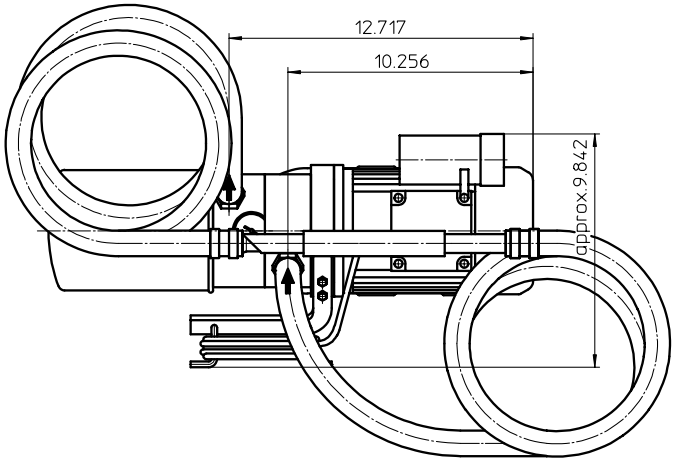
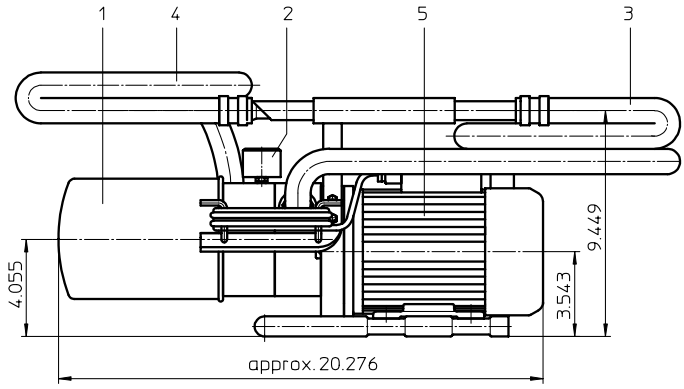
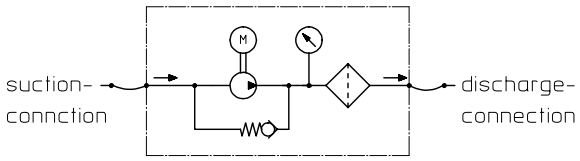
FILTER UNIT, mobile
Series UFM 15

Sheet No.
4007







1. Type index:

1.1. Filter unit: (ordering example)

UFM.	15.	10VG.	E.	P.	W16
1	2	3	4	5	6

1 **series:**
UFM = filter unit, mobile

2 **nominal size:** 15

3 **filter-material and filter-fineness:**
10 VG = 10 µm$_{(c)}$ Interpor fleece (glass fiber)
10 P = 10 µm paper

4 **filter element design:**
E = single-end open

5 **sealing material:**
P = Nitrile (NBR)

6 **motor:**
W16 = B3-B14/71/4.0,25.1500/1800.230.W.50/60.1.R.S.K
alternating current motor 230V, 50/60Hz,
approx. 1300/1550 RPM, .34 HP, type of protection IP 54
W17 = B3-B14/71/4.0,25.1800.110.W.60.1.R.S.K
alternating current motor 110V, 60Hz,
approx. 1550 RPM, .34 HP, type of protection IP 54

1.2. Filter element: (ordering example)

01WP.	90.	10VG.	E.	P
1	2	3	4	5

1 **series:**
01WP = spin-on cartridge

2 **nominal size:** 90

3 - 5 see type index-filter unit

2. Technical data:

pump capacity:	3.7/4.8 GPM at 1300/1550 RPM
electric motor:	.34 HP
alternating current:	230 V, 50/60 Hz
alternating current:	110 V, 60 Hz
pressure load capacity:	max. 72.5 PSI
filter-fineness:	10 µm$_{(c)}$
weight:	approx. 26 lbs.
operating medium:	hydraulic oil based on mineral oil 46 to 1860 SUS other media on request

3. Spare parts:

item	qty.	designation	dimension	article-no.
1	1	spin-on cartridge	01WP.90...	
2	1	clogging indicator	visual	315452
3	1	suction hose ¾"	21938-3	
4	1	discharge hose ¾"	21946-3	
5	1	electric motor W16	.34 HP, 230V	312053
	1	electric motor W17	34 HP, 110V	313095

4. Description:

The mobile filter unit is intended for oil maintenance on hydraulic systems.
The area of application comprises:
- secondary flow filtration in addition to the existing operating filter
- secondary flow filtration without the action of the operating filter
- filtration when filling the oil reservoir.

The filter unit must not be used to pump contaminated hydraulic fluids and is therefore designed without a switchover fitting to by-pass the filter. The compact structural design satisfies the prerequisites for small dimensions and high reliability.
As the filtration unit is portable and small, there is easy accers even to difficult accessible points. Leaking oil from the suction respectively discharge hose is prevented by lances connected with the carrying handle.
The suction hose ¾" and the discharge hose ¾"are approximately 59 inch long inclusive of the lance.
The device is equipped with a gear pump driven by an electric motor. The flow conveyed by the geared pump is fed over a spin-on cartridge.
The filter fineness is 10 µm$_{(c)}$. The contamination level of the filter element can be read off from a pressure display.
To protect against overpressure, the filter unit is fitted with a safety valve. Pressure setting about 72.5 PSI.
The filter unit can be operated without supervision, since the unit switches off automatically after about 5 minutes when an operating pressure of > 87 PSI is reached. This pressure range is marked in red on the scale field of the pressure display.
The filter element can be changed without tools.
The filter elements are supplied including seals. Since it is not possible to clean the elements, the user must always keep an adequate supply of spare elements in stock.

EDV 08/06

Changes of measures and design are subject to alteration!

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2. Spare parts:

item	designation	qty.	dimension	article-no.
1	filter element	1	01NR. 250	
2	housing cover	1	30615-3	315437
3	mini-measuring connection	1	MA.1.St	305453
4	screw plug	2	G ¼	305003
5	straining screw	1	30631-4	316404
6	O-ring	1	115 x 5	306640 (NBR)
7	electric motor	1	according to type index	
8	pump unit P01	1	NG 20.16	316270
9	clogging indicator (series)	1	visual ∅ 40	315452
10	O-ring	1	18 x 3	304359 (NBR)
11	O-ring	2	52 x 3	314206 (NBR)
12	O-ring	1	32 x 3,5	304378 (NBR)
13	O-ring	1	32,9 x 3,53	318850 (NBR)
14	suction hose 1“	1	according to type index	
15	discharge hose 1“	1	according to type index	

3. Designation:

The mobile filter unit is intended for oil maintenance on hydraulic systems.
The area of application comprises:
- secondary flow filtration in addition to the existing operating filter
- secondary flow filtration without the action of the operating filter
- filtration when filling the oil reservoir.

The filter unit must not be used to pump contaminated hydraulic fluids and is therefore designed without a switchover fitting to by-pass the filter. The compact structural design on a base plate without pipe satisfies the prerequisites for small dimensions and high reliability.The transporting trolley makes it possible to move close up to confined locations with difficult access, and to fix the accessories (such as hoses and the connection cable) in a safe and r eliable manner.
Oil flowing out of the suction and/or discharge hose or the outflow openings is collected by the filter unit’s oil trough, without causing any environmental damage. The suction hose DN 25 and the discharge hose DN 25 are approximately 2700 mm long inclusive of the lance.
The device is equipped with a gear pump driven by an E-motor. The flow conveyed by the geared pump is fed over a filter element to DIN 24550, T4, nominal size 250.
Depending on the customer’s wishes, the filter fineness is either 4, 5, 7 or 10 $\mu m_{(c)}$. The contamination level of the filter element can be read off from a pressure display in the cover of the filter.
At a pressure >2,5 bar (red area of the scale field), the filter element is contaminated and it must be replaced with a new filter element.
The filter element can be changed without tools. After removing the straining screw and taking off the housing cover, the filter element is accessible and it can be exchanged. The filter elements are supplied complete with seals. Since it is not possible to clean the elements, the user must always keep an adequate supply of spare elements in stock.
To protect against overpressure, the filter unit is fitted with a safety valve. Pressure setting about 4 bar.
The E-motor is made safe with a motor-protection-switch against overloading. At a working pressure > 4 bar, the motor-protection-switch cuts the E-motor out.
The line, venting and draining connections are identified according to their function. Drainage is necessary when cleaning the filter unit in connection with the change of filter element, and when changing the fluid m edium.

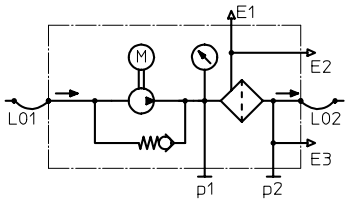
4. Technical data:

filter-fineness:	4, 5, 7 or 10 $\mu m_{(c)}$
oil temeprature:	-5°C to +60°C
weight:	approx. 42 kg
operating medium:	hydraulic oil based on mineral oi l from 10 mm²/s, other media on request

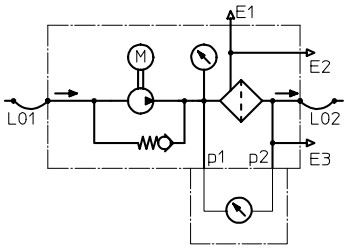
Classified under the Pressure Vessel Directive 97/23/EC for mineral oil (fluid group 2), Article 3, Para. 3.
Classified under ATEX Directive 94/9/EC according to specific application (see questionnaire sheet-no. 34279-4).

5. Symbols:

filter unit without clogging indicator



filter unit with visual clogging indic ator



6. Test methods:

Filter elements are tested according to the following ISO sta ndards:

ISO 2941	Verification of colla pse/burst resistance
ISO 2942	Verification of fabrication integrity
ISO 2943	Verification of material compatibility with fluids
ISO 3723	Method for end load test
ISO 3724	Verification of flow fat igue characteristics
ISO 3968	Evaluation of pressure drop versus flow character istics
ISO 16889	Multi-pass method for evaluating filtration performance