

Security Grilles & Window Guards Workshop Line

Complete Turnkey Business Proposal

河北锻海铁艺设备装饰铁件有限公司



Made-in-China supplier reference: real security grilles & window guards workshop line equipment.

3 patterns starter design family	2 frame sections controlled stock	4-8 sets/day workshop target	5-9 entry workforce
--	---	--	-------------------------------

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 metal-fabrication workshop converting purchased mild-steel bars, hollow sections and decorative elements into measured security grilles and window guards through site measurement, cut-list preparation, sawing, punching, cold bending and scroll forming, jig assembly, MIG welding, grinding, corrosion pretreatment, painting or powder coating, anchor preparation, fit inspection and installation.

Why this project fits Afghanistan

- Homes and shops routinely need made-to-measure window and entrance protection.
- Afghan workshops can source standard steel sections and use local skilled fabrication labor.
- Build-to-order production limits finished inventory and expensive profile tooling.
- Safe egress, anchor design, weld quality and corrosion protection matter more than ornament.

Sanaatchi delivery scope

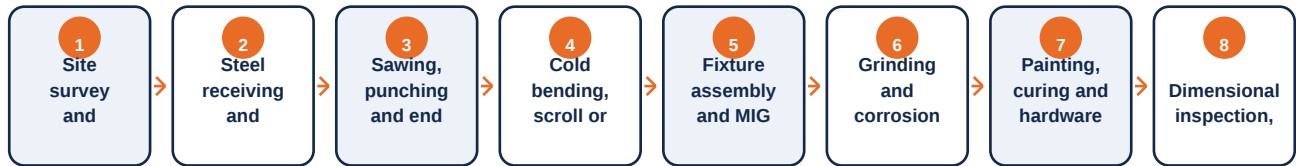
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

Recommended configuration

Begin as a build-to-order workshop with one cold saw, section bender, compact scroll/twist machine, 40-60 t ironworker, two MIG welders, modular fixture tables, grinders and wet-paint booth. Standardize three infill patterns and two frame sections while every opening remains measured. Add powder coating only after throughput supports proper pretreatment and curing.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Fixed window security grille	Opening, frame, bar spacing, anchor type, weld, finish and emergency-egress decision	Homes, shops and offices
Hinged or removable guard	Approved hinge, lock, release route, frame clearance and corrosion finish	Locations requiring cleaning or emergency access

Security grilles are fabricated assemblies, not one automatic production line. Each job needs a signed opening drawing and anchor substrate. Acceptance checks dimensions, squareness, bar spacing, sharp edges, weld continuity, coating coverage, anchor fit and installed operation. Bedroom and occupied-space guards must follow local emergency-egress requirements.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Cold saw and length stops	Cuts bars and sections accurately	Cut-list control
2	Ironworker	Punches, notches and shears sections	40-60 t entry
3	Section bender and scroll/twist machine	Forms frames and decorative infill	Three launch patterns
4	Fixture tables and clamps	Controls square repeatable assemblies	Modular jigs
5	MIG welders and extraction	Joins frames and bars safely	Two-station entry
6	Grinding and wet-paint booth	Finishes and protects assemblies	Powder-coat optional later
7	Installation tools and pull-test kit	Installs and verifies anchors	Substrate-specific

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

河北锻海铁艺设备装饰铁件有限公司



Made-in-China supplier reference: real security grilles & window guards workshop line equipment.



Made-in-China supplier reference: second real machine configuration for security grilles & window guards workshop line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Mild-steel square/round bar, angle and hollow section
- Hinges, locks, anchor plates, bolts and approved fasteners
- Primer, topcoat, thinners or later powder-coat materials
- Abrasives, welding wire/gas and protective packing

Utilities & infrastructure

- Three-phase or confirmed workshop electrical supply
- Welding-fume and paint-vapour extraction
- Fire-safe gas-cylinder and paint storage
- Flat fabrication/finishing zones
- Installation vehicle and safe access equipment

Quality, safety and environmental controls

- Confirm signed site dimensions and substrate
- Verify steel section and cut-list identity
- Control jig diagonal, bar spacing and weld sequence
- Inspect welds, sharp edges and distortion
- Measure coating coverage and adhesion
- Trial-fit anchors, hinges, locks and emergency release where applicable

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 is a flexible measured-to-order workshop with wet paint. CNC laser cutting, automatic welding and powder coating are later expansions; building, vehicle and stock are excluded.

Component	Indicative range	Notes
Saw, ironworker and forming tools	US\$8k-20k	Flexible micro workshop
Welding, fixtures and grinding	US\$4k-11k	Two fabrication stations
Wet-paint finishing and safety	US\$3k-9k	Powder coating excluded
Installation tools, freight and spares	US\$3k-8k	Local installation route
Indicative installed low-entry total	US\$18k-48k	Building, vehicle and steel 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

- <https://www.made-in-china.com/showroom/duanhaitieyi2020/product-detailRKwJfjzSnYUO/China-Ornamental-Iron-Machine-Wrought-Iron-Scroll-Bending-Machine.html>

- <https://zzshare.en.made-in-china.com/product/uEURIyePOQYO/China-Decorative-Wrought-Iron-Scroll-Embossing-Machinery-Automatic-Steel-Wire-Bending-Machine.html>