

Canvas Shoes

PRODUCT CODE	: 30130100
QUALITY AND STANDARDS	: IS 3935:1966
PRODUCTION CAPACITY	: Quantity: 1,20,000 Pairs (per annum) Value: Rs. 84,00,000
MONTH AND YEAR OF PREPARATION	: March, 2003
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INTRODUCTION

Canvas shoes are extensively used by Armed Forces, Police, Home Guards and NCC etc. and are also used by civilians for casual wear and sports. These shoes are gaining popularity among students and children. As the name indicates the shoes are made with upper of canvas and with rubber sole by vulcanization process. The increasing popularity of canvas shoes for general use is due to its cheap cost and comfort in use. Students also use them for physical training and other sports and games.

MARKET POTENTIAL

Footwear is a part of the apparel which protects the foot from vagaries of nature, in addition to meeting other necessities of the human beings like fashion, customs etc. which have a bearing on the requirement of footwear. Canvas shoe is one of them.

The rubber and canvas shoes are mostly manufactured by large scale units like Bata, Carona etc. Now-a-days there are large number of small scale units manufacturing canvas shoes in West Bengal, Punjab, Kerala, Maharashtra, Rajasthan, Delhi, Haryana and Noida etc. The installed capacity of this industry is estimated at 30 million pairs per annum. However, 70% of its capacity is utilized. Demand of these shoes is increasing day-by-day due to its cheap prices and usefulness which is estimated to further increase by 8 -10% per annum. There is bright scope to set up new small scale units in various parts of the country.

BASIS AND PRESUMPTIONS

1. The Project Profile has been prepared on the basis of single shift of 8-hrs. a day and 25-working days in a month at 75% efficiency.
2. It is presumed that in the 1st year, the capacity utilization will be 70%

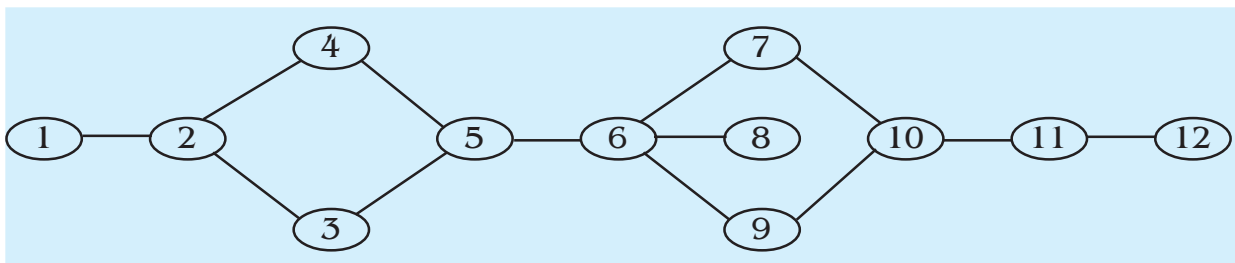
followed by 85% in the next year and 100% in the subsequent year.

3. The rates quoted in respect of salaries and wages for skilled workers and others are on the basis of minimum rates.
4. Interest rate for the fixed and working capital has been taken @ 15% on an average whether financed by the Bankers or Financial Institutions.
5. The margin money required is minimum, 30% of the total capital investment.
6. The rental value for the accommodation of office, workshop and other covered area has been taken @20 per sq. mtr.
7. The rates quoted in respect of machinery, equipment and raw materials are those prevailing at the time of preparation of the Project Profile and are 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.
8. The pay back period may be 5 years after the initial gestation period.
9. The gestation period in implementation of the project may be to the tune of 6 to 9 months which includes making all

arrangements, completion of all formalities, market surveys and tie-ups etc. Once all the above arrangements are made and quality/standards achieved, 100% project capacity may be achieved at the end of three years. However, a detailed PERT/CPM/ chart with implementation period has been given in the report.

IMPLEMENTATION SCHEDULE

The implementation of the project includes various jobs/exercises such as procurement of technical know how, transfer of technology, market surveys and tie-ups, preparation of project report, selection of site, registration, financing of project, procurement of machinery and raw materials etc., recruitment of staff, erection/commissioning of machines, trial production and commercial production etc. In order to efficiently and successfully implement the project in the shortest period the slack period is curtailed to minimum possible and as far as possible simultaneous exercises are carried out. In view of above a CPM-PERT Chart has been illustrated below. According to which a minimum period of 227 days is involved in finally starting the project on commercial basis. By following this process a time period of 82 days can be saved.



Details of Activities

C.P.M.

Activity	Days	Activity	Days	Particulars of Activity
1-2	15	1-2	15	Procurement of Tech. know how/ transfer of technology.
3-4	15	3-4	15	Market survey, tie up and obtaining quotations.
4-5	7	2-3	7	Selection of site.
5-6	70	4-5	7	Preparation of Project report
6-7	45	5-6	70	Registration and financing.
7-10	30	6-7	45	Placement of orders for machinery and receipt of machines.
10-11	30	6-8	30	Recruitment of staff and training
11-12	15	6-9	30	Addition/Alteration in rental premises
		8-10	15	Procurement of raw material/Bought out components
		7-10	30	Erection, Electrification and Commissioning
		10-11	30	Trial Production
		11-12	15	Commercial Production
Total	227 days		309 days	

TECHNICAL ASPECTS

Process of Manufacture

The process is divided in four departments viz:

1. Rubber Mixing Section.
 2. Canvas upper Checking and sewing section.
 3. Assembly Section
 4. Finishing and packing section.
1. In rubber mixing section, rubber mixture for sole is mixed, taking 100 parts rubber, 50 parts filler, 4 to 5 parts sulphur, $\frac{1}{2}$ part of organic accelerators and 3 to 4 parts pine oil. The fixing gum contains 15% more raw rubber and 3 to 5% resin. This cement is

also prepared by mixing this mixture in mixing well thoroughly and then placing it in a chamber which has a tank fitted with electrically operated paddle. Naptha is added to the mixture where the mixture is churned out for calendaring the cloth for making rubberized cloth for tongue thick insole and for applying this binder for lasting. Thick cement is used for tongue and then for sole. Neptha is added accordingly for outer sole, rubber is spread and soles are checked.

2. The various components of canvas uppers are cut stitched, eyelets are fixed on upper by machine. The innersole is placed

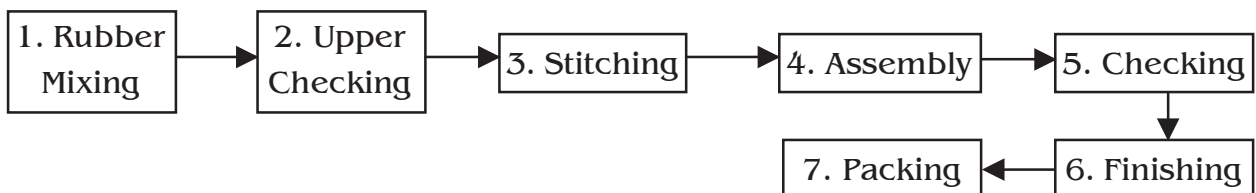
on lasts and the upper pressed with hand roller and the bottom is pasted.

3. Cement is applied on bottom of shoes and sole is placed on it and pressed with roller. Noak is pasted on toe. For cement fixing a string of proper length is taken in extender and is pasted all around the edge of shoes. Pressure is applied through metal roller. The pasted shoes are placed on metal lears of metal framed trollies for vulcanizing. The vulcaniser is a horizontal circular shaped shell boiler with steam coils. Air

pressure is used for compacting the rubber and to shorten the vulcanizing time. The trollies with the lasted shoes are pushed into the vulcaniser. The vulcaniser is closed and air pressure is applied. There must be sufficient steam in the coils to let up to 275 F. After the vulcanization is complete the goods are taken out. The time is 5 to 15 minutes depending upon the accelerator used.

4. After cooling the shoes are stripped from lasts inspected for defects, laced and packed.

Process Flow Chart



Quality Control and Standards

IS 3935:1966 Canvas shoes with rubber sole.

Production Capacity

Quantity: 1,20,000 Pairs.

Value: Rs. 84,00,000

Motive Power

1000 KW/monthly

Water 25000 K.L./monthly

Pollution Control

1. There is no pollution in the manufacture of Canvas Shoes.
2. Minimum height of shed will be maintained and exhaust fans

should be installed for removing decongestion with proper ventilation, removal of cokes fumes etc.

Energy Conservation

The following steps may be taken for the conservation of energy.

1. Machinery and Equipment's parts, which are revolving and reciprocating should be properly, lubricated from time to time with suitable lubricant oil.
2. Lay out of the unit should be in such a way in that no back tracking of material is there.
3. All electric switches may be turned off, when not required.

4. The entire transmission belt may be tightened before starting the work, wherever applicable.
5. Fluorescent tube with electronic Chokes may be used for energy saving. Further recently developed compact fluorescent tubes called (CFT) of 10, 15 watts may be used for energy saving and decoration. These self ballasted fluorescent lamps are high efficiency replacements for ordinary bulbs. For same light output, CFLEBs consume about one-fifth the power consumed by ordinary bulbs, thereby saving a lot of energy. The savings get further multiplied when CLEBs are used in air conditioned areas, since the saving of energy by using CLEBs also corresponds to less heat dissipation reducing load on air conditioners. The life of CFLEBs is about 8000/10000 hours i.e. about 10 times that of ordinary bulb.

The typical payback period in terms of savings of energy bills

and cost of ordinary lamps is about 6 months operation. Unlike ordinary bulbs, these CFLEBs provide choice of three colours designated A, B and C, to suit individual requirements.

Electronic Ballast, with protection against high voltage spikes, along with high quality CFLs make these composite CFLEBs (or self ballasted CFLs) Slim, lightweight, efficient and reliable units.

6. As far as possible Solar Energy and day light may be used keeping all the other lights off.
7. As far as possible inductive load of motor may be reduced and high power factor may be used with the aid of capacitors of appropriate sizes.

FINANCIAL ASPECTS

A. Fixed Capital

(i) Land and Building (rented) (Rs.)

On Rent @ Rs.20 Sq. meter 1000 sq. mtr. 12,000
Covered Area 600 Sq. meter

(ii) Machinery and equipments

Sl. No.	Description	HP/kW (Rs.)	Ind/Imp.	Qty.	Value (Rs.)
<i>Production Unit</i>					
Name of machine with specification					
1.	Mixing mill 14"x36" with chilled cast rolls with reducing gear 50 HP motor		Ind.	1	1,20,000
2.	Rubber spreading m/c. 12"x 30" with 25 HP motor		Ind.	1	45,000
3.	Vulcaniser 9'x5'		Ind.	1	40,000
4.	Boiler 10 NHP (Baby)		Ind.	1	20,000
5.	Embossing m/c.		Ind.	1	4,000
6.	Chunner with 1 HP motor		Ind.	1	20,000
7.	Eyeleting m/c.		Ind.	4	20,000
8.	Clicking press 5 tonne power operated with 5 HP motor		Ind.	2	30,000

Sl. No.	Description	HP/kW (Rs.)	Ind/Imp.	Qty.	Value (Rs.)
9.	Sewing m/c. industrial power operated with ¼ HP motor		Ind.	10	40,000
10.	Aluminium and Iron Shoe lasts		Ind.	100	70,000
11.	Extruder for fixing		Ind.	1	14,000
12.	Moulds and dies for upper and bottom clicking		Ind.		25,000
13.	Trollies				25,000
14.	Office equipments				50,000
15.	Printing and marking m/c. power operated with 2 Hp motor				10,000
16.	Storing tank for naptha etc.				6,000
17.	Calendering m/c. for cloth 8"x24" with 20 HP motor				80,000
18.	Miscellaneous equipments				20,000
19.	Installation and electrification @ 10%				63,900
				Total	7,02,900
	Appx. Requirement of power 125 HP				10,00,000
				Total	17,02,900

B. Working Capital (per month)

(i) Staff and Labour (per month)

Personnel

Sl. No.	Designation	No.	Salary (Rs.)	Total Value (Rs.)
<i>(a) Administrative and Supervisory</i>				
i)	Manager cum Chemist	1	10000	10,000
ii)	Accountant cum Cashier	1	4000	4,000
iii)	Clerk cum Typist	1	3000	3,000
iv)	Storekeeper	1	3000	3,000
v)	Salesman	1	4000	4,000
v)	Watchman/peon/sweeper	3	2500	7,500
<i>(b) Technical Skilled and Un-skilled</i>				
	Supervisor/	1	5000	5,000
	Foreman	1	7000	7,000
	Skilled Worker/machine operator	20	4000	80,000
	Semi Skilled Worker	14	3000	42,000
	Unskilled Worker	12	2000	24,000
	Mechanic cum electrician	1	3000	3,000
			Total	1,92,500
	<i>Perquisites @ 15 %</i>			28,875
			Total	2,21,375

(ii) Raw Material (per month)

Sl. No.	Description with Specification	Qty.	Rate (Rs.)	Value (Rs.)
1.	Canvas	1250 metre	@35 per metre	43,750
2.	Lining	1250 "	15 "	18,750
3.	Rubber sole/ insole	1250 kgs	40 "	50,000
4.	Rubber Patti	500 "	15 "	7,500
5.	Rubber sheet for toe	630 "	20 "	12,600
6.	Tape Cotton	10000 pairs	1	10,000
7.	Insole calender cloth	"	3	30,000
8.	Counter for rubberized cloth	"	3	30,000
9.	Laces	"	1	10,000
10.	Packing	"	3	30,000
11.	Other grinders	"	1	10,000
			Total	2,52,600

(iii) Utilities (per month)

	(Rs.)
Electricity	25,000
Fuel/water	10,000
Total	35,000

(iv) Other Contingent Expenses (per month)	
1. Rent	12,000
2. Postage and Stationery	1,000
3. Advertisement	4,000
4. Repair and maintenance	1,000
5. Telephone	500
6. Transportation	1,000
7. Consumable	2,000
8. Sales expenses	3,000
9. Insurance	1,000
10. Misc. Expenses	500
Total	26,000

(v) Total Recurring Expenditure (per month) (Rs.)	
1) Salary and Wages	2,21,375
2) Raw Material	2,52,600
3) Utilities	35,000
4) Other Contingent Expenses	26,000
Total	5,34,975
(vi) Working Capital for three months	16,04,925

C. Total Capital Investment

Fixed capital	Rs. 17,22,900
Working capital for 3 months	Rs. 16,04,925
Total	Rs. 33,27,825

MACHINERY UTILIZATION

It is expected that during first year machine utilization will be 70% and during second year 85% and 100% in subsequent years.

FINANCIAL ANALYSIS

(1) Cost of Production (per annum) (Rs.)	
(a) Total Recurring Cost	64,19,700
(b) Depreciation on Machinery and Equipments @ 10%	51,400
(c) Depreciation on Moulds @ 20%	19,000

Cost of Production (per annum) (Rs.)	
(d) Depreciation on Office Equipments @ 20%	10,000
(e) Interest on Total Capital Investment @ 15%	4,09,174
Total	71,18,074

(2) Turnover (per annum)

Sl. No.	Description	Qty.	Rate (Rs.)	Value (Rs.)
1	Canvas Shoes	1,20,000 pairs	70 per pair	84,00,000

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

$$\begin{aligned}
 &= \text{Turn over} - \text{Cost of Production} \\
 &= 84,00,000 - 71,18,074 \\
 &= \text{Rs. } 12,81,926
 \end{aligned}$$

(4) Net Profit Ratio

$$\begin{aligned}
 &= \frac{\text{Net profit} \times 100}{\text{Turnover}} \\
 &= \frac{12,81,926 \times 100}{84,00,000} \\
 &= 15.26\%
 \end{aligned}$$

(5) Rate of Return

$$\begin{aligned}
 &= \frac{\text{Net profit} \times 100}{\text{Total investment}} \\
 &= \frac{12,81,926 \times 100}{33,27,825} \\
 &= 38\%
 \end{aligned}$$

(6) Break-even Point

Fixed Cost (per annum) (Rs.)	
(a) Total Depreciation (on m/c. and equipment, dies, tools, furniture)	80,400
(b) Rent	1,44,000
(c) Interest on borrowing (Total Investment - 15%)	4,09,174
(d) Insurance	12,000
(e) 40% of salary	10,62,600
(f) 40% of other contingent expenses (Excluding rent and insurance)	62,400
Total	18,60,574

B.E.P.

$$\begin{aligned}
 &= \frac{\text{Fixed Cost} \times 100}{\text{Fixed cost} + \text{profit}} \\
 &= \frac{18,60,5740 \times 100}{18,60,5740 + 12,81,926} \\
 &= 59.21\%
 \end{aligned}$$

Addresses of Machinery Suppliers

1. M/s. Sohal Engg. Works,
L.B. Shastri Marg, Bhan Deep,
Mumbai-400078
2. M/s. Indian Expeller Works P.
Ltd.
A/4, Narodo Indl. Estate,
Ahmedabad-382330.

3. Premier Engg. Works, Sirhind
(Punjab)

Raw Material Suppliers

Rubber Chemicals and Colour

1. M/s. Imperial Chemical Inds. Ltd.
Crescent House, Willet Road,
Ballard Estate, Mumbai
2. M/s. Chika Ltd.
Mehata Chambers,
13, Mathew Road, Mumbai.
3. M/s. Mensants Chemical (India)
Ltd.
Wake Fields House, Ballard Estate,
Mumbai.