

A
PROJECT PROFILE
ON

MANUFACTURE OF PET BOTTLE

2020 - 2021



Prepared By:

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A PROJECT PROFILE ON
PET- Bottle

QUALITY STANDARD : The quality design and standards shall depend upon the performance requirement of individual Bottle

PRODUCTION CAPACITY :

QUANTITY(Nos) : 8,10,00,000

VALUE : Rs. 21,0600000=00

MONTH AND YEAR OF PREPARATION: : June 2020

PREPARED BY : MSME –Development Institute
Agra

I Introduction: -

Polyethylene terephthalate (PET) resin is known for their excellent combination of properties such as Mechanical, thermal, chemical resistance as well as dimensional stability. It has low gas permeability in particular Carbon di oxide. PET is also know for moisture barrier properties and excellent resistance to alcohol and hydro carbon. PET is approved as safe for packaging of foods and beverages. It is an

important commercial polymer having application ranging packaging of Water, foods, beverages, sanitizer, Liquor, Oil, Juice, Soda, Pharma, shampoos and Cosmetic products . PET can be moulded into containers and Bottle of different sizes and shapes.

II Market Potential:-

The demand of PET Bottle is likely to increase due to its advantages over other packing material like transparent, light weight, flexibility, corrosion and chemical resistance and easy to transport.

III. Basis & Presumption:-

- 1 The Project Profile has been prepared on the basis of Single Shift of 8-hrs. a day and 25-working days in a month at 75% efficiency.
- 2 It is presumed that 1st year, the capacity utilization will be 75% followed by 100 % in the next year .
- 3 Interest rate for the fixed and working capital has been taken @ 10% on an average whether financed by the Bankers or Financial Institutional.
- 4 The margin money required is minimum (30% of the total capital investment).
- 5 The rental value for the accommodation of office, workshop and other covered area has been taken @100/- per sq. mtr.
- 6 The rate quoted in respect of machinery, equipment and raw materials are those prevailing at the time of preparation of the Project Profile and are likely to vary from place to place and suppliers to suppliers. When a tailor made project profile is prepared, necessary changes are to be made.
- 7 The pay back period may be 5-years after the initial gestation period.
- 8 The gestation period in implementation of the project may be to the tune of 4 to 6 months which includes making all arrangements, completion of all formalities, market surveys and tie-ups etc. Once all the above

arrangements are made and quality/standards achieved the 100% project capacity may be achieved at the end of two years.

IV. Implementation Schedule: -

The implementation of the project includes various jobs/exercises such as market surveys and tie-ups, preparation of project report, selection of site, registration, financing of project, procurement of machinery and raw materials etc., recruitment of staff, erection/ commissioning of machines, trial production and commercial production etc.

V. Process Details:-

A pre-form parison is placed to a blow molding cavity. The parison is stretched biaxially during blow molding to orient and align the molecules. This orientation improves the gas barrier, stiffness, clarity and impact strength of the Bottle. As a result, Bottle can be reduced in weight.

Production (Target & Value):-

QUANTITY	:	8,10,00,000
VALUE	:	Rs. 21,0600000=00

Quality Control & Standards:-

The quality design and standards shall depend upon the performance requirement of individual Bottle

1. Power Requirement: -

70 K.W.

2. Energy Conservation:-

The following steps may be taken for the conservation of energy.

2 Lay out of the unit should be in such a way in that no back tracking of material is there.

3 All electric switches may be kept off, when not required.

5 LED may be used for energy saving.

6 As far as possible Solar Energy and day light will be used .

7. Pollution Control:-

1. Minimum height of shed will be maintained with exhaust fans should be installed for removing decongestion proper ventilation etc.

VI. Financial Aspects:-

1. Fixed Capital:-

Land and Building (rented)

On Rent @ Rs.100/-Sq. meter

CoveredArea250Sq.meter

Rs.25000=00

2. Machinery and equipment:-

S.No. Description

HP/KW Ind/Imp. Qty. Value

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(a) Production Unit

Name of machine with specification

1.	Three Cavity Fully Automatic PET Blow Moulding Machine With Air Recovery ,Pre-form storage Hopper, Auto feeder and bottle carrying conveyor	9 KW	IND	01	21,25,000=00
	A)	Blowing capacity-50ml to 1000ml			
	B)	Neak Dia-25mmto28mm			
2	Air Compressor Set- 01				
	a)				35 HP, 9 Bar Screw Compressor
	IND	01			11,75,000=00
	b)				15 HP, 32 Bar Booster Compressor with 500 ltrs
	Tank	IND	01		
	c)				1000 Ltrs Low Pressure air Reservoir
	IND	01			
	d)				150 CFM High Pressure air Dryer
	IND	01			
	e)				150 CFM High Pressure Pre Filter
	IND	01			
	f)				150 CFM High Pressure oil Filter
	IND	01			
	g)				60 CFM Low Pressure air Dryer
	IND	01			
	h)				60 CFM Low Pressure Pre Filter
	IND	01			
	i)				60 CFM Low Pressure Oil Filter
	IND	01			
3.	Air Cooled Water Chiller-3TR		IND	01	1,25,000=00
4.	Cooling Tower	15 TR	IND	01	80,000=00
		Total			3505000=00
5	Cost of Mould (Different Sizes and Shape)		IND		400000=00
		Total			3905000=00
6	GST @18%				702900=00
		Total			4607900=00

(b) Pollution Control Equipment, if required: 50000=00

(c) Energy Conservation Facilities/ Equipment, if used: 50000=00

(d) Electrification & Installation Charges @ 10% 477790=00

(e) Cost of Office Equipment/ Working Table etc. 100000=00

Total Cost of Machinery & Equipments 5285690=00

a + b + c + d + e

3. Pre-Operative Expenses:- 10,000=00

Total Fixed Capital 5385690=00

VII. Working Capital (Per month)

Staff and Labour (per month):-

(1) Personnel

S.No.	Description	No.	Salary @	Total Value (Rs.)
(a) Administrative & Supervisory				
	i) Supervisor/ Foreman	01	20,000	20000=00
				4000=00
	ii) Accountant cum clerk	01	15000	15000=00
				3000=00

iii) Peon	01	10000	10000=00
(b) Technical Skilled & Unskilled			
iv) Skilled Worker	02	13000	26000=00
6000=00			
v) Semi Skilled Worker	02	12000	24000=00
4800=00			
vi) Helper	02	10000	20000=00
Total			1,15,000=00
Perquisites @ 15 %			17250=00
Total			1,32,250=00

(2) Raw Material (per month):-

S.No.	Description with specification	Qty.	Rate	Value (Rs.)
1	Pre-Form (Various weigh)	135MT	1,20,000/MT	1,62,00,000=00

(3) Utility (per month):-

Electricity	9000@9KW	81,000=00
Water	LS	1000=00
Total		82000=00

(4) Other Expenditure (per month)

1.	Rent	25000=00
2.	Postage & Stationary	2000=00
3.	Advertisement	25000=00
4.	Repairing & Maintance	17500=00
5.	Telephone	2000=00
6.	Transportation	20000=00
7.	Consumable	5000=00
8.	Sales expenses	5000=00
9.	Insurance	10000=00
10	Misc. Expenses	20000=00
Total		1,31,500=00

II. Total Recurring Expenditure (per month):-

1) Salary & Wages	1,32,250=00
2) Raw Material	1,62,00,000=00
3) Utilities	82,000=00
4) Other Contingent Expenses	1,31,500=00

Total: 16545750=00

IX. Working Capital for three months:- 49637250=00

X. Total Capital Investment:-

Fixed capital: 5385690=00

Working capital for 3 months: 49637250=00

Total **55022940=00**

XI. MACHINERY UTILIZATION:-

It is expected that during first year machine utilization will be 75% and during second year 100% .

XII. FINANCIAL ANALYSIS

1 Cost of Production (per annum):-

1. Total Recurring Cost per year	198549000=00
2. Depreciation on Machinery & Equipment @ 10%	4,77,790=00
3. Depreciation on Furniture @25%	25,000=00
4. Interest on Total Capital Investment @ 10%	4287294=00

Total: **203339084 =00**

XIV. Turn Over per annum:-

S.No.	Description	Qty.	Rate	Value (Rs.)
1	PET- Bottle	8,10,00,000	2.60	21,0600000=00

XV. Net Profit per annum before Income Tax :- **7,260,916=00**

XVI. Net Profit Ratio:-

<u>Net profit x 100 %</u>	3.4%
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Turn over	
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XVII. Rate of Return:-

<u>Net profit x 100</u>	13.1 %
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Total investment	
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XIV. BREAK EVEN ANALYSIS: -**(1) Fixed Cost (per annum)**

A Total Depreciation	5,02,790=00
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(on m/c. & equipment, dyies, tools, furniture):

B Rent:	3,00,000=00
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C Interest on borrowing :(Total Investment)	4287294=00
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D Insurance	120000=00
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E 40% of salary:	634800=0
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F 40% of other contingent expenses:	463200=0
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(Excluding rent & insurance)

Total	6308084=00
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XX. Break Even Point = Fixed Cost x 100

Fixed cost + profit

=46.4%

XXI . LIST OF MACHINERY & RAW MATERIAL SUPPLIERS

1. M/S Boolani Engineering Corporation

Prabhadevi Indl Estate , 402,

Veer Savarkar Marg,Mumbai-400025

2 M/S Dunamis Machine

4/516C,Edapalayam,Upparapalayam Road,

alamathi Red Hills, Chennai-600052

3. M/S Pet Plat India

18,Astal Road, Bhakri Pali Road,,Bhakri,

Faridabad ,Haryana-121001

4. M/S Shiva Hydrolic,A-82, Gali No-4,sidhart enclave,Jain Road,

Uttam Nagar,Delhi-1100

RAW MATERIAL

1.M/S Chemco, Chemco House,6th Floor, D.Sukhadwala Road

Fort, Mumbai

2. M/S Premier flexi Plast ,C-608,DSIDC Indl. Area, Narela, Delhi

3. M/S Nirmal Pet,467,Indl Area, Mohali, Punjab

4. M/S Mittal Plastic Products,G-8,Bawana Indl. Area,Sector-3,Bawana

New Delhi-110039