

Doogh Production & Bottling Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real rotary liquid-yogurt and ayran bottle filling/capping machine.

300-500 L/batch starter blend batch	1 launch formula	1 launch bottle size	7-11 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

A refrigerated fermented-yogurt beverage line that receives released yogurt or makes a controlled yogurt base, blends it with potable water and declared salt, optional approved herbs, homogenizes only as needed, pasteurizes or otherwise treats according to the selected process, cools, fills and caps bottles, codes, stores and distributes the product cold. Carbonated and still doogh require different equipment.

Why this project fits Afghanistan

- Doogh is a familiar dairy beverage suited to Afghan meals and hospitality.
- Released yogurt can shorten the lowest-entry process.
- One still formulation avoids carbonation cost and control complexity.
- Local dairy inputs can support neighborhood cold distribution.

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, make still doogh from released plain yogurt using a 300-500 L jacketed blending tank, sanitary filter, small inline mixer, semi-automatic bottle rinser/filler/capper, coder, two-tank CIP and cold room. Launch one formula and one bottle size; defer carbonation and bottle blowing.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Plain still doogh	Declared yogurt, water and salt recipe; stable suspension and cold shelf life	Retail, restaurants and institutional meals
Herbed still doogh	Approved herb, controlled particle size and declared formula	Retail only after filling and shelf-life trials

Doogh is not simply diluted yogurt without control. Potable water, formula, acidity, salt, separation, microbiology and refrigeration must be validated. Carbonated doogh needs a pressure-rated carbonator, filler, bottle and cap system and is excluded from the entry scope.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Released-yogurt receiving tank	Receives yogurt base under cold conditions	300-500 L sanitary tank
2	Water-treatment and dosing set	Provides potable recipe water and measured ingredients	Buyer-water analysis required
3	Jacketed blending tank	Mixes yogurt, water, salt and approved recipe	300-500 L/batch
4	Inline mixer and sanitary filter	Controls dispersion and removes oversized herb particles	Formula-specific screen
5	Protected balance tank	Feeds filler without post-process contamination	Closed and gently agitated
6	Bottle rinser/filler/capper	Packages one chilled still-doogh format	Semi-automatic entry
7	Coder and inspection table	Applies lot/date code and checks closure	Manual visual release gate
8	CIP and cold room	Supports sanitation and short cold shelf life	Validated cleaning and temperature logs

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 rotary liquid-yogurt and ayran bottle filling/capping machine.



Made-in-China supplier reference: real dairy beverage bottling equipment for yogurt and ayran products.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Released plain yogurt or milk and approved starter culture
- Potable treated water, food-grade salt and approved herbs
- Purchased food-contact bottles, caps, labels and cartons
- Approved dairy detergents and laboratory reagents

Utilities & infrastructure

- Stable electricity matched to motors, controls and refrigeration
- Potable process and cleaning water
- Washable food-grade rooms with drainage and pest control
- Segregated raw-milk, ingredients, packaging and finished-goods areas
- Steam or hot water, chilled water and compressed air only where specified

Quality, safety and environmental controls

- Approve yogurt base and every incoming water source
- Control recipe mass balance, salt, acidity and pH
- Verify separation and sediment during refrigerated shelf life
- Validate any heat treatment and rapid cooling
- Check bottle rinse, fill, cap torque, leakage and code
- Test microbiology and maintain delivery temperature

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 buys bottles, uses released plain yogurt and makes one still-doogh formula. Carbonation, bottle blowing, automatic labeling/cartoning, building, refrigerated vehicle and working stock are excluded.

Component	Indicative range	Notes
Blending, water and balance tanks	US\$6k-15k	300-500 L/batch
Mixing, filtration and sanitary transfer	US\$3k-8k	One still formula
Bottle filling, capping and coding	US\$5k-13k	Purchased bottles
CIP, quality tools and cold room	US\$6k-15k	Short cold route
Freight, installation and spares	US\$5k-11k	Sanitary commissioning
Indicative low-entry total	US\$25k-62k	Carbonation, bottle blowing, building and vehicle excluded

Implementation sequence

Phase 1	2-3 weeks	Confirm milk quality, product specification, capacity, packs and cold route
Phase 2	2-4 weeks	Run representative Afghan milk, culture, ingredient and packaging trials
Phase 3	5-9 weeks	Manufacture, inspect and ship approved equipment
Phase 4	3-5 weeks	Install, train and validate hygiene, process and product release controls

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

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