



Matfors 
Hydraulservice

Product catalog

An aerial photograph showing a two-lane asphalt road that curves through a vast, dense forest of tall, green trees. A single white car is visible on the road, moving away from the viewer. The road has white dashed lines for lane separation and solid lines at the edges. The forest is thick and covers the majority of the landscape.

The road to a more environmentally friendly industry

We believe that every step that leads to a more sustainable future for the global industry must start somewhere. For us at Matfors Hydraulservice AB, it starts with reducing the industry's dependence on non-renewable natural resources, with a focus on refined mineral oils.



From the beginning it was about hydraulic service

Matfors Hydraulservice AB was founded in 1980 by Sven-Olof Jernkrook as a service company for the steel and paper / pulp industry. Today, the company is owned and operated by daughter Erika Jernkrook. Our business is located in scenic Matfors, west of Sundsvall.

Since 1991, the main focus has been on electrostatic cleaning of hydraulic / lubrication systems and transformer oils. Today we are Sweden's leading retailer of KLEENTEK's products.

Even though the electrostatic oil ring is warm to our hearts, we have also developed and developed a handful of our own products over the years.

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Smartgluer

Smart Gluer is a world patent-pending invention developed by Matfors Hydraulservice AB in close collaboration with the pulp industry.

Bale without thread

A revolutionary ball sizing machine that, in comparison with the thread machines previously used, will bring major environmental and work environment improvements.

The process-critical and work-related risk that the wiring entails is completely eliminated, as no risk of whipping can occur. Nor does the mills risk getting harmful metal into the process.

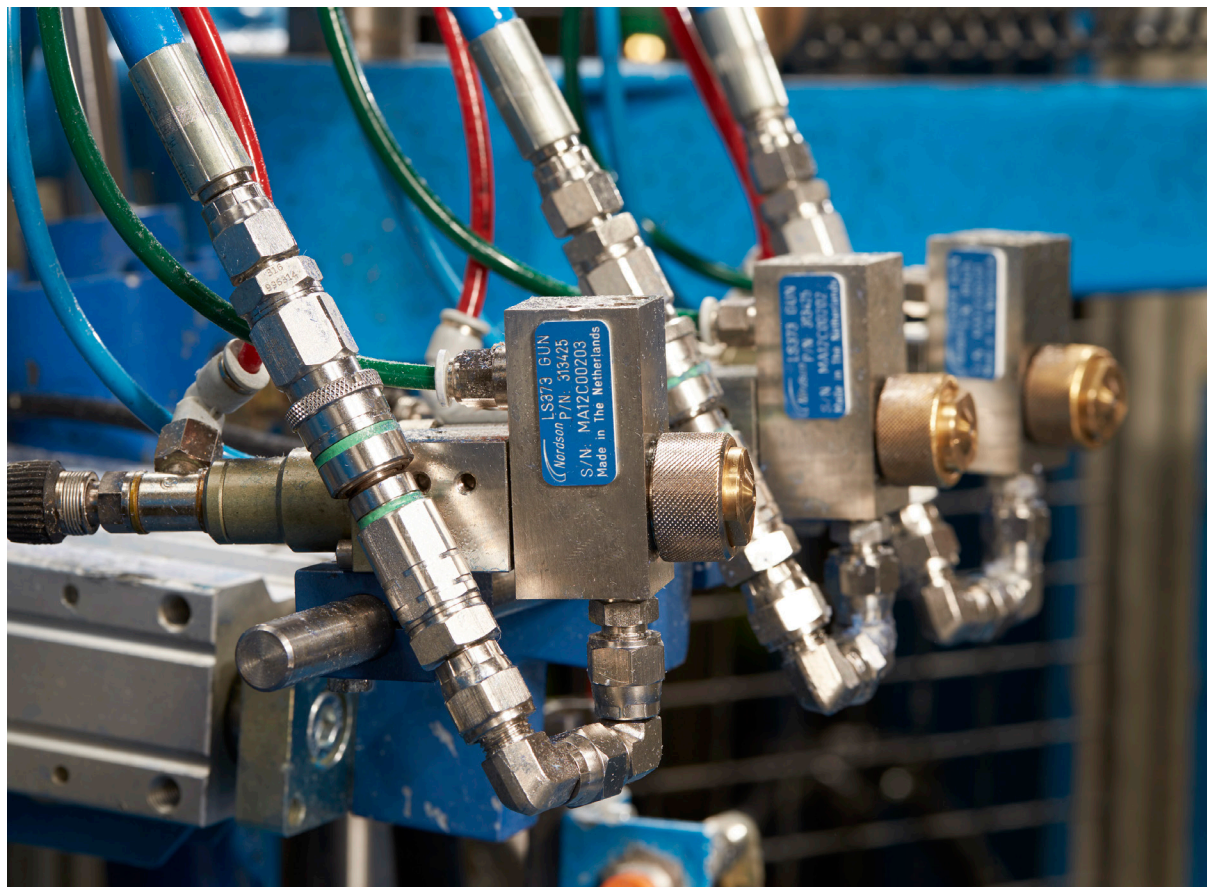
Instead of tying the pulp bales together with steel wire, Smartgluer glue them together with an environmentally friendly glue. The adhesive is water-soluble and therefore does not affect the quality



Smart Gluer i produktion

By using Smart Gluer as a packaging method, several savings are made. Maintenance costs are considerably lower than for a wire binding machine and the handling of pulp bales becomes more efficient as Smart Gluer does not use any steel wire. The cost of the glue corresponds to only about 1/8 of the thread cost.

Smart Gluer is a strong competitor because the pulp industry with this solution does not have to invest in expensive drainage machines. This minimizes the risk of accidents and loss of production caused by contamination in the pulp.



Developed for mass packaging

The Smart Gluer glue machine is developed for pulp packaging and tested for several years at Östrand's pulp mill outside Sundsvall. At the bottom, Smart Gluer is a folding machine that uses six nozzles to apply glue to the pulp bale with compressed air. This together with a drying station is a compact solution that can be installed in most existing packaging lines. The environmentally friendly adhesive is water-soluble and thus does not affect the continued process.



TrafoKleener

Matfors Hydraulservice AB's unique solution has been cleaning transformer oils in operation since 1998.

Trafokleener is a complete mobile cleaning solution

Pollutants, water and gases are undesirable substances in the insulating oil of transformers, which over time jeopardize the operational safety of the transformer.

Trafocleener is a complete mobile cleaning solution based on KLEENTEK's proven ELC. Combined with a dehumidifier, harmful gases, oxidations, particles and water are effectively removed from the insulator oil.

With Trafokleener, problems with diffusion barrier are easily prevented, which can otherwise occur when the oil's oxidation products are collected in the copper wire's cellulose insulation. The diffusion barrier prevents moisture and gases contained in the cellulose from penetrating, this drastically speeds up the aging rate of the insulation, which in the long run can lead to serious operational disruptions.

Increased operational reliability for producers, electricity suppliers and customers.

The ultimate goal of using Trafokleener is not to purify the oil itself, but to indirectly provide increased reliability for producers, electricity suppliers and customers through pure oil.

- Increased service life – the oil's and thus the plant's aging rate drastically decreases
- Lower operating temperature – increases efficiency
- Increased reliability – costly downtime reduces
- Higher efficiency – transformer load capacity increases higher load capacity
- Better environment – the need for oil changes is significantly reduced

Fewer oil changes and longer service life

In most industries there are high environmental requirements. Dry and clean oil is an important parameter for long service life. Matfors Hydraulservice AB is an experienced supplier of products that contributes to a cleaner system with fewer oil changes. Increased service life contributes to a more reliable system that feeds fewer oil changes and lower repair costs.

Matfors Hydraulservice AB's goal since 1980 has been to offer the industry environmentally friendly oil purification services that increase reliability.

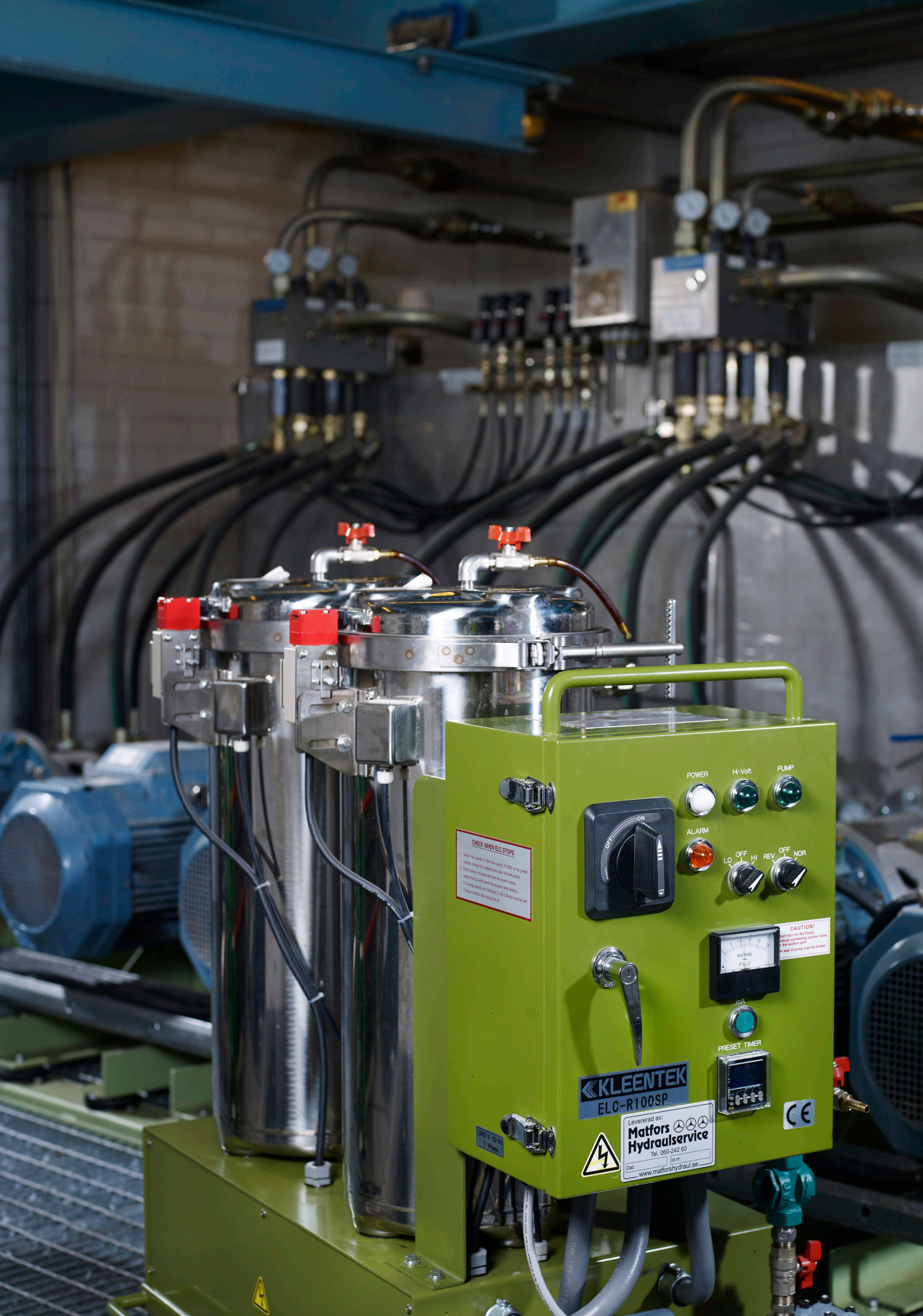


A photograph of a young child standing in shallow water, pointing their right arm towards the horizon. The child is wearing a dark and light striped long-sleeved shirt and dark shorts. The water is calm with gentle ripples. The sky is a mix of soft pinks, oranges, and blues, indicating a sunset or sunrise. The horizon line is visible in the distance.

A sustainable future for the next generation

Our goal with Matfors Hydraulservice AB's specific product portfolio is to positively change the industry's impact on the environment. With operations throughout Scandinavia, Matfors Hydraulservice AB strives for a more sustainable future for future generations.

With a focus on sustainable development, we have since 1991 supplied equipment around the world that reduces the industry's need for non-renewable natural resources.



Electrostatic oil cleaners

Our solid experience together with the best electrostatic cleaning technology has made us an obvious supplier for some of Scandinavia's most reliable industries.

Extend the machine life

Electrostatic Oil Cleaners (ELCs) remove contaminants such as oil oxidation products to below micro levels and also remove deposits from system intrinsic such as oil reservoirs and pipelines.

Electrostatic oil cleaners remove all types of contaminants including resins and oxidation products. Many of our customers have reduced their downtime and service costs by more than 75% by keeping the oil clean with this method.



Reduced downtime and service costs by more than 75%

Kleentek electrostatic oil cleaners remove all types of oil contaminants including resins and oxidation products. Many of our customers have reduced their downtime and service costs by more than 75% by keeping the oil clean with this method.

Benefits

- Increased availability
- Higher product quality
- Better working environment
- Reduced oil leakage
- Fewer filter changes
- Lower handling costs



TP-Series

With digitalized monitoring system and a higher efficiency we take cleaning to a whole new level.

- 15kV high-volt transformer that makes it even more effective than before!
- “Current Preliminary Warning” Adjustable setting of timing and warning levels for easily monitoring the level of contamination or water.
- “Total Operating Time Screen” for keeping track of lifetime and when to service.
- USB-Storage.
- Touch-Panel for better overview.



SP-Series

Our classic SP models have kept the systems clean since the 90s.

- 10kV High-volt transformer for efficient cleaning.
- 5kV switch option in case of overcurrent.
- Easy to handle.
- Analogue overview.
- Reliable.

Spark formation in oil systems

Relatively new research results describe the risk of spark failure in oil systems and its consequences. When a non-electrically conductive liquid (eg oil) is pushed through a filter membrane (eg glass fiber or cellulose), there is a great risk of separating electrons, ie the generation of static electricity. This means that the filter is charged with a potential and the oil with the opposite.

Various parameters such as filter fineness, flow, viscosity etc. affect the charging potential and the charging time. In practice, it has been found that fine filters are almost always charged to the potential that spark discharges occur in both filters and oil tanks. However, few have observed the effects and you do not notice anything from the “outside” as all systems are in practice grounded. To show what is happening, we have isolated a filter with filter housing and grounded this via a “spark gap”.

SP-Serien

Our classic SP models have kept the systems clean since the 90s.



Guide to correct sizes

In order to choose the cleaner most suited to a specific application, we must consider the oil working conditions, the type of oil, its viscosity and the quantity

Unit	32*	46*	68*	Power	Size*	Weight*	Flow Rate*	Collector Type*
ELC - R100SP	48.000	33.000	22.000	600 W	530x1066x1080	161	12.0	2/CC-R50SP
ELC - R50SP	24.000	16.000	11.000	500 W	530x725x1080	108	9.0	1/CC-R50SP
ELC - R10SP	5.000	3.400	2.200	150 W	350x675x915	70	2.2	1/CC-R10SP

*. Oil viscosity ISO VG

Types of oil that can be cleaned:

- Mineral oils (except engine oil and oil HLP-D according to DIN 51524/2)
- Synthetic oils (PAO, ester, vegetable, with a standard unit)
- Phosphate ester (except Skydrol) and PGA (with a special unit)

Size*, (w x l x h) [mm] – Weight*, [Kg] – Flow Rate*,[l/min] – Collector Type*, n/model

- Max oil temperature: 65 °C (constant) (H type for temperature up to 90 °C)
- Max Viscosity: 600 cst
- Max water content removable: 500 ppm
- Standard power source: 230 V 1P – 380 V 3P

Functional features

The KLEENTEK electrostatic oil cleaner offers many unique advantages:

- Works as a by-pass unit to the oil tank 24 hours a day;
 - There is no pressure inside and it doesn't clog, even with particularly dirty oils. Consequently there are no safety issues (vibrations, pipe breakages, leaks etc.) and it does not require any particular maintenance or supervision;
 - Thank to its limited overall power (from 150 to 1.200 W), the power consumption is negligible;
 - It has a low flow rate, allowing it to work as a by-pass without causing problems for the system it is connected to;
- It can remove water at a rate up to 500 ppm;
 - It is an excellent and reliable humidity (and water) monitoring system, one of the most dangerous contaminants for oil and for circuits;
 - It does not remove oil additives;
 - It does not affect oil's chemical makeup;
 - It is compact, making it very practical and simple to use in all circumstances;
 - It does not require any specific maintenance and therefore there are no unexpected costs;
 - It is very simple and very hard-wearing which means it boasts a very long service life without problems.

The new TP-Serien

Our new TP models are the next generation oil cleaners!



Unit	32	46	68	100	Power	Size*	Weight*	Flow Rate*	Collector Type*
ELC - R100TP	48.000	33.000	22.000	12.000	600 W	530x1066x1080	161	12.0	2/CC-R50SP
ELC - R50TP	24.000	16.000	11.000	6.000	500 W	530x725x1080	108	9.0	1/CC-R50SP
ELC - R25TP	12.000	8.000	5.500	3.000	150 W	350x675x950	72	3.7	1/CC-R10SP
ELC - R10TP	5.000	3.400	2.200	1.200	150 W	350x675x915	70	2.2	1/CC-R10SP

*. Oljeviskositet ISO VG

Typen olja som kan rengöras:

- Mineraloljor (utom motorolja och olja HLP-D enligt DIN 51524/2)
- Syntetiska oljor (PAO, ester, grönsak, med en standardenhet)
- Fosfater (utom Skydrol) och PGA (med en speciell enhet)

Storlek*, (w x l x h) [mm] – Vikt *, [Kg] – Flödeshastighet *, [L / min] – Samlingstyp *, n / modell

- Max oljetemperatur: 65 ° C (konstant) (H-typ för temperatur upp till 90 ° C)
- Max viskositet: 600 cst
- Max vattenavlägsnande avtagbar: 500 ppm
- Standard strömkälla: 230 V 1P – 380 V 3P

Unique technology

The KLEENTEK electrostatic oil cleaner is the only technology that:

- Removes any kind of contaminant from the oil, regardless of its size and its nature and therefore it is the only technology able to totally remove even insoluble oil oxidation products, so called "varnish";
 - Ensures that oil cleaned with this technology removes the deposits accumulated in the circuits ensuring the perfect cleaning of all components (valves, pumps, filters, etc.);
- Ensures that, while passing through the collector, the oil does not become electrostatically charged, as happens when using standard filtration system. This protects the oil and the circuits involved;
 - Ensures a significant increase in the oil's service life;
 - Encourages us to no longer consider oil a consumable but rather as a precious technological fluid and as a long-term asset to be maintained in good conditions over time.

The technology behind electrostatic oil cleaners

A contaminant particle, regardless of its nature (whether it be dust, metal, rust, sludge etc.) and size (from many microns to molecular size), can only be either:

+ Positive – Negative ± Neutral

In a uniform high potential electrostatic field produced by parallel electrodes, the positive particles are attracted/pushed towards the negative electrode and vice versa (electrophoresis). In this situation, the neutral particles are not influenced. In contrast, if one electrode has a sharp edge, the concentration of forces is so strong that it can polarise even neutral particles which become positive or negative (dielectrophoresis). The KLEENTEK oil cleaner combines these two effects in a single cylindrical cartridge (the collector) that can remove any kind of contaminant from the oil, irrespective of its size or nature.

The collector

The KLEENTEK collector is not a filter: it is a cartridge through which the oil passes from the bottom to the top without coming against any obstacles and therefore without coming under pressure.

Quick and easy to replace, it is made up of a cylinder with coaxial aluminium cylinders inside, separated by dielectric material in fan-like folds. Regardless of their size, the contaminants in the oil are electrostatically attracted and captured by the collector's cylindrical walls. KLEENTEK collectors never clog, even when handling particularly dirty oils.

Thanks to their large holding surface, KLEENTEK collectors can capture a very large quantity of contaminants, far greater than that collected by traditional filters. This feature gives the collector an extraordinary long service life and therefore guarantees reduced maintenance costs.

A KLEENTEK collector is easy to dismantle (all you need to do is remove a few clips). Moreover, by separating the paper parts from the metal parts, it is possible to reduce its volume and make disposal easier.





TriboDryer

TriboDryer is a dehumidifier that condenses free and bound water from all types of oils. It is a perfect solution for systems in particularly vulnerable environments.

Dehumidifier for lubricating and hydraulic oils.

Together with dirt, water is one of the biggest causes of problems in hydraulics. Generally, a doubled water content in the hydraulic oil can halve the life of components in the systems. Water in the oil can cause serious machine disruption as it speeds up the break-down of additives and increases the risk of corrosion on sensitive components. Which in the long run leads to costly production stoppages and / or degraded quality of manufactured products.

Increased operational reliability for producers, electricity suppliers and customers.

Oil with high water content is often changed, an unnecessarily expensive work that has a direct negative environmental impact.

Matfors Hydraulservice AB, as an experienced supplier of cleaning solutions for hydraulics with TriboDryer, can offer an efficient and environmentally friendly solution.

TriboDryer is a dehumidifier that condenses free and bound water from all types of oils. It is a perfect solution for systems in particularly vulnerable environments, such as: paper industries, processing workshops and underground mines. The dehumidifier can easily be connected to any existing unit up to 50m³.

Fewer oil changes and longer service life

In most industries there are high environmental requirements. Dry and clean oil is an important parameter for long service life. Matfors Hydraulservice AB is an experienced supplier of products that contributes to a cleaner system with fewer oil changes. Increased service life contributes to a more reliable system that feeds fewer oil changes and lower repair costs.

Matfors Hydraulservice AB's goal since 1980 has been to offer the industry environmentally friendly oil purification services that increase reliability.

By staying so close to nature, the will to protect it is strengthened.

Many of the goods and services we provide help our customers improve their environment. We always strive to cooperate with customers.



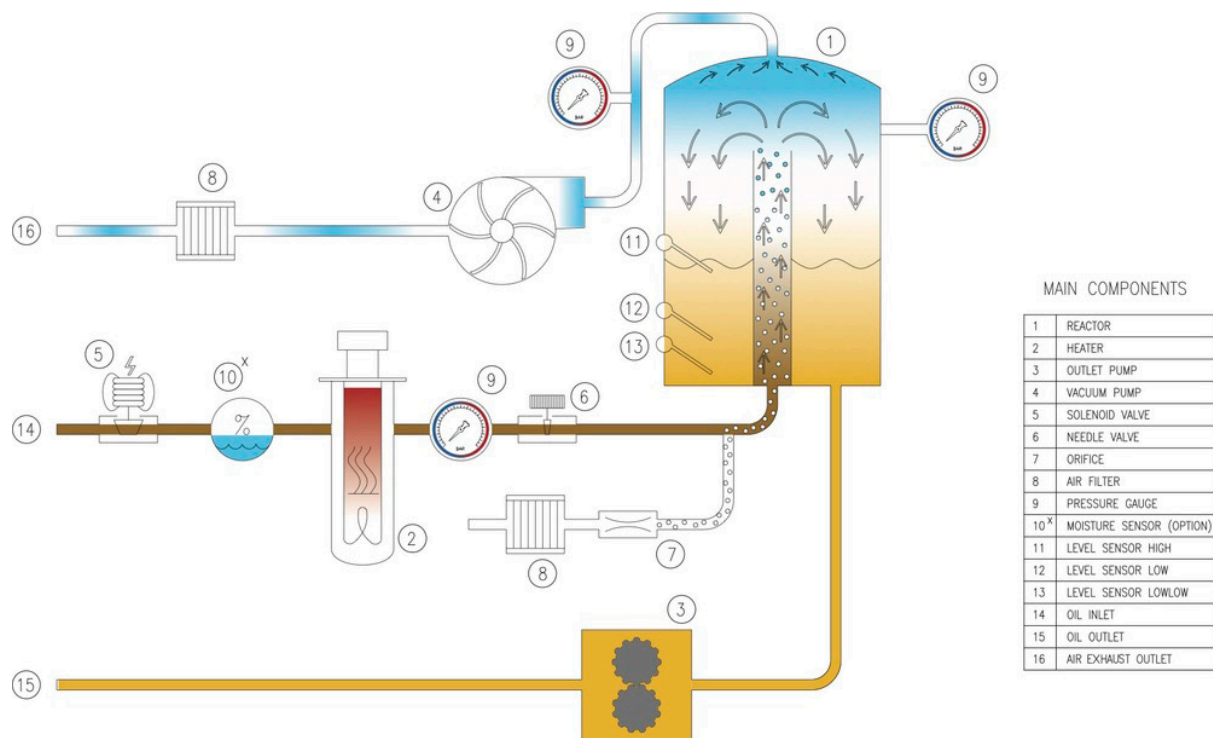
Vacuum unit

Hydrovac-SH2000 vacuum units use two techniques to remove water from oil, vacuum drying and degassing.

Proven and patented technology

With proven and patented technology, it removes 100% free water, emulsions, gases and more than 90% of bound water.

By minimizing water and gas pollution, a series of problems in hydraulic systems can be reduced or completely eliminated. Together with dirt, water is one of the biggest causes of problems in hydraulics. Generally, a doubled water content in the hydraulic oil can halve the life of components in the systems. Water in the oil can cause serious machine disruptions as it speeds up the breakdown of additives and increases the risk of corrosion on sensitive components, which in turn leads to costly production stoppages and / or degraded quality of manufactured products.



Maximum water withdrawal without destroying the physical properties of the oil.

Hydrovac-SH2000 is an external dewatering unit where contaminated oil together with air is collected in a vacuum chamber and heated to about 50 ° C. This is an ideal solution as water at this temperature evaporates under vacuum. For most hydraulic and lubricating oils, this enables maximum water withdrawal without destroying the physical properties of the oil.



Compact and standalone

Hydrovac-SH2000 is designed for use in hydraulic and lubrication systems where water penetration is a constant or regular problem. It is a compact standalone unit that can handle all oils with viscosities from 3-700 cSt (at 40 ° C) as it has an adjustable flow rate of 100-600 l / h.

The unit is equipped with wheels for easy moving around and connected to any existing unit, or for a permanent installation.

Other services

In most industries there are high environmental requirements. Dry and clean oil is an important parameter for long service life. Matfors Hydraulservice AB is an experienced supplier of products and services that contribute to a cleaner system with fewer oil changes. Increased service life leads to a more reliable system that feeds fewer oil changes and lower repair costs.

Matfors Hydraulservice AB's goal since 1980 has been to offer the industry environmentally friendly oil purification services that increase reliability. We therefore carry out:

- On-going health monitoring of your facility which includes gravimetric samples (in accordance with ASTM F 318-78) particle count (according to ISO 4406) and measurement of any water content. Since all this is done on site, we can provide direct results and a clear health value.
- Inspection of new and existing customers' facilities as above. With consultation and recommended action plan tailored to your future needs.
- Sale / rental of KLEENTEK's electrostatic oil cleaners.
- Sale / rental of water separation equipment.
- Sale of diving pipes. We provide and install our standard connection options for ELC, we have connections made for all types of oil tanks. Please contact us for further info.
- Rental of Transformer Cleansers, purification of transformer oils during operation.
- Education in all areas.



Contact us

Our solid experience along with the finest electrostatic cleaning technology has made us the obvious supplier for some of Scandinavia's most dependable industries.

Here you will find contact information for us, or if you are in the hooks, please swing by for a cup of coffee.

Contact information

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