

Lanolin Recovery from Wool-Scouring Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real lanolin recovery from wool-scouring line equipment.

1-2 t/day greasy-wool screening basis	2 separators recovery train	crude grease launch product	12-20 integrated workforce
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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 medium-industrial recovery system integrated with a wool-scouring plant. It recovers crude wool grease from controlled hot scour liquor through screened liquor collection, temperature management, primary and secondary disc-stack centrifuges, cream concentration or thermal cracking, clarification, closed crude-lanolin storage and effluent treatment. It does not make cosmetic or pharmaceutical lanolin without separate refining, deodorisation, bleaching and regulatory approval.

Why this project fits Afghanistan

- Wool grease can create value only when it is recovered from controlled scouring liquor.
- Disc-stack separation reduces oil loss and protects downstream wastewater treatment.
- Crude wool grease is an industrial feedstock, not automatically cosmetic-grade lanolin.
- Scour-liquor treatment remains mandatory even when grease is recovered.

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

Treat this as a co-product of a bankable wool-scouring plant, not a stand-alone machine. Start feasibility with representative liquor analysis and a 1-2 t/day greasy-wool scour basis; specify fibre recovery screens, insulated hot-liquor tanks, two matched disc separators, crude-grease tankage, laboratory, grease trap and complete high-COD wastewater treatment. Secure an industrial buyer for crude wool grease before installation.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Crude recovered wool grease	Water, insolubles, ash, free fatty acids, colour, odour, density and buyer-agreed composition	Approved industrial chemical or lanolin-refining buyer

Recovery performance depends on wool type, detergent recipe, temperature, pH, liquor ratio and fibre loss. The supplier must demonstrate recovery on representative scour liquor and state flow, feed-grease range, solids limits, separator discharge cycle, recovered-grease quality, energy and wastewater load. Do not sell crude grease as cosmetic lanolin. Acceptance includes fibre loss, oil recovery, water, insolubles, ash, fatty-acid value, odour and full effluent performance.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Fibre recovery screens and hot-liquor tanks	Collects screened scour liquor at separator conditions	Insulated closed duty
2	Primary disc-stack separator	Separates grease-rich cream from liquor	Representative feed guarantee
3	Thermal cracking or cream concentration unit	Prepares cream for efficient secondary recovery	Process-provider specific
4	Secondary disc-stack separator	Raises recovered crude-grease quality	Matched discharge cycle
5	Crude-grease tank, laboratory and effluent plant	Releases product and treats remaining wastewater	High-COD mandatory 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 lanolin recovery from wool-scouring line equipment.



Made-in-China supplier reference: second real machine configuration for lanolin recovery from wool-scouring line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Sorted greasy wool and controlled scour-liquor stream
- Approved low-foam detergent and pH chemicals for wool scouring
- Filter media, sampling containers and traceable crude-grease tanks

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
- Hot-water or steam system, insulated process piping and separator cooling
- Fibre recovery, grease traps and complete high-COD wastewater treatment
- Chemical handling, odour control and approved sludge route

Quality, safety and environmental controls

- Analyse wool, scour liquor and grease content before sizing
- Record temperature, pH, flow, detergent and separator settings
- Measure fibre loss and recovered grease mass balance
- Test crude grease water, insolubles, ash, acidity, colour and odour
- Monitor COD, oil and suspended solids through wastewater treatment
- Release only to approved industrial specification and traceable tank

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 option is recovery integrated with a controlled wool-scouring plant. Do not market crude grease as cosmetic lanolin or omit wastewater treatment.

Component	Indicative range	Notes
Liquor collection, screens and insulated tanks	US\$90k-220k	Integrated wool-scour basis
Primary/secondary disc separators and controls	US\$280k-720k	Recovery core
Crude-grease storage, laboratory and process auxiliaries	US\$120k-330k	Industrial feedstock release
Effluent treatment, installation and commissioning	US\$310k-930k	High-COD scope mandatory
Indicative integrated project total	US\$800k-2.2m	Wool-scour building and working 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

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Research and image references

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