

BREAD

QUALITY AND STANDARDS : As per BIS/PFA specifications
PRODUCTION CAPACITY : 1440 tpa (36 lakh loaves of 400 g/annum)



1.0 PRODUCT AND ITS APPLICATIONS

Bread is an important ready-to-eat product which is becoming increasingly popular in hotels, restaurants, canteens and in households. The bread is a fast and convenience food based on wheat. There are many varieties e.g. whole flour bread, brown bread, milk based and fortified breads.

2.0 MARKET POTENTIAL



India produces more than 70 million tonnes of wheat. Most of it is used for direct consumption in the form of chapati & bakery products. The per capita consumption of bakery products in the country is about 2 kg per annum, against 50-100 kg bread alone in western countries. Consumption of bread is increasingly fast at estimated rate of 135% with a scope for further enhancement. The manufacture of bread in small towns and villages shall not only meet the local demand but generate employment opportunities in the vicinity.

3.0 BASIS AND PRESUMPTIONS

- The unit proposes to work at least 300 days per annum on single shift basis.
- The unit can achieve its full capacity utilization during the 2nd year of operation.
- The wages for skilled workers is 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 proposes to construct own building.
- Costs of machinery and equipment are based on average prices enquired from machinery manufacturers.

4.0 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

5.0 TECHNICAL ASPECTS

5.1 Location

The unit can be set up at any suitable place where there is substantial market demand. Availability of power and road connectivity are to be ensured. Keeping in view the short shelf life of the product, marketing network has to be planned carefully.

5.2 Process of Manufacture

Maida is the principle ingredient. It is sieved to 60 mesh size and converted into dough by mixing other components. The yeast solution is added and mixed well until dough is formed. The dough is allowed to ferment at a temperature of 27°C and 75% RH. During this period, the volume of dough increases due to carbon dioxide gas released by the action of yeast. It is given knock-back and allowed a rest for a period of 15 minutes. The dough is weighed into 450 g pieces for obtaining a baked loaf of 400 g bread. It is rounded, moulded, panned and baked at 205°C for 25-30 minutes. The baked loaf is taken out of the pan, aerated and cooled for 60-90 min. It is sliced and wrapped.

5.3 Quality Control and Standards : As per BIS/PFA requirements.

6.0 POLLUTION CONTROL

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

7.0 ENERGY CONSERVATION

Proper care should be taken to conserve the electric power.

8.0 PRODUCTION CAPACITY

Quantity	:	1440 tpa (12,000 loaves of 400 g/day)
Installed capacity	:	6.0 tpd
Working days	:	300/annum, 3 shifts
Optimum capacity utilization	:	70%
Manpower	:	31

Utilities

Motive Power	:	40 kW
Water	:	10 kL/day

9.0 FINANCIAL ASPECTS

9.1 Fixed Capital

9.1.1 Land & Building

		Amount (Rs. lakh)
Land 800 sq.m. and development	:	01.50
Built up Area 500 sq. m.	:	15.00

Total cost of Land and Building	:	16.50

9.1.2 Machinery and Equipment

Description		Amount (Rs. lakh)
Mixer with flour sifting arrangements, dough kneader, sunmica top dividing table, moulder, proofing cabinet, electric ovens, slicer, weighing scale, baking tins / trays, trolleys, lab equipment, wrapping machine, refrigerated cabinet, baby boiler	:	15.00
Erection and electrification @ 10% of Machinery cost	:	1.50
Office furniture & fixtures	:	0.50
Total		----- 17.00

9.1.3 Pre-operative Expenses

Consultancy fee, project report, deposits with electricity department etc.	:	1.00
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9.1.4 Total Fixed Capital : 34.50

(9.1.1+9.1.2+9.1.3)

9.2 Recurring expenses per annum

9.2.1 Personnel

Designation	No.	Salary Per month	Amount (Rs.lakh)
Factory Manager	1	7000	0.84
Supervisor	3	4000	1.44
Office Assistant	2	3000	0.72
Technician	2	3000	0.72
Skilled workers	7	2500	2.10
Unskilled workers	16	2000	3.84
			9.66
Perquisites @ 15%			1.44
Total	31		----- 11.10

9.2.2 Raw Material including packaging materials

Particulars	Qty.(MT)	Rate/kg	Amount (Rs. lakh)
Maida	1120	9	100.80
Sugar	34	16	5.44
Salt	17	5	0.85
Yeast	8.4	160	13.44
Chemicals	LS	LS	5.00
Packaging material	LS	LS	9.57

Total:			135.10

9.2.3 Utilities

	Amount (Rs. lakh)
Power	3.20
Water	0.05
Coal	0.85

Total:	4.10

9.2.4 Other Contingent Expenses

	Amount (Rs. lakh)
Repairs and maintenance@10%	1.65
Consumables & spares	0.58
Transport & Travel	
Publicity	
Postage & stationery	
Telephone	
Insurance	0.17

Total:	2.40

9.2.5 Total Recurring Expenditure

	Amount (Rs. lakh)
(9.2.1+9.2.2+9.2.3+9.2.4)	152.70

9.3 Working Capital

Recurring Expenditure for 1 month	12.73
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9.4 Total Capital Investment

	Amount (Rs. lakh)
Fixed capital (Refer 9.1.4)	34.50
Working capital (Refer 9.3)	12.60

Total:	47.23

10.0 FINANCIAL ANALYSIS

10.1 Cost of Production (per annum)

	Amount (Rs. lakh)
Recurring expenses (Refer 9.2.5)	152.70
Depreciation on building @5%	0.75
Depreciation on machinery @10%	1.60
Depreciation on furniture @20%	0.10
Interest on Capital Investment @12%	5.65

Total:	160.80

10.2 Sale Proceeds (Turnover) per year

Item	Qty.	Rate	Amount (Rs.lakh)
Bread loaves of 400 g	36 lakh	5.00	180.00

10.3 Net Profit per year

= Sales - Cost of production

= 180 - 160

= Rs. 19.20 lakh

10.4 Net Profit Ratio

= $\frac{\text{Net profit} \times 100}{\text{Sales}}$

= $\frac{19.20 \times 100}{180}$

= 10.67%

10.5 Rate of Return on Investment

= $\frac{\text{Net profit} \times 100}{\text{Capital Investment}}$

= $\frac{19.20 \times 100}{47.23}$

= 40.65%

10.6 Annual Fixed Cost	Amount (Rs. Lakh)
All depreciations	2.45
Interest	5.65
40% of salary, wages, utility, contingency	7.13
Insurance	0.17
Total:	15.40

10.7 Break even Point

$$= \frac{\text{Annual Fixed Cost} \times 100}{\text{Annual Fixed Cost} + \text{Profit}}$$

$$= \frac{15.40 \times 100}{15.40 + 19.20}$$

$$= 44.51\%$$

11.0 ADDRESSES OF MACHINERY AND EQUIPMENT SUPPLIERS

Auto Bisk Plant Co.
East Cross Road No. 32
Ashoka Road
Mysore – 570 001

Electrotherm Furnaces Pvt. Ltd.
32-B, II Phase
Peenya Industrial Area
Dasarahalli P.O.
Bangalore – 560 058

Associated Furnace Manufacturing Co.
R.Munivenkatappa Building
Kammagondanahalli
Opp. HMT Industrial Estate
Bangalore – 560 015

Edward and Sons
Ambedkar Nagar
Deevarjeevanhalli
Bangalore – 560 045

Mangal Engineering Works,
Factory Aea
Patiala – 147 001

Sembhi Engineers
4-5, New Colony, Opp. KMV College
Jalandhar – 144 004

Reliance Engineering Works
K.No. 4065, Sec. 46-D,
Chandigarh – 160 047

Authentic Designer
C-112, Sector – 10
Noida – 201301 (U.P.)

Ghaziabad Printing and Packing Industry
Pvt. Ltd.
Opp. Ganesh Tent House
Near DPS, Meerut Road
Ghaziabad (U.P.)

Aroras Box and Cartons Pvt. Ltd.
39th K.M., Delhi-Jaipur Road, (N.H. No. 8)
Gurgaon – 122 001 (Harayana)

Jain Packaging Products
33, Sarai Pipal Thala, Behind Mangat Ram
Dal Mill, Subzi Mandi
Azadpur, Delhi – 110 033

United Packaging
19/21, Shakti Nagar
Delhi – 110 007

Rajat Electronics
1309, A-5, First Floor
Pan Mandi
Sadar Bazar
Delhi – 110 006

R.D.Singal and Co.
A-81/2, Wazirpur Industrial Area,
Delhi – 110 052

Ambica Packers and Printers
2687, Kinari Bazar,
Dariba Kalan
Delhi – 110 006

Control Print (India) Ltd.
A-27, Swasthya Vihar
Vikas Marg
Delhi – 110 092

Baker and Co.(P) Ltd.
Oomrigal Building,
Opp. Crawford Market
Mumbai – 400008

Nagpal Brothers (Regd)
C-127, Phase-II
Mayapuri Industrial Area

New Delhi – 110 064

J.SC. Dass and Bros.
33/8, Anath Nath Dev Lane,
Kolkata- 700037

Ever Fresh Product
Ram Bagh
Indore (M.P.)

New Engg. Industries
Firozpur Road
Ludhiana

Bijoy Engineers
Mini Industries, Arimpur,
Trichur- 680611 (Kerala)

Baker Enterprise,
23, Behra Engg Lane
Near Peeragarhi
New Delhi – 110 041

Flora Engg. Corp.
28-A, Phoolbag, Rampura
New Delhi – 110 035

12.0 OTHER SPECIAL FEATURES

A careful selection of product mix is necessary based on the local market demand and availability of raw materials. The facilities can also be utilised to manufacture breads of different recipes, buns, cakes for fuller utilisation of capacity.