



## OffLine Filter OLF 5

### Description

The OLF 5 and 10 series filters are used for the fine filtration of hydraulic oils offline.

The series comprises numerous versions, for example with or without motor-pump unit, element removal from either top or bottom, in-tank mounting, with optional sensors for determining the cleanliness code and water content, etc.

For every application HYDAC can therefore provide the right unit.

Depending on the model, flow rates of up to 15 l/min and viscosities of up to 7,000 mm<sup>2</sup>/s can be handled.

The Dimicron elements used are characterized by

- a particularly high contamination retention capacity
- environmentally safe disposal (incinerable) and
- water absorption (optional).

### Applications

- Machine tools
- Plastic injection moulding machines
- Mobile hydraulics
- Industrial hydraulics
- Wind power

### Advantages

- Improvement of component and system filter lifetime
- Greater machine availability
- Longer oil change intervals
- Minimum space requirement due to compact design
- Very easy maintenance
- Elements have a high contamination retention capacity
- Option: Continuous monitoring of solid particle contamination and water saturation in the oil during cleaning
- Environmentally safe disposal of elements (incinerable)

### Technical specifications

Pump type	Vane pump
Fluid temperature range	0 ... 80° C
Ambient temperature range	-20 ... 40° C
Sealing material	NBR or FKM
Supply voltage / Power consumption	Depending on model
Electrical protection class	IP 54

## Technical Details

	OLF-5...	OLF-5/4...	OLF-5/15...	OLF-10/15...
<b>Nominal flow:</b>	<b>5 l/min</b>	<b>5 l/min</b>	<b>15 l/min</b>	<b>15 l/min</b>
<b>Operating pressure max.</b>	<b>3.5 bar</b>	<b>4.5 bar</b>	<b>4.5 bar</b>	<b>4.5 bar</b>
<b>Viscosity range</b>	<b>15 ... 150 mm<sup>2</sup>/s</b>	<b>15 ... 7000 mm<sup>2</sup>/s</b>	<b>15 ... 1000 mm<sup>2</sup>/s</b>	<b>15 ... 1000 mm<sup>2</sup>/s</b>
<b>Sizes / types available</b>				
OLF-x-S ...	x	x	x	–
OLF-x-SV ...	x	x	x	–
OLF-x-E ...	x	–	–	–
OLF-x-EV ...	x	–	–	–
OLF-x-TV ...	–	–	x	x
OLF-CM-x-TV ...	–	–	x	x
<b>Permitted pressure at INLET port</b>				
OLF-x-S	-0.4 ... 0.6 bar	-0.4 ... 0.6 bar	-0.4 ... 0.6 bar	–
OLF-x-SV	-0.4 ... 0.6 bar	-0.4 ... 0.6 bar	-0.4 ... 0.6 bar	–
OLF-x-E	10 ... 50 bar	–	–	–
OLF-x-EV	10 ... 50 bar	–	–	–
OLF-x-TV	–	–	-0.4 ... 0.6 bar	-0.4 ... 0.6 bar
OLF-CM-x-TV	–	–	-0.4 ... 0.6 bar	-0.4 ... 0.6 bar
<b>Hydraulic connections according to ISO 228</b>				
OLF-x-S	IN = ½" / OUT = ½"	IN = 1" / OUT = 1"	IN = 1" / OUT = 1"	–
OLF-x-E	IN = ¾" / OUT = ½"	–	–	–
OLF-x-F	IN = ½" / OUT = ½"	–	–	–
OLF-x-T	IN = ½" / OUT = ½"	–	–	IN = 1" / OUT = 1"
<b>Filtration rating</b>				
	DIMICRON 2 µm DIMICRON 5 µm DIMICRON 10 µm DIMICRON 20 µm AQUAMICRON 2 µm AQUAMICRON 20 µm	DIMICRON 2 µm DIMICRON 5 µm DIMICRON 10 µm DIMICRON 20 µm AQUAMICRON 2 µm AQUAMICRON 20 µm	DIMICRON 2 µm DIMICRON 5 µm DIMICRON 10 µm DIMICRON 20 µm AQUAMICRON 2 µm AQUAMICRON 20 µm	DIMICRON 2 µm DIMICRON 5 µm DIMICRON 10 µm DIMICRON 20 µm AQUAMICRON 2 µm
<b>Contamination retention capacity to ISO 16889 Δp = 2.5 bar</b>				
	DIMICRON 240 g AQUAMICRON 185 g and ≈ 0.25 l water	DIMICRON 240 g AQUAMICRON 185 g and ≈ 0.25 l water	DIMICRON 240 g AQUAMICRON 185 g and ≈ 0.25 l water	DIMICRON 480 g AQUAMICRON 370 g and ≈ 0.5 l water
<b>Weight when empty</b>				
OLF-x-S	≈ 9 kg	≈ 11 kg	≈ 12 kg	–
OLF-x-S	≈ 4 kg	–	–	–
OLF-x-T	–	–	≈ 13 kg	≈ 15 kg
<b>Filter element type / size</b>				
	N5	N5 / Spin-on	N5	N10

## Model code

OLF 5 S 120-N N5DM002 E /-C1

### Basic model

OLF = OffLine Filter  
 OLF-FCM = OffLine Filter mit FluidCondition Monitoring  
 (only for size 5/15, 10/15 and Toploader version)

### Size and nominal flow rate

5 = 5 l/min (not for Toploader version)  
 5/4 = 4 l/min (for lubrication systems)  
 5/15 = 15 l/min  
 10/15 = 15 l/min (for N10 elements, only for Toploader version)  
 5/Z = Filter only (only for Toploader version)  
 10/Z = Filter only (only fo Toploader version)

### Version

S = with motor (OLF-5, OLF-5/15)  
 E = flow control valve (10 .. 50 bar) (OLF -5)\*  
 T = Toploader with motor (OLF -5/15)\*  
 F = filter only (OLF-S\*)  
 \* seal material: NBR, for versions in FKM (FPM, Viton®), add "V"

### Voltage supply

	OLF 5	OLF 5/4	OLF 5/15	OLF 10/15
120-N	120 W, 3x400 V 50 Hz	-	-	-
120-M	120 W, 1x230 V 50 Hz	-	-	-
120-K	120 W, 1x120 V 60 Hz	-	-	-
370-N	-	370 W, 3x400 V 50 Hz	370 W, 3x400 V 50 Hz	370 W, 3x400 V 50 Hz
370-M	-	370 W, 1x230 V 50 Hz	370 W, 1x230 V 50 Hz	370 W, 1x230 V 50 Hz
370-K	-	370 W, 1x120 V 60 Hz	370 W, 1x120 V 60 Hz	370 W, 1x120 V 60 Hz
200-U	200 W, 24 V DC	-	200 W, 24 V DC	200 W, 24 V DC
Z-Z	no motor	-	-	-

- not available

Others on request!

### Element type

N 5 DM 002 = DIMICRON filtration rating 2 µm absolute  
 N 5 DM 005 = DIMICRON filtration rating 5 µm absolute  
 N 5 DM 010 = DIMICRON filtration rating 10 µm absolute  
 N 5 DM 020 = DIMICRON filtration rating 20 µm absolute  
 N 5 AM 002 = AQUAMICRON filtration rating 2 µm absolute  
 N 5 AM 020 = AQUAMICRON filtration rating 20 µm absolute  
 N 10 DM 002 = DIMICRON filtration rating 2 µm absolute  
 N 10 DM 005 = DIMICRON filtration rating 5 µm absolute  
 N 10 DM 010 = DIMICRON filtration rating 10 µm absolute  
 N 10 DM 020 = DIMICRON filtration rating 20 µm absolute  
 N 10 AM 002 = AQUAMICRON filtration rating 2 µm absolute  
 M 160 B 03 = 0160 MA 03 BN, filtration rating 3 µm absolute  
 M 160 B 05 = 0160 MA 05 BN, filtration rating 5 µm absolute  
 M 160 B 10 = 0160 MA 10 BN, filtration rating 10 µm absolute  
 M 160 B 20 = 0160 MA 20 BN, filtration rating 20 µm absolute  
 M 180 B 03 = 0180 MA 03 BN, filtration rating 3 µm absolute  
 M 180 B 05 = 0180 MA 05 BN, filtration rating 5 µm absolute  
 M 180 B 10 = 0180 MA 10 BN, filtration rating 10 µm absolute  
 M 180 B 20 = 0180 MA 20 BN, filtration rating 20 µm absolute  
 Z = without filter element

### Clogging indicator

E = pressure gauge (standard on OLF-5)  
 F = pressure switch - electrical (VR2F.0)  
 BM = differential pressure indicator - visual (VM2BM.1) (standard on OLF-5/15...)  
 C = differential pressure indicator - electrical (VM2C.0)  
 D = differential pressure indicator - visual/electrical (VM2D.0)  
 Z = without clogging indicator

BM, C, D not for sizes / model OLF-5-S

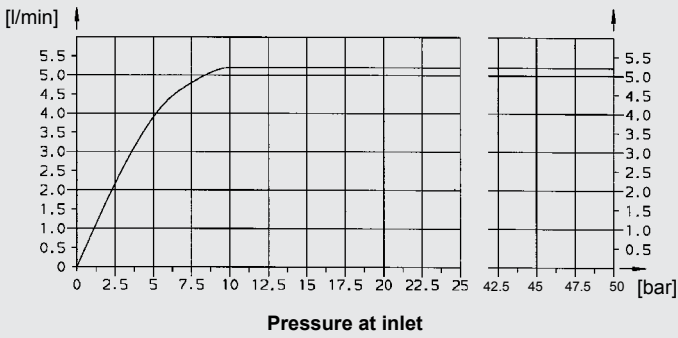
E, F not for sizes / model OLF-5/15

### Supplementary details

A = with AquaSensor AS 1000 series  
 C1 = with ContaminationSensor CS 1320  
 C2 = with ContaminationSensor CS 1310  
 7.5 = with 7.5 bar pressure relief valve

## SRV flow control valve curve

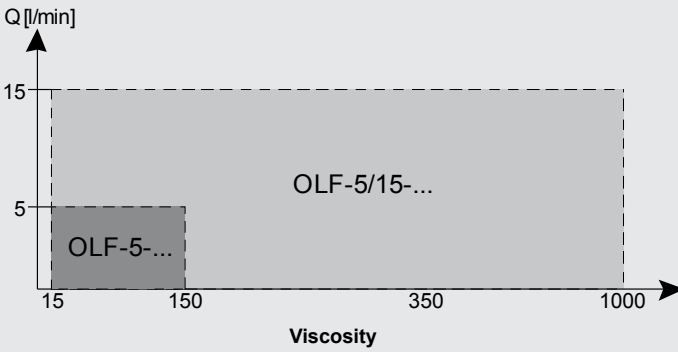
(OLF-5-E...)



## Application

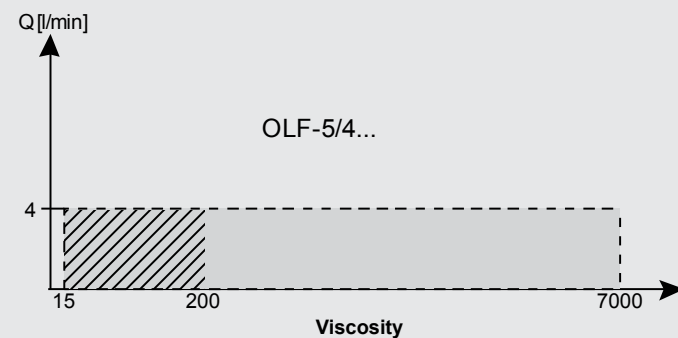
■ Tank volumes up to approx. 800 l

■ Tank volumes up to approx. 2000 l

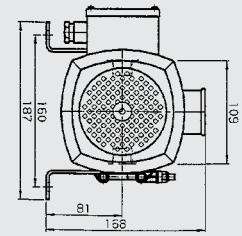
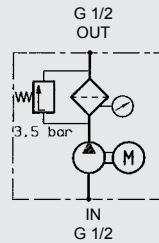
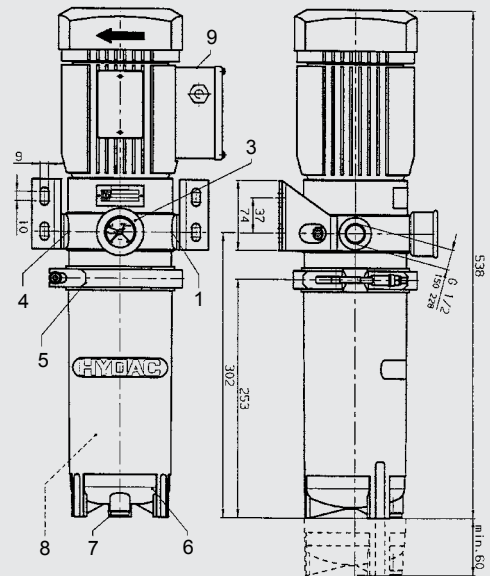


Tank volumes up to approx. 300 l

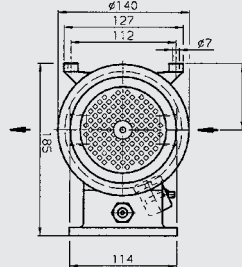
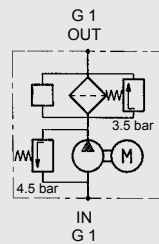
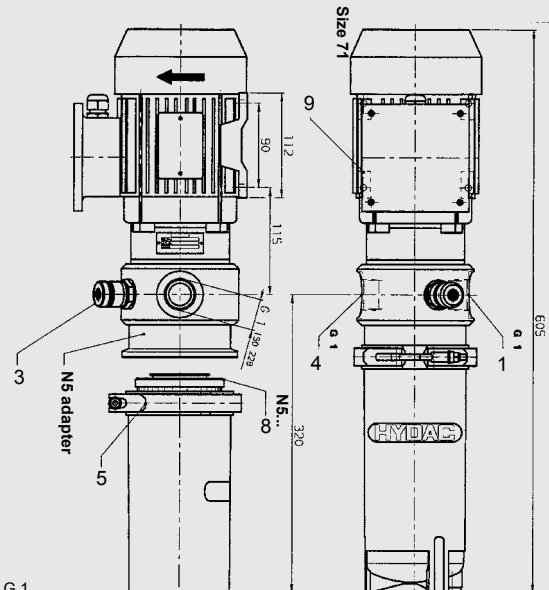
▨ Viscosity range in which the max. flow rate will only be achieved after approx. 10 minutes, if the pump is not primed.



## Dimensions

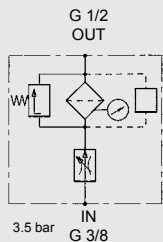
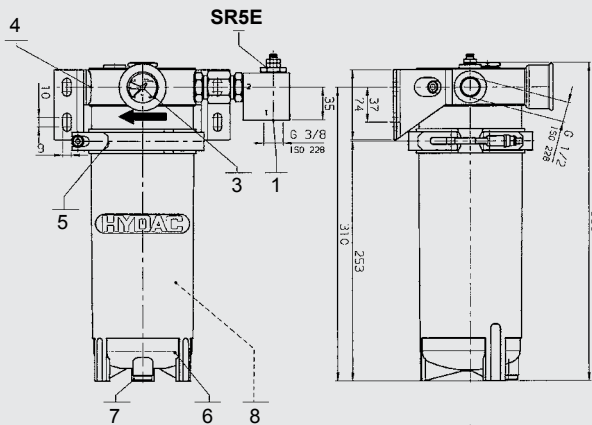


Example:  
OLF-5-S...



Example:  
OLF-5/15-S...

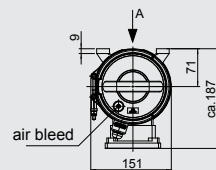
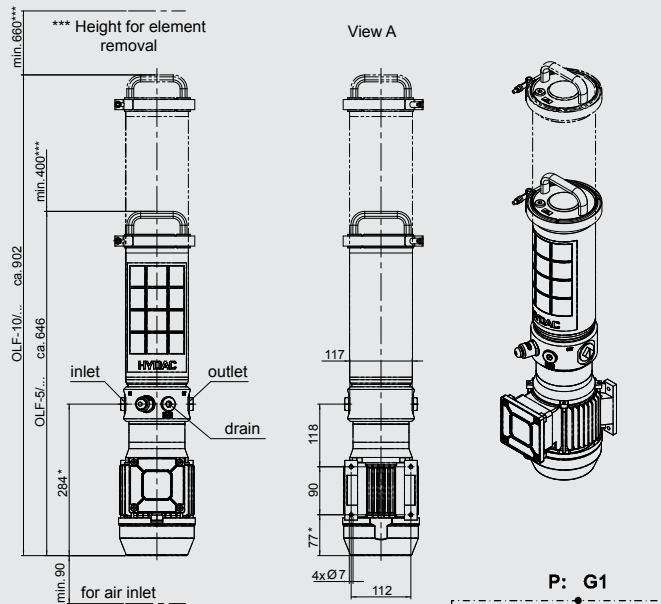
- |                        |                    |
|------------------------|--------------------|
| 1 = Inlet              | 6 = Filter bowl    |
| 3 = Clogging indicator | 7 = Drain          |
| 4 = Outlet             | 8 = Filter element |
| 5 = Clamp              | 9 = Electric motor |



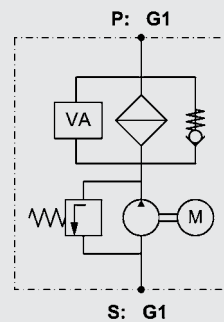
- 1 = Inlet
- 3 = Clogging indicator
- 4 = Outlet
- 5 = Clamp

- 6 = Filter bowl
- 7 = Drain
- 8 = Filter element

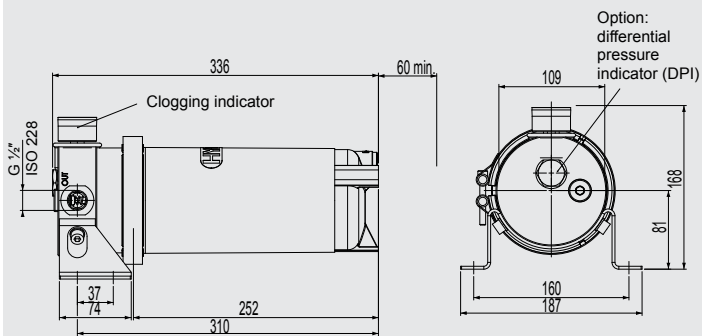
Example:  
OLF-5-E...



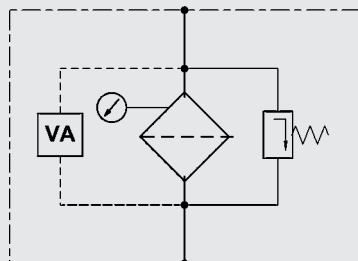
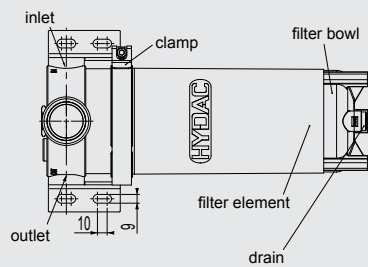
\* Depending on the manufacturer of the electric motor  
\*\* space required for maintenance and repair work



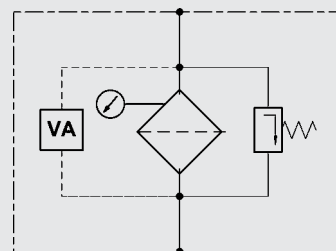
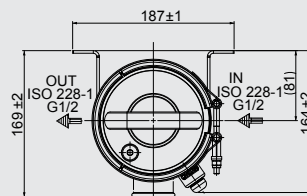
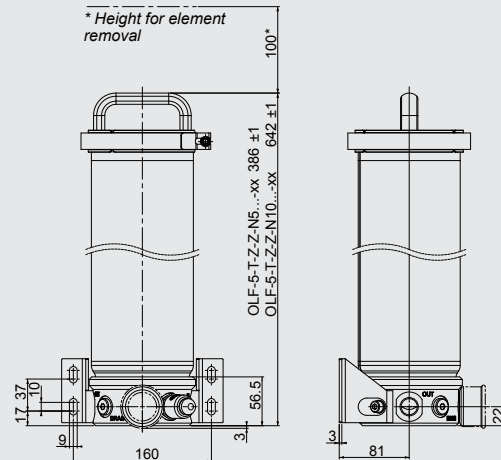
Example: OLF-5/15-T...



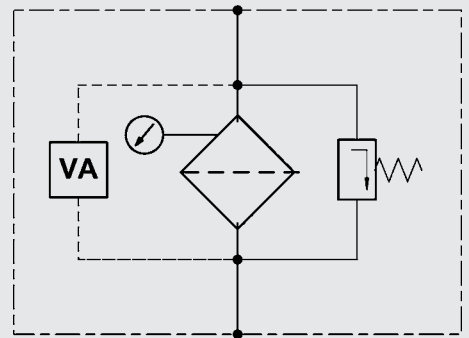
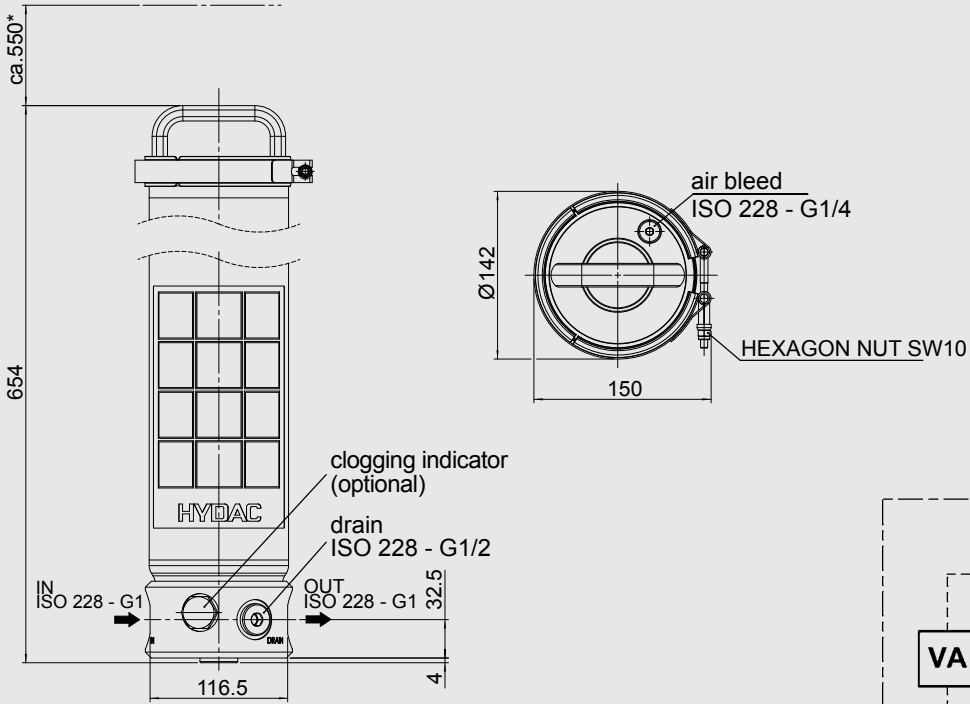
Option:  
differential pressure indicator (DPI)



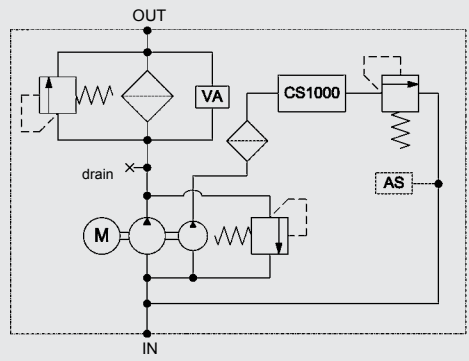
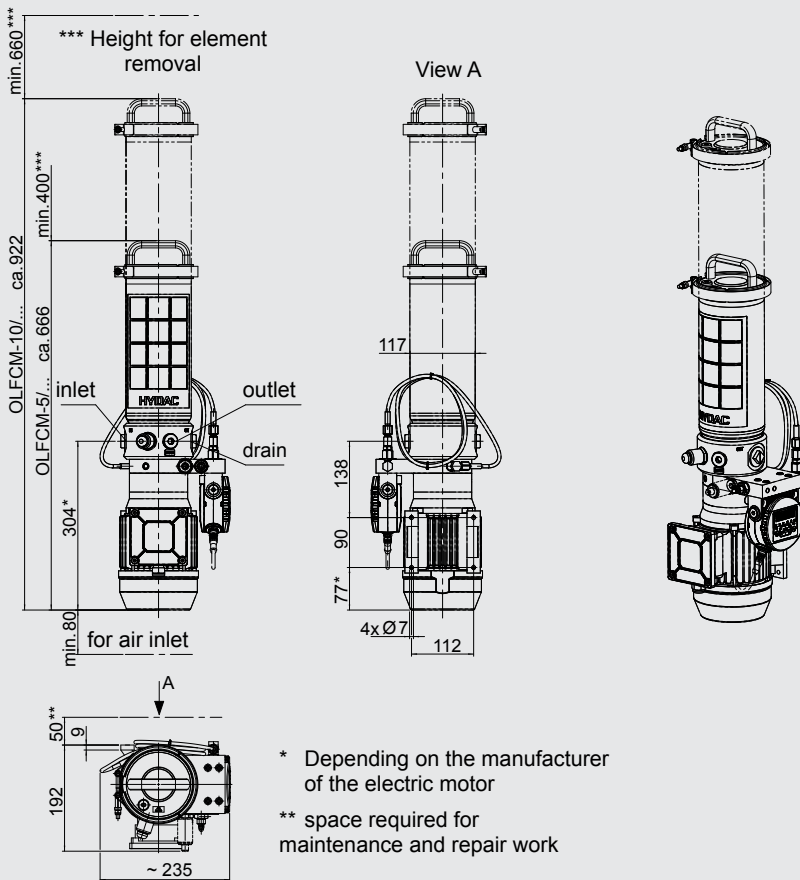
Example: OLF-5-F...



Example: OLF-5/Z-T...

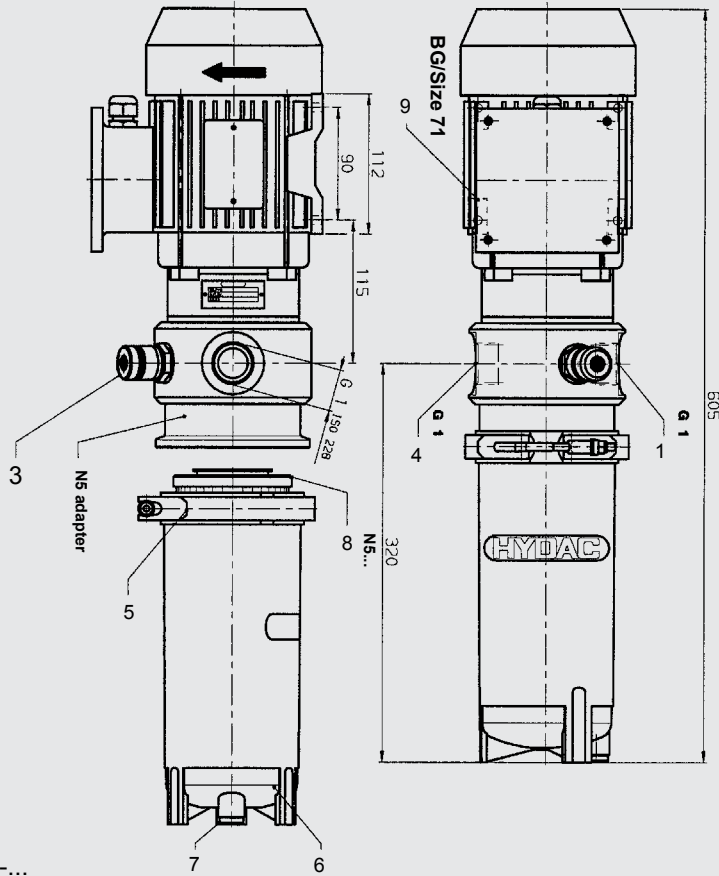


Example: OLF-10/Z-T...

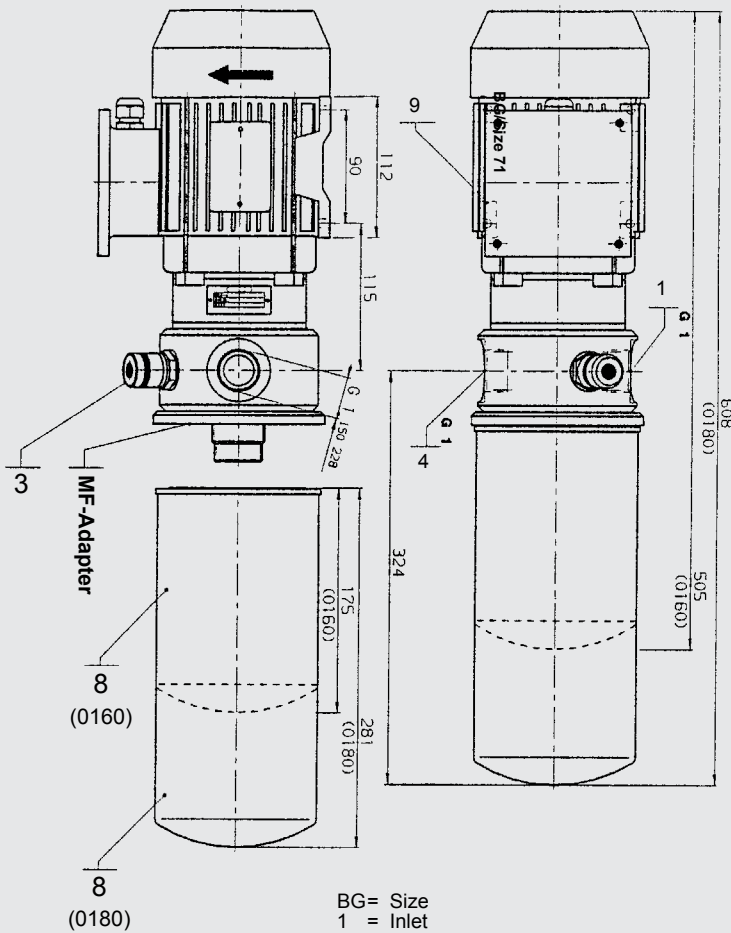


\* Depending on the manufacturer of the electric motor  
 \*\* space required for maintenance and repair work

Example: OLF-10/...  
 OLF-5/...  
 OLF-10/...  
 OLF-5/...  
 OLF-10/...  
 OLF-5/...



Example:  
OLF-5/4-S...



Example:  
OLF-5/4-SP...

- BG= Size
- 1 = Inlet
- 3 = Clogging indicator
- 4 = Outlet

- 5 = Clamp
- 6 = Filter bowl
- 7 = Drain
- 8 = Filter element
- 9 = Electric motor

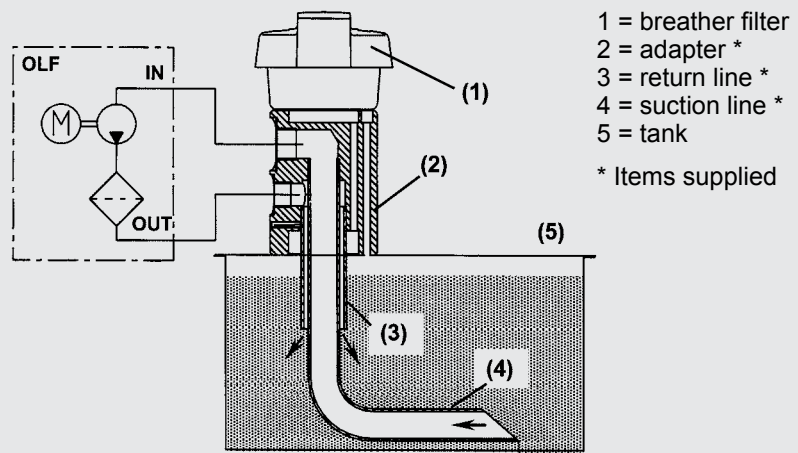
## Accessories

– Tank adapter kit OLF-5-TAK

Part No. 3039235

Quick retrofit kit to connect the OLF to hydraulic systems.

Can be fitted to systems which have a breather filter with an interface to DIN 24557/Part 2.



## Replacement elements

Element type	Part number
N 5 DM 002	349494
N 5 AM 002	349677
N 5 DM 005	3068101
N 5 DM 010	3102924
N 5 DM 020	3023508
N 5 AM 020	3040345
N 10 DM 002	3539235
N 10 DM 005	3539237
N 10 DM 010	3539238
N 10 DM 020	3539242
N 10 AM 002	3582637
M 160 B 03	314609
M 160 B 05	315621
M 160 B 10	314022
M 160 B 20	315485
M 180 B 03	310475
M 180 B 05	315622
M 180 B 10	315726
M 180 B 20	315623

## NOTE

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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