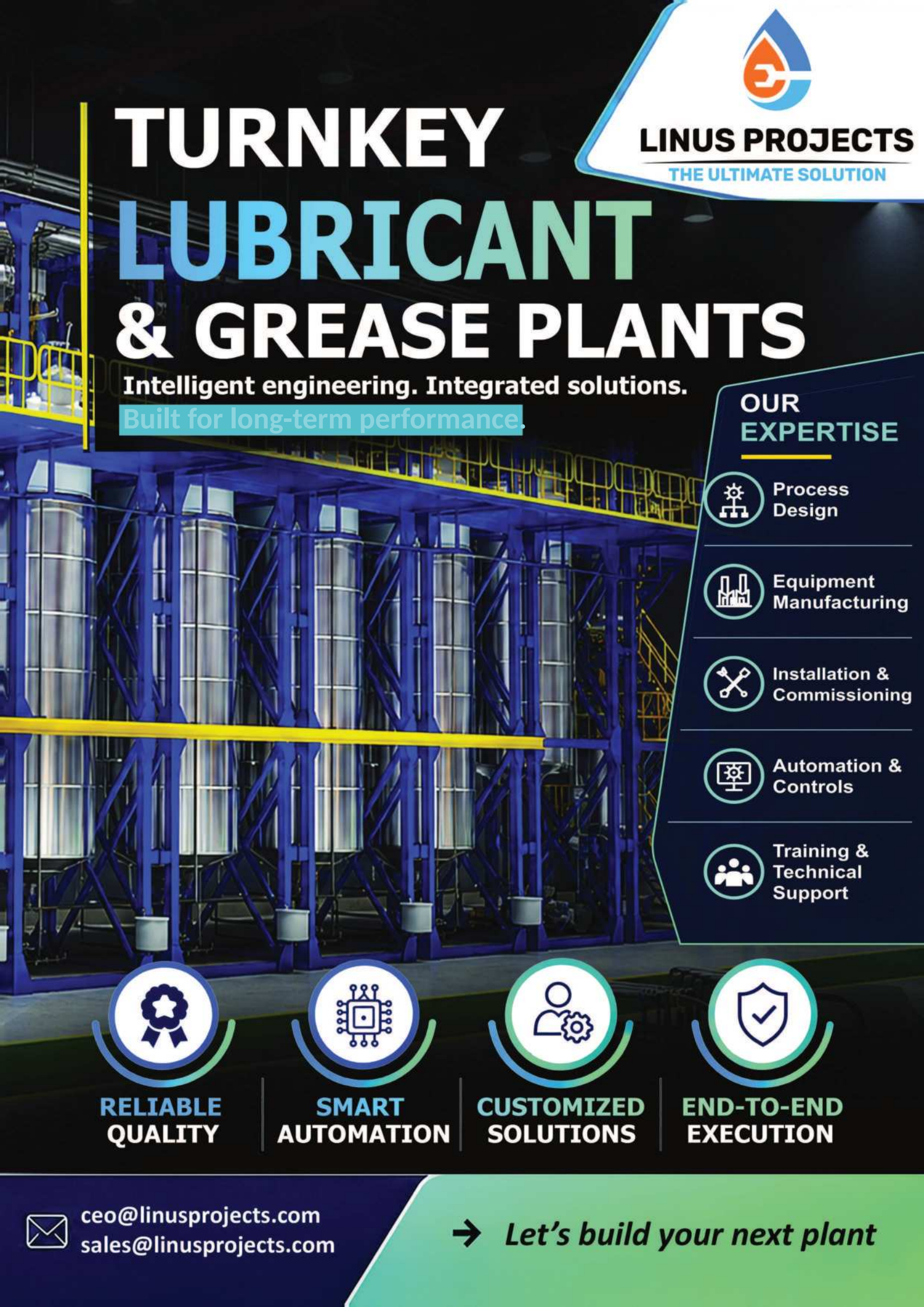

LINUS PROJECTS
THE ULTIMATE SOLUTION
TURNKEY
LUBRICANT
& GREASE PLANTS
Intelligent engineering. Integrated solutions.
Built for long-term performance.
OUR EXPERTISE
Process Design
Equipment Manufacturing
Installation & Commissioning
Automation & Controls
Training & Technical Support
RELIABLE QUALITY
SMART AUTOMATION
CUSTOMIZED SOLUTIONS
END-TO-END EXECUTION
ceo@linusprojects.com
sales@linusprojects.com
Let's build your next plant

Engineering plants that build brands

LINUS PROJECTS (INDIA) is an ISO 9001:2015 certified turnkey plant engineering company, established in Mumbai in 2014. We design, build and commission complete lubricant, grease, used-oil re-refining and specialty-chemical plants — and stay with you long after start-up.

ESTABLISHED
2014 Mumbai · India



UNIT 2 · MANUFACTURING WORKS, ADDITIONAL AMBERNATH MIDC

240+
plants & machines supplied since 2014

48+
clients, from start-ups to national oil marketers

21
export countries and counting

2,600 m²
engineering & manufacturing space in two units

Who we are

Founded by engineers with hands-on plant experience, LINUS PROJECTS grew from building single blending vessels to delivering complete turnkey factories — from the first P&ID to the first saleable batch. Our registered office and engineering team work from Unit 1 at Additional Ambernath MIDC; fabrication, assembly and factory acceptance tests take place at Unit 2, our 2,100 m² manufacturing unit nearby.

Every plant is engineered in-house: process design, vessels and skids, piping, PLC-SCADA automation, filling and packaging lines, and the laboratory that qualifies the product. One contract, one responsible team, one point of contact.

What we deliver

- **Lube oil blending plants**
  1 to 1,000 KL per day, skid to multi-storey
- **Grease manufacturing plants**
  50 kg pilot to 100 MT per day
- **Brake fluid & coolant plants**
  SS 304 / 316 lines, 1 – 120 MT per day
- **Transformer oil plants**
  Filtration, reclamation & manufacturing, 300 – 18,000 LPH
- **Used oil refinery & re-refining** NEW
  5 – 200 TPD batch, continuous TFE & hydrofinishing
- **Filling & packaging lines**
  Bottles, pails, drums, IBCs — up to 60 BPM per line
- **Process equipment & utilities**
  Kettles, heaters, mills, tanks, QC labs
- **Plastic blow moulding machines**
  Bottles, cans & drums — see our plastics catalogue

Leadership

Mr. Abul Khattab M A
FOUNDER & CEO

Mechanical engineer by training; leads process design, project execution and client partnerships in every market.

Mr. Vijay S. J.
MANAGING DIRECTOR

Leads manufacturing at Unit 2 — fabrication, quality, factory acceptance testing and dispatch.

Where to find us

- **Unit 1 · Registered office**
  Plot N-86/3, Bohonoli, Addl. Ambernath MIDC, Ambernath (E)
- **Unit 2 · Manufacturing**
  Plot B-73/1, Jhambivali, Addl. Ambernath MIDC — 2,100 m²
- **Lagos, Nigeria**
  Sales & project office, Jakande, Lekki–Epe Expressway
- **United Arab Emirates**
  Sales representative for the Gulf region

Everything a lubricant business needs, under one roof

Twelve product families, one engineering team. Use this page as your map of the catalogue — every plant is engineered to your products, capacity and site.

Automation & control
PLC-SCADA · ABB · ILB · SMB
PAGE 08

Lube oil blending plants
1 – 1,000 KL / day
PAGE 09

Grease manufacturing plants
50 kg / batch – 100 MT / day
PAGE 11

Brake fluid & coolant plants
1 – 120 MT / day
PAGE 13

Transformer oil plants
300 – 18,000 LPH
PAGE 15

Used oil refinery & re-refining
5 – 200 TPD · LP-WOD range
NEW
PAGE 17

Liquid soap & detergent plants
1,000 – 10,000 L / day
PAGE 19

VI improver plants
5,000 – 15,000 L / batch
PAGE 21

LPG cylinder manufacturing
Complete production lines
PAGE 23

Filling & packaging lines
Bottle · pail · drum · IBC
PAGE 25

Thermic fluid heaters
100,000 – 2,000,000 kcal / h
PAGE 26

Kettles & process equipment
Mills, tanks, ovens, labs
PAGE 27

Also engineered on request

Specialty chemical plants
reactors, mixers & filling lines

Inline fuel blending skids
diesel, petrol, jet, biofuel blends

Drum decanting & heating
DDUs and 12 / 24-drum ovens

Storage tank farms
base-oil and finished-product tanks

QC laboratories
viscosity, flash, TBN, pour point

Blow-moulding lines
see our plastics catalogue

Capacities are typical engineered ranges; intermediate and larger capacities are quoted on request. Technical data may change with continuous development. Clients, warranty and after-sales: page 28.

Built on purpose, run on trust

Twelve years, 240+ plants and one guiding idea: a lubricant business should be able to buy its whole factory — and the know-how to run it — from one accountable partner.



BRAKE FLUID & COOLANT PLANT — DESIGN VISUALISATION

VISION

To be the most trusted turnkey partner for lubricant, grease and specialty-chemical producers in emerging markets — the name behind plants that run reliably for decades.

MISSION

To engineer and build complete, automated and safe production plants that let our clients launch quality products faster and at the right cost — with training and support for life.

Our values

Quality first
ISO 9001:2015 processes, CE-marked equipment

Safety by design
Pressure-rated vessels, interlocks, guarding

Honest engineering
Real capacities, documented scope, no surprises

Partnership
We train your team and answer the phone for life

Our promises on every project

Fixed scope, fixed price
Techno-commercial offer with a line-by-line scope of supply and client-scope list.

Delivery you can plan around
Typical delivery of 10 – 24 weeks from advance, by plant size; progress photos during fabrication.

Tested before it ships
Factory acceptance test at Unit 2 — hydro tests, trial runs, panel I/O checks.

Complete documentation
GA drawings, P&IDs, layouts, datasheets, electrical drawings and IOM manuals.

Your team, trained
Hands-on operator and chemist training during commissioning and beyond.

Warranty and lifetime assistance
12-month warranty on supplied equipment, lifetime technical assistance and spares.

ISO 9001:2015 · CE-marked equipment · Est. 2014 · 2 units · 2,600 m² · 240+ plants · 48+ clients · 21 countries

One partner from enquiry to first batch

Nine stages, one responsible team. You see the P&ID before we cut steel, the plant running before it ships, and our engineers on your floor until the first saleable batch is packed.

01 **Enquiry**
products, capacity, site

02 **Concept & P&ID**
process flow, layout

03 **Engineering**
GA, structural, electrical

04 **Fabrication**
Unit 2, Ambernath

05 **FAT**
tested at our works

06 **Shipping**
export packing & docs

07 **Installation**
erection & commissioning

08 **Training**
operators & chemists

09 **After-sales**
warranty, spares, upgrades

Scope we cover in-house

Process design
PFD, P&ID, mass balance, utilities and plant layout.

Vessels, skids & piping
MS IS 2062, SS 304 / 316 to ASME codes; pre-piped skids.

Automation & panels
PLC-SCADA, MCC and HMI panels built and tested in-house.

Filling & packaging
Bottle, pail, drum and IBC lines with capping, labelling, cartoning.

Site works
Supervised erection, piping, cabling, commissioning, trial runs.

Documentation
Drawings, datasheets, IOM manuals, FAT reports, training material.



TURNKEY GREASE PLANT — DESIGN VISUALISATION

Why clients choose LINUS

In-house
design and manufacturing — no sub-contracted engineering

10 – 24 wk
typical delivery from advance, by plant size

12 months
warranty from commissioning, or 18 months from dispatch — whichever is earlier

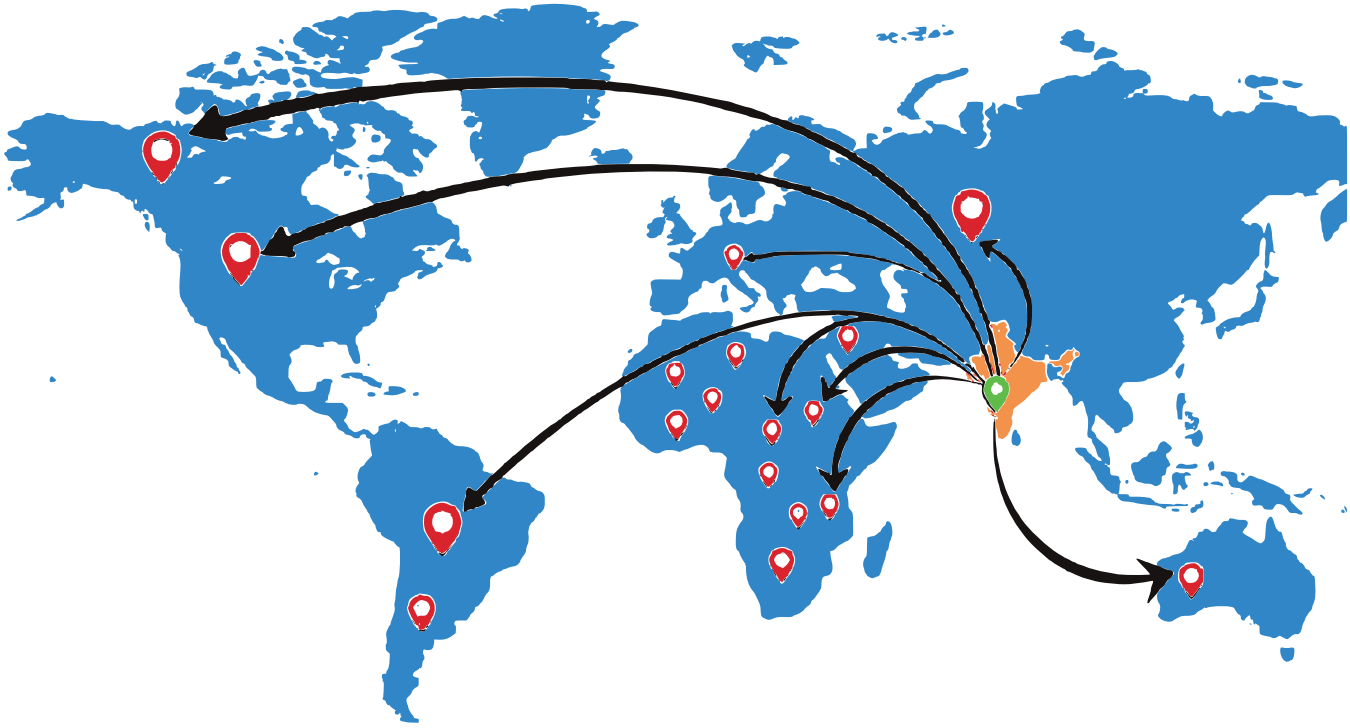
Lifetime
technical assistance for every machine we build

Installation and commissioning are supervised by LINUS engineers; the client arranges civil works, utilities and raw materials for trials. Scope is defined line by line in every offer.

Made in India, running in 21 countries

From Mumbai to Africa, the Americas, Europe, Asia and Australia — our plants are shipped export-packed, commissioned on site by LINUS engineers and supported for life.

EXPORTED TO
21 countries & counting



OUR EXPORT FOOTPRINT — PLANTS AND MACHINES SHIPPED FROM MUMBAI TO CLIENTS WORLDWIDE

Where our plants work

Lubricant and grease producers across India and West, Central, East and Southern Africa, with plants and machines also running in North and South America, Europe, Asia and Australia. Many clients return for their second and third plants.

Export-ready by design

- Seaworthy packing, container-fitted skids and modules
- Complete export document sets; CIF / CFR shipping on request
- Site erection and commissioning by LINUS engineers worldwide
- Remote diagnostics and spares support after start-up

Meet us

Asian Lubricant Exhibition (ALE), Kuala Lumpur · OTL Africa Downstream Energy Week, Lagos · Lubricant Expo Europe · Lubricant Expo North America — or visit our works in Ambernath, Mumbai.

Designed and built at our own works

Engineering and the registered office at Unit 1; fabrication, assembly, panel building and factory acceptance tests at Unit 2 — 2,100 m² of workshop at Additional Ambernath MIDC, Mumbai.



SKID-MOUNTED PILOT GREASE PLANT — BUILT IN-HOUSE

In-house capabilities

Vessel & skid fabrication
Blenders, kettles, tanks and pre-piped skids in MS IS 2062, SS 304 and SS 316 — argon / arc welding, hydro and DP tested.

Process & mechanical design
P&IDs, GA drawings, structural platforms, piping isometrics and layouts by our own engineers.

Panel building
MCC, PLC and SCADA panels wired, programmed and simulated with the plant before dispatch.

Factory acceptance testing
Trial runs with water / oil, load-cell calibration and I/O checks witnessed by the client or on video.

Materials & standards

Vessels	MS IS 2062 · SS 304 · SS 316
Design codes	ASME Sec. VIII (vessels), ASME B16.5 (flanges)
Welding	Argon / arc; DP & hydro tests
Drives	Bonfiglioli gearboxes, SKF bearings
Weighing	Mettler Toledo / Precia Molen load cells
Insulation	50 – 75 mm Rockwool, Al / GI cladding
Panels	Powder-coated MCC + PLC / HMI, IP54
Finish	Epoxy paint, RAL colours to order

Engineering deliverables with every plant

Process flow diagram · P&ID · Equipment list · GA drawings · Plant layout · Structural design · Electrical SLD & panel GA · Equipment datasheets · Piping MTO · IOM manuals · FAT report · Training material

Built and tested at Unit 2



Blending vessels
MS / SS jacketed, 500 – 20,000 L



Grease kettles
Pressure & atmospheric, limpet jacket



Dosing & weighing
Additive tanks on load cells



MCC & PLC panels
Wired and simulated in-house

ISO 9001:2015 quality system · material test certificates · stage inspections · documented FAT · CE-marked equipment on request

Our plant range, engineered to your capacity

Every range is available as a skid, a modular platform plant or a full multi-storey installation — with manual, semi-automatic or fully automatic PLC-SCADA control.



Lube oil blending

1 – 1,000 KL / day P. 09



Grease manufacturing

50 kg – 100 MT / day P. 11



Brake fluid & coolant

1 – 120 MT / day P. 13



Transformer oil

300 – 18,000 LPH P. 15



Used oil refinery & re-refining plants NEW

5 – 200 TPD · batch, continuous TFE & hydrofinishing P. 17



Soap & detergent

1,000 – 10,000 L / day P. 19



VI improver plants

5,000 – 15,000 L batch P. 21



LPG cylinder lines

Press-to-paint lines P. 23



Filling & packaging

Up to 60 bottles / min P. 25



Thermic fluid heaters

Up to 2,000,000 kcal/h P. 26



Process equipment

Kettles, mills, ovens P. 27

How to size your plant

Tell us your product slate (grades and pack sizes), target output per day and the space you have. We return a process flow, a layout on your plot and a techno-commercial offer with line-by-line scope — usually within a week.

Three ways to build

Skid-mounted
pre-piped, factory-tested, lowest site work — 1 to 20 MT / day

Modular platform
vessels on a steel platform with walkways — 10 to 100 MT / day

Multi-storey gravity flow
base oils on top, blenders mid-level, filling at ground — 40 MT / day and above

Smart blending, batch after batch

Recipe-driven PLC-SCADA control, weighing on load cells and Coriolis mass-flow metering give batch accuracy down to ±0.1 %, complete traceability and fewer hands on the valves.



MCC + PLC-SCADA CONTROL PANEL BUILT IN-HOUSE

Three blending technologies, one control system

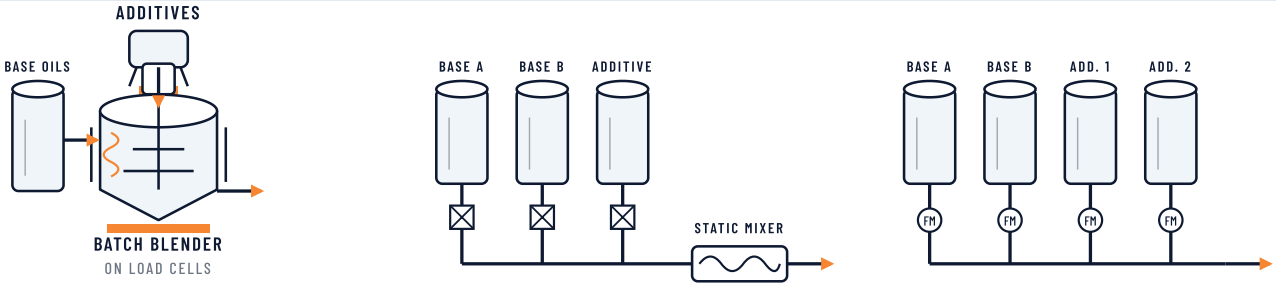


ABB · AUTOMATIC BATCH BLENDING

ILB · INLINE BLENDING (CONTINUOUS)

SMB · SIMULTANEOUS METERING BLENDING

TECHNOLOGY	BEST FOR	BATCH / FLOW	ACCURACY	CHANGEOVER
ABB · Automatic Batch Blending	Multi-grade plants, frequent changeovers, additive-rich recipes; 10 – 500 MT / day	0.5 – 20 KL batches, charged by weight	±0.1 – 0.25 % of batch	Line flushing, CIP; pigging option
ILB · Inline Blending	High volumes of a few grades, continuous packing	Up to 200 m³/h, continuous	±0.25 – 0.5 % by flow	Recipe change at the controller
SMB · Simultaneous Metering	All components metered at once into a common header under ratio control	Up to 200 m³/h	±0.1 % per Coriolis stream	Instant — no vessel wash
Semi-automatic	Start-up plants and pilot lines, 1 – 20 MT / day	Batch; pumps + flow meters, additives by hand	±0.5 – 1 %	Manual, supervised

What the SCADA gives you

- Recipe library with locked formulations and operator levels
- Automatic base-oil transfer, additive dosing and heating control
- Weighing on load cells and Coriolis mass-flow metering, ±0.1 %
- Batch reports, consumption and yield logs, alarm history
- Remote access for LINUS support engineers



SCADA CONTROL ROOM — LIVE PLANT MIMICS

Lube Oil Blending Plant

From a factory-tested skid to a multi-storey gravity-flow plant — batch, inline or simultaneous-metering blending with full recipe automation, engineered around your grades and pack sizes.

CAPACITY
1 – 1,000 KL / day



How the plant works

01 **Receive**
base oils to day tanks

02 **Dose**
additives on load cells

03 **Blend & heat**
dual-speed agitation

04 **Test**
viscosity, flash, TBN

05 **Filter & store**
pigged finished-oil lines

06 **Fill & pack**
bottle, pail, drum, IBC

Specification

Capacity	1 KL – 1,000 KL per day
Technology	ABB · inline · simultaneous metering
Blenders	500 L – 20,000 L working; MS IS 2062 / SS 304
Agitation	Aerofoil blade, bottom tripod; 5 – 30 HP
Heating	Thermic fluid (100,000 – 1,500,000 kcal/h) or electric
Weighing	Load cells on blenders & dosing tanks, ±0.1 %
Automation	Semi-auto · PLC + MCC · PLC-SCADA
Changeover	Line flushing, CIP spray balls, pigging option

Three ways to build



MODULAR LUBE OIL BLENDING PLANT — PLATFORM TYPE

01 **Skid-mounted**
1 - 20 MT / day · pre-piped, plug & play

02 **Modular platform**
10 - 100 MT / day · expandable module by module

03 **Multi-storey gravity flow**
40 MT / day + · minimum pumping

Capacities & scope — 1 to 250 MT per day

Standard configurations from our costing sheets. Every plant is re-engineered around your product slate; intermediate capacities and multi-storey plants up to 1,000 KL per day are quoted on request.

OUTPUT / DAY	BLENDING VESSELS (WORKING)	VI IMPROVER SECTION	THERMIC HEATING	FILLING & PACKAGING	LAYOUT
1 MT	1 × 500 L	—	Electric / 100,000 kcal/h	4-head line, 25 / 200 L barrel filler	Skid
2 MT	2 × 500 L	—	100,000 kcal/h	4-head line, barrel filler	Skid
5 MT	1 × 2,500 L	—	5 × 4.2 kW electric	4-head line, barrel filler	Skid
10 MT	2 × 2,500 L	2,500 L kettle	200,000 kcal/h	4-head line, barrel filler	Skid
20 MT	4 × 2,500 L	5,000 L + shredder + inline mixer	200,000 kcal/h	4-head line, barrel filler, 4-drum oven	Skid
40 MT	2 × 10,000 L	10,000 L + shredder + inline mixer	600,000 kcal/h	12-head line, pail & IBC fillers, wrapper	Modular platform
50 MT	2 × 10,000 + 5,000 L	5,000 L + shredder + inline mixer	800,000 kcal/h	8-head line, robotic capper, barrel filler	Modular platform
100 MT	2 × 15,000 + 2 × 10,000 L	15,000 L + shredder + inline mixer	800,000 kcal/h	12-head + 8-head lines, 2 barrel fillers	Platform / multi-storey
150 MT	3 × 20,000 + 10,000 + 5,000 L	15,000 L + shredder + inline mixer	1,200,000 kcal/h	Multiple 8-head lines, 6-head pail lines, NAS filtration	Multi-storey
250 MT	6 × 20,000 + 5,000 L	15,000 L + shredder + inline mixer	1,500,000 kcal/h	Multiple 8-head lines, pail & barrel lines, 8-drum oven	Multi-storey

Standard scope of supply: insulated jacketed blenders · base-oil gear pumps 5 – 20 HP · basket filters 200 / 50 µm · recirculation pumps · automatic & manual valves · additive dosing tanks on load cells · platform skid or structure · piping to ASME B16.5 · instruments & gauges · PLC + MCC panel (SCADA optional) · filling, capping, sealing, coding, labelling, cartoning · drum / barrel filler · drum trolley & lifter, pallet truck · thermic fluid heater. Client scope: tanks, laboratory, air compressor, civil works & utilities.



Lube oil blender
500 – 20,000 L, jacketed, aerofoil agitator, load cells



Additive dosing tank
200 L on load cells, pump transfer to blender

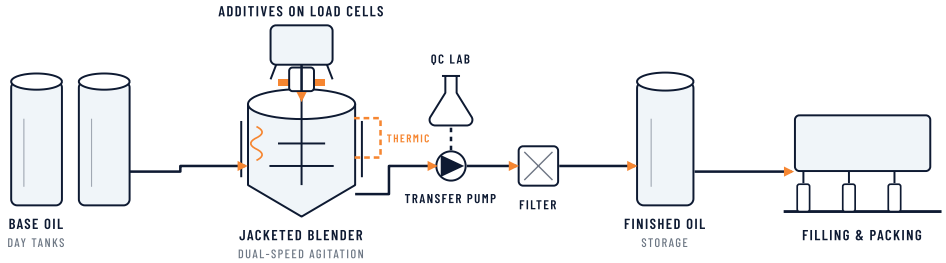


Inline mixer / recirculation
10 m³/h @ 4 bar, 720 rpm, for VI dissolving



Base-oil tank farm
50 – 500 KL vertical tanks with gantry & pumps

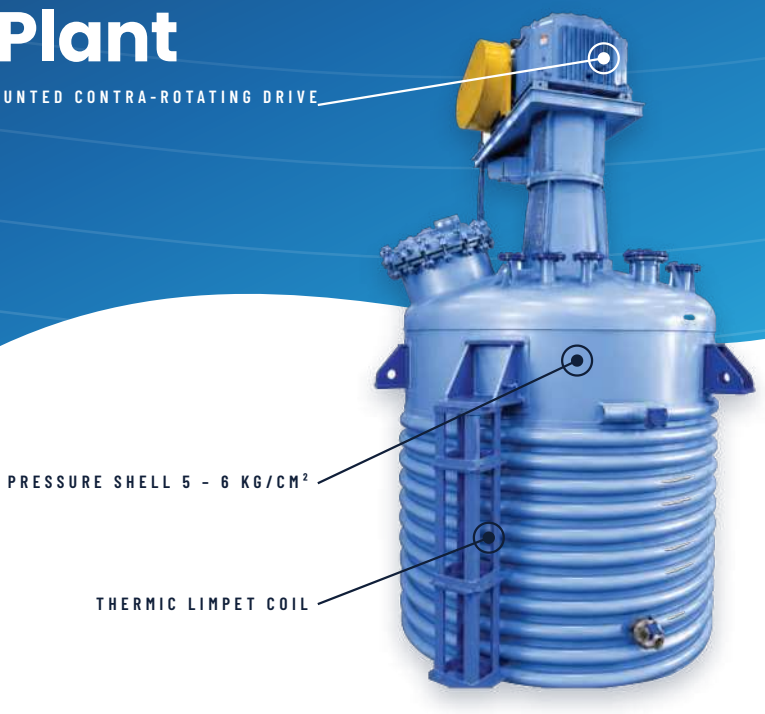
PROCESS FLOW — AUTOMATIC BATCH BLENDING



Grease Manufacturing Plant

Pressure saponification, controlled cooling, milling and deaeration — a complete grease factory from reactor to cartridge, sized from a 50 kg laboratory batch to 100 MT a day.

CAPACITY
50 kg – 100 MT per day



How the plant works

01 **Charge**
base oil, fatty acid, alkali slurry

02 **Saponify**
pressure kettle, up to 200 °C

03 **Dilute & cool**
cooling kettle, additives at 80 °C

04 **Mill & deaerate**
colloid mill, vacuum deaerator

05 **Test**
penetration, drop point

06 **Fill**
cartridge, pail, drum

Specification

Capacity	50 kg pilot – 100 MT per day
Grease types	Lithium, Li-complex, calcium, Ca-sulphonate, polyurea, bentone, petroleum jelly
Cooking kettle	Pressure contactor 5 – 6 kg/cm² + vacuum, 300 °C
Cooling kettle	Atmospheric, dual-service limpet, 1,000 – 6,000 kg
Agitation	Contra-rotating anchor with wall scrapers
Finishing	Milling & deaeration 10 – 30 HP; homogeniser 3 MT/h
Heating	Thermic fluid 100,000 – 600,000 kcal/h; electric on pilot units
Automation	PLC-SCADA batch control, load cells on kettles

Three ways to build



KETTLES ON A MODULAR PLATFORM STRUCTURE

01 **Pilot & lab plant**
50 - 500 kg / batch · electric heated, skid mounted

02 **Semi-automatic plant**
1 - 5 MT / day · manual valves, PLC heating

03 **Fully automatic plant**
5 - 100 MT / day · SCADA recipes, load cells

Capacities & finishing — 50 kg to 100 MT per day

Standard configurations from our costing sheets: cooking kettle sized at 50 % and cooling kettle at 100 % of daily output, with thermic fluid heating and milling matched to the plant.

OUTPUT / DAY	COOKING KETTLE	COOLING KETTLE(S)	FINISHING	THERMIC HEATING	FILLING & PACKING
50 kg pilot	50 kg, electric	—	3 HP vertical colloid mill	Electric heaters	Manual
500 kg	500 kg, electric	—	10 HP colloid mill	Electric, cooling tower	Semi-auto filler, scale
1 MT	500 kg pressure	1,000 kg	10 HP milling & deaerator	100,000 kcal/h	Drum filler, slurry mixer
2 MT	1,000 kg pressure	2,000 kg	20 HP milling & deaerator	300,000 kcal/h	Drum filler, slurry mixer
3 MT	1,500 kg pressure	3,000 kg	20 HP milling & deaerator	300,000 kcal/h	Drum filler, slurry mixer
5 MT	3,000 kg pressure	5,000 kg	30 HP milling & deaerator	600,000 kcal/h	Drum filler, auger line option
10 MT	5,000 kg pressure	2 × 5,000 kg	30 HP milling & deaerator	600,000 kcal/h	Drum & auger lines, carton taper
20 – 100 MT	Multiple reactors	Multiple kettles	Homogeniser 3 MT/h + mills	Sized to plant	Automatic cartridge, pail, drum lines

Process temperatures & quality

Saponification	**95 – 120 °C, then dehydration at 150 °C**
Peak (lithium)	**195 – 200 °C under pressure**
Complex greases	**190 – 210 °C under N_2, within the 5 – 6 kg/cm² kettle rating**
Additive dosing	**80 – 90 °C in the cooling kettle**
Soap transfer	**By gravity, N_2 assist 0.3 – 0.5 kg/cm²**
Weighing	**Lug-mounted kettles on load cells, ±0.1 %**
Insulation	**75 mm Rockwool, GI cladding**
QC lab	**Penetrometer, dropping point, oil separation, copper strip**



Cooling kettle SS 304
Atmospheric, limpet jacket, 20 HP scraper agitator



Milling & deaerating system
3-stage colloid mill, vacuum deaerator, 20 / 30 HP

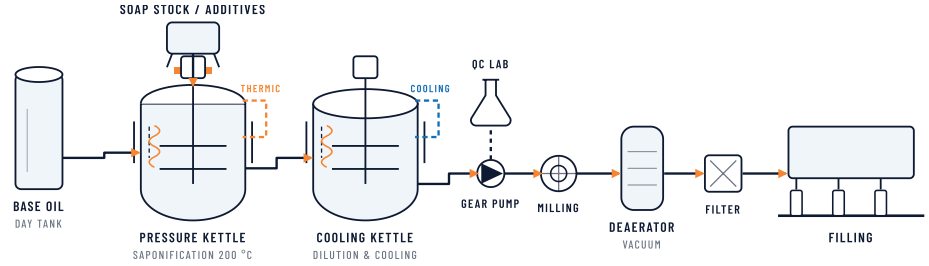


Grease homogeniser LP-95
3 MT/h, 250 kg/cm², NLGI 1 – 3



Grease filling machine
Auger filler 50 g – 5 kg; drum filler 18 – 180 kg

PROCESS FLOW — PRESSURE GREASE PLANT



Brake Fluid & Coolant Plant

Stainless-steel blending and holding vessels, DM water, metered raw materials and dedicated filling lines — a clean plant that produces brake fluids and engine coolants to DOT and OEM specifications.

CAPACITY
1 – 120 MT / day



How the plant works

01 **DM water**
RO / DM plant, < 5 µS/cm

02 **Meter**
glycols & additives by flow meter

03 **Blend**
SS 316 vessel, inline homogeniser

04 **Test**
boiling point, pH, freeze point

05 **Filter & hold**
SS 304 holding vessels

06 **Fill & seal**
servo filler, induction seal

Specification

Capacity	1 – 120 MT per day
Products	DOT 3 / DOT 4 / DOT 5.1 brake fluid; coolant & antifreeze (IAT, OAT, HOAT)
Vessels	SS 304 / SS 316 blending 1,000 – 20,000 L; holding 5,000 – 10,000 L
Water	DM water plant 1 m³/h – RO 5,000 LPH
Metering	Flow meters on raw materials; load cells on vessels
Piping	SS pipe & fittings, cast SS valves
Filling	Piston fillers for brake fluid; servo gear-pump fillers for coolant
Automation	PLC + MCC, SCADA-ready; modular platform structure

Two lines, one plant



DM WATER PLANT — SAND, CARBON, CATION & ANION COLUMNS

01 **Brake fluid line**
1 – 10 MT / day · glycol-ether base, piston filling

02 **Coolant line**
1 – 120 MT / day · MEG + inhibitors, servo filling

03 **Combined plant**
2 – 20 MT / day · shared DM water, panel, lab

Capacities & filling — 1 to 120 MT per day

Standard configurations from our costing sheets. Vessels in SS 304 (SS 316 on request), modular platform structure, electric panel, drum / IBC decanting and a dedicated laboratory set.

OUTPUT / DAY	BLENDING VESSELS (SS 304)	HOLDING VESSELS (SS 304)	WATER TREATMENT	BRAKE-FLUID FILLING	COOLANT FILLING
1 MT (brake fluid)	1 × 1,000 L	1 × 5,000 L	Water transfer pump	2-head piston filler	—
2 MT	2 × 2,000 L	2 × 5,000 L	DM plant 1 m³/h	4-head piston filler	4-head servo filler
5 MT	2 × 5,000 L	2 × 5,000 L	DM plant	4-head piston filler	4-head servo filler
10 MT	2 × 10,000 L	2 × 10,000 L	DM plant	6-head piston filler	6-head servo filler
20 MT	4 × 5,000 L	4 × 5,000 L	DM plant, 3 flow meters	As required	As required
120 MT (coolant)	3 × 20,000 L on load cells	Finished-product tanks	RO 5,000 LPH, < 5 µS/cm	—	High-speed lines

Why a dedicated stainless line

Brake fluids are hygroscopic and coolants are water-based: both demand stainless wetted parts, dry, filtered DM water and short, fully drained transfer lines. Our plants keep the two products on separate vessels and fillers while sharing the water plant, control panel and laboratory.

Brake fluid QC	**Equilibrium reflux boiling point, wet boiling point, pH, viscosity**
Coolant QC	**Freeze point, pH, reserve alkalinity, specific gravity**
Delivery	**10 – 16 weeks typical**
Standards	**FMVSS 116 / SAE J1703 / IS 8654 brake fluids; ASTM D3306 coolants**



4-head servo coolant filler
100 ml – 5 L; 32 – 36 BPM @ 100 ml, 10 – 12 @ 5 L



Linear capping machine
Pre-threaded PP caps, vibratory feeder, magnetic clutch

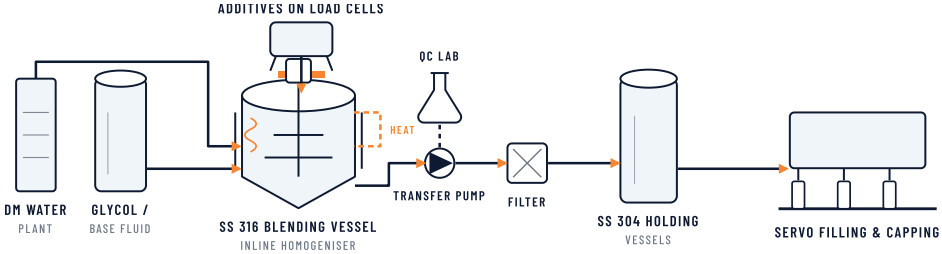


Induction cap sealer
IGBT, necks 20 – 100 mm, up to 32 BPM



Drum / IBC decanting unit
2,000 LPH glycol & additive unloading with meter

PROCESS FLOW — BRAKE FLUID & COOLANT PLANT



Vessel sizes, filling heads and water treatment are matched to the product mix and pack sizes; larger coolant plants are quoted on request.

Transformer Oil Filtration Plant

Low-temperature, high-vacuum purification that restores breakdown voltage and removes moisture and gas — and, with ionic and adsorbent columns, reclaims aged oil to new-oil quality.

CAPACITY
300 – 18,000 litres / hour



How the plant works

01 Inlet
gear pump, magnetic strainer

02 Heat
low-watt heaters, 40 – 60 °C

03 Pre-filter
20 µm bag filter

04 Degas & dehydrate
two-stage chamber, < 0.2 Torr

05 Reclaim
ionic & adsorbent columns

06 Polish
1 µm absolute cartridges

Specification

Capacity	300 – 18,000 LPH; standard models 1,200 – 10,000 LPH
Oils	Mineral, synthetic & silicone insulating oils (IS 335)
Moisture	< 5 ppm after treatment
Breakdown voltage	≥ 70 kV at 2.5 mm gap (IEC 60156 / IS 6792)
Gas content	< 0.1 % by volume
Vacuum	Single-stage < 1 Torr or two-stage < 0.2 Torr (rotary + Roots)
Filtration	Strainer › 20 µm › 5 µm › 1 µm 3M Cuno cartridges
Mounting	Weatherproof skid, wheeled trolley or trailer

Output quality

< 5 ppm
moisture content

≥ 70 kV
breakdown voltage

< 0.1 %
dissolved gas

1 µm
final filtration

01 Filtration plant
1,200 – 10,000 LPH · site purification of transformers

02 Reclamation plant
with ionic columns · aged oil back to new-oil values

03 Manufacturing plant
25,000 – 40,000 L / day · transformer oil from base stock

Models & options — 1,200 to 10,000 LPH

Standard models built from our issued designs; 415 V 3-phase 50 Hz, heater–pump interlocks, level and dry-run protection, CRCA panel with L&T / Siemens switchgear.

MODEL	HEATER	CONNECTED LOAD	VACUUM SYSTEM	MOUNTING	KEY FEATURES
1,200 LPH	12 kW (6 × 2 kW)	≈ 17 kW	Rotary + Roots	Skid, weatherproof	2,100 × 1,300 × 2,000 mm
2,000 LPH	16.5 kW	≈ 22 kW	Rotary + Roots (HHV)	Skid or trolley	13-item standard scope
3,000 LPH	54 kW (3 groups)	≤ 66 kW	Rotary 3,200 LPM + Roots 260 m³/h	Trolley or skid	Gas ≤ 0.01 %, 4 × 1 µm cartridges
4,000 LPH	16.5 kW (3 groups)	≈ 25 kW	Rotary 250 + Roots 1,000 m³/h	Skid, 18 SWG enclosure	Vapour trap & condenser
5,000 LPH	48 kW (3 groups)	≈ 60 kW	Rotary 3,200 LPM + Roots 260 m³/h	Skid, 18 SWG enclosure	Delivery 16 – 20 weeks
6,000 LPH	108 kW	≈ 120 kW	Two-stage + transformer evacuation set	Trailer	2 inlet pumps (1 W + 1 S), PLC
10,000 LPH	108 kW chamber	≈ 125 kW	Rotary 100 + 200 m³/h, boosters 1,000 / 1,400 m³/h	Skid / container	Ionic column + adsorbent reclamation

Inside the plant

Two-stage vacuum set
Oil-sealed rotary pump backed by a Roots booster; working vacuum better than 0.2 Torr (single-stage plants < 1 Torr).

Low-watt-density heaters
Grouped immersion heaters in a Rockwool-insulated chamber raise oil to 40 – 60 °C without cracking it.

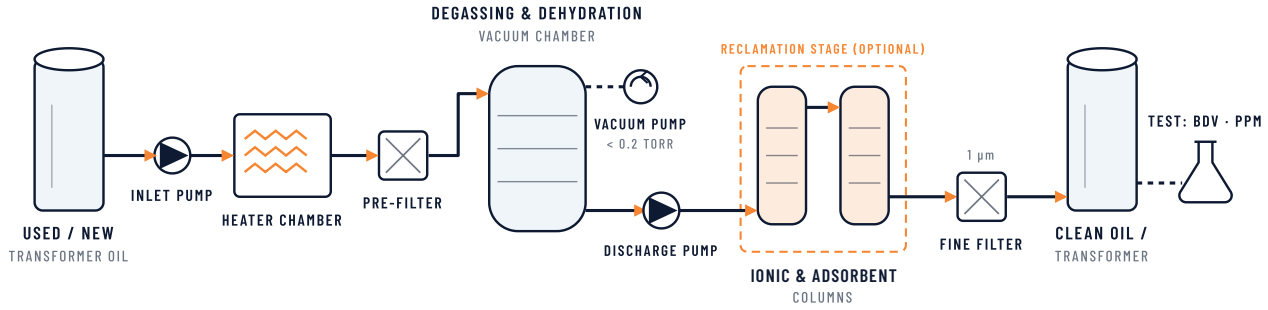
Three-stage filtration
Magnetic strainer and 20 µm bag filter ahead of the chamber; 1 µm absolute 3M Cuno cartridges after it.

Reclamation columns
Activated-alumina ionic and adsorbent columns remove acids, sludge and colour from aged oil.



CONTROL PANEL & FILTRATION SKID — LINUS 5,000 LPH PLANT

PROCESS FLOW — FILTRATION WITH OPTIONAL RECLAMATION STAGE



Test accessories on request: 100 kV BDV test kit, portable oil test system (tan δ, resistivity), online PPM meter. Performance figures depend on inlet oil condition and working vacuum.

Used Oil Refinery & Re-Refining Plant

Used engine oil re-refining & used engine oil refining plants

Turn collected used oil into saleable base oil — acid-free and clay-free. Dehydration, vacuum distillation or thin-film evaporation and LINUS RMP polishing, from a 5 TPD batch plant to a 200 TPD Group II re-refinery.

CAPACITY
5 – 200 TPD feed



LP-WOD-30C · 30 TPD CONTINUOUS PLANT — DESIGN VISUALISATION

How the plant works

01 **Receive & settle**
feed tanks; free water & sludge drained

02 **Dehydrate**
water & light ends off, 110 – 180 °C

03 **De-fuel**
flash column, light-fuel cut

04 **Distil**
vacuum still or two-stage TFE under deep vacuum

05 **Polish**
LINUS RMP media — no acid, no clay

06 **Store & sell**
base oil, light fuel, asphalt residue

Specification

Feed capacity	5 – 200 TPD of used oil (≈ 5.7 – 230 KL per day)
Feedstock	Used engine, gear, hydraulic & industrial oils; water ≤ 10 %
Technology	Batch vacuum still · two-stage TFE · TFE + hydrofinishing
Vacuum	< 10 mbar at the still; 0.5 mbar at TFE-2
Polishing	LINUS RMP regenerative media — acid-free, clay-free
Base oil yield	72 – 79 % of dry feed (≥ 65 % guaranteed)
Products	Group I SN-150 / SN-500; Group II 70N – 500N on 200H
By-products	Light fuel for the plant heater; asphalt residue for bitumen

Three series, one range



LP-WOD-10B · 10 TPD BATCH PLANT — DESIGN VISUALISATION

01 **B-series batch plant**
5 - 20 TPD · vacuum still + re-refining column

02 **C-series continuous plant**
10 - 100 TPD · two-stage thin-film evaporation

03 **H-series hydrofinishing**
200 TPD · water-white Group II base oil

Used engine oil re-refining — LP-WOD range, 5 to 200 TPD

Nine standard used engine oil refining models in three series, sized on the used oil you can collect. Every model is finished by the LINUS RMP regenerative polishing system — no acid, no clay, no filter cake — and supplied turnkey.

MODEL	FEED	OPERATION	BASE OIL OUT	BASE OIL GRADE	HEATING (KCAL/H)	CONN. LOAD	PLOT AREA
LP-WOD-5B	5 TPD	Batch · single still	≈ 3.5 TPD	Group I LBO / HBO	Electric 180 kW	280 kW	600 m²
LP-WOD-10B	10 TPD	Batch · 12.5 kL still	≈ 7.0 TPD	Group I LBO / HBO	Electric 350 kW	485 kW	900 m²
LP-WOD-20B	20 TPD	Batch · twin stills	≈ 14 TPD	Group I LBO / HBO	Thermic 600,000	275 kW	1,500 m²
LP-WOD-10C	10 TPD	Continuous · 2-stage TFE	≈ 7.1 TPD	Group I SN-150 / 500	Thermic 300,000	165 kW	1,400 m²
LP-WOD-20C	20 TPD	Continuous · 2-stage TFE	≈ 14 TPD	Group I SN-150 / 500	Thermic 500,000	265 kW	2,200 m²
LP-WOD-30C	30 TPD	Continuous · 2-stage TFE	≈ 21 TPD	Group I SN-150 / 500	Thermic 700,000	295 kW	3,000 m²
LP-WOD-50C	50 TPD	Continuous · 2-stage TFE	≈ 35.5 TPD	Group I SN-150 / 500	Thermic 1,200,000	390 kW	4,800 m²
LP-WOD-100C	100 TPD	Continuous · 2-stage TFE	≈ 71 TPD	Group I SN-150 / 500	Thermic 2,400,000	850 kW	8,000 m²
LP-WOD-200H	200 TPD	Twin TFE + hydrofinishing	≈ 144 TPD	Group II 70N – 500N	2 × 2,400,000 + charge	1,920 kW	16,000 m²

Base oil quality

B-series	**LBO / HBO colour ≤ L 2.5 / L 3.5; VI ≥ 90**
C-series	**SN-150 / SN-500 colour ≤ L 1.5 / L 2.5; VI ≥ 95**
H-series	**70N / 150N water-white; VI ≥ 100; S < 300 ppm**
All series	**Flash ≥ 200 °C; TAN ≤ 0.1; bright & clear**

Where every tonne goes

Base oil	**72 – 79 % of dry feed (≥ 65 % guaranteed)**
Light fuel	**6 – 12 % — fires the plant heater**
Asphalt residue	**9 – 17 % — bitumen extender, heavy fuel**
Water & losses	**Water to ETP; process losses 0.5 – 3 %**



LP-WOD-5B · 5 TPD batch
Compact indoor process unit; bulk tanks outside



LP-WOD-20C · 20 TPD
Continuous TFE structure and tank farm

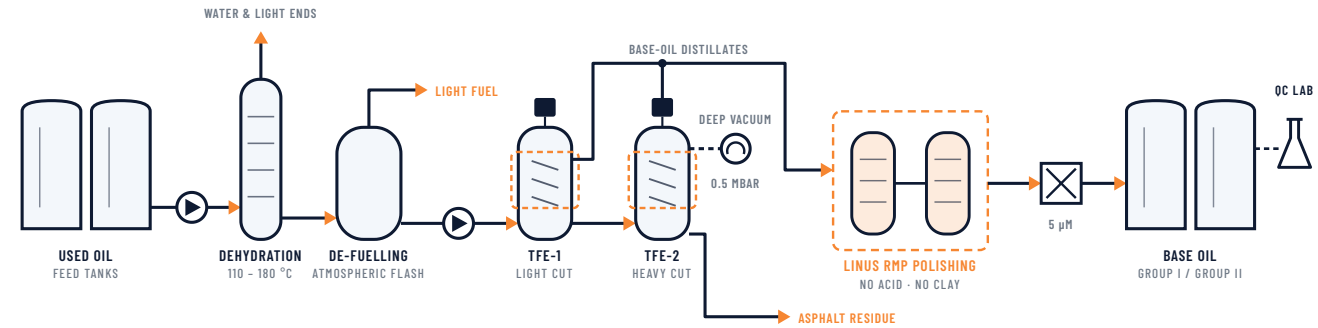


LP-WOD-100C · 100 TPD
Large continuous re-refinery, 33,000 t/yr feed



LP-WOD-200H · 200 TPD
Twin TFE trains + hydrofinishing, Group II

PROCESS FLOW — CONTINUOUS TFE RE-REFINING (C-SERIES)



Plant images are design visualisations. Yields and qualities are typical for normal used engine oil; guaranteed figures are confirmed in the offer for each model after feed analysis.

Liquid Soap & Detergent Plant

Stainless-steel mixing vessels with homogenisers, treated water and gentle jacket heating produce clear, stable household and industrial cleaning liquids — one plant, many products.

CAPACITY
1,000 – 10,000 L / day



How the plant works

01 **Water**
RO / DM water to vessel

02 **Surfactants**
SLES, LABSA, CAPB metered

03 **Mix & neutralise**
SS 316 vessel, homogeniser

04 **Thicken**
salt curve, viscosity set

05 **Test**
pH, viscosity, active matter

06 **Fill & cap**
bottles, pouches, cans

Specification

Capacity	1,000 – 10,000 L per day; larger on request
Products	Hand wash, dish wash, floor & glass cleaner, car shampoo, liquid detergent, toilet cleaner
Vessels	SS 316 jacketed mixing vessels 500 – 5,000 L; SS 304 storage
Mixing	Slow anchor + high-speed homogeniser / disperser
Heating	Hot water or electric jacket, 40 – 70 °C for LABSA neutralisation
Water	RO / DM water plant, conductivity < 20 µS/cm
Filling	Piston or flow-meter fillers 100 ml – 5 L; pouch and can options
Automation	Manual, semi-automatic or PLC batch control

Build options



PILOT MIXING VESSEL ON CASTORS — 100 - 500 L

01 **Starter plant**
1,000 - 2,000 L / day · single vessel, manual filling

02 **Multi-product plant**
2,000 - 5,000 L / day · 2 – 3 vessels, semi-auto line

03 **Automatic plant**
5,000 - 10,000 L / day · PLC recipes, auto line

Products & plant sizes — 1,000 to 10,000 L per day

One vessel set makes the full household range; acid products run on a dedicated acid-resistant line. Formulations are developed with your chemist on our pilot vessel.

PRODUCT	TYPICAL RAW MATERIALS	PROCESS	FINISHING	PACKING
Hand wash	SLES, CAPB, glycerine, perfume	Cold process	Pearliser, thickener	Bottle 250 ml – 5 L, pouch refill
Dish wash liquid	LABSA, SLES, caustic / soda ash	40 – 60 °C neutralisation	Salt thickening, colour	Bottle 500 ml – 5 L
Floor & surface cleaner	Nonionic surfactant, solvent, perfume	Cold process	Disinfectant, colour	Bottle 500 ml – 5 L
Glass cleaner	IPA / glycol ether, surfactant	Cold process	Ammonia-free option	Trigger spray 500 ml
Car shampoo	SLES, CAPB, gloss polymer	Cold process	Foam booster	Bottle 1 – 5 L
Liquid detergent	LABSA, SLES, builders, enzymes	Neutralisation, cooling	Optical brightener	Bottle 1 – 5 L, pouch
Toilet cleaner	HCl 9 – 10 % or citric base, thickener	Cold, acid-resistant line	Perfume, colour	HDPE bottle 500 ml – 1 L

Typical plant by capacity

OUTPUT / DAY	MIXING VESSELS	STORAGE	WATER	FILLING
1,000 – 2,000 L	1 × 1,000 L SS 316	2 × 2,000 L SS 304	RO 500 LPH	Semi-auto 2-head filler, manual capper
2,000 – 5,000 L	2 × 2,500 L SS 316	3 × 5,000 L SS 304	RO 1,000 LPH	4-head servo filler, capper, labeller
5,000 – 10,000 L	2 × 5,000 L SS 316	4 × 10,000 L SS 304	RO 2,000 LPH	6-head line with induction sealing, coding, cartoning



SS 316 mixing vessel
500 – 5,000 L, jacketed, anchor + disperser



RO / DM water plant
500 – 2,000 LPH, < 20 µS/cm

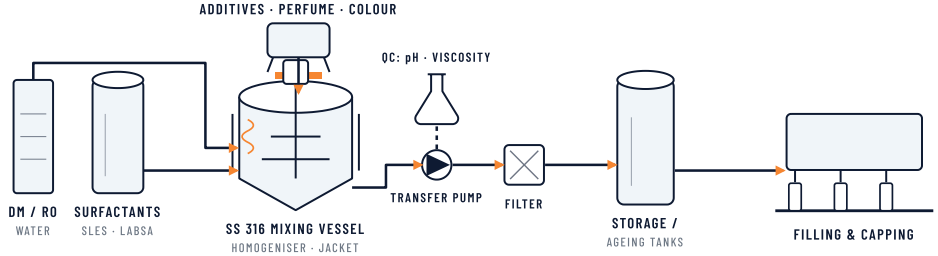


Storage / ageing tanks
SS 304, 2 – 10 KL, conical bottom option



Servo filling machine
100 ml – 5 L, 4 – 6 heads, foam-free diving nozzles

PROCESS FLOW — LIQUID SOAP & DETERGENT PLANT

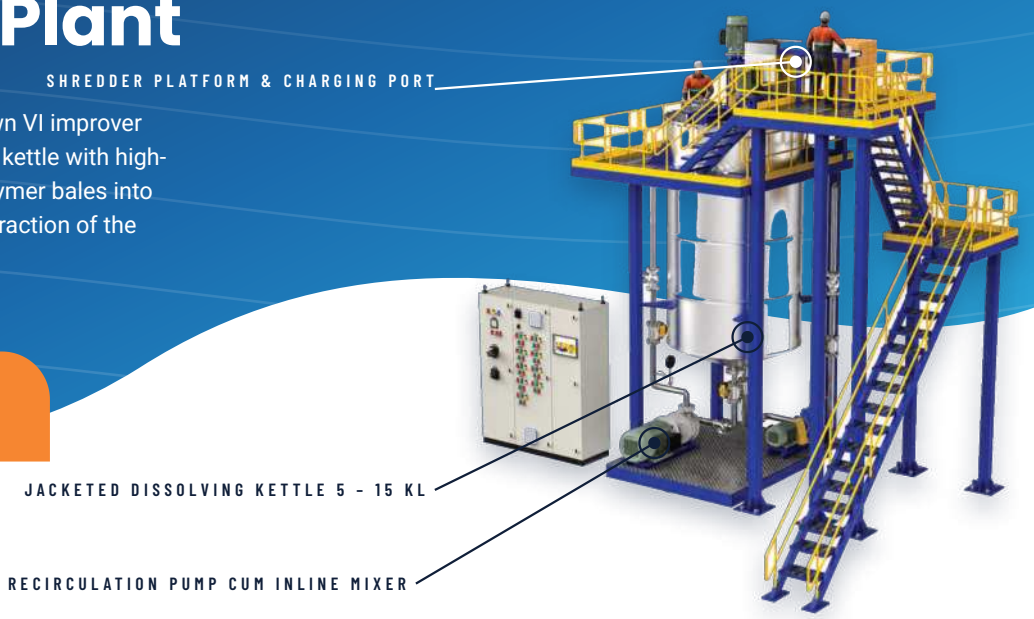


Raw materials and processes shown are typical starting formulations; final recipes, viscosities and claims are the producer's responsibility.

Viscosity Index Improver Plant

Shred, dissolve and store your own VI improver concentrate — a heated, agitated kettle with high-shear recirculation that turns polymer bales into blending-ready concentrate at a fraction of the bought-in cost.

BATCH SIZE
5,000 – 15,000 litres



How the plant works

01 **Bales in**
OCP / PMA polymer bales

02 **Shred**
twin-shaft shredder
300 – 500 kg/h

03 **Base oil**
charged by flow meter

04 **Dissolve**
130 – 140 °C, agitation + inline mixer

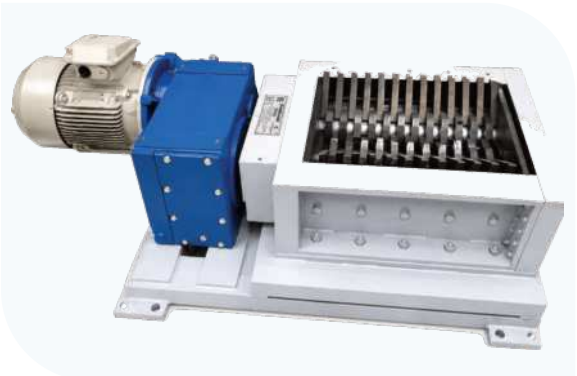
05 **Filter**
basket filter

06 **Store**
concentrate to blenders or drums

Specification

Capacity	5,000 – 15,000 L per batch; 1 – 60 KL per day
Kettle	MS IS 2062, full jacket 4 kg/cm², 50 mm Rockwool + GI cladding
Agitator	Bottom tripod, 10 – 30 HP, Bonfiglioli gearbox, VFD option
Shredder	15 HP twin-shaft, 300 – 500 kg/h (max. 1,000 kg/h)
Inline mixer	High-shear recirculation 10 m³/h @ 4 bar, 30 HP
Process	130 – 140 °C for OCP; 90 – 110 °C for PMA
Heating	Thermic fluid 200,000 kcal/h or electric option
Footprint	≈ 4.5 × 2.9 m skid, 6.5 m high; ships in one 40 ft HC

Three ways to build



TWIN-SHAFT VI POLYMER BALE SHREDDER, 15 HP

01 **Single kettle skid**
5,000 - 8,000 L / batch · one 40 ft container

02 **Twin kettle plant**
2 × 8,000 L · continuous supply to blenders

03 **Integrated section**
10,000 - 15,000 L · inside 40 – 250 MT plants

Kettles, shredders & mixers — 5,000 to 15,000 L

Standard kettle sizes from our issued designs; every unit ships with its shredder, inline mixer, drive panel and flow-meter charging, SCADA-ready.

WORKING VOLUME	GEOMETRIC VOLUME	AGITATOR	SHREDDER	INLINE MIXER	HEATING	DELIVERY
5,000 L	6,000 L	10 – 30 HP	15 HP, 300 – 500 kg/h	30 HP, 10 m³/h	200,000 kcal/h	16 – 20 weeks
8,000 L	9,600 L	15 HP	15 HP, 300 – 500 kg/h	30 HP, 10 m³/h	200,000 kcal/h	16 – 20 weeks
10,000 L	12,000 L	20 HP	15 HP	30 HP	200,000 kcal/h	18 – 22 weeks
15,000 L	16,500 L	20 HP VFD, anchor + paddle	15 – 30 HP	Up to 100 HP (72 MT/day plant)	Sized to plant	20 – 24 weeks

Why make your own concentrate

Multigrade engine oils need 5 – 12 % VI improver. Dissolving solid OCP or PMA bales in base oil at the plant replaces imported liquid concentrate with a product you control — and the same kettle doubles as a pour-point depressant or additive pre-mix vessel.

Charging	**Shredded bale by gravity through the top manhole**
Dissolution	**Internal agitation + external high-shear loop, 4 – 8 h**
Quality check	**Viscosity at 100 °C, shear stability, appearance**
Transfer	**Hot concentrate metered to blenders or drummed**



IBC & drum filling
Hot concentrate to IBCs or 210 L drums on load cells



Inline high-shear mixer
Multistage rotor-stator, 720 rpm, Class 150 flanges

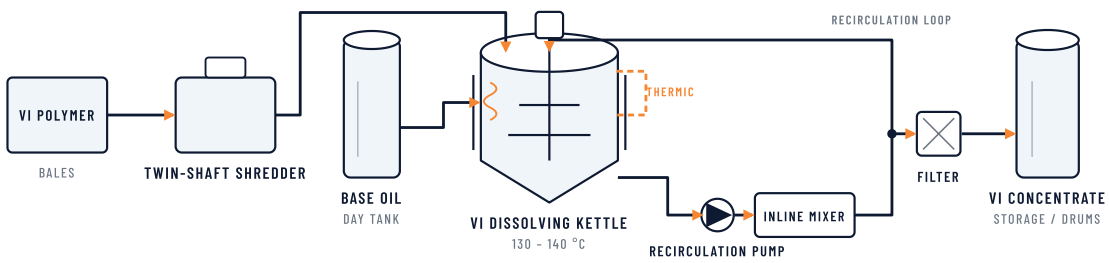


Dosing & weighing
Flow-meter charging, load cells on kettle



Thermic fluid heater
200,000 kcal/h LDO-fired, sized for one VI kettle

PROCESS FLOW — VI IMPROVER DISSOLVING PLANT



Polymer type, base oil and target viscosity decide kettle temperature and cycle time; figures shown are typical for OCP and PMA bales.

LPG Cylinder Manufacturing Plant

A complete press-to-paint line for domestic and commercial LPG cylinders — deep drawing, welding, heat treatment, testing and finishing, built and certified to the standard your market requires.



CAPACITY
500 – 1,000 cylinders / day

How the plant works

01 **Deep draw**
hydraulic presses, halves

02 **Trim & joggle**
edge preparation

03 **Weld**
bung, foot ring, SAW seam

04 **Normalise**
stress-relief furnace

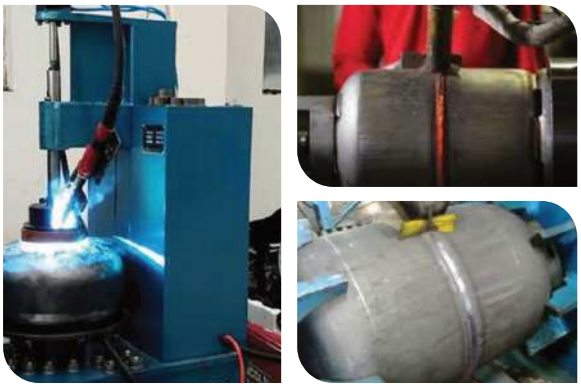
05 **Test**
hydrostatic & leak test

06 **Finish**
shot blast, paint, print

Specification

Capacity	500 – 1,000 cylinders per day per line
Cylinder sizes	3, 5, 6, 12, 12.5, 14.2, 19, 35, 47.5 & 50 kg
Standards	IS 3196 · ISO 4706 · EN 1442 · DOT 4BA · national standards
Material	Low-carbon steel sheet IS 6240 / SG 295, 2.0 – 3.2 mm
Forming	Blanking & deep-drawing hydraulic presses 300 – 600 T
Welding	Bung & foot-ring MIG; circumferential submerged-arc (SAW)
Testing	Hydrostatic 30 kg/cm², pneumatic leak test under water, burst & expansion samples
Finishing	Shot blasting, zinc metallising option, powder / liquid paint, screen printing

Inside the line



BUNG WELDING, SEAM WELDING, FINISHED CYLINDER

01 **Single-size line**
500 cyl / day · one press train, shared finishing

02 **Two-size line**
750 - 1,000 cyl / day · quick-change tooling

03 **Multi-line plant**
3 lines · 35 – 40 week programme

Stations, equipment and plant data

Each line runs ten stations, grouped below into eight equipment packages. LINUS supplies the machinery, tooling for your cylinder sizes, utilities and the documentation package required by the inspection authority.

STATIONS	PACKAGE	EQUIPMENT	NOTE
01 – 02	Blanking & deep drawing	Hydraulic presses 300 – 600 T, circle shear, drawing dies per size	2 halves per cylinder
03	Trimming & joggling	Trimming machines, joggling / flanging units	Edge fit-up for SAW
04	Bung & foot-ring welding	Bung welding (MIG / SAW), foot-ring and valve-guard welders	Spot + seam
05	Circumferential welding	Submerged-arc welding (SAW) stations with rotators	100 % X-ray sample plan
06	Heat treatment	Normalising furnace, gas or electric, with conveyor	Normalising 900 – 950 °C
07	Testing	Hydrostatic test benches, pneumatic leak test tank, burst & expansion rig	Per IS 3196 / ISO 4706
08 – 09	Finishing	Shot blasting, metallising (optional), paint booth & oven, screen printing	Powder or liquid paint
10	Valving & final	Valve torquing, tare weighing & stamping, final leak test, bagging	Ready for filling plant

STATION FLOW



Plant data

Output	**500 – 1,000 cylinders / day / line**
Programme	**35 – 40 weeks for a three-line plant**
Utilities	**Power, compressed air, LPG / gas for furnace, water**
Area	**Approx. 2,500 – 4,000 m² covered per line**
Certification	**Manufacturer test & calibration certificates, MTCs**
Standards	**IS 3196, ISO 4706, EN 1442, DOT 4BA, national codes**
Scope	**Machinery, tooling, installation supervision, training**
Client scope	**Civil, furnace fuel, steel, valves, inspection agency**

A typical three-line plant

Three production lines for 3 & 6 kg, 12 kg and 50 kg cylinders, set up on a 35 – 40 week programme with installation supervision, operator training and the full certification file for the inspection authority.

Press tonnages, furnace type and test benches are selected for the cylinder sizes and the standard adopted; figures shown are typical.



PAINT BOOTH WITH OVERHEAD CONVEYOR

Fill, cap, seal, label, pack — at line speed

From a 2-head semi-automatic filler to a 14-head automatic line with robotic capping — every station matched to your pack sizes and hourly output.



LINE SPEED
up to 60 bottles / min

MODEL	FILLING MACHINE	PACK RANGE	SPEED	NOTES
LP-2X	2-head semi-automatic	500 ml – 25 L	10 – 12 BPM @ 1 L; 2 @ 20 L	Start-up plants, pails & cans
LP-4X	4-head automatic	500 ml – 5 L	12 – 14 BPM @ 1 L	1 – 5 L without change parts
LP-6X	6-head automatic	500 ml – 5 L	24 – 28 BPM @ 1 L	Servo volumetric, SS 316 contact parts
LP-8X	8-head automatic	1 – 5 L	38 – 40 BPM @ 1 L; 20 – 24 @ 5 L	KRACHT flow meters, B&R PLC, CIRCOR pump
LP-10X	10-head automatic	500 ml – 5 L	44 – 46 BPM @ 1 L	Anti-drip diving nozzles, no-bottle-no-fill
LP-12X	12-head automatic	500 ml – 5 L	48 – 50 BPM @ 1 L	Robotic capper LP-800 recommended
LP-14X	14-head automatic	500 ml – 5 L	Up to 60 BPM @ 1 L	Twin cappers, dual sealers & labellers

DOWNSTREAM STATION	MODEL / TYPE	RANGE / SPEED
Capping	LP-1X linear capper / LP-800 robotic bottle-tracking capper	Caps 20 – 60 mm, up to 45 BPM
Induction sealing	Ignite-I Air, IGBT induction cap sealer	Necks 20 – 100 mm, up to 32 BPM
Labelling, coding & cartoning	Two-side labeller · CIJ or 30 W laser coder · carton taper	40 / min · batch, MRP, QR · 200 – 800 cartons / h
Drum, barrel & IBC filling	LP-DF-210E / LP-DIF-1500S drum & barrel filler, 4-drum pallet & IBC filler	25 – 210 L, 15 – 24 drums / h, ±0.1 %; 1,000 L IBC
Pails & pallet wrapping	2-head pail filler & capper · LP-SW-2000T stretch wrapper	10 & 25 L pails · pallet wrapping



Automatic lube oil filler
Servo volumetric, anti-drip diving nozzles



Robotic capping machine
Bottle-tracking servo chuck, 45 BPM



Pail filling machine
10 & 25 L, flow-meter based



Barrel filling machine
25 – 210 L drums, load cells

Thermic fluid heaters & hot-oil systems

Coil-type, forced-circulation heaters sized for every plant in this catalogue — oil-fired, gas-fired or electric — with the circulation pump, expansion tank and controls supplied as one package.

MODEL	CAPACITY	FUEL	MAX. TEMP.	EFFICIENCY	SCOPE / APPLICATION	DELIVERY
LPI-TFI-100	100,000 kcal/h	LDO ≈ 11 kg/h	300 °C	89 ± 2 % NCV	Riello monoblock burner, 5 HP pump, 200 L expansion tank	6 – 8 weeks
LPI-TFI-200	200,000 kcal/h	LDO	300 °C	89 ± 2 % NCV	Standard for 10 – 20 MT skid lube plants and VI kettles	8 – 10 weeks
LPI-TFI-300 / 450	300,000 – 450,000 kcal/h	LDO / FO / gas	300 °C	89 ± 2 % NCV	2 – 3 MT grease plants, 30 MT lube plants	10 – 12 weeks
LPI-TFI-600 / 800	600,000 – 800,000 kcal/h	LDO / FO / gas	300 °C	89 ± 2 % NCV	5 – 10 MT grease, 40 – 100 MT lube plants	12 – 14 weeks
LPI-TFI-1000 / 1500	1,000,000 – 1,500,000 kcal/h	LDO / FO / gas	300 °C	89 ± 2 % NCV	150 – 250 MT lube plants, hot-oil for inline blending	14 – 16 weeks
LPI-TFI-2000	2,000,000 kcal/h	LDO ≈ 215 kg/h	300 °C	89 ± 2 % NCV	Horizontal coil, 140 m³/h pump, 5,000 L day tank	16 – 18 weeks
Electric 12 – 360 kW	up to 309,600 kcal/h	Electric	270 °C	≈ 98 %	Flanged immersion heaters, pressure vessel, 21,000 LPH pump	18 – 22 weeks

Inside a LINUS thermic fluid heater

Coil-type, liquid phase

Seamless MS ASTM A-106 Gr. B coil, forced circulation, non-IBR — no steam, no water treatment.

Single-button operation

Auto start / stop with low-flow, low-level and high-temperature cut-outs; digital temperature control.

Complete package

Burner, blower, circulation pump, expansion / deaerator tank, fuel day tank, chimney and prewired panel.

Hot-oil piping rules

Bellows-sealed globe valves, expansion tank 3 m above the return header, Therminol-66 or equivalent fluid.



OIL-FIRED THERMIC FLUID HEATER WITH MONOBLOCK BURNER



FLANGED IMMERSION HEATER FOR ELECTRIC HOT-OIL SYSTEMS

Also from LINUS

Process fired heaters to API 560 (1.9 – 5.8 MW, dual-fuel burners), electric heating sets for small skids (3 – 5 × 4.2 kW), hot-water generators and cooling towers — all sized and supplied with the plant.

Kettles, mills, tanks & everything in between

Every item below is built at our works to the same standards as our plants — available as a single machine, a replacement or an upgrade to an existing line.



Pressure grease kettle
50 – 5,000 kg; 5 – 6 kg/cm² + vacuum; contra-rotating scraper agitator; 300 °C



Atmospheric cooling kettle
1,000 – 6,000 kg; dual-service limpet jacket; MS or SS 304



Vertical colloid mill
3 – 30 HP, SS 304 three-stage rotor / stator, water-jacketed



Grease homogeniser LP-95
3 MT/h, 250 kg/cm², 40 HP, NLGI 1 – 3



Lube oil blender
500 – 20,000 L, MS IS 2062 / SS 304, jacketed, on load cells



Drum decanting unit
200 L drums, barrel pump, weighing platform, 2,000 LPH



Drum heating oven
4 / 12 / 24 drums, thermic or electric, 60 – 80 °C



Pilot grease plant
50 kg batch, electric heated, kettle + mill + panel on one skid

Also from our works: base-oil and finished-product storage tanks, pilot grease and lube plants, MCC & PLC-SCADA panels, QC laboratory sets, additive dosing tanks with load cells, basket & grease filters, gear and recirculation pumps, automatic valves, cooling towers, air compressors, drum lifters & trolleys, slurry mixers, exhaust blowers and insulation packages.

Trusted by producers around the world

Independent blenders, national oil marketers, chemical groups and first-time entrepreneurs — 48+ clients and 240+ plants and machines since 2014. Many have come back for their second and third projects.



OUR VALUED CLIENTS

After-sales, the LINUS way

12-month warranty
from commissioning, or 18 months from dispatch — whichever is earlier

Installation & commissioning
supervised by our engineers, with hands-on operator training

Lifetime assistance
remote diagnostics, spares and upgrades for every machine we build

Documentation
drawings, datasheets, IOM manuals and FAT reports with every plant

SCAN ME

OUR LOCATIONS

Strategically positioned. Globally connected.
Serving industries with reliability.

UNIT 1 (REGISTERED OFFICE) – INDIA

Plot No. N 86/3, Bohonoli Village,
Ambernath Anand Nagar Additional MIDC,
Opp. CEAT Tyres, Ambernath (East),
Maharashtra – 421506, India.

UNIT 2 (MANUFACTURING UNIT) – INDIA

Plot B73/1, Jhambivali Village,
Additional Ambernath MIDC,
Ambernath (East) – 421506, India.

NIGERIA OFFICE

KM 15, Phase II Plaza, Jakande 1st Gate,
Lekki Epe Express Way, Beside FCMB Bank,
Jakande Lekki, Lagos 102105, Lagos, Nigeria.

SALES REPRESENTATIVE (UAE)

UAE – Sales Representative Only
Mr. Mustaqim
Phone: +971-544786962

"Engineered for performance.
Delivering value. Driving growth."

www.linusprojects.com