OffLine Separator
OLS 10

Description

The OffLine Separator OLS is a dewatering unit for hydraulic oils, light gear oil and diesel fuels with densities of less than 950 kg/m³.

The dewatering process works according to the coalescence principle which means that tiny water droplets are combined into larger drops in the coalescing unit and separated from the oil by force of gravity.

The OLS is installed offline, but can also be used as a transfer unit for diesel fuel, with an optional pre-filter.

Applications

- Marine and offshore applications for sensitive systems such as steering gear, drives or deck machinery
- Diesel oil / fuel dewatering to reduce wear on engine injection nozzles and injection pumps
- Transfer lines to reduce downtimes
- Turbine lubrication oil

Advantages

- Cost-effective dewatering without causing deterioration in the oil
- Water separation is unlimited because no absorbent filter elements are used
- Stainless steel housing to prevent internal corrosion
- Simple connection as offline unit

Technical specifications

Hydraulic specifications	
Flow rate	5 l/min
Permitted fluids	Mineral oils to DIN 50524 Gear oils to DIN 51517, 51524 Diesel fuel
Fluid temperature	Mineral oil -10 ... 80 °C Diesel -10 ... 50 °C
Permitted viscosity range	15 ... 500 mm²/sec (pump type S, G) 2 … 8 mm²/sec (pump type GD)
Operating pressure	Maximum 6 bar
Permitted pressure at inlet	-0.4 … 0.6 bar (with pump) 0.5 … 2 bar (without pump)
Permitted pressure at water drain	Not pressurized
Housing material	Stainless steel 1.4301
Material of seal	NBR (FPM)
Inlet connection	G 1"
Outlet connection	G 1"
Connection for water drain	G ½"
Electrical data	
Supply voltage	See model code
Power consumption	Without heater ≈ 1 kW With heater max. 3 kW
External fuse required	16 amperes
Power cable, length	10 meters (only on options PKZ and FA2)
Protection class to DIN 40050	IP 54
General data	
Ambient temperature	-40 ... 70 °C
Storage temperature range	10 ... 40 °C
Relative humidity	Max. 80%, non-condensing
Weight	Small drip tray ≈ 80 Kg Large drip tray ≈ 150 Kg

Model code

OLS 10 / 5 - S - N - 20 - Z - BM - Z - Z - Z / V

Basic type
OLS = OffLine Separator

Size
10 = number of coalescing elements

Nominal flow rate
5 = 5 l/min

Pump type
Z = without pump
G = gear pump
GD = gear pump for diesel fuel
S = vane pump

Supply voltage
B = 480 V - 3 Ph
C = 380 V - 3 Ph
G = 440 V - 3 Ph
L = 115 V - 1 Ph
M = 230 V - 1 Ph*
N = 400 V - 3 Ph*
O = 460 V - 3 Ph
P = 575 V - 3 Ph
S = 500 V - 3 Ph
R = 415 V - 3 Ph
W = 230 V - 3 Ph*
X = other voltage (on request)
L60, M60, ...= operation at 60 Hz
Z = without motor
*) Standard in Europe according to
CENELEC HD472 S1 at 50 Hz

Element length
20 = coalescing element 20" – N20WRxxx

Pre-filter
1 = OLF 5/4 Toploader
Z = without pre-filter

Clogging indicator
BM = visual differential pressure indicator (VMxBM.1)
C = electrical differential pressure indicator (VMxC.0)
Z = without clogging indicator
E = VMF 0.6KO (pressure indicator)

Heater
1 = 1 kW heater
2 = 2 kW heater
Z = without heater

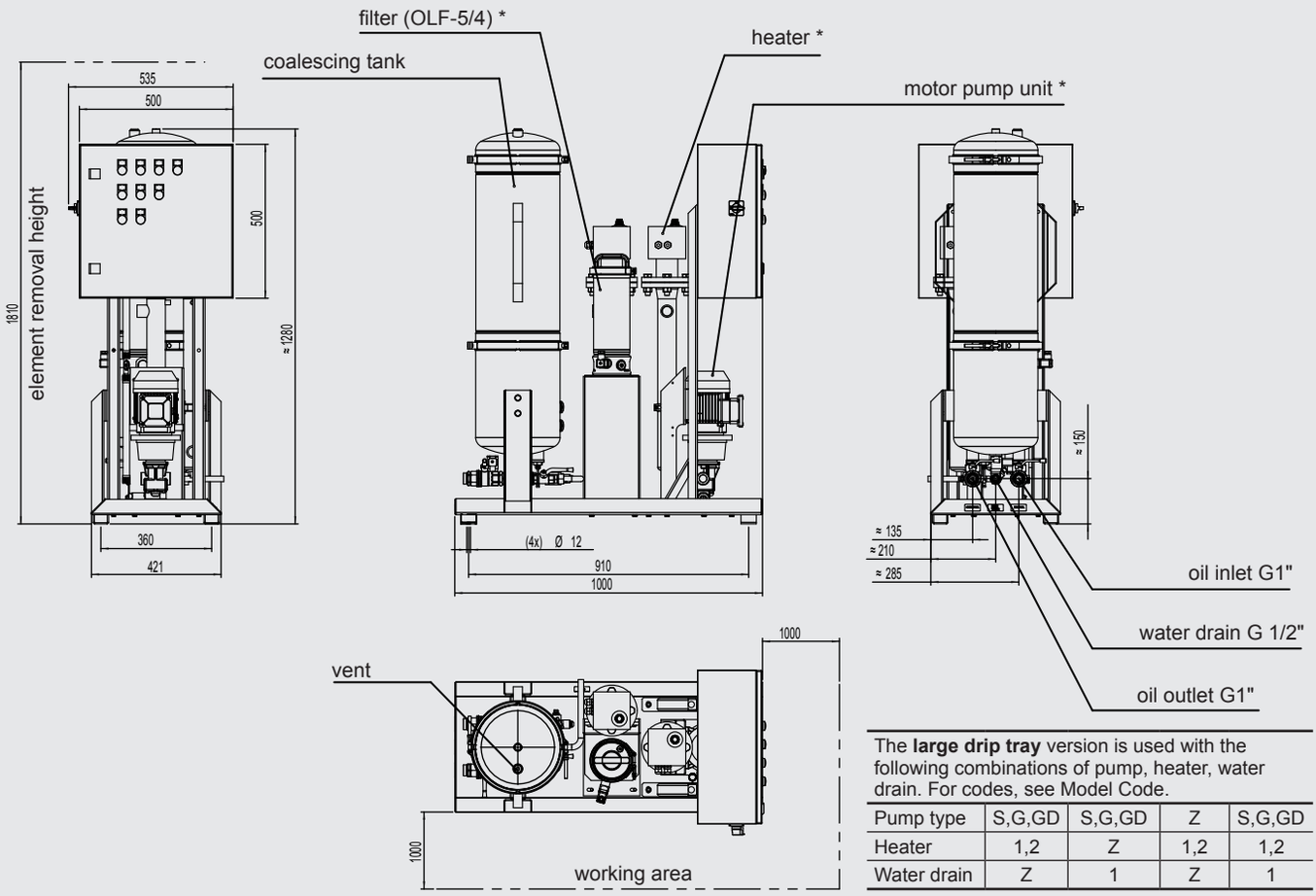
Water drain
1 = automatic
Z = manual

Measuring equipment
Z = without measuring equipment

Additional details
PKZ = On/Off switch with motor circuit breaker
FA2 = On/Off switch with motor circuit breaker and cut-off when filter is clogged.
Does **not** require neutral wire. All voltages. Clogging indicator C required.
V = Viton (FPM) seals

Dimensions (in mm)

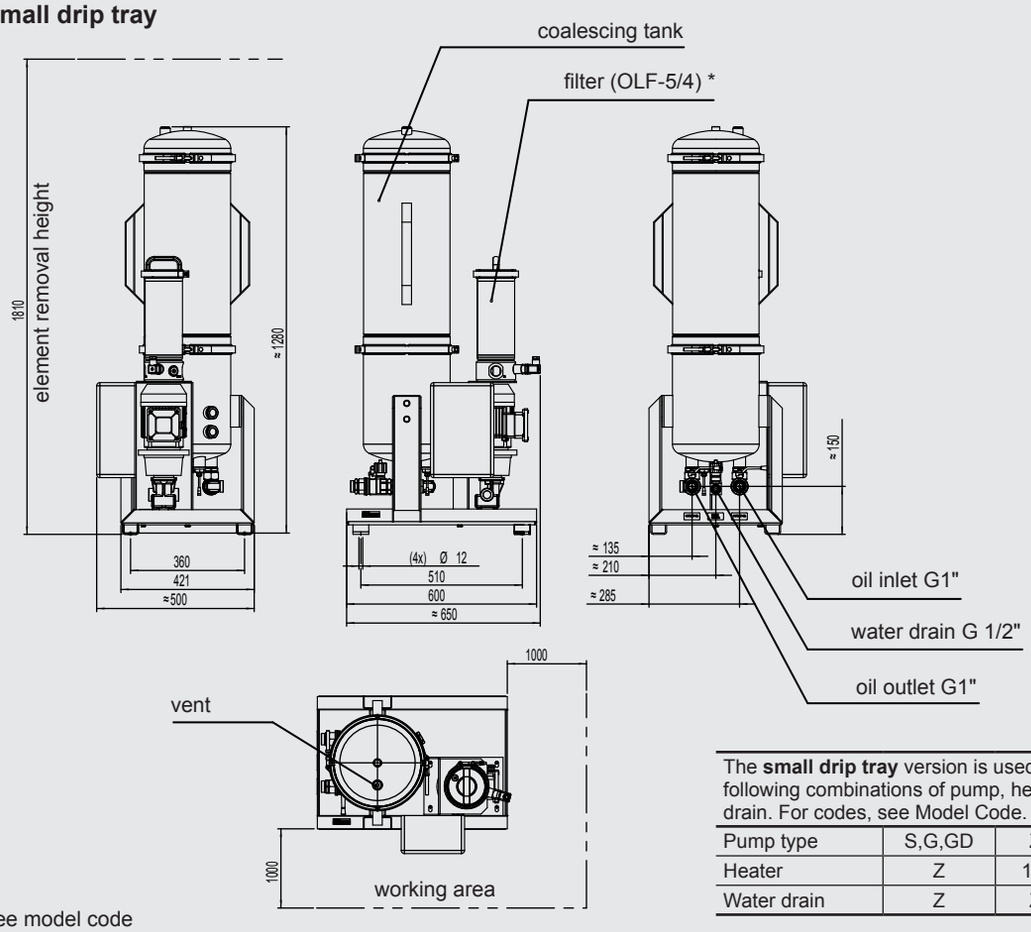
Dimensions depend on the type of OLS:
Dimensions with large drip tray



The **large drip tray** version is used with the following combinations of pump, heater, water drain. For codes, see Model Code.

Pump type	S,G,GD	S,G,GD	Z	S,G,GD
Heater	1,2	Z	1,2	1,2
Water drain	Z	1	Z	1

Dimensions with small drip tray



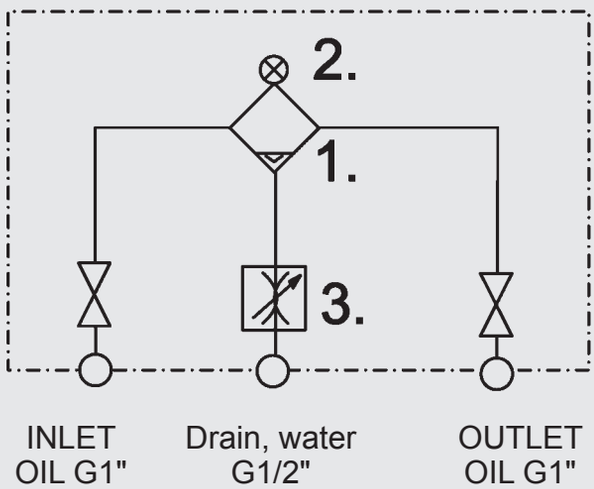
The **small drip tray** version is used with the following combinations of pump, heater, water drain. For codes, see Model Code.

Pump type	S,G,GD	Z	Z
Heater	Z	1,2	Z
Water drain	Z	Z	1

* optional equipment, see model code

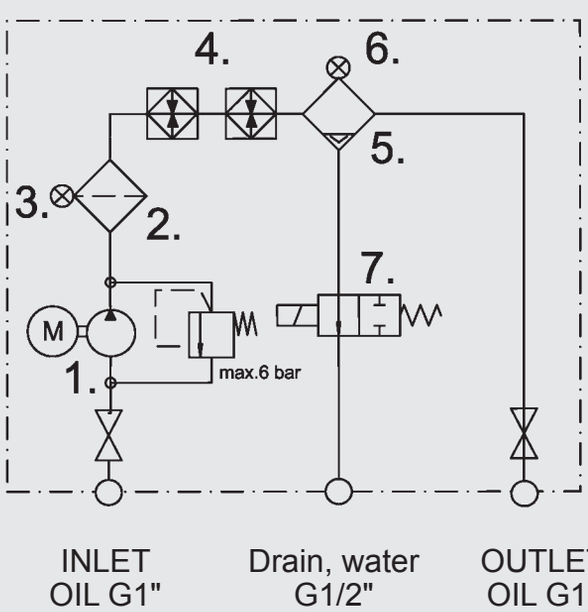
Hydraulic circuit diagram

OLS 10/5 (minimum equipment)



No.	Description
1.	Coalescing tank
2.	Clogging indicator on coalescing tank (differential pressure 0.8 bar)
3.	Manual water drain

OLS 10/5 (maximum equipment without measuring equipment)



No.	Description
1.	Motor pump unit
2.	Pre-filter (OLF-5/4)
3.	Clogging indicator on pre-filter (differential pressure 2 bar)
4.	Heater
5.	Coalescing tank
6.	Clogging indicator on coalescing tank (differential pressure 0.8 bar)
7.	Automatic water drain

Items supplied

– OLS
– Operating and maintenance instructions

Elements

Coalescing element:
– 3277940 - N20WR005-1F (5 µm)
– 3361569 - N20WR070-1F (70 µm)

The OLS 10 has 10 coalescing elements

Filter elements for pre-filter:
– 349494 - N5DM002 (2 µm)
– 3023508 - N5DM020 (20 µm)
– 3060493 - N5WHC025 (25 µm)

Recommendation:
– 2 µm pre-filter for N20WR005
– 20 µm or 25 µm pre-filter for N20WR070

Note

The information in this brochure relates to the operating conditions and applications described.

For applications and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

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