

Yarn Winding & Cone-Preparation Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real yarn winding & cone-preparation line machinery.

6-12 starter winding spindles	800-1,000 m/min supplier speed range	0.2-3 kg screened package range	2-4 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 micro/small yarn-finishing line rewinding purchased or locally spun yarn from bobbins, hanks or cones into consistent buyer packages through lot receiving, yarn identification, tension-controlled unwinding, optional electronic fault clearing and air splicing, waxing where required, length or weight control, cone building, inspection, conditioning and packing. It does not spin fibre into yarn.

Why this project fits Afghanistan

- Small winding services can support knitters, weavers and traders using mixed package formats.
- Length, tension and package-density control improve downstream machine efficiency.
- Modular spindles allow capacity expansion after repeat orders.
- Electronic clearing is valuable only when yarn faults and buyer specifications justify it.

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 entry, use one modular 6-12 spindle cone winder operating up to roughly 800-1,000 m/min with independent drives, break stop, tension device, length counter and optional waxing. Add an electronic clearer and air splicer only when the buyer pays for cleared knotless packages; do not begin with a 60-80 spindle auto-coner.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Knitting or weaving yarn cones	Buyer-agreed yarn count, package cone, density, weight, tension and splice quality	Knitting and weaving workshops
Retail or industrial rewound yarn	Declared length or weight with controlled lot and colour	Traders and small manufacturers

Hank-to-cone, cone-to-cone and spinning-bobbin-to-cone feeds require different creels and tension paths. The buyer must approve cone angle, traverse, density, unwinding behavior, cleaner limits, splice strength and package weight using the actual yarn.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Input creel and tension unit	Holds the selected source package and controls feed	Hank, bobbin or cone specific
2	Six- to twelve-spindle winder	Builds consistent cones	Independent drives and break stop
3	Length and speed controller	Stops packages at the target length	Calibrated per spindle
4	Optional electronic yarn clearer	Cuts selected thick, thin or foreign faults	Buyer-approved settings
5	Optional air splicer	Makes lower-profile joints	Compressed air and yarn trial
6	Waxing attachment	Applies controlled wax for knitting yarn	Only when specified
7	Cone scale and inspection bench	Checks weight, shape and appearance	Master package standard
8	Conditioning and packing area	Stabilizes and protects released cones	Lot-separated cartons or bags

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 yarn winding & cone-preparation line machinery.



Made-in-China supplier reference: second real industrial configuration for yarn winding & cone-preparation line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Purchased or locally produced yarn by count, fibre, ply, colour and lot
- Buyer-specified paper or plastic cones
- Wax, labels, bags, cartons and pallet materials
- Splicer, clearer and wear-part consumables where fitted

Utilities & infrastructure

- Stable three-phase electricity with transformer, power-quality and motor-starting study
- Central dust or lint extraction with fire-safe collection and housekeeping
- Controlled temperature and humidity suited to the confirmed fibre, yarn or fabric
- Dry covered raw-material and finished-product storage with lot traceability
- Compressed air, process water, steam and wastewater treatment where the selected process requires them

Quality, safety and environmental controls

- Verify incoming yarn count, fibre, twist, strength, shade and lot
- Calibrate tension, length and package weight
- Inspect cone shape, hardness, ribboning and damaged edges
- Test splice or knot strength and downstream unwinding
- Record rejects and fault clearer cuts by lot
- Keep colours and lots segregated through packing

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 six independently driven winding heads, manual inspection and buyer-approved cones. Automatic bobbin transport, 60-80 spindle auto-coners, building and yarn inventory are excluded.

Component	Indicative range	Notes
Six- to twelve-spindle winding machine	US\$3k-10k	Modular independent heads
Creels, clearer/splicer options and compressor	US\$2k-8k	Only buyer-required options
Scales, inspection and packing tools	US\$1k-4k	Manual entry scope
Freight, installation and initial spares	US\$2k-6k	Motors and tension parts
Indicative low-entry total	US\$8k-28k	Building and yarn stock excluded

Implementation sequence

Phase 1	3-6 weeks	Confirm product, buyer specification, feedstock, capacity, site and utility basis
Phase 2	3-8 weeks	Run representative material and product trials and freeze the complete equipment list
Phase 3	8-24 weeks	Manufacture or refurbish, inspect and ship the approved equipment scope
Phase 4	4-16 weeks	Install, commission, train and pass contracted performance and quality 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

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