

Sports Footwear

PRODUCT CODE	: 291201008 and 291405002.
QUALITY AND STANDARDS	: Consumer's Specification as agreed to between the manufacturers and the buyers
MONTH AND YEAR OF PREPARATION	: February, 2003.
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INTRODUCTION

Sports goods industry is one of the major export oriented Industry in India. The industry is mostly concentrated at Jalandhar and Meerut. There are of course, other places also where sports goods items are manufactured to some extent. Kolkata, Mumbai, Delhi and Indore are among them.

Two types of industries are mostly concentrated at Jalandhar and Meerut, one is leather-based industry and the other is wood-based industry. Like other Branches of sports goods industry based on leather, sports shoe is also one of the important line of industry as no player can play the game with full efficiency, if the shoe is not proper and fitted correctly. The raw materials for manufacturing of these type of shoes and man power are indigenously available.

At present most of the small scale units are functioning in Jalandhar and Kolkata

and a few in Delhi and Meerut. The process of manufacturing of sports shoes is different as compared to other types of general purpose footwear. Different types of footwear are used for each type of game as per need of the game.

MARKET POTENTIAL

Among the shoes, the most popular one is warm-up shoes having flat sole which are being used by players for general use and for practice because other types of special sports shoes or boots cannot be used due to their special feature at the bottom and in construction. Vulcanised rubber sole warm-up shoes of lighter weight of good quality have the maximum demand. The demand for hockey, football and cricket boots is also there since these games are played all over the country. In fact, football boots followed by cricket have got the maximum demand all over the

world. The demand of these goods from abroad is very high. India is lagging behind in export of sports footwear as compared to Korea, Taiwan, China etc.

BASIS AND PRESUMPTIONS

- i) The production is based on Single Shift Basis of 8 hours per day and 25 workings days in a month i.e. 300 days in a year.
- ii) The unit is expected to work at 60% efficiency in the first year and 70% efficiency in the second year.
- iii) Time period for achieving envisaged capacity utilisation is 6 months after trial run.
- iv) Labour will be engaged on monthly basis keeping in view the present average rate in India.
- v) Interest rate is calculated @ 15% per annum on average.
- vi) Payback period 8 to 10 years.
- vii) Considering the product and usage the project can work more than 15 years.

IMPLEMENTATION SCHEDULE

Sl. Activity No.	Period (in months)
1. Registration and other formalities	2
2. Land acquisition	3
3. Construction of shed, office etc.	8
4. Machinery purchasing and installation	4
5. Trial production	1
Total	18

TECHNICAL ASPECTS

Process of Manufacture

As per graded pattern of various sizes for both upper and bottom, the components are cut and supplied to closing and making sections separately. In closing section, the edges of the skived uppers are pasted and folded, the lining is pasted where necessary with the upper and stitched. After the completion of stitching operation, decorative treatment on the upper such as punching, burnishing, fixing of bottoms, metal fittings etc. is done.

In the making section the upper is lasted either by machine and then leather sole or rubber sole is attached to the upper by various processes like, struck on, vulcanising or injection process. The shoes are then finished by machine, stamped and packed.

Since there is more demand for rubber soled warm-up shoes and for football boots, the project profile is mainly based on leather and rubber soled shoes. The unit can also take up PVC/PU soled shoes later on.

Description of manufacturing process in a nutshell for sports shoes of various types is given below:

- i) *Football shoes:* The upper of football shoes are closed in the similar way as is done in the case of warm-up shoes. The football shoes are mostly in black colour having white or red or yellow colour strips on quarters. The tongue and the quarter portion have foam backed cloth lining. A

piece of leather is sewn at the vamp for making more tough. The upper is lasted on insoles which can be of leather board or of light leather. The sole of either rubber or leather is then attached by hand-sewn process, while the rubber sole having grooves leather studs is attached to the leather sole for allowing better grip on the play-ground.

ii) *Cricket boots:* The upper or cricket boots is made from either white chrome or from nubuck leather. The lining of tongue is made of foam. The sole of the cricket boot can be from rubber or of leather in the case of grooved rubber sole, the attachment is made by stuck-on process and in the case of leather sole attachment is done by hand-sewn process. Spikes are attached on the leather sole for better grip. Generally, the rubber sole cricket boots are used on dry surface and the leather sole cricket boots with spikes are used on wet surface.

iii) *Hockey shoes:* The upper for hockey shoes is generally made of black chrome leather and thick round piece of chrome leather is stitched on the quarter to cover the ankle protection of the foot for protection to avoid any hurt from the hockey stick or hockey ball. Foam lining is attached to the upper for giving comfort to the feet. The upper is attached to the insole and sewn by hand and the leather sole is then attached. In Hockey shoes, the heel is not

attached and in its place two thick pieces of leather $\frac{1}{4}$ " to the width of heel are attached and three other pieces of similar type of leather are attached one near the toe and two at the tread portion. These straps of leather give better grip on the play ground.

iv) *Running shoes:* The upper of this type of shoe is made similar to those of warm-up shoes with foam lining. The quarters of this shoe are having a longer opening for easy wearing. The running shoes are generally made in warm shoe construction and spikes are fixed on the sole for better grip.

v) *Warm-up shoes:* Generally the warm-up shoes are worn by sportsmen and sports women for casual wear and for practice. This is also being worn in place of canvas upper sole shoes for morning walk and for casual wear. The upper is made of either suede leather or of resin finished leather. For adding beauty sometimes two or three strips of leather of different colour are attached to the quarter of the upper. The upper leather is generally 1.5 mm to 1.7 mm thick and does not contain any lining. A cloth lining with foam is stitched to the tongue and quarter to make it comfortable and add softness. The insole is generally from light leather or from leather board and the sole is mainly from white and black rubber sheet. The sole is generally attached to the lasted upper by stuck-on process

but it will be better, if the sole is attached by direct vulcanising process as generally practiced in foreign countries. After the shoe is made, leather socks or rexine socks are inserted.

Quality Control and Standards

Specific standards are to be followed as mutually agreed to between the manufacturers and the foreign buyers. The first and foremost duty should be to maintain quality and workmanship especially in case of hand stitching.

The upper material should have uniform thickness and colour and should possess water-proofing property. Before the upper and lining components are taken for stitching, one inspection is a must for ensuring quality.

The soles of the shoes for various purpose should be very light, flexible and should have high abrasive resistance power and anti-slip property. Very good quality adhesive is to be used for attachment of sole. Extreme care is to be taken while final inspection is done before packing.

Production Capacity (per annum)

Sl. No.	Description	Qty. (Pairs)	Rate/ pair (Rs.)	Amount (Rs.)
1.	Football shoes	30,000	370	1,11,00,000
2.	Cricket boots for batting and fielding with rubber moulded sole	15,000	480	72,00,000
3.	Cricket boot for bowling	15,000	520	78,00,000
4.	Hockey boots with leather sole	15,000	400	60,00,000

Sl. No.	Description	Qty. (Pairs)	Rate/ pair (Rs.)	Amount (Rs.)
5.	Running shoes with leather sole	12,000	500	60,00,000
6.	Warm-up shoes with rubber sole	12,000	340	40,80,000
			Total	4,21,80,000

Motive Power

33 HP.

Pollution Control

Sports shoe hardly pollutes except for a little sound pollution.

Energy Conservation

Regular power supply is required to run the unit smoothly as most of the machines are motorised. The machines and motors are to be checked periodically and maintained in time. The switches of machines, fans and lights are to be turned off immediately when not required at all.

FINANCIAL ASPECTS

A. Fixed Capital

(i) Land and Building

Land allotted by Govt. in concessional rate in backward areas

Sl. No.	Description	Area	Amount (Rs.)	
i)	Land	20,000 sq.ft.	4,00,000	
ii)	Built-up area for office stores and shed etc. @ Rs.300 per sq.ft.	12,000 sq.ft.	36,00,000	
iii)	Other constructions, like fencing boundary walls, watchman quarters etc.	L.S.	3,00,000	
			Total	43,00,000

(ii) Machinery and Equipments

Sl. Description No.	Total HP	Ind./Imp.	Qty.	Amount (Rs.)
1. Pattern shear	-	Ind.	2	6,000
2. Pattern vise	-	Ind.	2	9,000
3. Hand grading pentograph	-	Ind.	1	5,000
4. Upper clicking swing-arm hydraulic press.	5	Ind.	1	2,80,000
5. Upper leather splitting M/c.	1	Imp.	1	2,50,000
6. Upper leather skiving M/c.	0.5	Ind.	1	75,000
7. Thermo-plastic upper cementing and folding m/c.	1	Imp.	1	3,00,000
8. Punching and eyeletting m/c. treadle-operated.	-	Ind.	1	10,000
9. Upper and lining stamping m/c. treadle-operated	-	Ind.	1	7,000
10. Flat bed single-needle m/c industrial type.	3	Ind.	6	90,000
11. Post-bed single needle m/c.	2	Imp.	2	2,80,000
12. Cylinder-bed single needle m/c.	2	Imp.	2	2,00,000
13. Zig-zag stitching m/c.	2	Imp.	2	1,70,000
14. Toe lasting cum side lasting m/c.	3	Imp.	1	9,00,000
15. Seat lasting m/c.	3	Imp.	1	5,00,000
16. Overflow trimming m/c.	0.5	Ind.	1	18,000
17. Air-cementing press-4 bed	4	Ind.	4	1,20,000
18. Combined finishing m/c.	2	Ind.	2	60,000
19. Double-ended buffing m/c.	2	Ind.	2	20,000
20. PVC/Wooden last @ Rs.350 per pair.	-	Ind.	800pairs	2,80,000
21. Cutting dies @ Rs. 4000 per set.	-	Ind.	100 set.	4,00,000
22. Tools and equipments	-	Ind.	L.S.	50,000
23. Office furniture and equip.	-	Ind.	L.S.	1,00,000
24. Electrification and installation-charges @ 10% on	-		L.S.	3,30,000
			Total	44,60,000
(iii)Pre-operative Expenses				Rs. 90,000
(iv)Total Fixed Capital (i+ii+iii)				= 88,50,000
(43,00,000+44,60,000+90,000)				

B. Working Capital (per month)

(i) Personnel (per month)

Sl. Description No.	No.	Salary (Rs.)	Amount (Rs.)
1. Manager	1	10,000	10,000
2. Designer	1	6,000	6,000
3. Quality Controller	1	5,000	5,000

Sl. Description No.	No.	Salary (Rs.)	Amount (Rs.)
4. Supervisor	3	5,000	15,000
5. Accountant	1	4,000	4,000
6. Clerk-cum-store keeper	1	3,000	3,000
7. Typist	1	2,500	2,500
8. Peon	1	2,000	2,000

Sl. Description No.	No.	Salary (Rs.)	Amount (Rs.)
9. Mechanic	2	3,000	6,000
10. Operators	25	3,000	75,000
11. Skilled Workers	20	3,000	60,000
12. Semi-skilled Workers	10	2,500	25,000
13. Unskilled Workers	10	2,000	20,000
14. Watchmen	2	2,000	4,000
15. Sweepers	2	2,000	4,000
	Total		2,41,500
	<i>Add. perquisites @ 15%</i>		36,225
	Total		2,77,725
	Say		2,78,000

(ii) Raw Materials (per month)

Sl. Description No.	Qty.	Rate (Rs.)	Amount (Rs.)
<i>a) Football shoes (2500 pairs per month)</i>			
1. Upper leather	6250 sq.ft.	42/sq.ft.	2,62,500
2. Insole leather	260 kg.	150/kg.	39,000
3. Lining and foam etc.	2500 pairs	20/pair	50,000
4. Rubber moulded/leather sole	2500 pairs	80/pair	2,00,000
5. Adhesive and other grinders	-	20/pair	50,000
6. Packing	-	8/pair	20,000
	Total		6,21,500
<i>b) Cricket boots for batting (1250 pairs per month)</i>			
1. Upper leather	3750 sq.ft.	50/sq.ft.	1,87,500
2. Insole leather	130 kg.	150/kg.	19,500
3. Lining and foam	1250 pairs	24/pair	30,000
4. Moulded sole/leather sole	1250 pairs	100/pair	1,25,000
5. Adhesive and grinders	-	16/pair	20,000
6. Packing	-	8/pair	10,000
	Total		3,92,000

Sl. Description No.	Qty.	Rate (Rs.)	Amount (Rs.)
<i>c) Cricket boots for bowling (1250 pairs per month)</i>			
1. Upper leather	3750 sq.ft.	52/sq.ft.	1,95,000
2. Insole leather	130 kg.	150/kg.	19,500
3. TPR/moulded sole	1250 pairs	100/pair	1,25,000
4. Lining and foam	-	24/pair	30,000
5. Studs	L.S.	40/pair	50,000
6. Adhesive and grinders	L.S.	16/pair	20,000
7. Packing	L.S.	8/pair	10,000
	Total		4,49,500

d) Hockey boots (1250 pairs per month)

1. Upper leather	3800 sq.ft.	50/sq.ft.	1,90,000
2. Insole leather	130 kg.	100/kg.	13,000
3. Moulded sole	1250 pairs	100/pair	1,25,000
4. Lining and foam	L.S.	24/pair.	30,000
5. Adhesive and grinders	L.S.	16/pair	20,000
6. Packing	L.S.	8/pair	10,000
	Total		3,88,000

e) Running shoes (1000 pairs per month)

1. Upper leather	2500 sq.ft.	48/sq.ft.	1,20,000
2. Insole leather	120kg.	150/kg.	18,000
3. Moulded sole	1000 pairs	140/pair	1,40,000
4. Lining and foam	L.S.	20/pair	20,000
5. Studs	L.S.	40/pair	40,000
6. Adhesive and grinders	L.S.	14/pair	14,000
7. Packing	L.S.	6/pair	6,000
	Total		3,58,000

f) Warm-up shoes (1000 pairs per month)

1. Upper leather	2500 sq.ft.	48/sq.ft.	1,20,000
2. Insole leather	120 kg.	150/kg.	18,000

Sl. No.	Description	Qty.	Rate (Rs.)	Amount (Rs.)
3.	Rubber sheet/ leather for sole	1000 pairs	160/ pair	1,00,000
4.	Lining and foam	L.S.	20/pair	20,000
5.	Adhesive and grinders	L.S.	15/pair	15,000
6.	Packing	L.S.	7/pair	7,000
			Total	2,80,000

Total Cost of Raw Materials

$$= 6,21,500 + 3,92,000 + 4,49,500 \\ + 3,88,000 + 3,58,000 \\ + 2,80,000 \quad \text{Rs. } 24,89,000$$

(iii) Utilities (per month)	(Rs.)
Power requirement (33HPx0.74) x 8 x 25 = 4884KWH units @ Rs.4 per unit	19,536
Water and fuel	500
Total	20,036
Say	20,000

(iv) Other Contingent Expenses (per month)	Amount (Rs.)
Postage and stationery	500
Telephone	2,500
Consumable stores	2,000
Repair and maintenance	5,000
Transport charges	8,000
Advertisement and publicity	2,500
Insurance	6,000
Taxes	500
Sales expenses	3,000
Misc. expenditure	1,000
Total	31,000

(v) Total Recurring Expenditure (per month) (Rs.)	
Salary and wages	2,78,000
Raw Material	24,89,000
Utilities	20,000
Other contingent expenses	31,000
Total	28,18,000
(vi) Working Capital for 3 months	Rs. 84,54,000

C. Total Capital Investment

Fixed Capital	Rs. 88,50,000
Working Capital	Rs. 84,54,000
Total	Rs. 1,73,04,000

MACHINERY UTILISATION

In view of the possibility of power cut, absenteeism, machine breakdown and non-availability of raw materials etc. it is not possible to utilise 100% capacity. However, the project can achieve 80 to 90%, capacity within 4-5 years.

FINANCIAL ANALYSIS

(1) Cost of production (per year) Amount (Rs.)

i) Total recurring cost	3,38,16,000
ii) Depreciation on land and building @ 5%	2,15,000
iii) Depreciation on machinery @ 10% on Rs. 36,30,000 Including installation charges	3,63,000
iv) Depreciation on shoe lasts, dies etc. @ 25% on Rs.6,80,000	1,70,000
v) Depreciation on tools, equipment and office furniture @ 20% on Rs.1,50,000	30,000
vi) Interest on total capital @ 15% on Rs.1,73,04,000	25,95,600
Total	3,71,89,600

(2) Turnover(per year)

Sl. No.	Items	Qty. in pair	Rate pair On ave. (Rs.)	Price (Rs.)
1)	Football shoes	30,000	370	1,11,00,000
2)	Cricket boot for batting	15,000	480	72,00,000
3)	Cricket boot for bowling	15,000	520	78,00,000
4)	Hockey boots	15,000	400	60,00,000
5)	Running shoes	12,000	500	60,00,000
6)	Warm-up shoes	12,000	340	40,80,000
	Total	99,000		4,21,80,000

(3) Net Profit (per year) (*Before Taxation*)

$$\begin{aligned}
 &= \text{Turnover} - \text{cost of production} \\
 &= \text{Rs. } 4,21,80,000 - 3,71,89,600 \\
 &= \text{Rs. } 49,90,400
 \end{aligned}$$

(4) Net Profit Ratio

$$\begin{aligned}
 &= \frac{\text{Net profit per year} \times 100}{\text{Turnover per year}} \\
 &= \frac{49,90,400 \times 100}{4,21,80,000} \\
 &= 11.83\%
 \end{aligned}$$

(5) Rate of Return on Total Investment

$$\begin{aligned}
 &= \frac{\text{Net Profit per year} \times 100}{\text{Total Investment}} \\
 &= \frac{49,90,400 \times 100}{1,73,04,000} \\
 &= 28.84\%
 \end{aligned}$$

(6) Break-even Point

Fixed Cost	Amount (Rs.)
a) Depreciation on building	2,15,000
b) Depreciation on machinery	3,63,000
c) Depreciation on last, dies	1,70,000
d) Depreciation on tools, equipments and furniture	30,000
e) Interest on total capital	25,95,600
f) Insurance	72,000
g) 40% of salary and wages	13,34,400
h) 40% of utility	96,000
i) 40% of other contingent expenses on Rs.25,000	1,20,000
Total	49,96,000

B.E.P.

$$\begin{aligned}
 &= \frac{\text{FC} \times 100}{\text{FC} + \text{Profit}} \\
 &= \frac{49,96,000 \times 100}{49,96,000 + 49,90,400} \\
 &= 50.02\%
 \end{aligned}$$

Additional Information

With the same plant, machinery and manpower, it is possible to switch to

some other footwear namely civilian shoes, children shoes etc.

Addresses of Machinery and Equipment Suppliers

1. M/s. Bension Industries
96, Sri Aurobindo Road,
Salkia, Howrah.
2. M/s. Bengal Machinery Co.(P) Ltd.
9-A, New Tangra Road,
Agra-282005.
3. M/s. S.P. Engineering Works
Dayal Bagh Road,
Agra-282005.
4. M/s. PTDC (Under NSIC)
Industrial Estate,
PO- Eddaduthangal,
Chennai-97.
5. M/s. Bharat Sales Agency
Gmesham Assurance House,
3rd floor, Sir P.M. Road,
Mumbai-1.

Shoe Last

1. M/s. Alison Singh and Co.
174, Bamganj,
Agra-1.
2. M/s. Sanghavi Shoe Accessories
Pvt. Ltd.
11, Harikrupa, 10th Road,
Chembur,
Mumbai-71.

Raw Material Suppliers

1. M/s. Modern Leather Stores
1, Bidhan Sarani,
Kolkata-12.
(Misc. items)
2. M/s. Vallippa Leather Corporation
Narayana Chetty Street,
Periamet,
Chennai – 3.
(Misc. items).

3. M/s. Globe Fabrics
Saki Vihar Road,
Saki Naka,
Mumbai – 72.
(Misc. items)
4. M/s. Bengal Tanning Company
1 1/2, Harshi Street,
Kolkata – 9.
(Leather only)
5. M/s. Kazi Khilafat Hussain and Co.
Lower Chitpur Road,
Kolkata-1.
(Leather only)
6. M/s. Super Tannery (I) Ltd.
Jajmau, Kanpur.
(Leather only)
7. M/s. Omega Polymicrons Pvt. Ltd.
Meerut Road,
Mawana-250401 (UP).
(Sole, Insole, Leather Board etc.)
8. M/s. Sethu Exports
114, Vepery High Road,
Chennai-600 003.
(Sole, insole, Leather Board etc.)
9. M/s. Chemet, Taj Building
1st floor, Post Box No.195,219,
Dr. D.N. Road,
Fort, Mumbai.
(Sole, insole, Leather Board etc.)

Adhesive and Chemicals

1. M/s. Peoples Enterprises Pvt. Ltd.
16/1, G.C. Avenue,
Kolkata-700 013.
2. M/s. Pidilite Industries Ltd.
Ramakrishna Mandir Road,
Andheri (E),
Post Box – 17401,
Mumbai – 59.
3. M/s. Nanavati Engineering Co.
Pvt. Ltd.
A-195, 4th Cross Road,
Peanya Industrial Estate,
Bangalore – 560 058.