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DOORS, WINDOWS AND VENTILATORS (METALLIC)

I. Product and its Uses

For conservation of forests the time has come to make alternatives to wood more popular. As a right step towards that goal, Doors, Windows and Ventilators made out of Steel Sections may play an important role. More and more buildings are coming up to accommodate ever increasing population in our Country as well as for other developmental activities viz., Industry, Institutions etc. It is envisaged that a large amount of timber may be saved if metallic doors, windows and ventilators are used. They are fire proof, insect proof, as well as weather resistant and their life span is much longer than wooden ones.

These items have very good demand potential and can easily be taken up by the skilled artisans. (Reserved list Sl. No. : 393).

II. Market Potential

There is a good demand for the items due to increase in building construction, industrialisation and other developmental projects in our country.

III. Production Targets (Per annum)

It is proposed to manufacture 84 tonnes (in weight) doors, windows and ventilators.

IV. Production Details & Process of Manufacture

Metallic doors, windows and ventilators are simple items and are made out of different M.S. Sections i.e. Rounds, Angles, Z-Sec etc. The sections are cut to required length and welded to the required designs of the doors & windows. These are drilled wherever it is necessary. The welded joints are ground with the flexible shaft grinder. Finally these are given a primer paint as rust preventive.

V. Quality Control

The items are covered under Indian Standards Specifications as given below:

(i) Steel Doors, Windows & Ventilators—I.S. No. 1038—1975.

(ii) Steel Windows for Industrial Buildings—I.S. No. 1361—1978.

(iii) Steel Door Frames—I.S. No. 4351 — 1976.

As the products are also made according to the special designs, care should be taken to observe the dimensional accuracy. Smoothness of the joints should also be checked.

VI. Land & Building

Land 200 Sq. Metres, Covered Area 100 Sq. Metres Rented @ Rs. 1000 per month — Rs. 1000

(Provisions for 3-Phase Electric Power. supply for 25 H.P. and water supply)

VII. Machinery & Equipments

	No.	Rs
1. Electric Welding Transformer, 300 Amps, complete with oil, cable & other accessories	1	10,000
2. Gas Welding Set complete with welding torch, regulator, pipe etc.	2	9,000
3. Drilling Machine 3/4" capacity with 1 H.P. Electric Motor & Starter	1	4,500
4. Portable Drilling Machine 1/2" capacity	1	3,500
5. Double Ended Grinder 10" wheel dia, 1 HP	1	2,500
6. Flexible Shaft Grinder, 1 HP, 10' Shaft	1	2,500
7. Lever Type sheet cutter	1	1,000
8. Power Press, Inclineable type, 10 tonnes capacity with 2 HP Elect. Motor & Starter	1	10,000
9. Workshop Tools, Dies etc.	L.S.	2,000
10. Erection & Installation charges 10%	L.S.	4,500
11. Office Furniture	L.S.	3,000
12. Taxes, packing & forwarding, transportation, insurance charges etc.	L.S.	7,000
		59,500

Note: Pre-operative expenses may also be added up while preparing detailed Project Report.

VIII. Staff & Labour (Per month)

1. Foreman Incharge	1	1,500
2. Skilled Workers @ Rs. 500 per month	2	1,000
3. Semi Skilled @ Rs. 450 per month	2	900
4. Helper @ Rs. 400 per month	2	800
5. Peon-cum-Chowkidar	1	400
6. Accountant--Part-time.	1	500
		5,100

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IX. Other Expenses (Per month)

	Rs.
1. Electricity	1,000
2. Oil and lubricants	200
3. Carriage and Freight	200
4. Postage and Stationery	100
5. Rent	1,000
6. Other unforeseen expenses	100
	2,600

X. Raw Material (Per month)

(Based on Prevailing Market Rates)	Tonnes	Rs.
1. M.S. Round 6mm to 12 mm	0•5	3,500
2. M.S. Strip 2mm to 10 mm	1·0	8,000
3. Angle Iron 2×22×20 to 50 mm	2·0	17,000
4. B.P. Sheets 20 to 26 G	0·6	4,800
5. M.S. Section (Z Type), various sizes	3·0	27,000
6. Nuts, Bolts, Hinges, Welding Rods, Paints etc.	L.S.	2,000
	7·1	62,300

XI. Working Capital (3 months)

(i) Staff and Labour 5100×3	15,300
(ii) Raw Material 62,300×3	1,86,900
(iii) Other Expenses 2600 ×3	7,800
	2,10,000

XII. Total Capital Investment

(i) Total Fixed Investment on Machinery and Equipment	59,500
(ii) Working Capital for 3 months	2,10,000
	2,69,500

XIII. Cost of Production (Per annum)

(i) Recurring Expenses 2,10,000 ×4	8,40,000
(ii) Interest on Total Investment 15%	40,440
(iii) Depreciation on Machinery @10%	5,950
	8,86,390
Say	8,86,400

XIV. Total Sales (Per annum)

	Rs.
By sale of 80 tonnes of doors, windows and ventilators at an average rate of Rs. 12,000 per tonne	9,60,000

XV. Profitability (Per annum)

Profit = Total Sales — Cost of Production

=9,60,000 — 8,86,400 Rs. 73,600

(a) Percentage of Profit on Sales =

$$= \frac{73,600 \times 100}{9,60,000} = 7 \cdot 6\%$$

(b) Percentage of return on Capital Investment :—

$$= \frac{73,600 \times 100}{2,69,600} = 27 \cdot 1\%$$

XVI. Break Even Analysis

Fixed Cost (Per annum)

(i) Rent	12,000
(ii) Interest on Capital	40,400
(iii) Depreciation	5,950
(iv) 40% of Salary	24,580
(v) 40% of Other Expenses	5,280
	88,250

$$\text{B.E.P.} = \frac{\text{Annual Fixed Cost} \times 100}{\text{Annual Fixed Cost} + \text{Profit}}$$

$$\text{B.E.P.} = \frac{88,250 \times 100}{88,250 + 73,200} = 54 \cdot 8\%$$

XVII. Names and Addresses of Suppliers of Machinery and Equipment

1. M/s. International Machine Tools Corpn., 5, Bank Street, P.O. Box No. 799, Fort, Bombay-400 023.
2. M/s. Oriental Machinery Pvt. Ltd., 25, Rajendra Nath Mukherjee Road, Calcutta-700 001.
3. M/s. Nandy & Co., 125, Belilivus Road, Howrah.
4. M/s. Mankoo Industries, 678, Industrial Area 'B', Ludhiana-141 003.
5. M/s. Milhard & Co. Pvt. Ltd., G.T. Road, Miller Gunj, Ludhiana-141 003.
6. M/s. Razia & Co., 16/17, Puttunoolkara Lane (Sammem Manzil), Coimbatore-641 001.

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