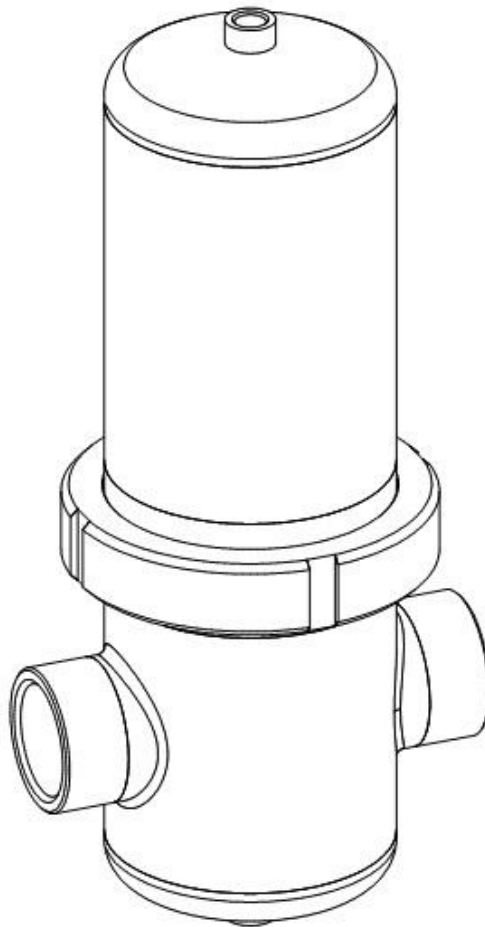




Installation and operating manual

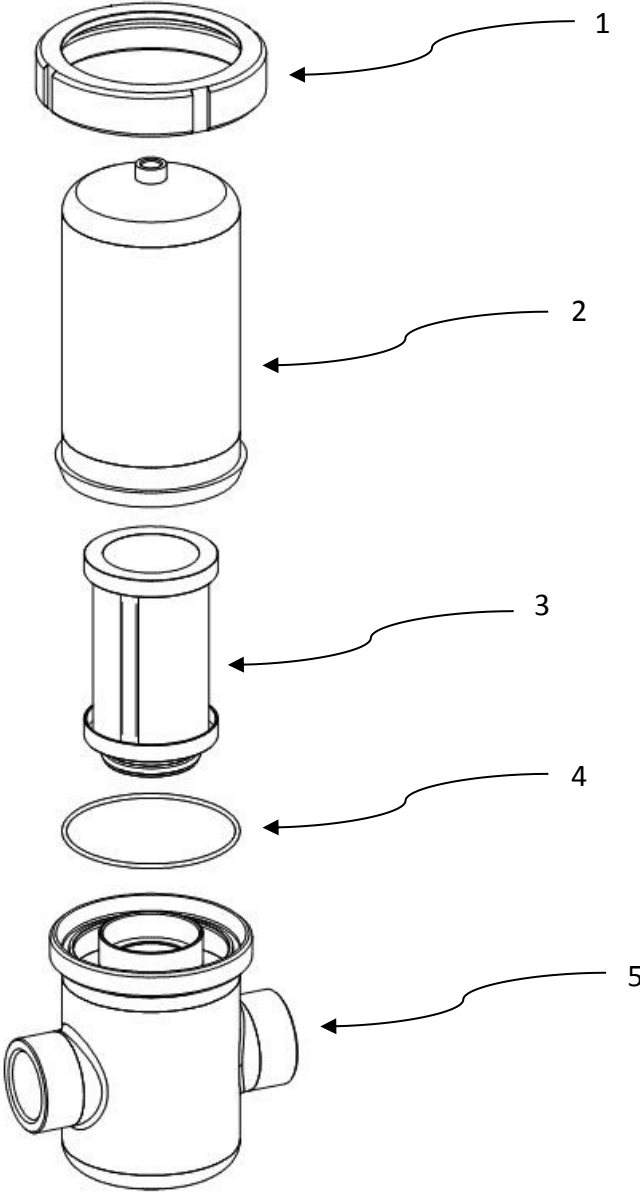
HPF



Please read the following instructions carefully before installing filter housing unit into service. Trouble free and safe operating of the unit can only be guaranteed if recommendations and conditions stated in this manual are respected.



Components



Part	
1	Clamp
2	Filter bowl
3	Filter element
4	O-ring
5	Filter head

Technical data

FILTER HOUSING	PIPE SIZE [inch]	FILTER ELEMENT	FLOW CAPACITY		DIMENSIONS				VOLUME [l]	WEIGHT [kg]
			[Nm ³ /h]	[scfm]	A [mm]	B [mm]	C [mm]	E [inch]		
HPF 010/50	1/2"	1X0420-HP_	150	88	231	125	76,1	1/4	0,8	2,5
HPF 018/50	3/4"	1X0520-HP_	225	132	253	125	76,1	1/4	0,9	2,6
HPF 030/50	1"	1X0525-HP_	315	185	274	136	88,9	1/4	1,3	3,4
HPF 047/50	1 1/4"	1X0725-HP_	420	247	336	155	88,9	1/4	1,7	3,9
HPF 070/50	1 1/2"	1X0730-HP_	600	353	387	180	114,3	1/4	3,2	5,6
HPF 094/50	2"	1X1030-HP_	900	530	453	180	114,3	1/4	3,8	6,2
HPF 150/50	2"	1X1530-HP_	1260	742	580	180	114,3	1/4	4,9	6,9
HPF 200/50	3"	1X3030-HP_	2400	1413	1005	224	139,7	1/4	13	14,1

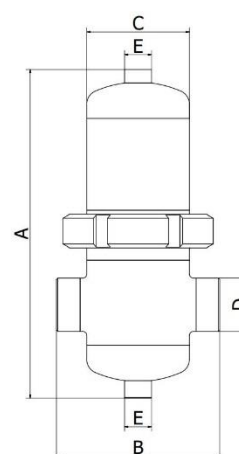
Flow capacity at 7 bar(g), 20°C

Operating temperature	0 - 150 °C*	32 - 302 °F
Short duration (15min) temp limit	Up to 200 °C	Up to 392 °F
Operating pressure	0 - 50 bar(g)	0-725 psi

*Actual operating temperature depend on sealing material

MATERIALS

Housing material	Stainless steel (quality 1.4301; on request 1.4404)
Sealing	EPDM (Optional FKM or SILICONE)
Housing finishes	Polished down to grade Ra1.6
Lubricant	(Optional Shell cassida grease RLS 2)


CORRECTION FACTORS

To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor(s).

CORRECTED CAPACITY = NOMINAL FLOW CAPACITY x C_{OP}

[bar]	3	5	7	10	13	16	20	30	40	50
[psi]	44	72	100	145	189	232	290	435	580	725
C _{OP}	0,50	0,75	1	1,38	1,75	2,13	2,63	3,88	5,13	6,38

PRESSURE EQUIPMENT DIRECTIVE PED 2014/68/EU
(Fluid group 2)

HPF 010/50 - HPF 018/50	Not required
HPF 030/50 - HPF 094/50	Category 2, Module H
HPF 150/50 - HPF 200/50	Category 3, Module H

There is Technical datasheet available. For additional technical specification, contact manufacturer.



Safety instructions

The relevant safety at work and accident prevention regulations, plus operating instructions, shall apply for operating the filter. The filter has been constructed in accordance with the generally recognized rules of engineering. It complies with the requirements of directive 2014/68/EU concerning pressure equipment.

Ensure that installation complies with local laws for operation and routine testing of pressure equipment at the place of installation.

Operator/user of the filter should make himself familiar with the function, installation and start-up of the unit. All the safety information is always intended to ensure your personal safety.

- Do not exceed max. operating pressure or operating temperature range (see data label).
- The permissible working temperatures and pressures for ad-on parts and filter elements are given under Technical data for those ad-ons. Maximum temperature and pressure for assembled system is the lowest of any individual part.
- It is necessary to ensure that the unit is equipped with the corresponding safety and test devices to prevent the permissible operating parameters from being exceeded.
- Filter has been designed for a primarily static pressure. Rapid changes of pressure are not allowed.
- The medium used may not have any corrosive components that could attack the materials of the filter in a way that is not permitted. Do not use the filter in hazardous areas with potentially explosive atmospheres.
- All installation and maintenance work on the filter may only be carried out by trained and experienced specialists.
- It is forbidden to carry out any kind of work on the filter and piping, including welding and constructional changes, etc.
- A pressure gauge, which shows the operational pressure, must be installed in the unit, respectively in the pipeline.
- Depressurize the system before carrying out the installation work. The unit must be installed vertically in the piping.
- Ensure that filter is installed without any stresses.
- Use original spare parts only.
- Use the device for appropriate purpose only.
- There shouldn't be any tension between separator and installation. Separator shouldn't be subject to any stress, vibration or other influence that could cause damage to the unit.



Appropriate use



HPF series filters are intended for applications in process industry, where the risk for corrosion of compressed air system components is very high. This appliance must be used only for the purpose for which it was specifically designed. All other uses are to be considered incorrect.

Specifically:

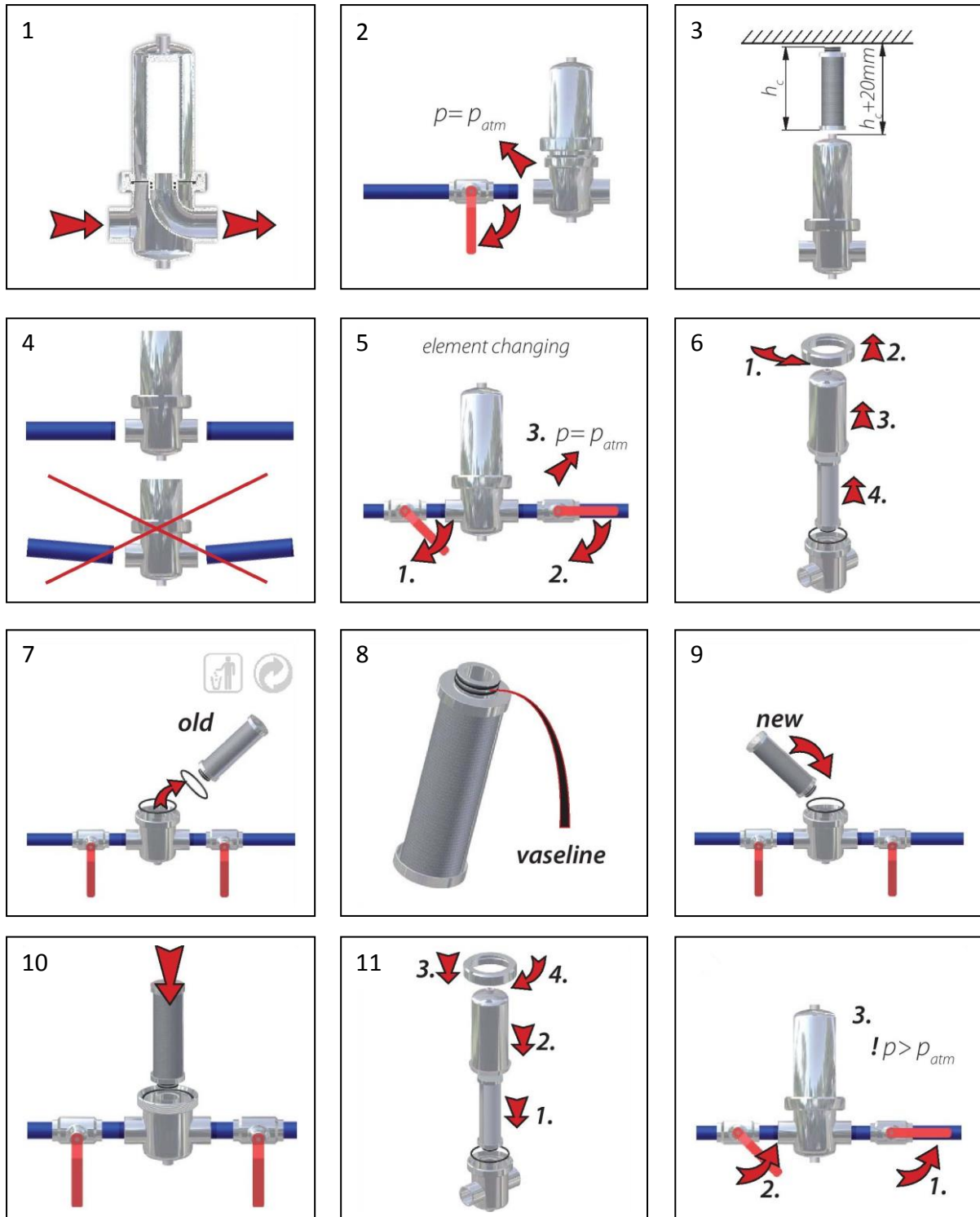
- filter is not intended for human breathing without proper additional equipment.
- filter can only be used for "GROUPE 2" fluids (PED 2014/68/EU).
- filter can not be used for explosive, toxic, flammable, corrosive and "GROUPE 1" fluids (PED 2014/68/EU).

Warning: internal corrosion can seriously reduce the safety of installation: check it during changing the cartridge.

The manufacturer will under no circumstances be responsible for any damage resulting from improper, incorrect or unreasonable use.

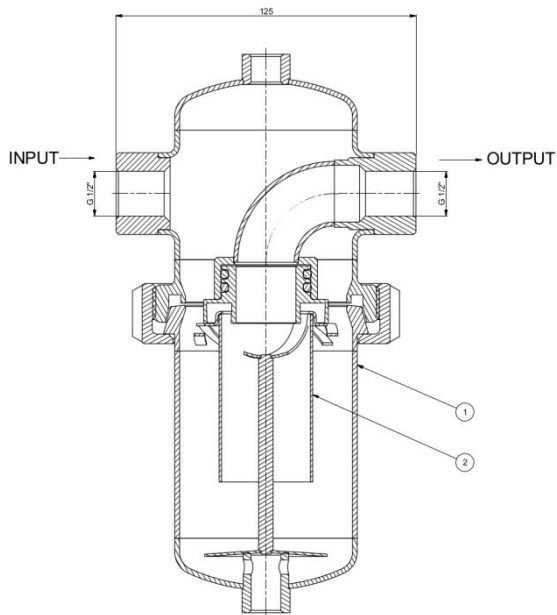
Use genuine spare parts only. Any damage or malfunction caused by the use of unguine parts is not covered by Warranty or Product Liability.

Installation



For oil removal, coalescing filter element must be installed. Flow direction inside-out must be provided.

For bulk water vapour cyclonic separator must be installed. Flow direction outside-in must be provided as shown in the picture. General arrangement is filter head on top and filter bowl on bottom.



Cyclonic separator

Maintenance

Filter elements are subject to wear. In order to maintain system efficiency, optimal performance and best air quality, these rules of proper maintenance should be followed:

- HPI filter element can be cleaned with ultrasonic bath or with back flushing. Intervals of cleaning depend on application. If necessary replace filter element with new one.
- Replace HPM filter at least element every 12 months or when pressure drop reaches 600 [mbar].
- Replace HPA filter element at least every 6 months.

HPF - Installation and operating manual

- The housing O-ring can be damaged during filter element change. To prevent air leakage and malfunction replace housing O-ring if necessary. For replacement contact manufacturer.
- Damaged components are to be replaced by new ones. If a marked degree of damage is found, the entire filter is to be replaced.
- Filter has been designed for a life of 10 years in normal operating environment. After 10 years periodical checks of filter integrity are strongly recommended for safe operation.
- Carry out a check for leaks once the maintenance work has been finished.

Warranty exclusion

The guarantee shall be void if:

- The operating instructions were not followed with respect to initial commissioning and maintenance.
- The unit was not operated properly and appropriately.
- The unit was operated when it was clearly defective.
- Non-original spare parts or replacement parts were used.
- The unit was not operated within the permissible technical parameters.
- Unauthorised constructional changes were made to the unit or if parts of the unit that may not be opened were dismantled.



OMEGA AIR d.o.o. Ljubljana

Cesta Dolomitskega odreda 10

SI-1000 Ljubljana, Slovenia

Tel.: +386 (0)1 200 68 00

Fax.: +386 (0)1 200 68 50

E-mail: info@omega-air.si

www.omega-air.si

