



Industrial Potato-Starch Factory

Complete Turnkey Business Proposal



Made-in-China supplier reference: real industrial potato-starch factory equipment.

30-60 t/h fresh-potato campaign screen	native starch launch product	seasonal supply model	35-75 campaign 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 seasonal industrial factory converting qualified fresh Afghan potatoes into native potato starch through receiving and storage control, dry soil removal, washing and destoning, inspection, rasping, fibre separation, starch extraction, multi-stage hydrocyclone refining, dewatering, flash drying, cooling, screening, bagging and laboratory release. It is not potato flakes or instant mashed potato; those require separate cooking and drying equipment.

Why this project fits Afghanistan

- Afghan potatoes can gain value when seasonality and starch content are managed.
- A starch factory needs large, clean water and a defined potato-pulp route.
- Fresh potato quality and transport time directly affect extraction and food safety.
- Native starch is a distinct product from flakes, powder and modified starch.

Sanaatchi delivery scope

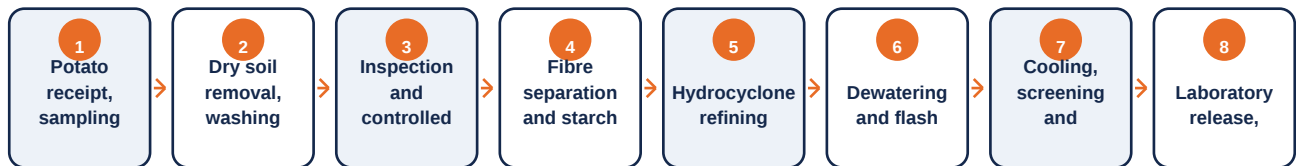
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning
- International logistics, customs documentation, operator training, spare parts, and after-sales support

Recommended configuration

Screen a 30-60 t/h fresh-potato campaign only after confirming seasonal tonnage, agronomy, starch content, collection distance, water source, residue route and starch buyers. Include covered receiving, washer/destoner, rasping, extraction screens, hydrocyclones, dewatering, flash dryer, dust control, bagging, laboratory and full wash-water/residue management. Schedule operating days from real harvest availability rather than nameplate capacity.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Native food or industrial potato starch	Moisture, purity, protein, ash, whiteness, viscosity, granulation, microbiology, foreign matter and bag mass	Qualified Afghan food, textile, paper, adhesive or starch-derivative buyers

Potato yield varies by variety, maturity, storage and damage. The supplier must size the line on a documented local potato sample, state starch recovery, water use, pulp output, dryer energy and operating days, and design a complete residue and wastewater route. Acceptance verifies incoming potato quality, starch content, extraction recovery, slurry purity, hydrocyclone performance, dryer moisture, whiteness, viscosity, microbiology, packaging and buyer application trials.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Receiving, washer, destoner and inspection line	Prepares fresh potatoes without stones and damaged material	30-60 t/h campaign screen
2	Rasper, fibre screens and extraction section	Releases starch slurry from tested potatoes	Local-potato recovery trial
3	Hydrocyclone refining and dewatering system	Washes and concentrates native starch	Purity and water target
4	Flash dryer, cooler, sifter and bagger	Produces stable dry starch	One bag family
5	Laboratory, pulp route and wastewater plant	Releases product and manages seasonal residues	Mandatory environmental scope

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 industrial potato-starch factory equipment.



Made-in-China supplier reference: second real machine configuration for industrial potato-starch factory.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Fresh potatoes with agreed variety, starch content, damage and storage limits
- Food-grade packaging sacks, labels, filter media and cleaning materials

Utilities & infrastructure

- Stable three-phase electricity with verified connected load
- Guarded machinery, lockout, ventilation and fire protection
- Covered segregated raw-material and finished-goods storage
- Maintenance tools, safe lifting and critical spare parts
- Large reliable water source, water recycling and wash-water treatment
- Steam or approved thermal source for flash drying and dust-safe powder handling
- Covered potato yard, pulp/peel collection and approved feed, biogas or compost route

Quality, safety and environmental controls

- Sample potato lots for starch content, damage, rot and foreign matter
- Record water use, recovery, pulp output and process losses
- Control hydrocyclone washing, dewatering and dryer moisture
- Test starch moisture, purity, ash, protein, whiteness and viscosity
- Test microbiology, foreign matter, bag mass and storage stability
- Verify residue route and wastewater performance for the campaign

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 responsible industrial project is a seasonal native-starch campaign sized to confirmed potatoes and water. Potato flakes, modified starch and instant food products require separate process lines.

Component	Indicative range	Notes
Receiving, washing, rasping and extraction	US\$1.5m-4m	30-60 t/h campaign basis
Refining, dewatering, drying and bagging	US\$1.8m-5m	Native starch only
Water, residue, dust, laboratory and utilities	US\$1.2m-3.5m	Seasonal plant controls
Civil, installation, freight and commissioning	US\$1.5m-4.5m	Local-potato trials
Indicative strategic project total	US\$6m-17m	Land and potato 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://cnmeckey.en.made-in-china.com/product/EBSxRtfyvqUz/China-Small-Scale-Potato-Starch-Processing-Plant-Equipment.html>
- <https://myande.en.made-in-china.com/product/qSgQELPAsuhK/China-Potato-Starch-Production-Line-Machine-Turnkey-Starch-Processing-Plant.html>