



Recycled-Rubber Shoe-Soles Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real recycled-rubber shoe-soles production line equipment.

1 outsole launch design	6 stations press basis	1 compound controlled recipe	8-13 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 rubber-compounding and compression-moulding line producing one non-safety footwear outsole family from a qualified recycled-rubber/virgin-rubber blend through crumb and polymer release, recipe weighing, internal or two-roll mixing, sheet-off and batch cooling, preform cutting and weighing, multi-station heated sole compression moulding, controlled vulcanization, demoulding, flash trimming, conditioning and hardness, abrasion, flex, tear, adhesion, slip and ageing tests.

Why this project fits Afghanistan

- Local shoe workshops can buy consistent soles instead of importing every style.
- A controlled recycled fraction can reduce material cost for casual footwear.
- One pattern and size family controls mould capital and compound development.
- Flex cracking, abrasion, slip and upper adhesion determine real footwear performance.

Sanaatchi delivery scope

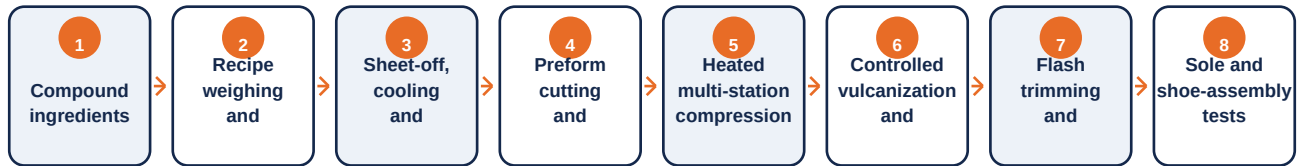
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

Recommended configuration

Launch one casual-shoe outsole pattern in one size family using a supplier-qualified compound containing a controlled recycled fraction. Contract a small kneader or two-roll mill with dust/fume control, sheet-off/cooling, preform cutter, one six-station heated compression press, aluminium or steel mould set and sole laboratory. Safety footwear, direct-injection soles and unknown tire powder are separate routes.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Recycled-content casual-shoe outsole	Pattern, size family, mass, hardness, density, abrasion, flex, tear, slip, adhesion and ageing	Local casual footwear assemblers

Ground tire crumb cannot simply replace outsole rubber. Particle size, polymer compatibility, devulcanized fraction, cure system and virgin-rubber blend must be validated. Acceptance records compound rheology and cure curve, then tests mass, dimensions, hardness, density, tensile/tear, abrasion, flex-crack growth, shrinkage, slip and bonding to the intended upper/midsole construction.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Recipe scales and dust extraction	Controls rubber and chemical dosing	Traceable batch
2	Small kneader or two-roll mill	Disperses recycled and virgin components	One compound
3	Sheet-off/cooling and preform cutter	Creates consistent mould charges	Mass controlled
4	Six-station heated sole press	Moulds and vulcanizes outsoles	One size family
5	Sole mould and trim fixtures	Defines tread and finished edge	Buyer-approved pattern
6	Rubber/footwear laboratory	Tests cure, abrasion, flex, slip and adhesion	Casual-shoe protocol

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 recycled-rubber shoe-soles production line equipment.



Made-in-China supplier reference: second real machine configuration for recycled-rubber shoe-soles production line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Qualified recycled-rubber powder or devulcanized compound
- Approved virgin rubber, filler, oil and cure package
- Release media, adhesive/primer for assembly trials
- Cartons, labels and mould consumables

Utilities & infrastructure

- Stable three-phase electricity with verified connected load
- Guarded machinery, lockout, ventilation and fire protection
- Dry segregated raw-material and finished-goods storage
- Maintenance tools, safe lifting and critical spare parts
- Local exhaust for mixing and curing
- Temperature-controlled compound maturation area

Quality, safety and environmental controls

- Verify recycled feed identity, size and contamination
- Control recipe, mixing temperature and dispersion
- Test rheology/scorch and cure curve
- Weigh every preform and record press cycle
- Test hardness, abrasion, flex, tear and shrinkage
- Complete slip and shoe-bond trial before sale

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 credible low-entry plant uses one qualified recycled-content compound and one casual outsole family. Safety certification, direct injection, many moulds and tire recycling are excluded.

Component	Indicative range	Notes
Mixing, sheet-off and preform equipment	US\$22k-58k	One controlled compound
Six-station press and one mould family	US\$28k-75k	Casual outsole
Laboratory, fumes and finishing	US\$14k-38k	Footwear tests
Freight, installation and spares	US\$15k-38k	Compound/mould trials
Indicative installed low-entry total	US\$79k-209k	Building 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

Sanaatchi Industrial Vision Group

Afghanistan Office: +93 779 819 820 | info@sanaatchi.com

China Office: +86 159 5171 6867 | china@sanaatchi.com

Website: www.sanaatchi.com

Research and image references

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