

Moulded-Pulp Fruit-Tray Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real moulded-pulp fruit-tray production line equipment.

500-1,000/h starter tray output	1 mould launch fruit format	70-120 kg/h screened paper basis	6-10 entry 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 small/medium moulded-fibre line converting sorted local wastepaper into protective apple, pear or tomato trays through contaminant removal, hydropulping, screening, refining and consistency control, vacuum forming on a dedicated fruit-pocket mould, wet transfer, controlled drying, optional hot pressing, nesting, compression testing and dry packing. Fruit trays require their own mould and bruise-protection trials; an egg-tray mould is not interchangeable.

Why this project fits Afghanistan

- Afghan apple, pear and tomato packers need low-cost protective inserts for road transport.
- Sorted local wastepaper can replace imported plastic or foam trays.
- One crop, carton and pocket geometry keep tooling risk low.
- Drying and loaded transport performance determine saleable output.

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 tray matched to one confirmed fruit carton and one local crop. Screen a 500-1,000 tray/h reciprocating or compact rotary former with pulper, screen, chests, vacuum/air package and one aluminium fruit-tray mould. Use covered rack drying only after seasonal capacity trials; otherwise size a compact dryer to the wet output. Include carton-fit, stacking, vibration and fruit-bruising acceptance tests.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Apple or pear moulded-pulp tray	Buyer fruit diameter, pocket depth, carton fit, dry mass, moisture and compression	Orchards, packhouses, cold stores and exporters
Tomato or stone-fruit tray	Separate validated pocket geometry, ventilation and bruise limit	Fresh-produce packers after dedicated trials

Tray geometry must support the actual fruit without pressure points while allowing ventilation and easy nesting. Acceptance uses representative fruit and cartons and measures pulp consistency, wet/dry mass, shrinkage, pocket dimensions, final moisture, stack compression, nesting, loaded vibration/drop performance and bruising after storage. Drying capacity must match the former in winter as well as summer.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Sorting table, hydropulper and screen	Prepares clean recycled fibre	70-120 kg/h paper basis
2	Pulp chests, refiner and dosing	Controls furnish and consistency	Closed water loop
3	Vacuum fruit-tray former	Forms dedicated protective pockets	500-1,000 trays/h
4	Fruit-tray aluminium mould set	Defines carton and fruit fit	One launch crop/size
5	Vacuum pump and compressed-air system	Forms and transfers wet trays	Matched duty and standby
6	Rack or compact dryer	Reaches safe storage moisture	Seasonal output matched
7	Optional hot press and stacker	Improves dimensions and nesting	Buyer-led option
8	Compression and transport test tools	Validates loaded packaging	Actual fruit and carton

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 moulded-pulp fruit-tray production line equipment.



Made-in-China supplier reference: second real machine configuration for moulded-pulp fruit-tray production line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Sorted local wastepaper with controlled plastic, metal and sand
- Clean makeup water and approved strength or sizing aids
- Drying fuel where forced drying is installed
- Straps, cartons, pallets, mould mesh and critical spares

Utilities & infrastructure

- Three-phase power, vacuum and compressed air
- Reliable water with settling and high-recycle loop
- Covered dirty-paper and clean dry-product zones
- Drying yard or insulated dryer with safe fuel system
- Reject, sludge, drainage, odour and fire-control plan

Quality, safety and environmental controls

- Grade and record every wastepaper batch
- Control consistency, additives and wet tray mass
- Verify pocket dimensions, shrinkage and final moisture
- Test nesting and empty-stack compression
- Run loaded carton vibration and drop trials
- Inspect fruit bruising and trace every bundle

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 plant uses one buyer-confirmed fruit mould, local tanks and covered rack drying only where seasonal trials prove output. Metal drying, hot pressing, extra fruit moulds, building and working stock are excluded.

Component	Indicative range	Notes
Pulping, screening, chests and pumps	US\$9k-23k	Local wastepaper preparation
Former, vacuum, air and one fruit mould	US\$15k-38k	500-1,000 trays/h
Rack/compact dryer, test and packing	US\$9k-28k	Climate-dependent scope
Water loop, freight, installation and spares	US\$9k-24k	Local tanks and civil interfaces
Indicative installed low-entry total	US\$42k-113k	Building and wastepaper 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

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://wanyou888.en.made-in-china.com/product/qFyADgzjEQVh/China-Recycle-Paper-Pulp-Molding-Egg-Tray-Apple-Tray-Production-Line-Machine-with-1-Molds.html>
- <https://pulpmoldingchina.en.made-in-china.com/product/tyCfFLivMdGX/China-Hghy-Apple-Tray-Making-Machine-Price-in-Indiapulp-Molding-Machine.html>