



Cotton Ginning, Spinning, Weaving & Finishing Complex

Complete Turnkey Business Proposal



Made-in-China supplier reference: real cotton ginning, spinning, weaving & finishing complex equipment.

bankable study investment gate	confirmed feedstock supply gate	EPC scope delivery gate	quality laboratory release gate
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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

Vertically integrated cotton project that cleans seed cotton, separates lint and seed, bales and classifies lint, spins yarn, weaves greige fabric, dyes/finishes it and packs consistent textile products for local and export markets.

Why this project fits Afghanistan

- This is a strategic plant, not a low-entry equipment package.
- Bankable feedstock, utility, permit, market, EPC and financing evidence is required before selection.
- Operate only with an independent laboratory, defined quality release and preventive-maintenance program.

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

Proceed only after cotton acreage and collection, lint quality, power/steam/water, effluent treatment, yarn/fabric buyer specifications, laboratory controls, logistics and experienced textile management are bankable.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Cotton lint, yarn and finished woven fabric	Seed cotton tonnes/day, lint grade, yarn count, fabric construction, width, finish, colourfastness, pack format and quality standard	Garment workshops, home-textile makers, uniform suppliers, wholesalers, exporters and regional fabric distributors

Final capacity, process, resource quality, utilities, permit conditions, emissions, acceptance test and commercial terms require independent engineering review before any order.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Seed cotton intake, ginning and bale press	Separates lint and seed	Grade and contamination
2	Blowroom, carding and ring spinning	Produces yarn	Count and strength
3	Warping/sizing and weaving	Makes greige fabric	Construction and defects
4	Dyeing/finishing/stenter	Creates saleable fabric	Shade, width and finish
5	Inspection, packing and textile laboratory	Releases orders	Testing and traceability

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 ginning, spinning, weaving & finishing complex equipment.



Made-in-China supplier reference: second real machine configuration for cotton ginning, spinning, weaving & finishing complex.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Seed cotton, dyes/chemicals, sizing agents, packaging, cones/cores, steam/fuel, water-treatment chemicals, spare parts, laboratory consumables and maintenance materials

Utilities & infrastructure

- Bankable electricity/fuel/water plans, process cooling and treatment, plant fire safety, laboratory, covered stores and qualified operation team
- Environmental permits, emissions control, waste route, maintenance workshop, critical spares and site-specific safety systems

Quality, safety and environmental controls

- Confirm cotton supply/grade, seed by-product route, power/steam/water, textile wastewater, target yarn/fabric orders, dyes/chemicals and technical operators
- Control lint contamination, yarn count/strength, warp tension, loom defects, dye recipe, fabric width, shrinkage, finish and roll inspection
- Test lint/yarn properties, fabric weight/construction, strength, shade/fastness, shrinkage, defects, roll length and buyer release criteria

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

An integrated cotton complex should advance only against proven cotton collection, water/energy, wastewater treatment and signed yarn/fabric demand.

Component	Indicative range	Notes
Ginning, lint cleaning and baling	US\$30m-100m	Cotton intake and grade
Spinning, weaving and finishing systems	US\$100m-360m	Yarn/fabric portfolio
Treatment, laboratory, utilities and installation	US\$45m-155m	Water/power/quality critical
Indicative strategic project total	US\$175m-615m	Cotton inventory, land and finance excluded

Implementation sequence

Phase 1	2-5 weeks	Confirm product specification, representative raw material, buyer, capacity, site and utilities
Phase 2	3-7 weeks	Run supplier trials with the buyer material and freeze the balanced machine, tooling and utility scope
Phase 3	8-22 weeks	Manufacture or refurbish, inspect, document and ship the contracted equipment
Phase 4	3-12 weeks	Install, commission, train operators and pass material-specific acceptance 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

- [integrated-cotton-spinning-mill](#)
- [integrated-cotton-weaving-dyeing-finishing-mill](#)