

WHEAT MILLING

QUALITY AND STANDARDS : As per AGMARK specifications
PRODUCTION CAPACITY : 450 tpa



1.0 PRODUCT AND ITS APPLICATIONS

India produces more than 70 million tonnes of wheat. It is mainly consumed in the form of atta, suji, maida and baking flour. Most of the wheat is milled in small capacity disc mills to produce wheat flour (atta). Maida-the refined wheat flour, used in the bakery industry, could be produced in capital intensive and sophisticated roller flour mills. Small scale bakery industry is often confronted with the problem of availability of right quality of maida. CFTRI, Mysore has now developed a simple mini wheat mill which simultaneously produces bakery flour, maida, atta and suji. Bran is available as a bye product which is used as animal feed.



2.0 MARKET POTENTIAL

The simple low cost mini wheat mill is of great relevance specially to the rural regions. It can produce common of milled wheat products in small quantities at a low investment. Keeping in view the projected growth rate of bread and biscuit industry by 13% and 9% respectively, there is a vast scope for setting up these units in rural areas.



3.0 BASIS AND PRESUMPTIONS

- The unit will work for 300 days per annum on single shift basis.
- The unit can achieve its full capacity utilization during the 3rd year of operation.
- The wages for skilled workers are 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 would construct its own building.
- Costs of machinery and equipment are based on average prices of 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

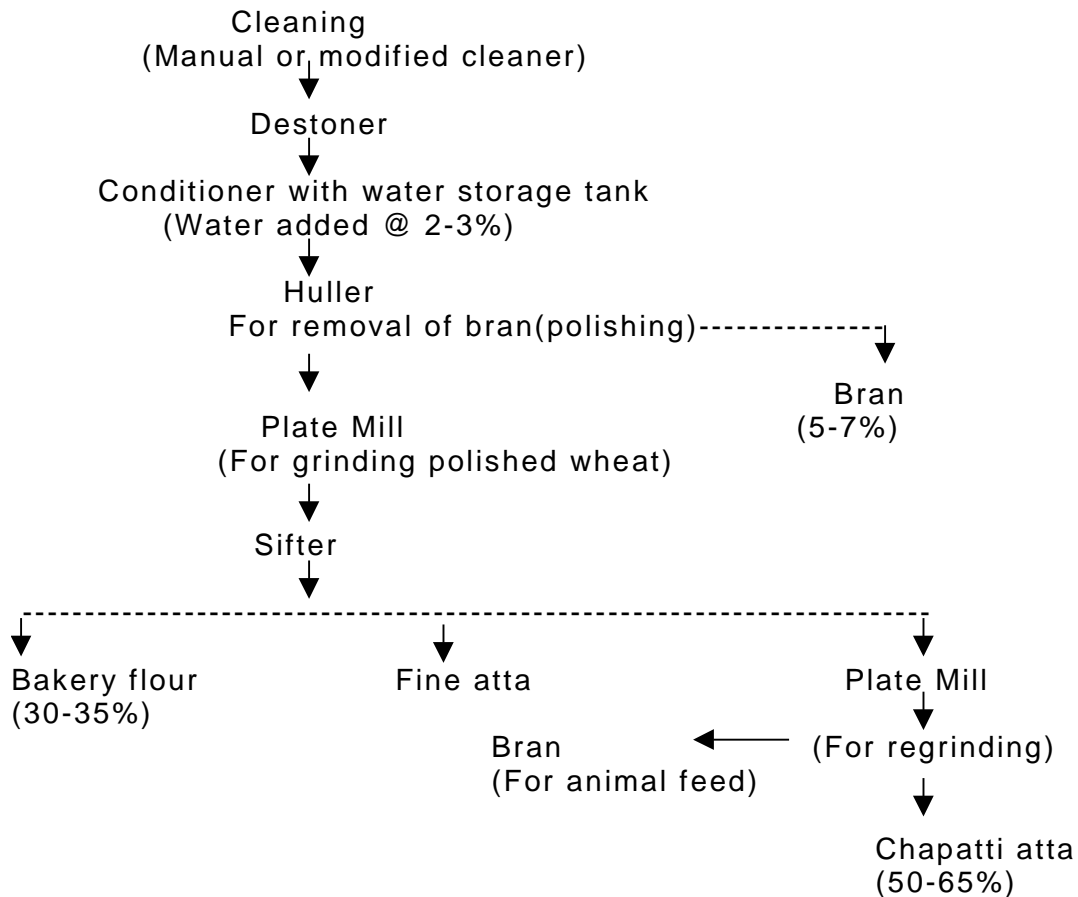
5.1 Location

The unit can be set up in rural/urban areas where electricity and wheat are easily available.



5.2 Process of Manufacture

Wheat



5.3 Quality Control and Standards: As per AGMARK 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

Only electric power is being used as a source of energy.

8.0 PRODUCTION CAPACITY

Quantity	:	450 tpa
Installed capacity	:	2 tpd
Optimum capacity utilization	:	70%
Working days	:	300/annum
Manpower	:	16



Utilities

Motive Power	:	20 kW
Water	:	5 kL/day

9.0 FINANCIAL ASPECTS

9.1 Fixed Capital

9.1.1 Land & Building

Amount (Rs. lakh)

Land 600 sq.m.	:	0.75
Built up Area 100 sq. m. @	:	3.00

Total cost of Land and Building	:	3.75

9.1.2 Machinery and Equipment

Description

Amount (Rs. lakh)

• Cleaner, cap. 250 kg/hr with 3 HP motor		3.80
• Destoner, pressure type, cap. 250 kg/hr with 2 HP motor		
• Conditioner with water storage tank with ½ HP motor		
• Huller with 10 HP motor		
• Plate mill with 10 HP motor		
• Sifter with 2 HP motor		
• Elevators with ½ HP motor		
Erection and electrification @ 10% of machinery cost	:	0.38
Office furniture & fixtures	:	0.42

Total **4.60**

9.1.3 Pre-operative Expenses

Consultancy fee, project report, deposits with electricity department etc.	:	0.40
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9.1.4 Total Fixed Capital **:** **8.75**

(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)
Manager	1	5,000	0.60
Office Assistant/Supervisor	2	3,500	0.84
Technician	1	3,000	0.36
Skilled workers	2	2,500	0.60
Unskilled workers	10	2,000	2.40
			4.80
Perquisites @ 15%			0.72
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Total :	16		5.52

9.2.2 Raw Material including packaging materials

Particulars	Qty.(MT)	Rate	Amount (Rs. lakh)
Wheat	500	0.06	30.00
Packaging material	-LS-	-LS-	00.50

Total:			30.50

9.2.3 Utilities

Amount (Rs. lakh)

Power	1.20
Water	0.20

Total:	1.40

9.2.4 Other Contingent Expenses

Amount (Rs. lakh)

Repairs and maintenance@10%	0.60
Consumables & spares	
Transport & Travel	
Publicity	0.44
Postage & stationery	
Telephone	0.06
Insurance	-----
Total:	1.10

9.2.5 Total Recurring Expenditure (9.2.1+9.2.2+9.2.3+9.2.4)	Amount (Rs. lakh) 38.52
9.3 Working Capital Recurring Expenditure for 1 month	3.21
9.4 Total Capital Investment	Amount (Rs. lakh)
Fixed capital (Refer 9.1.4)	8.75
Working capital (Refer 9.3)	03.21

Total:	11.96

10.0 FINANCIAL ANALYSIS

10.1 Cost of Production (per annum)	Amount (Rs. lakh)
Recurring expenses (Refer 9.2.5)	38.52
Depreciation on building @5%	00.15
Depreciation on machinery @10%	00.40
Depreciation on furniture @20%	00.08
Interest on Capital Investment @12%	01.47

Total:	40.62

10.2 Sale Proceeds / Annual turnover

Item	Qty. (MT)	Rate per MT	Amount (Rs.lakh)
Atta, Bakery flour, Maida, Suji	450	11.00 (Average)	49.50

10.3 Net Profit per year

= Sales - Cost of production
= 49.50 - 40.62
= Rs. 8.88 lakh

10.4 Net Profit Ratio

= $\frac{\text{Net profit} \times 100}{\text{Sales}}$
= $\frac{8.88 \times 100}{49.50}$
= 17.94 %

10.5 Rate of Return on Investment

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

$$= \frac{8.88 \times 100}{11.96}$$

$$= 74.25\%$$

10.6 Annual Fixed Cost

Amount (Rs. Lakh)

All depreciation	0.63
Interest	1.47
40% of salary, wages, utility, contingency	3.20
Insurance	0.06
Total:	5.36

10.7 Break even Point

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

$$= \frac{5.36 \times 100}{5.36 + 8.88}$$

$$= 38 \%$$

11.0 ADDRESSES OF MACHINERY AND EQUIPMENT SUPPLIERS

Nalanda Agro Works,
Nalanda Nagar, Kurji
Patna – 800 010

Sidvin Machineries Pvt. Ltd.
Site No. 10, Third stage,
Industrial Suburb,
Mysore – 570 008

Mysore Industries,
2336, 9th Cross
Basavashwara Road
Mysore – 570 004

Ram Kumar Hari Shankar
Upper Bazar,
Ranchi- 834001

Radhakrishnan Keval Ram,
Opposite Pareek Pathshala
2343, Nahargarh Road
Jaipur- 302 001

Shree Murugan Industries,
Plot No. 68/W,
Hootagalli Industrial Area
Belawadi Post
Mysore – 571 186

Rajendra Joshi
B-139, Nehru Nagar,
Jaipur- 302 016

Baswaraj Dharmareddy
Old MIG 26, KHB Colony,
Bidar – 585 401

12.0 OTHER SPECIAL FEATURES

A careful selection of product mix is necessary based on the local market demand and availability of raw materials.