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Cotton Knitted Fabrics

PRODUCT CODE	:	260101001
QUALITY AND STANDARDS	:	N.A.
MONTH AND YEAR OF PREPARATION	:	May, 2003
PREPARED BY	:	Small Industries Service Institute Opposite Okhla Industrial Estate, New Delhi-110020.

Introduction

Knitting is one of the fabric manufacturing techniques in which yarn is converted into loops and loops are intermeshed to form fabric. The knitted fabrics are quite different from woven fabrics in which yarn lie in straight line resulting in rigid structure and less elongation. Cotton knitted fabric is used as raw material for the manufacture of undergarments and knitwears. Generally, hosiery yarn of count 20s-40s is being used for the manufacture of knitted fabric. Since, the machinery required to set up this industry are indigenously available, this industry can be easily set up with low investment and can be run by new entrepreneurs. Main buyers of knitted fabrics are garment manufacturing units. Hence, knitted fabrics should be manufactured and supplied as per the requirement of garment manufacturers.

Market Potential

Knitwears are manufactured out of knitted fabrics mainly due to its softer feeling, bulkiness, good draping quality etc. Knitting industry is low skill, labour-intensive and remunerative, more attractive to workers, less capital investment, easy process, more turnover, more profits and attractive to entrepreneurs. The main buyers of knitted fabrics are garment manufacturing units and processing units. Presently, garment manufacturing units are running short of quality fabrics, so it is presumed that marketing of knitted fabrics will not be a major hurdle provided the knitting unit is prepared to supply the goods to the buyers in scheduled time without any delay. Besides, there is tremendous export potential for this product as the large number of Western garment manufacturers intend to source their requirement of fabric from India.

Basis and Presumptions

This project is based on single shift basis with 300 working days in a year. The time period for achieving maximum capacity utilisation is considered from 3rd year from the date on which production is started. Rental value of proposed building for the project is considered at Rs. 20 per sq. mt. The

costs of machinery and equipment/ material indicated refer to a particular make and approximate to those prevailing at the time of preparation of this project. Installation and electrification cost is taken @ 10% of cost of machinery and equipment.

Non-refundable deposits, project report cost, trial production, security deposit with Electricity Board are taken as pre-operative expenses. Depreciation has been considered at 10% on plant and machinery, 15% on furniture and fixtures and 25% on equipments. Minimum 25% of the total investment is required as margin money. The interest rate on capital loan has been considered at 14% per annum.

IMPLEMENTATION SCHEDULE

The implementation schedule of this project may take a total period of six months approximately for starting the production.

TECHNICAL ASPECTS

Process of Manufacture

Cotton yarn of particular count, purchased from spinning mills or yarn dealers on cones, are loaded into the machine and threaded through eyelets and tensioning device, stop motion and finally to the needle. While cloth is knitted by running the machine, care must be taken to see any breakages in the yarn while knitting and breakage must be attended to. After sufficient length of roll is knitted, the knitted cloth is cut and taken away from the machine. Details regarding yarn count, weight of cloth rolls, date of packing, manufacturers etc. are marked on each cloth rolls and sent to the customers.

Quality Control and Standards

There is no standard specification formulated for cotton knitted cloth. The quality of knitted fabric mainly depends on raw material quality, therefore quality yarn must be used for the manufacture of knitted cloth. Hosiery yarn should be purchased from reputed spinning mills only. Spare parts should be kept ready for immediate replacement in order to maintain the targets.

Production Capacity (per annum)

Plain knitted cloth

Quantity (Kgs.)	Amount (In Rs.)
1,60,400	2,32,58,000

Motive Power

Totally 30 HP power is required to run the industry at full capacity, this is proposed to be obtained from State Electricity Board.

Pollution Control

The process of manufacture does not involve any pollution.

Energy Conservation

Wastage of energy can be minimised by proper housekeeping.

FINANCIAL ASPECTS

A. Fixed Capital

(i) Land and Building	
Covered area	350 sq.mt.
Uncovered Area	Nil.
Rent per month @ Rs. 20/sq.mt.	Rs. 7,000

(ii) Machinery and Equipments

Sl. No.	Description	No.	Rate (In Rs.)	Amount (In Rs.)
1.	Sinker body knitting machine 22 gauge 17" dia with needles and all accessories	8	58,000	4,64,000

Sl. No.	Description	No.	Rate (In Rs.)	Amount (In Rs.)
2.	Sinker body knitting machine 18 gauge 18" dia with needles and all accessories	8	60,000	4,80,000
3.	Sinker body knitting machine 24 gauge 15" dia with needles and all accessories	8	55,000	4,40,000
4.	Electrical motor for knitting machines	24	5,000	1,20,000
5.	Electronic weighing balance	1	45,000	45,000
6.	Miscellaneous assets	LS	15,000	15,000
			Total	15,64,000
(iii) Other Fixed Assets				
(a) Erection and installation				1,38,400
(b) Office furniture				18,000
(c) Pre-operative expenses				20,000
			Total	1,76,400
			Total Fixed Capital	17,40,400

B. Working Capital (per month)

(i) Staff and Labour Wages

Sl. No.	Designation	No.	Rate (In Rs.)	Amount (In Rs.)
1.	Manager	1	8,000	8,000
2.	Clerk/Store-keeper	1	3,000	3,000
3.	Watchman	1	2,500	2,500
4.	Peon	1	2,500	2,500
			Total	16,000
Production Staff				
1. Machine operators		12	3,600	43,200
2. Unskilled workers		3	2,500	7,500
			Total	50,700
			S. Total	66,700
Perquisites @20%				13,340
			G. Total	80,040

(ii) Raw Material

Sl. No.	Description	Qty. (Kgs.	Rate/ (Rs.)	Amount (Rs.)
1.	40 S Cotton yarn	13,600	120	16,32,000
			Total	16,32,000

(iii) Utilities (per month)	(Rs.)
Electricity bill	14,500
Water charges	500
Total	15,000

(iv) Other Contingent Expenses (per month)	(Rs.)
(a) Rent	7000
(b) Postage/stationery	500
(c) Repair and maintenance	5767
(d) Transport/travelling charges	1000
(e) Insurance	500
(f) Telephone bills	1000
Total	15,767

(v) Total Recurring Expenses (per month) =17,42,807

(vi) Total Working Capital for 3 months= 52,28,420

C. Total Capital Investment

(a)	Machinery and equipment	Rs. 17,40,400
(b)	Working capital for 3 months	Rs. 52,28,420
	Total	Rs. 69,68,820

MACHINERY UTILISATION

Machinery utilisation is considered as 75% of installed capacity.

FINANCIAL ANALYSIS

(1) Cost of Production (per year)	(Rs.)
Recurring expenses	2,09,13,680
Depreciation on machinery @ 10%	1,38,400
Depreciation on office furniture and equipments @ 20%	13,600
Interest on total investment @ 14%	9,75,635
Total	2,20,41,315

(2) Turnover (per year) (Sales)

Product	Kg.	Rate/Kg.	(Rs.)
Cotton Knitted fabric	1,60,400	145	2,32,58,000
		Total	2,32,58,000

(3) Net Profit (per year) Rs. 12,16,685

(4) Net Profit Ratio (Net Profit/ Turnover (per year) 5.23%

(5) Rate of Return on Investment (Net Profit/Total Capital Investment) 17.45%

(6) Break-even Point

Fixed cost	(Rs.)
Depreciation	1,52,350
Rent	84,000
Interest on capital investment	9,75,635
40% of wages of staff and labour	3,84,192
40% of other contingent expenses	1,11,680
Insurance	6,000
Total	17,13,507

$$B.E.P. = \frac{FC \times 100}{FC+profit}$$

$$= 58.47\%$$

Addresses of Machinery and Equipment Suppliers

1. M/s. Bharat Machinery Works
   44, Industrial Area-A,
   Ludhiana.
2. M/s. Moonlight Knitting Machinery Works
   Vishvakarma Colony,
   Ludhiana.
3. M/s. S.T.M. Knitting Machinery Works
   Near Savitry Complex,
   G.T. Road,
   Ludhiana.
4. M/s. T.S. Mechanical Works
   Janta Nagar,
   Ludhiana.
5. M/s. Raj Mechanical Works
   410, Industrial Area-A,
   Ludhiana.
6. M/s. Sohalson Knitting Machinery Works
   Industrial Area-B,
   Ludhiana.
7. M/s. Punjab Machinery Works
   Vishvakarma Chowk,
   Near Fire Brigade,
   Ludhiana.

Raw Material Suppliers

1. M/s. Mahavir Spinning and General Mills
   Hoshiarpur.
2. M/s. Abohar Co-operative Spinning Mills
   Abohar.
3. M/s. Adinath Textiles Ltd.
   Registered Office,
   Village Bholapur,
   P. O. Sahibana,
   Chandigarh Road,
   Ludhiana.
4. M/s. Vardhman Spinning General Mills
   Samarala Road,
   Ludhiana.