

**PROJECT PROFILE**

**PRODUCT: PET BOTTLE MANUFACTURING**

**PRODUCT CODE:NIC:25209, ASICC:42126**

**QUALITY SPECN: AS PER CUSTOMER'S SPECN.**

**PROJECT COST : Rs.16,16,850 /-**

**MONTH AND YEAR  
OF PREPARATION: MAY – 2020**

**PREPARED BY:**

**MSME DEVELOPMENT INSTITUTE  
GOVT. OF INDIA, MINISTRY OF MSME,  
VIKAS SADAN, COLLEGE SQUARE  
CUTTACK-753003, ODISHA.**

## **INTRODUCTION:**

Articles made from Plastic materials are widely used in every sphere of life. It is known that the thermoplastics like polystyrene, polyethylene, polyethylene terephthalate (PET), acrylic, PVC cellulose acetate/butyrate etc. are very common nowadays and lots of articles are being manufactured from these materials.

. The pet bottle blowing machinery and raw material pet preform are available in India. Recently demand of 50ml,100ml,200ml,500ml pet bottles have increased due to packing of sanitizer, liquid soap, hand wash etc. There is also a significant increase in demand of pet bottles for packing of drinking water.

PET bottle is prepared by blowing compressed air into the parision or PET preform. The preform is fitted to the cavities. The preform allow to expand inside the mould. Desired size bottles are prepared with different colours.

## **MARKET POTENTIAL:**

In Odisha the small scale units requiring different PET bottles and jars procure them mostly from Kolkata, Raipur and other nearby big cities. Number of units like Mineral water plant, sauce, juice, aerated drinks, gum and paste, cosmetics, adhesives and homeopathic, allopathic medicine ,hand wash,phenyl, sanitizer manufacturing units are present in the state and their requirements can be satisfied locally if good quality pet containers can be made at low price. The use of PET bottles have more advantageous properties than metal and wood items, and the latter cannot replace plastic in near future.

## **ASIS AND PRESUMPTION:**

1. The scheme is based on single shift basis and 300 working days per annum.

2. Minimum labour charge has been considered in prepared the scheme.
3. 80% maximum capacity utilisation has been considered.
4. 1% of the raw material may be wasted during processing of the product.
5. The rate of machinery, raw materials are based on quotation provided by the party.
6. 13% rate of interest has been considered for total capital investment.

### **IMPLEMENTATION SCHEDULE:**

|   |                |
|---|----------------|
| Preparation of profile and regn. With DIC | 1 month        |
| Availability of finance/sanction of loan  | 3 months       |
| Machinery and raw material procurement    | 1 month        |
| Recruitment of staff and trial run        | <u>1 month</u> |
|   | 6 months       |

### **TECHNICAL ASPECTS:**

#### **Blow Moulding :**

In this process plastic PET preforms shall be heated up to the desired range in a heating chamber, where plastic PET preforms shall made soft and flexible to blow. This soft perform shall be putted into the desired mould and air pressure of 20 kg/cm<sup>2</sup> shall be applied through the preform and it shall be blown to the shape of the mould.

### **POLLUTION CONTROL:**

There is no such harmful effluent coming out of this factory. But dumping of wastage may create problem. Proper attention should be given to dump the scrap. The unit should obtain No Objection Certificate from the State Pollution Control Board. Workers must be provided hand gloves during operation.

### **ENERGY CONSERVATION:**

Workers should be aware of unnecessary utilisation of electricity.

**Motive power requirement : 19 KW.**

### **QUALITY CONTROL AND STANDARDS:**

As per Customers Specification.

**FINANCIAL ASPECTS**

Fixed Capital:

(P.M..)

**A. Land & Building: 1300 Sq. ft. on rent**

9,000/-

| <b>B.</b> | <b>MACHINERY &amp; EQUIPMENT:</b>  | Nos./set | Rate / price   | Total Amount    |
|-----------|--|----------|----------------|-----------------|
| 1         | Stretch blow forming machine for bottles up to 1.5 ltr. Double cavity and 2 ltr. Single cavity,with 8' Ton locking pressure with Oval heating conveyor,with standard accessories Capacity:1.5 ltr. Double cavity -900 bottle/Hr.,Model No-Eco1 1/2 | 1        | 4,00,000       | 4,00,000        |
| 2.1       | <b>Ancillary Equipment:</b><br>Airtech make:20 HP high pressure air compressor   | 1        | 2,35,000       | 2,35,000        |
| 2.2       | Refrigareded air drier 80CFM with micro filters  | 1        | 1,05,000       | 1,05,000        |
| 2.3       | 3 Ton chiller  | 1        | 125,000        | 1,25,000        |
|           |  |          | <b>TOTAL</b>   | <b>8,65,000</b> |
| 3         | CST 2%   |          |                | 17,300          |
| 4         | Installation & electrification charges @5% on machinery  |          |                | 43,250          |
| 5         | Office furniture like chair, table, stool, rack etc  |          | 15,000         | 15,000          |
|           |  |          | <b>G.TOTAL</b> | <b>9,25,550</b> |

**C. PRE-OPERATIVE EXPENSES**

|   |                                |  |              |               |
|---|--------------------------------|--|--------------|---------------|
| 1 | Preparation of project profile |  |              | 500           |
| 2 | Traveling & transport expenses |  |              | 10,000        |
| 3 | Sales tax registration         |  |              | 6,000         |
| 4 | Electric connection charges    |  |              | 50,000        |
| 5 | Other misc. expenses           |  |              | 25,000        |
|   |                                |  | <b>TOTAL</b> | <b>91,500</b> |

TOTAL FIXED CAPITAL INVESTMENT

10,17,050

**D. WORKING CAPITAL(P.M.)****I RAW MATERIAL:**

| Sl.No. | Particulars                               | Qty. in nos | Rate/no      | Total Amount in Rs. |
|--------|---|-------------|--------------|---------------------|
| 1      | PET Preform                               | 180000      | 3.25         | 585000              |
| 2      | Packing wovensacks                        | 500         | 15           | 7,500               |
| 3      | Other misc. items like thread, needle etc |             | L.S.         | 3000                |
|        |   |             | <b>TOTAL</b> | <b>595,500</b>      |

**II SALARY & WAGES**

| Sl.No. | Parsonnel        | No.of Persons | Salary/month | Total Amount  |
|--------|------------------|---------------|--------------|---------------|
| 1      | Manager          | 1             | 7,000        | 7,000         |
| 2      | Skilled worker   | 2             | 5,000        | 10,000        |
| 3      | Unskilled worker | 2             | 3,500        | 7,000         |
|        |                  |               | <b>TOTAL</b> | <b>24,000</b> |

| III | UTILITY     | unit | price/unit | Total amount  |
|-----|-------------|------|------------|---------------|
| 1   | Electricity | 3000 | 5.00       | 15,000        |
| 2   | Water       |      |            | 300           |
|     |             |      |            | <b>15,300</b> |

**IV OTHER OVER HEAD EXPENSES:**

|   |                                |  |  |               |
|---|--------------------------------|--|--|---------------|
| 1 | Telephone expenses             |  |  | 500           |
| 2 | traveling & transport expenses |  |  | 5,000         |
| 3 | Office stationery              |  |  | 500           |
| 4 | Rent                           |  |  | 9,000         |
|   |                                |  |  | <b>15,000</b> |

**TOTAL WORKING CAPITAL EXPENSES****Rs. 6,49,800****E. TOTAL CAPITAL INVESTMENT**

|   |                 |  |              |                      |
|---|-----------------|--|--------------|----------------------|
| 1 | Fixed Capital   |  |              | 10,17,050            |
| 2 | Working Capital |  |              | 6,49,800             |
|   |                 |  | <b>TOTAL</b> | <b>Rs. 16,16,850</b> |

**F MEANS OF FINANCE:**

|   |                             |  |           |
|---|-----------------------------|--|-----------|
| 1 | Promoter's contribution 25% |  | 4,16,713  |
| 2 | Bank loan 75%               |  | 12,12,637 |

**G Cost of Production (P.A.)**

|   |   |  |  |                  |
|---|---|--|--|------------------|
| 1 | Total recurring expenses                  |  |  | 77,97,600        |
| 2 | Depreciation on machinery & equipment@10% |  |  | 43,250           |
| 3 | Depreciation on office furnitures@20%     |  |  | 3,000            |
| 4 | Rate of interest on bank loan@13%         |  |  | 1,57,643         |
|   |   |  |  | <b>80,01,493</b> |

| TURNOVER PER ANNUM                           |  |           |                   |              |
|--|--|-----------|-------------------|--------------|
| Sl.No.                                       | Particulars                                  | nos       | Rate/no           | Total amount |
| 1  | PET Bottle of different size(50ml to 2litre) | 2,138,400 | 4.10<br>(average) | 87,67,440    |
| <b>GROSS PROFIT(Before tax):</b>             |  |           |                   |              |
| Turnover - Cost of Production                |  |           |                   | 7,65,947     |
| NET PROFIT RATIO: in %                       |  |           |                   | 8.7%         |
| RATE OF RETURN ON CAPITAL INVESTMENT: (in %) |  |           |                   | 47.4%        |

| BREAK-EVEN-POINT(B.E.P.): |   |  |  |          |
|---------------------------|---|--|--|----------|
| Fixed Cost:               |   |  |  |          |
| 1                         | Depreciation on machineries & equipments @10% |  |  | 43,250   |
| 2                         | Depreciation on furnitures @20%               |  |  | 3,000    |
| 3                         | Rate of interest on bank loan @13%            |  |  | 1,57,643 |
| 4                         | 40% salary & wages                            |  |  | 1,15,200 |
| 5                         | 40 % other over head expenses excluding rent  |  |  | 28,800   |
| 6                         | Rent  |  |  | 108,000  |
|                           |   |  |  | 4,55,893 |

$$\text{B.E.P.} = \frac{\text{FC} \times 100}{\text{FC} + \text{Profit}} = 37.3\%$$

**Machinery Supplier:**

1.R.J. Enterprises,79-80,Lonavla, Industrial co-op. estate Ltd., Nagargaon,Lonavala,  
Dist:Pune,Maharashtra-410401,Cell:9987130303,E-mail:rjrnterprises2008@gmail.com.