

Wooden Fruit & Export Crates Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real wooden fruit & export crates production line equipment.

1 crate launch design	1-4 mm optional veneer range	80-160/day manual-jig target	5-9 entry workforce
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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

A micro/small crate workshop converting legal, dry timber or peeled narrow veneer into ventilated fruit crates and light export boxes through timber receiving and moisture grading, cross-cutting or veneer peeling, slat sizing, edge finishing, component sorting, jig assembly, pneumatic stapling or nailing, squareness and protrusion inspection, optional branding, stacking and buyer load, drop and ventilation trials. Solid-wood export crates require an authorized ISPM 15 treatment and marking route.

Why this project fits Afghanistan

- Afghan grapes, pomegranates, apples, apricots and vegetables need ventilated, stackable packs that reduce bruising in road transport.
- One fruit, crate footprint and stack height keep wood, fastener and jig inventory low.
- Local legal timber and labor can support a small assembly workshop near packing houses.
- Export treatment, food-contact cleanliness and transport testing matter more than decorative appearance.

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 one buyer-approved ventilated crate for a named fruit and transport route. The lowest-risk unit buys dry sized slats and uses one adjustable assembly jig, pneumatic staplers or nailers, compressor, edge sander, gauges and a simple compression/drop-test fixture. Add a guarded cross-cut/multi-rip cell or a 1-4 mm narrow-veneer peeling line only when stable timber supply and repeat volume justify it; certified heat treatment is a separate controlled phase.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Ventilated wooden fruit crate	One buyer drawing, fruit load, internal size, vent area, moisture, fastener schedule and stack rating	Orchards, packhouses, wholesalers and cold stores
Light export crate	Product-specific dimensions, restraint, load and authorized ISPM 15 treatment where applicable	Exporters after route and phytosanitary approval

A fruit crate is not a pallet or an unrestricted heavy export case. Acceptance must use the packed fruit or representative load and verify internal dimensions, mass, moisture, slat thickness, ventilation, edges, fastener type/count/depth, protrusions, squareness, bottom support, stack compression, vibration/drop damage and fruit bruising. Only authorized operators may apply ISPM 15 marks.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Moisture meter and grading benches	Releases suitable legal wood and components	Species/defect limits contracted
2	Guarded cross-cut and multi-rip saws	Prepares slats from dry boards	Optional if buying sized slats
3	Narrow-veneer peeling and clipper cell	Produces thin fruit-box veneer from logs	Optional 1-4 mm route
4	Edge sander and component gauges	Removes splinters and controls size	Food-pack finish
5	Adjustable crate assembly jig	Holds one crate square	One launch footprint
6	Pneumatic staplers/nailers and compressor	Installs specified fasteners	Depth and protrusion controlled
7	Compression/drop test fixture	Validates transport and stacking	Buyer test plan

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 wooden fruit & export crates production line equipment.



Made-in-China supplier reference: second real machine configuration for wooden fruit & export crates production line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Legally sourced, dry timber slats or validated narrow veneer
- Food-pack-compatible nails or staples to the approved schedule
- Clean spacers, straps, labels and approved branding ink
- Saw blades, nailer seals, jigs and critical pneumatic spares

Utilities & infrastructure

- Three-phase power where saws/peeler are installed and clean compressed air
- Covered dry timber and finished-crate storage
- Dust extraction, fire protection and guarded cutting
- Clean assembly area separated from wet/treated wood
- Authorized heat-treatment route only for applicable export packaging

Quality, safety and environmental controls

- Verify timber legality, species, moisture and defects
- Measure every component and crate against the buyer drawing
- Check fastener count, depth, clinch and exposed points
- Inspect splinters, odour, contamination and ventilation openings
- Run loaded stack-compression, vibration and drop trials
- Control treatment records and marks only where authorized

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 credible workshop buys dry sized slats and assembles one approved domestic fruit crate. Veneer peeling, automatic nailing, certified treatment, building and working timber stock are excluded.

Component	Indicative range	Notes
Assembly jigs, nailers and compressor	US\$5k-13k	Purchased sized-slat route
Saws, sanding, gauges and dust control	US\$6k-18k	Local board preparation
Testing, handling and packing tools	US\$2k-7k	One crate design
Freight, installation and starter spares	US\$3k-9k	Local workshop
Indicative installed low-entry total	US\$16k-47k	Peeler, kiln, building and timber stock 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

- <https://minghung.en.made-in-china.com/product/bYDryksEZJWZ/China-Automatic-Plywood-Veneer-Production-Line-for-Fruit-Box-Crate-Making.html>
- <https://minghung.en.made-in-china.com/product/ptGrybzjbYcC/China-Wooden-Fruit-Box-Making-Machine-Wood-Peeling-Machine.html>