

Apple Juice & Bottling Line

Complete Turnkey Business Proposal

MACHINE
Genyond



Mini Fruit Juice/Jam Production Line



Supplier reference: real compact fruit washing, extraction and juice preparation equipment applicable to apple-juice production.

300-500 kg/h starter apple input	150-300 L/h indicative juice output	35-70 kW indicative connected load	6-10 entry operators
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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

This small line produces pasteurized apple juice from sound Afghan apples and lower cosmetic grades diverted from a packhouse. Apples are washed, inspected, milled and pressed; juice is screened and clarified to the selected cloudy or clear style, pasteurized, then hot-filled into compatible bottles. The proposal excludes concentrate evaporation and aseptic bulk filling: it is a local-market bottled-juice plant with a shorter, simpler flow.

Why this project fits Afghanistan

- Afghan apples that are sound but cosmetically unsuitable for fresh retail can become bottled juice.
- A compact line serves local shops, restaurants, hotels and institutions without concentrate equipment.
- Cloudy juice reduces clarification equipment and can support a natural product position.
- Apple pomace can be separated promptly for approved feed, pectin or compost channels.

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

For the lowest credible entry, select a 300-500 kg/h apple line with washer, crusher, belt or rack-and-cloth press, tanks, filter, tubular pasteurizer and semi-automatic hot filler. Launch one pasteurized cloudy juice in two bottle sizes; add enzymatic clarification or full automatic filling only after stable sales.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Cloudy apple juice	Buyer-approved Brix, acidity, suspended pulp, color and microbiology	Retail, hospitality and institutional buyers
Clarified apple juice	Optional enzyme-treated and filtered clear style	Retail and beverage-blending buyers
Apple pomace	Fresh separated co-product handled without spoilage	Approved feed, pectin, compost or drying users

Supplier references cover apple washing, crushing, extraction, residue separation, optional concentration and hot filling. This entry line stops before concentration. Expected bottled output must be calculated from trial juice yield; supplier claims from concentrate plants are not transferred to a small local juice line. Bottle heat resistance, closure, pasteurization and shelf life must be validated together.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Apple washer and inspection conveyor	Cleans fruit and removes rot before milling	300-500 kg/h gentle food-grade design
2	Apple mill or crusher	Creates an even mash for pressing	Replaceable knives or grater with guarded drive
3	Belt or rack-and-cloth press	Separates juice from apple pomace	Trial-confirmed yield and easy sanitation
4	Screen, balance tanks and optional clarifier	Controls pulp level and prepares juice for heat treatment	Cloudy route standard; clear module optional
5	Tubular pasteurizer	Applies the validated time-temperature process	Recorder and low-temperature diversion
6	Semi-automatic hot filler and capper	Fills heat-compatible bottles and applies closures	Two launch sizes with sanitary product path
7	Cooling conveyor or bath	Reduces bottle temperature after hot fill	Controlled cooling without thermal shock
8	Coder, labeler and inspection table	Finishes and checks saleable bottles	Lot, date, seal and net-fill verification

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

MAORE
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Supplier reference: real compact fruit washing, extraction and juice preparation equipment applicable to apple-juice production.

LOVE



Supplier reference: real enclosed beverage rinsing, filling and capping equipment illustrating the bottling section.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Sound Afghan apples suitable for juice
- Potable process water
- Approved antioxidant or clarification aids only where required
- Heat-compatible food bottles and closures
- Labels, coding ink, trays or cartons

Utilities & infrastructure

- Stable electricity
- Food-safe steam, electric or hot-water heat source
- Potable water and hygienic drainage
- Cooling water for filled bottles
- Washable processing room and dry packaging storage

Quality, safety and environmental controls

- Reject rotten, moldy or chemically noncompliant apples
- Record apple variety, maturity, Brix, acidity and press yield
- Control time between crushing and pasteurization to limit browning and spoilage
- Verify juice Brix, pH, acidity, color, turbidity and sensory quality
- Validate pasteurization record, hot-fill temperature, cap torque and bottle vacuum
- Complete microbiological and shelf-life tests in each bottle format

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

Lowest entry uses one small washer-crusher-press stream, cloudy-juice screening, tubular pasteurization and semi-automatic hot filling. Land, building, apples, bottles, boiler, cold storage and clarification automation are excluded.

Component	Indicative range	Notes
Washing, inspection, crushing and pressing	US\$8k-18k	One 300-500 kg/h fruit stream
Screening, tanks and optional clarification	US\$4k-10k	Cloudy juice is lowest entry
Pasteurization, hot filling, capping and cooling	US\$8k-20k	Semi-automatic two-size line
Electrical, installation and initial spares	US\$3k-8k	Include sanitary hoses and press cloths
Freight and clearance	US\$4k-9k	Consolidated compact shipment
Indicative low-entry total	US\$27k-65k	Building, apples, bottles, boiler and working capital excluded

Implementation sequence

Phase 1	2-3 weeks	Confirm apple varieties, cloudy or clear style, bottle and shelf-life target
Phase 2	3-4 weeks	Run pressing, heat-process and packaging trials
Phase 3	5-9 weeks	Manufacture, inspect and ship the selected equipment
Phase 4	3-5 weeks	Install, train, validate sanitation and complete shelf-life batches

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

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- <https://genyondmachine.en.made-in-china.com/product/cNnmKOpPrBVj/China-Fruit-Juice-Extracting-Pressing-Pasteurizing-Filling-Machine-Fruit-Puree-Processing-Line.html>