

### TRIPLE UNIT

# By-pass filter systems for filtration of 3 different oil circuits

#### **TRIPLE LDU**



#### **TRIPLE HDU**



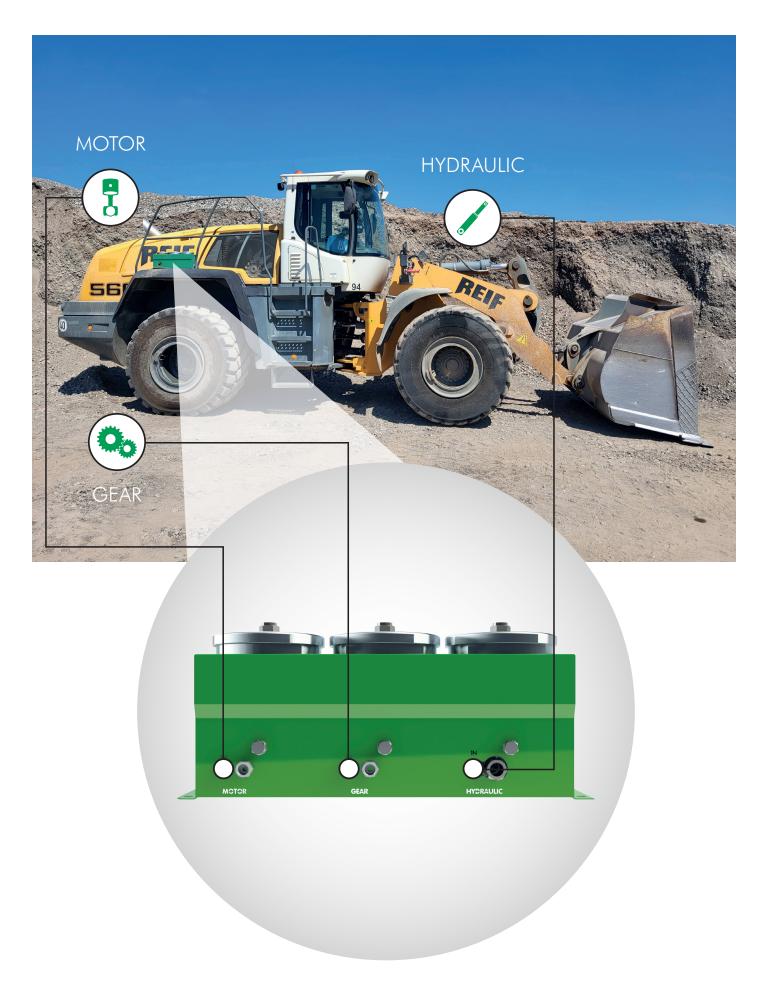
KLEENOIL MICROFILTRATION, if applied correctly is a guarantor for the reduction of system malfunctions, wear and breakdowns of components. All harmful contaminants with an abrasive and catalytic effect are eliminated from the oil. This slows down the ageing process of the lubricating oils, particularly because beside the elimination of solid particles also water (the basis for formation of acids) is removed. This results in the possibility of significantly extending oil change intervals. In terms of sustainability and under climatic-ecological aspects, this development represents an important milestone in the application of lubricating and pressure fluids.

In view of the fact, that lubricant products are becoming more and more expensive, too, and that at the same time their shortage is indicated and the security of supplies is becoming more and more important, the technical solution offered by the KLEENOIL TRIPLE UNIT is an effective preventive measure. In vehicles being used in times of crisis and/or civil protection, reliability and availability are of particular importance due to the simplified maintenance and reduced need for operating materials. The same advantages apply when using any construction, forestry or municipal machine.

The KLEENOIL TRIPLE UNIT has been developed to filter three different oil circuits of a machine, with the same type of filter element. This simplifies and facilitates the oil maintenance. The filter elements are changed in synchronised intervals.

The KLEENOIL TRIPLE UNIT is available in three different sizes, for all application cases where combustion engines up to 600 KW / 100 litres of engine oil, 150 litres of gear oil and 500 litres of hydraulic oil (system content) are employed.

### **Example - Application in construction machines**



#### **TRIPLE LDU**

- 3 LDU filter units with LDFC filter elements, compactly installed in a mild steel housing.
- Application description:
  - 1 LDU-M8 for engine oil filtration up to 250KW / 30 litres engine oil
  - 1 LDU-H8 for gear oil filtration up to50 litres gear oil.

Pressure range 2 - 8 bar.

1 LDU-H300 for hydraulic oil filtration up to 150 litres system content.

Pressure range 5 - 300 bar.

- The return lines of all circuits <u>always</u> have to be connected directly to the oil tank/oil sump.
- The connection of the supply and return lines is made on the side of the metal housing according to the respective inscription.

#### TRIPLE HDU

- 3 HDU filter units with HDFC-N filter elements, compactly installed in a mild steel housing.
- Application description:
  - 1 HDU-M8 for engine oil filtration up to 400 KW / 45 litres engine oil
  - 1 HDU-H8 for gear oil filtration up to 80 litres gear oil.

Pressure range 2 - 8 bar.

1 HDU-H300 for hydraulic oil filtration up to 250 litres system content.

Pressure range 5 - 300 bar.

- The return lines of all circuits <u>always</u> have to be connected directly to the oil tank/oil sump.
- The connection of the supply and return lines is made on the side of the metal housing according to the respective inscription.

### TRIPLE LDU Technical Data

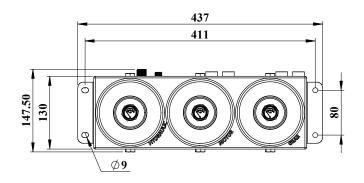
Flow rate through filter (average value) I/h	max. 70 (per filter)
Connections	Inlet: Engine & Gear Oil: 3/8" BSP Hydraulic oil: 1/4" BSP
	Outlet: 3/8" BSP
Weight	12 kg
Filter Element Type	3 x LDFC
Retention capacity per filter element (x 3)	Dirt: ≤ 0,5 kg
	Water:≤ 0,23 l

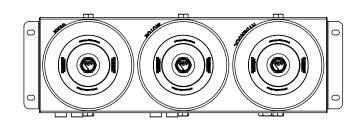
### TRIPLE HDU Technical Data

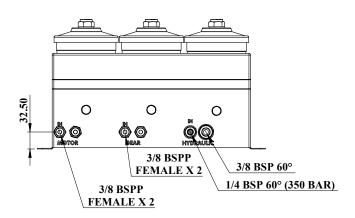
Flow rate through filter (average value) I/h	max. 120 (per filter)	
Connections	Inlet: Engine & Gear Oil: Hydraulic oil: Outlet:	•
Weight	17 kg	., . 50.
Filter Element Type	3 x HDFC-N	
Retention capacity per filter element (x 3)	Dirt: ≤ 1 kg	
	Water:≤ 0,3 l	

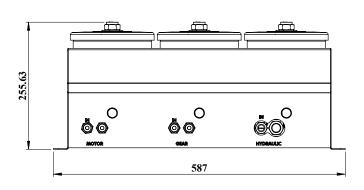
# **TRIPLE LDU Dimensions**

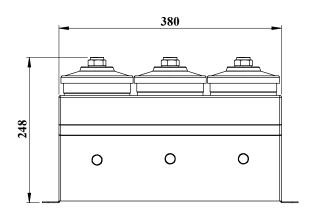
## TRIPLE HDU Dimensions

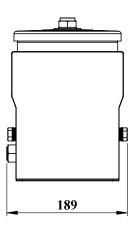












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