



Ceramic Tile Press-Die Manufacturing

Complete Turnkey Business Proposal



Made-in-China supplier reference: real ceramic tile press-die manufacturing equipment.

approved drawing tooling gate	trial sample release gate	machine match compatibility	batch record 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

Manufactures press dies and punches for ceramic floor or wall tiles through press-data review, tool-steel selection, CAD/CAM machining, heat treatment, grinding, punch assembly, powder-press trials and wear inspection.

Why this project fits Afghanistan

- Tooling is made only against an approved drawing and target production machine.
- Trial samples, dimensions and cycle-life evidence must be approved before final release.
- A small initial tool family keeps capital and spare-part complexity controlled.

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

Tool only for a named hydraulic press and tile format. Confirm press maker, table size, press force, cavity count, powder characteristics, tile thickness, edge/profile, punch hardness, clearance and required life before accepting an order.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Ceramic tile press dies	Named press model, table/cavity size, tile format and thickness, punch and die material, clearance, surface finish, powder flow and cycle life	Ceramic tile factories, replacement-tool buyers and building-material producers

Supplier scope, material grade, tooling ownership, trial samples, utilities and acceptance criteria must be confirmed before purchase.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	CAD/CAM station	Matches die to press and tile format	Table/cavity geometry
2	CNC/EDM machining cell	Machines cavities and punches	Precision profile
3	Heat-treatment service	Hardens tool components	Specified hardness
4	Grinding/lapping bench	Sets clearance and finish	Parallelism
5	Press trial tooling	Validates formed green tile	Fill, release and edge quality

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 ceramic tile press-die manufacturing equipment.



Made-in-China supplier reference: second real machine configuration for ceramic tile press-die manufacturing.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Tool steel, carbide or wear components where specified, springs, guides, fasteners, EDM/CNC consumables, heat-treatment service, gauges and packing

Utilities & infrastructure

- Three-phase electricity, compressed air where required, guarded machining, covered tool storage and safe finished-tool handling
- Documented maintenance, critical wear spares, calibrated gauges and product-specific safety controls

Quality, safety and environmental controls

- Manufacture only against exact press dimensions and a released tile drawing
- Control die/punch clearances, hardness, surface finish, guide alignment, powder fill and edge geometry
- Trial on the named press using target powder; inspect green density, edges, demoulding, wear and repeatability

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

A tile press die is a precision spare for one press platform, not a universal mould. Press force, powder flow and clearance determine usable output.

Component	Indicative range	Notes
CAD/CAM, CNC/EDM and die components	US\$35k-140k	Press-specific precision tooling
Heat treatment, grinding and metrology	US\$18k-80k	Hardness and clearance control
Trial, inventory and wear spares	US\$10k-45k	One format family
Indicative entry total	US\$63k-265k	Advanced machining workshop and tile press excluded

Implementation sequence

Phase 1	2-4 weeks	Confirm product drawings, target machine, buyer samples, site and utilities
Phase 2	3-8 weeks	Approve tool design, material grade, machining route and acceptance samples
Phase 3	6-18 weeks	Manufacture, inspect, trial and document the contracted tooling
Phase 4	2-6 weeks	Install, trial with buyer material, train operators and release production

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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