

PET Bottle Blow-Mould Manufacturing

Complete Turnkey Business Proposal

ECENG
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Made-in-China supplier reference: real pet bottle blow-mould manufacturing 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

Manufactures aluminium or tool-steel blow moulds for PET bottles through bottle and preform review, stretch-blow-machine matching, CAD/CAM machining, cavity/base/neck fitting, cooling-channel work, polishing, leak and bottle trials, and dimensional inspection.

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 bottle family for a named stretch-blow machine. Confirm preform neck finish and weight, bottle volume, machine cavity pitch, stretch-rod and base geometry, cooling, handle/label panel, resin, output rate and bottle tests before tooling.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
PET bottle blow moulds	Named stretch-blow machine, preform neck/weight, bottle volume, cavity pitch, base and body geometry, cooling, label panel, finish and cycle target	Bottled-water, beverage, edible-oil and household-chemical bottlers plus packaging-tool buyers

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	Bottle/DFM design station	Matches bottle, preform and machine	Neck, volume and pitch
2	CNC machining cell	Cuts aluminium or steel cavities	Bottle geometry
3	Base/neck fitting bench	Assembles mould components	Seal and alignment
4	Cooling/polishing station	Optimizes bottle surface and cooling	Cycle/clarity
5	Blow trial and leak test	Validates bottle production	Weight, top load and leakage

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 pet bottle blow-mould manufacturing equipment.



Made-in-China supplier reference: second real machine configuration for pet bottle blow-mould manufacturing.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Aluminium alloy or tool steel, mould bases, cooling fittings, neck/base inserts, fasteners, polishing consumables, gauges, representative preforms 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

- Approve bottle drawing and the exact preform/machine combination before machining
- Control cavity volume, base profile, neck alignment, cooling, venting, label panel, polish and cavity pitch
- Run target-preform trials; inspect bottle weight, volume, wall distribution, leak, top load, drop performance and cycle time

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

PET blow moulds are tied to a specific preform and blow machine. Bottle volume alone is insufficient without neck, pitch, base, cooling and trial-performance evidence.

Component	Indicative range	Notes
Bottle design and CNC cavity machining	US\$35k-130k	One PET bottle family
Base/neck, cooling, polishing and gauges	US\$15k-65k	Machine-specific fit
Blow trials, testing and initial spares	US\$10k-40k	Preform and bottle validation
Indicative entry total	US\$60k-235k	Stretch-blow machine, compressor and plant 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