



Manhole-Cover & Utility-Cover Mould Workshop

Complete Turnkey Business Proposal



Made-in-China supplier reference: real manhole-cover & utility-cover mould workshop equipment.

approved drawing tooling gate	trial sample release gate	machine match compatibility	batch 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

Produces steel, FRP or polymer-concrete mould systems for manhole covers, utility covers, frames and drainage grates through load-class drawing review, pattern and frame fabrication, insert fitting, surface finishing, trial casting and seat/load-fit checks.

Why this project fits Afghanistan

- Tooling is made only against an approved drawing and target production machine.
- Trial samples, dimensions and cycle-life evidence must be approved before final release.
- A small initial tool family keeps capital and spare-part complexity controlled.

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 with one municipal cover/frame family. Confirm clear opening, frame seat, locking/handling detail, reinforcement, material system, load class, anti-slip face and test method before making a full mould set.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Manhole and utility-cover mould sets	Approved cover/frame/grate geometry, load class, seating detail, reinforcement/insert positions, anti-slip face and material system	Municipal suppliers, road contractors, utility projects, precast yards and building-material distributors

Supplier scope, material grade, tooling ownership, trial samples, utilities and acceptance criteria must be confirmed before purchase.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	CAD/pattern station	Prepares approved cover and frame geometry	Opening, seat and load class
2	Plate/FRP fabrication cell	Builds rigid mould components	Stiffness and alignment
3	Insert and closure bench	Fits lift, lock and reinforcement details	Repeatable placement
4	Surface/texturing station	Creates anti-slip and release faces	Face quality
5	Cover/frame trial gauge	Checks seating and fit	Dimensional/load-seat check

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 manhole-cover & utility-cover mould workshop equipment.



Made-in-China supplier reference: second real machine configuration for manhole-cover & utility-cover mould workshop.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Steel plate/sections or FRP/resin system, patterns, inserts, reinforcement locators, release agents, abrasives, fasteners and packing

Utilities & infrastructure

- Three-phase electricity, compressed air where required, guarded machining, covered tool storage and safe finished-tool handling
- Documented maintenance, critical wear spares, calibrated gauges and product-specific safety controls

Quality, safety and environmental controls

- Control clear opening, cover-frame seat, anti-slip pattern, insert position, flatness and safe lifting points
- Trial cast cover and matching frame together; verify seating, wobble, edge damage, release and repeat cycles
- Do not claim a load class unless the specified product and test method have been confirmed

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 cover mould must make the matching frame and seating system. Decorative appearance alone does not prove load, fit or municipal suitability.

Component	Indicative range	Notes
Drawing, pattern and mould fabrication tools	US\$6k-24k	One cover/frame family
Surface, inserts and trial gauges	US\$4k-16k	Seating and finish control
Material trials and documentation	US\$2k-9k	Load-test preparation
Indicative entry total	US\$12k-49k	Workshop, certified load testing and master design excluded

Implementation sequence

Phase 1	2-4 weeks	Confirm product drawings, target machine, buyer samples, site and utilities
Phase 2	3-8 weeks	Approve tool design, material grade, machining route and acceptance samples
Phase 3	6-18 weeks	Manufacture, inspect, trial and document the contracted tooling
Phase 4	2-6 weeks	Install, trial with buyer material, train operators and release production

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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- https://www.made-in-china.com/products-search/hot-china-products/Mold_Edm_Machine.html