

Cotton Lint Cleaning Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real cotton lint cleaning line equipment.

100-150 kg/h supplier cleaner reference	40.5 kW five-stage reference load	1-3 stages trial-selected cleaning	4-7 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 post-ginning lint-cleaning line that opens controlled cotton tufts, meters them through one or more gentle cleaners, removes dust and loose trash by grid and airflow, condenses the cleaned lint and prepares uniform feed for baling. It is intended to improve a measured lint grade without excessive cleaning that shortens fibre or reduces saleable yield.

Why this project fits Afghanistan

- Afghan ginneries can improve selected lint lots before sale to spinners.
- A modular cleaner can serve several small gins through toll processing.
- Dust and trash removal can improve consistency when incoming lint is genuinely contaminated.
- Cleaning must be justified by buyer grade gain, not appearance alone.

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, first grade and test representative lint, then install one controlled feeder, one 100-150 kg/h multi-stage lint cleaner, balanced suction/cyclone, condenser and manual transfer to an existing or separate press. Add cleaning stages only when trials prove a higher buyer grade and acceptable fibre loss.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Cleaned cotton lint	Buyer-agreed staple length, micronaire, colour, trash, moisture and contamination	Spinning mills and cotton traders
Separated cotton trash	Kept dry and segregated; recovery only after safety review	Approved low-grade recovery or disposal

The baseline supplier reference reports 110-150 kg/h and 40.5 kW for a five-cleaner arrangement. This is not an automatic purchase specification. Trials must measure trash removal, fibre loss, nep generation, short-fibre increase, lint yield and buyer grade before fixing the number and speed of cleaning points.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Bale opener or controlled feed lattice	Presents even tufts without surging	Matched to lint condition and cleaner width
2	Metal and fire-risk separation	Protects high-speed cleaning and ducting	Magnet plus supplier-approved detection
3	Primary lint cleaner	Opens lint and removes larger loose trash	Speed selected by fibre trial
4	Fine cleaning modules	Removes remaining small trash	Install only stages justified by grade gain
5	Suction fan and cyclone/filter	Controls transport air and dust	Balanced airflow and fire-safe discharge
6	Lint condenser	Separates transport air and forms a uniform batt	Capacity matched to cleaner
7	Sampling and test bench	Compares incoming and cleaned lint	Moisture, trash and fibre-quality methods
8	Transfer conveyor or bags	Moves released lint to the press	Prevent mixing and contamination

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 cotton lint cleaning line equipment.



Made-in-China supplier reference: second real industrial configuration for cotton lint cleaning line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Ginned cotton lint separated by farm, variety, lot and initial grade
- Bale wrap, tags and identification materials
- Replacement wire/card clothing and supplier-approved lubricants
- Cleaning and fire-control consumables

Utilities & infrastructure

- Stable three-phase electricity matched to the confirmed motor and starting loads
- High-volume dust extraction with fire-safe ducting, collection and housekeeping
- Dry covered raw-material and finished-product storage with lot separation
- Fire detection, suitable extinguishing equipment and controlled ignition sources
- Safe access, guarding, lifting aids and preventive-maintenance workspace

Quality, safety and environmental controls

- Record incoming and outgoing bale weights and lot identity
- Measure moisture, trash, colour and fibre properties before and after cleaning
- Calculate lint loss and reject composition for every trial
- Inspect wire condition, clearances, airflow and bearings each shift
- Control metal, spark, dust accumulation and ignition sources
- Release only lots meeting the contracted buyer specification

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 one trial-selected cleaner with controlled feeding and existing bale capacity. Extra cleaning modules, automatic bale handling, building and cotton inventory are excluded.

Component	Indicative range	Notes
Feeding and lint-cleaning machinery	US\$12k-32k	100-150 kg/h screening basis
Air, condenser and dust collection	US\$6k-16k	Fire-safe balanced system
Testing, electrical and local installation	US\$4k-11k	Local supports where safe
Freight, clearance and initial spares	US\$5k-13k	Wire and bearing kit
Indicative low-entry total	US\$27k-72k	Baler, building and lint stock excluded

Implementation sequence

Phase 1	2-4 weeks	Confirm feedstock, buyer specification, capacity, site utilities and test protocol
Phase 2	2-5 weeks	Run representative material trials and approve the exact machine configuration
Phase 3	5-12 weeks	Manufacture, inspect and ship the approved equipment and critical spares
Phase 4	2-6 weeks	Install, commission, train operators and validate saleable output

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/showroom/44e00543fe2e0dc3/product-detailJOITyVcdCrRP/China-Commercial-Cotton-Lint-Linter-Cleaning-Machine-High-Efficiency-Mqp400-Cotton-Linter-Machine-Price.html>
- <https://hsnmachinery.en.made-in-china.com/product/nXmJwxyugvpS/China-Textile-Cotton-Waste-Recycling-Machine.html>