

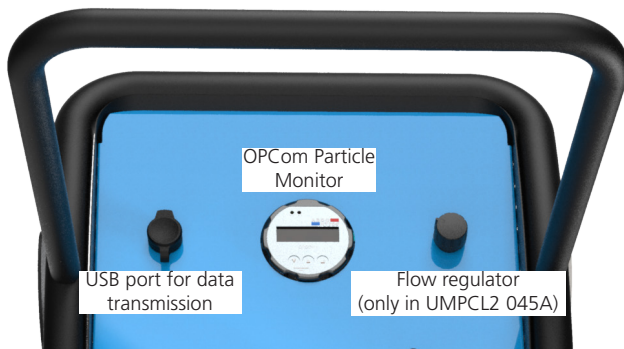
Oil Service Unit

**UMPCL2 045**

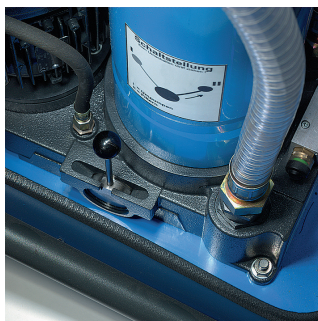
With integrated particle monitor · Optionally with adjustable flow range 20 - 70 l/min / 5.3 - 18.5 gpm



UMPCL2 045



Front panel of the UMPCL2 045



Switching valve 1



Switching valve 2

**Description**

The UMPCL2 045 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 ultra-fine filter element is the heart of the UMPCL2. A high separation efficiency and a large dirt-holding capacity of the filter elements (up to 4000 g) make the UMPCL2 an economical choice for our customers.

**Monitored filtration**

The unit is equipped with the OPCOM Particle Monitor which permanently measures fluid cleanliness class during the cleaning or filling process. The data stored in the internal memory can be transmitted to a computer via USB port installed in the front panel.

**Flexible and universal device**

Optionally, the unit can be equipped with frequency inverter 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 UMPCL2 even more universal device 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. Operation of the unit at a smaller flow allows you to extend the life of the filter element by increasing its capacity even up to 4000g

**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).

## Characteristics

### Flow rate

UMPCL2 045F: 45 l/min / 11.9 gpm  
UMPCL2 045A: 20 up to 70 l/min / 5.3 up to 18.5 gpm

### 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

\* 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

### 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

### Applicable filter elements

- › EXAPOR®MAX - for solid particles
- › EXAPOR®SPARK PROTECT - for solid particles and protection against electrostatic discharges (oils with low electrical conductivity < 500 pS/m at 20 °C)
- › EXAPOR®AQUA - for free water and solid particles

### Dirt holding capacity

The dirt holding capacity depends on the flow rate. The table below shows the dirt holding capacity values according to ISO16889 for different filter elements and various flow ranges.

Filter element	Fineness (β=200) Dirt-holding capacity according to ISO 16889		Water capacity	Flow rate
	3 μm	5 μm		
EXAPOR® <b>MAX2</b> V7.1560-103	4000g	-	20 l/min	
	1950g	-	45 l/min	
	1360g	-	70 l/min	
EXAPOR® <b>MAX2</b> V7.1560-03	4000	-	20 l/min	
	1980 g	-	45 l/min	
	1400g	-	70 l/min	
EXAPOR® <b>MAX3</b> V7.1560-06	4000g	-	20 l/min	
	1980 g	-	45 l/min	
	1440g	-	70 l/min	
EXAPOR® <b>Spark Protect</b> Z7.1560-103	4000g	-	20 l/min	
	1950g	-	45 l/min	
	1360g	-	70 l/min	
EXAPOR® <b>AQUA</b> Y7.1560-05	1190 g	1520 ml	20 l/min	
	590 g	1520 ml	45 l/min	
	420 g	1520 ml	70 l/min	

### Clogging indicator

optical clogging indication DG 042-04  
(all types) Δp = 3,5 ±0,5 bar

### Hydraulic connection

Suction side:  
Hose DN 32, length 2.7 m / 8.9 ft with suction lance 0.4 m

Suction strainer:  
Screen element 280 μm, ordering code S9.0417-13

Pressure side\*\*  
Hose DN 25, length 2.7 m / 8.9 ft with pressure lance 0.4 m

### 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

### Electrical motor types (see also order code)

UMPCL2 045F:  
3 ~ 400 / 460 V 50/60 Hz, 1.1 kW / 1.5hp  
1 ~ 220 - 240VAC 50/60 Hz, 1.1 kW / 1.5hp  
1 ~ 110 -120VAC 50/60 Hz, 0,75 kW / 1hp  
UMPCL2 045A:  
3 ~ 400/460 V 50/60 Hz, 1.1 kW / 1.5hp

### Electrical connection\*\*\*

Cable length 6 m / 19.7 ft with the electric plug.  
To select the required electric plug see order code.

### Accessories

\*\* Pressure hose extension (max. 5 m) - see order code  
\*\*\* Electric cable extension - see order code

Long suction lance DN32x1000mm, order code LA 32X1000  
Long pressure lance DN25x1000mm, order code LA 25X1000  
Other lances on request.

## Ordering code

UMPCL2 045

Type of unit	Code
Oil service unit with integrated particle monitor	UMPCL2 045

Nominal flow	Hydr. 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	Fineness ( $\beta=200$ ) Dirt-holding capacity according to ISO 16889 and nominal flow 45 l/min / 11.9 gpm		Water capacity	Spare filter element	Code
EXAPOR®MAX 2	3 $\mu$ m	1950 g	-	V7.1560-103	V003
EXAPOR®MAX 2	5 $\mu$ m	1980 g	-	V7.1560-03	V005
EXAPOR®MAX 2	10 $\mu$ m	1980 g	-	V7.1560-06	V010
EXAPOR®SPARK PROTECT	3 $\mu$ m	1950 g	-	Z7.1560-103	Z003
EXAPOR®AQUA	7 $\mu$ m	590 g	1520 ml	Y7.1560-05	Y007

Power supply voltage	Code
1~220-240 VAC 50/60Hz	23050
3~400-460 VAC 50/60Hz	40050
1~110-120 VAC 50/60Hz	11050

### Electric plug - code and description below \*

Other types - on request

No code Default for code 23050	G	J	No code Default for code 11050	I6	I4	No code Default for code 40050
220-250 VAC	220-250 VAC	220-240 VAC	100-127 VAC	200-250 VAC INDUSTRIAL	110-130 VAC INDUSTRIAL	380-480 VAC INDUSTRIAL
15 A TYPE E/F (CEE77 Unischuko)	13 A TYPE G (BS 1363)	10 A TYPE J (T12)	15 A TYPE B (NEMA 5-15P)	Type 013-6 16A-6h 3-pins (2P+PE)	Type 013-4 16A-4h 3-pins (2P+PE)	Type 715-6 16A-6h 5-pins (3P+N+PE), IEC 60309 With phase crossover
						

### Optional pressure hose extension (maximum 5 m / 16.4 ft)

Example of order: **P4.5** - pressure hose length 4.5 m / 14.8 ft

P\_.\_

### Optional electric cable extension \*\*

Example of order: **C8.5** - cable length 8.5 m / 27.8 ft

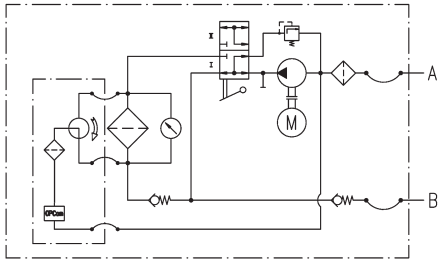
C\_.\_

### Order example:

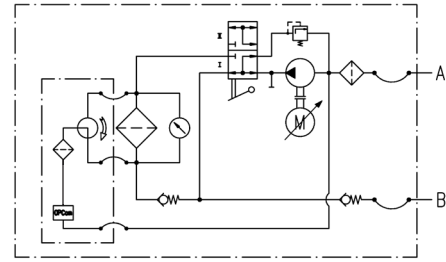
**UMPCL2 045A-V003/23050C9.5** - oil service unit with integrated particle monitor, version with adjustable flow range 20 - 70 l/min / 5.3 - 18.5 gpm filter element 3  $\mu$ m, input voltage 1~230 VAC and customized length of electric cable 9.5 m / 31 ft

## Hydraulic symbol

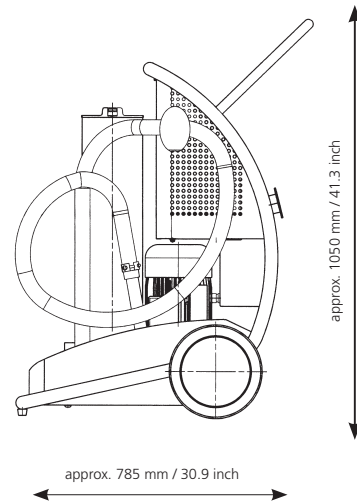
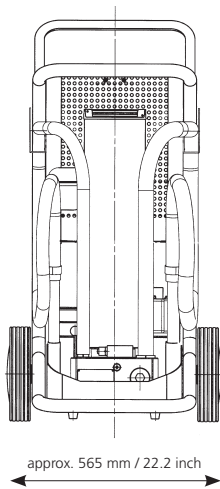
1: (UMPCL2 045F...)



2: (UMCL2 045A...)



## Dimensions



## Other types of mobile oil service units

In the portfolio of ARGO-HYTOS you can find, other types of mobile filtration systems:

### UM2 045



Basic mobile service unit

For more details, see data sheet on [www.argo-hytos.com](http://www.argo-hytos.com) or click this [Link](#)

### UMPC2 045



Mobile service unit with integrated particle monitor, oil condition sensor touch display and printer

For more details, see data sheet on [www.argo-hytos.com](http://www.argo-hytos.com) or click this [Link](#)