Rotogravure Printing

PRODUCT CODE	:	56999
QUALITY AND STANDARDS	:	As per customer's specification.
PRODUCTION CAPACITY	:	Multi-coloured rotogravure printed polythene bag- 60 M. T. (per annum)

Introduction

Rotogravure printing is widely used for printing on packaging items like polythene packets, bread wrappers, soap wrappers, milk pouches and other flexible packaging materials. The use of such packaging items is steadily increasing and hence the importance of rotogravure printing is constantly increasing.

Market Potential

Use of printed wrappers etc. is a widely accepted mode of packaging. The market potentiality of these items is quite good. With the increase in the use of plastic/polythene items for packing of different consumer products like soap, bread, tea, edible oils, milk, pan masala, snacks, etc., this mode of printing has acquired a very good acceptability due to better get-up, quicker production and cost benefit.

Basis and Presumptions

The profile is drawn on the basis of the following presumptions:

Working hours per shift	8
No. of shifts per day	1
Working days	300
Total No. of working hours	2400
Working Efficiency	75%
Period for achieving max. cap. utilisation	3rd year from the date on which Production will be started
Labour charges	As per minimum wages Act of Govt.
Margin Money	25% of capital investment
Rate of Interest on fixed and working Capital	14%
Operative period of the project	10 years

Value of machinery and equipment is estimated on the basis of prevailing cost of the market.

Implementation Schedule

Project implementation will take a period of 8 months from the date of approval of the scheme. Break-up of the activities with relative time for each activity is shown below:

Nature of Activities	Period in Month (Estimated)
Scheme preparation and approval	0-1
SSI provisional registration	1-2
Sanction of loan	2-5
Clearance from Pollution Control Board	3-4
Placement of order for delivery of machine	4-5
Installation of machines	6-7
Power connection	6-7
Trial run	7-8
Commencement of production	9 onwards

Technical Aspects

Process of Manufacture

First of all, the printing rollers are fitted in the machine. Then the packaging material to be printed is fed into the machine. After adjusting the quantity of ink, the printing operation is started. The printed sheets/rolls are collected and taken for cutting, sizing etc.

Quality Control and Standards

The product will be supplied to the customers as per their specifications.

Production Capacity

Average Production Capacity (per month)

Multi-colour polythene bag (various sizes) - 5 Metric Tonnes.

Motive Power

Total power requirement : 17 H.P.

Pollution Control

No special pollution control measures are needed.

Energy Conservation

Proper maintenance and judicial use of the power operated machines will conserve energy.

Financial Aspects

A. Fixed Capital

(i) Land and building	Rent (Rs.)
Land and Building . Total covered area 120 sq. metre	500 per month

(ii) Machinery and Equipment		(Rs.)
i)	Multi-colour Rotogravure Printing Machine in standard size - 50 inches with 12 H.P. Electric motor, complete with all accessories	7,50,000
ii)	Cutting and Sealing Machine size 18 inches (automatic) complete with 5 H.P. electric motor with all accessories.	60,000
iii)	Rotogravure printing cylinder of 50 inches size 10 Nos.	4,00,000
iv)	Platform type weighing scale capacity 250 kg.	15,000
v)	Workshop tools, complete sets	5000
vi)	Fire extinguisher	10,000
vii)	Furniture and fixtures	30,000
viii)	Electrification and installation	70,000
ix)	Pre-operative expenses	30,000
	Total	13,70,000

B. Working Capital(per month)

(i) Personnel

Designation	No.	Value (Rs.)
Works Manager	1	5,000
Supervisor	1	3,500
Accountant	1	2,500
Clerk/Typist	1	2,000
Salesmen	2	5,000
Skilled Workers	2	4,000
Unskilled workers	4	6,000
Helpers	2	2,000
Watchman-cum-poen	1	1,000
	Total	31,000
Prequisites@ 15%		4,500
	Total	35,500

(ii) Raw Materials

Particulars	Quantity	Rate (Rs.)	Value (Rs.)
Polythene Sheet	5 M. T.	60,000	3,00,000
Ink	300 Kg.	150	45,000
Reducer	60 Kg.	50	3,000
	Total		3,48,000
Add wastage 5%			17,000
	Total		3,65,000

(iii) Utilities	(Rs.)
Power	5,000

(iv) Other Contingent Expenses	(Rs.)
Rent	5,000
Transport Expenses	5,000
Stationery, postage, telephone	2,000
Legal and other fees	500
Insurance	2,000
Repair, maintenance	1,000
Consumable Stores	1,000
Sales Expenses	2,000
Misc. Expenses	2,000
Advertisement and Publicity	2,000
Total	22,500

(v) Total Recurring Expenditure (per month) 4,28,000

(vi) Total Working Capital (for 3 months) 12,84,000

C. Total Capital Investment

i)	Fixed Capital	13,70,000
ii)	Working Capital for 3 months	12,84,000
	Total	26,54,000

Financial Analysis

(1) Cost of Production (per year)	(Rs.)
Total recurring cost	51,36,000
Depreciation on machinery and equipment @ 10%	1,30,000
Depreciation on furniture @ 20%	6,000
Interest on total capital investment @14%	3,71,500
Total	56,43,500
Or say	56.44 lakhs

(2) Turnover (per year)	(Rs.)
Multi-colour rotogravure printed 60MT @ 1,00,000 per MT polythene bag (in various sizes)	60,00,000
Job work	4,00,000
Total	64,00,000

(3) Net Profit (per year) Before Income Tax

64 lakhs - 56.44 lakhs = Rs. 7.56 lakhs

(4) Net Profit Ratio

$$= \frac{\text{Net profit per year} \times 100}{\text{Turn over per year}}$$

$$= \frac{7.65 \times 100}{64}$$

$$= 11.8\%$$

(5) Rate of Return

$$= \frac{\text{Net profit per year} \times 100}{\text{Total investment}}$$

$$= \frac{7.56 \times 100}{26.54}$$

$$= 28.5\%$$

(6) Break-even Point

(i) Fixed Cost	(Rs.)
Depreciation on Machinery and equipment	1,30,000
Interest on total investment	3,71,500
Insurance	24,000
40% of salary and wage	1,70,400
40% of other contingent expenditure	72,000
Rent	60,000
Total	8,27,900

(ii) Net Profit (per year) 7.56 lakhs

$$\text{B.E.P.} = \frac{\text{Fixed cost} \times 100}{\text{Fixed cost} + \text{Net profit}}$$

$$= \frac{8.28 \times 100}{8.28 + 7.56}$$

$$= 52.3\%$$

Addresses of Machinery and Equipment Suppliers

1. M/s. Wellman Machinery
   43, Feeder Road, Belghoria,
   Kolkata-53.
2. M/s. The Print and Paper Sales Pvt. Ltd.
   4/7A, Waterloo St.,
   Kolkata-69.
3. M/s. Indo Europa Trading Co.
   Chandni Chowk,
   Delhi-110006.
4. M/s. LAPRA and Co.
   Anand Parbat Industrial Area,
   New Delhi.

Addresses of Raw Material Suppliers

Polythene Films/bags are Locally Available

For Ink Reducer

1. M/s. Coats of India Limited
   33/1, Netaji Subhas Road,
   Kolkata-700001.
2. M/s. Adhesive and Chemicals
   33/1, Netaji Subhas Road,
   Kolkata-700001.