

# **PROJECT PROFILE ON STEEL FURNITURE**

(Action Plan Year 2009-10 New)

- PRODUCT : **STEEL FURNITURE**
- QUALITY & STANDARD : As per IS/Customer specification
- PRODUCTION CAPACITY (P.A.) : i) Steel Almirahs - 1200 Nos.  
ii) Steel cup boards - 1200 Nos.  
iii) Steel chairs. - 3600 Nos.
- Value : Rs.140.40 Lac
- MONTH AND YEAR OF PREPARATION : February, 2011
- PREPARED BY : MECHANICAL DIVISION  
Micro Small & Medium Enterprises  
Development Institute,  
Opp. Sangeet Cinema,  
Industrial Area – B,  
Ludhiana – 141003
- Gram: "SMALLIND"  
Telephone: 0161- 2531733-34-35  
Fax: 0161-2533225

## **A. INTRODUCTION:**

With the growth of industrial, commercial and household activities the demand of office automation, equipments and steel furniture has increased considerably, Steel furniture is preferred over other kinds of furniture due to its durability, foldability (in many cases) and easy transportability. This profile envisages production of steel almirahs, steel cup boards and steel chairs. These items find their extensive use in industrial, commercial and household activities.

## **B. MARKET:**

As mentioned above, the steel almirahs, steel cup boards and steel chairs find their extensive use in industrial, commercial and household activities. These items are also used by various Govt. organizations. With the growth of industrial, commercial and household establishments, the demand of steel furniture items has increased considerably. Various Govt. organizations also procure these items directly or through annual rate contract system. Hence there is a good market potential for above items.

## **C. BASIS AND PRESUMPTIONS:**

- i) This project profile is based on 8 working hours a day and 25 days in a month and the break even efficiency has been calculated on 75% capacity utilization basis.
- ii) The gestation period in implementation of the project may be about 8 to 12 months. This period included making all arrangements, completion of all formalities, market surveys and tie ups, financial arrangements, purchase of machines, recruitment of staff, commissioning of plant and trial production etc.
- iii) The normal wages and salaries being paid in the industry to various grades of personnel have been considered and also the provision of minimum wages has been taken care of.
- iv) The rate of interest both for fixed and working capital have been taken as 14% P.A.
- v) The pay back period for finance to the financial institutions may be about 8/10 years in case of term loan. The working capital loan may however be in a shape of rolling/limit based capital.

## **D. IMPLEMENTATION SCHEDULE:**

Implementation of the project involve various activities like market surveys and tie-ups, procurement of know-how, arrangement of premises/ land, building, preparation of project report, registration, financing, purchase of machines, commissioning of project, recruitment of staff and training,

arrangement of power, procurement of raw materials, packing materials, trial production etc. in order to implement the project efficiently and in the shortest period there is a need to initiate many activities simultaneously as far as possible. This will not only cut the slack period but also will give quick results and be cost effective. It is advised to follow PERT/CPM/NET WORK analysis technique for implementation along with their estimated time requirement is given below:

S.No.	Activity	Estimated period required
1.	Market survey	15-20 days
2.	Procurement of know-how/experts	30 days
3.	Arrangement of premises	30-45 days
4.	Obtaining quotations and preparation of project report.	15-20 days
5.	Registration and financing.	45-60 days
6.	Recruitment of personnel and training.	30-45 days
7.	Obtaining power connection.	15-30 days
8.	Procurement of machines and equipments.	45-60 days
9.	Installation and electrification of machinery.	20-30 days
10.	Procurement of raw materials, consumables, packing materials etc.	5-10 days
11.	Product development/trial production.	5-10 days
12.	Commercial production.	5 days.

#### **E. TECHNICAL ASPECTS:**

- i) Manufacture of steel furniture involve the operations like steel shearing, sheet folding/ pipe bending, press work, spot welding, gas welding, painting/ powder coating etc. The size and design of furniture may be as per customer/IS specifications.
- ii) This project profile envisages production of following steel furniture items with their production capacity mentioned against each:

a.	Steel Almirahs 76" x 38" x 19"	:	960 Nos.Per Annum
	-do- 48" x 36" x 18"	:	240 Nos.Per Annum
b.	Steel Cup Boards of assorted sizes.	:	1200 Nos.Per Annum
c.	Steel chairs:		
	Folding type	:	1800 Nos. Per Annum
	S-type	:	1800 Nos. Per Annum

- iii) The motive power required for the project will be to the tune of 20 KW
- iv) All the machines and equipments mentioned in the project profile are of indigenous make and are of medium price.
- v) There is no special feature attracting energy conservation and pollution control. However preventive maintenance of machines, use of shunt capacitors on electrical motors will be effective for efficient running the machines and conserving electrical energy. For lighting purpose the use of composite fluorescent lamps and electronic chokes may be made as far as possible.

**F. FINANCIAL ASPECTS:**

**1. Land & Building**

**Amount (Rs.)**

Built up area of 500 sq.mtrs. on rental basis  
@ Rs. 15000/- Per month. 15,000/-

**2. Machinery & Equipments.**

**a. Production unit:**

S.No.	Description of machine/equipment	Qty. (No.)	Amount(Rs.)
i)	Guillotin shearing machine power operated 1250 x 2 mm. 2 HP motorized.	1	2,00,000/-
ii)	Power operated Universal sheet folding press, size 1250 x 2mm, 2 HP motorized.	1	2,50,000/-
iii)	Power press C frame, 20 ton capacity, 1.5 HP motorized with accessories	1	75,000/-
iv)	Spot welding machine pedestal rocker arm type, throat depth 609mm, 10 KVA, complete with accessories.	1	70,000/-
v)	Pipe bending machine, max, dia 50mm, hydraulically operated complete with formers and accessories.	1	40,000/-
vi)	D.E. bench grinder 200mm, 1 HP MOTORISED.	2	25,000/-
vii)	Bench drilling machine 20mm cap., 1 HP motorized.	1	18,000/-
viii)	Flexible grinder 125mm wheel dia, 1 HP motorized.	1	12,000/-
ix)	Portable drilling machine 12mm cap.	1	10,000/-
x)	Gas welding set complete with torch, regulator and hose pipe etc.	1	15,000/-
xi)	Electrostatic powder coating machine complete with electriclas, chamber/oven and surface treatment, tanks and chain pulley hoist system with overhead traveling system.	1 Set.	4,00,000/-

**a) Testing Section:**

i)	Precision measuring instruments like thickness gauges, micrometers vernier, gauges etc.	25,000/-
ii)	Office furniture, Computer with Printer, equipments, working tables, storage bins etc.	75,000/-
iii)	Cost of jigs, fixtures, dies, hand tools, material handling equipments etc.	50,000/-
	<b>Total :</b>	<b>12,65,000/-</b>
	Installation and electrification charges @ 10% of cost of machines and equipments etc.	1,26,500/-
	Preliminary and preoperative expenses including securities for telephone and electricity.	75,000/-
	<b>Total Rs.</b>	<b>14,66,500/-</b>

**4. WORKING CAPITAL (PER MONT):**

**1. Personnel (p.m.):**

**A. Administrative and Supervisory:**

S.No.	Designation	No.	Salary (Rs.)	Amount(Rs.)
a.	Manager	1	18,000	18,000/-
b.	Supervisor/Foreman	1	10,000	10,000/-
c.	Accountant/Clerk/Commercial Asstt.	1	5,500	5,500/-
d.	Sweeper part time	1	1,000	1,000/-
e.	Chowkidar	1	3,500	3,500/-
			<b>Total:</b>	<b>38,000/-</b>

**B. Technical:**

a.	Skilled Workers	4	6,000	24,000/-
b.	Helpers	2	3,500	7,000/-
			<b>Total :</b>	<b>31,000/-</b>

Perquisites @ 15%

10,350/-

**Total: 79,350/- Say : 80,000/-**

**II. UTILITIES (p.m.)**

a.	Power	2200 KWH @ Rs. 4.00 per KWH	8,800/-
b.	Water	100 K.ltrs. @ Rs. 5/- per K.ltrs.	500/-
		<b>Total Rs.</b>	<b>9,300/-</b>
		<b>Say Rs.</b>	<b>9,500/-</b>

**III. RAW MATERIALS (P.M.):**

<b>S. No.</b>	<b>Particulars</b>	<b>Qty.</b>	<b>Rate (Rs.)</b>	<b>Amount (Rs.)</b>
a.	CRC/BP sheet of 18,20,22,24 gauges	16 MT	38000/-MT	6,08,000/-
b.	M.S. pipe 18 SWG x 22mm dia.	780 Metr.	45/- P. Met.	35,100/-
c.	M.S. pipe 16 SWG x 15mm dia	1040Metr.	35/- P.M.	36,400/-
d.	M.S. rod 10mm dia.	100 Kg.	28/- P.Kg.	2,800/-
e.	Seat and back with wooden frame caned for chairs.	150 Pairs	250/- each	37,500/-
f.	Wooden handles for S-type chairs.	150 Pairs	45/- each	6,750/-
g.	Plastic niwar/cane for folding chairs.	50 Kg.	90/- P.Kg.	4,500/-
h.	Fasteners like, rivets, screws, nuts/bolts, gas refills etc.	L.S	2500/-	2,500/-
i.	Lock, handles and fittings.	L.S	L.S	15,000/-
j.	Paints, primers and chemicals etc.	L.S	L.S	8,000/-
k.	Packing materials like poly sheets, juts cloth etc.	L.S	L.S	4,000/-
			<b>Total Rs.</b>	<b>7,60,550/-</b>
			<b>Say Rs.</b>	<b>7,61,000/-</b>

**IV. OTHER EXPENSES (P.M.):**

a.	Postage, stationery and telephone charges	3,000/-
b.	Rent.	15,000/-
c.	Repair and maintenance.	2,000/-
d.	Transport and traveling.	5,000/-
e.	Consumable stores.	2,000/-
f.	Advertisement and publicity.	1,000/-
g.	Insurance.	1,000/-
h.	Sales expenses.	4,000/-
i.	Misc. expenses.	4,000/-
	<b>Total Rs.</b>	<b>37,000/-</b>

**V. TOTAL RECURRING EXPENDITURE (P.M.):**

a.	Personnel	80,000/-
b.	Utilities	9,500/-
c.	Raw materials.	7,61,000/-
d.	Other expenses	37,000/-
	<b>Total Rs.</b>	<b>8,87,500/-</b>

## VI. TOTAL CAPITAL INVESTMENT:

a.	Machinery and equipments	14,66,500/-
b.	Working capital for two months.	17,75,000/-
	<b>Total Rs.</b>	<b>32,41,500/-</b>

## G. MACHINERY UTILISATION:

The production capacity in this project profile is based on 75% capacity utilization of installed machinery. Although the efforts have been made to balance the production capacity at each stage of manufacture, yet in view of diverse processes and product mix the bottleneck operation may be the spot welding process in extreme cases.

## H. FINANCIAL ANALYSIS:

### 1. Cost of production (per month):

a.	Recurring expenses	8,87,500
b.	Depreciation on machinery and equipments @ 10% p.a.	10,500
c.	Depreciation on jigs, fixtures, dies etc. @ 20% p.a.	850
d.	Depreciation on office equipments, furniture etc. @ 20% p.a.	1250
e.	Interest on total capital @ 14% p.a.	37,800
	<b>Total Rs.</b>	<b>9,37,900/-</b>
	<b>Say Rs.</b>	<b>9,,38,000/-</b>

### 2. Sales Realization (P.M.):

S. No.	Items	Qty.(No.)	Average Price (Rs.)	Amount (Rs.)
a.	Steel almirah of size 76"x38"x19"	80 Nos.	5000/-	4,00,000/-
	-do- 48"x36"x18"	20 Nos.	4000/-	80,000/-
b.	Steel cup board of assorted sizes.	100 Nos.	4500/-	4,50,000/-
c.	Steel chairs ... folding type	150 Nos.	500/-	75,000/-
	-do- S-type	150 Nos.	500/-	75,000/-
d.	Steel sheet scrap	500 Kg.	18/-	70,000/-
			<b>Total Rs.</b>	<b>11,70,000/-</b>

### 3. Net Profit (P.M.) before Income Tax:

Sales realization	11,70,000/-	
Cost of production	9,38,000/-	
	<b>Total Rs.</b>	<b>2,32,000/-</b>

$$4. \text{ Net Profit ratio: } = \frac{2,32,000 \times 100}{11,70,000} = 19.8\%$$

$$5. \text{ Rate of return on Total Capital Investment: } = \frac{2,32,000 \times 12}{32,42,500} = 85\%$$

6. Break Even Analysis:

Fixed Cost (P.M.):

a.	Rent	15,000/-
b.	Insurance	1,000/-
c.	Depreciations	1,51,200/-
d.	Interest	37,800/-
e.	40% of salaries and wages.	32,000/-
f.	40% of other expenses and utilities except rent and insurance.	18,600/-
	<b>Total Rs.</b>	<b>2,40,900/-</b>

$$\text{B.E.P.} = \frac{\text{F.C} \times 100}{\text{F.C.} + \text{Profit}} = \frac{2,40,900 \times 100}{2,40,900 + 1,08,000} = 69.04\%$$



**Address of Machinery and Equipment Suppliers:**

**A. Shearing machine, folding press, Power Press:**

- a. M/s. Perfect Machine Tools Ltd., 44, E-Block, Connaught Circus, New Delhi.
- b. Essential Machine Tools P. Ltd., 5, Nayay Murti G.N.Vaidya Marg (Bank Street), P.O. Box-2, Fort Mumbai.
- c. M/s. Jeet Machine Tools, 48 Shardanand Marg, Delhi.

**B. Spot Welding machine, drilling machines, grinders, measuring Instruments etc.**

- a. M/s. Jeet Machine Tools, 48, G.B. Road, Delhi.
- b. M/s. Royal Sales Corpn., F-7 Udyog Nagar, Near Rohtak Road, New Delhi.
- c. M/s. Punjab Machine Tools, Dholewal Chowk, Ludhiana (Pb.) **Address**

**of Raw Materials Suppliers:**

From local/nearby suppliers/manufacturers.