



*A PROJECT PROFILE  
ON*

**ROLLING SHUTTERS**

**2010 - 2011**

*Prepared by :*

**MSME-DEVELOPMENT INSTITUTE**

**(GOVT. OF INDIA, MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES)**

A – Wing, 3<sup>rd</sup> Floor, CGO Complex, Sanjay Place,  
AGRA – 282002 ( UP )

**A PROJECT PROFILE  
ON  
ROLLING SHUTTERS**

**QUALITY STANDARD : As per buyer's requirement & IS : 6248**

**PRODUCTION CAPACITY : QUANTITY : 6,000 Sq. Mtrs.**  
**VALUE : Rs. 57,00,000/-**

**MONTH & YEAR OF PREPARATION : Jan., 2011**

**PREPARED BY INSTITUTE : Mechanical Division**  
**MSME – Development Institute**  
*A-Wing, 3<sup>rd</sup> Floor, CGO Complex,*  
*Sanjay Place, Agra – 282002 (UP)*  
*Ph. : (0562) 2523247,*  
*Tel. Fax : (0562) 2520626*

## **INTRODUCTION**

Rolling shutters are made of steel sheets & strips and are used as a flexible door panel in shops, godowns, workshop sheds. As the rolling shutters are wound over an overhead winding mandrill, the shutter will not give any problem for movement of people or vehicles through the door. The shutters roll upwards parallel to front wall not occupying any space of the floor and therefore, they are preferred for use in shops. Further, as these are made of steel sheets, they are strong, long lasting and safe.

## **MARKET POTENTIAL**

There is good demand for rolling shutters, as an item of common use in construction of shops, godowns, workshop sheds etc. They are sold directly to the users.

## **BASIS AND PRESUMPTION**

The basis and presumptions for the project will be as under:

1. The production of the unit has been worked out on the basis of single shift of 08 hours a day and 300 working days in a year.
2. It has been presumed that the capacity utilization of the unit will be 70% in the first year followed by 75% in the second year and 80% in the subsequent years.
3. The quoted salaries and wages have been taken as per the prevailing rate in state at the time of preparation of the project profile
4. The interest rate has been considered as 16% on capital investment on an average weather financed by any bank or financial institutions.
5. The margin money has been raised 25% of the capital investment.
6. The unit has been proposed to function in rented building. The rental value for accommodation of workshop, office and other covered / uncovered area is taken @ Rs. 50/- per sq. mtr.
7. The payback period has been considered as 5 years after loan disbursement.
8. The quoted cost of machinery, equipments and raw materials has been taken as per the rates prevailing in the market at the time of preparation of the project profile and likely to vary from place to place and supplier to supplier. When a tailor made project profile is prepared, necessary changes are to be made.

## **IMPLEMENTATION SCHEDULE**

The detail of activities with duration for implementation schedule of project will be as under :

1. Procurement of technical know how / transfer of technology	- 15 days
2. Market survey, tie-ups and obtaining quotations	- 15 days
3. Selection of site	- 07 days
4. Preparation of project report	- 07 days
5. Registration and financing	- 70 days
6. Procurement of machines	- 45 days
7. Recruitment of staff and training	- 30 days
8. Addition / alteration in rental premises	- 30 days
9. Procurement of raw material / bought out components	- 15 days
10. Erection, electrification and commissioning of machines	- 30 days
11. Trail production	- 30 days
12. Commercial Production	- 15 days

In order to efficient and successful implementation of the project in the shortest period the slack period is curtailed to maximum possible extent and as far as possible simultaneous activities are carried out. According to critical path method, the approximate time required to commence production may be considered as about 08 to 09 months

## **TECHNICAL ASPECT**

### **Manufacturing Process**

M.S. Strips of desired width are taken in coil form and fed to roller type sheet forming machine in which the rolling shutter profiles are formed. The spring steel wires are formed into springs shape in the spring coiling machine. The hand shearing machine and the press brake are used to frame fabrication. All the components are assembled and painted with red oxide primer.

### **Alternate Technology**

No alternative technology is suggestive in small-scale sector for this project. The use of proper tools and fixtures will not only increase rate of production but will also ensure quality of product.

### **Production Targets**

The unit will have the capacity to produce 6000 Sq. Mtrs. of rolling shutters per annum.

## Quality Control And Standards

The product is to be fabricated and inspected as per ISI specifications i.e. IS : 6248. Beside, IS specification; there are customer's specifications, which may be strictly followed too.

## Utilities

Power requirement	- 10 HP
Water requirement	- 250 K.Lt. per month

## Energy Conservation

The revolving / reciprocating parts of plant and machinery should be properly lubricated every time to avoid extra energy consumption. Layout of the unit should be in such manner to avoid backtracking of material. All electric switches may be kept off, when not required. Fluorescent tube with electronic chokes / Compact Fluorescent Tube (CFT) for general lighting may be used for energy saving. As far as possible, motor of correct inductive load should be used with improved power factor. Power factor may be improved by using the capacitors of appropriate rating.

## Pollution Control

The unit does not come under the category of polluting industries. Although, the minimum height of shed may be maintained with exhaust fans for removing decongestion, fumes, dust, etc. and to provide proper ventilation.

## FINANCIAL ASPECTS

### 1. Land and Building

On rent 200 Sq. Mtr. Covered area  
@ Rs. 50/- Sq. Mtr.

**10,000.00 PM**

### 2. Machinery and Equipment

<u>S.No.</u>	<u>Description</u>	<u>Ind/Imp.</u>	<u>Qty.</u>	<u>Value (Rs)</u>
i.	Roller type sheet profile forming machine for forming profiles continuously out of coil of 150 mm x 6' x18swg M.S. Strips	Ind.	01	70,000.00
ii.	Hand press brake, 2.5 meters	Ind.	01	30,000.00
iii.	Spring coiling machine (Hand operated)	Ind.	01	8,000.00

iv.	Hand shearing machine, 300 mm length of blade, capacity to cut 6 mm plate	Ind.	01	6,000.00
v.	Hand operated screw press No. 10, double pillar type	Ind.	01	10,000.00
vi.	Pillar drilling machine ¾" capacity 02 HP	Ind.	01	12,000.00
vii.	10" wheel capacity bench grinder 02 HP	Ind.	01	6,000.00
viii.	300 amp. Capacity welding transformer	Ind.	01	12,000.00

- Electrification and installation charges	20,000.00
- Testing and measuring equipments	15,000.00
	<b><u>1,89,000.00</u></b>

- Other tools and fixtures	15,000.00
- Office equipments	20,000.00
	<b><u>2,24,000.00</u></b>

### 3. Pre-Operative Expenses

( Project cost, non-refundable deposits etc.)	<b><u>20,000.00</u></b>
---	-------------------------

### 4. Fixed Capital

i. Land and Building	Rented
ii. Machinery and Equipments	2,24,000.00
iii. Pre-Operative Expenses	20,000.00
	<b><u>2,44,000.00</u></b>

### 5. Staff and Labour (per month)

<u>S.No.</u>	<u>Description</u>	<u>No.</u>	<u>Salary@</u>	<u>Value (Rs)</u>
i.	Supervisor / Foreman	01	6,000/-	6,000.00
ii.	Clerk cum cashier	01	5,000/-	5,000.00
iii.	Skilled workers	01	4,500/-	4,500.00
iv.	Semi-skilled workers	02	3,500/-	7,000.00
v.	Helpers	02	3000/-	6,000.00
vi.	Peon / Watchman	02	3000/-	6,000.00
				34,500.00
	- Perquisites @ 15% of salary			5,000.00
				<b><u>39,500.00</u></b>

**6. Raw Material (per month)**

i.	M.S. Strip 18-22G 5.5 MT of 150 mm width @ Rs. 45,000/-	2,47,500.00
ii.	Spring Steel Wire 3-6 mm dia. 750 Kg. @ Rs. 90/-	67,500.00
iii.	M.S. Tube sheets & flats 150 Kg. @ Rs.85/-	13,000.00
iv.	Bolts, nuts, rivets, etc.	15,000.00
		<b><u>3,43,000.00</u></b>

**7. Utilities**

i.	Electricity (L.S.)	12,000.00
ii.	Water (L.S.)	500.00
		<b><u>12,500.00</u></b>

**8. Other Contingent Expenses (per month)**

i.	Rent	10,000.00
ii.	Postage and Stationary	500.00
iii.	Advertisement	1,000.00
iv.	Repair and Maintenance	1,500.00
v.	Telephone	1,500.00
vi.	Transportation	1,500.00
vii.	Consumables	1,000.00
viii.	Insurance	3,000.00
ix.	Misc. Expenses	1,000.00
		<b><u>21,000.00</u></b>

**9. Working Capital (per month)**

i.	Staff and Labour	39,500.00
ii.	Raw Material	3,43,000.00
iii.	Utilities	12,500.00
iv.	Other Contingent Expenses	21,000.00
		<b><u>4,16,000.00</u></b>

**10. Total Capital Investment**

i.	Fixed Capital	2,44,000.00
ii.	Working Capital for 3 months	12,48,000.00
		<b><u>14,92,000.00</u></b>

## MACHINERY UTILIZATION

It is expected that during first year machine utilization will be 70% and during second year 75% and 80% in subsequent years. The suggested Plant & Machinery are sufficient to achieve the target, if utilized as per the recommendations made.

## FINANCIAL ANALYSIS

### 1. Cost of Production (per annum)

i. Total Recurring Cost per annum	49,92,000.00
ii. Depreciation on Machinery & Equipments @ 10%	19,000.00
iii. Depreciation on Tools, Fixtures etc. @ 25%	4,000.00
iv. Depreciation on Office Equipments @ 20%	4,000.00
v. Interest on Total Capital Investment @ 16%	2,39,000.00
	<b><u>52,58,000.00</u></b>

### 2. Turn Over (per annum)

By sales of 6,000 Sq. Mtrs of rolling shutter @ Rs. 950/- per Sq. Mtrs.	<b><u>57,00,000.00</u></b>
--	----------------------------

### 3. Net Profit (per annum before Income Tax)

$$\begin{aligned} &= \text{Turn Over (per annum)} - \text{Cost Of Production (per annum)} \\ &= 57,00,000 - 52,58,000 \\ &= \mathbf{4,42,000.00} \end{aligned}$$

### 4. Net Profit Ratio

$$\begin{aligned} &\frac{\text{Net profit} \times 100}{\text{Turn over}} \\ &\frac{4,42,000 \times 100}{57,00,000} = \mathbf{7.75 \%} \end{aligned}$$

### 5. Rate of Return

$$\begin{aligned} &\frac{\text{Net profit} \times 100}{\text{Total investment}} \\ &\frac{4,42,000 \times 100}{\text{Total investment}} \end{aligned}$$



$$14,92,000 = 29.60 \%$$

## BREAK EVEN ANALYSIS

### 1. Fixed Cost (per annum)

i. Total Depreciation	27,000.00
ii. Rent	1,20,000.00
iii. Interest on Total Capital Investment	2,39,000.00
iv. Insurance	36,000.00
v. 40% of Staff and Labour	1,90,000.00
vi. 40% of Other Contingent Expenses (Excluding rent & insurance)	38,500.00
	<b><u>6,50,500.00</u></b>

### 2. Break Even Point

$$\frac{\text{Fixed Cost} \times 100}{\text{Fixed cost} + \text{profit}}$$

$$\frac{6,50,500 \times 100}{6,50,500 + 4,42,000} = 59.50 \%$$

### **LIST OF MACHINERY AND RAW MATERIAL SUPPLIERS**

1. M/s, Sant Machine Tools,  
G.T. Road, Near Dholewal Chowk, Ludhiana..
2. M/s, Kalsi Machine Tools,  
Gill Road, Ludhiana.
3. M/s, Leading Engineering Corpn.,  
Anand Prabhat Industrial Estate, New Delhi.
4. M/s, Ess Kay Engineering Corpn. ,  
21/6 A, Freeganj Chowk, Agra
5. M/s, Jeet Machine Tools Corpn. ,  
G. B. Road, Delhi
6. M/s, Batliboi and Co.,  
Parliament Street, New Delhi.
7. M/s, Associated Engg. Projects,  
Opp. Modi Bagh, Delhi Road, Modinagar, Distt. Gaziabad.