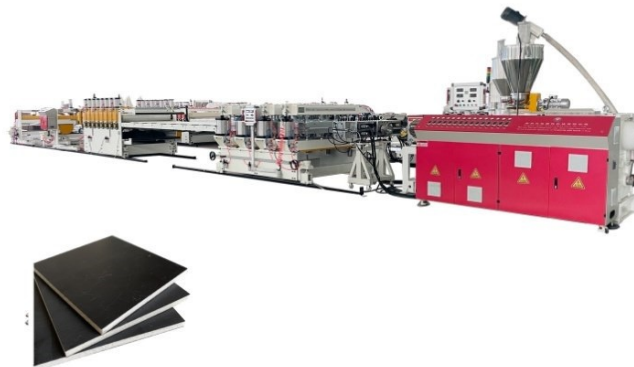




Cold-Room & Refrigeration-Panel Factory

Complete Turnkey Business Proposal



Made-in-China supplier reference: real cold-room & refrigeration-panel 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 cold-room system manufacturing that fabricates insulated PU/PIR panels, doors and accessories, integrates refrigeration equipment packages, performs thermal/air-tightness checks and supplies designed cold-storage rooms.

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

Develop only after food-chain demand, panel core/fire requirements, refrigerant compliance, refrigeration design capability, customer temperature profiles, local installation network and service/spares plan are confirmed.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Cold rooms, insulated panels and refrigeration packages	Room temperature, panel thickness/core, fire performance, door type, refrigeration capacity, refrigerant, controls, floor and installation standard	Fruit/vegetable exporters, meat/dairy processors, pharmaceuticals, wholesalers, logistics operators and farms

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

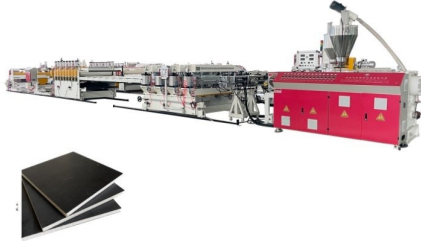
Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Panel core/skin preparation	Creates insulated envelope	Thickness and fire class
2	Panel/door fabrication	Builds room components	Joint and fit
3	Refrigeration package assembly	Provides cooling capacity	Compressor and refrigerant
4	Control/defrost integration	Manages room operation	Temperature and alarms
5	Leak/thermal test and installation kit	Releases cold room	Air-tightness and performance

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

 **SANYI**



Made-in-China supplier reference: real cold-room & refrigeration-panel factory equipment.

 **ANXING**



Made-in-China supplier reference: second real machine configuration for cold-room & refrigeration-panel factory.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Metal skins, PU/PIR core chemicals, gaskets, doors/hardware, compressors, evaporators, condensers, refrigerant, copper pipe, controls, packaging and test 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

- Confirm product temperature/throughput, cold-room layouts, insulation/fire class, refrigerant rules, power availability, service network and customer installation needs
- Control panel density/thickness, joints, door sealing, refrigeration pipework, evacuation/charge, electrical controls, defrost and alarms
- Test panel dimensions, door seals, leakage, pull-down, temperature stability, defrost, alarm response and installation documentation

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

Cold rooms should be sold as temperature-controlled systems, not only panels. The proposal must match product load, insulation, refrigeration and local after-sales service.

Component	Indicative range	Notes
Panel/door fabrication equipment	US\$12m-40m	Panel size/core scope
Refrigeration assembly/test and controls	US\$10m-35m	Temperature/application mix
Utilities, quality and installation	US\$6m-20m	Test/service support
Indicative strategic project total	US\$28m-95m	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

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

- continuous-pu-pir-sandwich-panels
- dairy-processing-line