

## Oil Service Units

# UMPCL 045 Lightline

With integrated particle monitor · Optionally with adjustable flow range 20 - 70 l/min / 5.3 - 18.5 gpm



UMPC 045 Lightline

## Description

The UMPCL 045 Lightline is an oil service unit designed for filling and cleaning of hydraulic or lubrication systems and for transferring of fluids.

Its compact size and ergonomic design allow easy handling in minimal work spaces.

### Protection of systems through ultra-fine filtration

The EXAPOR®MAX 2 ultra-fine filter element is the heart of the UMPCL 045. A high separation efficiency and a large dirt-holding capacity of the filter elements (up to 1980 g) make the UMPCL 045 an economical choice for our customers.

### Monitored filtration

The unit is equipped with an oil cleanliness monitor. The OPCOM particle sensor permanently monitors the current cleanliness class during the cleaning or filling process. The data stored in the internal memory can be transmitted to a computer.

### Flexible and universal device

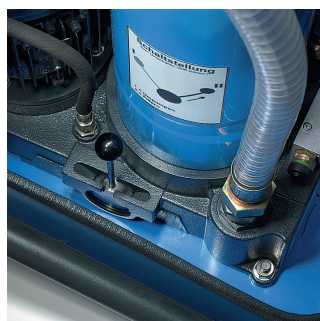
Optionally, the unit can be equipped with frequency converter and potentiometer for adjusting the flow rate in the range of 20 - 70 l/min / 5.3 - 18.5 gpm. This additional feature makes the UMPCL 045 even more universal and extends its use to smaller and larger systems. The flow rate can be adapted to the actual need depending on the tank size and / or required speed of the filtration / oil transfer.

### Switching valve 1 for changing operating modes

Installed in the pump block - to switch between two modes: "filtering" and "pumping without filtering".

### Switching valve 2 for selecting the sampling point

Installed in the front panel - for cleanliness measurement: "behind filter" (e.g. when filling systems) or "before filter" (e.g. for tank cleaning).



Switching valve 1



Switching valve 2



Front panel of the UMPC 045 Lightline with adjustable flow range

## Characteristics

### Nominal flow rate

up to 70 l/min / 18.5 gpm - see Ordering Code

### Operating pressure

max. 7 bar / 101 psi

### Viscosity range\*

15 - 1100 mm<sup>2</sup>/s - continuous operation, flow 20 l/min / 5.3 gpm  
 15 - 600 mm<sup>2</sup>/s - continuous operation, flow 45 l/min / 11.9 gpm  
 15 - 400 mm<sup>2</sup>/s - continuous operation, flow 70 l/min / 18.5 gpm

### Temperature range of fluids

0 °C ... +65 °C / +32 °F ... +149 °F  
 (also see table Viscosity Range)

### Ambient temperature range

0 °C ... +50 °C / +32 °F ... +122 °F

### Pump design

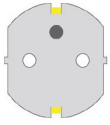
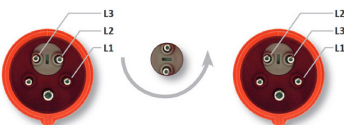
Internal gear pump

### Electrical motor

3 ~ 400/460 V / 50/60 Hz, 1.1kW  
 Protection type: IP 54

### Electrical connection\*\*

Cable length 6 m / 19.7 ft with the following electric plug:

1 - Model 23050 (see Ordering Code)	2 - Model 40050 (see Ordering Code)
	
Type E/F (CEE7/7 Unischuko)	With phase crossover, 5-pins (3P+N+PE), IEC 60309

### Clogging indicator

optical clogging indication DG 042-04  
 (all types)  $\Delta p = 3,5 \pm 0.5$  bar

### Hydraulic connection

*Suction side:*

Hose DN 32, length 2.7 m / 8.9 ft with suction pipe

*Suction strainer:*

Screen element 280  $\mu$ m, ordering code S9.0417-13

*Pressure side\*\*\*:*

Hose DN 25, length 2.7 m / 8.9 ft with pressure pipe

### Permitted suction heights

max. 2 m (unfilled)  
 max. 6 m (in operating condition)

### Hydraulic fluids

Mineral oil and biodegradable fluids  
 (HEES and HETG, see info service sheet 00.20).  
 Other fluids on request.

### Weight

approx. 85 kg / 187.4 lbs

### Operating and transport position

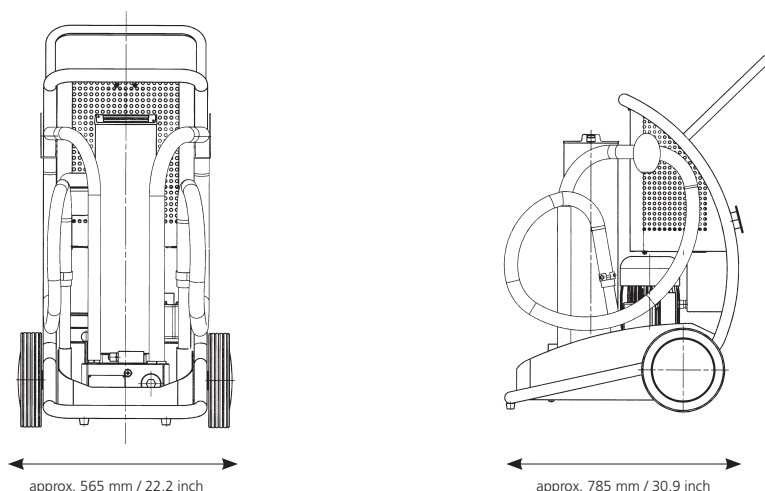
Operating position: upright  
 Transport position: upright or horizontal

### Accessories

Quick connection adapters for suction and pressure hose  
 available on request

- \* An exact measurement of the oil cleanliness class is only possible within a viscosity range from 15 mm<sup>2</sup>/s to 300 mm<sup>2</sup>/s / 70 SUS to 1160 SUS
- \*\* For electric cable extension - see Ordering Code.  
 Model 12050 is delivered without electric plug or the plug version should be defined individually
- \*\*\* For pressure hose extension - see Ordering Code

## Dimensions



## Ordering code

UMPCL 045

Type of unit	Code
Oil service unit with integrated particle monitor	UMPCL 045

Nominal flow	Hydraulic symbol	Code
Fixed nominal flow 45 l/min / 11.9 gpm	1	F
Adjustable flow range 20-70 l/min / 5.3-18.5 gpm	2	A

Filter element					Code
	Fineness ( $\beta=200$ ) Dirt-holding capacity according to ISO 16889 and nominal flow 45 l/min / 11.9 gpm		Water capacity	Spare filter element	
EXAPOR®MAX 2	3 $\mu\text{m}$	1980 g	-	V7.1560-103	V003
EXAPOR®MAX 2	5 $\mu\text{m}$	1950 g	-	V7.1560-03	V005
EXAPOR®MAX 2	10 $\mu\text{m}$	1890 g	-	V7.1560-06	V010
EXAPOR®AQUA	7 $\mu\text{m}$	590 g	1520 ml	Y7.1560-05	Y007

Input voltage			Code
Connection	Motor power	Plug	
1~230 VAC	1.1 kW	1	23050
3~400 VAC	1.1 kW	2	40050

Pressure hose extension	
Customized length of the pressure hose (max. 5 m / 16.4 ft). Example of order <b>P4.5</b> - pressure hose length 4.5 m / 14.8 ft	
	Px.x

Electric cable extension	
Customized length of the electric cable Example of order <b>C8.5</b> - electric cable length 8.5 m / 27.8 ft equipped with electric plug	
	Cx.x

### Order example:

**UMPCL 045A-V003/23050C9.5** - oil service unit with integrated particle monitor, version with adjustable flow range 20 - 70 l/min / 5.3 - 18.5 gpm, filter element 3  $\mu\text{m}$ , input voltage 1~230 VAC, standard suction and pressure hose, and customized length of electric cable 9.5 m / 31 ft

## Hydraulic symbol

