



Needle Punching Line

Complete Turnkey Business Proposal



Real supplier equipment reference for Needle Punching 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 needle punching line for Afghanistan. Multi-stage needle looms with depth and density control to bond fibre layers. 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 needle punching 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
Needle-punched felt	Confirm size, grade, formulation and pack specification for needle-punched felt	Afghanistan and nearby regional buyers
Filter media	Confirm size, grade, formulation and pack specification for filter media	Afghanistan and nearby regional buyers
Geotextile	Confirm size, grade, formulation and pack specification for geotextile	Afghanistan and nearby regional buyers
Padding and insulation felt	Confirm size, grade, formulation and pack specification for padding and insulation felt	Afghanistan and nearby regional buyers

The proposed flow is derived from the website product scope: Multi-stage needle looms with depth and density control to bond fibre layers. 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	Fibre bale opener	Receives, buffers or feeds the needle punching input at a controlled rate.	State input form, feed rate, storage volume and contact material.
2	Automatic feeder	Receives, buffers or feeds the needle punching input at a controlled rate.	State input form, feed rate, storage volume and contact material.
3	Carding machine	Performs the principal forming operation that creates the needle punching product or web.	Confirm working width or mould, output, speed, tooling and quality tolerance.
4	Cross lapper	Performs the principal forming operation that creates the needle punching product or web.	Confirm working width or mould, output, speed, tooling and quality tolerance.
5	Pre-needling machine	Performs the defined pre-needling machine operation within the needle punching process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
6	Main needle-punching machine	Performs the principal forming operation that creates the needle punching product or web.	Confirm working width or mould, output, speed, tooling and quality tolerance.
7	Calender	Finishes, assembles or collects the needle punching product to its specified final form.	State finished dimensions, speed, tooling, tension or pressure and changeover needs.
8	Edge trimmer	Performs the defined edge trimmer operation within the needle punching process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
9	Roll winder	Finishes, assembles or collects the needle punching product to its specified final form.	State finished dimensions, speed, tooling, tension or pressure and changeover needs.
10	Dust-extraction system	Provides the controls or auxiliary service needed for safe, stable needle punching operation.	Confirm utility load, control interfaces, environmental duty and redundancy need.

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



Real supplier equipment reference for Needle Punching Line



Real supplier equipment reference for Needle Punching Line



Real supplier equipment reference for Needle Punching 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/2f0j00TSMiCqAFQsGZ/Soft-Wide-Application-Nonwoven-Fabric-Needle-Punching-Felt-Machine-Production-Line.jpg>

- Made-in-China supplier image reference: <https://image.made-in-china.com/2f0j00BJhcksGCyquF/Non-Woven-Fabric-Waste-Fibers-Are-Processed-Into-Felt-Filling-Material-Using-a-Needle-Punching-Machine-Production-Line.jpg>

- Made-in-China supplier image reference:

<https://image.made-in-china.com/2f0j00wAockfzqrlub/Medium-Speed-Nonwoven-Fabric-Needle-Punching-Machine-Production-Line.jpg>