

# BISCUIT



## INTRODUCTION

India is the world's largest producer across a range of commodities due to its favourable agro-climatic conditions and rich natural resource base. Biscuit making is a conventional activity in many parts of the country. Despite the advent of modern, large capacity and automatic biscuit making plants, large section of people especially in semi-urban and rural areas still prefer fresh biscuits from local bakery as they are cheap and offer many varieties. These manufacturers are able to cater to some typical local palate as well. Thus, they are able to withstand competition from organised sector units.

Wheat and milk form two of the important raw materials for biscuits and other bakery items. India is the largest producer of food grains like wheat and rice in the world. India is also the largest producer of milk and dairy products.

## OBJECTIVE

The primary objective of the model report is to facilitate the entrepreneurs in understanding the importance of setting up unit of biscuit plant. This model report will serve as guidance to the entrepreneurs on starting up such a new project and basic technical knowledge for setting up such a facility.

## RAW MATERIAL AVAILABILITY

The basic raw material for the manufacture of biscuits is wheat flour and milk. Wheat and Milk are easily available in across India.

## SUITABLE LOCATION

Biscuit can be manufactured at a location which is close to the market.

## MARKET OPPORTUNITIES

The Biscuits market in India is estimated to be worth Rs. 10,000 crore. Demand for biscuits is growing with the growing population. The market for cookies and cream biscuits growing at a very fast pace of over 25%.

Market for biscuits is scattered all over the country. There are three distinct market segments viz. urban, semi-urban and rural. Urban and semi-urban markets are dominated by many national and regional brands but even then many local manufacturers have also carved a special niche as their products are fresh, they offer many varieties and they are cheaper.

## PROJECT DESCRIPTION

### APPLICATIONS

Biscuits are eaten by all sections of people across the board round the year. They are, thus, mass consumption items with number of varieties and shapes. The market is scattered. There are some dominant national and regional brands. Biscuits can be manufactured at a location which is close to the market.

### **CAPACITY OF THE PROJECT**

The capacity of the project is 95 Metric tonnes of biscuits per year.

### **PRODUCTION TARGETS (PER ANNUM)**

- The scheme is worked out per shift (8 Hour) basis and 300 working days per annum.
- Assume there'll be 70% production in first year.
- Qty.: 66 MT/Annum or 5.5 MT/Month

### **CRITICAL SUCCESS FACTORS**

Rural and certain semi-urban markets are mainly captured by small manufacturers. This note primarily suggests entering this market. Apart from domestic customers, there is a vast market at bus and taxi stands, railway stations, weekly hats or bazaars, highway eateries or dhabas and melas or fairs. A small delivery vehicle can take care of destinations located in the vicinity of about 50-60 km. Attractive margins to traders/retailers will be crucial.

### **MANUFACTURING PROCESS**

The process is conventional and easy. Wheat flour along with other ingredients is mixed with water and dough is prepared. Then it is kept at a normal room temperature for about couple of hours to allow proper fermentation. Then it is placed in biscuit moulding trays and these trays are placed in oven for baking. After requisite baking, trays are taken out, cooled and biscuits are packed. The process flow chart is as under:

**Mixing and Dough Making**



**Fermentation**



**Baking**



**Packing**

### **PROJECT COMPONENT AND COST:**

#### **Financial Aspects:-**

#### **APPLICATION OF FUNDS**

<b>Particular</b>	<b>Amount</b>
Land	300 Sq. Meter
Building	Covered area on Rent
Plant & Machinery	2,216,500.00
Office Equipment & Furniture	550,000.00
Working Capital	823,799.18
Pre-Operative Expenses	70,000.00
<b>Total</b>	<b>3,660,299.18</b>

#### **SOURCE OF FUNDS**

<b>Particular</b>	<b>Amount</b>
Own Capital	1,199,637.54
Term Loan from Banks	2,074,875.00
Loan for Working Capital	385,786.63
<b>Total</b>	<b>3,660,299.18</b>

## **FIXED ASSETS**

<b>(1) Land And Building:</b>	<b>Value (Rs.)</b>
Land and Building: 300 sq. meter covered area on Rent	120,000 per annum

<b>(2) Plant &amp; Machinery</b>				
S. N.	Description (Name of machine with specification)	Qty.	Rate	Value (Rs.)
<b>Production Unit</b>				
<b>i</b>	Automatic continuous Roller cutting machine with Oven size 48" fitted with two heavy duty reduction gearbox ,automatic wastage returning system with Elec. Motors	1	950,000.00	950,000.00
<b>ii</b>	Flour Shifter automatic screw type vibrator system With automatic lifting system with motor & starters	1	60,000.00	60,000.00
<b>iii</b>	Suger Grinding Machine (30-50 Kg./Hrs. , 2KW)	1	35,000.00	35,000.00
<b>iv</b>	Roll Sheeter size 24" fitted with reduction gear box Variable speed, with motor & starters	1	230,000.00	230,000.00
<b>v</b>	Double action horizontal mixing machine cap. 300 Kg. Per batch , automatic tilting with elec. Motor	1	160,000.00	160,000.00
<b>vi</b>	Cooling conveyor size 24" working length 100' total length35' with motor & starters	1	250,000.00	250,000.00
<b>vii</b>	Oil spraying machine for salted biscuit belt size 24" With elec. Motor & starters	1	65,000.00	65,000.00
<b>viii</b>	Turn table working between oven and conveyor Fitted with motor and starters	1	120,000.00	120,000.00
<b>ix</b>	Extra Brass roller for rotary cutting machine & Roller cutting machine	1	10,000.00	10,000.00
<b>x</b>	Syrup Machine with one motor &starters SS	1	85,000.00	85,000.00
<b>xi</b>	Biscuit Grinder with motor 5 HP starters	1	25,000.00	25,000.00
<b>xii</b>	Working table with S.S./Aluminium top	2	5,000.00	10,000.00
<b>xiii</b>	Weighing Balance platform type	1	5,000.00	5,000.00
<b>xiv</b>	Aluminium vessels, Mats, cups, Mugs, ladle, spoons, gloves,etc. and misc. equipt.	-	10,000.00	10,000.00
<b>Total Cost of Machinery &amp; Equipments</b>				<b>2,015,000.00</b>
<b>xv</b>	Electrification & Installation Charges @ 10%	-		201,500.00
<b>Total Cost of Production Unit</b>				<b>2,216,500.00</b>

<b>(3) Pre-Operative Expenses:</b>	70,000.00
<b>Total Fixed Capital ( 2+3)</b>	<b>2,286,500.00</b>

## RAW MATERIAL REQUIREMENT & STOCK

Particulars	Mode	Year' 1	Year' 2	Year' 3
<b>Annual Consumption</b>				
Wheat Floor (Maida)	Rs	517440.00	591360.00	665280.00
Maiza starch,vegetable fat ,salt, soy flour, soda, colours, preservatives etc	Rs	693000.00	792000.00	891000.00
packaging material	Rs	452760.00	517440.00	582120.00
<b>Total</b>		1663200.00	1900800.00	2138400.00
		36.73		
Stock of Raw Material	30days	136701	156230	175759
Stock of WIP	02 day	2835	3240	3645
<b>Purchase Cost of Raw Material</b>	<b>Rs</b>	<b>1,802,736.66</b>	<b>1,920,733.81</b>	<b>2,158,333.81</b>

## WORKING CAPITAL REQUIREMENT

Particulars	Days	Year' 1	Year' 2	Year' 3
Raw Material	30	136701.37	156230.14	175758.90
Work in Process	2	2835.29	3240.33	3645.37
Finished Goods	10	75777.52	88288.14	96193.04
Receivables	30	547085.00	625240.00	703395.00
Advance/Security		200000.00	200000.00	200000.00
Total		962399.18	1072998.60	1178992.32
Less: Creditors	30	138600.00	158400.00	178200.00
Net Current Assets		823799.18	914598.60	1000792.32
Bank Limits		385786.63	442162.95	495084.99
Margin for Working Capital		438012.54	472435.65	505707.33

## SALARIES

### (1) Staff and Labour:

S. No.	Description	No.	Salary	Total Salaries-Year I	Total Salaries-Year 2	Total Salaries-Year 3
<b>(b) Technical Skilled &amp; Unskilled</b>						
i	Skilled Worker	2	10,000.00	240,000.00	264000	290400
ii	Semi Skilled Worker	2	7,000.00	168,000.00	184800	203280
iii	Helper	1	6,500.00	78,000.00	85800	94380
<b>Total Wages</b>				<b>486,000.00</b>	<b>534,600.00</b>	<b>588,060.00</b>
<b>(a) Administrative &amp; Supervisory</b>						
i	Production Manager	1	15,000.00	180,000.00	198000	217800
ii	Supervisor/storekeeper/Accountant	1	10,000.00	120,000.00	132000	145200
iv	Salesman	2	8,000.00	192,000.00	211200	232320
v	Peon/watchman	1	6,500.00	78,000.00	85800	94380
vi	Sweeper	1	6,000.00	72,000.00	79200	87120
<b>Total Salaries</b>				<b>642,000.00</b>	<b>706,200.00</b>	<b>776,820.00</b>
<b>Grand Total</b>				<b>1,128,000.00</b>	<b>1,240,800.00</b>	<b>1,364,880.00</b>

## SALES & ADMIN EXPENSES

Particulars	Year' 1	Year' 2	Year' 3
Commision on sales	1444304.4	1650633.6	1856962.8
Postage & Stationary	2000.00	2200	2420
Advertisement	10000.00	11000	12100
Telephone	2400.00	2640	2904
Repair & Maintenance	2000.00	2200	2420
Transportation	2000.00	2200	2420
Consumable	2000.00	2200	2420
Sales expenses	10000.00	11000	12100
Staff Welfare	5000.00	5500	6050
Insurance	2000.00	2200	2420
Misc. Expenses	2000.00	2200	2420
<b>Total</b>	<b>1483704.40</b>	<b>1693973.60</b>	<b>1904636.80</b>

**MANUFACTURING AND PROFIT & LOSS ACCOUNT**

<b>Particulars</b>	<b>Year' 1</b>	<b>Year' 2</b>	<b>Year' 3</b>
Sales Value	6565020.00	7502880.00	8440740.00
<b>Cost of Production:</b>			
Raw Material Cosnumed:			
Opening Stock	0.00	136701.37	156230.14
Add: Purchases	1663200.00	1900800.00	2138400.00
	1663200.00	2037501.37	2294630.14
Less: Closing Stock	136701.37	156230.14	175758.90
Raw Material Consumption	1,526,498.63	1,881,271.23	2,118,871.23
Add: Op Stock of WIP	0.00	2,835.29	3,240.33
	1,526,498.63	1,884,106.52	2,122,111.56
Less: Cl Stock of WIP	2,835.29	3,240.33	3,645.37
	1,523,663.34	1,880,866.19	2,118,466.19
Power & Fuel	60,000.00	66,000.00	72,600.00
Manufacturing Wages	486,000.00	534,600.00	588,060.00
Bonus & Incentives	40,483.80	44,532.18	48,985.40
Consumable Stores	12,000.00	13,200.00	14,520.00
Rent of Building	120,000.00	132,000.00	145,200.00
Repair & Insurance	15,000.00	16,500.00	18,150.00
Raw material storage & ins. Cost	15,236.63	16,760.30	18,436.33
Carriage inward	16,632.00	19,008.00	21,384.00
Generatr Running & Maintenance exp	24,000.00	26,400.00	29,040.00
Depreciation	414,975.00	352,728.75	299,819.44
<b>Total Cost of Production</b>	<b>2,727,990.78</b>	<b>3102595.42</b>	<b>3374661.35</b>
Add: Op. Stock of Finish. Goods	0.00	75777.52	88288.14
	2,727,990.78	3178372.94	3462949.49
Less: Cls. Stock of F.Goods	75,777.52	88,288.14	96,193.04
<b>Cost of Sales</b>	<b>2,652,213.25</b>	<b>3,090,084.80</b>	<b>3,366,756.45</b>
Gross Profit	3,912,806.75	4,412,795.20	5,073,983.55
	59.60	0.59	0.60
Selling & Admin Cost:			
Selling & Administration Expenses	1,483,704.40	1,693,973.60	1,904,636.80
Salary	642,000.00	706,200.00	776,820.00
Financial Expenses			
Interest on Term Loan	226,161.38	176,364.38	126,567.38
Interest on W.Capital	48,223.33	55,270.37	61,885.62
Pre. Expenses	14,000.00	14,000.00	14,000.00
Profit Before Taxation	1498717.64	1766986.85	2190073.75
Taxation	449615.29	530096.06	657022.13
Net Profit After Taxation	1049102.35	1236890.80	1533051.63
Cash withdrawal	419640.94	494756.32	613220.65
Transfer to Reserves	629461.41	742134.48	919830.98
Cumulative Reserves	629461.41	1371595.89	2291426.86
% of PBT on Sales	22.83	23.55	25.95

### **BALANCE SHEET**

Particulars	Year' 1	Year' 2	Year' 3
<b>Liabilities:</b>			
Capital	1199637.54	1199637.54	1199637.54
Reserve & Surplus	629461.41	1371595.89	2291426.86
Secured Loan:			
Term Loan	1659900.00	1244925.00	829950.00
Unsecured loan:			
Current Liabilities:			
Bank Borrowings	385786.63	442162.95	495084.99
Sundry Creditors	138600.00	158400.00	178200.00
	4013385.59	4416721.38	4994299.39
<b>Assets:</b>			
Fixed Assets:			
Gross Block:	2766500.00	2766500.00	2766500.00
Less: Depreciation	414975.00	767703.75	1067523.19
	2351525.00	1998796.25	1698976.81
Current Assets:			
Inventories	215314.18	247758.60	275597.32
Recievables	547085.00	625240.00	703395.00
Advance/Security	200000.00	200000.00	200000.00
Cash & Bank Balance	643461.41	1302926.53	2088330.27
Preliminary Expenses	56000.00	42000.00	28000.00
	4013385.59	4416721.38	4994299.39
Difference	0.00	0.00	0.00

#### **RATION ANALYSIS**

Particulars	Year' 1	Year' 2	Year' 3
<b>Net Profit ratio</b>			
NP*100/Total sales	15.98	16.49	<b>18.16</b>
<b>Rate of Return</b>			
NP*100/Total Investment	28.66	33.79	<b>41.88</b>

#### **BREAK EVEN ANALYSIS**

<b>Fixed Cost</b>	
Rent	120,000.00
Interest on Borrowing	226,161.38
Salaries	256800
Utilities	24000
Admin Exp (Excluding Comm on sale)	3940
Depreciation	414,975.00
<b>Total</b>	<b>1,045,876.38</b>
<b>Break Even Point</b>	<b>49.923007</b>

## **ADDRESS OF MACHINERY & EQUIPMENT SUPPLIERS:**

- M/s Bajaj Processpack Maschinen Pvt. Ltd., 7/27, Jai Lakshmi Industrial Estate, Sahibabad Industrial Area, Sahibabad, Dist. Ghaziabad (U.P.)- 201301.
- M/s Mechtech Designers & Engineers Pvt. Ltd., 19 D, Dr. A. K. Paul Road, Kolkata - 700 034 : West Bengal, India.
- M/s A. R. Enterprises (Alif Oven), 213, B Wing, 2nd Floor, Kanara Business Centre, Laxmi Nagar, Ghatkopar (E), Mumbai, INDIA – 400075.
- M/s Ultra Worldwide Private Limited, 201, Joshi Chambers, Ahemdabad Street, Iron Market, Near Masjid East Mumbai - 400009, Maharashtra, India.
- M/s Sun Beam Machines India Pvt Ltd., Fact.: No. 141, I.D.A., Bollaram, Hyderabad- 502325, Andhra Pradesh, India.