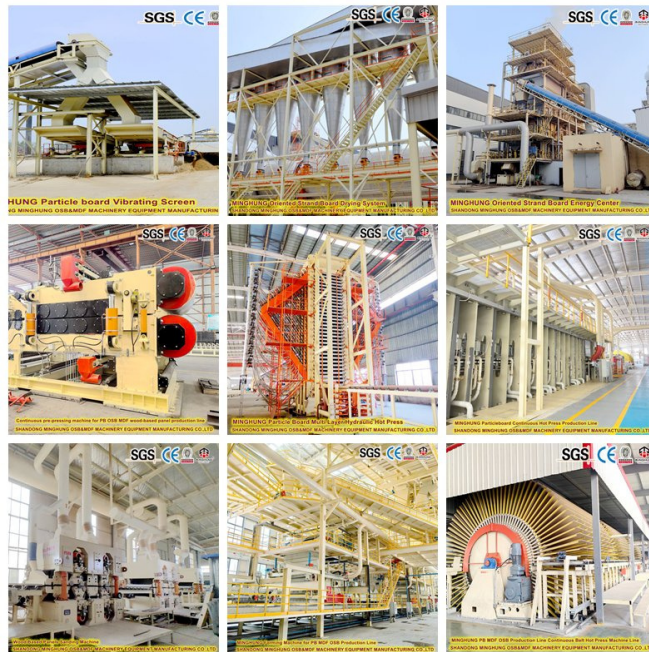




OSB Structural-Board Factory

Complete Turnkey Business Proposal



Made-in-China supplier reference: real osb structural-board 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 oriented-strand-board manufacturing that converts qualified logs into controlled strands, dries and screens them, blends resin and wax, orients layers, hot-presses panels, trims, grades and packs structural boards.

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 sustainable suitable-log supply, strand trials, resin and wax sourcing, energy/emissions permits, fire safety, structural-panel standards, construction buyer demand and experienced engineered-wood EPC management are confirmed.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
OSB structural board	Panel thickness, size, density, strand orientation, structural grade, moisture, swelling, emission class and packing	Roofing, wall sheathing, modular construction, furniture cores, pallet/package users, builders and panel distributors

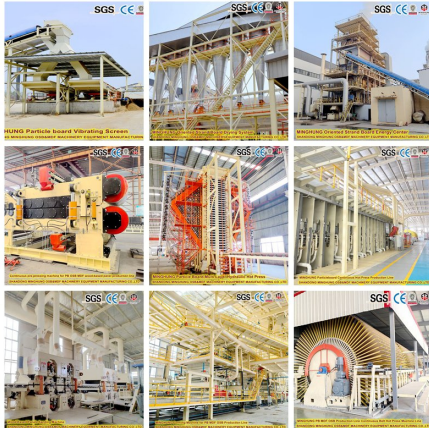
Final capacity, process, resource quality, utilities, permit conditions, emissions, acceptance test and commercial terms require independent engineering review before any order.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Log debarking and flaking	Creates oriented wood strands	Species and strand geometry
2	Drying/screening and storage	Stabilises strand moisture	Moisture and fines
3	Resin/wax blending	Prepares bonded strands	Dose and distribution
4	Layer orientation and hot press	Creates structural panel	Orientation, density and thickness
5	Trimming, grading and packing	Releases boards	Structural 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



Made-in-China supplier reference: real osb structural-board factory equipment.



Made-in-China supplier reference: second real machine configuration for osb structural-board factory.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Legally sourced suitable logs, structural-board resin system, wax, additives, boiler fuel, packaging, sandpaper where specified, water-treatment materials 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

- Confirm sustainable log resources, species/strand testing, resin system, energy/fire plan, emissions permits, structural grade, customer specifications and sales volume before EPC contracting
- Control strand dimensions, moisture, fines, resin/wax distribution, layer orientation, mat weight, press cycle, thickness, density, edge trim and board conditioning
- Test bending, internal bond, thickness swell, moisture, density profile, dimensions, structural grade and named emission standard

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

OSB value depends on repeatable strand orientation and structural performance. Low-cost machinery cannot replace feedstock discipline, resin control and certified product testing.

Component	Indicative range	Notes
Log yard, flaking, drying and screening	US\$50m-155m	Log species and output
Blending, orientation, hot press and handling	US\$70m-230m	Panel size and automation
Finishing, laboratory, emissions and utilities	US\$30m-100m	Structural quality/compliance
Indicative strategic project total	US\$150m-485m	Forest assets, 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

- light-gauge-steel-building-frames
- mdf-fibreboard-factory