



Kiln Furniture & Fireclay Products Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real kiln furniture & fireclay products line equipment.

approved sample market gate	defined product 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 kiln shelves, props, setters, saggars and selected fireclay shapes from qualified fireclay and grog through crushing, grading, intensive mixing, pressing or casting, controlled drying, high-temperature firing, dimensional inspection and packing.

Why this project fits Afghanistan

- Confirm the intended application, applicable standard and buyer acceptance test.
- Use a defined product family and documented formula/tooling at launch.
- Keep material, curing/firing and release records for every lot.

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

Choose one kiln-user segment and one qualified fireclay formula first. The project needs high-temperature firing, product-specific moulds and laboratory verification of load, creep and thermal-shock behaviour; it is not ordinary brick production.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Kiln furniture and fireclay products	Material grade, shape tolerance, fired porosity/density, load at temperature, thermal shock, flatness and service temperature	Ceramic-tile makers, pottery workshops, brick kilns, refractory service contractors and industrial furnaces

Supplier scope, feedstock suitability, utilities, installation and acceptance criteria must be confirmed before purchase.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Crusher and screens	Prepares refractory grain structure	Grade-specific particle distribution
2	Intensive mixer	Controls binder and body recipe	Recorded formulation
3	Press/casting moulds	Forms shelves and support shapes	Qualified shape family
4	Dryer and kiln	Develops stable fired body	Temperature/soak record
5	Refractory test bench	Releases service-grade product	Flatness/load/thermal-shock test

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 kiln furniture & fireclay products line equipment.



Made-in-China supplier reference: second real machine configuration for kiln furniture & fireclay products line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Qualified fireclay, grog, silica/alumina where required, approved binders, process water, fuel/electricity, mould spares and packaging

Utilities & infrastructure

- Industrial electricity, covered storage and protected finished-board handling
- Guarded machinery, maintenance plan, essential spares and material-specific dust/heat/chemical controls

Quality, safety and environmental controls

- Verify chemistry and particle-size curve for every mineral lot
- Check green and fired dimensions, flatness, cracks and warp
- Validate load, permanent change and thermal-shock response for the declared service temperature

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

Kiln furniture is a performance product: flatness, load at temperature and thermal shock must be proven against the buyer's actual firing cycle.

Component	Indicative range	Notes
Crushing, mixing and shape tooling	US\$60k-190k	One product family
Drying and high-temperature firing	US\$140k-480k	Kiln/fuel scope
Lab, handling, installation and spares	US\$55k-180k	Service validation included
Indicative total	US\$255k-850k	Building and mineral stock 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/Kiln_Furniture.html