

Mini Stone-Ground Wheat Flour Line

Complete Turnkey Business Proposal



Supplier reference: compact complete flour-cleaning, milling and pneumatic conveying arrangement.

0.2-0.5 t/h entry throughput	30-68 kW indicative connected load	3-5 entry operators	5-10 t/day supplier reference range
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Prepared for investment planning in Afghanistan and regional export markets. Final specifications, pricing, civil works, and utility loads require supplier quotation and site survey.

Executive Summary

A compact wheat-cleaning, stone-milling, sifting and bagging line designed around Afghan wheat and a low-entry local-market launch. The line can make whole-wheat flour, sifted stone-ground flour and bran while preserving a simple operating model suitable for a workshop or small mill.

Why this project fits Afghanistan

- Afghan wheat can be purchased locally and processed close to producing districts or urban bakeries.
- Stone-ground and whole-wheat flour can be sold to bakeries, households, restaurants and health-focused retailers.
- Bran is a saleable by-product for livestock feed rather than a disposal cost.
- The modular entry configuration can begin below a large industrial roller-mill investment.

Sanaatchi delivery scope

- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning
- International logistics, customs documentation, operator training, spare parts, and after-sales support

Start with a 200-500 kg/h stone-mill system, one compact cleaner/destoner, pneumatic transfer, flour sifter and semi-manual weighing and sealing. Add automatic packing only after branded retail demand is proven.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Whole-wheat flour	Stone-ground; buyer-approved fineness	Bakeries and household retail
Sifted stone-ground flour	Controlled ash and moisture after trials	Bread, naan and specialty bakery
Wheat bran	Clean, dry milling by-product	Livestock-feed buyers

Supplier references range from compact 200-500 kg/h stone mills to approximately 5-10 t/day integrated plants. Actual flour yield, fineness, ash, color and power consumption must be verified with representative Afghan wheat before purchase.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Receiving hopper and intake screen	Controls feed and removes large foreign material	Match to daily intake and bag handling
2	Compact cleaner/destoner	Removes dust, chaff, stones and heavy impurities	Food-contact surfaces and dust outlet required
3	Magnetic separator	Captures ferrous contamination before milling	Accessible for routine cleaning
4	Conditioning bin	Provides controlled moisture resting before milling	Size for 8-12 hour practical holding where used
5	Stone mill set	Low-speed grinding of cleaned wheat	200-500 kg/h entry target; stone diameter and speed by supplier
6	Pneumatic conveying and cyclone	Transfers flour and controls airborne dust	Include blower, cyclone, ducts and airlocks
7	Flour sifter	Separates target flour fractions and bran	Interchangeable screens for agreed mesh
8	Scale and bag sealer	Packs wholesale and retail flour	Manual/semi-automatic 1-50 kg entry scope

Equipment models are indicative and will be matched to the selected capacity, local raw-material tests, available utilities, and preferred automation level.

Reference Equipment Gallery



Supplier reference: compact complete flour-cleaning, milling and pneumatic conveying arrangement.



Supplier reference: multi-stone milling installation with enclosed flour transfer.

Images are supplier references for configuration discussion; final equipment appearance and model may differ.

Plant, Raw Materials & Utility Requirements

Raw materials

- Clean Afghan wheat by agreed variety and moisture
- Food-grade flour bags or retail pouches
- Labels and coding consumables
- Approved cleaning and sanitation materials

Utilities & infrastructure

- Stable three-phase electricity
- Dust extraction and safe ventilation
- Potable water only if washing or moisture conditioning is used
- Dry raw-wheat and finished-flour storage
- Pest-control and food-hygiene program

Quality, safety and environmental controls

- Incoming wheat moisture, infestation, odor and foreign-matter checks
- Magnet and destoner inspection records
- Flour fineness, moisture, ash and baking trial against buyer specification
- Lot coding and retention samples
- Dust control, guarding and housekeeping to reduce fire and respiratory risk

A final factory layout must reserve safe forklift routes, maintenance clearances, raw-material segregation, finished-goods storage, fire protection, ventilation, and future expansion space.

Indicative Investment & Implementation Plan

LOW-ENTRY CONFIGURATION

Lowest practical entry: one compact cleaner, one stone-mill set, one sifter and semi-manual packing, using local supports and installation labor. Land and a new building are excluded.

Component	Indicative range	Notes
Entry cleaning and milling machinery	US\$8k-18k	Compact Chinese line; confirm every included machine
Sifting, weighing and sealing	US\$2k-6k	Semi-manual launch configuration
Electrical, dust control and local installation	US\$2k-6k	Use local fabrication for noncritical supports and ducts
Freight, clearance and initial spares	US\$3k-8k	Depends on packing volume and destination
Initial packaging and wheat working capital	US\$2k-5k	One short launch cycle
Indicative low-entry total	US\$17k-43k	Land and building excluded; supplier quotation required

Implementation sequence

Phase 1	1-2 weeks	Confirm flour types, buyer tests, wheat samples and entry output
Phase 2	2-4 weeks	Compare complete machine lists and run supplier wheat trials
Phase 3	4-8 weeks	Manufacture, inspect and ship the selected equipment
Phase 4	2-3 weeks	Install, commission, train operators and approve flour batches

Ranges are planning targets for a low-cost entry configuration, exclude land, and remain subject to confirmed capacity, supplier quotation, freight, duties, exchange rates and site conditions.

Next Steps & Contact Information

Recommended next steps

- Confirm target products, hourly output, and packaging formats
- Test representative raw materials and document quality requirements
- Complete site survey covering electricity, water, fuel, drainage, roads, and warehouse space
- Request comparable technical and commercial quotations from shortlisted suppliers
- Finalize financing, logistics, installation, training, and spare-parts plan

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Research and image references

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