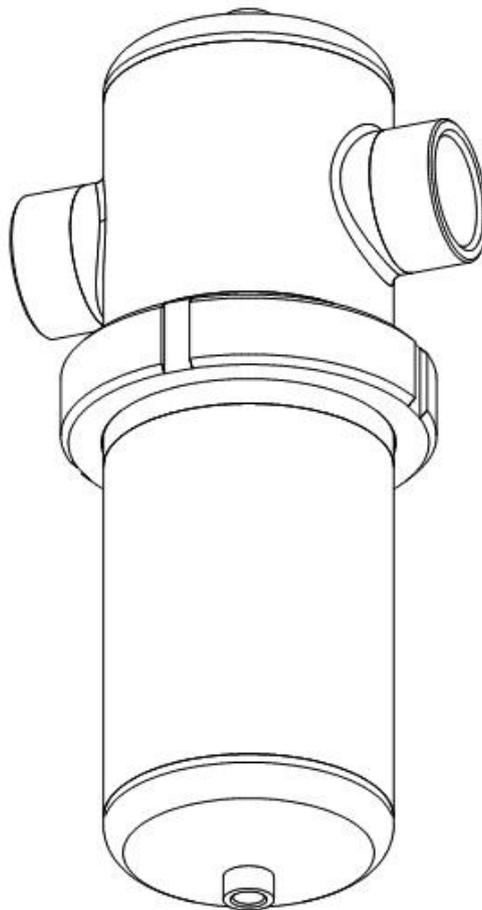




Installation and operating manual

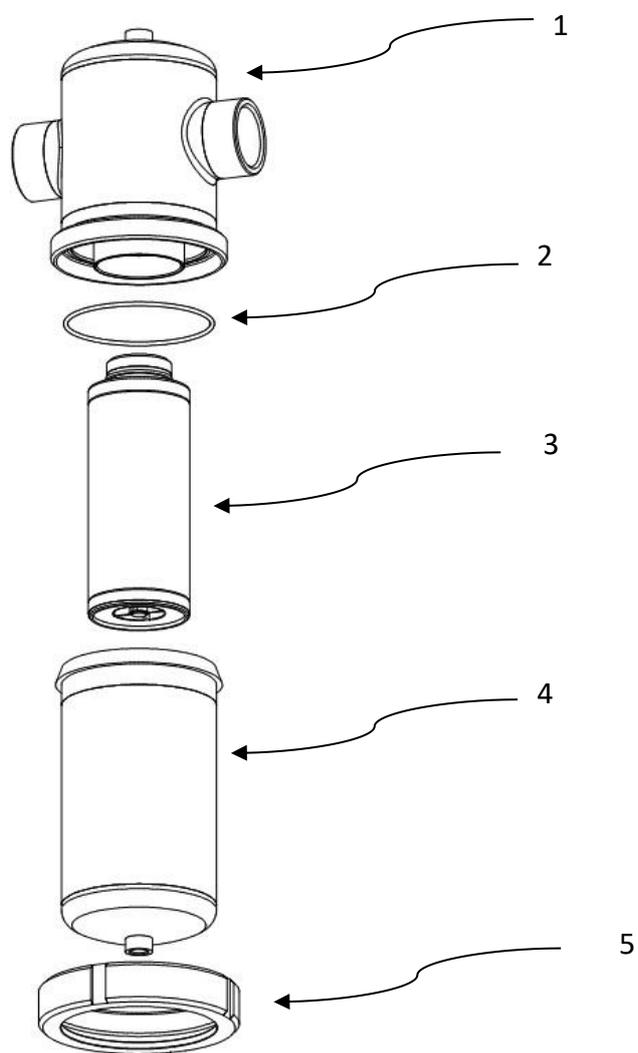
WFlw



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

Technical data

FILTER HOUSING	PIPE SIZE-D [Ø, mm]	FILTER ELEMENT	OPERATING PRESSURE	FLOW CAPACITY		DIMENSIONS [mm]				VOLUME [l]	WEIGHT [kg]
				[Nm ³ /h]	[scfm]	A	B	C	E		
WFIW 005	13,5	1x0310	16	75	44	202	116	76,1	1/2"	0,71	1,7
WFIW 010	14,2	1x0420	16	150	88	240	121	76,1	1/2"	0,84	2,0
WFIW 018	21,3	1x0520	16	225	132	254	125	76,1	1/2"	0,93	2,0
WFIW 030	26,9	1x0525	16	315	185	280	136	88,9	1/2"	1,4	3,0
WFIW 047	33,7	1x0725	16	420	247	337	155	88,9	1/2"	1,74	3,0
WFIW 070	48,3	1x0730	16	600	353	376	176	114,3	1/2"	3,4	4,3
WFIW 094	60,3	1x1030	16	900	530	457	180	114,3	1/2"	4,1	4,8
WFIW 150	60,3	1x1530	16	1260	742	583	180	114,3	1/2"	5,3	5,3
WFIW 175	76,1	1x2030	16	1680	989	740	224	139,7	1/2"	10,2	9,0
WFIW 200	88,9	1x3030	12	2400	1.413	1004	224	139,7	1/2"	14	10,8
WFIW 240	88,9	1x3050	12	3600	2.119	1029	252	168,3	1/2"	21	16,2
WFIW 450	114,3	3x2030	10	5040	2.966	986	410	219,1	1"	34	45
WFIW 600	114,3	3x3030	10	6720	3.955	1240	410	219,1	1"	43	46
WFIW 900	168,3	4x3030	10	9600	5.650	1311	480	273,0	1"	70	70
WFIW	168,3	6x3030	10	13440	7.910	1351	540	323,9	1"	103	80
WFIW	219,1	8x3030	10	17280	10.171	1496	660	406,4	1"	180	135
WFIW	219,1	10x3030	10	21120	12.431	1496	660	406,4	1"	180	135

Flow capacity at 7 bar(g), 20°C

Operating temperature 0 - 150 °C 32 - 302 °F

Operating pressure (005 - 175) 0 - 16 bar(a) 0 - 235 psi

Operating pressure (200 - 240) 0 - 12 bar(a) 0 - 176 psi

*Actual operating temperature depend on sealing material.

MATERIALS

Housing material Stainless steel (quality 1.4404; on request 1.4301)

Sealing FKM

Housing finishes Polished down to grade Ra1.6

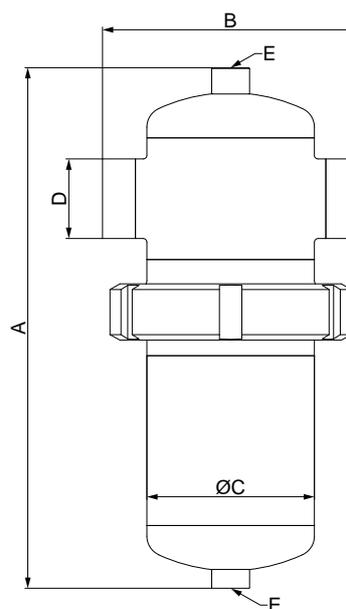
Lubricant (Optional Shell cassida grease RLS 2)

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]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
[psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
C _{OP}	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13



PRESSURE EQUIPMENT DIRECTIVE PED 2014/68/EU (Fluid group 1)*

WFIW 005 – 030	Article 4.3
WFIW 047 – 070	Category 1, Module A
WFIW 094- 175	Category 2, Module H
WFIW 200- 600	Category 3, Module H
WFIW 900 – 2000	Category 4, Module H1

* Fluid group must be specified in the order, if not standard fluid group 2 is selected.

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

WFIW 005 – 047	Article 4.3
WFIW 070 – 200	Category 1, Module A
WFIW 240 – 900	Category 2, Module H
WFIW 1200 – 2000	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 filter and installation. Filter shouldn't be subject to any stress, vibration or other influence that could cause damage to the unit.

Appropriate use



WFIW process filter housings 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:

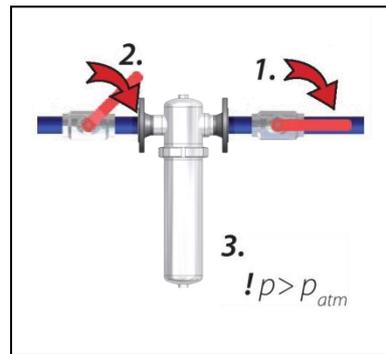
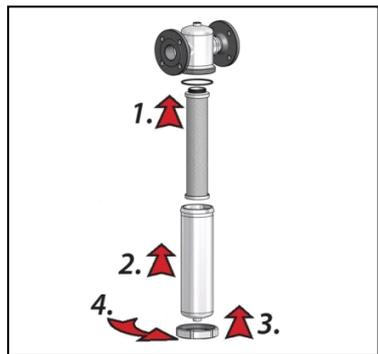
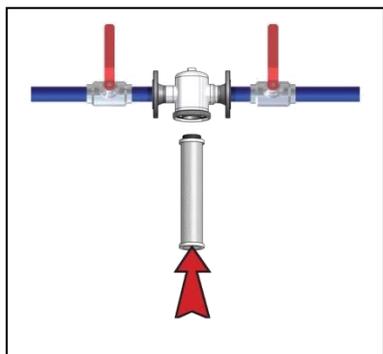
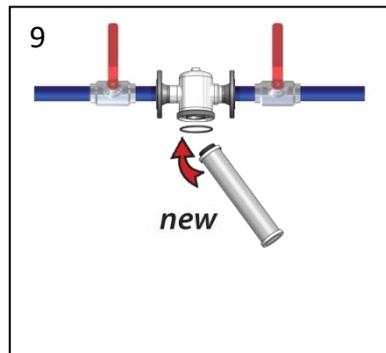
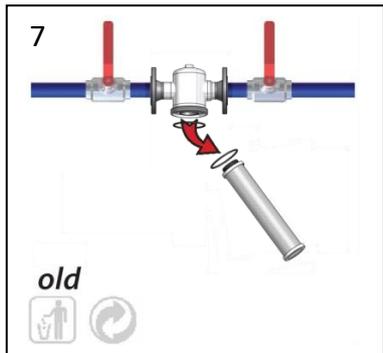
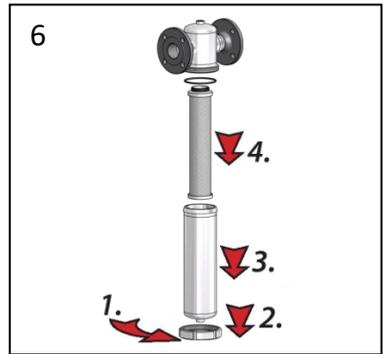
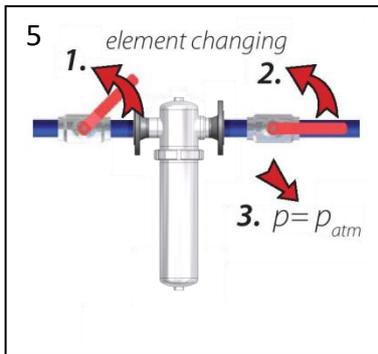
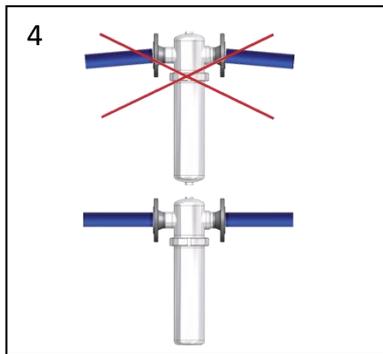
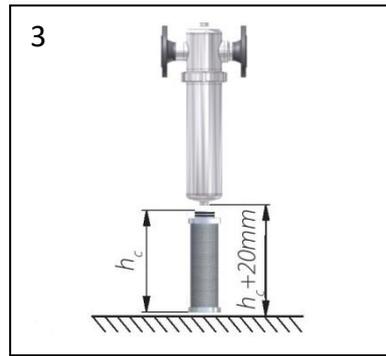
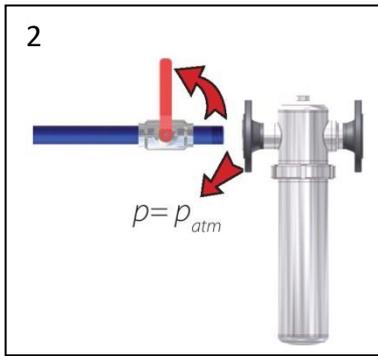
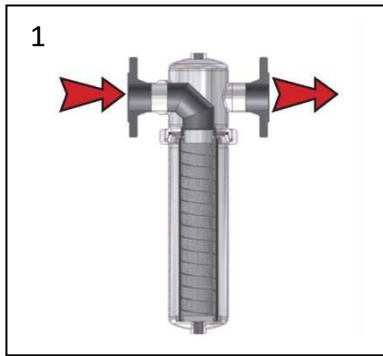
- filter is not intended for human breathing without proper additional equipment.

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 unguenuine parts is not covered by Warranty or Product Liability.

Installation



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:

- PI and PB 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.
- 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

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