

**BOTTLE WASHERS  
(TWISED WIRE BRUSH)**

**I. Product and its uses**

Twisted wire brush is used for washing and cleaning bottles etc. This is an item of consumer requirement and with the increase in number of educated people, the demand for this item is also increasing. (Reserved List Sr. No. 535).

**II. Production Target**

30,000 Brushes per month.

**III. Manufacturing Process**

Bottle cleaning brushes are made by twisting wires of nylon, animal hair, cocofibre etc. Washed and sterilised fibres of desired length are fed into two galvanised steel wires which are twisted by power operated machines. Thus the fibre gets the helical form. The brush is then trimmed to the required round size.

**IV. Quality Control**

Proper selection and quality of raw material would control the quality of the product.

**V. Land & Building**

	Rs.
Covered area 50 Sq. Mtr. on rent	500

**VI. Machinery & Equipment**

1. Hand shearing machine	1,000
2. Sterilizing equipment	2,000
3. Wire twisting machine power operated—3	12,000
4. Brush making tools, fixtures, trimming tools etc.	3,000
	18,000
Installation	2,000
	20,000

**VII. Office Furniture and Equipment**

Tables, chairs, almira's, typewriter etc.	8,000
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**VIII. Fixed Capital**

1. Machinery and equipment	20,000
2. Office furniture	8,000
	28,000

**IX. Raw Material (Per month)**

1. Nylon synthetic fibre 100 kgs @ Rs. 150 per Kg.	15,000
2. Galvanised steel wire of 14 to 18 SWG 600 Kgs. @ 10 per Kg.	6,000
	21,000

**X. Staff & Labour (Per month)**

	No.	Rs.
1. Manager	1	1,500
2. Workers	5	2,500
3. Helpers	3	1,200
4. Clerk/Typist	1	600
5. Peon/chowkidar	2	800
6. Sweeper (Part-time)	1	100
		6,700

**XI. Other Expenses (Per month)**

1. Power & water	500
2. Postage & stationery, office expenses	200
3. Transportation charges	300
4. Consumable stores, binding wire etc.	500
5. Misc. expenses	300
	1,800

**XII. Working Capital (Per month)**

1. Raw Material	21,000
2. Staff & Labour	6,700
3. Other expenses	1,800
4. Rent	500
	30,000

For three months = 30,000 × 3 = 90,000

**XIII. Total Capital Investment**

1. Fixed capital	28,000
2. Working capital	90,000
	1,18,000

**XIV. Cost of Production (Per month)**

1. Working capital	30,000
2. Depreciation on machinery @ 10%	250
3. Interest on total investment @ 15%	1,500
	31,750

**XV. Sales (Per month)**

By sale of 30,000 Nos. brushes of different size and fibre @ Rs. 1.25 each	37,500
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**XVI. Profit (Per month)**

	Rs.
Sale . . . . .	37,500
Cost of production . . . . .	-31,750
	5,750

Percentage of profit on sale—

$$\frac{5,750 \times 100}{37,500} = 15.3\%$$

Percentage of return on investment—

$$\frac{5,750 \times 12 \times 100}{1,18,000} = 58\%$$

**XVII. Break Even Analysis**

	Rs.
Fixed Cost	
1. Rent . . . . .	500
2. Depreciation . . . . .	250
3. Interest . . . . .	1,500
4. 40% of salaries . . . . .	2,680
5. 40% of others . . . . .	720
Total fixed cost . . . . .	5,650

$$\text{B.E.P.} = \frac{\text{Fixed Cost} \times 100}{\text{Fixed cost} + \text{Profit}}$$

$$= \frac{5,650 \times 100}{5,650 + 5,750} = 49\%$$

**XVIII. Addresses of Machinery Suppliers**

1. Quality Machine Tools, Medows Street, Fort, Bombay.
2. Western Engineering Co., Industrial Estate, Srinagar.
3. Vankos & Company, Exhibition Road, Patna.
4. Modgil & Co. Kashmir Road, Batala (Punjab).