

Melon & Watermelon Seed Cleaning and Roasting Line

Complete Turnkey Business Proposal



Supplier reference: real compact seed cleaning and grading machinery used before roasting.

200-300 kg/h starter cleaning capacity	50 kg/batch roaster loading	2-4 launch flavors	5-7 entry operators
--	---------------------------------------	------------------------------	-------------------------------

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 small dry line for cleaning, grading, optional washing, drying, roasting, seasoning, cooling and packing melon and watermelon seeds.

Why this project fits Afghanistan

- Melon and watermelon seeds are familiar snack products and can use locally recovered seed.
- Cleaning and size grading improve roast consistency and protect equipment.
- A batch roaster supports several recipes without a large continuous line.
- Small pouches suit shops, transport markets and wholesalers.

Sanaatchi delivery scope

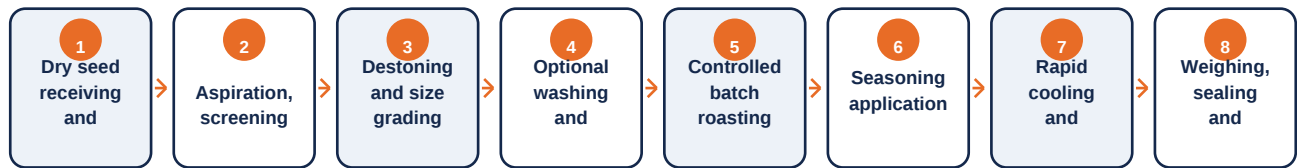
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

Recommended configuration

For the lowest credible entry, select a 200-300 kg/h cleaner-grader with destoner, 50 kg/batch roaster, seasoning drum, cooler and semi-automatic packing.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Roasted melon seeds	Buyer-approved size, roast color, salt and moisture	Retail and wholesale snack buyers
Roasted watermelon seeds	Uniform roast and declared seasoning	Retail, hospitality and regional buyers

Washing is optional and creates a new drying control point. Seeds must be fully dry before roasting and cooled before packing to prevent condensation and rancidity.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Air-screen cleaner	Removes light and oversize impurities	200-300 kg/h starter
2	Magnet and destoner	Removes metal and stones	Accessible daily verification
3	Size grader	Creates uniform roasting fractions	Interchangeable screens
4	Optional washer and spin dryer	Supports washed or brined recipes	Must fully redry before roasting
5	Batch seed roaster	Develops flavor and microbial reduction	50 kg/batch with timer and temperature
6	Seasoning drum	Applies salt or flavor uniformly	Controlled recipe dosing
7	Cooling conveyor	Stops roasting and prevents condensation	Filtered ambient air
8	Multihead or semi-auto packer	Packs released seed	One or two pouch 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



Supplier reference: real compact seed cleaning and grading machinery used before roasting.



Supplier reference: real food-grade batch roasting equipment applicable to melon and watermelon seeds.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Dry Afghan melon and watermelon seeds
- Food-grade salt and declared seasonings
- Optional approved edible oil
- Barrier pouches, labels and cartons

Utilities & infrastructure

- Stable three-phase electricity
- Potable process water and hygienic drainage
- Food-grade heat source
- Ventilated washable processing room
- Clean dry packing and finished-goods storage

Quality, safety and environmental controls

- Test incoming seed moisture, infestation and foreign matter
- Verify cleaner and destoner performance
- Separate sizes before roasting
- Record time, temperature and product color each batch
- Control allergen and seasoning changeover
- Verify final moisture, microbiology, rancidity and seal integrity

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 uses dry cleaning, one batch roaster and semi-automatic packing. Automatic brining, continuous roasting, nitrogen flushing, building and seed inventory are excluded.

Component	Indicative range	Notes
Cleaning, destoning and grading	US\$5k-11k	200-300 kg/h dry section
Batch roasting and cooling	US\$6k-14k	50 kg/batch
Seasoning and semi-auto packing	US\$4k-9k	Limited launch formats
Inspection and quality tools	US\$2k-5k	Moisture and process controls
Freight, installation and spares	US\$3k-8k	Gas or electric heat
Indicative low-entry total	US\$20k-47k	Building, seed and working capital excluded

Implementation sequence

Phase 1	2-3 weeks	Confirm raw-material, product, capacity and pack specifications
Phase 2	2-4 weeks	Run supplier trials with representative Afghan material
Phase 3	6-10 weeks	Manufacture, inspect and ship the selected line
Phase 4	3-5 weeks	Install, train, validate the process and start shelf-life checks

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

Sanaatchi Industrial Vision Group

Afghanistan Office: +93 779 819 820 | info@sanaatchi.com

China Office: +86 159 5171 6867 | china@sanaatchi.com

Website: www.sanaatchi.com

Research and image references

- https://www.made-in-china.com/products-search/hot-china-products/Seed_Cleaning_Machine.html
- <https://www.alibaba.com/showroom/sunflower-seed-roasting-production-line.html>