PPROJECT PROFILE ON DISPOSABLE SYRINGES

Product Name	**DISPOSABLE SYRINGES**
Product Code- **BIS Number-**	IS :10654:2002 latest for sterile hypodermic needles for single use
NIC CODE-	32504
Production Capacity Per Annum	60 lakh pcs of 1ml, 2 ml , 5 ml & 10 ml 12 lacs pcs. of 20-50 ml
Value In Rs Per Annum	60 lakh pcs of 2 ml to 5 ml & 10 ml on average Sale price Rs 3.00/- per piece = Rs180.00 lacs 12 lacs pcs. of 20-50 ml @ 12/- per piece = Rs144.00 Lacs **TOTAL SALE =Rs 324 Lacs/ PA**
Month & Year of Preparation	June-2020
Prepared By	**Prepared by:** **Rachna Tripathi** **Asstt. Director** **MSME Development Institute** **11-A, IDC, Kunjpura Road, Karnal** **Phone -0184-2208110-123** **Email-dcdi-karnal@dcmsme.gov.in**

DISPOSABLE SYRINGES

A. INTRODUCTION:

Disposable Syringes are being used by doctors to inject medicines through Intravenous or intramuscular ways for the treatment of diseases & also by Research & development personnel. Disposable syringes are made of plastic material and are used in the field of medical and veterinary science. Due to their availability in sterilized condition, ready to use, and cost effectiveness, disposable syringes are fast replacing the age-old glass syringes. Moreover, the horror of AIDS worldwide has almost dispensed with the reuse of syringes and the demand of disposable syringes has increased phenomenally. Disposable syringes are mostly injection moulded from polypropylene. Syringes are available in sizes of 1 ml, 2 ml, 5 ml and 10 ml, 50ml in a variety of designs and consist of either two or three components construction. The number and size of injection moulding machines required depend upon syringe construction, number of mould cavities, annual production.

B. MARKET

Disposable syringe has a wide market potential. The age-old glass syringes are becoming obsolete very fast. In the Eastern region of the country there is no unit manufacturing this product. Some of the units manufacturing this product are in different parts of the country.

(1) Hindustan Syringes & Medical Devices Ltd, Faridabad
(2) Nihal Health Care, Himachal Pradesh.
(3) LifeLong Meditech Pvt. Ltd., Gurugram
(4) Steryware, Faridabad
(5) Cadilac hospital product, Ahmedabad
(6) Dispovan, Faridabad
(7) Surgiplus, Ahmedabad
(8) Transplastic, Pondicherry
(9) Albert David, M.P

10 Manoj Surgical, Indore

Some of these units are 100% export-oriented units. Disposable syringes are very common product being used by hospitals. Govt is also a very big buyer of syringes. In view of the fast expanding market, the prospects of disposable syringe are very bright.

CONTEMPORARY REQUIREMENT DURING COVID-19.

During present persistence of epidemic by COVID-19, the testing is important where the test may be done by different names viz. Coronavirus 2019 Test, SARS CoV-2 Test, COVID-19 RT-PCR, COVID-19 IgG, IgM antibody test,SARS CoV-2 antigen test, COVID-19 Ag test.
Antibody (serology) test is done to detect antibodies to SARS-CoV-2 to indicate the exposure to the virus and help track the pandemic. It is done to determine the presence of antibodies if anyone had been previously infected or is suspected to have COVID-19 then an antibody test is required wherein a blood sample is drawn from a vein or is collected from a finger stick. Here use of disposable syringe is imperative to avoid further transmission of the infection from one patient to another.

IMPLEMENTATION SCHEDULE

Project Implementation will take approx Six month from the date of approval of scheme In case of Phenyl manufacturing proper approval from Drug Control of the state is mandatory before opening the industries of Black phenyl as the product comes under the Drug and Cosmetic Act. The breakup of the some main activities are given as under. More than one activities can be run simultaneously**-**

S.No	Name of the Activity	Proposed Time
1.	Market Survey, selection of site and preparation of Project Profile	One Month
2.	MSME registration from Concerned DIC	Two Weeks
3.	Finance /Loan approval from financial institutions/ Bankers	Two Months
4.	Approval from State Drug Controller & other authorities	Two Weeks
5.	Power connection and Construction of Building	Four Months
6.	Machinery Procurement and Trial Run	One Months
7.	Recruitment of Staff & Labour	Two Weeks
8.	Actual Commercial Production	Two Weeks

BASIS AND PRESUMPTIONS :-

The project has been drafted taking into account of the following aspects:-

1.	No. Of Working Days in a Week	six
2.	Duration of the Shift in a day	8 hrs
3.	Number of Working Days in a Year	300 Days
4.	Working Efficiency of the Unit	75%

5. Construction of Building will be as per the requirement of Manufacturing Activity and as laid down in drug and cosmetic Act.

6. The estimates are drawn from a production capacity generally considered techno economically viable for a modern type of manufacturing unit.

7. The quality Standard must be followed as per specification

8. The wages of staff and labour is taken as per the prevailing labour wages in the market.

9. The rate of Interest will be as per prevailing in the market

10. Although Unit is free from Pollution and effluent discharge but still provision of exhaust fan may ensure the fresh environment.

11. In case of non availability of fund for construction of building such type of enterprises may be started in rented building also. it not only save your time but bank loan interest also so that product should be more cost effective.

C. BASIS AND PRESUMPTION

1. The scheme is based on single shift (8 hours) basis and 300 working days per annum.
2. The estimates are drawn for a production capacity generally indicated techno economically viable for model type of activity.
3. Cost in respect of land and building, machinery and equipments, rawmaterials and the selling prices of the finished products etc. are those generally obtained at the time of preparation of the project profile and may vary depending on various factors.
4. The time period for achieving full/envisaged capacity utilization is three years.
5. The interest rates considered are those which are presently charged by state financial institutions.
6. The labour wages are considered as per the prevailing rates. They may vary from place to place.

7. The margin money is 25% for fixed capital and working capital. The pay back period for the project is 3 years.

TECHNICAL ASPECTS

Process of Manufacture:

Production of disposable syringe requires special injection moulding machines and special moulds. M/s DGP Windsor has introduced ferromatic injection moulding machine for this purpose. Raw material required is polypropylene. It is fed into the injection moulding machine and moulded in chilled condition to get better clarity. The moulded syringes are then assembled with the needle in automatic assembly machine. The whole assembly is then sterilized in sterilization plant using ethylene oxide. The completed syringe is then blister packed in automatic packing machine.

QUALITY AND STANDARD **:** IS :10654:2002 latest for sterile hypodermic needles for single use and Drug Control Standard.

As per drug control specification

PRODUCTION CAPACITY (P.A.) **:** 60 lakh pcs of 1 ml, 2 ml , 5 ml & 10 ml on average Sale price Rs 3.00/- per piece = **Rs180.00 lacs**

: 12 lakh pcs. of 20-50 ml @ 12/- per piece = **Rs144.00 Lacs**

Turnover Per Annum **= Rs 324 Lacs**

Quality Control:

The product should conform to drug control specification and drug license should be obtained for production of this item.

Pollution Control:

No special pollution control measures are needed for manufacture of this item.

Energy Conservation:

Proper maintenance of the power operated machines and judicial use of them will conserve energy.

FINANCIAL ASPECTS

A. ***Fixed Capital Investment***

(i) Land & Building	Area (Sq. mtrs.)		(Rs)Per Month
Land	600	Rented	45,000

Built up area	400 Sq Mtrs As per FDA norms

ii) Machinery & Equipments

S.No.	Description	Qty. (Nos)	Rate (in Rs.lakh)	Value (in Rs. Lakh)
A)	**PRODUCTION UNIT**			
1.	Zigma Injection Moulding Machine cap. 80 Ton	2	45.00	90.0
2.	Injection moulding machine cap. 120 Ton	1	55.00	55.0
3.	Sterilization Plant (Ethylene Oxide)	1	18.00	10.0
4.	Blister Packing Machine	1	45.00	45.0
5.	Packaging Machines	4	5.0	20.0
6	Scrap Grinding Machine	1	3.0	3.0
7.	Air Compressor	1	3.0	3.0
8.	Water Pump	1	0.5	0.5
9.	Chilling Plant	1	10.0	10.0
10.	Moulds of 1ml, 2 ml, 5 ml, 10 ml, & 50 ml including Barrel & Plunger	-	Varies as per sizes	10.0
			Sub total	246.5
	Erection and Electrification @ 10%			2.47
			Total	**248.97 say 249 Lacs**
11.	Furniture & Fixture			2.0
12.	Pollution Control & lab. Equipments			2.00
13.	Pre-operative expenses			0.25

	Total Fixed capital investment			**253.22 Lacs**

WORKING CAPITAL (PER MONTH)

Raw Material: (PM)

S. No.	**Name of the Raw Material**	**Qty.**	**Rate in Rs**	**Value (Rs. Lakh**
1.	Polypropylene	5.5 tons	110000/-Per Ton	6.05
2.	Rubber Gaskets	5 lakh	0.60 per Piece	3.0
3.	Needle	6 lakh	1.0 Per piece	6.0
4.	Packaging Material		lumsum	0.75
5.	Printing ink		lumsum	0.25
	TOTAL			**16.05**

Staff and Labour

S. No.	**Designation**	**Nos.**	**Salary (Rs.)**	**Total (Rs.)**
1.	Manager	1	20,000/-	20,000/-
2.	Mfg. Chemist	1	15,000	15,000/-
3.	Analytical Chemist	1	15,000	15,000/-
4.	Skilled Workers	4	10,000	40,000/-
5.	Semi-skilled workers	3	7,500	22,500/-
6.	Accountant	1	8,000	8,000/-
7.	Sales Manager	1	15,000	15,000/-
8.	Peon cum Chowkidar	1	7,000	7,000/-
			Sub Total	1,42,000/-
	Perquisites @ 10% of Salaries			14,200/-

			Total	1,56,200/-
			Or say	**1,56,000/-**

iv) Other Expenses

S. No.	**Activity**	**Amount (Rs)**
1.	Electricity	35000
2.	Water	1000
3.	Telephone	1000
4.	Transportation	10000
5.	Rent	45000
6.	Maintenance and Repairing	3000
7.	Advertisement & Publicity	2000
8.	Insurance	1000
9.	Misc. Exp.	4000
		102000

Total Working Capital P.M (Rs) = 16.05+1.56+ 1.02= Rs **18.63 Lakh**

Working capital for 3 months = 18.63 x 3 = Rs **55.89 lac**

Total Capital Investment = Rs. 253.22 lakh + 55.89 lakh = Rs 309.11 lakhs

Cost of Production (PA)

S.No.	Description	Amount (Rs in lacs)
1.	Recurring expenditure	224.00
2.	Depreciation on plant & machinery @ 10%	2.49

3.	Depreciation on furniture @ 20%	0.40
4.	Interest on T.C.I @ 10%	30.9
	Total	**257.79 SAY 258 Lacs**

Turnover by sale of 60 lakh pcs of 1ml, 2 ml , 5 ml & 10 ml on average
Sale price Rs 3.00/- per piece **= Rs180.00 lacs**

12 lacs pcs. of 20-50 ml @ 12/- per piece = **Rs 144.00 Lacs**

TOTAL SALE = 324 Lacs

Net Profit = 324.00 – 258.00 = 66 Lakh

Percentage profit on sale = $\frac{66.00 \times 100}{324.00}$ = **20.3 %**

Percentage profit on TCI = $\frac{66.00 \times 100}{310.00}$ = **21.2%**

FIXED COST

40% of Staff and Labour = 7.48 Lakh
40% 0f Other expenses = 4.89 Lakh
Total Depreciation @ 10% = 2.89 Lakh
Intrest on Total Capital Investment = 30.9 Lakh
Rs. 46.16 Lakh

Break Even Point = $\frac{46.16 \times 100}{46.16 + 66.00}$ = 4516/112.16 **= 40.2%**

Name and Addresses of Machinery Equipments and Raw material Suppliers

1. **Saba Plast Mould**
   No. 5, Benar Industrial Estate, Near Soma Textile Mill, Ajit Mill Road, Rakhial, Ahmedabad-380023, Gujarat, India
   Sajid Shaikh (Proprietor)
   Call **08048024475**

2. **Guru Harkrishan Hydraulics**

Plot No. 40-41, Vishwkarma Ind Park, Vill Bhakri, Badkhal- Pali Road, Faridabad-121001, Haryana, India
Parvinder Singh (Sales and Service Manager)
Call **08045388198**

3. **Repute Engineers Private Limited**
   12/23, D-1 Block, MIDC, Chinchwad, Pune - 411019, Maharashtra, India
   Dinesh Nambiar | Managing Director
   Call +91-8046057492

4. **TOSHIBA MACHINE (CHENNAI) PVT.LTD**.
   P.O.Box No.5, Off-Chennai-Bangalore Highway Chembarambakkam,
   Chennai - 600 123.
   Ph: +91 44 2681 2000
   Fax: +91 44 2681 1088
   Email ID: sales@toshiba-machine.co.in

5. **Desain Engineerings**
   E-164 B Roop nagar, prince colony , mithapur, badarpur, new dellhi - 110044, New Delhi, 110044
   Phone: 093502 28677

6. **K R enterprises**
   B 66, Phase 1, Mayapuri Industrial Area,
   New Delhi - 110064

7. **Peekay Agencies Private Limited**
   FIFTH,506,7 BY 1 LORD SINHA ROAD,LORDS,KOLKATA, Elgin, Kolkata-700071, West Bengal, India
   Raghav Goenka (Director)
   Call **08048409357**

8. **Amatya Impex Private Limited**
   209, A.J.C. Bose Road Karnani Estate Building, Near Trimurti Petrol Pump, Kala Mandir, Kolkata-700017, West Bengal, India
   Rachita Raj Bhandari (Director)
   Call **08046046905**

9. **Sandeep Plastics**
   A- 14, Naresh Park Extension, Najafgarh Road
   Nangloi, New Delhi - 110041, Delhi, India

Share Us

10. Sri Riddhi Siddhi Enterprises
40 , Srinivasan Iyer Street, Seven Wells, Opposite To Jain Temple, George Town, Chennai-600001, Tamil Nadu, India
Manish (Marketing Manager)
Call **08042967573**

11. S. V. Bio Polymers
No. 854, Rameshwara Layout, Andrahalli Road, Ragavendra Nagar, Bengaluru-560091, Karnataka, India
P. P. Shankar (Proprietor)
Call **08042965734**

12. Techno Rebar Splicing Old No. 106, New No. 210, Chennai-600108, Tamil Nadu, India
Karuna Reddy (Owner)
Call **08047016040**