

Precast Wall & Hollow-Core Mould Systems

Complete Turnkey Business Proposal

 **TIANYI MACHINERY**
TIANYI SHARES (Stock Code: 201648)

 **19** years
experience



Made-in-China supplier reference: real precast wall & hollow-core mould systems equipment.

approved drawing market gate	defined mould family launch scope	trial cast 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 engineered steel mould beds, shutters, side forms and specialised hollow-core/precast tooling through structural design, plate fabrication, precision machining, stiffener assembly, surface finishing, trial assembly and concrete-production validation.

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

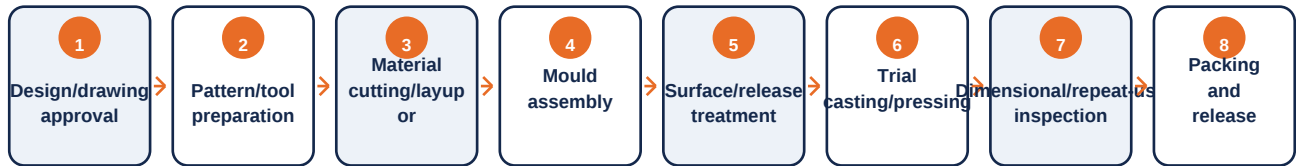
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

Recommended configuration

Treat this as a medium industrial engineering project. Confirm the target panel/hollow-core production method, bed length, prestressing/side-form requirements, dimensional tolerance, concrete pressure, vibration/extrusion, lifting and full plant compatibility before EPC procurement.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Precast wall and hollow-core mould systems	Target panel/slab method, bed/shutter geometry, steel grade, flatness, stiffeners, side forms, prestressing/extrusion compatibility, lift/handling, tolerance and cycle life	Precast yards, panel plants, hollow-core producers, large contractors, housing and infrastructure projects

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

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Engineering/CAD station	Designs complete tooling system	Plant/process compatibility
2	Plate fabrication/CNC cell	Prepares beds and shutters	Flatness/geometry
3	Stiffener/welding fixtures	Builds rigid forms	Distortion control
4	Machining/surface finishing	Sets precise casting faces	Tolerance/release quality
5	Full trial assembly bay	Validates tooling	Concrete/plant fit

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

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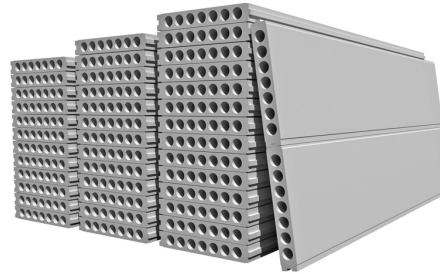
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Made-in-China supplier reference: second real machine configuration for precast wall & hollow-core mould systems.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Steel plate/sections, precision inserts, shutters/fasteners, release coatings, welding/machining consumables, gauges and handling 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 the exact target precast process and engineered drawings before tooling manufacture
- Control bed flatness, shutter alignment, stiffness, surface finish, side-form geometry and plant interfaces
- Trial assemble with reinforcement/prestress/extrusion and validate casting, lift and dimension before production release

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 and precast tooling must match a specific plant process. A flat steel bed is not sufficient without engineered shutters, interfaces and production trials.

Component	Indicative range	Notes
Engineering, plate/CNC and welding fixtures	US\$120k-450k	Large tooling system
Machining, finishing and assembly bay	US\$60k-250k	Tolerance/plant interface
Trial commissioning and handling	US\$40k-150k	Process-led validation
Indicative project total	US\$220k-850k	Buildings, cranes and full precast line 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

- <https://www.alibaba.com/showroom/concrete-block-mould.html>
- https://www.made-in-china.com/products-search/hot-china-products/Precast_Concrete_Mould.html