

PROJECT PROFILE ON WROUGHT IRON FURNITURE

1. NAME OF THE PROJECT : **WROUGHT IRON FURNITURE**

2. PRODUCT CODE : 342001000

3. QUALITY AND STANDARDS : NO STANDARD SPECIFICATIONS AVAILABLE. MANUFACTURERS' OWN SPECIFICATIONS

4. PRODUCTION CAPACITY : Qty. i) 1500 Nos. of Wrought Iron Chairs
ii) 1500 Nos. of Wrought Iron Tables
iii) 1500 Nos. of Wrought Iron Sofa
iv) 1500 Nos. of Wrought Iron Bed

Value : Rs. 133.5 Lakhs (per annum)

5. MONTH & YEAR OF PREPARATION : MARCH, 2011

6. PREPARED BY : MSME DEVELOPMENT INSTITUTE
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1. INTRODUCTION:

Wrought Iron articles in furniture industry are becoming more popular. The articles like chairs, sofas, tables and beds are made in quite attractive models with different designs on their arms and backs. Wooden furniture after some period is worn out due to defects in wood quality and normal wear and tear. Due to elegant appearance, durability and innovative designs, wrought iron furniture is becoming popular in modern society. They are fast replacing the conventional wooden tables, chairs, sofas and beds.

2. MARKET POTENTIAL:

With increase in the population and overall development that has taken place in the country, the number of educational institutions, hospitals, commercial establishments and offices are widely using chairs, tables, sofas and beds. This is creating good market potential in urban and semi-urban areas. As already explained, due to certain specific advantages, wrought iron furniture is fast replacing conventional wooden items. Apart from the domestic market, there is also export market for quality wrought iron furniture.

3. BASIS & PRESUMPTIONS:

- (1) The cost of machinery and equipment is for particular make and prices are approximate.
- (2) All the operations involved in manufacturing wrought iron furniture will be undertaken in industrial workshop of the unit.
- (3) This project profile is prepared on the basis of single shift for 8 hours of working in a day. Total working days in a year have been assumed to be about 300 and efficiency 75%.
- (4) The skilled and semi-skilled workers in line are available in the local area.
- (5) The rental value of the land and built up area has been stipulated on the basis of rate prevailing in the industrial area. It may vary from place to place.
- (6) Rate of interest has been calculated @ 16% per annum. However, this figure is likely to vary depending on the financial outlay of the project and location of the unit.

- (7) The provisions made in other respect viz. personnel, utilities, raw material and over head expenses etc. are based on the prevailing market rates.
- (8) All the machinery, raw material would be available from indigenous sources.
- (9) The break-even point has been calculated on envisaged capacity utilisation basis.
- (10) The operative period of this project is estimated to be about ten years, considering technology obsolescence.

4. IMPLEMENTATION SCHEDULE:

1. Preparation of Project report	:	1 Week
2. Provisional registration from DI/DIC of the area	:	2 Weeks
3. Location of work shed with necessary infrastructure in Industrial area before ordering the Plant and Machinery	:	2 Weeks
4. Placement or order for plant and machinery	:	3 Weeks
5. Recruitment of staff	:	2 Weeks
6. Installation of plant and machinery	:	2 Weeks
7. Time allotted for other misc. work	:	2 Weeks
8. Trial production	:	2 Weeks

Total time required to start commercial production is estimated to be about four months.

5. TECHNICAL ASPECT:

Process of Manufacture

In the open market, plenty of raw material of wrought iron in the shape of round, square, iron rods, square pipes and also in other sectional forms is available. Wrought iron is having its own property of "malleability", it can withstand the load without cracking.

Chairs, tables, sofas and beds used in offices, factories, houses and hospitals are made from light wrought iron sheets, strips and tubular wrought iron. The sheets, strips and tubular wrought iron are cut to required sizes and pressed to shape, bent in a press brake for sides and drawers. Pipes of wrought iron for chairs, tables, sofas and beds can also be sent according to design. Backs of chairs, sofas

and beds consist of decorative designing of various kinds of flowers and leaves etc. For this, design can be made on pressing machine on the strips of

wrought iron of different sizes. Then the sides and backs of wrought iron furniture are welded. Holes are made by drilling, wherever necessary for fitting screws.

Fitting of doors, hinges, assembly, cleaning, pickling and drying are to be done before painting. The sprays painted articles are to be stove enamelled.

7. QUALITY CONTROL & STANDARDS:

There is no quality standard. It is only fabrication of wrought iron steels with various self made designs. The attractive designs thus put lot of cheeriness in the products of wrought iron furniture.

8. PRODUCTION CAPACITY (Per Annum)

It is proposed to manufacture 1500 chairs, tables, sofas and beds each per annum assuming their weight to be 7.5 Kg., 15 Kg., 22 Kg. and 30 Kgs. respectively of wrought iron steel viz. rods, pipes and strips of various sizes.

9. MOTIVE POWER : 10 H.P.

10. POLLUTION CONTROL MEASURES:

No Pollution control device is necessary for this project. However, spray painting will cause pollution to some extent, which can be minimised by installing exhaust fans in painting room.

11. ENERGY CONSERVATION:

No specific energy conservation system is required. Energy conservation can be done by saving single-phase power connections as much as possible. General awareness is to be created for economic utilisation of energy at all points as far as practical.

12. FINANCIAL ASPECTS:

A. FIXED CAPITAL:

(i) Land & Building: (In Rs.)

Covered area of 200 sq. meter in which 50 Sq. meter room should be prepared for pickling of wrought iron furniture parts, where exhaust fans on top of room should be provided. Another 30 Sq. meter room must be provided for painting of furniture items of wrought iron. 15,000 (per month)

(ii) Machinery & Equipments:

<u>Sr. No.</u>	<u>Description</u>	<u>Ind./ Imp.</u>	<u>Qty (Nos.)</u>	<u>Value (Rs.)</u>
1.	Treadle Guillotine shearing M/c. 48" width	Ind.	1	49,000
2.	Power Press 25 Tonne capacity	-do-	1	46,000
3.	Hand operated brake press machine capacity 14 SWG x 1800 mm (Sheet Bending)	-do-	1	35,000
4.	Spot Welding machine 10 SWG with accessories	-do-	1	18,000
5.	Hand operated hydraulic pipe bending machine 25 mm, 36 mm, capacity with all dies.	-do-	1	18,000
6.	Drilling machine 1 ½ "	-do-	1	15,000
7.	Air Compressor with (1 HP) motor and Spray Gun	-do-	1	18,000
8.	Oxy-acetylene gas welding set	-do-	1	8,000
9.	Pickling Tanks (Lead-lined)	-do-	7	17,000
10.	Power Hacksaw machine 6" Jaw Capacity	-do-	1	18,000
11.	Stoving Chamber (8' x 4' x 4') fabricated	-do-	1	18,000
Total :				2,60,000
Tools and Dies				30,000
Furniture and Office equipments				20,000
Total :				3,10,000

(iii) Pre-operative Expenses 15,000

Total Fixed Capital (ii + iii) 3,25,000

B. WORKING CAPITAL (P.M.)

(i) Staff and Labour

<u>Sl.No.</u>	<u>Designation</u>	<u>No.</u>	<u>Salary (Rs.)</u>	<u>Total (Rs.)</u>
<i>(a) Administrative Staff</i>				
1.	Sales-cum-Marketing Manger	1	10,000	10,000
2.	Accountant-cum-Store Keeper	1	6,000	6,000

3. Clerk-cum-Typist	1	5,000	5,000
4. Peon/Chowkidar	1	3,000	3,000
5. Sweeper (Part-time)	1	3,000	3,000

<u>Sl.No.</u>	<u>Designation</u>	<u>No.</u>	<u>Salary</u> (Rs.)	<u>Total</u> (Rs.)
<i>(b) Technical Staff</i>				
1.	Foreman/Supervisor	1	8,000	8,000
2.	Skilled Workers	4	5,000	20,000
3.	Semi-Skilled Workers	2	4,000	8,000
4.	Welders	2	4,000	8,000
5.	Helpers	2	4,000	8,000
			Total :	79,000
Add Perquisites @ 15% of salary				11,850
			Total :	90,850
			Say :	91,000
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(ii) Raw material

<u>Sl.No.</u>	<u>Designation</u>	<u>Qty.</u>	<u>Rate</u> (Rs.)	<u>Total</u> (In Rs.)
1.	Wrought iron pipes of different dia. sizes	5 MT	40,000	2,00,000
2.	Wrought iron strips in 2mm, 3 mm, 6mm and 10 mm thickness	2.4 MT	38,000	91,200
3.	Angle Irons and Rounds in different sizes	2 MT	38,000	76,000
4.	Seating Material for Chairs and Sofas	500 Nos.	400	2,00,000
5.	Coir Foam Sheets for beds	125 Nos.	1,200	1,50,000
6.	Bought out components such as Nuts, bolts, rivets, Welding Rods and paints etc.			50,000
			Total :	7,67,200

(iii) Utilities (per month): (In Rs.)

1) Electricity and Water charges	8,000
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(iv) Other Contingent Expenses

1. Rent	15,000
2. Insurance Expenses	3,000
3. Advertisement/Publicity charges	5,000
4. Travelling Expenses	5,000
5. Consumable stores such as oil, lubricants and Cotton waste etc.	3,000
6. Repair and maintenance	2,000
7. Transport and packaging charges	4,000
8. Postage and stationery	3,000
9. Telephone Expenses	1,500
10. Miscellaneous Expenses	1,500

Total :	43,000

(v) Total Recurring Expenditure (per month) (In Rs.)

1. Personnel	91,000
2. Raw Material	7,67,200
3. Utilities	8,000
4. Other Contingent Expenses	43,000

Total :	9,09,200

(vi) Total Working Capital (for 3 months)

Rs. 9,09,200 x 3 = **27,27,600**

C. TOTAL CAPITAL INVESTMENT:

(1) Fixed Capital	3,25,000
(2) Working Capital (for 3 months)	27,27,600

Total :	30,52,600

13. MACHINERY UTILISATION:

The number of machines to be installed has been determined in such a way, that planned scheduling of jobs will not cause any bottleneck in operation during bulk production. As such, the unit will make utilisation of machines as envisaged, without any bottleneck.

14. FIANCIAL ANALYSIS :

1.	<u>Cost of Production</u> (per annum)	(In Rs.)
	i) Total recurring cost	109,10,400
	ii) Depreciation on Machinery & Equipment @ 10%	26,000
	iii) Depreciation on Furniture and Office Equipment @ 20%	4,000
	iv) Depreciation on Tools and Dies @ 25%	7,500
	v) Interest on total Investment @ 16%	4,88,416

	Total :	114,36,316
2.	<u>Turnover</u> (per year)	(In Rs.)
	i) By sale of 1500 Nos. of Wrought Iron Chairs @ Rs. 600 each	9,00,000
	ii) By sale of 1500 Nos. of Wrought Iron Tables @ Rs. 1800 each	27,00,000
	iii) By sale of 1500 Nos. of Wrought Iron Sofas @ Rs. 2500 each	37,50,000
	iv) By sale of 1500 Nos. of Wrought Iron Bed @ Rs. 4000 each	60,00,000

	Total :	1,33,50,000
3.	<u>Net Profit</u> (Per year)	
	Rs. 1,33,50,000 – 114,36,316 = Rs. 19,13,684	
4.	<u>Profit Ratio</u>	= $\frac{\text{Net Profit} \times 100}{\text{Turn Over Per Year}}$
		= $\frac{19,13,684 \times 100}{1,33,50,000}$
		= 14.34%
5.	<u>Rate of Return</u>	= $\frac{\text{Net Profit/year} \times 100}{\text{Total Investment}}$

Capital Investment

$$= \mathbf{62.7\%}$$

6. Break-even Point

(i) <u>Fixed Cost</u> (per year)	(<u>In Rs.</u>)
a) Depreciation on machinery Office Furniture, Tools and Dies etc.	37,500
b) Rent	180,000
c) Insurance	36,000
d) 40% of Salaries and wages	4,36,800
e) 40% of other Contingent expenses other than Rent and Insurance	1,20,000
f) Interest on total investment	4,88,416

Total :	12,98,716
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(ii) <u>Net Profit</u> (per year)	19,13,684

$$\begin{aligned} \mathbf{B.E.P.} &= \frac{\text{Fixed Cost} \times 100}{\text{Fixed Cost} + \text{Net Profit}} \\ &= \frac{12,98,716 \times 100}{12,98,716 + 19,13,684} \\ &= \mathbf{40.4\%} \end{aligned}$$

15. NAMES & ADDRESSES OF MACHINERY & EQUIPMENT SUPPLIERS

For Treadline Guillotine m/c.

1. M/s. Ganesh Engg. Works
A-287, Okhla Indl. Area, Phase-I
New Delhi – 110 020.
2. M/s. Lamba Press and Shears
6/10, Kirti Nagar Indl. Area
New Delhi – 110 015.
3. M/s. Om Mechanical Works
Plot No. 5, Gali No. 4
New Rohtak Road Indl. Area
New Delhi-110 005.
4. M/s. United Engg. Corporation
B-96, Mayapuri, Phase-I, Rewari Line
New Delhi-110 064.

For Power Press

1. M/s. Lamba Bros (P) Ltd.
6/10, Kirti Nagar Indl. Area
New Delhi – 110 015.
2. M/s. Sonar Machine Tools
Near Kishan Cold Storage
Dr. Vikram Sarabhai Marg
Gondal Road
Rajkot-360 004.
3. M/s. Vishwakala Machine Tools
Gondal Road
Near S.T. Workshop
Rajkot-360 004.
4. M/s. Vankes and Company
13/1, Indl. Estate, Patliputra
Patna - 800 013.

For Hacksaw Machines

1. M/s. Sagar Heavy Engg. (P) Ltd.
G.T. Road, Nand Pur P.O.,

Near Sannawal, Ludhiana.

2. M/s. Vee Kay Industries
S-B, Textile Colony, Indl. Area A
Ludhiana.
3. M/s. Jaswant Engg. Works
G.T. ROAD, Millar Gang
Ludhiana.

For Hand Operated Brake Press

1. M/s. Modgil Co.,
G.T. Road
Batala-143 505.
2. M/s. Sonar Machine Tools
Near Kishan Cold Storage
Dr. Vikram Sarabhai Marg
Gondal Road, Rajkot-360 004.
3. M/s. Khalsa Engg. Works
B-226, Naraina Indl. Area, Phase-I
New Delhi – 110 028.

For Drilling Machine

1. M/s. Modern Tools Manufacturers
B-118, Phase-I, Mayapuri Indl. Estate
New Delhi.
2. M/s. Paul and Co.,
24, Najafgarh Road
New Delhi-110 015.
3. M/s. Shree Mahalaxmi Engg. Works
27, DLF Indl. Area
Najafgarh Road (Moti Nagar)
New Delhi-110 015.

For Welding Sets

1. M/s. Kukreja Welding Equipments
A-63, G.T. Karnal Road
Indl. Area, Delhi-110 033.
2. M/s. Sham Ravinder and Co.
23, New Qutab Road, Indl. Area
Opp. Telewara
Delhi-110 006.
3. M/s. Berco Welding and Electricals (P) Ltd.
G.T. Road By Pass
Near Indl. Estate

Jullunder City (Punjab).

For Pickling Plants

1. M/s. Govan Indl. Corporation
29-/2, Indl. Area
New Rohtak Road
New Delhi.

For Air Compressor

1. M/s. Indocon Projects and Equipments
D-170, Okhla Indl. Area, Phase-I
New Delhi-110 020.
2. M/s. Three-F-Filters (P) Ltd.
C-110/1, Naraina Indl. Area, Phase-I
New Delhi-110 028.
3. M/s. Hydraulic Machine Tools
S/228, Indl. Area
Jallandar City.

16. RAW MATERIAL SUPPLIERS

Raw material is available in the local market.