

Lubricating-Oil Blending & Filling Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real lubricating-oil blending & filling line equipment.

2-5 t/batch entry blend	1 grade controlled formula	1-5 or 20 L one pack family	8-13 entry 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 small/medium downstream line making one non-licensed industrial lubricant grade from purchased certified base oils and additive packages through segregated tank receipt, heated metered transfer, gravimetric or mass-flow dosing, closed agitated blending, temperature-controlled homogenization, recirculation and polish filtration, laboratory release, clean-product holding, 1-5 L or 20 L filling, capping, induction sealing, coding and retained samples. It does not refine crude or used oil.

Why this project fits Afghanistan

- Afghanistan imports base oils and finished lubricants but can add value through controlled local blending and packaging.
- One industrial grade avoids expensive engine-test claims at entry.
- Bulk purchasing and local packs can serve workshops, fleets and factories.
- Viscosity, cleanliness, additive dosing and counterfeit-resistant traceability are essential.

Sanaatchi delivery scope

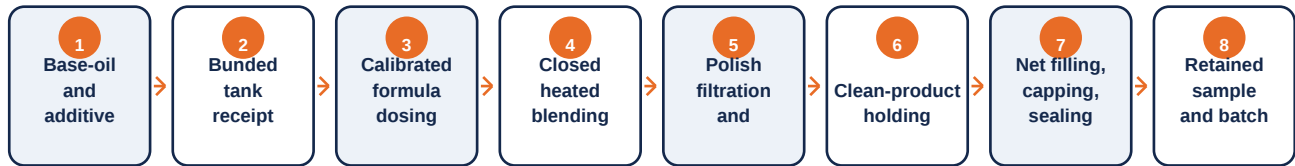
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

Recommended configuration

Launch one simple hydraulic-oil or general industrial lubricant grade at 2-5 t/batch using supplier-approved base oil and additive package. Include bunded feed tanks, heated transfer, calibrated load cells, one closed blending kettle, recirculation/filter skid, clean hold tank, laboratory and one container family. Automotive engine-oil claims require licensed formulas and recognized performance approvals.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
One industrial hydraulic or circulating-oil grade	Declared viscosity grade, viscosity index, flash point, pour point, water, cleanliness, acid number, additive identity and pack mass	Afghan industrial plants, workshops and fleet maintenance

Blending cannot turn uncertain oil into a specification product. Every input lot needs a certificate and identity check. Commissioning verifies tank calibration, dosing accuracy, blend temperature/time, homogeneity, filtration and carryover. The laboratory confirms viscosity at 40/100°C, viscosity index, flash/pour point, density, water, acidity, cleanliness and any grade-specific performance tests.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Bunded base-oil and additive tanks	Stores certified inputs separately	One launch formula
2	Heated transfer and calibrated dosing	Meters formula accurately	Load-cell or mass-flow
3	Closed blending kettle	Homogenizes base oil and additives	2-5 t/batch
4	Recirculation and polish-filter skid	Controls cleanliness and uniformity	Grade-specific filter
5	Clean hold tank and filling line	Protects and packs released oil	One container family
6	Lubricant laboratory	Releases viscosity and safety properties	Retained samples

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 lubricating-oil blending & filling line equipment.



Made-in-China supplier reference: second real machine configuration for lubricating-oil blending & filling line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Certified virgin base oils of the required viscosity range
- Supplier-approved additive package for one industrial grade
- Clean new bottles or pails, caps, induction seals and labels
- Filters, sampling bottles and cleaning oil

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
- Bunded oil storage, spill recovery and oil-water separation
- Controlled heating without open flame
- Clean filling room and fire-code compliant warehouse

Quality, safety and environmental controls

- Verify input certificate, identity, water and cleanliness
- Calibrate tank, load cells and flow meters
- Record formula, temperature, time and recirculation
- Test viscosity, VI, density, flash/pour point and water
- Check filtration, homogeneity and cross-contamination
- Verify net fill, cap torque, seal, code and retained sample

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 credible entry makes one industrial lubricant from certified virgin inputs and uses one package family. Automotive approvals, grease, base-oil refining and used oil are separate.

Component	Indicative range	Notes
Bunded tanks, transfer and dosing	US\$38k-95k	One formula
Blend kettle, recirculation and filtration	US\$32k-82k	2-5 t/batch
Laboratory and one filling family	US\$28k-72k	Industrial grade
Freight, installation and spares	US\$22k-55k	Calibration included
Indicative installed low-entry total	US\$120k-304k	Building, approvals and oil 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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- <https://guanhejx.en.made-in-china.com/product/ACunMXzlhSkG/China-Automotive-Lubricating-Oil-Filling-and-Packaging-Production-Line.html>