

M.S. INGOTS

**MONTH AND YEAR
OF PREPATATION** : **January, 2011**

PREPARED BY : **Branch- M.S.M.E.
Development Institute
Chandpur Indl. Estate
Varanasi 221106**

Introduction

Mild steel Ingots are the basic raw material for the manufacture of various types of re-rolled products, for e.g. rounds, flats, channels equal and upequal angles etc. A major part of this re-rolled products in the form of cold-twisted deformed bars are used in building construction as reinforcement.

Market

There are good No of units engaged in re-rolling for production of rounds channels flats cold twisted deformed bars. M.S. ingots are basic raw materiel of re-rolling mills Hence market paternal of M.S. mgot is very bright in future the demand will be in incurring order.

Basic & Presumptions

- (1) 75% of the envisaged capacity is taken as efficiency on single working shift of 8 hrs duration.
- (2) One year is required for achieving envisaged capacity utilisation.
- (3) Labour, wages have been considered based on the prevailing wage practice in Andhra Pradesh.
- (4) Margin money -25%
- (5) The estimated life of project is about 5 years.
- (6) Land cost, construction cost, rent etc. have been considered based on the prevailing costs in the urban areas.
- (7) The costs of machinery and equipment ware taken based on the prevailing costs in the market

Implementation Schedule

The Project can be implemented in a period of 18 to 24 months by performing the various activities in a systematic planning and simultaneous application of various common activities.

Technical Aspects

a) Production Details & Process of Manufacture

M.S. Scraps of predetermined composition are charged in the induction melting furnace, melted and temperature raised to the desired level of pouring. At the same time duplex type C.I. moulds are also kept ready with appropriate cores for pouring.

b) Quality Specifications

c) Production Capacity

a) Quantity 1140

b) Value 57000000

d) Approximate power requirement : 800 HP.

e) Pollution Control

No pollution control needs/requirements excepting providing exhaust fans and chimneys.

f) Energy conservation

In the present up energy can be conserved by proper selection and charging of scrap in a pre-heated condition.

Financial Aspects

1) Rented Shed 130' X 80'

Rs. 25,000

2) Machinery and Equipment

a) Production Unit

SI. No.	Description	Indigenous/ Imported	Qty.	Price (Rs.)
1.	1000 kg. 750 K.W. Medium frequency Suitable for operation on 415/Va/c with automatic voltage stabilizer,	Indigenous	1	85,00000

	furnace on of switch, furnace water valve water cooled furnace leads, motor and other accessories		
2.	LOT crane 7.5 metric ton cap	-do-	20,00000
3.	Water pump pipeline	-do-	500000
4.	Coling Tower	-do-	200000
5.	Compressor	-do-	1,80,000
6.	Welding transformer		80,000
7.	Drilling machine 1" dia	-do-	30,000
8.	Fixible shaft grinders	-do-	30,000
9.	C.I. duplex moulds 4"X4"X56"	-do-	300000

B) Testing Unit

1.	Measuring tools	-do-	L.S.	50,000
c)	Pollution Control Equipments			
1.	Water softening plant	-do-		1,50,000
d) (1)	Cost of power connection induding cables. trans formers etc. (33thousand) 850 & 440 (volts) including S.T. etc.			1,50,000
(2)	Electrification anf installation charges @ 10% of machinery and equipment.			1182000
e)	Cost of office equipments/ working tables			50,000
			Total	14752000
(3)	Pre-operative expenses			1,50,000
	Total Fixed Capital (2+3)		Rs.	14902000
(4)	Working Capital (Per month)			

Designation	No	Salary	Total (Rs.)
Technical			

Works Manager	1	30,000	30,000
Moulders/Melters	2	5000	10000
Furnace Operators	2	4000	8000
Crane Operator	2	3000	6000
Fieldside Supervisors	1	3000	3000
Electrician	2	3000	6000
Fitter	1	3000	3000
Turner	1	3000	3000
Welder	2	3000	6000
General Helpers	3	2500	7500

Administrative

Clerk-cum Typist	1	3000	3000
Storekeeper	1	4000	4000
Sales Engineer	3	10,000	30,000

2) Raw materials including packaging requirement (per month)

Particulars	Indigenous/ Imported	Qty.	Rate	Value (Rs.)
M.S. scrap of various qualities	Indigenous	100 MT	30,000	3000000
Consumables like Dolomite/ Winestone Ferro Alloys Refractories Ramming mass Petroleum cake etc.	-do-			100000
Total cost of raw material				<u>3100000</u>

3) Utilities (Per month)

1) Power	1,50,000
2) Furnace oil 1 k @ Rs.45	45000
3) Water charges	3000

Total cost of Utilities

198000

4) Other Contingent Expenses (per month)

1) Rent	25000
---------	-------

2) Postage and stationery	10000
3) Telephone	8000
4) Consumable stores	10000
5) Repairs and maintenance	10000
6) Transport charges	50000
7) Advertisement and publicity	25000
8) Insurance	15000
9) Miscellaneous expenses	10000
Total cost of O.C.E.	163000

5) Total Recurring Expenditure (per month)	3881000
6) Total Working Capital for 3 months	
7) Total Capital Investment	10743000
1) Fixed Capital	14902000
2) Working Capital	10743000
Total	25645000

Machinery Utilisation

Since the number of operations involved in the process is less, there are less chances of bottlenecking operations for this product.

Financial Analysis

1) Cost of Production (per year)

Total Recurring cost per year	42972000
Depreciation of machinery and equipment @ 10%	502000
Depreciation of furnaces @ 25%	2125000
Depreciation of office equipment 20%	10000
Interest on total investment @ 15%	3846750
Total Cost of Production	<u>49455750</u>

2) Turnover (per year)

Item	Qty.	Rate	Value (Rs.)
M.S. Ingots	1140 MT	50,000 MT	57000000
Total turnover inclusive		Rs.	57000000

of excise duty

3) Net profit per year

$$\text{Total Turnover} - \text{Total cost of production} = 7544250$$

4) Net profit Ratio

$$= \frac{\text{Net Profit per year} \times 100}{\text{Turnover per year}} = \frac{7544250}{57000000} = 13\%$$

5) Rate of return

$$= \frac{\text{Net Profit per year} \times 100}{\text{Total investment}} = \frac{7544250}{25645000} = 29\%$$

6) Break-even-point

1. Fixed cost

a) Depreciation on machinery and equipment	2637000
b) Rent	300000
c) Interest on total investment	3846750
d) Insurance	1800000
e) 40% of salary and wages	576000
f) 40% other contingent expenses (excluding rent)	590400
Total fixed	8130150

2. Net profit per year Rs. 32,27,956

$$\text{BEP} = \frac{\text{Fixed cost} \times 100}{\text{Fixed cost} + \text{Profit}} = \frac{8130150}{8130150 + 7544250} = 51\%$$

Addresses of Machinery & Equipment Suppliers

F/c suppliers

1. Inductothermo (India) Ltd.
B.P. No. 59, Phade-1
47, GI De Vatva
Ahmedabad-382 445.

2. G.E.C. of India Ltd.

6, Magnet House
6 Chittaranjan Avenue
Kolkata-700 077.

3. Technocrafts Allied Industries (P) Ltd.
75, 3rd Phase, Penya Industrial Aera
Bangalore - 560 058.

4. Hindustan Brown Browarie
Markapur, Baroda.

5. Inductomelt,
Kalidas Mill Compound
Gomtipur, Ahmedabad - 380 021.

Crane Suppliers

1. Avon Engineers
HO Bandari House
91, Nehru Palace
New Delhi- 110019.

2. Gem Engg. Co.
RP Road, Secunderabad For General

3. Battliboi & Co. Machinery
RP Road, Secundrabad

Address of Raw Material Suppliers

Local scrap traders

Note:

1. This project profile is prepared as a guideline only. Estimates drawn are tentative and likely to vary from place to place from time to time
Entrepreneurs are requested to update accordingly.

2. 5% irrecoverable process loss had been considered.