



Prestressed Hollow-Core Concrete Slabs Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real prestressed hollow-core concrete slabs line equipment.

approved sample market gate	defined range launch scope	performance test release gate	batch records traceability
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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

Produces prestressed hollow-core concrete slabs through certified strand handling, long-line bed preparation, controlled concrete extrusion/slipforming, curing, detensioning, cutting, lifting, end treatment and structural release.

Why this project fits Afghanistan

- Approve a physical sample and applicable standard.
- Launch with a defined product range and documented tool settings.
- Keep material and quality records for each batch.

Sanaatchi delivery scope

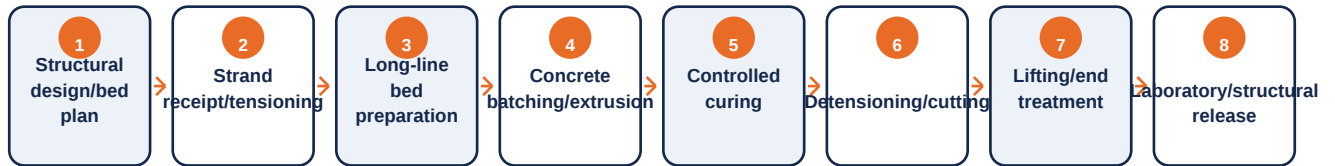
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning
- International logistics, customs documentation, operator training, spare parts, and after-sales support

Recommended configuration

This is a strategic precast project requiring an experienced designer/EPC partner. Confirm code, certified prestressing strand, bed length, strand pattern, concrete technology, curing, heavy lifting, transport, quality laboratory and committed project off-take before feasibility approval.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Prestressed hollow-core concrete slabs	Slab depth/width, prestressing strand, concrete strength, void geometry, span/load, fire/acoustic performance, cut/opening rules, lifting/transport and structural certification	Large housing, schools, warehouses, commercial buildings, infrastructure and major developers

Supplier scope, materials, utilities, installation requirements and acceptance criteria must be confirmed before purchase.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Prestressing bed/tensioning system	Applies designed strand force	Certified strand/tension records
2	Concrete batching plant	Supplies controlled high-strength mix	Strength/workability control
3	Hollow-core extruder/slipformer	Forms voided slabs	Void/profile accuracy
4	Curing/cutting system	Releases stable units	Strength/detension timing
5	Structural lab/handling system	Validates safe delivery	Load/camber/lift control

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

TIANYI MACHINERY
TIANYI SHARES (Stock Code: 201648)

19 years
experience



Made-in-China supplier reference: real prestressed hollow-core concrete slabs line equipment.



Made-in-China supplier reference: second real machine configuration for prestressed hollow-core concrete slabs line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Certified prestressing strand, cement, graded aggregates, water, admixtures, release agents, repair/end-treatment materials, labels and transport fixtures

Utilities & infrastructure

- Stable electricity, covered raw-material storage and protected finished-goods handling
- Guarded equipment, documented maintenance, essential spares and product-specific safety controls

Quality, safety and environmental controls

- Use qualified structural design and certified strand; record every tensioning and concrete batch
- Control strand force, concrete strength, void geometry, camber, slab dimensions, curing and detensioning timing
- Verify load/span, cut/opening rules, lifting/transport and structural/fire claims through qualified testing

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

Hollow-core slabs are structural products. No line should be marketed without certified strand, qualified design, load verification and disciplined heavy handling.

Component	Indicative range	Notes
Beds, strand tensioning and extrusion line	US\$2.5m-8m	Strategic long-line production
Batching, curing, cutting and lifting	US\$1.2m-4m	High-strength precast scope
EPC engineering, laboratory and commissioning	US\$800k-3m	Design/test-led project
Indicative strategic total	US\$4.5m-15m	Land, buildings, cranes and transport excluded

Implementation sequence

Phase 1	2-5 weeks	Confirm product specification, representative raw material, buyer, capacity, site and utilities
Phase 2	3-7 weeks	Run supplier trials with the buyer material and freeze the balanced machine, tooling and utility scope
Phase 3	8-22 weeks	Manufacture or refurbish, inspect, document and ship the contracted equipment
Phase 4	3-12 weeks	Install, commission, train operators and pass material-specific acceptance 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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- https://www.made-in-china.com/products-search/hot-china-products/Precast_Concrete_Panel_Machine.html