



AAC Lightweight-Block Factory

Complete Turnkey Business Proposal



The leader brand of the AAC



常州市名杰建材设备制造有限公司
CHANGZHOU MINGJIE BUILDING MATERIAL EQUIPMENT MANUFACTURING CO.,LTD



Made-in-China supplier reference: real aac lightweight-block factory equipment.

100k-200k m3/year strategic screen	1 block family controlled launch	autoclaved curing method	55-100 three-shift 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 strategic autoclaved aerated concrete plant producing defined lightweight wall blocks from prepared silica sand or fly ash, lime, cement, gypsum, water and controlled aluminium paste through milling, batching, casting, pre-curing, wire cutting, autoclave curing, packing and strength/density release. It is not a simple concrete-block machine.

Why this project fits Afghanistan

- Lightweight masonry can reduce wall weight and thermal load.
- AAC quality depends on raw-material chemistry, density and controlled autoclave curing.
- Steam, pressure-vessel compliance and buyer acceptance are non-negotiable.

Sanaatchi delivery scope

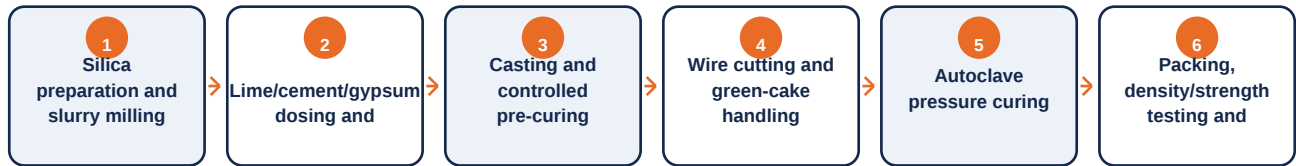
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

Recommended configuration

Screen one 100,000-200,000 m³/year block size family only after proving silica/lime chemistry, steam generation, autoclave safety, water, laboratory control, covered curing/packing and contractor off-take.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
AAC lightweight blocks	Density, compressive strength, dimensions, moisture, thermal performance and edge quality	Afghan contractors, housing developers and block distributors

Selection requires a site-specific feasibility study, representative material trials and documented acceptance testing for this exact line.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Milling, batching and casting system	Creates controlled AAC slurry	Defined block density
2	Pre-curing, cutting and handling	Forms green blocks	One block-size family
3	Autoclaves and steam system	Pressure-cures AAC	Certified pressure vessels
4	Packing and laboratory	Releases stable blocks	Density/strength acceptance

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



The leader brand of the AAC



常州市名杰建材设备制造有限公司
CHANGZHOU MINGJIE BUILDING MATERIAL EQUIPMENT MANUFACTURING CO., LTD.



Made-in-China supplier reference: real aac lightweight-block factory equipment.



Made-in-China supplier reference: second real machine configuration for aac lightweight-block factory.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Tested silica sand or approved ash, lime, cement, gypsum and aluminium paste
- Pallets, wrapping and approved process additives

Utilities & infrastructure

- Stable three-phase electricity with verified connected load
- Guarded machinery, lockout, ventilation and fire protection
- Covered segregated raw-material and finished-goods storage
- Maintenance tools, safe lifting and critical spare parts
- Certified steam boiler/autoclaves, water treatment and compressed air
- Dust collection, pressure-vessel controls and safe cutting/packing zone

Quality, safety and environmental controls

- Verify silica, lime and slurry density before casting
- Record pre-curing, cutting geometry, autoclave pressure/time and steam use
- Test density, compressive strength, dimensions, moisture and block damage

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 strategic approach is one block-size family and a verified steam/autoclave solution; ordinary concrete-block equipment cannot substitute for AAC.

Component	Indicative range	Notes
Milling, batching, casting and cutting	US\$2m-5m	One AAC block family
Autoclaves, steam and handling	US\$3m-8m	Pressure-curing core
Utilities, civil, lab and installation	US\$2m-5m	Safety and quality scope
Indicative strategic project total	US\$7m-18m	Land 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

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.alibaba.com/showroom/aac-block-production-line.html>
- https://www.made-in-china.com/products-search/hot-china-products/AAC_Block_Production_Line.html