



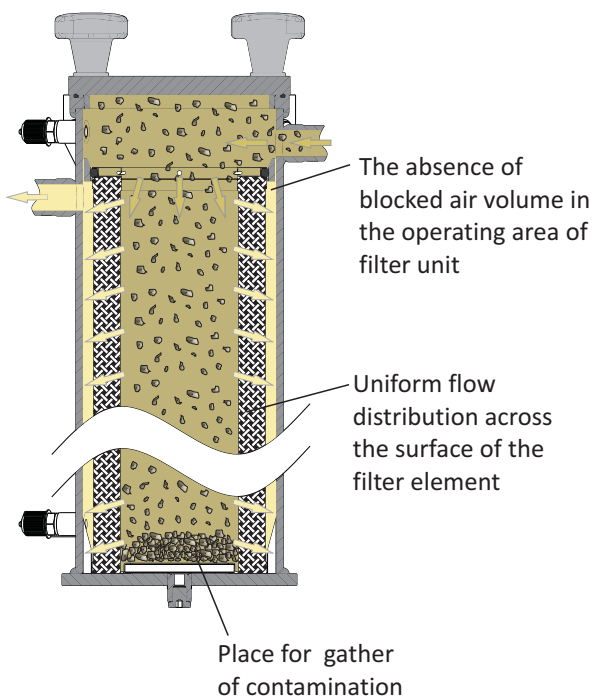
Mobile filter unit MFS 40/60/100

to 100 l/min
to 10 bar

Mobile filter unit MFS is designed for pump and filter hydraulic fluid in systems of mobile and industrial hydraulics.

1. ADANTAGES

Filtration direction - inside -> out



1. There is no need to bleed the air from filter case after a new element.

The filter design prevents the formation of air pockets that have a negative impact on the capacity and dirt-holding capacity of the filter element.

2. The filter housing is always clean.

In response to purification of operating fluids settle contamination particles on the bottom and inner walls of the filter elements. During element replacement all the accumulated mud is utilized along with it. The filter housing is thus clean and doesn't require any special care.

3. Basic and service flow

There is in addition to basic supply the capacity of light supply 0...10 l/min in filter unit MFS. This supply is suitable to refuel tanks of small size, pump housings, gearboxes etc.

2. FILTER UNIT OPERATION DESCRIPTION

Screw pump delivers operating fluid into the filter. By passing the operating fluids through the filter material of element, 99,9% particles of contamination are settling in it (the absolute filtration). There is a clogging indicator on the filter housing to check contamination level of filter element. On the front panel are mounted valves to control the flow of the operating fluid (see par. 3).

3. LOW-FLOW FILLING

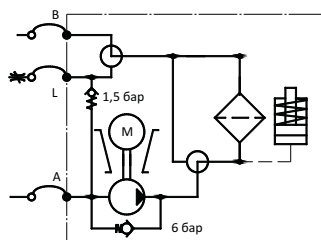
For the low-flow filling it's necessary to set a throttle tube (see fig.1) into the neck of refillable tank. Arrange handles to position 2 (see par.4) on the control panel, and start the filter unit. Using the throttle set the required flow rate from 0 to 10 l/min



fig. 1

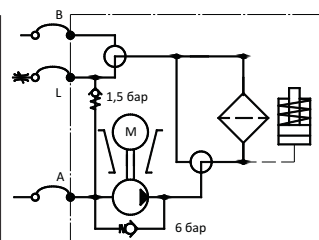
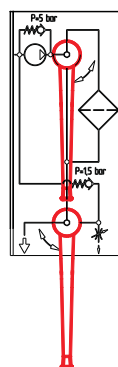
throttle

4. HYDRAULIC CIRCUIT DIAGRAM



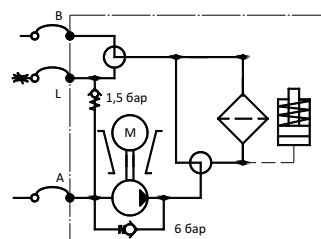
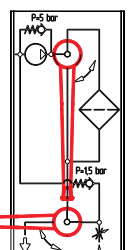
Pumping with filtration

1



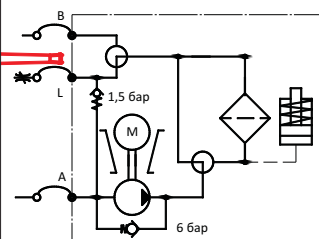
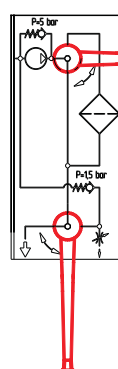
Low-flow filling with filtration

2



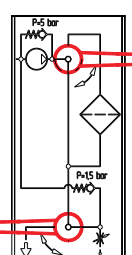
Pumping without filtration

3

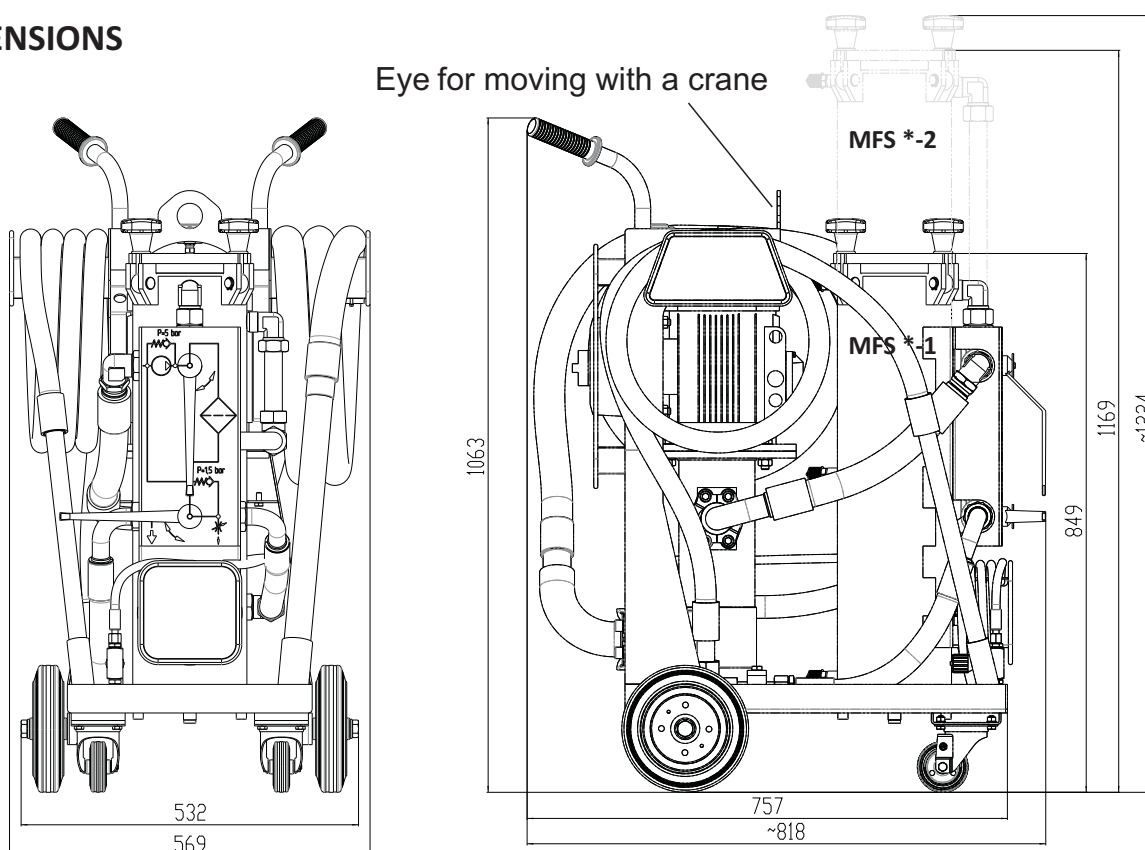


Low-flow filling without filtration

4



5. DIMENSIONS



6. MODEL CODE

MFS 60 - 1 N 220 - 05 A - M

Unit model

Pump capacity

40 - 40 l/min

60 - 60 l/min

100 - 100 l/min

Filter size

1 - contaminant capacity to 181 g

2 - contaminant capacity to 244 g

Seals

N - NBR

Clogging indicator

M - pressure gauge (standard)

E - electrical

Filter material

A - absolute filter $\beta_x > 200$

Filtration rating

03 - 3 μm

05 - 5 μm

10 - 10 μm

20 - 20 μm

Electric motor voltage

230 - 230V/50 Hz/1Ph/PE

400 - 400V/50 Hz/3Ph/PE

7. TECHNICAL SPECIFICATIONS

Type of pump	Screw pump		
Max. flow rate	40 l/min	60 l/min	100 l/min
Operating pressure	to 10 bar		
Viscosity range	15...1000 sSt (depends on the version)		
Permiss. operating fluid	Mineral oil DIN 51424		
Fluid temperature	- 20...+80 °C		
Ambient temperature	- 20...+40 °C		
Seals	NBR		
Safety type	IP 54		
Length of electric cable	4 m		
Suction hose, length and connection	3 m / DN25	3 m / DN38	3 m / DN38
Pressure hose, length and connection	3 m / DN20	3 m / DN25	3 m / DN25
Weight of mobile filter unit	~60 kg	~80 kg	~100 kg
Motor speed	1500 min ⁻¹	1500 min ⁻¹	1500 min ⁻¹
Electric motor voltage	230V/50 Hz/1Ph/PE, 400V/50 Hz/3Ph/PE		
Electric motor power	0,75 - 1,5 kW	1,0 - 2,2 kW	2,2 - 3,0 kW

8. REPLACEMENT ELEMENTS

Filter size	Filtration rating	Filter area	Contamination retention capacity to ISO 4572	Material	βx values	Element type
1	3 μm	17000 cm ²	119 g	synthetic fiber	β ₃ >200	630-N3XL
1	5 μm		137 g		β ₅ >200	630-N5XL
1	10 μm		157 g		β ₁₀ >200	630-N10XL
1	20 μm		181 g		β ₂₀ >200	630-N20XL
2	3 μm	23000 cm ²	161 g		β ₃ >200	950-N3XL
2	5 μm		185 g		β ₅ >200	950-N5XL
2	10 μm		212 g		β ₁₀ >200	950-N10XL
2	20 μm		244 g		β ₂₀ >200	950-N20XL

Factor βx measurements are made at Δp=2,2 bar, according to ISO 16889