

TECHNICAL CHARACTERISTICS

The tank mounted filters HF 502 and HF 508 series are specifically designed to be directly connected on the return line of hydraulic circuit to safeguard it from contaminating particles.

HF 508 series is available with double inlet port with SAE 3000 threads.

- Flow up to 264 US gpm (1000 l/min)
- Extension on the oil way out of the pipe union
- Fluid-decelerating diffuser

MATERIALS

Cover	Aluminum
Housing	Aluminum
Bowl (1)	Reinforced nylon
	Steel
Seals	Buna - Viton
End cap	Zinc plated steel
Inner tube	Zinc plated steel
	Steel
	Stainless steel
Filter media	Cellulose
	Reinforced cellulose
	Micro-fibre glass

(1) The filters of dimensions 10.060, 10.129, 20.077, 20.122, 20.201, 20.280 and 30.195 are supplied with a nylon-reinforced bowl. Varnished steel bowl is available on request.

The filters of dimensions 30.239, 40.122, 40.194, 40.195, 40.239, 40.390 and 40.512 are only supplied with a varnished steel bowl.

FLUID COMPATIBILITY

Conforming to ISO 2943 (Norm ISO 6743/4)

Oli mineral (2)	HH - HL - HM - HR - HV - HG
Water emulsion (2)	HFAE - HFAS
Syntetic fluid (3)	HS - HFDR - HFDU - HFDS

(2) With Buna seals

(3) With Viton seals

FLOW

Flow max.	264 US gpm (1000 l/min)
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PRESSURE

Working pressure	116 psi (8 bar)
Testing pressure	174 psi (12 bar)
Burst pressure	232 psi (16 bar)
Element collapse pressure rating (conforming to ISO 2941)	145 psi (10 bar)

BY-PASS VALVE

By-pass setting	25 psi (1,7 bar)
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OPERATING TEMPERATURE

With Buna seals	-22 ÷ 195 °F (-30 ÷ 90 °C)
With Viton seals	-4 ÷ 230 °F (-20 ÷ 110 °C)

DEGREE OF FILTRATION

Absolute Filtration

Code	Material	Degree of filtration
FG003	Micro-fibre glass	3 µm
FG006	Micro-fibre glass	6 µm
FG010	Micro-fibre glass	10 µm
FG025	Micro-fibre glass	25 µm

Nominal Filtration

Code	Material	Degree of filtration
SP010	Cellulose	10 µm
RP010	Reinforced cellulose	10 µm
SP025	Cellulose	25 µm
RP025	Reinforced cellulose	25 µm
MI025	Stainless steel	25 µm
MI060	Stainless steel	60 µm
MS090	Steel	90 µm
MI125	Stainless steel	125 µm

INDICATORS (4)

Rear manometer

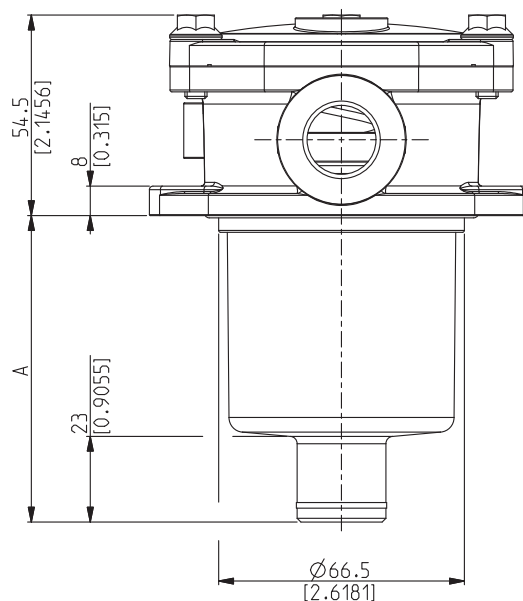
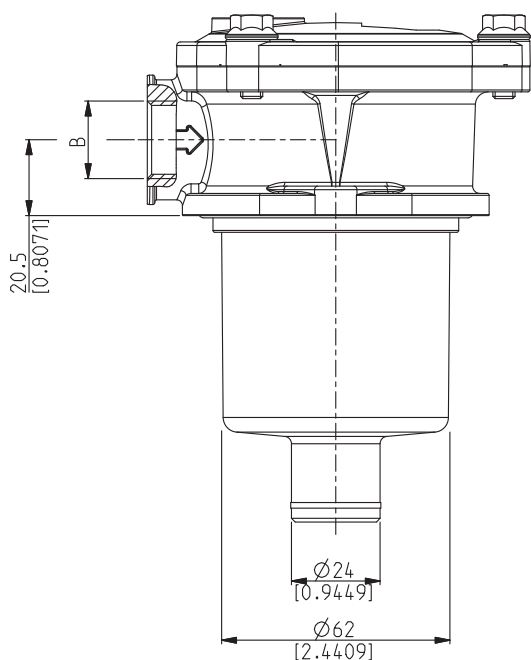
Radial manometer

Visual indicator

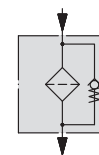
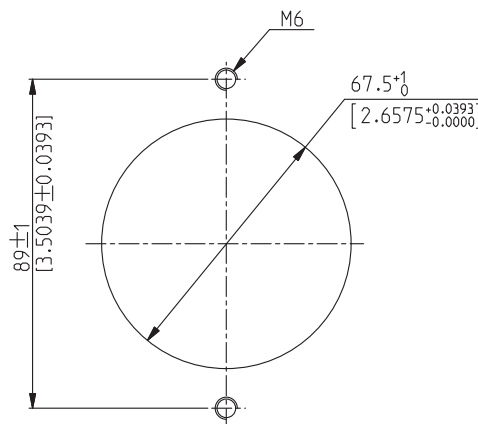
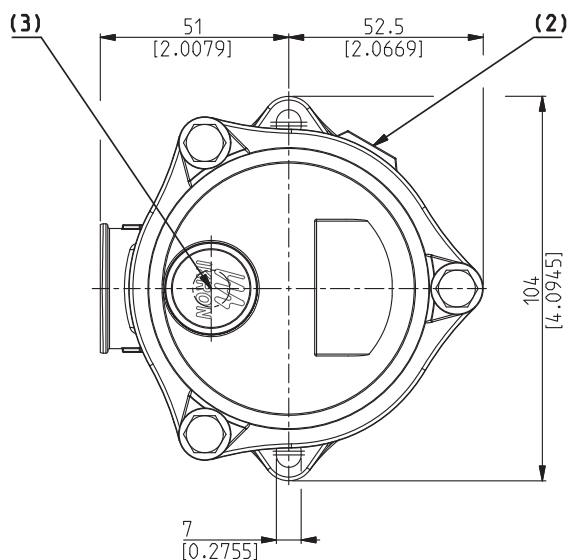
Electrical indicator

(4) Characteristics and dimensions at page 30

HF502-10 DIMENSIONS



**RESERVOIR MOUNTING
HOLE DIMENSIONS**



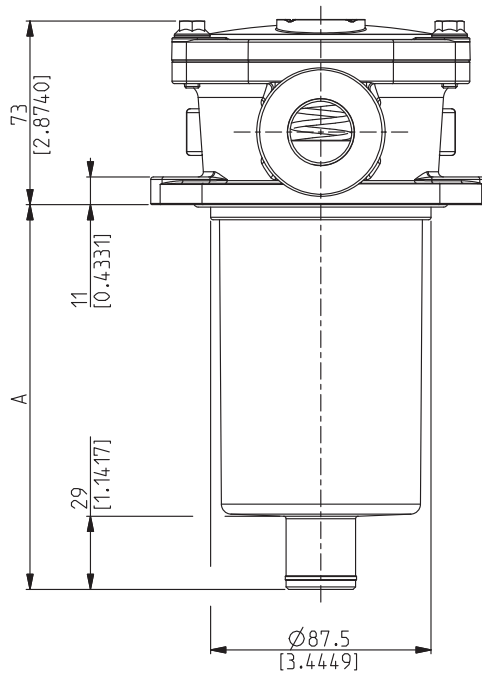
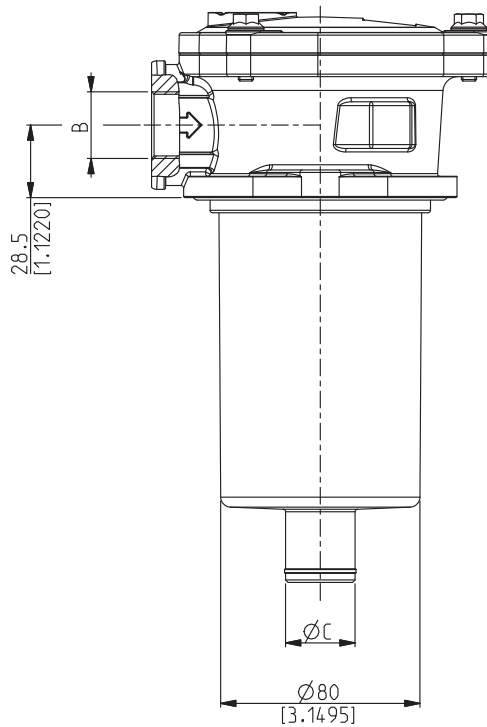
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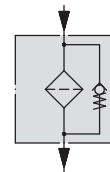
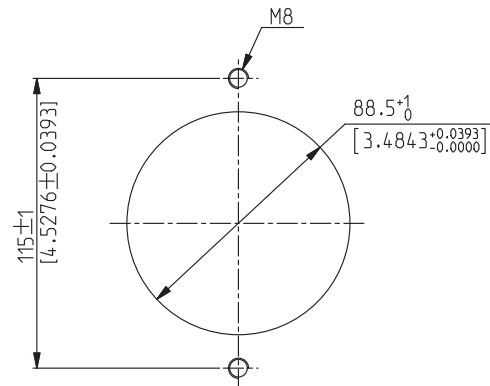
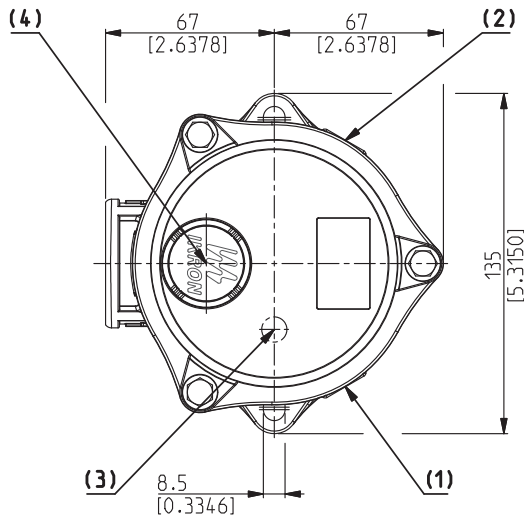
Filter type	Weight	A	B (GAS-BSPP)		(3)(GAS-BSPP) Secondary inlet	(2)(3)(GAS-BSPP) Indicators
			Standard	On request		
HF 502-10.060	0,43	83	G 1/2	G 3/8 - G 3/4	G 3/8	G 1/8
	(0.94)	(3.2677)				
HF 502-10.129	0,52	152	G 3/4	G 3/8 - G 1/2		
	(1.14)	(5.9842)				

NPT, metric and SAE UN-UNF threads are available (consult our technical department).

HF502-20 DIMENSIONS



RESERVOIR MOUNTING
HOLE DIMENSIONS



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Filter type	Weight	A	B (GAS-BSPP)		ØC	(4)(GAS-BSPP) Secondary inlet	(1)(2)(3)(GAS-BSPP) Indicators	(4)(GAS-BSPP) Filler cap
	kg(lbs)	mm(in)	Standard	On request	mm(in)			
HF 502-20.077	0.96 (2.11)	103 (4.0551)	G 3/4	G 1/2 - G 1 - G 1 1/4	27.5 (1.0826)			
HF 502-20.122	1.07 (2.35)	148 (5.8267)	G 1	G 1/2 - G3/4 - G 1 1/4		G 3/8 G 1/2 G 3/4	G 1/8	G 3/4
HF 502-20.201	1.23 (2.71)	229 (9.0157)	G 1 1/4	G 1/2 - G 3/4 - G1	40 (1.5747)			
HF 502-20.280	1.43 (3.15)	312 (12.2834)						

NPT, metric and SAE UN-UNF threads are available (consult our technical department).

ASSEMBLY AND REPLACING ELEMENT INSTRUCTIONS

MOUNTING

Once you have checked the integrity of the filter inside its package, proceed as follow:

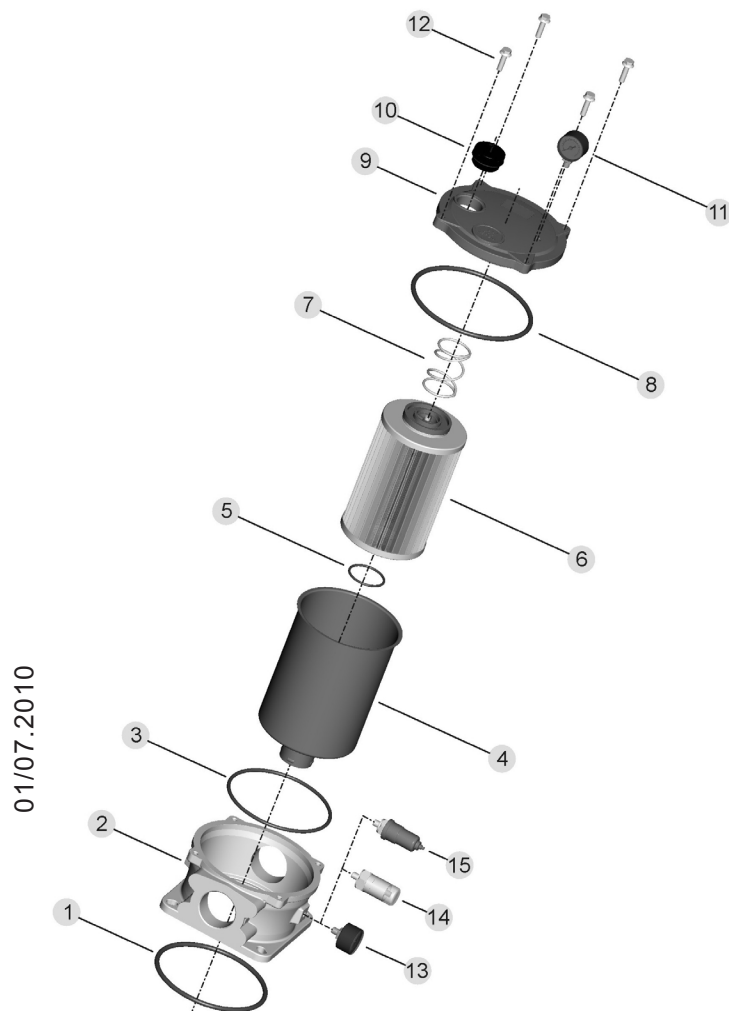
- A Take off the protection cap from the inlet port.
- B Secure the filter in the tank through the holes in the body's flange (pos.2) tightening them as follows:
HF502-10 e HF502-20 = 44 lbf in (5 Nm)
HF502-30 e HF508-30 = 62 lbf in (7 Nm)
HF502-40 e HF508-40 = 88 lbf in (10 Nm)
- C Connect the piping of the return line to the inlet port using the tightening torque indicated on pages 32, 33 and 34.
- D In the presence of secondary inlet ports, prepare the required connections.
- E If the filter has a clogging indicator (pos.11 - 13 - 14 - 15), take the protection cap off and screw the indicator in the dedicated seat, then tighten to a tightening torque of 266 lbf in (30 Nm). If the indicator is electric, complete the required connections.
- F Start the circuit for a few minutes.
- G Make sure there are no leaks.

REPLACING ELEMENT

Once the working hour limit indicated in the maintenance instructions of the system is reached or when the clogging indicators point out the limit pressure drop created inside the filter, the element must be replaced. Pay attention to the drainage of hydraulic oil, therefore prepare suitable containers to collect it.

Proceed as follows:

- A Stop the system in "machine stopped" status.
- B Secure any shut-off valves on the hydraulic circuit.
- C Unscrew the cover's screw (pos.12) and take off the closing cap (pos.9).
- D Remove the clogged filtering element (pos.6) and clean the bowl's bottom (pos.4) from the residual particles left during the functioning.
- E Check out that the O-rings (pos.3, 5, 8) are not damaged, otherwise replace them and consequently position the new ones correctly..
- F In case of leakages between the tank and the filter's body (pos.2) check out the O-ring's condition (pos.1). If it is damaged replace it and consequently position the new one correctly.
- G Insert the new filtering element pre-emptively lubricating the O-Ring (pos. 5).
- H Insert the placement spring (pos.7) in the dedicated seat of the filter's cover (pos.9). Reassemble it using the fixing screws (pos.12) with a tightening torque of 44 lbf in (5 Nm).
- I Re-open the eventual valves closed before.
- L Start the machine for a few minutes.
- M Make sure there are no leaks.



Pos. Description

- | | |
|----|--------------------------|
| 1 | Filter's body O-ring |
| 2 | Filter's body |
| 3 | Bowl O-Ring |
| 4 | Bowl |
| 5 | Element O-Ring |
| 6 | Filtering element |
| 7 | Placement spring Cover's |
| 8 | O-ring |
| 9 | Closing cap |
| 10 | Filler cap |
| 11 | Radial manometer |
| 12 | Cover's fixing screws |
| 13 | Rear Manometer |
| 14 | Visual indicator |
| 15 | Electrical indicator |

When ordering spare parts, always specify the reference number, the filter code and quantity.
Example: Spare parts pos. 8 - HHR80000 - Q.ty 3

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