

Electrostatic Oil Cleaner

Model D16

The electrostatic oil cleaner D16 removes particles, sludge and deposits from hydraulic oil



Advantages

- Precise operation of your hydraulic system
- Less cost for maintenance, repairs and oil changes
- Up to 95% less consumption of hydraulic oil
- Up to 70% less hydraulic malfunctions
- Improved availability of your machines and service life up to 100,000 hours and more for your hydraulic oil

Technical Data

Pump capacity	16 l / min
Dirt holding capacity	approx. 4 Kg
Operating temperatur	max. 80 °C
Water content in oil	max. 500 ppm
Power consumption	max. 650 W
Voltage	230 V
Weight	180 Kg
Dimensions L x W x H	1065 x 780 x 1090 mm
Yearly cleaning capacity approx.	HLP 32 - 52.000 l / HLP 46 - 38.000 l HLP 68 - 27.200 l

1. Hydraulic Systems

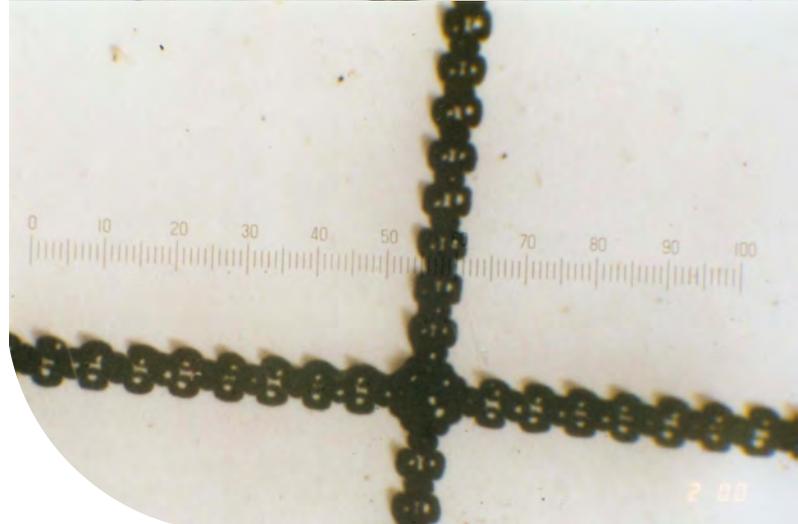
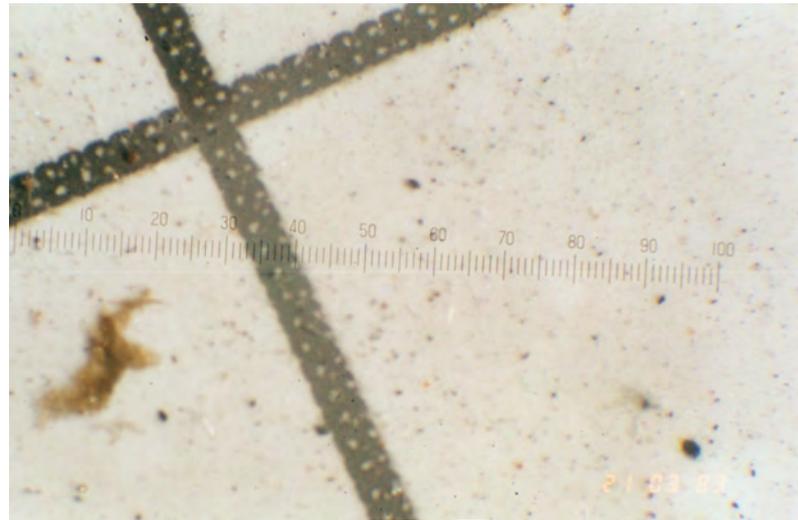
In order to operate hydraulic systems without failure and to increase process reliability and machine precision, modern hydraulic systems are equipped with precise high-tech components. However, the advantages of these modern hydraulic systems can only be exploited if hydraulic oil of the appropriate quality and purity is also used. Sludge, resin, varnish and particles can accumulate in the oil and the hydraulic system. This increases friction and wear and leads to a wide variety of malfunctions or failures of the hydraulic system.

2. Improved Precision

In order to continuously produce with the precision required, the hydraulic system must be operated with clean oil and be free of sludge deposits. Friess EFC technology removes dirt particles and sludge from the hydraulic oil whether hard or soft, small or large. Existing sludge deposits from valves or pumps are removed by electrostatic oil cleaning.

3. Operating Principle

The Friess EFC electrostatic oil cleaning system model D16 is connected in a bypass to the hydraulic system. Independent from production the hydraulic oil passes through an electrostatic field between the electrodes of the oil cleaning unit. The electrostatic field force draws the dirt particles onto special cleaning elements between the electrodes, where they are deposited. The special shape of the Friess cleaning elements creates a uniform turbulent flow in the hydraulic oil during the cleaning process. This deflects the dirt particles towards the electrodes and results in a particularly effective removal. This unique design removes particles of all sizes from 0.05 μm to well over 100 μm from the hydraulic oil. Liquid additives contained in the oil are not affected by the electrostatic field forces and remain in the oil. Due to the electrostatic operating principle, particles of all sizes are removed from the oil rather than only particles above a certain minimum size, as is the case of filters. Due to the extreme oil purity achieved in this way existing sludge and varnish deposit are slowly broken down and removed, and new deposits are prohibited.



Filter membran pore size 0.8 μm

1) Dirt particles and varnish in used oil

2) After filtration of electrostatic cleaned oil

4. User Friendly

The simple and safe operation of the Model D16 oil cleaning system is ensured by a newly developed control system. The respective operating status is displayed on a touchscreen monitor. The system can be operated quickly and easily via convenient user guidance. The data of up to 100 hydraulic systems can be stored in the control system. Based on the stored oil volume and oil type, the system automatically calculates the required cleaning time. After the cleaning is finished, this is shown on the display and the system can be connected to the next hydraulic system. All data are stored even after the cleaning system is switched off, so that after a standstill, work continues with the previously determined data. For safe continuous operation, the system is equipped with an oil collecting tray and an automatic shutdown in case of possible oil loss. All functions are continuously monitored with safety switches and sensors.



Electrostatic oil cleaner D16
in operation

Variant: D16-1E

This variant has an increased water absorption capacity. The following technical data are different from the model D16

Water holding capacity	max. 4 l
Weight	210 Kg
Dimensions L x W x H	1530 x 700 x 1110 mm
Water content in oil	max. 1%

For more information, consultation and ordering:

- Phone 02173 / 52011
- Internet at www.friess.eu
- E-Mail at post@friess.eu

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