

Sesame Tahini Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real sesame roasting, grinding and paste-handling equipment.

50-100 kg/batch starter roasting load	40-80 kg/h starter grinding input	1 launch sesame grade	6-10 entry operators
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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 dedicated sesame-paste line for receiving Afghan sesame, cleaning and destoning, optional dehulling, controlled roasting, rapid cooling, inspection, two-stage colloid grinding, mixing or deaeration, hygienic holding and jar filling. Tahini quality depends on seed variety, roast profile, fineness and oil separation stability.

Why this project fits Afghanistan

- Afghan sesame can be converted into a familiar higher-value paste.
- A compact batch line serves retail jars and food-service pails.
- Roast and grind control differentiate flavor and texture.
- Local tahini can supply bakeries, restaurants and halva makers.

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

Recommended configuration

For the lowest credible entry, use a 50-100 kg/batch sesame cleaner/destoner, batch roaster and cooling tray, inspection table, two small colloid mills in series, 100-200 L mixing tank and semi-automatic piston filler. Begin with natural tahini from one approved sesame grade.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Natural sesame tahini	100% sesame, buyer-approved roast, fineness, moisture and separation stability	Retail, restaurants, bakeries and hummus producers
Food-service tahini	Controlled bulk pack, traceable lot and declared sesame grade	Caterers, confectionery and halva processors

Sesame dehulling, washing and roasting are not interchangeable options. Acceptance must use the chosen Afghan sesame and measure clean-seed yield, roast color, product temperature, grinding fineness, throughput, oil separation, microbiology and sensory profile. Allergen controls are mandatory.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Sesame cleaner, magnet and destoner	Removes dust, metal and stones	50-100 kg/batch entry
2	Optional dehuller or wash tank	Produces selected natural or hulled style	Only after product decision
3	Batch sesame roaster	Develops flavor under controlled heat	Recorded time and seed temperature
4	Cooling tray or small cooler	Stops roasting and protects aroma	Rapid clean-air cooling
5	Inspection table	Rejects scorched seeds and foreign matter	Manual low-cost quality gate
6	Two colloid mills	Produces smooth paste in two stages	40-80 kg/h seed-dependent
7	Mixing/deaeration tank	Equalizes batch and limits entrained air	100-200 L jacketed option
8	Semi-automatic paste filler	Fills jars or food-service tubs	Two launch pack sizes

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



Made-in-China supplier reference: real sesame roasting, grinding and paste-handling equipment.



Made-in-China supplier reference: real compact tahini grinding and processing configuration.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Released Afghan sesame by variety and lot
- Food-grade jars, lids, liners, labels and cartons
- Approved cleaning and sanitation materials
- No undeclared additives

Utilities & infrastructure

- Stable electricity matched to motors, controls and refrigeration
- Potable process water where product contact or cleaning occurs
- Washable food-grade rooms with drainage and pest control
- Segregated raw-material, packaging and finished-goods storage
- Steam, fuel, chilled water or compressed air only where specified

Quality, safety and environmental controls

- Verify sesame identity, moisture, foreign matter and pesticide plan
- Control sesame-allergen zoning and label declaration
- Record roast time, temperature, color and sensory result
- Monitor grinding temperature and fineness
- Test microbiology, rancidity and oil separation stability
- Check fill weight, closure, code and shelf-life conditions

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 entry launches natural tahini from one sesame grade with manual inspection and semi-automatic filling. Dehulling, continuous roasting, automatic cartoning, building and working stock are excluded.

Component	Indicative range	Notes
Cleaning, destoning and inspection	US\$3k-8k	One sesame grade
Batch roasting and cooling	US\$5k-13k	50-100 kg/batch
Two-stage grinding and tank	US\$6k-15k	40-80 kg/h entry
Semi-automatic filling and quality tools	US\$3k-8k	Two pack sizes
Freight, installation and spares	US\$4k-9k	Compact food workshop
Indicative low-entry total	US\$21k-53k	Building, sesame stock and dehulling module excluded

Implementation sequence

Phase 1	2-3 weeks	Confirm raw-material quality, products, capacity, packs and site utilities
Phase 2	2-4 weeks	Run representative Afghan raw-material and packaging trials
Phase 3	5-9 weeks	Manufacture, inspect and ship approved equipment
Phase 4	3-5 weeks	Install, train and validate process, hygiene and release controls

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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