

Fibre Finishing Line

Complete Turnkey Business Proposal

TONGDA®



Real supplier equipment reference for Fibre Finishing Line

1 machine entry phase	2-4 operators	Modular future expansion
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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

This proposal presents a practical low-entry fibre finishing line for Afghanistan. Trimming, surface finishing and winding system for fiberglass wool batts. The starting configuration prioritizes economical Chinese machinery, local fabrication of noncritical items, affordable local labor, simple buildings and phased automation.

Why this project fits Afghanistan

- Local production can replace selected imported finished goods.
- Affordable land, labor and local fabrication reduce the entry threshold.
- A one-shift starting model limits working-capital pressure.
- Modular equipment allows capacity to grow with confirmed sales.

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

Start with one semi-automatic shift and the minimum core equipment needed for fibre finishing line; add automatic handling and higher-speed packing after demand is proven.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Finished fibre web	Confirm size, grade, formulation and pack specification for finished fibre web	Afghanistan and nearby regional buyers
Resin-bonded web	Confirm size, grade, formulation and pack specification for resin-bonded web	Afghanistan and nearby regional buyers
Heat-set roll goods	Confirm size, grade, formulation and pack specification for heat-set roll goods	Afghanistan and nearby regional buyers
Customer-specified finished roll	Confirm size, grade, formulation and pack specification for customer-specified finished roll	Afghanistan and nearby regional buyers

The proposed flow is derived from the website product scope: Trimming, surface finishing and winding system for fiberglass wool batts. Final machine models, recipes, output and quality standards must be confirmed against local raw materials and buyer requirements.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Unwinding stand	Receives, buffers or feeds the fibre finishing input at a controlled rate.	State input form, feed rate, storage volume and contact material.
2	Impregnation or padding unit	Performs the defined impregnation or padding unit operation within the fibre finishing process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
3	Drying oven	Applies the controlled thermal treatment required for stable fibre finishing quality.	Confirm temperature range, residence time, heat source, capacity and insulation.
4	Heat-setting chamber	Applies the controlled thermal treatment required for stable fibre finishing quality.	Confirm temperature range, residence time, heat source, capacity and insulation.
5	Calender	Finishes, assembles or collects the fibre finishing product to its specified final form.	State finished dimensions, speed, tooling, tension or pressure and changeover needs.
6	Edge-trimming unit	Performs the defined edge-trimming unit operation within the fibre finishing process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
7	Surface inspection table	Checks incoming material or finished fibre finishing against the agreed acceptance criteria.	Define defect limits, test method, sampling rate and reject arrangement.
8	Automatic winder	Finishes, assembles or collects the fibre finishing product to its specified final form.	State finished dimensions, speed, tooling, tension or pressure and changeover needs.
9	Drive and control cabinet	Provides the controls or auxiliary service needed for safe, stable fibre finishing operation.	Confirm utility load, control interfaces, environmental duty and redundancy need.
10	Roll packing station	Measures, closes, identifies or groups finished fibre finishing for sale and transport.	State pack sizes, packaging material, speed, coding and change-parts required.

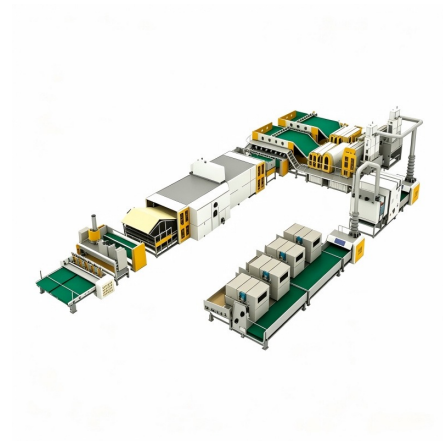
Equipment models are indicative and will be matched to the selected capacity, local raw-material tests, available utilities, and preferred automation level.

Reference Equipment Gallery

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Real supplier equipment reference for Fibre Finishing Line



Real supplier equipment reference for Fibre Finishing Line



Real supplier equipment reference for Fibre Finishing Line

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Selected fiber feedstock
- Binders or treatment chemicals where required
- Packaging film and straps
- Lubricants and wear parts
- Labels and pallet materials

Utilities & infrastructure

- Three-phase power
- Compressed air
- Dust and fiber extraction
- Dry production hall
- Fire detection and suppression
- Material and finished-goods storage

Quality, safety and environmental controls

- Incoming-material inspection and supplier records
- Documented machine settings and production batches
- Routine dimensional, visual and functional checks
- Safe guarding, emergency stops and operator training
- Final product sampling before release and dispatch

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

Afghanistan entry case: economical Chinese equipment, locally fabricated noncritical items, local civil works and labor, phased automation, and land excluded. Optional automation can be added after sales are established.

Component	Indicative range	Notes
Entry machine package	US\$18k-85k	Economy configuration using local labor where practical
Local utilities and workshop	US\$8k-30k	Economy configuration using local labor where practical
Dust control and tooling	US\$6k-25k	Economy configuration using local labor where practical
Freight and installation	US\$8k-28k	Economy configuration using local labor where practical
Working capital	US\$5k-20k	Economy configuration using local labor where practical
Low-entry project total	US\$45k-188k	Economy configuration using local labor where practical

Implementation sequence

Phase 1	2-3 weeks	Confirm products, entry capacity and buyer requirements
Phase 2	3-5 weeks	Compare suppliers and finalize the economy configuration
Phase 3	6-12 weeks	Manufacture equipment and prepare the local workshop
Phase 4	3-6 weeks	Shipping and customs clearance
Phase 5	2-4 weeks	Installation, training, trials and market launch

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

- Made-in-China supplier image reference:
<https://image.made-in-china.com/2f0j00oPvMCekzEbqY/Tongda-High-Purity-Medical-Nonwoven-Fabric-Bleaching-Line-ISO-13485-Certified.jpg>
- Made-in-China supplier image reference:
<https://image.made-in-china.com/2f0j00FuOvGZmnGgpy/Precision-Polishing-Cloth-Production-Line-for-Metal-and-Wood-Surface-Finishing.jpg>
- Made-in-China supplier image reference:
<https://image.made-in-china.com/2f0j00zuMBgZQnahrY/Heat-Resistant-Industrial-Velour-Raising-Brush-for-Nonwoven-Fabric-Finishing-Line.jpg>