

# **BAKERY UNIT: ALL PRODUCTS EXCEPT BREAD**

## **1. INTRODUCTION**

India is a major manufacturing house for bakery products and is the third- largest biscuit manufacturing country after USA and China. The bakery industry has achieved third position in generating revenue among the processed foods sector in India. The first and second segments are wheat flour processing and fruit and vegetables processing. The boost of bakery industry occurred after MOFPI came in existence in year 1988 and continue still date.

## **2. PRODUCTS AND ITS APPLICATION:**

The most popular and worth manufacturing bakery products are: Biscuits /Cookies; Cakes; Breads, Buns, Pav for Pav Bhaji/burgers/Dabeli etc.; Rusk, Wafer Biscuits (need specific set-up), Pizza base, Dough Nuts, Bagels, Waffles, Muffins, Cupcakes, Pies, Swiss/ cream rolls , Puff Pastries and many others.

## **3. DESIRED QUALIFICATION FOR PROMOTER:**

A good level of competence is needed to understand quality of raw materials, formulation of products, functions of additives used in formulation, control of process and machinery to produce end product of desired quality, taste and texture, type of packing material to be used, market trends and penetration, etc. Technical knowledge and skills are needed for problem solving, and to ensure good hygiene and safety in the workplace.

### **Plant Capacity & Product-Mix:**

It is proposed here to manufacture khari (bakery puffed biscuits), rusk (toast) and bakery biscuits (NANKHATAI) and other bakery biscuits) with an installed capacity of total 1000 kg/day, in which, 40% khari, 40% rusk and 20% assorted bakery biscuits. One can produce cakes, cream rolls, buns, bread, pav cupcakes, etc. in a same facility.

#### **4. INDUSTRY OUTLOOK/TREND**

Bakery industry in India is ever growing with an annual growth rate of about 7.5%. Bakery products are mainly based on wheat flour and the present trend is to have varieties such as nutritional products, health related ingredients and specialty products .

#### **5. MARKET POTENTIAL AND MARKETING ISSUES, IF ANY:**

The Indian Bakery market is estimated to be worth Rs. 16,500 cr, growing at a healthy 7.5 % per annum. It is one of the largest food industries consist various product categories like breads, biscuits, pastries, cakes, buns and rusk. These bakery products are fast catching up with the popularity trend as lifestyle of Indians are rapidly changing. The major categories are breads and biscuits, cornering about 82% of the Indian Bakery market. Another product segment worth mentioning is Cakes and Pastries. This segment is estimated to be worth Rs. 1,250 cr of which significant 65% is accounted for by the unorganized sector.

The bakery industry comprises organized and unorganized sectors. The unorganized sector accounts for about 67% of total biscuit production and 80% of the total bread production and around 90% of the other bakery products, which include pastries, cakes, buns, rusks and others (NPCS, 2007). Though bakery industry of India has very long existence, it attained prominence only in the later part of the 20th century.

#### **6. RAW MATERIAL REQUIREMENTS:**

<b>Ingredients</b>	<b>Qty./yr. MT</b>
Maida	288.01
Ghee	115.21
Edible Oil	14.39
Sugar	3.59
Salt	4.81
Other Ingredients	5.99
Total	432.00

#### **7. MANUFACTURING PROCESS:**

**Khari:**

Weigh all ingredients as per formula. Make soft dough in a dough kneader still it becomes smooth and glossy. Roll the dough into sheets of required dimensions and thickness, apply flour dusting as required. Apply ghee on layers and fold it still of required size. Repeat the process still layers are formed. Refrigerate it for 15 minutes. Remove from refrigerator, cut into pieces of required size and dimensions. Place all the pieces in baking oven and bake at 200 °C 20-25 minutes. After that lower the temperature and bake at 180° C for another 15-20 minutes. Cool the pieces, pack as per weight decided of SKU into poly bags and then put into corrugated carton for dispatch.

**Rusk (Toast):**

Pre-mixing of ingredients as per formulation to form dough of proper consistency. The dough is then divided and pieces put into molds for proofing, followed by first baking, cooling, second baking and again cooling and packing. First baking to do at 200° C and second baking at 180° C.

**Nankhatai:**

Weigh all ingredients and make soft dough with addition of sugar, ghee and water as per formula. Beat the dough still it becomes soft and fluffy. Add yoghurt and beat again. Keep it in such condition for 10-15 min. Press the dough into flatten rounds and make incision with knife at center. Sprinkle cardamom, coconut or sesame seeds just for decoration. Bake the rounds at 200° C for 20-25 minutes.

**8. MANPOWER REQUIREMENT:**

<b>Particulars</b>	<b>No.</b>
Technical Staff	3
Adm. Staff	4
Marketing Staff	6
Labour	22
<b>Total</b>	<b>35</b>

**9. IMPLEMENTATION SCHEDULE:**

Project Stages	MONTHS									
	1	2	3	4	5	6	7	8	9	10
Purchase of Land	Yellow	Yellow	Yellow							
Completion of Building	Green	Green	Green	Green	Green					
Ordering of Machinery	Light Green	Light Green	Light Green							
Delivery of Machinery			Red	Red	Red					
Term/Wkg Loan Sanction		Blue	Blue	Blue						
Installation of Machinery					Orange					
Commissioning of Plant					Red					
RM/Inputs Procurement					Purple					
Manpower Appointments					Blue					
Commercial Production					Green					

## 10. COST OF PROJECT:

### COST OF PROJECT

No.	Costing Heads	Qty.	Rate/Unit	Rs. Lakh
1	Land in Sq. M. + Expenses	800	1,000.00	8.00
2	Building	400	9,000.00	36.00
3	Plant & Machinery			28.52
4	Other Capital Investment			10.00
5	Contingency			5.00
	<b>Total Cost of Project</b>			<b>87.52</b>

## 11. MEANS OF FINANCE:

Means Heads	Rs. Lakhs
Promoters Capital	21.88
Term Loan	49.51
MFPI Subsidy	16.13
Unsecured Deposits	-
<b>Total Means of Finance</b>	<b>87.52</b>

## 12. WORKING CAPITAL CALCULATION:

Particulars	Stock Period Days	Value of Stock Period	Promoter Margin	Promoter Share	Bank Borrowings
Raw Material	15	13.84	0.50	6.92	6.92
Packing Material	30	9.00	0.40	3.60	5.40

Work in Process	3	4.77	0.40	1.91	2.86
FP Stock	15	52.32	0.40	20.93	31.39
Bills Receivable	15	52.32	0.40	20.93	31.39
Working Expense	30	1.20	1.00	1.20	0.00
<b>Total:</b>		133.45		<b>55.49</b>	<b>77.97</b>

### 13. LIST OF MACHINERY REQUIRED AND THEIR MANUFACTURERS

<b>N o</b>	<b>Equipment</b>	<b>Qty.</b>
1	Baking Ovens: 50 kg/hr.	4
2	Dough Mixers: 20 Kg	2
3	Cutter, Divider, Sheeter, etc.	3
4	Rusk Making Machine	1
5	Flour Sifter, Sugar Pulveriser, Biscuit Grinder	3
6	Trays, Scoops, SS Bins, Pellets, etc.	1
7	Packing Equipment	2
8	Miscellaneous Equipms, RO Plant, etc.	Lot

- Lazer India Engineering  
R. Periyasamy(Marketing Manager)  
SF. No. 21, Door No. 7 M,  
Sundarapuram To Madukarai Road,  
Madukarai Market,  
Coimbatore - 641105,  
Tamil Nadu
- Alif Ovens  
Rizwan Khan(Owner)  
213, B Wing, 2nd Floor,  
Kanara Business Centre,  
Laxmi Nagar, Ghatkopar East,  
Mumbai - 400075,  
Maharashtra.
- Starlite steels pvt. Ltd.

Wz-119a/2, naraina vihar,  
 Opposite mata mandir,  
 New Delhi,  
 Delhi - 110028

#### 14. PROFITABILITY CALCULATIONS:

Sr. No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
<b>A</b>	<b>Gross Sales</b>	366.24	418.56	470.88	470.88	470.88
	Less:					
1	Raw Materials	193.80 9	221.49 6	249.18 3	249.18 3	249.18 3
2	Packing Material	63	72	81	81	81
3	Fuel	3.528	4.032	4.536	4.536	4.536
4	Power	7.056	8.064	9.072	9.072	9.072
5	Manpower	44.07	49.72	55.37	55.37	55.37
6	Depreciation	7.252	8.288	9.324	9.324	9.324
7	Sundry Expenses	4.2	4.8	5.4	5.4	5.4
8	Interest on Term Loan	4.158	4.752	5.346	5.346	5.346
9	Interest on WC Loan	7.875	9	10.125	10.125	10.125
9	Repairs & Maintenance	3.5	4	4.5	4.5	4.5
<b>B</b>	<b>Production Cost</b>	338.44 8	386.15 2	433.85 6	433.85 6	433.85 6
<b>C</b>	<b>Gross Profit (A-B):</b>	27.792	32.408	37.024	37.024	37.024
	Taxes @30%	8.3376	9.7224	11.107 2	11.107 2	11.107 2
	Net Profit	19.454 4	22.685 6	25.916 8	25.916 8	25.916 8

The proposed unit will have the production capacity of 1000 kg per day of various types of bakery products. The unit cost of power is taken at Rs. 8. The depreciation on building is taken at the rate of 5% whereas for plant and machinery it is at 10%.

The average sales price of bakery products is taken at the rate of Rs. 175 per kg for proposed project.

#### 15. BREAKEVEN ANALYSIS:

**Financial Ratios**

<b>Sr. No.</b>	<b>Particulars</b>		<b>Rs. Lacs.</b>
1	Net Profit Per Year	sales - COP	27.70
2	Net Profit Ratio:	NP x 100/sales	5.29
3	Rate of Return On Invest.	NP x 100/Invest.	31.65
4	Annual Fixed Cost:		
	Depreciation		10.36
	Interest		17.19
	40% of Wages		22.60
	Insurance		10.00
	Total		60.15
5	Break Even Point		
	Annual Fixed Cost x100/ Annual Fixed Cost + Profit		68.47

## **16. STATUTORY/ GOVERNMENT APPROVALS**

There is statutory requirement of FSSAI license for setting up of food processing industry. Moreover, MSME & GST registration, IEC Code for Export of end products and local authority clearance may be required for Shops and Establishment, for Fire and Safety requirement and registration for ESI, PF and Labour laws may be required if applicable. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

## **17. BACKWARD AND FORWARD INTEGRATION**

As forward linkages, promoter may think of more value added products such as cake, pastries and pizza.

## **18. TRAINING CENTERS/COURSES**

For food processing industry training and short term courses are available at Indian Institute of Food Processing Technology, Thanjavur, Tamil Nadu and Central Food Technological Institute, Mysore, Karnataka and Institute of Baking & Cake Art, Bangalore.

Udyamimitra portal ( link : [www.udyamimitra.in](http://www.udyamimitra.in) ) can also be accessed for handholding services viz. application filling / project report preparation, EDP, financial Training, Skill Development, mentoring etc.

Entrepreneurship program helps to run business successfully is also available from Institutes like Entrepreneurship Development Institute of India (EDII) and its affiliates all over India.

**Disclaimer:**

Only few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not carry any recommendation.

Source:- Udyami Mitra/Sidbi