



Ceramic Sanitaryware Factory

Complete Turnkey Business Proposal



Made-in-China supplier reference: real ceramic sanitaryware factory equipment.

bankable study investment gate	confirmed feedstock supply gate	EPC scope delivery gate	quality laboratory release gate
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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

Strategic ceramic-sanitaryware manufacturing that prepares clay/feldspar/silica body, produces slip, casts basins/toilets/cisterns, dries, glazes, fires, sorts, tests and packs bathroom products with controlled dimensional and glaze quality.

Why this project fits Afghanistan

- This is a strategic plant, not a low-entry equipment package.
- Bankable feedstock, utility, permit, market, EPC and financing evidence is required before selection.
- Operate only with an independent laboratory, defined quality release and preventive-maintenance program.

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

Only invest after verified ceramic raw materials, water, fuel/power, mould and kiln capability, product standards, long-term buyers, warehousing, after-sales spare/fixture support and experienced ceramic technical management are confirmed.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Ceramic sanitaryware	Approved basin/toilet/cistern range, body recipe, shrinkage, glaze colour, firing curve, dimensions, drainage/overflow geometry, water-use and packing standard	Housing, hotels, contractors, bathroom showrooms, distributors and public-building projects

Final capacity, process, resource quality, utilities, permit conditions, emissions, acceptance test and commercial terms require independent engineering review before any order.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Raw-body/slip preparation	Controls casting body	Particle size and rheology
2	Mould/casting shop	Forms sanitaryware shapes	Wall and geometry
3	Drying and glazing system	Prepares ware for kiln	Moisture and glaze
4	Tunnel/shuttle kiln	Fires ceramic body	Temperature and colour
5	Sorting/testing/packing	Releases usable ware	Dimensions, glaze and leak checks

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 ceramic sanitaryware factory equipment.



Made-in-China supplier reference: second real machine configuration for ceramic sanitaryware factory.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Proven clay, kaolin, feldspar, silica, deflocculants, glazes, stains, plaster/resin mould materials, kiln refractories/fuel, packaging and laboratory consumables

Utilities & infrastructure

- Bankable electricity/fuel/water plans, process cooling and treatment, plant fire safety, laboratory, covered stores and qualified operation team
- Environmental permits, emissions control, waste route, maintenance workshop, critical spares and site-specific safety systems

Quality, safety and environmental controls

- Validate raw materials, body shrinkage, water/fuel/power, kiln emissions, mould route, demand and ceramic technical leadership before EPC contracting
- Control slip rheology, casting thickness, drying, glaze application, kiln curve, fired shrinkage, colour, warpage, drain/overflow fit and surface defects
- Test fired dimensions, glaze defects, water retention/leak, load/fit where relevant, colour, crazing and packing resistance

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

Sanitaryware quality comes from body, mould, drying, glaze and firing control together. A kiln alone cannot deliver sellable toilets or basins.

Component	Indicative range	Notes
Raw-body, slip and casting systems	US\$18m-60m	Product mix and automation
Drying, glazing and kiln line	US\$28m-95m	Fuel and firing capacity
Sorting, laboratory, packing and utilities	US\$10m-35m	Quality/dispatch scope
Indicative strategic project total	US\$56m-190m	Mine, land, finance and working capital 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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