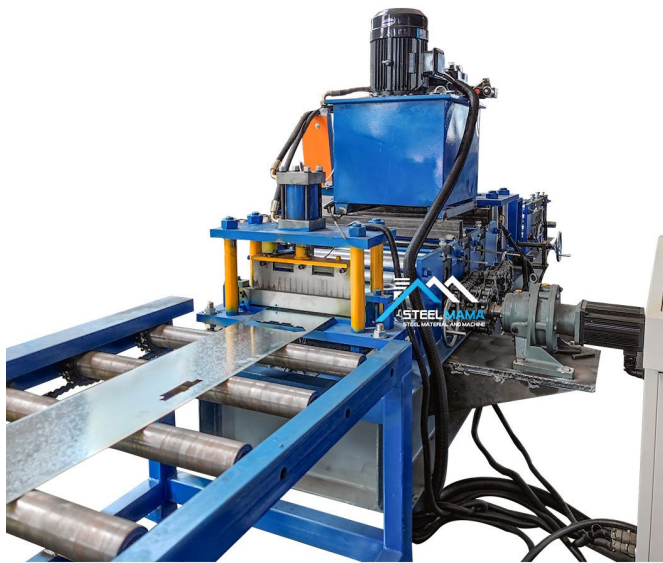


Aluminium-Extrusion Die Manufacturing

Complete Turnkey Business Proposal



Made-in-China supplier reference: real aluminium-extrusion die manufacturing equipment.

target machine compatibility	released drawing design gate	trial sample acceptance	tool record traceability
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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

Manufactures extrusion dies, mandrels and support tooling for aluminium profiles through profile and press review, die-steel selection, CAD/CAM, CNC/EDM machining, nitriding, polishing, die-stack assembly, press trials and profile measurement.

Why this project fits Afghanistan

- Tooling must be designed around the target production machine and released buyer drawing.
- First-off samples, measured dimensions and repeat-cycle evidence must be accepted before production release.
- Start with one high-demand product family and retain tool drawings, settings and maintenance records.

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

This is specialist medium-industrial tooling. Accept work only for a named extrusion press and defined alloy/profile. Confirm press container and die diameter, billet alloy, profile wall, tongue ratio, bearing length, exit temperature, quench, puller/runout and finish requirement before die manufacture.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Aluminium extrusion dies	Named press/container and die diameter, aluminium alloy, profile section and wall, bearing/tongue design, quench and finish requirements	Aluminium window/profile plants, building-material extruders, industrial profile buyers and press-maintenance workshops

Supplier scope, dimensions, material grade, target-machine compatibility, sample acceptance, utilities and delivery must be confirmed before purchase.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Profile/die CAD station	Designs flow and bearing geometry	Press/profile match
2	CNC/EDM machining cell	Cuts die apertures and ports	Flow geometry
3	Heat/nitriding service	Hardens and protects die steel	Surface life
4	Polishing/assembly bench	Finishes bearings and die stack	Profile finish
5	Extrusion trial/measurement	Validates produced profile	Twist, dimensions and surface

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 aluminium-extrusion die manufacturing equipment.



Made-in-China supplier reference: second real machine configuration for aluminium-extrusion die manufacturing.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- H13 die steel, backing/bolster components, nitriding service, EDM wire/electrodes, polishing compounds, gauges and packing

Utilities & infrastructure

- Stable three-phase power, guarded machining, calibrated measuring tools, covered material/tool storage and safe lifting/handling
- Documented maintenance, critical wear spares, approved coolants/lubricants and product-specific safety controls

Quality, safety and environmental controls

- Design only for a named press, alloy and profile drawing; extrusion dies are not interchangeable
- Control bearing lengths, die ports, surface finish, heat treatment, alignment and documented die-stack assembly
- Run a representative billet trial; check profile dimensions, twist, surface defects, speed, temperature and die correction history

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

An extrusion die must be treated as a tuned flow tool for one press and alloy. A copied profile drawing is not sufficient without press data and trial correction.

Component	Indicative range	Notes
Die CAD/CAM, CNC/EDM and steel preparation	US\$90k-280k	Specialist die workshop
Nitriding, polishing, metrology and assembly	US\$35k-135k	Bearing and surface control
Press trials, correction and die stock	US\$25k-100k	Profile-specific validation
Indicative entry total	US\$150k-515k	Extrusion press, building and billet 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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