

Packaged Drinking Water

Production Capacity : 45 lakh bottles of 1L capacity/annum

Product and its Applications

Most of the water borne diseases emanate from unclean water. Packaged drinking water ensures safe, clean, potable water for human consumption.

Market Potential

Though a large number of manufacturers have recently taken up production of packaged drinking water, yet there exists a wide gap between demand and supply. A number of units can be set up in different parts of the country to meet the local demand in institutions, hotels, restaurants, offices, tourists, households and individuals.

Basis and Presumption

- The unit will work for 300 days per annum on 3 shifts basis.
- The unit can achieve its full capacity utilization during the 2nd year of operation.
- The wages for skilled workers are taken as per prevailing rates in this type of industry.
- Interest rate for total capital investment is calculated @ 12% per annum.
- The entrepreneur is expected to raise 20-25% of the capital as margin money.
- The unit would construct its own building.
- Costs of machinery and equipment are based on average prices of machinery manufacturers.

Implementation schedule

Project implementation will take a period of 8 months. Break-up of the activities and relative time for each activity is shown below:

Scheme preparation and approval	01 month
SSI provisional registration	1-2 months
Sanction of financial supports etc	2-5 months
Installation of machinery and power connection	6-8 months
Trial run and production	01 month

Technical aspects

Location

The plant can be located at any suitable place where availability of clean water, power, PET bottles and market access is ensured.

Process of Manufacture

The process consists of following steps:

Quality Control and Standards

As per BIS requirements

Pollution Control

There is no major pollution problem associated with this industry except for disposal of waste water which should be managed appropriately. The entrepreneurs are advised to take "No Objection Certificate" from the State Pollution Control Board.

Energy Conservation

Suitable measures shall be taken to conserve electricity.

Production Capacity

Quantity	45 lakh litre/annum (15,000 L/day)
Installed capacity	20,000 L/day
Optimum capacity utilization	70%
Working days	300/annum (3 shifts)
Manpower	17
Utilities	
Motive Power	40 kW
Water	25 kL/day

Financial Aspects

Fixed Capital

Land & Building

Particulars	Amount (Rs. lakh)
Land 2000 m ²	02.25
Built up area 700 m ²	42.75
Total cost of land and building	45.00

Machinery and Equipment

Description	Amount
UF based purification system (Sand filter, chlorination unit, UF membranes, sterilisation unit, SS silverisation unit, skid, electronic doser, ozone generator, water collection tanks, Quality control laboratory, deep bore well, delivery van, PC	42.00

Erection & electrification of machinery & equipment @10% cost	04.20
Office furniture & fixtures	02.80
Total	49.00

Pre-operative Expenses

Consultancy fee, project report, deposits with electricity department etc	05.00 (Rs. lakh) >
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Total Fixed Capital

(9.1.1+9.1.2+9.1.3)	99.00 (Rs. lakh)
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Recurring expenses per annum

Personnel

Designation	No.	Salary Per month	Amount
Factory Manager	1	13,000	01,56
Production Manager/Chemist	1	09,000	01.08
Supervisory staff	4	05,000	01.20
Skilled workers	4	03,750	01.80
Unskilled workers	5	03,000	01.80
			10.80
Perquisites @15 %			01.62
Total	17		12.42

Raw Material including packaging materials

Particulars	Qty (t)	Rate/t (Rs.)	Amount (Rs. lakh)
Pet bottles 1L size including caps, labels	45 lakh	3.80 each	171.00
Chemicals	LS	LS	008.00
Hydrochloric acid	3	18000	00.54
Corrugated boxes	1,88,000/24	23	043.24
Total			222.24

Utilities

Particulars	Amount (Rs. lakh)
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Power 140,000 kW	06.10
Water 25 kL/day	00.40
Total	06.50

Other Contingent Expenses

Particulars	Amount(Rs. lakh)
Repairs and maintenance @10%	04.90
Consumables & spares, others	01.90
Transport & travel	00.24
Insurance @1%	00.90
Total	4.20

Total Recurring Expenditure

(9.2.1 + 9.2.2 + 9.2.3 + 9.2.4)	241.80 (Rs. lakh)
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Working Capital

Recurring expenses for 3 months	60.45 (Rs. lakh)
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Total Capital Investment

Fixed capital (Refer 9.1.4)	099.00 (Rs. lakh)
Working capital (Refer 9.3)	060.45
Total	159.45

Financial Analysis

Cost of Production (per annum)

Recurring expenses (Refer 9.2.5)	241.80
Depreciation on building @ 5%	002.18
Depreciation on machinery @10%	004.62
Depreciation on furniture @ 20%	000.34
Interest on Capital Investment @12%	019.14
Total	268.30

Sale Proceeds (Turnover) per year

Item	Qty	Rate (Rs.)	Amount (Rs.lakh)
Packaged drinking water in PET bottles cap. 1L, packed in cartons of 24 bottles each	45 lakh bottles	7.00	315.00

Net Profit per year

		$= \text{Sales} - \text{Cost of production}$ $= 315 - 268.30$ $= \text{Rs. } 46.70 \text{ lakh}$
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Net Profit Ratio

		$\frac{\text{Net profit}}{\text{Sales}} \times 100$ $\frac{46.70X}{315} \times 100$ $= 14.8 \%$
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Rate of Return on Investment

		$\frac{\text{Net profit}}{\text{Capital Investment}} \times 100$ $\frac{46.70X}{159.45} \times 100$ $= 29.3\%$
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Annual Fixed Cost Amount (Rs. Lakh)

	Amount (Rs. Lakh)
All depreciation	6.23
Interest	19.14
40% of salary, wages, utility, contingency	11.03

Insurance	00.90
Total	38.43

Break even Point

		Annual Fixed Cost X 100

		Annual Fixed Cost + Profit
		38.43 X 100

		38.43 +46.70
		= 45.1%

Addresses of Machinery and Equipment Suppliers

- Water Treatment Equipments, Pune
26/6, Gururaj Housing Society, Apte Colony, Bhosari
Pune - 411 039, Maharashtra, India
Email : contact@watertreatmentindia.net , sales@watertreatmentindia.net
- Water treatments Expert Inc.
5, Main Road , Khichripur, Opposite Reliance Fresh,
Delhi-11009
Email:wtexpert@gmail.com
- Watrion Water and Filter Engg. Pvt. Ltd.
1, Harsivan Apartment, Ground Floor
(Behind Canara Bank),West J.P.Road,
Andheri (West),P.B.No. 7372
Mumbai – 400 059
- Sonalifabs
71, Biren Roy Road (West)
Kolkata – 700 061
- Enviro Tech Utility,
32A, Main Patel Nagar Road ,
Opposite Wings Show Room, West Patel Nagar
New Delhi – 110 008
- Rital Agencies
55 III Main Road , Gandhi Nagar,
Chennai – 600 020
- Ion Exchange India Ltd.
Ticcon House, Dr. E.Houses Road , Mahalaxmi,
Mumbai – 400 011
- Alpha Engineering
158, Pocket E-20, Sector-II,Rohini,
Delhi – 110 085

Contact for more information

Information

TIMEIS

E-mail: timeis@ficci.com

Manager

Project