

Soybean Protein, Meal & Tofu Complex

Complete Turnkey Business Proposal



Made-in-China supplier reference: real soybean protein, meal & tofu complex 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

Integrated soybean processing that cleans and dehulls beans, makes food-grade soy milk/tofu products and/or protein ingredients, manages by-products and packs consistent products under hygienic processing controls.

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

Proceed only after approved soybean supply, food-grade demand, cold chain where required, water/steam, allergen controls, waste-water treatment, qualified food technologists and buyer contracts are confirmed.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Tofu, soy protein ingredients and soybean meal/by-products	Bean variety, protein target, tofu yield, protein purity, pack format, hygiene standard, shelf life, chilled/ambient route and wastewater load	Food manufacturers, restaurants, retailers, nutrition brands, feed users and regional ingredient 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	Bean receiving, cleaning and dehulling	Prepares food-grade soy	Purity and allergen control
2	Soaking, grinding and separation	Produces soy base	Extraction and solids control
3	Coagulation/pressing or protein recovery	Creates target products	Yield and texture/purity
4	Pasteurisation, cooling and packing	Protects shelf life	Temperature and seal
5	By-product handling and hygiene laboratory	Controls value/waste	Food safety and traceability

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 soybean protein, meal & tofu complex equipment.



Made-in-China supplier reference: second real machine configuration for soybean protein, meal & tofu complex.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Food-grade soybeans, coagulants, packaging, labels, water, steam, approved cleaning chemicals, cultures/flavours where selected, cold-chain consumables and laboratory materials

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 soybean grade and price, product portfolio, allergen plan, water/steam, chilled distribution, buyer specification, wastewater and operator hygiene controls
- Control soaking, grind, cooking, separation, coagulation, pressing, pasteurisation, cooling, pack seal and clean-in-place records
- Test microbiological release, protein/moisture, texture/yield, pH, pack integrity, chilled temperature and shelf-life validation

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

This complex should be sized around demonstrated food demand and hygienic cold-chain capability, not only soybean tonnage.

Component	Indicative range	Notes
Bean preparation, extraction and process vessels	US\$20m-70m	Food/product mix
Protein/tofu forming, pasteurising and packing	US\$18m-65m	Shelf-life and hygiene scope
Utilities, cold chain, treatment and installation	US\$12m-45m	Food safety critical
Indicative strategic project total	US\$50m-180m	Land, distribution and finance 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

- dairy-processing-line
- baby-food-cerelac-line