



## Mobile Filtration Unit MFU-10 MFU-15

### Description

The Mobile Filtration Unit MFU is used as a portable service unit for filling hydraulic systems, flushing small hydraulic systems and for cleaning in bypass flow. Solid particle contamination and free water can be removed by the filter elements.

The MFU can also be fitted with a CS 1000 Contamination Sensor. This allows the solid particle contamination in the oil to be monitored at the same time. The cleanliness class results are displayed according to ISO, SAE or NAS classifications.

### Applications

- Filtered and unfiltered filling of hydraulic systems
- Temporary offline filtration of hydraulic systems
- Filtered and unfiltered fluid transfer
- Unfiltered drainage of hydraulic tanks
- Leakage oil recirculation at test benches

### Special features

- Improved service life of components and system filters
- Increased oil service life
- Increased machine availability
- Simple operation
- Compact design
- Integrated dry-running protection
- Option: CS 1000 ensures continuous monitoring of oil cleanliness during cleaning

### Technical data

| General data                               | MFU-E                          | MFU-S          | MFU-P          |
|--------------------------------------------|--------------------------------|----------------|----------------|
| Flow rate, maximum                         | 15 l/min                       | 15 l/min       | 10 l/min       |
| Pump type                                  | Vane pump                      |                |                |
| Operating pressure, maximum                | 4.0 bar                        |                |                |
| Permitted suction pressure at suction port | -0.4 bar to 0.5 bar            |                |                |
| Viscosity range                            | 5 to 350 mm²/s                 | 5 to 650 mm²/s | 5 to 200 mm²/s |
| Length of connection cable                 | 3 m (including male connector) |                |                |
| Length of signal cable (for standard type) | -                              | 10 m           | -              |
| Permitted fluid temperature range          | -10 to 80 °C                   |                |                |
| Permitted ambient temperature range        | -10 to 40 °C                   |                |                |
| Sealing material                           | FKM (FPM, Viton®)              |                |                |
| Empty weight                               | ≈ 14 kg                        | ≈ 17 kg        | ≈ 16.5 kg      |

### Preferred models (with shorter delivery times)

| Filter unit    | Part number |
|----------------|-------------|
| MFU-15E9-SM-FE | 4263416     |
| MFU-15S9-SN-FE | 4269896     |
| MFU-10P9-SM-FE | 4263417     |

## Model code

**MFU - 15 - E - 9 - S - M - F E - / -**

### Basic type

MFU = MobileFiltration Unit

### Model

10 = 10 l/min (for type P)

15 = 15 l/min (for type E and S)

### Type

E = Economy

S = Standard (with signal cable for "device in operation")

P = Premium (with condition monitoring)

### Filter element length

9 = 9"

### Pump version

S = vane pump

### Supply voltage

A = 100 V, 50 Hz, 1 ph (0.25 kW for type E and P; 0.37 kW for type S)

AF = 110 V, 50 Hz, 1 ph (0.25 kW for type E and P; 0.37 kW for type S)

AH = 100 V, 60 Hz, 1 ph (0.25 kW for type E and P; 0.37 kW for type S)

D = compressed air (not available for type S and P)

F = 240 V, 50 Hz, 1 ph (0.25 kW for type E and P; 0.37 kW for type S)

K = 120 V, 60 Hz, 1 ph (0.25 kW for type E and P; 0.37 kW for type S)

M = 230 V, 50 Hz, 1 ph (0.25 kW for type E and P; 0.37 kW for type S)

N = 400 V, 50 Hz, 3 ph (0.37 kW) (not available for type E and P)

T = 12 V DC (0.2 kW) (not available for type S)

U = 24 V DC (0.2 kW) (not available for type S)

Others on request

### Sealing material

F = FKM (FPM, Viton®)

Others on request

### Clogging indicator

E = back-pressure indicator

### Supplementary details

I1 = interface 1 (CSI-C-11) (only for type P)

## Scope of delivery

- MFU (without filter element, without hoses)
- Operating and maintenance instructions

Filter elements and hoses must be ordered separately and installed before operation on site.  
For this purpose, please observe the next page.

## Filter elements

|                                         | Designation | Part no. | Filtration rating | Water absorption |
|-----------------------------------------|-------------|----------|-------------------|------------------|
| <b>Filtration</b>                       | NX9DM002-F  | 4265955  | 2 µm              | -                |
|                                         | NX9DM005-F  | 4265956  | 5 µm              | -                |
|                                         | NX9DM010-F  | 4265957  | 10 µm             | -                |
|                                         | NX9DM020-F  | 4265958  | 20 µm             | -                |
| <b>Filtration + dewatering</b>          | NX9AM002-F  | 4265959  | 2 µm              | √                |
|                                         | NX9AM005-F  | 4265960  | 5 µm              | √                |
|                                         | NX9AM010-F  | 4265961  | 10 µm             | √                |
|                                         | NX9AM020-F  | 4265962  | 20 µm             | √                |
| <b>Adapter for unfiltered operation</b> | NX9-xxxxx-F | 4265963  | -                 | -                |

## Accessories

### Hoses with lance (depressurised suction up to max. 350 mm<sup>2</sup>/s)

| Designation   | Part no. | Suction hose/<br>pressure hose | Lance  | Material of<br>suction/pressure hose |
|---------------|----------|--------------------------------|--------|--------------------------------------|
| E-MFU-15-SDN  | 4270478  | 2.5 m / 2.5 m                  | 0.25 m | PVC / PVC                            |
| E-MFU-15-SDF  | 4270479  | 2.5 m / 2.5 m                  | 0.25 m | 1SN / 2TE                            |
| E-MFU-15-SD5N | 4270480  | 2.5 m / 5.0 m                  | 0.25 m | PVC / PVC                            |
| E-MFU-15-SD5F | 4270481  | 2.5 m / 5.0 m                  | 0.25 m | 1SN / 2TE                            |

### Hoses with threaded connection (depressurised suction up to max. 350 mm<sup>2</sup>/s)

| Designation     | Part no. | Suction hose/<br>pressure hose | Thread          | Material of<br>suction/pressure hose |
|-----------------|----------|--------------------------------|-----------------|--------------------------------------|
| E-MFU-15-SKDKN  | 4270482  | 2.5 m / 2.5 m                  | M30X2 / M26X1.5 | PVC / PVC                            |
| E-MFU-15-SKDKF  | 4270483  | 2.5 m / 2.5 m                  | M30X2 / M26X1.5 | 1SN / 2TE                            |
| E-MFU-15-SKDK5N | 4270484  | 2.5 m / 5.0 m                  | M30X2 / M26X1.5 | PVC / PVC                            |
| E-MFU-15-SKDK5F | 4270516  | 2.5 m / 5.0 m                  | M30X2 / M26X1.5 | 1SN / 2TE                            |

### Accessories for hoses with threaded connection

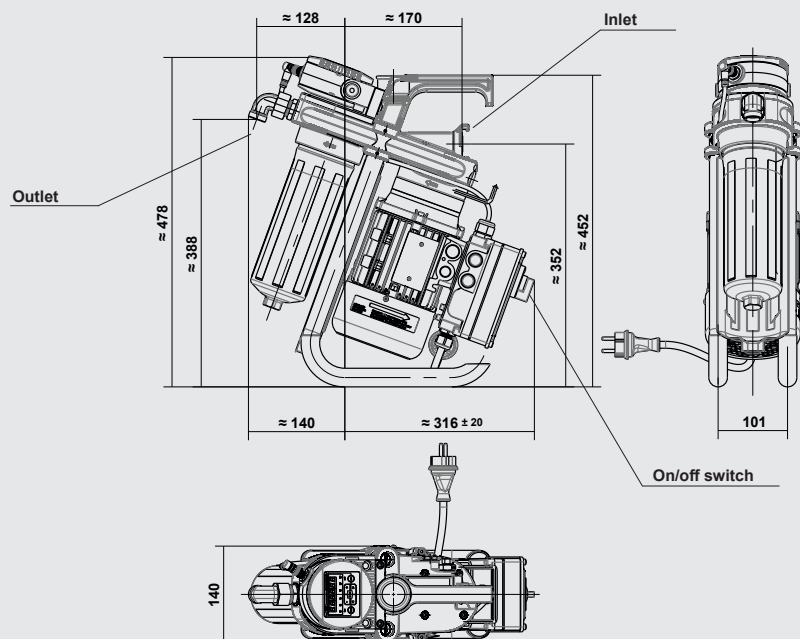
| Designation         | Part no. | Function                                                                                                   |
|---------------------|----------|------------------------------------------------------------------------------------------------------------|
| E-MFU-15-SKDK-LF    | 4270559  | Lance set, consisting of:<br>- Lance for suction hose, L = 1.30 m<br>- Lance for pressure hose, L = 1.30 m |
| E-MFU-15-SKDK-SF    | 4270560  | Suction filter <sup>1</sup>                                                                                |
| E-MFU-15-SKDK-ZWF   | 4270518  | Counter                                                                                                    |
| E-MFU-15-SKDKN-ZPF  | 4270561  | Filling nozzle <sup>2</sup>                                                                                |
| E-MFU-15-SKDKN-ZPWF | 4270519  | Filling nozzle & counter <sup>2</sup>                                                                      |

<sup>1</sup> Max. viscosity 200 mm<sup>2</sup>/s

<sup>2</sup> Max. duration of unit operation with filling nozzle closed 5–10 min. Only use filling nozzle with 1 SN / 2 TE hoses

## DIMENSIONS

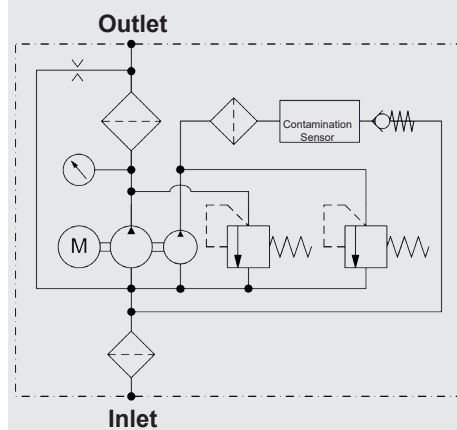
### MFU-10P



All dimensions in mm

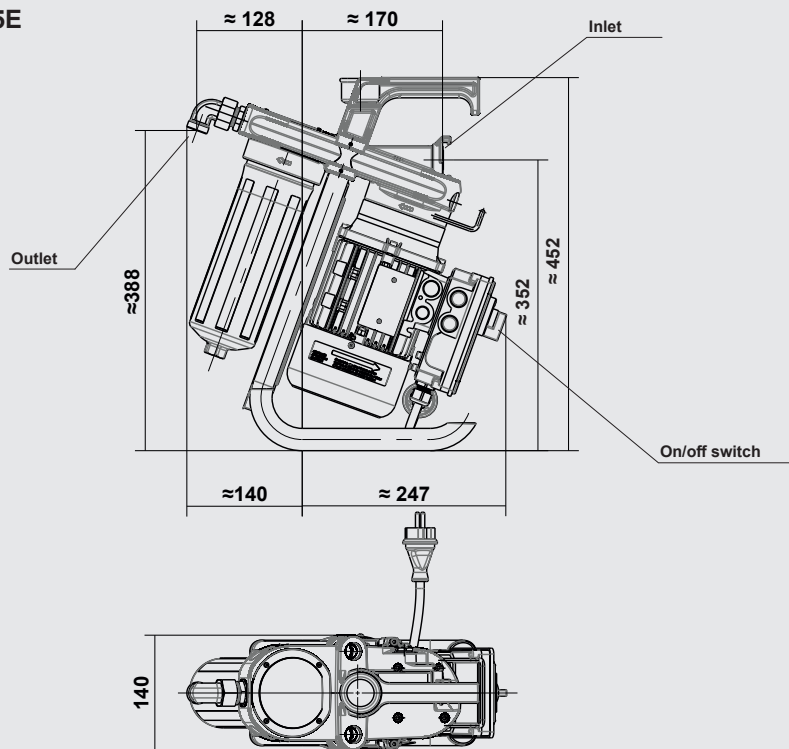
## Hydraulic diagram

### MFU-10P



## DIMENSIONS

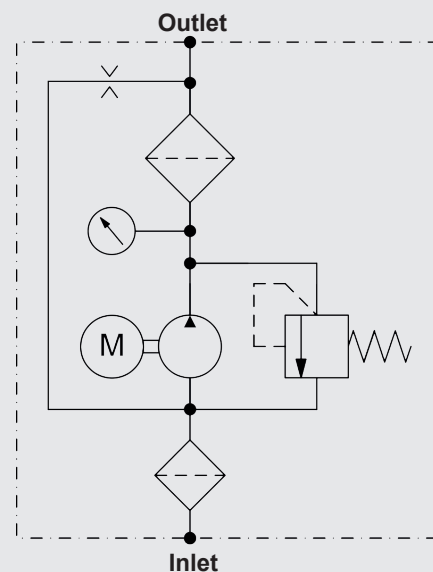
### MFU-15E



All dimensions in mm

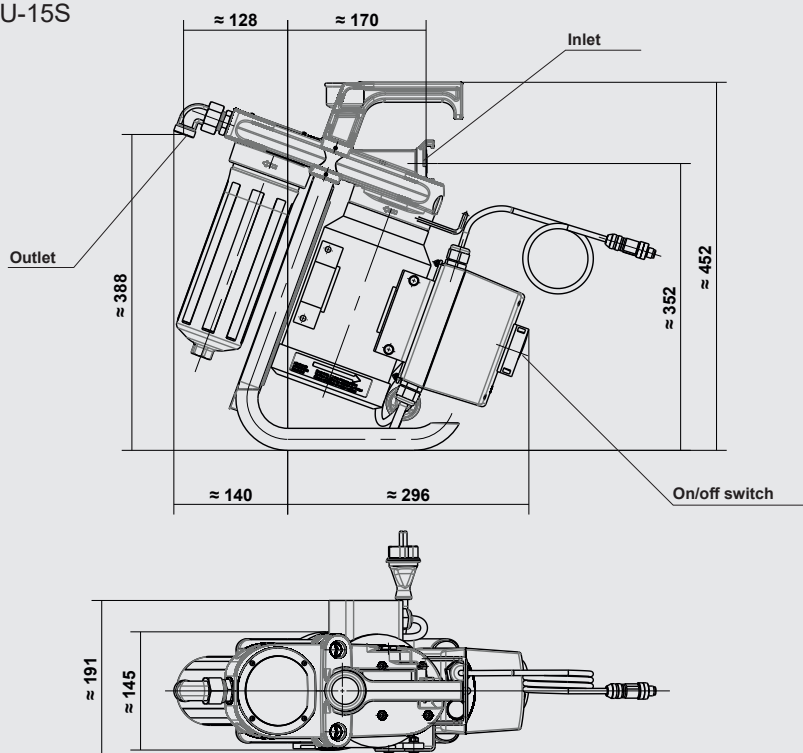
## Hydraulic circuit

### MFU-15E



## DIMENSIONS

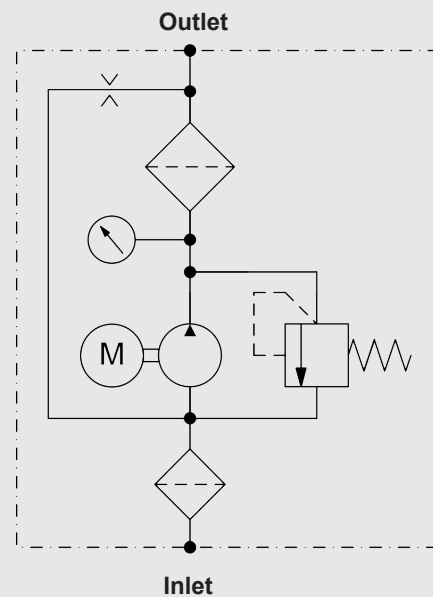
### MFU-15S



All dimensions in mm

## Hydraulic circuit

### MFU-15S



## Notice

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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