TOTAL INVEST.: | $39,995 |
| Finishing Ability: | n/a | Area A: 1,089 | 3,872 | Area B: 1,050 | 3,660 | Area C: 1,050 | 3,651 |
| Duplexing: | No | Area A: 1,050 | 3,660 | Area B: 1,050 | 3,660 | Area C: 1,050 | 3,651 |
| Color Ability: | Full Color | Area A: 35 | 37.5 | Area B: 35 | 37.5 | Area C: 35 | 37.5 |
| Interfaces With: | n/a | Area A: 11 | 10 | Area B: 11 | 10 | Area C: 8 | 10 |
| SQ. FT.: | 150 | Area A: 4 weeks | 3 weeks | Area B: 4 weeks | 3 weeks | Area C: 4 weeks | 3 weeks |

**Base Cost Above Includes**

CS9090 Printer; one year warranty (no printhead heads).

**Installation Note:** Survey did not indicate an installation cost. Adjust your total investment cost accordingly.

**Auxiliary Equipment Includes**

- Occ North America, CS9090
- Power Cost @ $0.07 per kWh (based on hp rating)
- Total Manufacturing Costs
- Total Cost

---

### Working Conditions and Annual Cost of Direct Labor (By Area)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours/Week</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
<td>35</td>
<td>37.5</td>
<td>40</td>
</tr>
<tr>
<td>Paid Holidays</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
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<td>8</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

### Function Labor Cost-1 Shift

<table>
<thead>
<tr>
<th>Function</th>
<th>Labor Cost-1 Shift</th>
<th>Labor Cost-2 Shifts</th>
<th>Labor Cost-3 Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operator</td>
<td>$35,538</td>
<td>$21,488</td>
<td>$26,425</td>
</tr>
<tr>
<td>Area A</td>
<td>$73,208</td>
<td>$64,865</td>
<td>$54,436</td>
</tr>
<tr>
<td>Area B</td>
<td>$160</td>
<td>$160</td>
<td>$160</td>
</tr>
<tr>
<td>Area C</td>
<td>$150</td>
<td>$150</td>
<td>$150</td>
</tr>
</tbody>
</table>

### Total:

<table>
<thead>
<tr>
<th></th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$35,538</td>
<td>$21,488</td>
<td>$26,425</td>
</tr>
</tbody>
</table>

---

### Manufacturing Costs Per Productive Hour

<table>
<thead>
<tr>
<th>Productivity</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$56.00</td>
<td>$44.52</td>
<td>$34.74</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$50.30</td>
<td>$39.71</td>
<td>$30.64</td>
</tr>
<tr>
<td>50% productivity</td>
<td>$48.63</td>
<td>$36.85</td>
<td>$28.31</td>
</tr>
</tbody>
</table>

### All-Inclusive Costs Per Productive Hour

<table>
<thead>
<tr>
<th>Productivity</th>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>85% productivity</td>
<td>$79.52</td>
<td>$63.22</td>
<td>$49.33</td>
</tr>
<tr>
<td>75% productivity</td>
<td>$61.81</td>
<td>$48.64</td>
<td>$37.37</td>
</tr>
</tbody>
</table>

---

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### MacDermid ColorSpan, Display Maker 98si

<table>
<thead>
<tr>
<th>MAX. SIZE:</th>
<th>RESOLUTION:</th>
<th>FINISHING ABILITY:</th>
<th>POWER:</th>
<th>PRODUCT CLASS:</th>
<th>BASE COST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>98&quot; X 100'</td>
<td>600 dpi</td>
<td>None.</td>
<td>kWhs: 3.3</td>
<td>Wide Format Inkjet Printer</td>
<td>$54,995</td>
</tr>
</tbody>
</table>

#### BASE COST ABOVE INCLUDES

Includes 98" wide solvent inkjet printer; four liters of inks; 100' roll of banner vinyl; training; installation.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary. Maintenance available @ $541/month after six month warranty.

**AUXILIARY EQUIPMENT INCLUDES**

Optional flatbed tables ($2,595).

### WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)

<table>
<thead>
<tr>
<th>Provisions</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
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<tbody>
<tr>
<td>Hours/Week</td>
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<td>35</td>
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<td>37.5</td>
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</tr>
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<td>10</td>
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<tr>
<td>Vacation After One Year</td>
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<td>3 weeks</td>
<td>2 weeks</td>
<td>4 weeks</td>
<td>3 weeks</td>
<td>2 weeks</td>
</tr>
</tbody>
</table>

**FUNCTION**

**LABOR COST-1 SHIFT**

Operator $35,538 $31,488 $26,425

**LABOR COST-2 SHIFTS**

$73,208 $64,865 $54,436

**LABOR COST-3 SHIFTS**

$111,589 $98,872 $82,975

**TOTAL:**

$35,538 $31,488 $26,425

$73,208 $64,865 $54,436

$111,589 $98,872 $82,975

### ONE SHIFT

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,603</td>
<td>1,763</td>
<td>1,936</td>
</tr>
</tbody>
</table>

### TWO SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,206</td>
<td>3,525</td>
<td>3,872</td>
</tr>
</tbody>
</table>

### THREE SHIFTS

<table>
<thead>
<tr>
<th>AREA A</th>
<th>AREA B</th>
<th>AREA C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

**No. of Manned Hours Annually @ 100% Productivity..................................**

**FIXED CHARGES (NON-VARIABLE)**

1. Depreciation @ 20% per year................................................ $11,518 $11,518 $11,518

2. Rent & Heat (A) $10.50 (B) $7.00 (C) $5.00 sq. ft.................. 1,838 1,225 875

3. Fire & Sprinkler Insurance (Rate $4.00 per M)......................... 1,777 945 529

4. Direct Labor................................................................. 35,538 31,488 26,425

5. Indirect Labor (Supervision & Misc.) 20% 1 shift/ 15% 2 shifts/ 10% 3 shifts........................... 7,108 6,298 5,285

6. Pension Fund (A) 5% (B) 3% (C) 2%.................................. 1,777 945 529

7. Welfare Benefits (A) $90./wk. (B) $60./wk. (C) $45./wk.............. 4,680 3,120 2,340

8. Payroll Taxes (Soc. Sec. & Unemploy. Insurance) 8.3%............... 3,540 2,136 2,632

9. Workmen's Compensation Insurance (Rate $4.00 per M)............. 1,706 1,111 1,289

10. Power Cost @ $0.07 per kWh (based on hp rating).................. 222 244 268

11. Power Cost @ $0.07 per kWh (based on kW rating).................. 444 489 537

12. Direct Supplies (see instructions).................................... 0 0 0

13. Repairs & Maint. @ 5% 1 shift/ 10% 2 shifts/ 15% 3 shifts........... 2,880 2,880 2,880

14. Sub-total................................................................. 32,038 32,038 32,038

15. General Factory—15% 1 shift/ 12.5% 2 shifts/ 10% 3 shifts........... 10,655 9,389 8,138

16. TOTAL MANUFACTURING COSTS......................................... 42,693 41,427 38,186

17. Administrative & Selling Overhead—42% 1 shift/ 37% 2 shifts/ 32% 3 shifts........... 34,310 30,233 26,203

18. TOTAL COSTS.................................................................. $116,001 $102,218 $88,590

19. MANUFACTURING COSTS per productive hour @ 85% productivity

<table>
<thead>
<tr>
<th>75% productivity</th>
<th>60% productivity</th>
<th>50% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$59.95</td>
<td>$48.05</td>
<td>$37.91</td>
</tr>
<tr>
<td>$52.58</td>
<td>$41.74</td>
<td>$32.47</td>
</tr>
<tr>
<td>$48.53</td>
<td>$38.39</td>
<td>$29.69</td>
</tr>
</tbody>
</table>

20. ALL-INCLUSIVE COSTS per productive hour @ 85% productivity

<table>
<thead>
<tr>
<th>75% productivity</th>
<th>60% productivity</th>
<th>50% productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$85.14</td>
<td>$68.23</td>
<td>$53.83</td>
</tr>
<tr>
<td>$72.03</td>
<td>$57.19</td>
<td>$44.48</td>
</tr>
<tr>
<td>$64.07</td>
<td>$50.66</td>
<td>$39.19</td>
</tr>
</tbody>
</table>

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Wide Format Printing Equipment
**BASE COST ABOVE INCLUDES**

Includes 98" wide belt-driven UV-curable flatbed inkjet printer; detachable flatbed roller tables; 12 liters of ink; 100' roll of banner vinyl; training; installation.

**Note:** The following information is not used in this Study. Use it to adjust Line 13 if necessary.

Maintenance available at $1,250/month after one year warranty.

**AUXILIARY EQUIPMENT INCLUDES**

Roll-to-roll option (19,995).

---

**WORKING CONDITIONS AND ANNUAL COST OF DIRECT LABOR (BY AREA)**

<table>
<thead>
<tr>
<th>Area A</th>
<th>Area B</th>
<th>Area C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
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<td>Area B</td>
<td>Area C</td>
</tr>
<tr>
<td>Area A</td>
<td>Area B</td>
<td>Area C</td>
</tr>
</tbody>
</table>

**FUNCTION LABOR COST-1 SHIFT**

- Operator: $35,538
  - Area A: $31,488
  - Area B: $26,425
  - Area C: $73,208
- Labor Cost-2 Shifts: $54,436
  - Area A: $26,865
  - Area B: $54,436
  - Area C: $111,589
- Labor Cost-3 Shifts: $98,872
  - Area A: $26,425
  - Area B: $98,872
  - Area C: $98,872

**TOTAL:**

- Area A: $73,208
- Area B: $82,975
- Area C: $82,975

---

**ONE SHIFT**

<table>
<thead>
<tr>
<th>AREA A</th>
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**TWO SHIFTS**

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**THREE SHIFTS**

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</tr>
<tr>
<td>4,809</td>
<td>5,288</td>
<td>5,808</td>
</tr>
</tbody>
</table>

---

**MANUFACTURING COSTS per productive hour @**

- 85% productivity: $85.17
  - 75% productivity: $70.65
  - 60% productivity: $120.66

**ALL-INCLUSIVE COSTS per productive hour @**

- 85% productivity: $120.94
  - 75% productivity: $100.32
  - 60% productivity: $171.33

---

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