Bakery PRODUCTS

PRODUCT CODE	:	205801010 (Biscuit)
QUALITY AND STANDARDS	:	PFA, Act 1954 (Mandatory) and BIS/ Specification (optional) Wafers: IS 2397:1988 Biscuits: IS 1011:1992
PRODUCTION CAPACITY (PER ANNUM)	:	Quantity: 60 MT Value : Rs. 56,78,400
MONTH AND YEAR OF PREPARATION	:	March, 2003
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INTRODUCTION

Bakery industry in India is the largest of the food industries with an annual turnover of about Rs. 3000 crores. India is the second largest producer of biscuits after USA. The biscuit industry in India comprises of organized and un-organised sectors. Bread and Biscuits form the major baked foods accounting for over 80% of total bakery products produced in the country. The quantities of bread and biscuits produced are more or less the same. However, value of biscuits is more than bread. The industry has traditionally been and largely continues to be in the unorganized sector contributing over 70% of the total production. Bakery products once considered as sick man's diet, have now become an essential food items of the vast majority of population. Though bakery industry in India has been in existence since long, real fillip came only in the later part of 20th century. The contributing factors were urbanization, resulting in increased demand for ready to eat products at reasonable costs etc.

MARKET POTENTIAL

The bakery units are unevenly spread among States. These are mainly concentrated in the States of Maharashtra, West Bengal, Andhra Pradesh, Karnataka and Uttar Pradesh. Industrially advanced States like Maharashtra And West Bengal have very Large number of bakery units. The per capita consumption is very high in industrialized States like Maharashtra and West Bengal. The Biscuits are becoming quite popular in rural areas as well. Nearly 55% of the biscuits are consumed by rural sector. The higher consumption of biscuits in rural area could be attributed to its position as a snack, longer shelf life and better taste which is liked by different cross sections

of population. There is no marketing problem as every shop is a market for wafer biscuits.

Bakery products still remain the cheapest of the processed ready to eat products in the country. The production of Bakery products has increased from 5.19 lakh tonnes in 1975 to 18.95 lakh tonnes in 1990 recording four-fold increase in 15 years. Among the bakery products, biscuits occupy an important place as they contribute over 33% of total products processed. Over 79% of the biscuits are produced by small scale sector consisting of both factory and non-factory units. The growth rate for bakery products is estimated at an average of 9.8% per annum. The demand for bakery products will continue to increase in future. The estimated growth rate of 9.8% is on the lower side considering the present potentiality of bakery products, particularly in rural areas, where about 70% of the population lives. Encouraging trends in consumption of bakery products by population of lower and middle income groups indicate vast scope for consideration of nutritional enrichment of bakery products.

BASIS AND PRESUMPTIONS

1. The Project Profile has been prepared on the basis of Single Shift of 8 hours a day and 25-working days in a month at 75% efficiency.
2. It is presumed that in the first year, the capacity utilization will be 70% followed by 85% in the second year with 100% in the subsequent years.
3. The rate of salaries and wages for skilled workers and others are on the basis of the minimum rates in the State of U.P.
4. Interest rate for the fixed and working capital has been taken @ 15% on an average whether financed by the Bankers or Financial Institutions.
5. The margin money required is the minimum 30% of the total capital investment.
6. The rental value for the accomodation of office, workshop and other covered area has been taken @ Rs 20 per Sq.mtr.
7. The rates 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 supplier to supplier. When a tailor made project profile is prepared, necessary changes are to be made.
8. The pay back period may be 5-years after the initial gestation period.
9. The gestation period in implementation of the project may be to the tune of 6 to 9 months which includes making all arrangements, completion of all formalities, market surveys and tie-ups etc.

IMPLEMENTATION SCHEDULE

The implementation of the project includes various jobs/exercises such as procurement of technical know-how, 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. In order to efficiently and successfully implement the project in the shortest period, simultaneous exercises are carried out. Project implementation will take a period of 8 months from the date of approval of the scheme. Breakup of activities with relative time for each activity is shown below:

Activity	*Period (In Months)*
1. Scheme Preparation and approval	0-1
2. SSI Provisional Registration	1-2
3. Sanction of loan	2-5
4. Clearance from State Pollution Control Board	3-4
5. Placement of order for machinery and delivery	4-5
6. Installation of machines	6-7
7. Power connection	6-7
8. Trial run	7-8
9. Commencement of Production	9 onwards

TECHNICAL ASPECTS

Process of Manufacture

The main product of the unit wafer biscuits can be manufactured after obtaining raw materials like maida, starch, soda, salt, colour, preservatives, vanaspati, suger, flavours etc. which are easily available in local markets. The calculated amount of maida, starch, vanaspati, water etc. are mixed in a mixer to form paste. The paste so formed will be poured into pre-heated mould to bake wafer sheet. The other ingredients like sugar, vanaspati, colours, essence are mixed in a planetary mixer to form cream. The cream so prepared will be applied on the sheets to form sandwitch. Thereafter the sandwitch will be cut into biscuits and packed in pouches.

Quality Control and Standards

The PFA Act, 1954 is mandatory and BIS Specifications are optional for Wafer Biscuits. The relevant Bureau of Indian Standards Specification for Wafers (second revision) (with Amendment No. 2) is IS:2397:1988. The specification for Biscuits (third revision) (with Amendment No. 1) is IS:1011:1992. The details of specifications can be obtained from the Bureau of Indian Standards, Manak Bhavan, 9, Bahadur Shah Zafar Marg, New Delhi-110 002.

Production Capacity

1. Production of Creamed Wafer Biscuits	: 60 MT
2. Value of Creamed Wafer Biscuits	: Rs. 56,78,400

Motive Power 25 K.W.

Energy Conservation

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

1. Machinery and equipment parts, which are revolving and reciprocating should be properly, lubricated from time to time with suitable lubricant oil.
2. Lay-out of the unit should be in such a way that no back tracking of material is there.
3. All electric switches may be turned off, when not required.

4. The entire transmission belt will be tightened before starting the work is wherever applicable.
5. As far as possible, Solar Energy and day light will be used keeping all the other lights off.
6. As far as possible, inductive load of motor will be reduced and high power factor will be used with the aid of capacitors of appropriate sizes.

Pollution Control

1. This industry may involve pollution to some extent for which State Pollution Control Board has to be approached.
2. The minimum height of shed will be maintained with exhaust fans installed for removing decongestion, proper ventilation, removal of cokes, fumes etc.

FINANCIAL ASPECTS

A. Fixed Capital

1. Land and Building	Amount (In Rs.)
Land and Building (rented) @ Rs. 20 Sq. Meter (per month) Covered Area 100 Sq. Meter	2,000

2. Machinery and Equipment

Sl. No.	Description	Qty.	Amount (Rs.)
1	Manual Wafer Biscuit Machine (6 Plates) (Including Creaming, Cutting and Support Tables, Capacity cream wafer 25-30 Kg./Hrs., 15 KW)	1	2,75,000
2	Butter Mixing Machine (7-30 Kg./Hrs. Butter, 2 KW)	1	35,000
3	Sugar Grinding Machine (30-50 Kg./Hrs., 2 KW)	1	35,000
4	Planetary Mixer (3 Speed system, steel body, capacity 25 Kg./Hrs., 2 KW.)	1	45,000
5	Sealing (Packaging) Machine (1 KW)	1	15,000
6	Working table with S.S./ Aluminium top	2	5,000
7	Weighing Balance platform type	1	5,000
8	Aluminium vessels, Mats, cups, Mugs, ladle, spoons, gloves, etc.	–	10,000
9	Electrification and Installation Charges @ 10% of cost of Plant and Machinery	–	42,000
10	Cost of Office furniture and Equipment etc.	–	30,000
	Total		4,97,000
3.	Pre-Operative Expenses		20,000
	Total Fixed Capital (1+2+3)		5,17,000

B. Working Capital (per month)

(i) Staff and Labour

Sl. No.	Designation	No.	Salary (In Rs.)	Amount (In Rs.)
	(a) Administrative and Supervisory			
i)	Production Manager	1	5000	5,000
ii)	Supervisor/Store-keeper	1	4000	4,000
iii)	Accountant	1	3000	3,000
iv)	Salesman	3	3000	9,000
v)	Peon/Watchman	1	2000	2,000
vi)	Sweeper	1	1500	1,500
	(b) Technical, Skilled and Unskilled			
i)	Skilled Worker	3	3000	9,000
ii)	Semi-skilled Worker	2	2500	5,000
iii)	Helper	4	2000	8,000
	Total			46,500
	Perquisites @ 15%			6,975
	Total			53,475

(ii) Raw Material

Sl. No.	Description	Qty.	Rate (In Rs.)	Amount (In Rs.)
i)	Wheat Flour (Maida)	4000 Kg.	8 per Kg.	32,000
ii)	Maida starch, vegetable fat, salt, soda, colours, preservatives etc.	1000	7 Kg.	1,47,000
iii)	packaging material	–	–	1,25,000
		Total		3,04,000

(iii) Utilities	Amount (In Rs.)
Electricity	5,000
Water	1,000
Total	6,000

(iv) Other Contingent Expenses	Amount (In Rs.)
1. Rent	2,000
2. Postage and Stationery	500
3. Advertisement and Publicity, Legal Fee etc.	1,000
4. Telephone	500
5. Repair and Maintenance	500
6. Transportation	1,000
7. Consumables	500
8. Sales Expenses	3,000
9. Insurance	500
10. Miscellaneous Expenses	500
Total	10,000

v) Total Recurring Expenditure (per month)	Amount (In Rs.)
1. Salary and Wages	53,475
2. Raw Material	3,04,000
3. Utilities	6,000
4. Other Contingent Expenses	10,000
Total	3,73,475

Working Capital (for 3 months) Rs. 11,20,425

C. Total Capital Investment

	Amount (In Rs.)
Fixed Capital	5,17,000
Working Capital (for 3 months)	11,20,425
Total	16,37,425

MACHINERY UTILIZATION

It is expected that during first year machinery utilization will be 70%, 85% during second year followed by 100% in subsequent years.

FINANCIAL ANALYSIS

1 Cost of Production (per annum)	Amount (In Rs.)
(a) Total Recurring Cost	44,81,700
(b) Depreciation on Machinery and Equipment @ 10%	46,700
(c) Depreciation on Office Equipments and Furniture @ 20%	6,000
(d) Interest on Total Capital Investment @ 15%	2,45,614
Total	47,80,014
or Say	47,80,000

2. Turn-over (per annum)

Sl. No.	Description	Qty.(Kg.)	Rate (per Kg.)	Amount (In Rs.)
(i)	Wafers (8 Gm.) MRP Re. 1	2,000	125	2,50,000
(ii)	Wafers (18 Gm.) MRP Rs. 2	1,000	111	1,11,000
(iii)	ATC Pack (150 Gm.) MRP Rs. 23	1,000	153	1,53,000
(iv)	Checkers (14 Gm.) MRP Rs. 3	1,000	214	2,14,000
		Total		7,28,000
Less sales expenses @35%				2,54,800
Net Sales Realization (turn over) (per month)				4,73,200
Net Sales Realization (turn over) (per year)				56,78,400

3. Net Profit (per annum) *(Before Income Tax)*
Sales – Cost of Production = Rs. 8,98,400

4. Net Profit Ratio

$$= \frac{\text{Net Profit} \times 100}{\text{Turn-over}}$$

$$= \frac{8,98,400 \times 100}{56,78,400}$$

$$= 15.8\%$$

5. Rate of Return

$$= \frac{\text{Net Profit} \times 100}{\text{Total Investment}}$$

$$= \frac{8,98,400 \times 100}{16,37,425}$$

$$= 54.9\%$$

6. Break-even Point

Fixed Cost (per annum)	Amount (In Rs.)
(a) Total Depreciation (on m/c. equipment, dies, tools, and furniture)	52,700
(b) Rent	24,000
(c) Interest on borrowing (Total Investment)	2,45,614
(d) Insurance	6,000
(e) 40% of Salary	2,56,680
(f) 40% of Utilities	28,800
(g) 40% of Other Contingent Expenses *(excluding rent and insurance)*	36,000
Total	6,49,794

B.E.P.

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

$$= \frac{6,49,794 \times 100}{6,49,794 + 8,98,400}$$

$$= 42\%$$

Addresses of Machinery and Raw Material Suppliers

1. M/s. Gemini Engineers
   F-4, IDA Kukatpally,
   Balanagar,
   Hyderabad-500 037.
2. M/s. Reliance Engineering Works
   K. No. 4065, Sec. 46-D,
   Chandigarh-160 047.
3. M/s. Authentic Designers
   C-112, Sector-10,
   Noida-201 301 (U.P.).
4. M/s. Ghaziabad Printing and Packing Industry Pvt. Ltd.
   Opp. Ganesh Tent House,
   Near DPS, Meerut Road,
   Ghaziabad.
5. M/s. Aroras Box and Cartons Pvt Ltd.
   39th K.M.,
   Delhi-Jaipur Road,
   (N.H. No. 8),
   Gurgaon-122 001
   (Haryana).
6. M/s. Jain Packaging Products
   33, Sarai Pipal Thala,
   Behind Mangat Ram Dal Mill,
   Subzi Mandi,
   Azadpur,
   Delhi-110 033.
7. M/s. United Packaging
   19/21, Shakti Nagar,
   Delhi-110 007.
8. M/s. Rajat Electronics
   1309, A-5. First Floor,
   Pan Mandi,
   Sadar Bazar,
   Delhi-110 006.
9. M/s. R.D. Singal and Co.
   A-81/2, Wazirpur Industrial Area,
   Delhi-110 052.
10. M/s. Ambica Packers and Printers
    2687, Kinari Bazar,
    Dariba Kalan,
    Delhi-110 006.
11. M/s. Control Print (India) Ltd.
    A-27, Swasthya Vihar,
    Vikas Marg,
    Delhi-110 092.

Raw Material Suppliers

Local dealers.