

Measuring Tapes (Steel)

PRODUCT CODE	:	349945004
QUALITY AND STANDARDS	:	IS 1270:1965
PRODUCTION CAPACITY	:	Qty. : 24000 Nos. (per annum) Value : Rs. 20.4 Lakhs
MONTH AND YEAR OF PREPARATION	:	April, 2003
PREPARED BY	:	Small Industries Service Institute 'C' Block, CGO Complex, Seminary Hills, Nagpur - 440006. Phone Nos. : 2510046, 2510352 Fax No. : 0712- 2511985

INTRODUCTION

Steel measuring tapes are used for measuring length or distances. These are handy items being encased in rolled form. As this is a small compact item, it can be easily carried from place to place in a pocket or small bags. For sturdiness and easy handling in outdoor activities such as on construction sites or sports fields or factories, executives prefer to have this item in their pockets. These are available in various lengths from 1 metre to 30 metres.

MARKET POTENTIAL

In view of increasing activities in construction, sports and games, new industries etc., the demand for measuring tapes will go on increasing. There are few units manufacturing this item. Therefore, there is good scope for new units to come up in this activity in various parts of the country.

BASIS AND PRESUMPTIONS

1. For the convenience of calculation and anticipated trend, the profile has been estimated for measuring tapes of 2 meters size only. 24000 tapes of this size will be made annually.
2. The unit proposes to work in one shift of 8 hours with 75% efficiency.
3. The costs of machinery and equipment as indicated in the profile refer to a particular make and are approximately those ruling at the time of preparation of this report.
4. The provisions made in respect of raw materials, personnel utilities, and overheads etc. are at the prevailing rates and approximate only.
5. The workshop shed has been taken on rental basis.

6. The rate of interest on loan has been considered @ 16% per annum.

IMPLEMENTATION SCHEDULE

Sl.No. Activity	Period
1. Selection of site	1 month
2. Preparation of project report	1 month
3. Provisional registration	1 week
4. Financial arrangement	3 months
5. Procurement of equipment	2 months
6. Installation, electrification and lighting of shed	2 weeks

Some of the activities can be undertaken simultaneously.

TECHNICAL ASPECTS

Process of Manufacture

The raw material required for this project that is available indigenously. The cases are made on power press by pressing sheet. Fasteners required for fixing these cases are purchased readymade from the market, steel strips are cleaned initially and marked by scale marking machine. The finally marked steel strips are assembled in casing.

The tapes have the following components:

1. Measuring strip
2. Spring coil strip
3. Base for coil
4. Cover for coil
5. Casting top
6. Casing bottom
7. Fixing screw

Quality Control and Standards

There is IS 1270:1965 available on this item. In view of the importance of the product as regards accuracy of

measurements, strict control and cent per cent checking is essential. Cases and measuring strip should give attractive finish, side by side, accuracy should also be maintained.

Production Capacity (per year)

Quantity	Value (In Rs.)
24000 Nos.	20.40 Lakhs

Motive Power 8 H.P.

Energy Conservation

The unit does not require any special type of energy conservation equipment other than proper utilization of machinery and equipment.

FINANCIAL ASPECTS

A. Fixed Capital

(i) Land and Building	(Rs.)
Covered area 200 sq.mtrs. on rented basis (per month)	5000

(ii) Machinery and Equipment

Sl. Equipment No.	Qty.	Value (In Rs.)
1. Power press, Inclinable 20 tonnes capacity with motor etc.	2	1,77,000
2. Abrasive cutting machine	1	8,250
3. Spring coiling machine	1	22,000
4. Rivetting machine	1	10,000
5. Hand operated linear dividing Machine for scale marking, table size 1260 × 175 mm with accessories	1	5,75,000
6. Stamping machine eccentric press	1	6,000
7. Work benches, vice hand tools etc.	LS	15,000
8. Dies and tools		20,000
9. Testing instruments		15,000
10. Office furniture/equipment		15,000

<i>Electrification and installation @ 10% of the cost of machinery</i>	79,850
Total	9,43,100
(iii) Pre-operative Expenses	20,000
Total Fixed Capital (ii+iii)	9,63,100

B. Working Capital (per month)

(i) Personnel

Sl. No.	Designation	No.	Salary (Rs.)	Total (In Rs.)
1.	Manager	1	6500	6500
2.	Clerk/Accountant	1	4500	4500
3.	Skilled Workers	4	4500	18000
4.	Semi-skilled Workers	3	3500	10500
5.	Watchman-cum-peon	1	3000	3000
6.	Sweeper (part time)	1	1000	1000
	<i>Perquisites @ 15%</i>			6500
	Total			50000

(ii) Raw Material		(In Rs.)	
1.	Cold roll strip, 30 swg @ Rs. 22/kgs	700 kg	15400
2.	Tin plate 28 swg @Rs. 35/kg	500 kg	17500
3.	Spring strip and wire @Rs. 20/kg	400 kg	8000
4.	M.S. strip @ Rs. 16/kg	200 kg	3200
5.	Fasteners	LS	6000
6.	Printing ink		2000
7.	Misc. items		2000
	Total		54100

(iii) Utilities		(In Rs.)	
	Power		3,000
	Water		500
	Total		3,500

(iv) Other Contingent Expenses		(Rs.)	
1.	Rent		5,000
2.	Postage and stationery		1,000
3.	Packing		2,000
4.	Transport and conveyance		2,000
5.	Repairs and maintenance		2,000
6.	Misc. expenses		1,000
	Total		13,000

(v) Total Recurring Expenditure (Rs.)	
Salaries and wages	50,000
Raw Materials	54,100
Utilities	3,500
Other contingent expenses	13,000
Total	1,20,600

(vi) Total Working Capital (on 3 Months Basis)

Rs. 1,20,600 × 3 = **Rs. 3,61,800**

C. Total Capital Investment

(a) Fixed capital	Rs. 9,63,100
(b) Working capital for 3 months	Rs. 3,61,800
Total	Rs. 13,24,900

FINANCIAL ANALYSIS

(1) Cost of Production (per year) (In Rs.)	
Total recurring expenditure	14,47,200
Depreciation on tools and office equip. @ 20%	7,000
Depreciation on machinery @ 10%	79,825
Interest on total investment @ 16%	2,12,000
Total	17,46,025
Say	17,46,000

(2) Total Sales (per annum)

By sale of 24,000 steel tapes @ Rs. 85 each
Rs. 20,40,000

(3) Profit (per year)

Profit = Total Sale – Cost of Production

Rs. 20,40,000 – Rs. 17,46,000 = **Rs. 2,94,000**

(4) Net Profit Ratio

$$= \frac{\text{Net profit per year} \times 100}{\text{Turnover per year}}$$

$$= \frac{2,94,000 \times 100}{20,40,000}$$

$$= 14.4\%$$

(5) Rate of Return

$$= \frac{\text{Net profit per year} \times 100}{\text{Total investment}}$$

$$= \frac{2,94,000 \times 100}{13,24,900}$$

$$= 22.2\%$$

(6) Break-even Point

Fixed Cost	(In Rs.)
Rent	60,000
Depreciation on Office Equipment	7,000
Depreciation on Machinery	79,825
40% of Salary and Wages	2,40,000
40% of Other Contingent Expenses (excluding rent)	38,400
40% of Utilities	16,800
Total	4,42,025

$$\begin{aligned}
 \text{B. E. P.} &= \frac{\text{Fixed Cost} \times 100}{\text{Fixed Cost} + \text{Profit}} \\
 &= \frac{4,42,025 \times 100}{4,42,025 + 2,94,000} \\
 &= \mathbf{60\%}
 \end{aligned}$$

Addresses of Machinery and Raw Material Suppliers*Linear Dividing Machine*

1. M/s. Garlick Engineering
Garlick House, 414,
Senapati Bapat Marg,

Lower Parel,
Mumbai-13.

Other Machines

1. M/s. International Machine Tools Corporation
5, Bank Street,
Behind State Bank,
Mumbai-23.
2. M/s. Machine Tools Impex
73, Ganesh Ch. Avenue,
Kolkata-700023.

Material Suppliers

1. M/s. Hindustan Steels Ltd.
Sales Office at Kolkata,
Mumbai, Delhi, Chennai.
2. M/s. Ahmedabad Advance Mills Ltd.
Metals Division,
Station Road,
Navsari-396445.
3. M/s. Anil Steel and Industries Ltd.
P.B. No. 174,
Jaipur-302001.