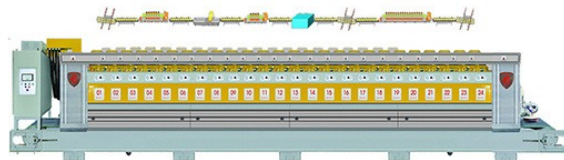




Marble Slab-Polishing Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real marble slab-polishing line equipment.

1 cell starter polishing route	20-30 mm launch slab thickness	6-10 abrasive stages	6-10 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 small stone-finishing line converting sound rough-cut marble slabs into calibrated honed or polished slabs through slab receiving and crack inspection, loading, surface calibration or grinding, progressive wet honing and polishing, washing, drying, gloss and flatness inspection, optional resin filling or mesh reinforcement under a separate controlled route, edge protection, racking and dispatch.

Why this project fits Afghanistan

- Local polishing converts rough Afghan marble slabs into higher-value surfaces for buildings and export.
- A compact manual or bridge-assisted cell can serve project orders before continuous-line demand is proven.
- Water recycling, correct abrasive sequence and slab handling protect both cost and finish quality.
- Stone-specific trials are essential because hardness, cracks and mineral variation affect gloss and breakage.

Sanaatchi delivery scope

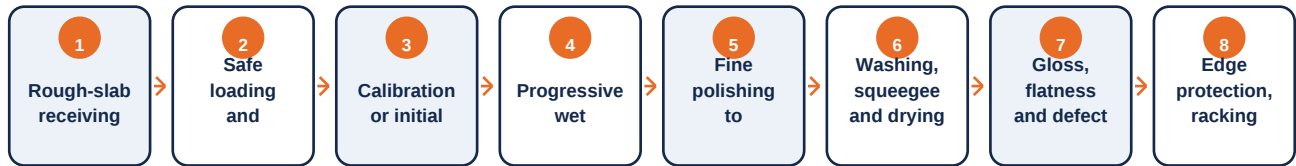
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

Recommended configuration

For the lowest entry, begin with one supported bridge-type or conveyor polisher using a controlled sequence of abrasive heads, slab loading tables, water recirculation with settling/filter press, wash/dry station, gloss meter, straightedge and safe slab racks. Select an 8-12 head automatic line only when repeat volume justifies it; do not buy a 16-24 head line for uncertain demand.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Polished marble slab	Buyer-defined variety, thickness tolerance, flatness, gloss, scratch, edge and crack limits	Countertop, tile, wall-cladding and construction fabricators
Honed marble slab	Controlled matte finish and lower gloss range on an approved sample	Flooring and architectural projects requiring non-mirror finish

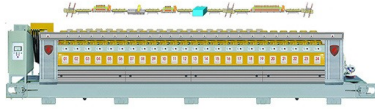
Abrasive grade sequence, head pressure, traverse speed and water flow must be optimized for each marble. Excess pressure or skipped grades expose scratches, waves and edge burn. Acceptance uses representative Afghan slabs and measures thickness, flatness, gloss uniformity, scratches, pits, resin visibility, cracks, edge damage, water consumption and saleable yield. Resin chemistry and curing need separate ventilation and safety controls.

Core Equipment Schedule

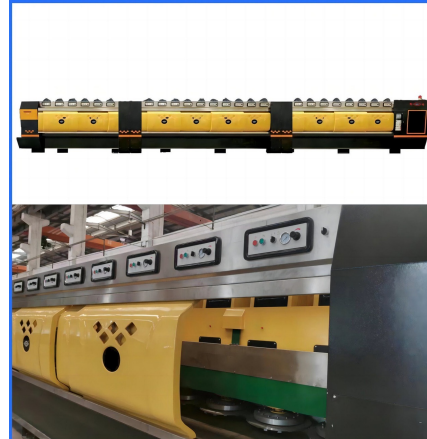
Step	Equipment	Function	Indicative parameter
1	Slab loading tables, clamps and racks	Moves heavy slabs without breakage	Rated and non-marking
2	Bridge or compact conveyor polisher	Grinds and polishes the slab face	One-shift entry configuration
3	Abrasive head and tool set	Provides progressive grit sequence	Marble-specific consumables
4	Wash and dry station	Removes slurry before final inspection	Clean final rinse
5	Water settling and filter press	Recovers process water and separates fines	Closed-loop target
6	Gloss and dimensional laboratory	Measures finish, thickness and flatness	Master sample and buyer tolerance
7	Optional resin/mesh station	Stabilizes approved cracked slabs	Separate ventilated Phase 2 route
8	Edge protection and packing tools	Prevents dispatch damage	A-frame transport system

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 slab-polishing line equipment.



Made-in-China supplier reference: second real machine configuration for marble slab-polishing line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Sound rough-cut marble slabs with mapped cracks and thickness
- Marble-specific abrasive bricks or diamond/resin tools by grit
- Clean makeup water and approved cleaning chemistry
- Optional resin, catalyst and mesh only under a validated repair specification
- A-frame separators, corner protectors, wrap, labels and critical spares

Utilities & infrastructure

- Three-phase power and protected wet-area electrical installation
- Rated slab lifting and A-frame handling system
- Closed-loop polishing-water settling and filter press
- Good drainage, non-slip floors and splash containment
- Ventilation and chemical controls if resin repair is installed

Quality, safety and environmental controls

- Approve one master polished and one master honed slab
- Inspect cracks and thickness before loading
- Control grit sequence, head pressure, speed and water flow
- Measure gloss in a fixed grid across the slab
- Check flatness, scratches, pits, burns and edge damage
- Record abrasive use, breakage, water balance and saleable yield

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 entry uses a compact one-cell polishing system with manual slab handling assistance and full water recovery. Continuous multi-head automation, resin line, building, slabs and working capital are excluded.

Component	Indicative range	Notes
Compact bridge/conveyor polishing cell	US\$12k-32k	Manual loading, controlled wet polishing
Loading, racks, wash/dry and inspection tools	US\$6k-16k	Safe handling and release
Water settling/filter system and wet electricals	US\$7k-20k	Closed-loop process scope
Freight, installation, abrasives and spares	US\$7k-22k	Commissioning with Afghan marble
Indicative installed low-entry total	US\$32k-90k	Automatic 8-24 head line, building and slabs 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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