

## **WHOLE WHEAT FLOUR (ATTA MILL)**

### **1. INTRODUCTION:**

Wheat flour, also known as Atta in Hindi, is widely used product on daily basis in every household. For making chapattis, bread, roti, naan, puri Wheat Flour is basic and essential raw material. Most Atta is milled from the semi-hard wheat varieties, also known as durum wheat that comprises 90% of the Indian wheat crop, and is more precisely called Durum Atta.

### **2. PRODUCT & ITS APPLICATION:**

Wheat Flour or Atta is the predominantly used in food items in India, such as chapatti, roti, naan and puri and in sweet items too like halwa, pakoda, etc. This is basic and most essential product for daily consumption in every home in India.

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

Does not require any specific qualification.

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

Whole wheat flour is used in making Chapaties, Puries, Parotha and other roasted cereal based products. Sooji / Rava are used in many sweetmeat products. Wheat flour or Maida is a basic raw material for making Bread, Biscuits Cakes and other bakery products. Bran separated on milling is used as cattle feed. The products sold under brand names are very few. The concept for branded cereal flour products is now increasing.

## **5. RAW MATERIAL REQUIREMENTS:**

Basic raw materials required are Wheat Blended of different types. For packing, gunny bags will be required.

## **6. MANUFACTURING PROCESS:**

Firstly, wheat is thoroughly cleaned such that all dust particles, stones and other foreign matters will be removed. Clean wheat will be tempered before grinding by treating with water so that the bran is separated from the endosperm. The tempered wheat is crushed between corrugated rollers (Break rolls). The first break rolls are set relatively far apart to grind the wheat lightly, while successive break yield finer and finer products. The first break is separated by sieving or bolting in to very fine particles (flour), intermediate particles (middling) and coarse particles (stock). The stock is then sent to second break rolls. This process may continue through 5 to 6 breaks. The stock contains pieces of endosperm and bran and the stock from the last break is principally bran. The middling contains endosperm, bran and germ which are then successively classified and some of the bran removed is sent to reduction rollers. These are smooth rollers, but like the break rolls they are graduated so that successive reduction becomes finer and finer. After each reduction, sifters separate the flour, middling and stock, this process is continued until most of the endosperm has been removed as flour and most of the bran has been separated in the sifters.

## **7. MANPOWER REQUIREMENT:**

The enterprise requires 10 employees as detailed below:

Sr. No.	Designation of Employees	Salary Per Person	Monthly Salary ₹	Number of employees required				
				Year-1	Year-2	Year-3	Year-4	Year-5
1	Operator	₹ 10,000	₹ 10,000	1	1	1	1	1
2	Un Skilled Workers	₹ 8,000	₹ 24,000	3	3	3	4	4
3	Miller-cum Chemist	₹ 15,000	₹ 15,000	1	1	1	1	1
4	Accountant	₹ 12,000	₹ 12,000	1	1	1	1	1
5	Store Keeper	₹ 8,000	₹ 8,000	1	1	1	1	1
6	Sales Supervisor	₹ 12,000	₹ 12,000	1	1	1	1	1
7	Security Personnel	₹ 6,500	₹ 6,500	1	1	1	1	1
8	Office Boy	₹ 6,000	₹ 6,000	1	1	1	1	1
	<b>Total</b>		₹ 93,500	10	10	10	11	11

## 8. IMPLEMENTATION SCHEDULE:

The project can be implemented in 13 months' time as detailed below:

Sr. No.	Activity	Time Required (in months)
1	Acquisition of premises	3.00
2	Construction (if applicable)	5.00
3	Procurement & installation of Plant & Machinery	2.00
4	Arrangement of Finance	2.00
5	Recruitment of required manpower	1.00
	Total time required (some activities shall run concurrently)	13.00

## 9. COST OF PROJECT:

The project shall cost ₹ 456.21 lacs as detailed below:

Sr. No.	Particulars	₹ in Lacs
1	Land	7.50
2	Building	3.20
3	Plant & Machinery	23.84
4	Furniture, Electrical Installations	1.00
5	Other Assets including Preliminary / Pre-operative expenses	2.38
6	Margin for Working Capital	96.00
	<b>Total</b>	<b>133.92</b>

## 10. MEANS OF FINANCE:

Bank term loans are assumed @ 60% of fixed assets. The proposed funding pattern is as under:

Sr. No.	Particulars	₹ in Lacs
1	Promoter's contribution	33.48
2	Bank Finance	100.44
	<b>Total</b>	<b>133.92</b>

## 11. WORKING CAPITAL CALCULATION:

The project requires working capital of ₹96 lacs as detailed below:

Sr. No.	Particulars	Gross Amt	Margin %	Margin Amt	Bank Finance
1	Inventories	48.00	0.25	12.00	36.00
2	Receivables	24.00	0.25	6.00	18.00
3	Overheads	24.00	100%	24.00	0.00
4	Creditors	-		0.00	0.00
	<b>Total</b>	96.00		42.00	54.00

## 12. LIST OF MACHINERY REQUIRED:

A detail of important machinery is given below:

Sr. No.	Particulars	UOM	Qty	Rate (₹)	Value
					(₹ in Lacs)
	<b>Plant &amp; Machinery / equipments</b>				
<b>a)</b>	<b>Main Machinery</b>				
1	Single Bucket Elevator	Nos	1	₹ 0.90	0.90
2	Reel Machine	Nos	1	₹ 0.40	0.40
3	Rotory Seperator	Nos	1	₹ 1.00	1.00
4	Scourer Machine	Nos	1	₹ 0.75	0.75
5	Intensive dampner	Nos	1	₹ 0.40	0.40
6	Rotometer	Nos	1	₹ 0.25	0.25
7	De-Stoner without fan & cyclone	Nos	1	₹ 0.75	0.75
8	Indent cylinder	Nos	1	₹ 0.90	0.90

Sr. No.	Particulars	UOM	Qty	Rate (₹)	Value
9	Screw conveyour 7 m 1500/m, 4.5 m 1500/m	Nos	1	₹ 0.43	0.43
10	Dust cyclone with air seal dia 1120	Nos	1	₹ 0.17	0.17
11	Dust cyclone with air seal dia 960	Nos	1	₹ 0.15	0.15
12	L.P. Fan for Ist Cleaning	Nos	1	₹ 0.30	0.30
13	L.P. Fan for Main Cleaning	Nos	1	₹ 0.27	0.27
14	L.P. Fan for DE stoner	Nos	1	₹ 0.23	0.23
15	L.P. Fan for final Cleaning	Nos	1	₹ 0.25	0.25
16	Magnets 6"*12"	Nos	2	₹ 0.02	0.04
17	Silo gate	Nos	3	₹ 0.02	0.05
18	Roller Mill body	Nos	1	₹ 1.25	1.25
19	Rolls dia 250 * 1000 mm (Indian)	Nos	2	₹ 0.38	0.76
20	Roll Grooving & spindle cutting	Nos	2	₹ 0.03	0.06
21	Plan sifter 8 feed /16 sec.	Nos	1	₹ 1.50	1.50
22	Purifier	Nos	1	₹ 0.60	0.60
23	Bran – finisher	Nos	1	₹ 0.20	0.20
24	Pneumatic lifts	Nos	4	₹ 0.18	0.72
25	Triple worm 8 mt. Each	Nos	1	₹ 0.02	0.02
26	L.P. Fan purifier	Nos	1	₹ 0.25	0.25
27	Dust cyclone dia 1120	Nos	1	₹ 0.20	0.20
28	H.P. Fan	Nos	1	₹ 0.45	0.45
29	Supper cyclone	Nos	1	₹ 0.30	0.30
30	Bolting cloth		Lot	₹ 0.40	0.40
31	Misc. accessories such as inspection, cover & joint range etc.	Nos	1	₹ 0.15	0.15
32	Electrical motors	LS		₹ 3.50	3.50
33	Electric panel board fitted with starter main switches, cables, cable fittings, volts and AMP meters, AC.B capacitors etc.	LS		₹ 2.50	2.50
34	Reduction gears standard make	LS		₹ 0.75	0.75
35	V-Groove, Pulleys, Couplings, V-Belts etc.	LS		₹ 0.30	0.30
36	Errection Material such as angle, Channel Sheet, Iron etc.	LS		₹ 2.00	2.00
37	Tools and other equipment required during Errection	LS		₹ 0.35	0.35
38	Consumable items such as Nut, Bolt, Gas, and Welding Rods, Namda, Fevicol etc.	LS		₹ 0.20	0.20
39	Weighing scale	Nos	1	₹ 0.15	0.15
	<i>sub-total Plant &amp; Machinery</i>				<b>23.84</b>

Sr. No.	Particulars	UOM	Qty	Rate (₹)	Value
	<b>Furniture / Electrical installations</b>				
1	Office furniture	LS		0.7	0.70
	<i>sub total</i>				<b>0.70</b>
	<b>Other Assets</b>				
1	preliminary and preoperative	LS		2.38	2.38
	<i>sub-total Other Assets</i>				<b>2.38</b>
	Errection and Consultancy Charges	LS		0.45	<b>0.45</b>
	<b>Total</b>				<b>27.37</b>

### 13. PROFITABILITY CALCULATIONS:

Sr. No.	Particulars	UOM	Year-1	Year-2	Year-3	Year-4	Year-5
1	Capacity Utilization	%	60%	70%	80%	90%	100%
2	Sales	₹. In Lacs	288.00	336.00	384.00	432.00	480.00
3	Raw Materials & Other direct inputs	₹. In Lacs	235.07	274.25	313.42	352.60	391.78
4	Gross Margin	₹. In Lacs	52.93	61.75	70.58	79.40	88.22
5	Overheads except interest	₹. In Lacs	12.62	13.40	14.98	15.45	15.77
6	Interest @ 10 %	₹. In Lacs	10.04	10.04	6.70	5.02	4.02
7	Depreciation @ 30 %	₹. In Lacs	16.69	11.92	8.34	5.96	5.36
8	<b>Net Profit before tax</b>	₹. In Lacs	<b>13.59</b>	<b>26.39</b>	<b>40.56</b>	<b>52.96</b>	<b>63.07</b>

### 14. BREAKEVEN ANALYSIS:

The project shall reach cash break-even at 22.43% of projected capacity as detailed below:

Sr. No.	Particulars	UOM	Value
1	Sales at full capacity	₹. In Lacs	480.00
2	Variable costs	₹. In Lacs	391.78
3	Fixed costs incl. interest	₹. In Lacs	19.79
4	BEP = $FC/(SR-VC) \times 100 =$	% of capacity	22.43%