



Metal Recycling Line

Complete Turnkey Business Proposal



Real supplier equipment reference for Metal Recycling Line

1 shift entry operation	Manual sort cost saving	Modular line growth
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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

This proposal presents a practical low-entry metal recycling line for Afghanistan. Scrap baling, shredding, magnetic separation and packing for ferrous and non-ferrous metals. The starting configuration prioritizes economical Chinese machinery, local fabrication of noncritical items, affordable local labor, simple buildings and phased automation.

Why this project fits Afghanistan

- Local production can replace selected imported finished goods.
- Affordable land, labor and local fabrication reduce the entry threshold.
- A one-shift starting model limits working-capital pressure.
- Modular equipment allows capacity to grow with confirmed sales.

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

Start with one semi-automatic shift and the minimum core equipment needed for metal recycling line; add automatic handling and higher-speed packing after demand is proven.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Sorted ferrous scrap	Confirm size, grade, formulation and pack specification for sorted ferrous scrap	Afghanistan and nearby regional buyers
Sorted non-ferrous scrap	Confirm size, grade, formulation and pack specification for sorted non-ferrous scrap	Afghanistan and nearby regional buyers
Baled metal scrap	Confirm size, grade, formulation and pack specification for baled metal scrap	Afghanistan and nearby regional buyers
Shredded furnace-ready metal	Confirm size, grade, formulation and pack specification for shredded furnace-ready metal	Afghanistan and nearby regional buyers

The proposed flow is derived from the website product scope: Scrap baling, shredding, magnetic separation and packing for ferrous and non-ferrous metals. Final machine models, recipes, output and quality standards must be confirmed against local raw materials and buyer requirements.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Sorting conveyor	Checks incoming material or finished metal recycling against the agreed acceptance criteria.	Define defect limits, test method, sampling rate and reject arrangement.
2	Industrial shredder	Reduces or prepares material to the size required by the next metal recycling stage.	State feed size, finished size, throughput, blade or wear-part material.
3	Magnetic or density separator	Performs the defined magnetic or density separator operation within the metal recycling process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
4	Washing unit	Cleans or conditions the process stream to the hygiene or purity required for metal recycling.	Confirm flow, water quality, treatment stages, recovery and sanitation method.
5	Dewatering or drying system	Applies the controlled thermal treatment required for stable metal recycling quality.	Confirm temperature range, residence time, heat source, capacity and insulation.
6	Granulator or baler	Performs the defined granulator or baler operation within the metal recycling process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
7	Dust and water treatment	Provides the controls or auxiliary service needed for safe, stable metal recycling operation.	Confirm utility load, control interfaces, environmental duty and redundancy need.
8	Control cabinet	Provides the controls or auxiliary service needed for safe, stable metal recycling operation.	Confirm utility load, control interfaces, environmental duty and redundancy need.
9	Material conveyor	Transfers metal recycling material between process stages without creating a bottleneck.	Match flow rate, product characteristics, transfer distance and hygiene or dust controls.
10	Weighing and packing station	Measures, closes, identifies or groups finished metal recycling for sale and transport.	State pack sizes, packaging material, speed, coding and change-parts required.

Equipment models are indicative and will be matched to the selected capacity, local raw-material tests, available utilities, and preferred automation level.

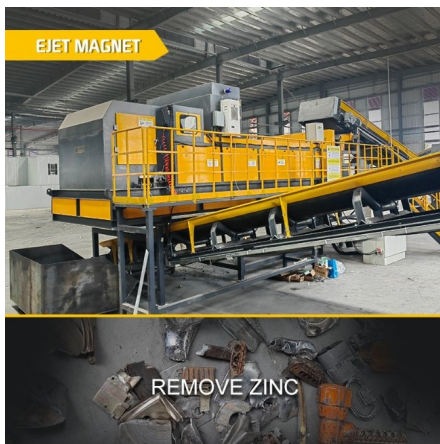
Reference Equipment Gallery



Real supplier equipment reference for Metal Recycling Line



Real supplier equipment reference for Metal Recycling Line



Real supplier equipment reference for Metal Recycling Line

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Sorted post-industrial or post-consumer waste
- Process water and cleaning agents
- Baling wire or packaging bags
- Replacement blades and screens
- Lubricants and maintenance consumables

Utilities & infrastructure

- Three-phase power
- Process water loop
- Drainage and wastewater treatment
- Dust and noise control
- Fire protection
- Truck access and sorting yard

Quality, safety and environmental controls

- Incoming-material inspection and supplier records
- Documented machine settings and production batches
- Routine dimensional, visual and functional checks
- Safe guarding, emergency stops and operator training
- Final product sampling before release and dispatch

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

Afghanistan entry case: economical Chinese equipment, locally fabricated noncritical items, local civil works and labor, phased automation, and land excluded. Optional automation can be added after sales are established.

Component	Indicative range	Notes
Entry recycling machinery	US\$60k-220k	Economy configuration using local labor where practical
Local civil and utilities	US\$20k-75k	Economy configuration using local labor where practical
Environmental controls	US\$12k-50k	Economy configuration using local labor where practical
Freight and installation	US\$18k-65k	Economy configuration using local labor where practical
Working capital	US\$10k-40k	Economy configuration using local labor where practical
Low-entry project total	US\$120k-450k	Economy configuration using local labor where practical

Implementation sequence

Phase 1	2-3 weeks	Confirm products, entry capacity and buyer requirements
Phase 2	3-5 weeks	Compare suppliers and finalize the economy configuration
Phase 3	6-12 weeks	Manufacture equipment and prepare the local workshop
Phase 4	3-6 weeks	Shipping and customs clearance
Phase 5	2-4 weeks	Installation, training, trials and market launch

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

- Made-in-China supplier image reference: <https://image.made-in-china.com/2f0j00yLnBqclWEpkU/Scrap-Metal-Crusher-Steel-Recycling-Equipment-Production-Line-Scrap-Iron-Metal-Grinding-Machine.jpg>

- Made-in-China supplier image reference: <https://image.made-in-china.com/2f0j00cQmKsiVWMibF/Scrap-Metal-Smelting-Line-Machine-Aluminum-Copper-Zinc-Ingot-Production-Automatic-Recycling-Casting-Line-with-Cooling-System.jpg>

- Made-in-China supplier image reference: <https://image.made-in-china.com/2f0j00aPlogjtAOcup/Large-Capacity-Waste-Casting-Aluminum-Shredding-Machine-Metal-Scrap-Recycling-Equipment-for-Scrap-Aluminum-Recycling-Production-Line.jpg>