

Sewing-Thread Twisting & Winding Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real sewing-thread twisting & winding line machinery.

1 launch thread construction	2 package sizes	128-160 screened twisting spindles	6-10 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 small/medium thread-conversion line turning released single cotton or polyester yarn into specified sewing thread through lot testing, doubling, controlled S or Z twisting, optional heat setting or lubrication appropriate to the fibre, precision winding onto cones, tubes or king spools, length control, inspection, labelling and packing. Dyeing is outside the launch scope unless a separate validated dyehouse is installed.

Why this project fits Afghanistan

- Local garment workshops consume sewing thread in repeat colours and package sizes.
- Twisting and winding can add value without a full spinning or dyeing mill.
- Pre-dyed input avoids chemical and wastewater complexity at launch.
- Controlled twist, lubrication and length distinguish industrial thread from simple rewound yarn.

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

Launch one thread construction and two package sizes using one 12-24 spindle doubling winder, one 128-160 spindle two-for-one or ring twister selected by yarn trials, one 4-6 head precision final winder with length counters and a small strength/twist laboratory. Buy pre-dyed yarn initially instead of adding a dyehouse.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Cotton sewing thread	Buyer-defined ticket size, ply, twist, strength, elongation, finish and package	Garment, tailoring and embroidery workshops
Polyester sewing thread expansion	Separate yarn, lubrication and heat-setting specification	Industrial garment manufacturers after trials

Cotton and polyester thread need different twist, finish and setting routes. A generic twister does not guarantee sewing performance. Needle heat, loop formation, abrasion, shrinkage, lubrication pickup, splice quality and package unwinding must be validated on customer sewing machines.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Doubling winder	Combines single yarns at equal tension	12-24 spindle entry
2	Twisting machine	Applies the specified S or Z twist	128-160 spindle screened core
3	Optional setting cabinet	Stabilizes twist where the fibre route requires	Recipe and ventilation controlled
4	Lubrication or finish applicator	Controls sewability and friction	Measured pickup
5	Precision final winder	Builds cones, tubes or king spools	Four to six heads at launch
6	Length counter and auto stop	Controls declared package length	Per-head calibration
7	Thread laboratory	Tests count, twist, strength and elongation	Buyer methods
8	Packing and coding station	Protects and identifies finished thread	Two launch package sizes

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 sewing-thread twisting & winding line machinery.



Made-in-China supplier reference: second real industrial configuration for sewing-thread twisting & winding line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Released cotton or polyester single yarn by count, strength, colour and lot
- Buyer-approved cones, tubes or king spools
- Thread lubricant or finish compatible with fibre and sewing use
- Labels, shrink film, cartons and laboratory consumables

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 count, strength, elongation, shade and yarn defects
- Control ply tension and twist direction and level
- Measure lubricant pickup or heat-setting result
- Test ticket size, strength, elongation, abrasion and shrinkage
- Run sewing trials at buyer machine speed and needle system
- Calibrate length and package weight and preserve lot traceability

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 buys pre-dyed yarn, makes one thread construction and two packages, and uses manual packing. Dyeing, automatic labelling, building and working yarn are excluded.

Component	Indicative range	Notes
Doubling and twisting equipment	US\$18k-45k	One thread construction
Precision final winding heads	US\$10k-28k	Two package formats
Setting/finish, compressor and laboratory	US\$8k-22k	Fibre-specific scope
Freight, installation and initial spares	US\$8k-20k	Spindles, guides and tension parts
Indicative low-entry total	US\$44k-115k	Dyehouse, 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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