

Offset Printing Press (Job Work)

PRODUCT CODE	: 289018013
QUALITY AND STANDARDS	: As per Customer's Specifications
PRODUCTION CAPACITY	: Qty. : 144000 Nos. (per annum) Value : Rs. 1,02,24,000
MONTH AND YEAR OF PREPARATION	: April, 2003
PREPARED BY	: Small Industries Service Institute 22, Godown, Indl. Estate, Jaipur - 302 006 (Raj.) Phone Nos.: 2212098, 2213099 Fax No. : 0141-2210553 E-mail: sisijpr@sancharnet.in

INTRODUCTION

Offset Printing is the latest method of printing system in any language. The method of printing in earlier days was by rotary printing press in which the matter to be printed was to be first composed manually.

In Offset printing, the matter which is to be printed is fed into the computer and after that with the help of the camera, it is exposed and film is prepared through developer/chemicals and put into Offset printing Machine to take out the print. Offset printing method is the latest one where the quality of printing is very fine in comparison to the previous method.

MARKET POTENTIAL

Today is the age of technology. Offset Printing Press is the example of new

technology. The required material may be printed in minimum time with good accuracy and better quality. Now a days, the number of schools, colleges, offices and other business activities is increasing day by day. They require stationery, books and other printed materials. Therefore, Offset Printing Press has very good scope, particularly in Urban and semi-Urban areas.

BASIS AND PRESUMPTIONS

- i) This report is worked out on the basis of 75% capacity utilization on Single Shift and 300 working days per annum.
- ii) The machinery and equipment are of standard make.
- iii) The cost of raw materials and other expenditure is approximate and based on current market rates.

- iv) The period for achieving envisaged capacity utilization is estimated to be one year after commencement of production.
- v) Interest rate for fixed and working capital has been calculated @ 16% per annum.
- vi) Pay back period would commence after 12 months and the repayment period is estimated at 3 years.

IMPLEMENTATION SCHEDULE

1. The entrepreneur has to arrive at a decision in order to select this product. The guiding factor in this regard would be the market potential, demand and supply gap and availability of resources. It may take 2 to 3 weeks' time.
2. After selecting the product, the entrepreneur has to get provisional registration from DIC, so that he can apply for allotment of land, power, etc., for which about one week time is required.
3. In order to obtain financial assistance from the financial Institutions, like Commercial Banks or State Financial Corporations, a detailed Project Report is required to be prepared. On the basis of the report, financial institutions may take 8 to 12 weeks time for sanctioning and disbursing the loan. Accordingly, orders for plant and machinery may be finalized and placed. Simultaneously, order for purchase of raw materials is also to be finalized and recruitment of key staff is to be done. This would require 3 to 4 weeks' time.

TECHNICAL ASPECTS

Process of Manufacture

Composing of matter which is to be printed, is done on computer with the help of special Softwares such as Corel Draw, Photoshop, MS Office, Page Maker, etc., Thereafter a film is produced with the help of a camera. This film is called negative. The matter, which is to be printed is taken on this film/negative.

The negative and a aluminium plate are put into the printing down frame/exposer. Before starting the exposer, the presetting of timer is done in the timer/watch. Generally it takes approx. 200 seconds for making positive. The time exposer is switched off automatically as soon as positive has been built up. The image of negative is printed on the aluminium plate, which is called positive. After that, the developer is spread on the plate followed by washing with the fresh water. During this process, the matter gets printed on the plate automatically. Thereafter, the aluminium plate is fitted in the offset printing press. This plate is called P.S. Plate, when it is used for first time and thereafter it is called Y-pon Plate. The papers are cut on Paper Cutting Machine. Then the papers are fed one by one into Offset Printing Press. Generally the capacity of offset printing press is 4000 impressions per hour.

Quality Control and Standards

As per Customers' requirements.

Production Capacity (per annum)

Quantity	Value (Rs.)
1,44,000 Nos. (Magazine/Souvenir)	1,02,24,000

Motive Power 13 H.P.

Pollution Control

The manufacturing activity does not pose any pollution as such no special pollution measures are required.

FINANCIAL ASPECTS

A. Fixed Capital

(i) Land and Building (In Rs.)	
Covered Area 200 Sq. mtrs., Rented	8,000 per month

(ii) Machinery and Equipment

Sl. No.	Description	Ind./ Imp.	Qty. Nos.	Total (In Rs.)
1.	Off-Set Printing Machine Size 18 x 25", Single Colour with 5 H.P. Dominant make	Ind.	1	10,00,000
2.	Computer with Printer and softwares	Ind.	1	70,000
3.	Printing Down Frame/Exposer, size 23x36" (Make - Memory)	Ind.	1	80,000
4.	Paper Cutting Machine, Size 23 x 36", 2 H.P.	Ind.	1	1,50,000
5.	Paper Creasing M/c.	Ind.	1	10,000
6.	Paper Stapler M/c	Ind.	1	8,000
7.	Binding and measuring equipment.	Ind.	L.S.	5,000
	<i>Electrification and Installation charges @ 10%</i>			1,32,300
	<i>Office furniture and equipment</i>			40,000
	Total			14,95,300
	(iii) Pre-operative Expenses			10,000
	Total Fixed Capital			15,05,300
	Say			15,05,000

C. Working Capital (per month)

(i) Personnel

Sl. No.	Designation	Nos.	Salary (In Rs.)	Amount (In Rs.)
1.	Manager/Supervisor	1	5,000	5,000
2.	Skilled Workers	3	2,500	7,500
3.	Un-skilled Workers	3	2,000	6,000
4.	Accountant-cum-Typist (Part-time)	1	2,500	2,500
5.	Watchman/Peon	1	2,000	2,000
	Total			23,000
	<i>Add perquisites @ 15%</i>			<i>3,450</i>
	Total			26,450
	Say			26,500

(ii) Raw Material

Sl. No.	Particulars	Qty.	Rate (Rs.)	Value (In Rs.)
1.	Paper	2400 Ream	250	6,00,000
2.	Card Sheet	6000	10	60,000
3.	Aluminium Plate	4 Nos.	125	500
4.	Ink	2 kg.	300	600
5.	Developer	10 kg.	100	1000
6.	Gum	10 kg.	100	1000
7.	Multi Colour	L.S.	-	3500
8.	Staple Pin etc.	L.S.	-	500
	Total			6,67,100
	Say			6,67,000

(iii) Utilities (In Rs.)	
(a) Electric Power, @ Rs. 4 per unit, 13 H.P.	4,400
(b) Water charges L.S.	400
Total	4,800

(iv) Other Contingent Expenses (In Rs.)	
Rent	8,000
Processing charges of Cover page Design	3,000
Transportation charges	1,000
Postage and Stationery	1,000
Telephone	2,000
Publicity	500
Insurance and Taxes	1,000
Miscellaneous Expenses	1,000
Total	17,500

- (v) Total Recurring Expenditure (per month)
 (i) + (ii) + (iii) + (iv) = Rs. 7,15,800
- (vi) Total Working Capital for 3 months
 3 x 7,15,800 = Rs. 21,47,400
- Say Rs. 21,48,000

C. Total Capital Investment

(i) Fixed Capital	Rs. 15,05,000
(ii) Working Capital (for 3 months)	Rs. 21,48,000
Total	Rs. 36,53,000

FINANCIAL ANALYSIS

(1) Cost of Production (per year)	(In Rs.)
Recurring Expenditure	85,89,600
Depreciation on Machinery and equipment @ 10%	1,32,300
Depreciation on office furniture and equipment @ 20%	8,000
Interest on total capital investment @ 16%	5,84,500
Total	93,14,400
Say	93,14,000

(2) Turnover (per year)

Item	Qty.	Rate(Rs.)	Value(Rs.)
Magazine/ Souvenir	1,44,000	71 each	1,02,24,000

(3) Net Profit (per year) (Before Taxation)

$$\begin{aligned} \text{Annual Profit} &= \text{Turnover} - \text{Cost of Production} \\ &= 10224000 - 9314000 \\ &= \text{Rs. } 9,10,000 \end{aligned}$$

(4) Net Profit Ratio

$$\begin{aligned} &= \frac{\text{Net Profit per year} \times 100}{\text{Turnover per year}} \\ &= \frac{9,10,000 \times 100}{1,02,24,000} \\ &= 9\% \end{aligned}$$

(5) Rate of Return

$$\begin{aligned} &= \frac{\text{Net Profit per year} \times 100}{\text{Total Capital Investment}} \\ &= \frac{9,10,000 \times 100}{36,53,000} \\ &= 25\% \end{aligned}$$

(6) Break-even Point

Fixed Cost	(In Rs.)
Rent	96,000
Depreciation on machinery and equipments	1,40,300
Interest on total capital investment @ 16%	5,84,500
40% of Salary and wages	1,27,200
40% of other contingent expenses (excluding Rent)	45,600
Total	9,93,600

$$\begin{aligned} \text{B.E.P.} &= \frac{\text{Fixed Cost} \times 100}{\text{Fixed Cost} + \text{Annual Profit}} \\ &= \frac{9,93,600 \times 100}{9,93,600 + 9,10,000} \\ &= \frac{9,93,600 \times 100}{19,03,600} \\ &= 52\% \end{aligned}$$

Addresses of Machinery and Equipment Suppliers

1. M/s. Speedographics India Ltd.
Industrial Area, Rajaji Nagar, Bangalore.
2. M/s. J. Mahaveer and Co. Ltd.
3620-21, Netaji Subhash Marg, Daryaganj, New Delhi - 110 002.
3. M/s. Rajasthan Machine Tools
1712, Darjion Ka Chouraha, Khajanewalon Ka Rasta, Chandpole Bazar, Jaipur - 302 001.
4. M/s. Prateek Machinery Pvt. Ltd.
V-18A, Prabhu Marg, Tilak Nagar, Jaipur.
5. M/s. Sharpline Engineering Co.
B-9/181-182, 1st Floor, Sector-5, Rohini, New Delhi - 110 085.