### PLASTIC CAPS & CLOSURES

**BUSINESS IN INDIA** 

#### **PURPOSE OF THE REPORT -**

To give the insights on how the Plastic Caps & closure business is expected to grow in the next 5 years.

# SARVESH ENGINEERING SCOPE OF SUPPLY

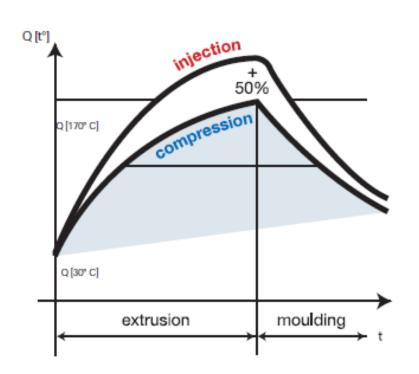
This presentation gives the birds eye view of the plastic closure industry, its current status, future demands & growth potential, market trends etc.

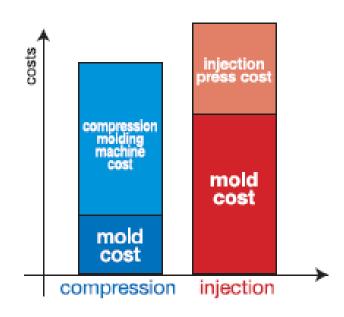
#### MANUFACTURING PROCESS

Plastic caps are manufactured by two process –

- 1) Injection molding.
- These are single piece closures, generally having a small mark of Injection point. Cost of the Injection mould is more than the cost of machine. Ideal for batch production run. Capital cost comparatively low.
- 2) Continuous compression molding.
- These are two piece closures (with linear) for beverage application, with out any gate mark. Cost of the machine is more than the mold. Ideal for continuous production run. Capital cost of the machine and equipment is comparatively very high.

COMPARISION OF TWO PROCESS
ENERGY CONSUMPTION CAPITAL COST





#### PROCESS RECOMMENDATION

Since the investors/promoters are new to business, the proposed marketing partner needs variety of caps in batch quantity.

Injection molding process is best suited for the batch production and as such the Injection molding process is selected for manufacturing.

#### END USE OF PLASTIC CAPS

Plastic Caps & Closures used by the enlisted end user industry.

- ➤ Food Industry,
- ➤ Beverage industry,
- ➤ Personal & Home care products,
- >Pharmaceuticals,
- ➤ Industrial chemicals,

### OVER VIEW

The growing demand from the down stream industries such as food & beverage, personal & home care, pharmaceuticals, and industrial chemicals has translated in to high demand for the caps & closures.

Caps and closures is an imperative segment of the packaging industry as it aids in protecting and extending the shelf life of end products.

In general caps & closures are differentiated by the materials as -

- ➤ Metal caps & closures,
- ➤ Plastic caps & closures,

#### GLOBAL SCENARIO – PLASTIC CAPS & CLOSURES

World demand for the Plastic caps and Closures is estimated at US \$ 40 bln, in the year 2014, with projected growth of 4.6% over the last year.

Increased in the volumes is stimulated by growth in global manufacturing out put, Urbanization trends, and shift in the product mix.

Asia/pacific region will witness the best opportunities, which will account for more than 40% of aggregate market gains.

Industrialization trend, and increase in standard of living will boost demand for Plastic Caps & Closures in the generally underdeveloped end-user market e.g. Food, Beverages, Pharmaceuticals, Cosmetics, & Toiletries etc.

India also witness rapid increase in demand through 2014.

The growth of this market is above average. Demand is benefited from the greater use of plastics packaging at the expense of glass bottles and jars, especially in food & beverage applications.

In addition, rising packaging standards in developing regions, due to higher consumer requirements in both local and export markets, will boost demand for value-added Plastic Caps & Closures.

Beverage remain the main consumer of caps & closures, but more rapid gains are expected in smaller markets such as Food & Pharmaceuticals. Bottled water segment saw double digit annual growth over the last decade and shall continue for another 2-3 decades.

Plastic caps & closure demand in the food market will benefit from

- Trends towards convenience-oriented packaging food. This will especially boost demand for plastic closure including Dispensing types.
- ➤ With growth in blow molded bottles Plastic closures shall witness a strong growth. With out-put of 220 billion units/year, production is growing at a rate of about 6% per year.
- ➤ It is estimated that the plastic caps and closures have a penetration of over 50% of the total closure market.
- The development of heat stable PET barrier containers has opened a new markets to Plastic closures such as Juice, Preservers, pickles, cooking sauces, soup and baby food.

Top 10 manufacturers of closures are accounting for 60% of polymer usage.

On a regional basis Asia accounts for largest share of total annual closure volumes at 36% equivalent to about 375 billion units.

Asia is already a largest market for Caps & Closures and it is growing with annual growth rate of above 7% for the period between 2003 to 2015, double the global average.

Companies enjoying substantial market share globally are –

- ➤ Berry Plastics Corporation USA,
- ➤ Bericap Germany,
- ➤ Global Closure systems France,
- ➤ Crown holdings –USA
- ➤ Reynolds Group holdings New Zealand.

Top six players held a market share of around 17.5% signifying participation of large no of players in this market.

The caps & Closure market is estimated to grow from \$ 42.7 Billion in 2012 to \$ 56.5 billion by 2018 with a CAGR of 4.8% through 2018.

The four most potential nations to exhibit the fastest demand for caps & closure market are -

- ➤India,
- ➤ China,
- ➤ Russia, and
- > Brazil

#### INDIAN SCENARIO

Annual Asian closure consumption volumes at 36% of global, equivalent to about 375 billion units, valued at RS. 18.5 billion.

Market is growing at above 7% annual growth, which is almost double the global average.

A rising middle class, greater urbanization, and increase in personal disposable income will continue to drive greater demand for beverages, Cosmetics, Pharmaceuticals, Lubricants etc.

Plastic cap & closure industry in India is a mix of few large manufacturer and large no of small and medium size manufacturers.

In terms of end use beverages remains the leading market close to 60-70%. The Pharmaceuticals is set to exhibit a strong unit volume increase, followed by personal & house hold care products.

Production & consumption of Plastic caps & closures is seeing the strongest growth in India. Manufacturer are investing in mass production of standardized products, automation, & High tech quality assurance.

In India all segments

- ➤CSD,
- ➤ Bottled water,
- ➤ Food,
- Fruit Juice, etc.

Are growing strong.

Non carbonated drinks and Juice segment has highest growth among the beverage sector. CSD also continues to indicate a steady growth.

#### MAJOR CAPS & CLOSURE PROCESSORS IN INDIA

Bericap India PVT. LTD. Talegaon, Pune.

Closure systems International India, PVT. LTD., Banglore.

OCL, (Oriental containers LTD.), Goa

Plenco closures, Mumbai.

AMD, Alwar, Rajasthan.

Alpla, Baddi.

Precision Products, Mumbai

Sun Die Pet, Vasai

Prima packaging, New Delhi.

Pride PET, Jalgaon.

Nilkanth caps.

T.M. Engineers, Calcutta

Guala Closures india PVT LTD., Goa

### Factors Affecting Growth of Packaging Industry in India

- **>** Urbanization
- ➤ Increasing Health Consciousness
- ➤ Low Purchasing Power resulting in Purchase of Small Packets
- ➤ Indian Economy Experiencing Good Growth Prospects
- ➤ Changing Food Habits amongst Indians
- ➤ Personal health consciousness amongst Indians:
- ➤ Rural Marketing Pushing Demand for Sachets, and or small packs.

#### Dairy products

India is the largest milk producer in the world. Currently, 37 percent of the milk is processed.

Within the next years the demand for packaged milk and milk products will increase because the growing middle Class, health-conscious consumer segment turns towards the western way of life and thus requires more and more processed and packaged food in modern supermarkets. The availability of fresh/pasteurised and long life/UHT milk is increasing all across the country.

Especially during the summer, cold flavored milk & butter milk is preferred by many, as it is healthy and do not have any ill effect.

#### SALES VOLUME OF DRINKING MILK PRODUCTS

in 1,000 tons	2008	2013	2018	Growth rate 2013-2018
Dairy products	10,156	14,457	18,479	27,8 %

MAJOR BRANDS OF BEVERAGES IN INDIA Beverage market (soft drink) in India is controlled by mainly two giants Coke and Pepsi.

Coke is represented in India brands by Coca cola, Limca, Sprite, Fanta, Thums up, Maza, Minute maid, Kinley, & Schweppes.

Pepsi represented in Indian market by Pepsi, Gatorade, Mountain Dew, Nimbooz, Slice, Tropicana, & Aquafina.

Mineral Water market is controlled mainly by Bislery, Himalaya, Aquafina, & Kinley.

#### PACKAGED BOTTLED WATER

Currently the packaged bottled water industry accounts for ~25% of the non-areated beverages sector, and was valued at about INR 60bn (US Dollar 1 bn), in FY 2013. The industry is expected to grow at a CAGR of 22% until 2018.

Packaged bottled water market has recorded a growth of over 15% for last three years.

Top five players in the packaged bottle water are –"Bislery", "Himalaya", "Kinley", "Aquafina", "Bailey", accounted for 67% of the market share.

With double digit growth of packaged bottled water, this industry is likely to reach a market of Rs 160 Billion (US \$ 2.75 billion), by 2018.

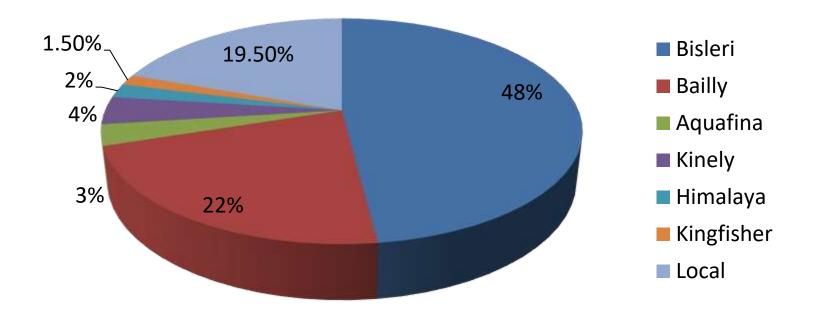
The per capita consumption of bottled water in India was at 16.20 litres during 2010-11 and jumped by almost 21% to 19.60 litres in 2011-12, by the end of 2020, consumption in India will reach around 30 litres. The market will continue to grow at about this rate at least for the next 20-30 years.

The driving factor for this growth are –

- ➤ Urbanization,
- ➤ Increased awareness of health,
- Easy availability specially for "on the move" consumers,
- ➤ Quality of water different from place to place, and its availability,
- ➤ Convenience,
- ➤ Availability higher disposable income/funds in the middle class.

BOTTLED WATER MARKET IN INDIA, share of different brands.

#### Size of market Rs. 60 Billion



#### **HEALTH BEVERAGE**

The health beverage industry is valued at \$230 million.

The Indian beverage industry faces over supply in segments like coffee and tea.

Indian hot beverage market is a tea dominant market. Young generation specially above 18, is in favor of cold coffee.

Parents prefer to give Milk and Milk drinks to the young children. Lot of flavored Milk drinks are available in the market. Specially in summer season, aged and some youngsters also give preference to cold flavored milk and milk by products.

Butter milk a milk by product is widely accepted in the country and has a very large sales specially in the dry season, however majority of this is from unorganized sector, except to AMUL.

#### FACTORS DRIVING THIS GROWTH

- Rising health concerns as well as improving standard of living amongst consumers is likely to boost the consumption of packaged water in India. INHIBITOR
- Traditional water purifying methods and an increase in the use of water purifiers, which need a one-time investment, are a big threat to the growth of the bottled water market in India

#### INDUSTRY SCENARIOA

- ➤ The bottled water industry in India is dominated by the top five large players, but they struggle to penetrate the smaller non-tier I cities because of poor infrastructure. This is giving an opportunity for small regional players to build their market share in regional markets.
- ➤ The market share of unorganized players is anticipated to grow if the demand for bottled water keeps pace. This could severely affect the revenues of organized players, as these small local players eat into their market by imitating their brands and charging similar prices in the market.

#### POLICY CHANGES -

- The implementation of FSS regulation has resulted in BIS inspecting and testing water samples from the market to maintain the quality of licensed products as per Indian Standards (IS).
- The implementation of IS14543: 2004 for packaged drinking water (PDW) & IS13428: 2005 packaged natural mineral water (PNMW) has resulted in:
  - 18 BIS licensees engaged in PNMW
  - ~2,300 licensees engaged in PDW through reverse osmosis
  - ~600 licensees engaged in bottling PDW from natural resources

#### **FOOD MARKET**

The size of the Indian food processing industry is around \$65.6 billion, including \$20.6 billion of value added products.

Requirement of Plastics caps and closures for the foods is also ever increasing in Indian market. Young generation working for longer hrs, has developed a completely new food market of ready to cook/serve food and snacks.

The country's ready-to-eat (RTE) food market is projected to grow at a compound annual growth rate (CAGR) of around 22 per cent between 2014 and 2019.

The market is anticipated to grow on account of increasing working population, growing per capita disposable income, rising per capita expenditure on prepared food, increasing middle-class and affluent consumers, etc.

The food processing industry is one of the largest industries in India and is ranked fifth in terms of production, consumption, export and expected growth. The total food production in India is likely to double in the next 10 years with the country's domestic food market estimated to reach US\$ 258 billion by 2015.

The sector is expected to contribute 8.5 per cent to the country's gross domestic product (GDP) by FY18. The unorganised sector accounts for 42 per cent of India's food processing industry, followed by small-scale industries at 33 per cent and the organised sector at 25 per cent.

#### **PHARMACEUTICALS**

India's pharmaceutical industry is one of the fastest growing sectors in Indian economy. The industry is ranked fourth in the world in terms of production volume and 13th in domestic consumption value.

#### REVENUE OF INDIAN PHARMACEUTICAL INDUSTRY

The Indian pharmaceuticals market is expected to expand at a CAGR of 23.9 per cent to reach US\$ 55 billion by 2020, with the potential to reach US\$ 70 billion in an aggressive growth scenario.

#### **COSMETIC INDUSTRY**

The cosmetic packaging market is one of the most vibrant packaging markets, which includes the diversified types of packaging and their materials used across the regions. With a huge market potential and growing consumer preference, the market is likely to witness substantial growth in the coming years. the value of the caps and closures market would be way over Rs 500 crore a year. The size of Cosmetics Industry globally is \$ 274 billion. The total Indian beauty and cosmetic market size currently stands at US\$950 million and showing growth between 15-20% per annum. The overall beauty and wellness market that includes beauty services stands at about US\$2,680 million

HEALTH CARE, AUTOMOTIVE & LUBRICATING OILS.

The market share of this group is also substantial. An authentic data on this sector could not be gathered in short time span. The picture here below would give an idea of the Health care segment business in

Indian market.



#### SUPPORT INDUSTRY REQUIREMENTS

For manufacturing Plastics Caps and Closures Utility like Power, Chilled water, Air, and Tools for molding are necessity. Injection tools for manufacturing Plastics Caps and Closures are highly technical and sophisticated. Tools with up to 144 cavitations are operating for a continuous production at about 3.5 sec. While the tools operating at such a high speed the requirement of high quality standards in manufacturing and maintenance are of prime importance.

With the technological development and up gradation the equipments and the materials required are available locally.

The high quality tools can be easily maintained and fabricated locally. Most of the MNC's operating have their tools developed in house at own tool shop or fabricated in Europe, and maintained locally.

Tools fabricated locally are also equally good and running at fast cycle. Tools with 48 cavitations are running successfully in various places. Cost wise it is advantageous to fabricate the tools in India, as they are at least 30% cheaper compared to European prices.

Most of the tool makers are using imported Hot runner system and hot runner control for maintaining the reliability and quality cap production.

- ➤ Vasantha Tool crafts, Hyderabad,
- ➤ Die plast, Vasai,
- > Precious products, Pune,
- ➤ Steel made, Mumbai,
- ➤ Acme tools, New Delhi,
- ➤ Aashish Tools, Delhi,
- ➤ T.M. engineers, Calcutta, are some of the good tool maker. Spares for the imported tools and

hot runner systems are available locally.
Project consultant to rigid Plastic projects, Energy conservation, waste management, value added services aimed at bringing down the input cost.

#### CAPS & CLOSURE COSTING -

In general the caps and Closure business is a profitable business, and runs on low margin, high volume basis. The cost of manufacturing is about 1.35 to 1.5 times of the resin price, depending on the variables, whereas the sales price is at about 2 times the resin value. In specialty closure the margins are very high. In general the caps and Closure manufacturing is a profitable business with lowest margin at 35% and the high end cap can be even at 3 to 5 times the resin value.

The caps and Closure is a seasonal business, where in the requirements during peak period are almost double to the lean period. One has to take all the precautions to maintain the stocks in clean and hygienic conditions. Contamination with dust and dirt even on the carton is not acceptable.

#### MARKET TREND -

Markets in India are very price sensitive. Ever growing demand of the packaging materials makes new entries in the market or the expansion of the existing facilities. Both these things necessarily brings in the new investment and there by new technology. Introduction of new technology definitely brings in the developments in the product. With the engagement of new technology and the pressure from the markets associated with competition, pressurize the manufacturer to offer the packaging at lowest price. This initiates cost reduction drive by Light-weighting initiatives, more for cost and material efficiency reasons rather than ecological, have adversely affected the demand for polymer use. Plastic closure manufacturers are under increasing pressure in terms of cost control and speed-to-market.

Plastic closure manufacturers are under increasing pressure in terms of cost control and speed-to-market.

The industry is undergoing strategic review and increasingly driven by operational excellence. Development of PCO 1881 neck and compatible closure at 2.25 gm is one of the classic example for beverage use. Short neck and short height closure like super shorty from Bericap, or Hexalight for mineral water at just 0.9 gm are driving the market to new requirements

This light weighing initiatives gives cost benefits, associated with productivity improvement, Environmental benefits, and minimizes the use of resin.

Optimum weight packaging, manufactured with very high operational efficiency and productivity, is driving the markets to new heights. In order to ensure the caps & closure landed cost is maintained at lowest, and the availability on the JUST IN TIME, all the times, giants have started a request to caps & closure supplier to set up unit next door, or as close as possible to the bottling plant.

Project consultant to rigid Plastic projects, Energy conservation, waste management, value added services

aimed at bringing down the input cost.

#### MARKETING OF CAPS & CLOSURES

Almost all brand owners signs an annual contract with staggered deliveries, the delivery schedules are given monthly in general. During the peak period the schedules are reviewed on weekly basis to ensure the availability of closures.

Based on the factors like timely deliveries, quality of caps, Support during peak period, payment terms, and costing etc. the quantities for the next year are agreed on.

In general price is fixed based on a base price of resin and fluctuation more than pre agreed % (in general 10%) will change the price of closure, as per agreed formula.

Payment terms are in general 30 to 45 days credit, and follow up call is must on completion of term.

Normally one processor has to supply for multiple bottling plant at different location, and prices are agreed on delivered basis, so one has to be very care full on the delivery cost, and local taxation.

#### OPPORTUNITIES FOR THE NEW ENTERENT.

- ➤ Market demand for caps & closure is growing at double the rate compared to global demand and shall continue for additional 5-6 years.
- ➤ A proper product mix of Beverage closure, water caps, specialty closure will give the best return on investment.
- ➤ Apart from local markets there is a great possibility of exports to the other Asian countries, and African Countries.
- ➤ Closures are exported to as far as South Africa on a regular basis by local manufacturers.

### EXISTING CAP MARKET FOR GUJRAT REGION

Only a limited type of caps which are currently marketed by the proposed Marketing partner having sizeable volumes are considered here. There are additional caps like beverage caps, Agrochemical and Chemicals, Cosmetic caps, CR caps have a very high market demand.

➤CTC 2 pc Edible oil cap	25 Lakh/Month
➤ 25 MM. Pharmaceutical Cap	10 lakh /Month
➤38 MM Juice Cap	50 Lakh/Month
➤38 MM Aseptic filling	40 Lakh/Month
➤42 MM Spout – Edible Oil	20 Lakh/Month
➤ 42 MM Spout – Chemical	5 Lakh/Month
➤ 38 MM Lubricating oil Caps	25 Lakh/Month

### DIFFERENT TYPE OF CAPS DISCUSSED

➤ 42 MM Spout cap (two piece cap)



➤38x23 Lub oil cap



➤ 38X16 Cap with 2/3 start for Juice etc.



- ➤ 38X21 Cap for Aseptic filling
- ≥25 mm Cap for Pharma bottles.





➤ CTC cap for Edible oil.

As indicated in the presentation here above the scope for manufacturing caps and closure is very wide, and market requirements are very high.

Considering the fact that the promoters are not well acquainted with the cap and closure business a limited quantum of production is suggested, which can be consumed by local market in Gujrat.

The proposed marketing partner is already established in cap marketing in Gujrat.

The quantum planned for production is part of the quantities what the marketing partner is already handling.

The advantage of Injection molding process is that the machine can be used for multiple item production by changing moulds in short time. This ensures the great flexibility required, specially for new entrant.

Currently majority of the closures discussed here above are coming from Pune, Maharashtra. The savings in the transportation cost will be a great advantage to the end user.

The cost advantage to the end user will ensure easy entry. The long relations of the marketing partner shall also facilitate easy entry.

### LAND & BUILDING REQUIRED

Considering the post molding operation required, the building with 2000 Sq Meter area is recommended with 1000 sq meter clean room type, & dust free. The operating and assembly area should be accessible with air lock type double door system. Area of min 50 sq. meter is required for utility with minimum 3 meter clear height and free from all sides/at least three sides.

The over head crane is recommended, in such case the building height required is 6 meter clear. In absence of crane the manual chain pulley block with gantry can be used. Since the finished product is used for food & beverage application the hygiene need to be maintained, head gear is must for all.

Utility area should be as close as possible to the machines, however preferred to separated from the manufacturing/assembly area.

Storage of raw materials, colorants etc need to be stored on ground floor, however the finished goods duly packed may be stored on mezzanine floor. Finished goods being a low weight and high volume package, can be stored with using vertical space. In such case the investment in racking system shall go up.

### Requirement Of Machine & Mould

DESCRIPTION	Planned production	MA	ACHINE RE	QUIRED	MOUL	D REQUIRED	Expected cycle time
	in Lakh	Tonnage	Quantity	Value RS	cavity	Value R5	Sec
38 juice	16	180	1	35,00,000	8	20,00,000	10
38 aseptic	16	180	1	35,00,000	8	20,00,000	10
42 Spout _Edible oil	13.5	180	1	35,00,000	8	25,00,000	12
	13.5	180	1	35,00,000	8	25,00,000	12
38 MM Lubricating oil	16	180	1	35,00,000	8	20,00,000	10
			5	1,75,00,000	_	1,10,00,000	

### Requirement Of Ancillary equipments

DESCRIPTION	TONNAGE	Quantity	Value R5	Total R5
Water Chiller	50 Ton	2	750000	1500000
Off Line Grinder	5 HP	4	500000	2000000
Hopper loader		5	350000	1750000
Dosing Unit		5	100000	500000
Cooling tower	50 HP	1	200000	200000
Air Compressor	10 HP	1	750000	750000
				67,00,000

### Requirement Of Assembly equipments

Spout assembly Line	20,00,000
Wad insertion Line	25,00,000
TOTAL CAPEX REQUIRED FOR MACHINES & ANCILLARY EQUIPMENTS	3.97.00.000

#### EXPECTED RESIN REQUIRED PER MONTH

100	<b>EXPECTED</b>	COST OF N	ATERIAL 1	PER KG					
200	EXPECYED	COST OF N	ATERIAL 2	PER KG					
150	EXPECTED	MASTER BA	ATCH COST	PER KG					
	Planned	Weight	Expected	Expected	Expected Expected	Expected	Expected	Expected	Total cost
	production		resin price	Master	add on assembly	resin value	master	add on	
DESCRIPTION	in Lakh	per pc GM.		batch price PS	cost RS cost RS	R5	batch value	cost	KS
38 juice	16	3.6	100	150		5,64,480	17,280		5,81,760
38 aseptic	16	3.75	100	150		5,88,000	18,000		6,06,000
42 Spout _Edible oil	13.5	3.9	100	150	0.25	5,15,970	15,795	3,30,750	8,62,515
	13.5	6.9	200	150		18,25,740	27,945		18,53,685
38 MM Lubricating oil	16	5.3	100	150	0.25	8,31,040	25,440	4,00,000	12,56,480
									51,60,440

### MAN POWER REQUIRED

	NO. REQUIRE	D		EXPECTED	
DESCRIPTION		SHIFTS	TOTAL	SALERY PER	TOTAL IN RS.
	PER SHIFT			MONTH	
Manager	1	1	1	50,000	50,000
Engineer	1	1	1	35,000	35,000
Supervisor	1	3	3	25,000	75,000
Mechanic	1	1	1	20,000	20,000
Electrician	1	1	1	20,000	20,000
Operator	5	3	15	15,000	2,25,000
Reliver	1	3	3	15,000	45,000
Helper	3	3	9	10,000	90,000
Reliver	1	3	3	10,000	30,000
Stores keeper	1	1	1	25,000	25,000
Loader	3	1	3	10,000	30,000
Assembly operator	1	1	1	15,000	15,000
Grinder operator	4	1	4	15,000	60,000
TOTAL SALERY FOR THE	MONTH				7,20,000

### CONNECTED LOAD IN KW

DESCRIPTION	CONNECTED LOAD	NO.	TOTAL LOAD KW
Injection machine 180 Ton	47	5	235
Mold heating	8	7	56
Chiller	25	2	50
Grinder	5	4	20
Air Compressor	10	1	10
Cooling tower	10	1	10
Water pump	10	1	10
Office & lighting	20	1	20
TOTAL CONNECTED LOAD			411

### EXPECTED SALES REVENUE PER MONTH

	Planned	Expected	Expected	sales value
DESCRIPTION 38 juice	production in Lakh 16	sales value/1000 900	rs/month	14,40,000
38 aseptic	16	1100		17,60,000
42 Spout _Edible oil	13.5	2500		33,75,000
38 MM Lubricating oil	16	1500		24,00,000
				89,75,000

### FINACIAL FEASIBILITY

7.5	Feed	in Powercho	irge per	KW
			2	

100 Feed in resin price per Kg

150 Feed in master batch price per kg

#### CAPITAL EXPENDITURE REQUIRED

Injection machines 5 no.	1,75,00,000
Injection Mould 5 no.	1,10,00,000
Chiller 2 nos	1500000
Off line grinder 4 no	2000000
Hopper loader 5 no	1750000
Dosing unit 5 no.	500000
Cooling tower 50 Hp 1 no	200000
Air Compressor 1 no	750000
Spout assembly line	20,00,000
Wad assembly line	25,00,000
	3,97,00,000
Electrification	5,00,000
Plumbing	5,00,000
Material handling equipment	10,00,000
SUB TOTAL	4,17,00,000
Contingency @ 3 %	12,51,000
	4,29,51,000

COST OF MANUFACTURING FOR A M	MONTH	
Cost of Resin required per month in RS	5.	51,60,440
Cost of salery & wages per month		7,20,000
Cost of power required per month	411	1036756
Administrative over heads		50000
factory overheads		50000
Finance cost @10% interest on 70% an	nount	250548
		72,67,743
EXPECTED SALES VALUE PER MONT	Н	89,75,000
VALUE ADDITION PER MONTH		17,07,257
DAVDACK DEDTON THI MONITUS		25

SINCE THE PAY BACK PERIOD IS 25 MONTHS THE PROJECT IS FINANCIALLY VIABLE.

### OUR BACKGROUNG

We are mechanical engineer, backed up with post graduation in production and marketing management, with wide experience of 43 years in industry, and exposure in local as well as international market (20 years in Africa).

Last assignment – Managing Director of BERICAP INDIA PVT. LTD.

MNC with head quarters at Germany. "Bericap" is a leader in caps and closure technology.

Nominated member of Kenya Beurou of Standards.

Owner of three no Intellectual Property (design registration).

Well experienced in Design and development of new products, Caps & Closures and packaging.

Have successfully implemented over 24 projects on turn key basis in India, Kenya, Tanzania, Nigeria, South Africa, Kuwait etc.

Have hands on experience and in house expertise in design and development, from concept to commercial.

Have very good relation with brand owners locally as well internationally.

Requirements of closure for tropical countries are well taken in to consideration during design stage.

Pl. feel free to contact us, should you require additional information on the subject.

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