

Decorative Stone-Mosaic Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real decorative stone-mosaic production line equipment.

3 patterns launch collection	10-50 mm piece-size window	0.5-1.5 m2/h manual assembly basis	6-12 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 micro/small workshop converting approved polished stone-tile offcuts and strips into saleable mosaic sheets and decorative modules through colour and thickness sorting, strip sizing, multi-blade small-piece cutting or splitting, optional tumbling, washing and drying, pattern assembly on jigs, mesh backing with controlled adhesive, curing, dimensional inspection, sheet packing and carton labeling.

Why this project fits Afghanistan

- Stone offcuts can become higher-value decorative products while reducing disposal volume.
- Manual pattern assembly uses local labour and limits entry capital.
- Three repeat designs are easier to sample, quote and stock than a broad uncontrolled catalogue.
- Adhesive compatibility, sheet alignment and colour consistency determine installer 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

Start with three repeat patterns using 10-50 mm pieces from one or two compatible stone families. Install a strip cutter, adjustable multi-blade mosaic cutter or hydraulic splitter, small tumbler only if the finish needs it, wash/dry table, assembly jigs, mesh-gluing and curing racks, inspection gauges and dust/water controls. Do not launch dozens of patterns before contractor orders.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Mesh-backed stone mosaic sheet	Approved pattern, piece size, joint width, sheet dimensions, colour range, adhesion and flatness	Interior, bathroom, hospitality and decorative-wall installers
Loose decorative stone pieces	Graded shape, colour, thickness and quantity per pack	Craft, landscaping and custom-design buyers

Offcuts must be stable and within a narrow thickness range; mixed stones can have different absorption, staining and adhesive behavior. Acceptance measures piece dimensions, joint consistency, sheet square, flatness, colour range, loose pieces, mesh/adhesive bond after wet conditioning, carton count and installation trial. Floor or wet-area use requires the project-specific slip and adhesive system.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Sorting and strip-sizing benches	Grades offcuts and prepares repeat strips	Manual colour-led entry
2	Adjustable multi-blade mosaic cutter	Cuts small repeat pieces accurately	10-50 mm piece range
3	Optional hydraulic stone splitter	Creates natural split-face pieces	Separate product route
4	Small tumbler and wash/dry station	Softens edges and cleans pieces where specified	Finish-dependent
5	Pattern jigs and illuminated tables	Controls joint and sheet dimensions	Three launch patterns
6	Mesh cutting and adhesive applicator	Forms installer-ready backed sheets	Stone-compatible adhesive
7	Curing racks and ventilation	Develops bond without contamination	Validated time/temperature
8	Inspection gauges and packing tools	Grades and protects completed sheets	Carton traceability

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

Haineng



Made-in-China supplier reference: real decorative stone-mosaic production line equipment.



Made-in-China supplier reference: second real machine configuration for decorative stone-mosaic production line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Clean polished stone offcuts or strips by family, colour and thickness
- Alkali-resistant backing mesh and stone-compatible adhesive
- Approved cleaning water and optional tumbling media
- Cartons, separators, corner pads, labels, diamond blades and wear spares

Utilities & infrastructure

- Three-phase or single-phase protected wet cutting power as selected
- Local dust extraction and wet-cut water containment
- Small settling/filter arrangement for stone fines
- Ventilated adhesive application and curing area
- Dry colour-controlled piece and finished-sheet storage

Quality, safety and environmental controls

- Approve master patterns and allowable colour range
- Control strip thickness and mosaic piece dimensions
- Check blade wear, chips and cutting yield
- Verify joint width, sheet square and flatness in every jig
- Test mesh bond after cure and wet conditioning
- Perform trial installation before commercial release

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 one adjustable cutter, manual pattern jigs and three designs. CNC waterjet, broad design inventory, building and stone working stock are excluded.

Component	Indicative range	Notes
Strip and multi-blade mosaic cutting	US\$12k-28k	One piece-size family
Jigs, mesh bonding, curing and finishing tools	US\$5k-14k	Local manual assembly
Water/dust control, inspection and packing	US\$4k-11k	Clean controlled workshop
Freight, installation, blades and spares	US\$5k-15k	Starter consumables
Indicative installed low-entry total	US\$26k-68k	Building, offcuts 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

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