



Sock Knitting, Toe-Closing & Boarding Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real sock knitting, toe-closing & boarding line machinery.

2 knitters starter production cell	3 sizes launch size family	6 designs controlled opening range	8-12 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 complete sock workshop converting released yarn into finished plain or terry socks through pattern programming, yarn creeling, computerized single-cylinder knitting, piece inspection, toe closing or linking, turning, optional washing, steam or electric boarding, pair matching, metal checking, tagging and packing. Yarn dyeing is not included.

Why this project fits Afghanistan

- Afghan retail and institutional buyers consume repeat basic socks throughout the year.
- A two-machine cell provides backup and allows controlled style changeovers.
- Pre-dyed yarn avoids dyeing chemistry and wastewater at launch.
- Local pattern, sizing and packaging can differentiate a small workshop.

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 commercial entry, install two identical 3.75-inch plain/terry computerized sock machines selected for one needle count, one toe-closing machine, one simple six- to twelve-form electric or box boarding unit, compressor, pattern workstation, inspection tables and packing tools. Launch three sizes and six core designs using pre-dyed yarn; avoid one machine for every style.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Plain everyday socks	Buyer-approved size, needle count, yarn blend, welt stretch, heel/toe and pair weight	Retail, school and institutional buyers
Terry work or winter socks	Separate terry programme, yarn consumption and boarding standard	Workers and cold-season retail after trials

Needle count, cylinder diameter, yarn count, elastane feed and pattern programme determine the sock. Quoted machine speed is not saleable output because heel/toe knitting, stops and style changes reduce efficiency. Toe-seam comfort, welt recovery, size after boarding, pair shade and wash shrinkage must be approved before bulk production.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Two computerized sock knitters	Knit welt, leg, heel, foot and toe courses	One selected needle count
2	Yarn creels and compressor	Feed yarn and operate pneumatic selectors	Dry stable air
3	Pattern workstation and backup	Creates and controls approved designs	Master files protected
4	Sock turning and toe-closing machine	Turns pieces and closes the open toe	Comfortable linked seam
5	Optional washer and extractor	Cleans and prepares socks for boarding	Only if required by product
6	Six- to twelve-form boarding unit	Sets size, shape and appearance	Electric or compact steam entry
7	Inspection and metal-check station	Checks seams, defects, size and needles	Every pair verified
8	Tagging and packing tools	Pairs, labels and protects finished socks	Manual launch scope

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 sock knitting, toe-closing & boarding line machinery.

RANBOWE



Made-in-China supplier reference: second real industrial configuration for sock knitting, toe-closing & boarding line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Pre-dyed cotton, polyester, nylon or blend sock yarn by count and colour lot
- Covered elastane or rubber thread to approved welt specification
- Labels, hooks, bands, bags and cartons
- Needles, sinkers, selectors, toe-closing thread and lubricants

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 yarn count, shade, strength and elastane recovery
- Approve pattern file, size, heel/toe geometry and pair weight
- Record machine efficiency, needle breaks and rejects
- Inspect toe seam flatness, holes, dropped stitches and oil marks
- Test dimensions, wash shrinkage, pilling and colourfastness
- Use needle control and metal detection before 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 two identical knitters, one toe closer and simple boarding for three sizes and six designs. Yarn dyeing, automatic pair packing, building and yarn inventory are excluded.

Component	Indicative range	Notes
Two computerized sock knitting machines	US\$6k-16k	One needle-count family
Toe closer, turner and compressor	US\$3k-8k	Manual handling entry
Simple boarding, inspection and packing	US\$3k-9k	Six to twelve forms
Freight, setup, patterns and initial spares	US\$3k-9k	Needles and selectors
Indicative low-entry total	US\$15k-42k	Yarn dyeing, 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

- <https://yijing-machinery.en.made-in-china.com/product/gJErBHDxOzUv/China-Fully-Computerized-Automatic-Plain-and-Terry-Sock-Knitting-Machine.html>

- <https://rbsockmachine.en.made-in-china.com/product/OJGpAyUPvuWg/China-Computer-Control-Sock-Boarding-Machine-with-Automatic-Sock-off-Function.html>