

PLASTIK BUCKET

1. INTRODUCTION

Plastic Buckets have been used in Indian households for over 30 years in every strata of society. The traditional galvanised iron, aluminium and brass buckets have been to a great extent replaced by HDPE moulded buckets. The important performance characteristics they provide include lightness, unbreakability, ease in handling, safety in use, resistance to boiling water and chemicals, color variability to match environment and economical cost. The HDPE Buckets are available in the market ranging from 13.5 liters to 25 liters capacity. However, the bucket having 21 liter capacity is the most popular in the market.

2. PRODUCTS AND ITS APPLICATION

Plastic bucket can be determined in each household. Plastic bucket has many uses; some use it for bathing, and some for storing eatable object. Plastic buckets are also used for commercial reason for transportation and packaging.

3. DESIRED QUALIFICATION FOR PROMOTER

The Promoter should have preferably a basic degree in plastic engineering/ processing or a degree/ diploma in engineering / or a degree in chemistry. Experience of at least two to three years in plastic industry is desirable.

4. INDUSTRY OUTLOOK AND TREND

Plastic processing industry outlook is positive in the century. The industry has been growing at the annual rate of 15 to 17% and is expected to register better growth in future. The plastic bucket sub segment is more consumed consumer

product; it is expected to show an encouraging and stable, sustained growth trends in future.

5. MARKET POTENTIAL AND MARKETING ISSUES, IF ANY

In accordance with the Working Group Report on Petrochemicals, Ministry of Chemicals & Fertilizers, the demand of total HDPE Injection Moulded items including buckets in India is projected to be 2400 Kilo Tones by 2017-18 having growth rate @ 16%. However, the moulded buckets and mugs are fast moving items. The growth rate and demand is envisaged on an average 11 - 12 percent per annum.

6. RAW MATERIAL REQUIREMENTS

HDPE Granules

7. MANUFACTURING PROCESS

HDPE Buckets can be moulded on Ram type or Screw type preplasticiser machines. The latter is preferred. The process involves feeding the raw material to the machine through a hopper. The barrel is heated to melt the material, which is injected into the mould halves by the forward movement of the screws into the cavity. The mould cavity is cooled by passage of water at ambient or low temperature to freeze the molten material. The pressure of the screw is held for some time and then it retracts by screw rotation. At the end of the moulding and cooling cycle, the mould halves open and the moulded item is extracted manually or automatically. Thus the entire moulding cycle comprising injection, holding the injection pressure, cooling and the idle time for extracting the moulding is completed.

8. MANPOWER REQUIREMENT

| Sr. No. | Particulars | Nos | Salary |
|---------|---------------------|-----|--------|
| 1 | Production Engineer | 1 | 12000 |
| 2 | Manager | 1 | 12000 |

| | | | |
|---|-----------------|----|--------|
| 3 | Sales Executive | 1 | 10000 |
| 4 | Accountant | 1 | 10000 |
| 5 | Store Keeper | 1 | 8000 |
| 6 | Watchman | 2 | 14000 |
| 7 | Skilled Workers | 4 | 32000 |
| 8 | Helpers | 4 | 24000 |
| 9 | Electrician | 1 | 7000 |
| | Total | 16 | 129000 |

9. IMPLEMENTATION SCHEDULE

| Sr. No. | Particulars | Time Period |
|---------|--|--------------|
| 1 | The Time requirement for preparation of Project report | Two months |
| 2 | Time requirement for selection of S | One month |
| 3 | Time required for registration as Small Scale Unit | One Week |
| 4 | Time required for acquiring the loan Machinery procurement, erection and commissioning | Three Months |
| 5 | Recruitment of labourer etc. | One month |
| 6 | Trial runs | One month |

10. COST OF PROJECT

| Sr. No. | Particulars | Rs. In lakhs |
|---------|--|--------------|
| 1 | Land and Building | 38.00 |
| 2 | Plant and Machinery | 46.30 |
| 3 | Miscellaneous Assets | 3.50 |
| 4 | P & P Expenses | 3.00 |
| 5 | Contingencies @ 10% on land and building and plant and machinery | 8.43 |
| 6 | Working capital margin | 23.21 |
| | Total | 122.44 |

11. MEANS OF FINANCE

| Sr. No. | Particulars | Rs. (lakhs) |
|---------|-------------------------|-------------|
| 1 | Promoter's contribution | 36.73 |
| 2 | Bank Finance | 85.71 |
| 3 | Total | 122.44 |

12. WORKING CAPITAL CALCULATION

| Sr. No. | Particulars | Rs. lakhs | Stock Period days | Promoter Margin | Margin Amt. | Bank Finance |
|---------|-------------------------------------|-----------|-------------------|-----------------|-------------|--------------|
| 1 | Salaries and wages | 1.29 | 30 | 1 | 1.29 | - |
| 2 | Raw material and packaging material | 20.16 | 30 | 0.5 | 10.08 | 10.08 |
| 3 | Utilities | 1.08 | 30 | 0.5 | 0.54 | 0.54 |
| 4 | Debtors | 28.26 | 30 | 0.4 | 11.304 | 16.956 |
| | Total | 50.79 | | | 23.214 | |

13. LIST OF MACHINERY REQUIRED

| Sr. No. | Particulars | Rs. lakhs |
|---------|-------------------------------------|-----------|
| 1 | Injection Moulding 350 Ton Capacity | 40.00 |
| 2 | Compressor 5 Kg Pressure | 0.30 |
| 3 | Cooling Tower | 2.50 |
| 4 | Scrap Grinder | 1.50 |
| 5 | Moulds & Dies | 2.00 |
| | Total | 46.30 |

Indicative and illustrative list of machinery manufacturers for this project is given below:

- Ferromatic Hilacro India Pvt. Ltd., Ahmedabad
- SHI Plastic Machinery India Pvt. Ltd., Gurgaon
- Patel Plastic Machinery Manufacturers, Ahmedabad
- Polymach Pplast Machinery Ltd. Vadodara

14. PROFITABILITY CALCULATIONS

| Sr. No. | Particulars | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------|--------------------------------------|---------|---------|---------|---------|---------|
| | | 2373638 | 2712729 | 3051820 | 3051820 | 3051820 |
| (A) | Sales Realization per annum | 4 | 6 | 8 | 8 | 8 |
| (B) | Cost of Production | | | | | |
| | | 1693440 | 1935360 | 2177280 | 2177280 | 2177280 |
| 1 | Raw material per annum | 0 | 0 | 0 | 0 | 0 |
| 2 | Utilities | 903000 | 1032000 | 1161000 | 1161000 | 1161000 |
| 3 | Salaries | 1548000 | 1671840 | 1795680 | 1919520 | 2043360 |
| 4 | Repairs and maintenance | 270000 | 290000 | 310000 | 330000 | 350000 |
| 5 | Selling expenses (3% on sales value) | 712091. | 813818. | 915546. | 915546. | 915546. |
| | | 5 | 9 | 2 | 2 | 2 |

| | | | | | | |
|---|---|---------|---------|---------|---------|---------|
| 6 | Administrative Expenses (other expenses) | 450000 | 500000 | 550000 | 600000 | 650000 |
| | Total | 2081749 | 2366125 | 2650502 | 2669886 | 2689270 |
| | | 2 | 9 | 6 | 6 | 6 |
| | (C) Profit before interest & depreciation | 2918892 | 3466037 | 4013182 | 3819342 | 3625502 |
| | depreciation | 1264500 | 1264500 | 1264500 | 1264500 | 1264500 |
| | Profit Before term loan and tax | 1654392 | 2201537 | 2748682 | 2554842 | 2361002 |
| | Interest on term loan (11%) | 909117 | 808104 | 673420 | 538736 | 404052 |
| | Profit before tax | 745275. | | | | |
| | | 5 | 1393433 | 2075262 | 2016106 | 1956950 |
| | Tax (30%) | 223582. | 418029. | 622578. | 604831. | 587084. |
| | | 6 | 9 | 5 | 7 | 9 |
| | Total Profit | 521692. | 975403. | | | |
| | | 8 | 2 | 1452683 | 1411274 | 1369865 |

Underlying assumptions for probability calculation are:-

The installed capacity of the plant is assumed at 300 MT per annum. First year capacity utilization is taken at 70% resulting in production and sales of 210 Tonnes of finished products. The raw material price of the major products is assumed at Rs. 80-82/- per KG whereas the selling price is taken at Rs.105-110/- per KG. Power cost is taken at Rs.8/- per unit. Interest rate on long term loan is taken at 11%.

15. BREAKEVEN ANALYSIS

| Fixed Cost (FC): | Rs. In lakhs |
|---------------------------|--------------|
| Wages & Salaries | 15.48 |
| Repairs & Maintenance | 2.7 |
| Depreciation | 12.65 |
| Admin. & General expenses | 4.5 |
| Interest on Term Loan | 9.09 |
| | |
| Total | 44.42 |

Fixed Cost: 44.42

Profit After Tax: 5.22

$$\text{BEP} = \text{FC} \times 100 / \text{FC} + \text{P}$$

$$44.42 / 49.64 \times 70 / 100 \times 100$$

62.64 %

16. STATUTORY/GOVERNMENT APPROVALS

There is no specific statutory requirement for plastic industry process. However, MSME registration various taxation related registration and labour law related compliances have to be ensured. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

17. BACKWARD & FORWARD LINKAGES

There are no specific backward or forward linkages related techno-economic advantages or synergies for this type of project. However, in future after achieving certain growth entrepreneur may consider backward linkage.

18. TRAINING CENTRE AND COURSES:

There are number of institutions providing facilities and training courses on production/marketing for the proposed project. These are Central Institute of Plastic Engineering and Technology (CIPET), Indian Institute of Packaging Management (IIPM), Plastic and Rubber Institute (PRI), Indo German Tool Room (IGTR), etc.

Udyamimitra portal (link : www.udyamimitra.in) can also be accessed for handholding services viz. application filling / project report preparation, EDP, financial Training, Skill Development, mentoring etc.

Entrepreneurship program helps to run business successfully is also available from Institutes like Entrepreneurship Development Institute of India (EDII) and its affiliates all over India.

Disclaimer:

Only few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not carry any recommendation.

Source:- Udyami Mitra/Sidbi