



Marble & Granite Floor-Tile Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real marble & granite floor-tile production line equipment.

2 sizes launch tile family	300-600 mm screened tile range	8-12 heads compact polishing basis	18-28 entry workforce
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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

A medium-industrial stone-finishing line converting sound calibrated marble or granite slabs and strip blanks into dimensionally accurate floor tiles through slab receiving and defect mapping, multi-blade strip cutting, cross cutting, face calibration, progressive grinding and polishing or honing, edge sizing and chamfering, washing and drying, dimensional and appearance grading, palletizing and protected packing. Block sawing is a separate upstream operation unless included.

Why this project fits Afghanistan

- Afghan marble and granite gain more value as calibrated project-ready tiles than as rough slabs.
- Two standard sizes concentrate tooling, quality control, packing and inventory.
- A slab-input line avoids the much larger block-saw and quarry scope at launch.
- Repeatable thickness, squareness, shade grouping and surface finish are essential for contractor acceptance.

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

Launch two standard tile sizes in one stone family and one finish. Screen a balanced line with slab/strip loading, one multi-blade strip cutter, one cross cutter, compact calibrating and 8-12 head tile-polishing line, edge calibrator/chamfer, wash-dry station, water recycling, gauges and A-frame/pallet handling. Prove slab yield and buyer tolerances before adding block sawing or many formats.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Polished marble or granite floor tile	One stone family, two sizes, buyer-defined thickness, squareness, flatness, gloss, shade and edge limits	Flooring contractors, distributors and project exporters
Honed floor tile	Approved matte finish, slip route and calibrated dimensions	Architectural interiors after sample approval

Marble and granite need different cutting speeds, abrasives and polishing recipes. Slab quality controls saleable yield; cracks and colour variation cannot be corrected by polishing. Supplier acceptance must use representative Afghan slabs and measure pieces per hour, kerf loss, thickness, length/width, diagonal, squareness, flatness, gloss, shade, chips, breakage and water balance.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Slab/strip loading tables and clamps	Handles stone safely without edge damage	Rated for launch slab size
2	Multi-blade strip cutter	Cuts parallel strips from slabs	Spacing for two tile sizes
3	Cross-cutting machine	Cuts strips into repeat tile lengths	Programmable stop or conveyor
4	Tile calibrating machine	Controls finished thickness and flatness	Stone-specific heads
5	Eight- to twelve-head polishing line	Develops honed or polished face	One finish at launch
6	Edge sizing and chamfering unit	Controls dimensions and protects edges	Buyer chamfer profile
7	Wash/dry and water-recovery system	Cleans tiles and recycles slurry water	Settling and filter press
8	Inspection, shade sorting and packing	Grades and protects saleable tiles	Master samples and calibrated gauges

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 marble & granite floor-tile production line equipment.



Made-in-China supplier reference: second real machine configuration for marble & granite floor-tile production line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Sound calibrated marble or granite slabs by variety and thickness
- Diamond blades, calibrating tools and stone-specific abrasive sequence
- Clean process makeup water and approved cleaning chemistry
- Pallets, separators, corner protection, cartons/crates, labels and machine spares

Utilities & infrastructure

- Stable three-phase power with protected wet-area electricals
- Rated slab/tile lifting and non-marking conveyors
- Closed-loop cutting and polishing water with filter press
- Non-slip drained floors, splash barriers and good lighting
- Covered slab racks and finished-tile storage by shade lot

Quality, safety and environmental controls

- Map slab cracks, colour and usable area before cutting
- Verify blade spacing, cut width and diagonal on each setup
- Control calibration thickness and polishing grit sequence
- Measure every lot for thickness, flatness, squareness and edge chips
- Grade gloss and shade against approved master samples
- Record slab-to-tile yield, breakage, water and abrasive use

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

The lowest credible plant buys calibrated slabs, makes two standard tile sizes and one finish, and uses compact polishing. Quarrying, block sawing, resin line, building and slab inventory are excluded.

Component	Indicative range	Notes
Strip and cross-cutting equipment	US\$90k-240k	Two-size configured line
Calibration, polishing and edge finishing	US\$140k-390k	Compact 8-12 head basis
Handling, inspection, water recovery and packing	US\$55k-150k	Quality and environmental scope
Freight, civil interfaces, installation and spares	US\$80k-220k	Wet-process erection
Indicative installed project total	US\$365k-1.00m	Block saw, building, slabs and working capital 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.made-in-china.com/showroom/baishuiyun/product-detailOXwEZKDuplicS/China-Multi-Blade-Granite-Cutting-Machine.html>

- <https://xmhenglong.en.made-in-china.com/product/XdfTOFGvGBcS/China-Henglong-Marble-Standard-10500-2150-2200mm-Fujian-China-Tile-Polishing-Line-Machine.html>