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 chimney.

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

<table>
<thead>
<tr>
<th>SI. No.</th>
<th>Description</th>
<th>Indigenous/ Imported</th>
<th>Qty.</th>
<th>Price (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1000 kg. 750 K.W. Medium frequency Suitable for operation on 415/VA/c with automatic voltage stabilizer,</td>
<td>Indigenous</td>
<td>1</td>
<td>85,000000</td>
</tr>
</tbody>
</table>
furnace on of
switch, furnace
water valve water
cooled furnace
leads, motor and
other accessories

2. LOT crane 7.5 -do- 20,00000
metric ton cap

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" -do-
dia 30,000

8. Fixible shaft grinders -do-
30,000

9. C.I. duplex moulds -do-
4"X4"X56" 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
including 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)

<table>
<thead>
<tr>
<th>Designation</th>
<th>No</th>
<th>Salary</th>
<th>Total (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td>No.</td>
<td>Monthly Rate</td>
<td>Total Salary</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Works Manager</td>
<td>1</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Moulders/Melters</td>
<td>2</td>
<td>5000</td>
<td>10,000</td>
</tr>
<tr>
<td>Furnace Operators</td>
<td>2</td>
<td>4000</td>
<td>8000</td>
</tr>
<tr>
<td>Crane Operator</td>
<td>2</td>
<td>3000</td>
<td>6000</td>
</tr>
<tr>
<td>Fieldside Supervisors</td>
<td>1</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>Electrician</td>
<td>2</td>
<td>3000</td>
<td>6000</td>
</tr>
<tr>
<td>Fitter</td>
<td>1</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>Turner</td>
<td>1</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>Welder</td>
<td>2</td>
<td>3000</td>
<td>6000</td>
</tr>
<tr>
<td>General Helpers</td>
<td>3</td>
<td>2500</td>
<td>7500</td>
</tr>
<tr>
<td>Administrative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerk-cum Typist</td>
<td>1</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>Storekeeper</td>
<td>1</td>
<td>4000</td>
<td>4000</td>
</tr>
<tr>
<td>Sales Engineer</td>
<td>3</td>
<td>10,000</td>
<td>30,000</td>
</tr>
</tbody>
</table>

2) Raw materials including packaging requirement (per month)

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

3) Utilities (Per month)

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Power</td>
<td></td>
<td>1,50,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Furnace oil 1 k @ Rs.45</td>
<td></td>
<td>45000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Water charges</td>
<td></td>
<td>3000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total cost of Utilities</td>
<td></td>
<td></td>
<td></td>
<td>198000</td>
</tr>
</tbody>
</table>

4) Other Contingent Expenses (per month)

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Rent</td>
<td></td>
<td>25000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 bottlenecks 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 49455750

2) Turnover (per year)

<table>
<thead>
<tr>
<th>Item</th>
<th>Qty.</th>
<th>Rate</th>
<th>Value (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.S. Ingots</td>
<td>1140</td>
<td>50,000</td>
<td>57000000</td>
</tr>
<tr>
<td>MT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total turnover</td>
<td></td>
<td></td>
<td>57000000</td>
</tr>
<tr>
<td>inclusive</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 Area
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.
RP Road, Secunderabad For General

RP Road, Secundrabad Machinery

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.