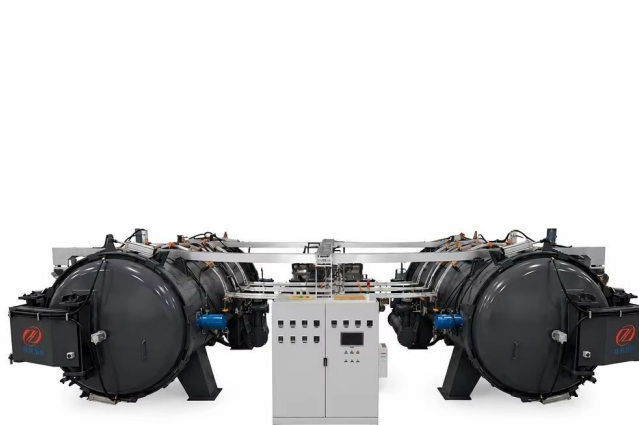




Refractory Firebrick Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real refractory firebrick production line equipment.

approved sample market gate	defined formats 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 shaped refractory firebricks for specified temperature service from selected fireclay, alumina/silica and approved binders through crushing, precise grading and mixing, high-pressure pressing, controlled drying, high-temperature firing, sorting, dimensional inspection and packing.

Why this project fits Afghanistan

- Approve a physical product sample and its applicable performance standard.
- Launch with a limited, high-demand format and documented mould/tool setting.
- Keep batch, firing/cure and release records for every production 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

Do not launch as ordinary brickmaking. First define the customer furnace type, temperature, atmosphere and required refractory grade. Start with one qualified fireclay or silica/alumina formulation, laboratory tests, a press, controlled dryer and refractory kiln; independent chemistry and fired-property validation are essential.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Refractory firebricks	Refractory grade, chemistry, apparent porosity, bulk density, cold crushing strength, permanent linear change, thermal-shock behaviour and dimensions	Bakeries, ceramic kilns, foundries, boilers, lime/cement users and furnace-maintenance contractors

Supplier scope, raw-material suitability, installation requirements and acceptance sample must be confirmed before purchase.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Jaw/roller crusher and screens	Creates controlled refractory grain sizes	Grade-specific particle curve
2	Intensive mixer and scales	Controls chemistry and binder addition	Recorded formulation
3	High-pressure refractory press	Forms dense brick shapes	Qualified mould and press cycle
4	Dryer and high-temperature kiln	Removes water and sinters refractory body	Temperature/soak record
5	Refractory laboratory	Releases safe service-grade product	Chemistry/porosity/strength testing

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 refractory firebrick production line equipment.



Made-in-China supplier reference: second real machine configuration for refractory firebrick production line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Qualified fireclay, silica or alumina materials, grog, approved binders, process water, kiln fuel/electricity, mould spares, laboratory consumables and packaging

Utilities & infrastructure

- Stable three-phase electricity, covered raw-material storage and protected finished-goods space
- Guarded machinery, documented maintenance, essential spares and defined dust/heat controls

Quality, safety and environmental controls

- Verify raw-material chemistry, particle distribution and moisture for every supply lot
- Check pressed dimensions, density, drying cracks and fired warp
- Test apparent porosity, bulk density, cold crushing strength and the specified refractoriness/thermal-shock properties

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 refractory brick is sold for service performance, not its shape. Chemistry, density and firing validation must match the buyer's furnace temperature and atmosphere before any commercial claim.

Component	Indicative range	Notes
Crushing, grading, mixing and press	US\$90k-300k	One qualified refractory grade
Drying, high-temperature kiln and controls	US\$180k-650k	Temperature/atmosphere scope
Laboratory, handling, freight and commissioning	US\$80k-260k	Independent material testing required
Indicative project total	US\$350k-1.2m	Building, mine development and working 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

- <https://www.alibaba.com/showroom/refractory-brick-production-line.html>
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