

3D Gypsum-Panel Mould Production Workshop

Complete Turnkey Business Proposal



Made-in-China supplier reference: real 3d gypsum-panel mould production workshop equipment.

approved pattern market gate	defined mould family launch scope	trial cast release gate	batch records traceability
--	---	-----------------------------------	--------------------------------------

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

Makes silicone, ABS or FRP moulds for 3D gypsum panels through design/master preparation, mould material processing, cure or cooling, trim, panel-fit checks and repeated gypsum-casting validation.

Why this project fits Afghanistan

- Approve a physical sample and applicable standard.
- Launch with a defined product range and documented tool settings.
- Keep material and quality records for each batch.

Sanaatchi delivery scope

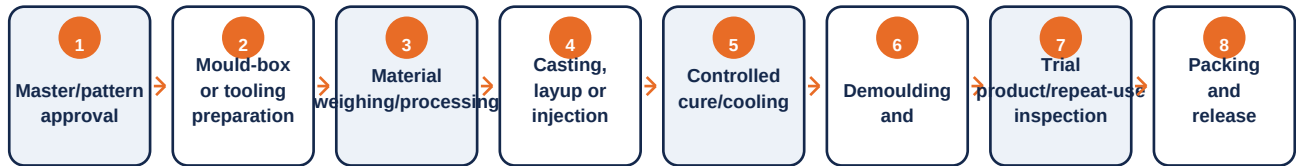
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

Recommended configuration

Launch with a limited 3D design collection and one standard panel size. Confirm panel joint geometry, depth/undercuts, mould stiffness, release, gypsum flow, repeated demoulding and wall-install pattern before adding designs.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
3D gypsum-panel moulds	Panel size/design, mould material, depth/undercut, joint edge, surface finish, mould thickness/stiffness, release, gypsum flow and repeat cycles	Gypsum panel producers, interior decorators, retailers, hotels, cafés, housing and fit-out contractors

Supplier scope, materials, utilities, installation requirements and acceptance criteria must be confirmed before purchase.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Design/master station	Prepares 3D panel pattern	Depth/joint geometry
2	Silicone/ABS/FRP process cell	Forms moulds	Material/ratio/temperature
3	Vacuum/cure or cooling rack	Controls surface quality	Bubble/warp control
4	Trim/joint gauge	Sets panel edges	Size/interlock tolerance
5	Gypsum panel trial bench	Checks mould performance	Detail/release/repeat use

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 3d gypsum-panel mould production workshop equipment.

 **Haineng**



Made-in-China supplier reference: second real machine configuration for 3d gypsum-panel mould production workshop.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Silicone, ABS sheet/resin or FRP materials, masters, release agents, backing materials, trimming tools, gypsum trial materials and packaging

Utilities & infrastructure

- Stable electricity, covered raw-material storage and protected finished-goods handling
- Guarded equipment, documented maintenance, essential spares and product-specific safety controls

Quality, safety and environmental controls

- Control master detail, joint edges, mould stiffness, bubbles, cure/cooling and panel dimensions
- Trial gypsum panels for release, edge fit, surface detail and repeated demoulding
- Select mould material based on design depth, expected cycle life and safe production method

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

3D panel moulds need clean edges and repeatable relief. Design variety should come after one panel size and a reliable joint system are proven.

Component	Indicative range	Notes
Design/master and mould-forming tools	US\$2k-9k	Small 3D design family
Cure/cooling, trim and QC	US\$2k-12k	Joint/detail controls
Trials and setup	US\$1k-5k	Sample panels
Indicative entry total	US\$5k-26k	Workshop and masters 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/concrete-paver-mould.html>
- https://www.made-in-china.com/products-search/hot-china-products/Mold_Edm_Machine.html