

# CHILDREN SHOES BY INJECTION MOULDING

## INTRODUCTION

The Leather Industry is one of the oldest and traditional industries, which are mainly concentrated in the cottage and small-scale sector in India. There are hardly a few large-scale organized units in India, which account for less than 8 % of total output of children shoes in the country. The rest is made in cottage and small-scale sector.

Making of shoes with hand made process is a skilled job of crafts and due to this reason like other crafts shoe making is also restricted to certain places like Agra, Kanpur, Delhi, Calcutta Madras & Bombay and to particular community of workers. Generally, the children shoe sole is attached to the lasted upper by stuck-on process - but it is better if the sole is attached by direct injection process, so that this product is more durable.

These children shoes are more comfortable and durable and they can be used for school-going children as well as for other purposes.

## MARKET

There is ever increasing demand for leather footwear both India and abroad with the increased awareness of personal hygiene and spread of education almost all the people in the country have started wearing leather footwear. Moreover, the population of the country is ever going up resulting in higher and higher demands of the consumer item. India has the capacity to meet about 17% of world raw-leather requirements. However, at present, our production capacity in the footwear sector is very low, compared to countries like Japan, South Korea, etc, our productivity area at the best factory does not exceed 13 pairs in Japan and 7.89 pairs in South Korea. In view of both national requirement and vast export potential, there is immense scope for further promotion of this industry in the country.

## BASIS AND PRESUMPTIONS

1. The production is based on single shift basis of 8 hours per day and 25 numbers of working days in a month.
  2. Five years period for achieving full capacity utilization.
  3. Lab our will be engaged on monthly basis keeping in view the present rates prevailing in the market.
  4. The interest rate for fixed and working capital is 16% per annum.
  5. Margin money of the total investment – 25%
  6. Pay back period is 10 to 12 years.
  7. Land and building – Rented.
- Covered area – 4000 sq. ft. (Rented) – Rs.10,000/- p.m.

## IMPLEMENTATION SCHEDULE

It will take one year's to complete all the formalities starting the commercial production.

## TECHNICAL ASPECTS

[1] Process of Manufacture:

As per graded pattern of various sizes for both upper and lining, the components are cut and supplied to closing section. In closing section, the edges of the skived uppers are folded; the lining is pasted wherever necessary with the upper and stitched. After completion of stitching operation, decorative treatment on upper such as punching, fixed of eyelets, etc, is also done.

In the making section, the uppers are lasted by machine. The lasted moulds are obtained and fitted in the machine. The PVC granules are fed according to the requirement into a heated cylinder from a topper. The injection cycle with closing and locking of the moulds under pressure applied automatically under pneumatic power. When the PVC granules in the cylinder is sufficiently softened by heat, the same is forced forward by raw action through an intermediate channel into the mould until it has cooled down to a state of sufficient rigidity and the pressure into moulds relaxed. The time cycle, therefore, can be adjusted into several stages, namely, mould filling time, dwell time under pressure, cooling time and mould opening time.

The main operations are:

- (1) Feeding of PVC granules into the hopper
- (1) Timing of the surplus materials
- (2) Cleaning
- (3) Checking and packing.

[2] Quality Specifications:

The quality of a product depends upon strict supervision and use of correct material according to the specification. In the DIP construction care should be taken while roughening the upper .If they over roughed, the fibers will be weakened .The adhesive should be properly applied to obtain permanent bond.

[3] Production Capacity

Quantity: 75000 Pairs  
Value: Rs. 1,84,50,000/-

[4] Approximate Motive power: **20 H.P**

[5] Pollution Control

This industry will not generate any type of pollution.

[6] Energy conservation

Energy conservation in this type in un its is much on the lover side since low powerd motors are used in the production activity. The staff of the unit should be made aware of the need to conserve energy by switching off energy sources when not required.

**FINANCIAL ASPECTS**

[1] Land and Building: 4,000 sq. ft. - Rented: Rs10, 000/- per month.

[2] Machinery & Equipment

Sl.No.	Description	Imp / Ind	Qty	Value (Rs.)
1.	Hydraulic Sewing Arm Upper Clicking Machine	Ind	1	75,000
2.	Upper Skiving M/c	Ind	1	55,000
3.	Punching & Eyeleting M/c (Treadle Operated)	Ind	1	10,000
4.	Upper Folding M/c	Imp	1	85,000
5.	Stamping M/c for Upper & Lining	Ind	1	15,000
6.	Flat bed sewing machine (Power operated)	Ind	4	48,000
7.	Post bed single needle machine (Power)	Imp	2	1,50,000
8.	Cylinder bed sewing machine	Imp	2	1,60,000
9.	Zig Zag Sewing Machine (Power)	Imp	1	80,000
10.	Toe lasting machine	Imp	1	8,00,000
11.	Seat lasting machine	Imp	1	8,00,000
12.	Double ended buffing and brushing machine	Ind	1	25,000
13.	Injection Moulding Machine (fully automatic)	Imp	1	10,00,000
14.	Cost of moulds	---	-	1,50,000
15.	Spare parts for imported machinery @ 10%	Imp	-	3,07,500
16.	Wooden lasts @ 250 per pair for 400 pairs	Ind	-	1,20,000
17.	Tools and equipment, dies for upper	Ind	-	60,000
18.	Office equipment and furniture	Ind	-	50,000
19.	Electrification and installation charges @ 10% of the cost of machinery	---	-	3,30,300
	<b>Total</b>	---	-	<b>43,20,800</b>
	<b>Say</b>			<b>43,21,000</b>

[3] Pre-operative expenses: -----Rs.49,000/-

Total Fixed Capital (2+3): -----Rs.43,70,000/-

**WORKING CAPITAL**

**(A) Staff & Labour**

Sl.No.	Personnel	No.	Salary (Rs.)	Amount (Rs.)
1.	Manager (Production)	1	7,000	7,000

2.	Manager (Sales)	1	7,000	7,000
3.	Designer	1	6,000	6,000
4.	Supervisor	2	4,500	9,000
5.	Skilled Worker/Machine Operator	20	3,000	60,000
6.	Unskilled Worker	10	2,500	25,000
7.	Accountant	1	4,500	4,500
8.	Clerck cum Typist	1	3,500	3,500
9.	Storekeeper	1	2,500	2,500
10.	Peon cum Chawkidar	1	2,000	2,000
11.	Sweeper	1	1,500	1,500
	Total			1,28,000
	+ Perquisites @20%			25,600
<b>Total Say</b>				<b>1,53,600</b>
				<b>1,54,000</b>

**(B) Raw Materials (Per Month)**

SI.No.	Description	Qty.	Rate (Rs.)	Value (Rs.)
1	FC Upper	112500 dcm	4/dcm	4,50,000
2	Softy lining	62500 dcm	3/dcm	1,87,500
3	Leather Board	6250 pairs	3/pair	18,7P50
4	Canvass	625 mtrs	30/mtr	18,750
5	PVC Materials (Black/Colour)	6250 Pairs	35/pair	2,18,750
6	Adhesive & grinderies	6250 pairs	15/pair	93,750
7	Packing materials	-do-	6/pair	37,500
<b>Total</b>				<b>10,25,000</b>

**(C) Utilities (Per Month)**

SI.No.	Description	Qty.	Value (Rs.)
1	Power – 20 HP	4,000 units	6,000
2	Domestic light	400 units	800
3	Water Charges		200
<b>Total</b>			<b>7,000</b>

**D) OTHER CONTINGENT EXPENSES (PER MONTH)**

SI.No.	Item	Amount (Rs.)
1.	Rent	10,000
2.	Postage and Statiionery	2,000
3.	Repairs and Maintenance	3,000
4.	Consumable Stores	2,000
5.	Transport Charges	5,000
6.	Advertisement and Publicity	5,000
7.	Taxes	4,000
8.	Insurance	3,000
9.	Sale Expenses	4,000
10.	Misc.Expenses	2,000
<b>Total</b>		<b>40,000</b>

**(E) Total Recurring Expenditure (Per month)**

Total Working Capital  
 (a+b+c+d)-----Rs.12,26,000/-  
 Total Working Capital for 3 months-----Rs.36,78,000/-

**5 TOTAL CAPITAL INVESTMENTS**

(i) Fixed Capital -----Rs.43,70,000/-  
 (ii) Working Capital for 3 months----- Rs.36,78,000/-  
**Total -----Rs.80,48,000/-**

**6. MAC HINERY UTILISATION**

Initially, there will be 60% utilization of major machinery and thereafter it will be increased @ 10% per year and 100% utilization will be achieved during the course of next five years.

**FINANCIAL ANALYSIS****1. (I) Cost of Production per annum**

(i) Total recurring cost per year -----1,47,12,000  
 (ii) Depreciation on machinery @ 10% -----3,30,300  
 (iii) Depreciation on furniture, tools & equipment @20%----- 22,000  
 (iv) Depreciation on wooden last @ 20% -----24,000  
 (v) Interest on total investment @ 15% -----12,87,680  
**Total -----Rs.1,63,75,980**

**(2) Turnover (per year)**

Sl.No.	Item	Qty.	Rate (Rs.)/Per Pair	Value (Rs.)
1.	Childeren Shoes	75,000	246	1,84,50,000

**(3). Net Profit per year before taxation**

Turn over -----1,84,50,000  
 Cost of production -----1,63,75,980  
**Profit -----20,74,020**

**(4). Net Profit Ratio**

$20,74,020 \times 100 / 1,84,50,000$   
 = **11 %**

**(5).Rate of Return on Total Investment**

$20,74,020 \times 100 / 80,48,000$   
 = **26 %**

**(6). Break Even Point**

Fixed Cost

(i) Depreciation on machinery -----3,30,300  
 (ii) Depreciation on furniture, tools, equipments----- 22,000  
 (iii) Depreciation on wooden last -----24,000  
 (iv) Interest on total investment----- 12,87,680  
 (v) 40% salaries -----7,39,200  
 (vi) 40% of other expenses----- 1,44,000  
 (vii) Rent for one year -----1,20,000  
 (viii) Insurance -----36,000  
**Total -----Rs 27,03,180**

**BEP:**

$F.C. \times 100 / F.C. + Profit$   
 $27,03,180 \times 100 / 27,03,180 + 20,74,020$   
 $27,03,180 \times 100 / 47,77,200$   
 = **56 %**

**Addresses of Raw Material Suppliers**

- M/s Abdul Wahid & Co  
 19, Vapary High Road  
 Chennai – 600 043
- M/s Tamil Nadu Leather Development Corp., Ltd  
 857, Periyar EVR High Road  
 Kilpauk, Chennai – 600 010

3. M/s Valliappa Leather Corporation  
3/5 & 6, Narayana Chetty Street  
Periamet, Chennai – 600 003
4. M/s Bharani Agencies  
126, Thambuchetty Street, 3rd Floor  
Chennai – 600 001
5. M/s Synthokem Industries  
5, Hindi Prachar Sabha  
Chennai – 600 001
6. M/s Omega Poymicrous Pvt Ltd  
3/A, M.V. Badran Street (1st Floor)  
Periamet, Chennai – 600 003
7. M/s J.P. Coats (P) Ltd  
Opp. Arts Crawford Market  
Mumbai – 400 003
8. M/s Modi Thread  
Modi Nagar (UP)

**Addresses of Machinery Suppliers**

1. M/s Bharat Sales Agencies  
Greshon Assurance House  
3rd Floor  
Sir PM Road  
Mumbai – 1
2. M/s Harmen Sales Union  
24, Kala Bhavan, Mathew Road  
Mumbai - 4