

Seed-Cotton Pre-Cleaning Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real mobile air-screen and gravity pre-cleaning equipment.

1-2 t/h starter seed-cotton feed	1 gentle cleaning stage	8-12% supplier normal moisture reference	6-10 seasonal 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 small seasonal line receiving hand-picked Afghan seed cotton, sampling and lot coding it, opening compacted locks, metered feeding, removing stones and heavy matter, separating sticks, burs, leaves and loose dust with gentle air/screen or cylinder cleaning, capturing dust and discharging cleaner seed cotton to short-term storage or a gin. It does not separate lint from seed.

Why this project fits Afghanistan

- Afghan seed cotton can retain more value through local primary processing.
- Modular equipment suits district-scale seasonal aggregation.
- Cleaning and moisture control protect later gin performance and lint grade.
- Cottonseed and lint need separate traceable storage and buyers.

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 covered receiving floor, manual foreign-fibre inspection, slow bale/lock opener, variable feeder, rock catcher, one inclined seed-cotton cleaner with aspiration, cyclone and bag filter, plus a short clean-cotton conveyor. Size it at 1-2 t/h and test it on hand-picked Afghan cotton to limit fibre and seed damage.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Pre-cleaned seed cotton	Lot-traceable, reduced stones/leaf/dust with verified fibre and seed damage	Cotton gins and producer cooperatives
Separated field trash	Contained non-product stream with no uncontrolled burning	Approved disposal or evaluated use

Grain cleaners are not automatically suitable for fluffy seed cotton. Acceptance must measure cleaning efficiency, good-fibre loss, seed damage, nep generation and fire risk on representative cotton. Excess cleaning can reduce lint value. Cotton moisture must be managed before and after cleaning.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Receiving floor and inspection belt	Identifies lots and removes strings/plastic manually	1-2 t/h entry
2	Slow seed-cotton opener	Loosens compacted locks without harsh fibre action	Cotton-specific pinned design
3	Variable feed controller	Prevents cleaner overload and quality swings	Linked to cleaner load
4	Rock and heavy-matter catcher	Protects downstream machinery	Accessible clean-out
5	Inclined seed-cotton cleaner	Removes leaf, burs and loose field trash	One gentle stage
6	Aspiration ducts and cyclone	Carries and separates light dust	Balanced airflow
7	Bag filter and spark/fire controls	Contains respirable dust and ignition risk	Cotton-dust design
8	Clean-cotton conveyor and lot bins	Feeds gin or stores separated lots	No floor contact

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 mobile air-screen and gravity pre-cleaning equipment.



Made-in-China supplier reference: real aspiration and screening pre-cleaner configuration.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Traceable Afghan seed cotton by variety, farm lot and harvest method
- Bale wrap, wire/strap or bags selected for lint and cottonseed
- Clean replacement screens, filter bags and approved lubricants
- Sampling bags, tags and calibration materials

Utilities & infrastructure

- Stable electricity matched to motors, controls, lighting and ventilation
- Process and sanitation water of the required quality and pressure
- Safe material storage, fire protection and worker hygiene facilities
- Dust, vapour or wastewater collection sized to the selected process
- Covered raw-material and finished-product storage with traceability

Quality, safety and environmental controls

- Sample moisture, foreign matter, colour and contamination at receipt
- Prevent polypropylene, hair, leaf and soil contamination during handling
- Record feed, lint, seed, trash and loss mass for every lot
- Control machine loading, saw/roller condition and fire/spark hazards
- Grade lint and test turnout, moisture and buyer quality parameters
- Maintain dust collection, housekeeping and lot traceability

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 seasonal local labour, semi-manual bale handling and the fewest machines that protect fibre quality. Building, cotton working stock, vehicles and large automatic bale systems are excluded.

Component	Indicative range	Notes
Receiving, opener and controlled feeding	US\$6k-15k	1-2 t/h seasonal scope
Rock catcher and cotton cleaner	US\$8k-20k	One gentle stage
Dust, cyclone and fire controls	US\$5k-13k	Mandatory cotton-dust scope
Conveyors, bins and sampling tools	US\$3k-8k	Semi-manual handling
Freight, setup and spares	US\$4k-10k	Screens, pins and belts
Indicative low-entry total	US\$26k-66k	Building, cotton and gin excluded

Implementation sequence

Phase 1	3-5 weeks	Confirm raw material, product, capacity, site, permits and buyer specification
Phase 2	3-6 weeks	Complete representative material, process, yield and quality trials
Phase 3	6-12 weeks	Manufacture, inspect and ship the approved equipment scope
Phase 4	4-8 weeks	Install, train, validate controls and pass performance tests

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

- https://fr.made-in-china.com/co_mh-seed-cleaner/product_Automatic-Seed-Cotton-Pre-Cleaner-5xfz-15bxm_ysosiunyny.html
- <https://www.made-in-china.com/showroom/ginsaw/product-detailXbCJZgvHftYe/China-Seedcotton-Ginning-Equipment.html>