

Transformer oil regeneration equipment

Regeneration that restores oil to fresh-oil specification

Sustainable oil lifecycle

Aged oil is regenerated for long-term reuse instead of being drained and replaced. The sorbent is reactivated and reused up to +300 cycles, which cuts waste and running cost and keeps the oil in service. The most responsible thing a transformer oil can do is stay in service.

Intelligent automation and remote access

Touch-screen control, data logging, and remote access are standard. Every process parameter is monitored and controlled, from the local panel or over a secure connection, so a regeneration cycle runs safely and unattended from anywhere in the world.

Configured to the project

Every unit is configured to the work, with flow capacity, adsorption bank size, control level, and containerization matched to the asset. From a mobile trailer to a stationary install, the platform is set to the voltage class, the site layout, and the job.

Molecular-level adsorption

The adsorption columns capture and remove contaminants at the molecular level, from dissolved acids to sludge. The process restores both the chemical composition and the electrical performance of the oil, with precise, repeatable results that hold to demanding global quality standards every time.

Zero oil waste, zero exposure

The regeneration process is sealed from end to end. No oil is lost during circulation, column switching, or reactivation. The closed-loop design keeps contamination, leaks, and operator exposure out, protecting both the environment and the transformer being serviced.

Built for energized transformers

The process runs continuously while the transformer stays energized. There is no shutdown, so uptime holds and maintenance windows shrink, which is what makes regeneration workable on critical infrastructure where an outage is not an option.

Built-in emission control

A thermal oxidizer captures and neutralizes the emissions released when the adsorption columns reactivate. Exhaust is brought to a clean state for environmental compliance, so deep regeneration runs without venting harmful gases on site.

Unmatched regeneration performance

REOIL restores aged transformer oil to fresh-oil condition by removing acids, polar compounds, moisture, dissolved gases, and reactive sulfur. Interfacial tension is brought above 40 mN/m, the neutralization number below 0,01 mg KOH/g, moisture below 5 ppm, and gas saturation below 0,1 %. Dielectric dissipation factor is restored to below 0,005, and the regenerated oil passes the corrosive sulfur tests to DIN 51353, ASTM D1275 B, and IEC 62535, with DBDS and S_8 reduced below detectable levels. In most cases the oil meets IEC 60296 for new mineral insulating oil, and it always complies with IEC 60422 for in-service fluids. The result is measured oil recovery that prolongs transformer life while reducing waste, downtime, and replacement cost.



Complete regeneration: transformer oil restored to specification, in the field, on an energized asset, trusted by operators worldwide.



1 - 5 MVA

Designed for distribution and compact transformers

Perfect fit for smaller oil-filled units.

3 columns

Integrated adsorption units for deep regeneration

Efficient, multi-cycle performance in one system.

Up to 5 000 kg

Preferred oil capacity

Handles routine and demanding regeneration tasks.

REOIL S

Transformer oil regeneration plant

REOIL S is the compact, mobile unit of the line, built for smaller oil-filled transformers from 1 to about 5 MVA, with preferred oil volumes up to 5 000 kg and a maximum capacity of 10 000 kg. Engineered for distribution and compact power transformers, it restores insulating oil where space, speed, and mobility matter, integrating up to six adsorption columns and a full FILOIL process module for drying, degassing, fine filtration, and deep regeneration in one sealed, transportable unit. It runs on energized transformers, so the oil is regenerated in place without an outage. The sorbent reactivates inside the unit and is reused across many cycles, and the rugged, compact frame suits field service teams and utilities managing smaller transformers across distributed networks.



Regeneration you can rely on

REOIL regenerates transformer oil through high-capacity adsorption, fine filtration, and vacuum drying. Bauxite columns capture acids, sludge, and the other by-products of ageing, and the sorbent is reactivated inside the unit and reused many times over. Aged oil is restored to near-new condition, held to IEC 60422 and, in most cases, to IEC 60296 for new mineral insulating oil.

Mobile between sites

The plant is built for transport and fast setup in the field. From compact skid units to trailer-mounted systems, it brings full regeneration capacity to the asset, with integrated lifting points, optimized dimensions, and rugged enclosures for safe handling. Wherever the transformer is, the unit delivers reliable regeneration on site.

Corrosive sulfur removed

REOIL removes the corrosive sulfur compounds that attack a transformer from the inside, reaching the dissolved contaminants that standard filtration leaves behind. Regenerated oil passes DIN 51353, ASTM D1275 B, and IEC 62535, with DBDS and reactive sulfur taken below detectable levels, stopping copper-sulfide formation at the source.

Automation and remote access

Operation is fully automatic, with real-time data, automatic control, and cycle logging built in. Remote access covers monitoring, adjustment, and troubleshooting from anywhere, on site or online, so a long regeneration cycle runs unattended and stays under full control from the first column to the last.

Sealed, clean, efficient

The unit runs continuously on an energized transformer, sealed against oil loss through treatment and reactivation. A thermal oxidizer neutralizes emissions so no harmful by-products are released. The result is a clean, closed-loop process that protects the crew, the equipment, and the environment around the work.

Regeneration, not replacement

Aged oil is restored and goes back to work instead of being drained and burned, so there is no waste oil to dispose of and no new oil to manufacture and ship. Reversing the chemical decline that filtration and drying cannot touch is what keeps a high-value transformer in service for longer.

Max. oil flow

1 000 l/h

Reactivations

+300

Integrated degassing

Yes

Dual bank

No

No. of columns

max 6

Interfacial tension

>40 mN/m

Neutralization number

<0,01 mg KOH/g

Color index

<1,5

Dielectric dissipation factor

<0,005

Moisture content

<5 ppm

Gas saturation

<0,1%

Corrosive sulfur (IEC 62535)

Passed

DBDS

<5 mg/kg

S₈ (elemental sulfur)

0 mg/kg

5-100 MVA

Designed for medium and large transformers

Fits substation, grid, and generation fleets.

Up to 30 000 kg

Preferred oil capacity

Handles routine and demanding regeneration tasks.

9 columns

Integrated adsorption units for deep regeneration

Efficient, multi-cycle performance in one system.

REOIL M

Transformer oil regeneration plant

REOIL M is the versatile standard of the line, built for medium and large power transformers from 5 MVA to over 100 MVA, with preferred oil volumes up to 30 000 kg and a maximum capacity of 50 000 kg. Engineered for high-performance continuous operation, it delivers full-scale oil restoration through a modular platform that integrates adsorption banks, high-capacity vacuum, fine filtration, and an embedded FILOIL process module. It runs on energized transformers, so the oil is regenerated in place without an outage, and the sorbent reactivates inside the unit and is reused across many cycles. Adsorption bank sizes and process flow are configured to the transformer, the oil volume, and the contamination state, which makes it the unit for utilities and service providers managing diverse fleets across substations, grid infrastructure, and generation sites.



Regeneration you can rely on

REOIL regenerates transformer oil through high-capacity adsorption, fine filtration, and vacuum drying. Bauxite columns capture acids, sludge, and the other by-products of ageing, and the sorbent is reactivated inside the unit and reused many times over. Aged oil is restored to near-new condition, held to IEC 60422 and, in most cases, to IEC 60296 for new mineral insulating oil.

Mobile between sites

The plant is built for transport and fast setup in the field. From compact skid units to trailer-mounted systems, it brings full regeneration capacity to the asset, with integrated lifting points, optimized dimensions, and rugged enclosures for safe handling. Wherever the transformer is, the unit delivers reliable regeneration on site.

Corrosive sulfur removed

REOIL removes the corrosive sulfur compounds that attack a transformer from the inside, reaching the dissolved contaminants that standard filtration leaves behind. Regenerated oil passes DIN 51353, ASTM D1275 B, and IEC 62535, with DBDS and reactive sulfur taken below detectable levels, stopping copper-sulfide formation at the source.

Automation and remote access

Operation is fully automatic, with real-time data, automatic control, and cycle logging built in. Remote access covers monitoring, adjustment, and troubleshooting from anywhere, on site or online, so a long regeneration cycle runs unattended and stays under full control from the first column to the last.

Sealed, clean, efficient

The unit runs continuously on an energized transformer, sealed against oil loss through treatment and reactivation. A thermal oxidizer neutralizes emissions so no harmful by-products are released. The result is a clean, closed-loop process that protects the crew, the equipment, and the environment around the work.

Regeneration, not replacement

Aged oil is restored and goes back to work instead of being drained and burned, so there is no waste oil to dispose of and no new oil to manufacture and ship. Reversing the chemical decline that filtration and drying cannot touch is what keeps a high-value transformer in service for longer.

Max. oil flow

6 000 l/h

Reactivations

+300

Integrated degassing

Yes

Dual bank

Optional

No. of columns

max 10 (5x2)

Interfacial tension

>40 mN/m

Neutralization number

<0,01 mg KOH/g

Color index

<1,5

Dielectric dissipation factor

<0,005

Moisture content

<5 ppm

Gas saturation

<0.1%

Corrosive sulfur (IEC 62535)

Passed

DBDS

<5 mg/kg

S₈ (elemental sulfur)

0 mg/kg

40 MVA and up

Designed for the largest power transformers

Built for transmission and critical infrastructure.

Up to 100 000 kg

Preferred oil capacity

Built for continuous, large-scale regeneration.

24 columns

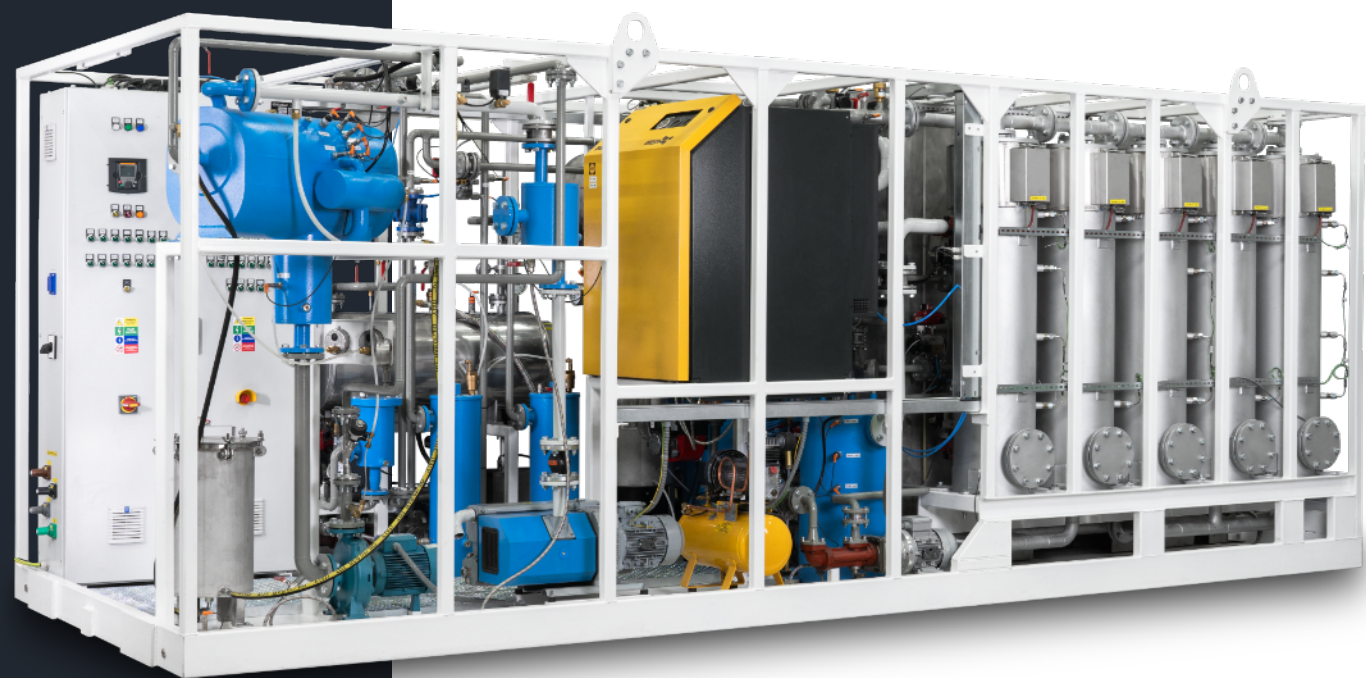
Integrated adsorption units for deep regeneration

Dual-bank operation runs without interruption.

REOIL L

Transformer oil regeneration plant

REOIL L is the flagship of the line, a high-capacity regeneration system built for continuous, large-scale work. It is designed for power transformers rated 40 MVA and above, with preferred oil volumes up to 100 000 kg and a maximum capacity of 150 000 kg. REOIL L carries a dual-bank adsorption system that maximizes throughput and minimizes downtime: each bank is independently controlled with multiple adsorption columns, so one bank regenerates while the other runs automated in-system reactivation, for uninterrupted regeneration under demanding field conditions. It integrates a full FILOIL module for simultaneous drying, degassing, and fine filtration, and supports continuous online operation on energized assets, eliminating transformer shutdowns so high-voltage equipment is maintained without disrupting grid service. Fully automated, with advanced diagnostics and remote access, it is the unit for transmission system operators, utilities, and industrial sites with critical power infrastructure.



Regeneration you can rely on

REOIL regenerates transformer oil through high-capacity adsorption, fine filtration, and vacuum drying. Bauxite columns capture acids, sludge, and the other by-products of ageing, and the sorbent is reactivated inside the unit and reused many times over. Aged oil is restored to near-new condition, held to IEC 60422 and, in most cases, to IEC 60296 for new mineral insulating oil.

Mobile between sites

The plant is built for transport and fast setup in the field. From compact skid units to trailer-mounted systems, it brings full regeneration capacity to the asset, with integrated lifting points, optimized dimensions, and rugged enclosures for safe handling. Wherever the transformer is, the unit delivers reliable regeneration on site.

Corrosive sulfur removed

REOIL removes the corrosive sulfur compounds that attack a transformer from the inside, reaching the dissolved contaminants that standard filtration leaves behind. Regenerated oil passes DIN 51353, ASTM D1275 B, and IEC 62535, with DBDS and reactive sulfur taken below detectable levels, stopping copper-sulfide formation at the source.

Automation and remote access

Operation is fully automatic, with real-time data, automatic control, and cycle logging built in. Remote access covers monitoring, adjustment, and troubleshooting from anywhere, on site or online, so a long regeneration cycle runs unattended and stays under full control from the first column to the last.

Sealed, clean, efficient

The unit runs continuously on an energized transformer, sealed against oil loss through treatment and reactivation. A thermal oxidizer neutralizes emissions so no harmful by-products are released. The result is a clean, closed-loop process that protects the crew, the equipment, and the environment around the work.

Regeneration, not replacement

Aged oil is restored and goes back to work instead of being drained and burned, so there is no waste oil to dispose of and no new oil to manufacture and ship. Reversing the chemical decline that filtration and drying cannot touch is what keeps a high-value transformer in service for longer.

Max. oil flow

9 000 l/h

Reactivations

+300

Integrated degassing

Yes

Dual bank

Optional

No. of columns

max 24 (12×2)

Interfacial tension

>40 mN/m

Neutralization number

<0,01 mg KOH/g

Color index

<1,5

Dielectric dissipation factor

<0,005

Moisture content

<5 ppm

Gas saturation

<0,1%

Corrosive sulfur (IEC 62535)

Passed

DBDS

<5 mg/kg

S₈ (elemental sulfur)

0 mg/kg

1-100 MVA

Pairs with a FILOIL plant

Turns oil treatment into full regeneration.

Paired with FILOIL

Oil capacity from the FILOIL

The FILOIL supplies drying, degassing, and heating.

9 columns

Integrated adsorption units for deep regeneration

Efficient, multi-cycle performance in one system.

REOIL Module

Transformer oil regeneration plant

REOIL Module is a mobile, adsorption-based regeneration unit built to pair with a separate FILOIL plant and form a complete regeneration system. Unlike the standalone REOIL units, the Module does not carry its own drying, degassing, or heating: it is a dedicated regeneration add-on, focused on removing acids, oxidation products, and reactive sulfur through high-capacity adsorption. It connects directly to a FILOIL plant on site, so a service team can turn oil treatment into full regeneration without taking the transformer out of service. Housed in a container or trailer with multiple configurable adsorption columns and in-system sorbent reactivation, it brings full regeneration capacity to transformers in remote or distributed locations. Once connected, the combined Module and FILOIL system delivers a complete regeneration process that meets IEC 60422 and, in most cases, IEC 60296 for new mineral insulating oil.

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Integrated degassing

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Dual bank

Optional

No. of columns

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Interfacial tension

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Neutralization number

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Moisture content

<5 ppm

Gas saturation

<0,1%

Corrosive sulfur (IEC 62535)

Passed

DBDS

<5 mg/kg

S₈ (elemental sulfur)

0 mg/kg



Expert in transformer oil

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