Welded Wire Mesh

PRODUCT CODE	:	349910014
QUALITY AND STANDARDS	:	As per customers' specifications.
PRODUCTION CAPACITY	:	Qty. : 3384 MT (per annum) Value : Rs. 456.84 Lakhs
MONTH AND YEAR OF PREPARATION	:	January, 2003
PREPARED BY	:	Small Industries Service Institute New Colony, Rayagada– 765 001 (Orissa) Phone No. : (06856) 222268

Introduction

Welded wire mesh is the latest development in land wire product industry. The welded wire, generally called reinforcing wire, is mostly used in cement concrete work for construction of buildings, National Highway pavements, runways, dams, airports etc. It is also used for fencing purposes and for partition walls and as a safety guard in engineering workshops.

Market Potential

Welded wire mesh is used extensively in constructional work and fencing purposes. The wire mesh is made by automatic welding process, thus saving a lot of human labour and achieving uniformity in distance and quality.

Basis and Presumptions

1. The project profile has been prepared on the basis of two shifts per day of 8 hours duration each having 300 working days per year.
2. The capacity utilisation is assumed as 75% for the first year and 100% onwards.
3. Promoters contribution towards margin money is taken as nil.
4. Interest is calculated both on fixed and working capital at a simple rate of 16%.
5. Rate of machinery and equipments, raw material and other items is based upon the prices prevailing at the time of preparation of the project.
6. Break-even point is calculated at 100% capacity utilisation.

IMPLEMENTATION SCHEDULE

Sl.No.	Activity	Period
1.	Preparation of Project Report:	
	(a) Calling quotations	4 weeks
	(b) Preparation	2 weeks
2.	Provisional Registration as SSI	1 week
3.	Financial arrangement with financial institutions and others	12 weeks
4.	Purchase and procurement of machinery and equipment	8 weeks
5.	Erection and electrification	3 weeks
6.	Recruitment of personnel	4 weeks

Some activities shown above can be undertaken simultaneously in order to minimise the period.

TECHNICAL ASPECTS

Process of Manufacture

6 to 20 wires depending on the type of mesh are fed horizontally, parallel to one another over rollers to the machine. Distance between these wires is as per design. From the machine, a cross wire overtapping the parallel wires is fed and all the joints are electrically welded. The rollers move the parallel wires further and another cross wire comes in at specified distance. The process goes on, to give a wire mesh of desired specification. The welded wire mesh is pulled out for making rolls.

Quality Control and Standards

As the product is being processed in an automatic welding machine, the quality raw material of M.S. wire or G. I. wire of standard gauges is to be used to keep the production schedule of the machine. The proper maintenance of machine is necessary from time to time. Production is done according to specifications given by the customer.

Production Capacity (per annum)

Quantity : 3384 Mt.

Value : Rs. 507.60 Lakhs

Pollution Control

The level of pollution in this type of industry is minimal. However, permission and guidance from State Pollution Control Board is to be sought to meet its requirements.

FINANCIAL ASPECTS

A. Fixed Capital

(i) Land And Building	(In Rs.)
(i) Land 1000 sq. mtrs. @ Rs. 150 per sq. mtr including registration.	1,50,000
(ii) Cost of land development, fencing, approach road, inside roads, land scaping, drainage etc. @ Rs. 150/ sq. mtr.	1,50,000
(iii) Total built-up area would be 700 sq. mtrs. as follows:	
Administrative building 100 sq.mtrs. construction cost Rs. 2500 persq. mtr.	2,50,000
Factory shed 450 sq. mtr. construction cost @ Rs. 1500 per sq. mtr.	6,75,000
Stores and staff canteen etc. 150 sq. mtrs @ Rs. 2000 per sq. mtr.	3,00,000
Total	15,25,000

(ii) Machinery and Equipment

Sl. No.	Description	Qty.	Amount (In Rs.)
1.	Semi-automatic wire mesh Welder model WMW 1800 suitable for manufacturing wire meshes having a width of 6 feet with different sizes and wire diameters varying from 2 mm to 5.6 mm (pre-straightened and cut to length) complete with solid state synchr-onous IC controller, thyristor	1	19,70,000

Sl. No.	Description	Qty.	Amount (In Rs.)
	panel, 6 Nos. of water cooled encapsulated transformers, each having rating 100 KVA at 50% duty cycle holder assemblies and automatic cross wire feeder mechanism. The machine is suitable for connecting 400/440 Volts, 2 line of a 3 phase 50 HZ		
2.	Weld mesh cutting machine suitable for 8 mm dia rod x 9' length with 10HP motor	1	97,500
3.	Wire cutting and straightening machine upto 8 mm dia with 7.5 HP motor	1	28,600
4.	Air compressor with 3 HP motor 200 ltr. tank capacity	1	11,700
5.	Wolf make portable hand 6" grinder wheel dia	1	2,500
6.	Wire but welding machine 6 KVA	1	14,300
7.	Installation and line fitting.	-	26,000
8.	Step down transformer 250 KVA	1	1,82,000
9.	Furniture and office equipment	-	15,600
	Total		23,48,200
(iii)	Pre-operative Expenses	-	13,000
	Total Fixed Capital (i+ii+iii)		23,61,200

B. Working Capital (per month)

(i) Personnel

Sl. No.	Designation	Nos.	Salary (Rs.)	Total (In Rs.)
1.	General Manager	1	12,000	12,000
2.	Production/ Maintenance Supervisor	1	7,250	7,250
3.	Sales Supervisor	1	7,000	7,000
4.	Skilled Workers	4	4,500	18,000
5.	Un-skilled Workers	3	2,700	8,100
6.	Helpers	3	1,800	5,400
7.	Accountant	1	5,000	5,000
8.	Clerk/Typist	1	3,000	3,000
9.	Peon	1	2,500	2,500
10.	Watchman	1	2,500	2,500
		Total		70,750
	Add Perquisites @ 20%			14,150
		Total		84,900
		Say		85,000

(ii) Raw Materials	(In Rs.)
M.S. Wire coil 2 mm to 5.6 mm dia 300 MT @ Rs. 11,000 per MT	33,00,000

(iii) Utilities	(In Rs.)
1. Electricity charge	27,000
2. Water charge	1,000
Total	28,000

(iv) Other Contingent Expenses	(In Rs.)
1. Postage, stationery and other office services	5,000
2. Consumable stores, tools, repair and maintenance	10,000
3. Transport and conveyance	20,000
4. Advertisement and sales promotion	5,000
5. Wire conversion charge (drawing)	30,000
6. Insurance	1,000
7. Miscellaneous expenses	4,000
Total	75,000

(v) Total Recurring Expenditure (per month)	(Rs.)
1. Personnel	85,000
2. Raw material	33,00,000
3. Utilities	28,000
4. Other Contingent expenses	75,000
Total	34,88,000

Working capital is considered on an average cycle of 1½ months = Rs. 52,32,000

Hence, Working Capital = 1½ months of recurring expenses

C. Total Capital Investment

(i) Fixed Capital	Rs. 38,86,200
(ii) Working Capital	Rs. 52,32,000
Total	Rs. 91,18,200

FINANCIAL ANALYSIS

(1) Cost of Production (per year)	(In Rs.)
Total recurring expenditure	4,18,56,000
Depreciation on Building @ 5%	76,250
Depreciation on Machinery and equipment @ 10%	2,36,120
Depreciation on office equipments @ 25%	3,900

(1) Cost of Production (per year)	(In Rs.)
Interest on total capital investment	14,58,900
Total	4,36,31,170
Say	4,36,31,000

(2) Turnover (per year)	(In Rs.)
By sale of welded wire mesh 2-6mm dia of cross and line wire of different size 3384 MT @ Rs. 15,000/MT	5,07,60,000
Trade Commission @ 10%	(-) 50,76,000
Total	4,56,84,000

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

Turnover– Cost of Production

Rs. 4,56,84,000 – Rs. 4,36,31,000

= Rs. 20,53,000

(4) Net Profit Ratio

$$= \frac{\text{Net Profit per year} \times 100}{\text{Turnover per year}}$$

$$= \frac{20,53,000 \times 100}{4,56,84,000}$$

$$= 4.5\%$$

(5) Rate of Return

$$= \frac{\text{Net Profit per year} \times 100}{\text{Total Investment}}$$

$$= \frac{20,53,000 \times 100}{91,18,200}$$

$$= 22.5\%$$

(6) Break-even Point

Fixed Cost (per annum)		(In Rs.)
1.	Depreciation on building, machinery equipment and office equipments	2,37,680
2.	Insurance	12,000
3.	Interest on total investment	14,58,900
4.	40% of salary and wages	33,600
5.	40% of other contingent expenses excluding insurance	30,000
	Total	17,72,180

B.E.P.

$$= \frac{\text{Fixed Cost} \times 100}{\text{Fixed Cost} + \text{Profit}}$$

$$= \frac{17,72,180 \times 100}{17,72,180+20,53,000}$$

$$= 46.3\%$$

Addresses of Machinery Supplier

1. M/s. Jaya Hind Sciaky Ltd.
   D-1 Block,
   Plot No. 18/1,
   Chinchwad,
   Pune - 411 019
   Phone Nos. 7475579
   7475089 (Purchase)
   7475088 (Sales)