UMPC2 045

Mobile device for the filtration of hydraulic and lubrication fluids

UMPC2 Oil Service Unit

Key features

- **Variable flow range 20 - 70 l/min / 5.3 - 18.5 gpm**
- **Intuitively operated touch panel**
- **Unbeatable ergonomics, comfortable handling**
- **High filtration efficiency**
- **Large dirt holding capacity (up to 4 kg)**
- **With integrated particle monitor and humidity sensor**
- **Dosing function**
- **Automatic switch-off function**
- **Built-in printer**

Description

The UMPC2 045 sets new trends in the field of Fluid Management. Unbeatable ergonomic and multifunctionality make this device an excellent filtration tool.
The mobile oil service unit UMPC2 045 can be used for:

- filling the machine with filtered oil
- disposal of used oil from machines
- off-line filtration in hydraulic or lubrication systems
- oil transfer

The EXAPOR®MAX ultra-fine filter element is the heart of the UMPC2 045. The flow direction from the inside to the outside and the innovative star-shaped pleating of the filter material guarantee excellent oil cleanliness and provide increased machine availability, longer maintenance intervals and lower operating costs.

During the filtration process, the oil condition is constantly monitored. Integrated sensors measure fluid parameters like contamination with solid particles, humidity and temperature. When the target cleanliness class is reached, the unit can be switched off automatically. The data from the sensors are stored in individual measurement profiles.

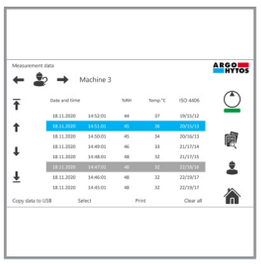
Intuitively operated touch panel

What does Fluid Management mean? Click on the button below and see the possibilities of our UMPC2 unit!

YouTube

Self-explanatory

The operating touch panel is clearly and simply designed. All settings and indications can be realized intuitively. Additional functions as for example DOSING, AUTO SWITCH-OFF, AUTO-FLOW enrich the UMPC2 unit, making it a multifunctional and extremely flexible device.



Convenient data management

The measuring data are stored in the internal memory of the UMPC2.
By assigning the results to individual PROFILES, it is possible to manage only selected data (e.g. selected customers or machines) conveniently and transparently.

Quick reporting

Selected results can be easily and quickly converted into reports that can be immediately printed or stored in a separate memory thanks to the built-in printer (optional accessory).

Data transfer

Data can be easily copied to a USB stick at any time. The XML format allows for their easy processing in external devices.

Extremely efficient and capacious filter element

The high separation efficiency of the EXAPOR®MAX filter elements guarantees maximum protection of the components. The large DIRT HOLDING CAPACITY (up to 4 kg) makes the UMPC2 unrivaled in its class of devices. Apart from the EXAPOR®MAX technology, the customer can use the following:

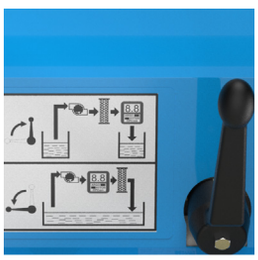
- EXAPOR®SPARK PROTECT elements for hydraulic oils with low electrical conductivity (< 500 pS/m at 20 °C)
- EXAPOR®AQUA elements for filtration combined with dewatering

Maintenance-free filter housing

The filter element can be removed from the housing together with the cover without any extra tools. Fluid flows through the element from the inside to the outside. The built-in dirt retention valve closes automatically when the element is removed, ensuring that all dirt is removed from the housing together with the element.

Switching Valve 1 for changing operating modes

The selector valve installed in the pump block is used to switch between two basic modes of operation: “filtering” (e.g. when cleaning the hydraulic system) and “pumping over without filtering” (e.g. when removing waste fluid from the machine).



Switching Valve 2 for selecting the sampling point

The selector valve installed in the front panel is used for switching between two measurement modes: “behind filter” (e.g. when filling systems) or “before filter” (e.g. for monitoring the oil cleanliness inside a filtered system).

Unbeatable ergonomics

Superior technology and excellent design are of no use if the operator can only move the service equipment with great physical effort. Therefore, ergonomics were of primary importance when designing the UMPC2 units.
Owing to its optimized weight distribution, the UMPC2 can be tilted from the standing position with minimum effort. In the tilted position, the UMPC2 can be moved walking upright, removing strain from the back.

Leakage-free transport

Transporting the UMPC2 in horizontal position, e.g. in the cargo area of a service vehicle, is facilitated by the wheels and the curved design of the frame. The drip tray prevents oil leakage during both vertical and horizontal transport.

Variable flow rate
20 up to 70 l/min / 5.3 up to 18.5 gpm

Operating pressure
max. 7 bar / 101 psi

Viscosity range*
15 - 1100 mm²/s - continuous operation, flow 20 l/min / 5.3 gpm
15 - 600 mm²/s - continuous operation, flow 45 l/min / 11.9 gpm
15 - 400 mm²/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 mm²/s to 300 mm²/s / 70 SUS to 1160 SUS

Temperature range of fluids
0 °C ... +65 °C / +32 °F ... +149 °F

Ambient temperature range
0 °C ... +50 °C / +32 °F ... +122 °F

Applicable filter elements
› EXAPOR®MAX - for separation of solid particles
› EXAPOR®SPARK PROTECT - for separation of solid particles and protection against electrostatic discharges (oils with low electrical conductivity < 500 pS/m at 20 °C)
› EXAPOR®AQUA - for separation of 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
EXAPOR® MAX2 V7.1560-103	3 µm	4000g	-	20 l/min
		1950g	-	45 l/min
		1360g	-	70 l/min
EXAPOR® MAX2 V7.1560-03	5 µm	4000	-	20 l/min
		1980 g	-	45 l/min
		1400g	-	70 l/min
EXAPOR® MAX3 V7.1560-06	10 µm	4000g	-	20 l/min
		1980 g	-	45 l/min
		1440g	-	70 l/min
EXAPOR® Spark Protect Z7.1560-103	3 µm	4000g	-	20 l/min
		1950g	-	45 l/min
		1360g	-	70 l/min
EXAPOR® AQUA Y7.1560-05	7 µm	1190 g	1520 ml	20 l/min
		590 g	1520 ml	45 l/min
		420 g	1520 ml	70 l/min

Clogging indicator
Electrical clogging indicator with additional optical indication in the form of:
› transparent socket with 2 built-in LEDs
› additional icon in the main screen which changes the color from green into red when the filter element is contaminated

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)

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

Weight
approx. 95 kg / 209 lbs

Operating and transport position
Operating position: upright
Transport position: upright or horizontal

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 electric plug.
To select required electric plug see order code.

Accessories
** Pressure hose extension (max. 5 m) - on request
*** Electric cable extension - on request

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

Ordering Code

UMPC2 045 A - / P

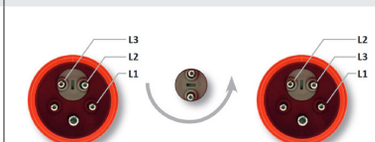
Type of unit	Code
Oil service unit with integrated particle monitor	UMPC2 045

Nominal flow	Code
Adjustable flow range 20-70 l/min / 5.3-18.5 gpm	A

Filter element	Fineness (β=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 µm	1950 g	-	V7.1560-103	V003
EXAPOR®MAX 2	5 µm	1980 g	-	V7.1560-03	V005
EXAPOR®MAX 2	10 µm	1980 g	-	V7.1560-06	V010
EXAPOR®SPARK PROTECT	3 µm	1950 g	-	Z7.1560-103	Z003
EXAPOR®AQUA	7 µm	590 g	1520 ml	Y7.1560-05	Y007

Input voltage		Code
Connection	**Motor power**	
1~220-240 VAC	1.1 kW	23050
3~400-460 VAC	1.1 kW	40050
1~110-120 VAC	1.1 kW	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 15 A TYPE E/F (CEE7/7 Unischuko)	**220-250 VAC** 13 A TYPE G (BS 1363)	**220-240 VAC** 10 A TYPE J (T12)	**100-127 VAC** 15 A TYPE B (NEMA 5-15P)	**200-250 VAC INDUSTRIAL** Type 013-6 16A-6h 3-pins (2P+PE)	**110-130 VAC INDUSTRIAL** Type 013-4 16A-4h 3-pins (2P+PE)	**380-480 VAC INDUSTRIAL** Type 715-6 16A-6h 5-pins (3P+N+PE), IEC 60309 With phase crossover
						

Built-in printer	P

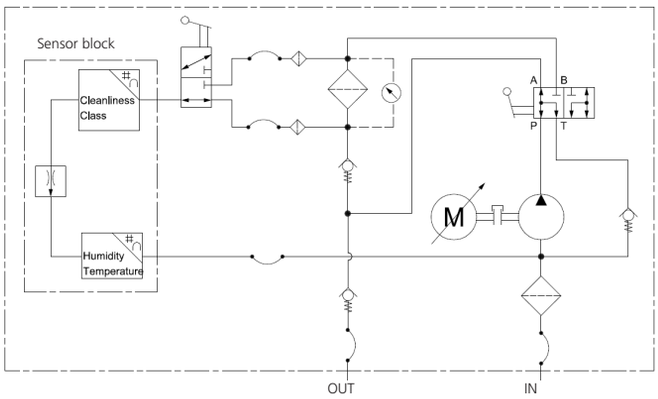
Customization	Code
No	
Yes Put letter C in the ordering code and describe requested individual changes for example other color, customer logo, length of hoses, electric cable etc.	C/

Order example:

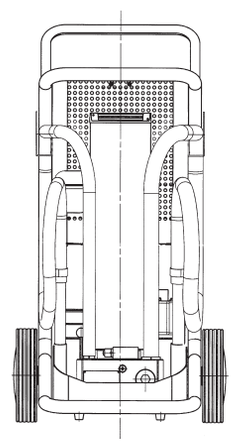
UMPC2 045A-V010/40050PC/electric cable 9.5 m / 31 ft

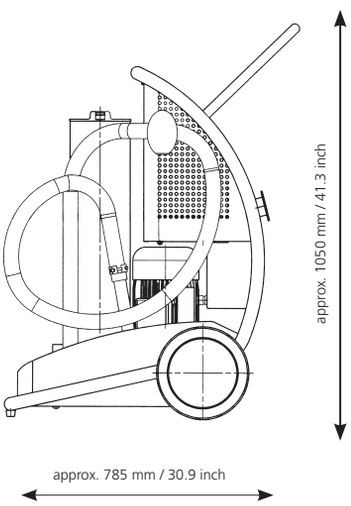
Oil service unit UMPC2 with adjustable flow range 20 - 70 l/min / 5.3 - 18.5 gpm, filter element 10 µm, input voltage 3~400 VAC, integrated printer and customized length of electric cable 9.5 m / 31 ft

Hydraulic symbol



Dimensions





Other types of mobile oil service units

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

UM2 045

Basic mobile service unit

For more details, see data sheet on **www.argo-hytos.com** or click this **Link**

UMPCL2 045

Mobile service unit with integrated particle monitor

For more details, see data sheet on **www.argo-hytos.com** or click this **Link**