Ekofluid®

Transformer oil treatment equipment

The equipment by which transformer oil treatment is measured

Connected as standard

An integrated modem and an on-board server push every reading to ekofluid.cloud. Your portal holds the full operating history and the documentation. Log in and run the unit from any browser, anywhere.

Inline oil analysis

Optional onboard sensors for moisture, dissolved gas, tan delta, and breakdown voltage. Readings flow straight into the SCADA, so oil condition is tracked live, on the unit, while it works.

Filtration to specification

Particles out, down to 0,5 µm. Inlet and outlet share one cartridge type, so you stock a single spare, and the casings unscrew by hand for a change in minutes. Your choice of beta ratio and micron rating.

Vacuum held to setpoint

The regulation valve sits on the vacuum line, ahead of the pump, not on the chamber, so no air enters the process. The PLC holds the vacuum to whatever level you set, and keeps it there through the run.

Heaters built to your load

Modular heaters specified to your own watt/cm². Welded only from outside the vessel, then insulated, so the heated surface stays clean. Low surface load means no local overheating and no thermal stress on the oil.

Built to outlast the asset

Black steel, fully welded, dual-coated and baked. Secured stainless drain hoses on every vessel, and a catch tray that drains down at the end of the day. Built for decades of hard use.

The stadium chamber

A vacuum chamber no one else builds, and an engineering challenge to get right. The stadium shape enlarges the chamber and the processing area, makes room for more coalescing stages, and gives the oil a second degassing pass on the way through. The flat side wall is also where foam is watched and controlled.

Foam under active control

Side-mounted sensors read foam height in the chamber in real time. When it rises, the PLC eases the vacuum or the flow, your choice, with no air let into the process. The enlarged stadium shape carries more foam before it ever matters.

Capacity that grows

Coalescers mount on a threaded fitting, so processing stages are added later as a retrofit, with no cutting and no welding into the vessel. Buy the unit the work needs now and raise its capacity when the work grows.

Runs itself. Watches itself.

Fully automatic PLC with a full SCADA and on-board edge analytics. Manual controls are there, but PLC-guarded, so the wrong move is blocked before it happens. Alarms, sensors, and interlocks cover every scenario the unit can meet.

Engineered to a different standard. The result is a machine the best operators choose, and keep, for thirty years.

FILOIL 1500

Transformer oil treatment plant

The compact unit in the line. At 1 500 l/h it is light enough for a small crew to set up and move between sites, yet it carries the full treatment capability of the range. Vacuum drying, degassing, and filtration to 0,5 µm happen in a single pass, on energized or de-energized transformers, in the field or on the production line. Built for distribution transformers and tight sites where larger plants cannot go.

Max. oil flow
1 500 l/h

Fine filter
0,5 µm

Heating capacity
18 kW

Vacuum capacity
100 m³/h

Ultimate vacuum
< 1 mbar

Max capability water
<1 ppm

Max. capability gas
< 0,1 %

Max. performance
> 95 kV

FILOIL 3000

Transformer oil treatment plant

The workhorse of the line. At 3 000 l/h it stays portable and quick to deploy, built to run continuously and move between substations through a service campaign. It treats and conditions transformer oil during service, oil filling, and storage, on an energized transformer and without an outage. The unit for distribution and medium power transformers, and for crews that cover a region from one plant.

Max. oil flow
3 000 l/h

Fine filter
0,5 µm

Heating capacity
36 kW

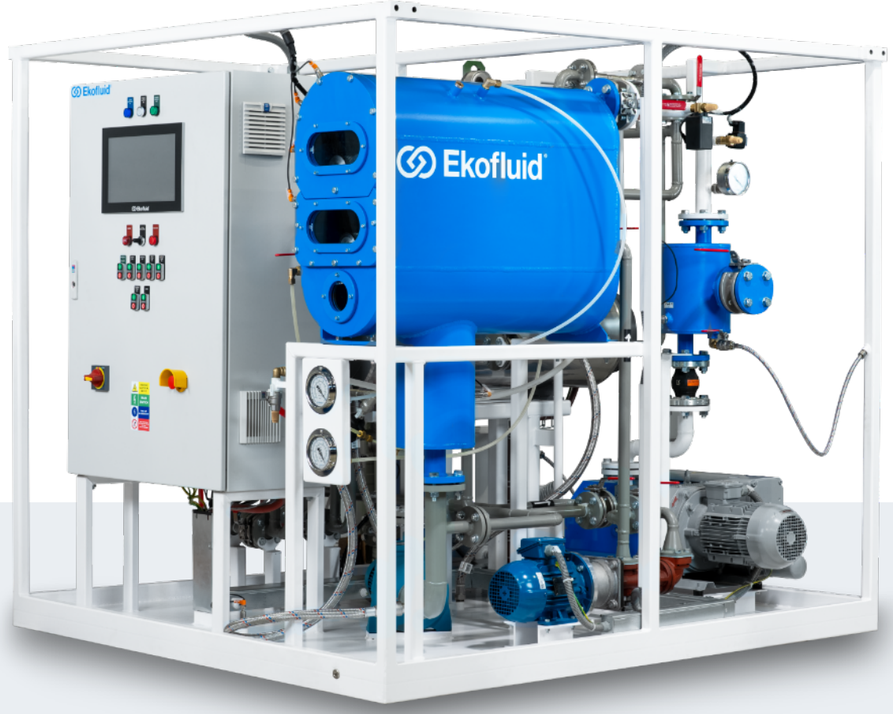
Vacuum capacity
200 m³/h

Ultimate vacuum
< 1 mbar

Max capability water
< 1 ppm

Max. capability gas
< 0,1 %

Max. performance
> 95 kV



FILOIL 6000

Transformer oil treatment plant

The versatile standard. At 6 000 l/h it has the throughput for large work and stays compact enough to remain mobile, which makes it the unit for service providers who treat a range of asset sizes from a single plant. Vacuum drying, degassing, and filtration to 0,5 µm in a single pass, with online processing that keeps the transformer energized. The most adaptable configuration in the range.

Max. oil flow
6 000 l/h

Fine filter
0,5 µm

Heating capacity
72 kW

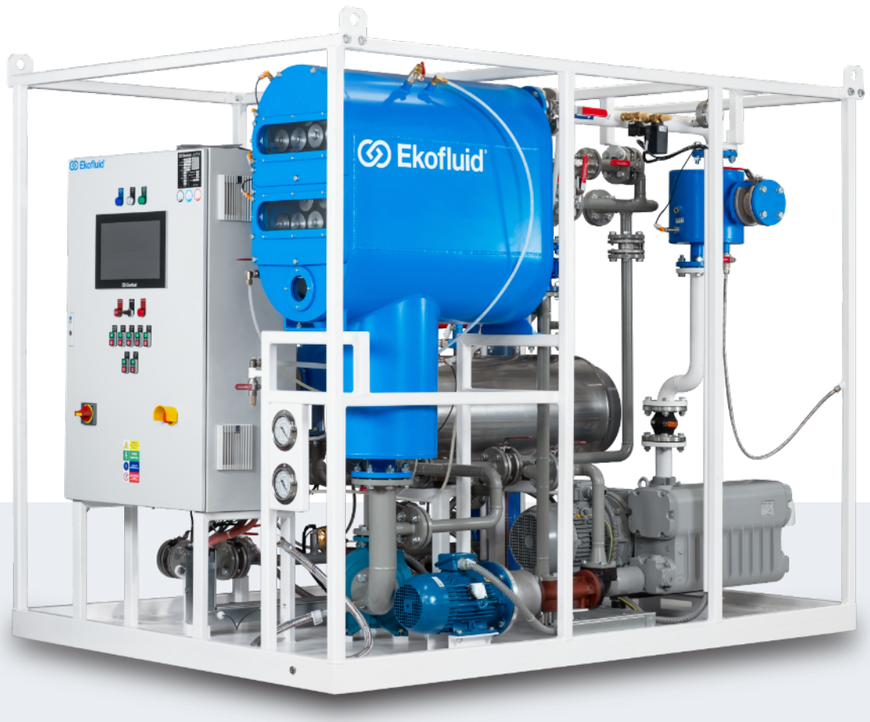
Vacuum capacity
300 m³/h

Ultimate vacuum
< 1 mbar

Max capability water
<1 ppm

Max. capability gas
< 0,1 %

Max. performance
> 95 kV



FILOIL 9000

Transformer oil treatment plant

The high-throughput unit. At 9 000 l/h it is built to treat large power transformers quickly and shorten campaigns on big assets, without giving up any of the line's treatment capability. Moisture, gases, and particles are removed in a single pass, on an energized transformer and without an outage. The configuration for large assets where treatment time is the constraint.

Max. oil flow
9 000 l/h

Fine filter
0,5 µm

Heating capacity
108 kW

Vacuum capacity
600 m³/h

Ultimate vacuum
< 1 mbar

Max capability water
< 1 ppm

Max. capability gas
< 0,1 %

Max. performance
> 95 kV

FILOIL 12000

Transformer oil treatment plant

The large-capacity plant. At 12 000 l/h it is built for big power transformers and high-volume oil work, from transmission assets and large generator step-up transformers to contracts where treating large oil volumes quickly is the job. Full treatment quality is held throughout the run, on an energized transformer and without an outage. A high-volume plant that keeps the line's full capability at scale.

Max. oil flow
12 000 l/h

Fine filter
0,5 µm

Heating capacity
144 kW

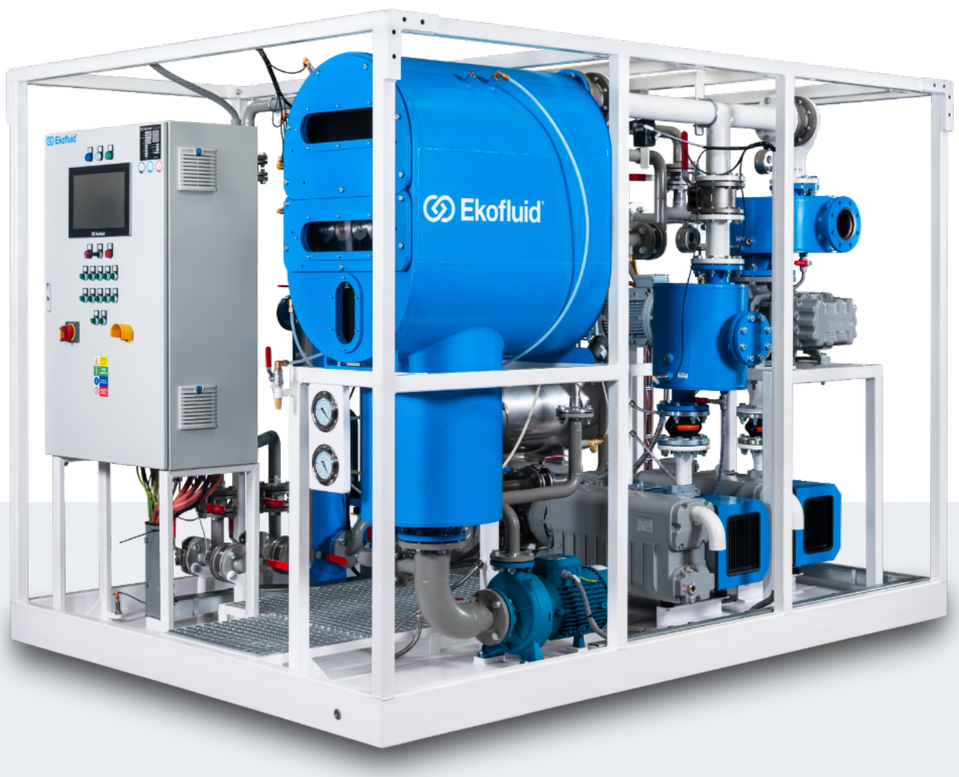
Vacuum capacity
1 400 m³/h

Ultimate vacuum
< 1 mbar

Max capability water
<1 ppm

Max. capability gas
< 0,1 %

Max. performance
> 95 kV



FILOIL 24000

Transformer oil treatment plant

The flagship of the line. At 24 000 l/h it treats the largest transformers and the highest oil volumes anywhere in the range. Its dual vacuum chamber runs in parallel for maximum throughput or in series for maximum treatment depth, configured to the job in front of it. Online processing keeps the transformer energized throughout. Built for the most demanding transformer work in the field.

Max. oil flow
24 000 l/h

Fine filter
0,5 µm

Heating capacity
288 kW

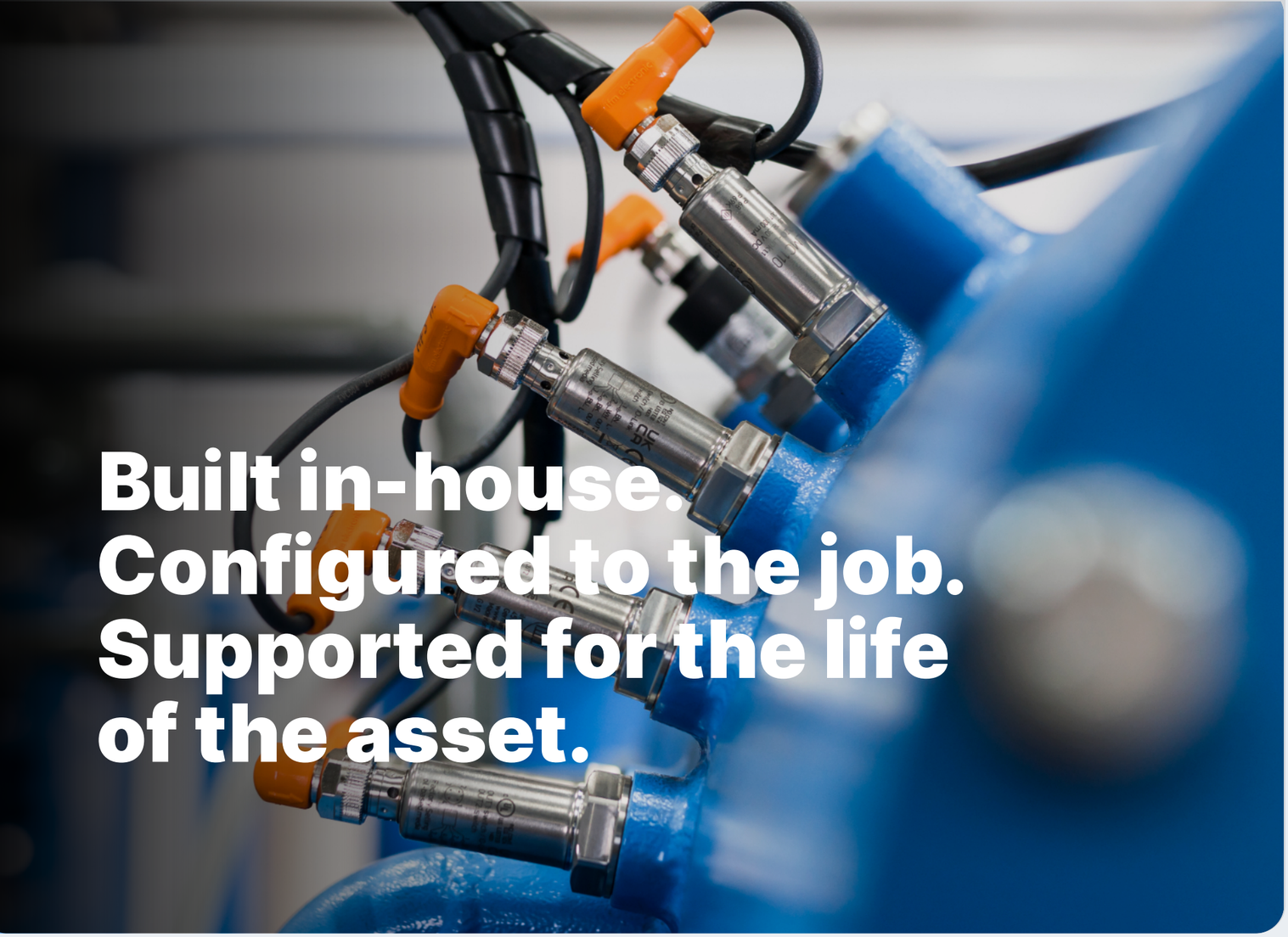
Vacuum capacity
2 800 m³/h

Ultimate vacuum
< 1 mbar

Max capability water
< 1 ppm

Max. capability gas
< 0,1 %

Max. performance
> 95 kV



Built in-house. Configured to the job. Supported for the life of the asset.

Every unit is designed, built, wired, programmed, painted, and tested in-house, then commissioned by the same engineers who built it. Nothing is subcontracted, which is why the build quality can be guaranteed rather than promised. The machine is configured to the project in front of it, not pulled from a shelf, and it is built to work hard for decades and to be supported for the whole of that life.

In-house build

Designed, manufactured, wired, programmed, and tested under one roof. Black steel, fully welded, dual-coated and baked for durability. Vertical integration is the reason every unit leaves the works to the same standard, and the reason the quality can be guaranteed.

Configured to the project

Over 50 configuration options, tuned to the work the machine will do. Heaters to your own loading, coalescers you can add later without welding, mounting to suit the site, sensors integrated to the SCADA. The reference configuration is a starting point, not a stock box.

Support for the life of the machine

Service relationships that run thirty years, not warranty periods. Expert technical assistance, operator training, and spare parts come from the same people who designed and built the unit, so the answer is the right one the first time. The machine is supported for as long as it works.

One competence, applied with discipline

Vacuum and adsorption engineering, refined over thirty years and applied to a narrow set of problems where the condition of the oil is essential. The same competence that leads the field in transformer oil also builds bespoke systems for X-ray equipment, defense, medical devices, and oil refining.

> **Engineered to outlast the asset it serves.**

Proof, in numbers

Thirty years of building, installing, and supporting fluid processing systems, counted the only way that matters. The numbers below are not targets. They are the record.

30+
years

Three decades of vacuum and adsorption engineering, applied to transformer oil treatment and regeneration, and refined on every unit built since 1996.

70+
countries

Installations across six continents, with service crews and spare parts reaching transformers wherever they run.

500+
systems delivered

In daily operation with utilities, contractors, and service companies, treating the oil that keeps transformers in service.

99%
customer retention

Build quality, configuration, and lifetime support that keep customers across relationships measured in decades, not orders.

Ekofluid®

Expert in transformer oil

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