

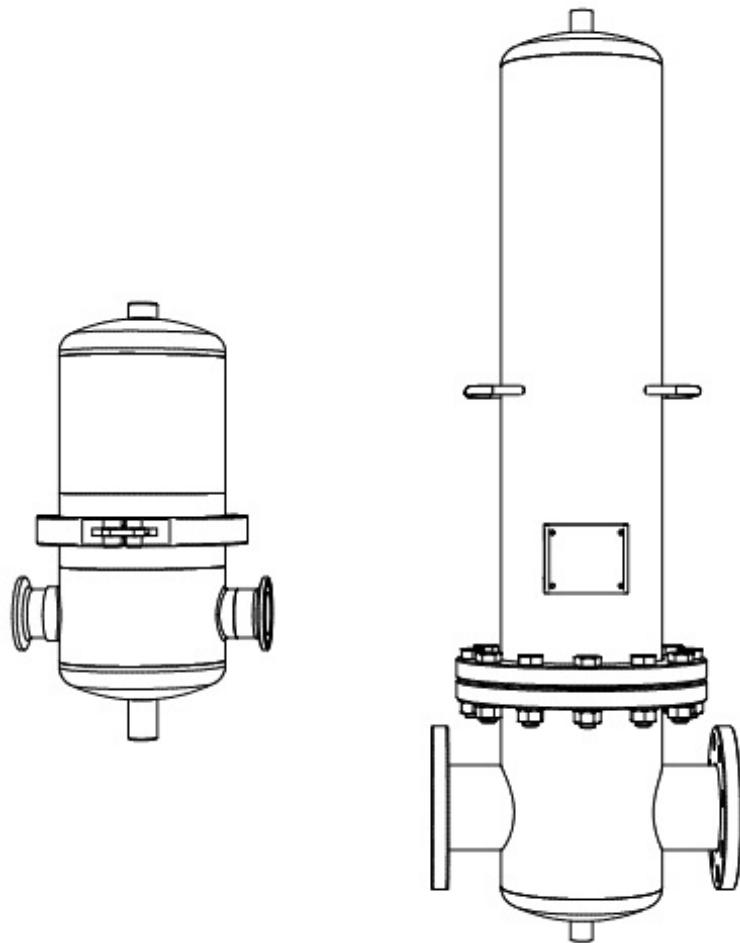


Installation and operating manual

stainless steel filter housing

type

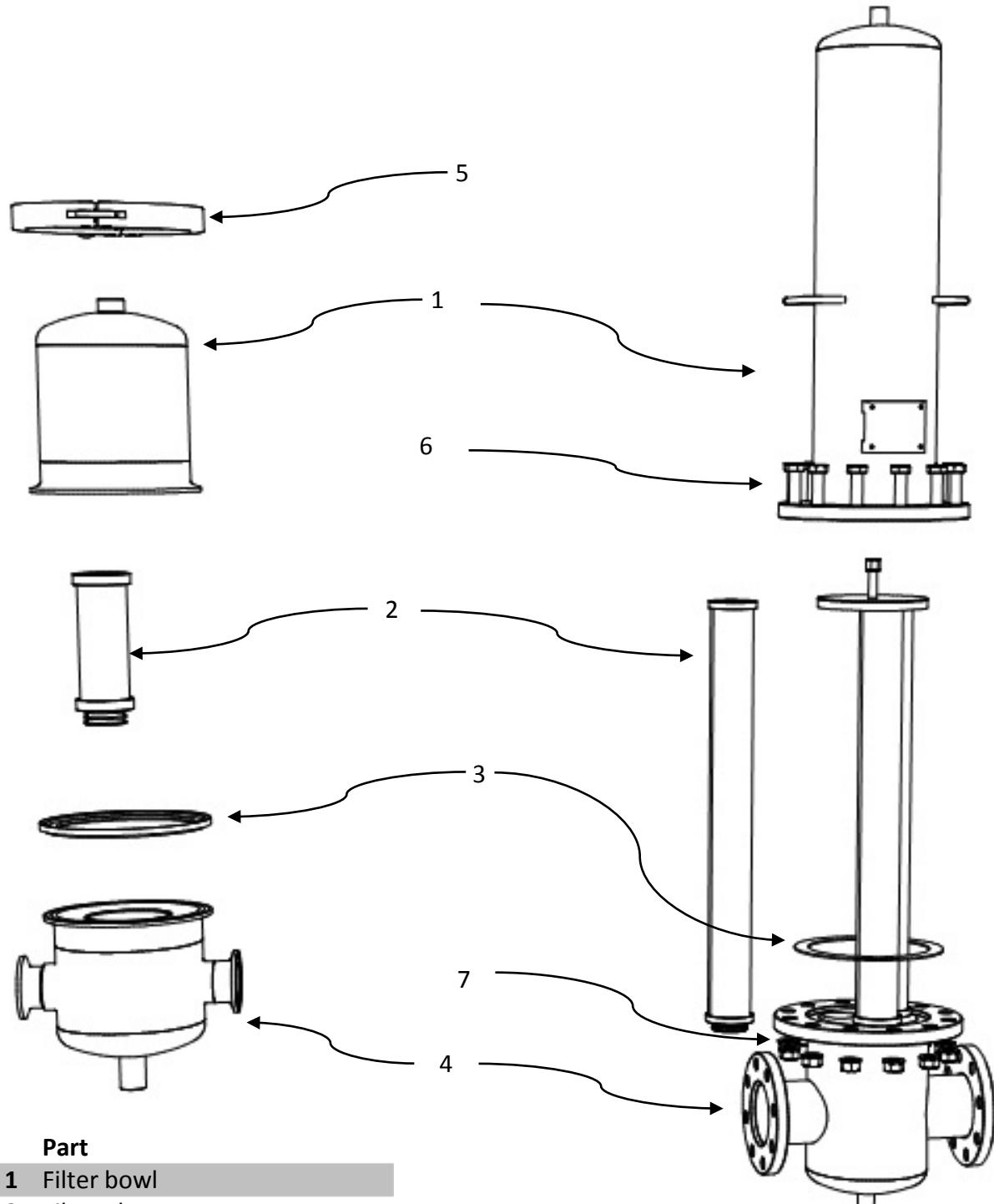
PC-EG



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 bowl
- 2** Filter element
- 3** Housing sealing
- 4** Filter head
- 5** Clamp
- 6** Screws
- 7** Bolts and washers and washers

Technical data

Dimensions

Housing Typ	Pipe Size	Cartridge No. & Size	Operating Pressure [barg]	Flow Capacity		Dimensions [mm]					Volume [l]	Weight [kg]
				[Nm ³ /h]	[scfm]	A	B	C	D	E		
PC-EG 0006	DN10/ Ø17,2	1 x 03/10	10	60	35	220	130	76,1	74	1/8"	0,8	1,6
PC-EG 0009	DN10/ Ø17,2	1 x 04/10	10	90	53	248	130	76,1	74	1/8"	0,8	1,6
PC-EG 0012	DN15/ Ø21,3	1 x 04/20	10	120	70	256	128	76,1	78	1/8"	0,9	1,8
PC-EG 0018	DN15/ Ø21,3	1 x 05/20	10	180	106	288	128	76,1	78	1/8"	0,9	1,8
PC-EG 0032	DN25/ Ø33,7	1 x 05/30	10	320	188	315	180	114,3	99	1/4"	2,4	3,1
PC-EG 0048	DN32/ Ø42,4	1 x 07/30	10	480	282	368	181	114,3	90	1/4"	2,9	3,4
PC-EG 0072	DN40/ Ø48,3	1 x 10/30	10	720	423	449	174	114,3	65	1/4"	4,1	3,6
PC-EG 0108	DN50/ Ø60,3	1 x 15/30	10	1080	635	591	188	114,3	110	1/4"	5,1	4,9
PC-EG 0144	DN65/ Ø76,1	1 x 20/30	10	1440	847	741	205	139,7	136	1/4"	10,2	8,4
PC-EG 0192	DN80/ Ø88,9	1 x 30/30	10	1920	1130	1014	203	139,7	136	1/4"	12,5	10,2
PC-EG 0432	DN100	3 x 20/30	10	4320	2542	1005	410	219,1	183	1/2"	36	44
PC-EG 0576	DN100	3 x 30/30	10	5760	3389	1266	410	219,1	183	1/2"	43	45
PC-EG 0768	DN150	4 x 30/30	10	7680	4519	1337	480	273	267	1/2"	77	70
PC-EG 1152	DN150	6 x 30/30	10	11520	6779	1331	540	323,9	267	1"	110	80
PC-EG 1536	DN200	8 x 30/30	10	15360	9039	1496	660	406,4	306	1"	190	200
PC-EG 1920	DN200	10 x 30/30	10	19200	11299	1496	660	406,4	306	1"	190	201

Flow capacity at 7 barg, 20°C

Operating temperature

-20°C to +150°C*

-4°F to +30°F

Short duration (15min) temp limit

Up to +200°C*

Up to +392°F

Operating pressure (PC-EG 0006 - 0192)

0 - 10 bar(g)

0 - 146 psig

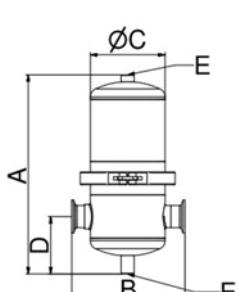
Operating pressure (PC-EG 0432 - 1920)

0 - 10 bar(g)

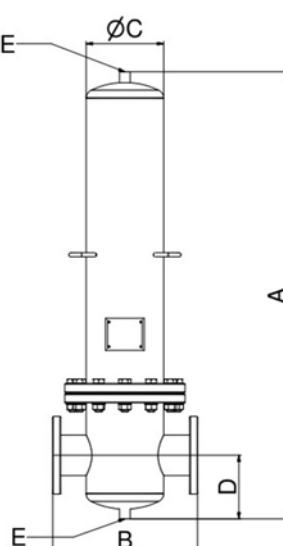
0 - 146 psig

*Actual operating temperature depend on sealing material

PC-EG 0006 – 0192



PC-EG 0432-1920



Materials

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

Sealing EPDM (Optional FKM or SILICONE)

Housing finishes Polished down to grade Ra0,8

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
[psi]	29	44	58	72	87	100	115	130	145
C_{OP}	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38

PRESSURE EQUIPMENT DIRECTIVE PED 2014/68/EC (Fluid Group 2)

PC-EG 0006 - 0072	Art. 4, Par. 3
PC-EG 0108 - 0192	Category 1, Module H
PC-EG 0432 - 0768	Category 2, Module H
PC-EG 1152 - 1920	Category 2, Module H

Technical datasheet available.

For additional technical specification, contact us.

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 PED 2014/68/EC 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



PC-EG stainless steel sterile filter housings are intended for removing of impurities from compressed air system.
All other uses are to be considered as incorrect without being confirmed by us.

Specifically:

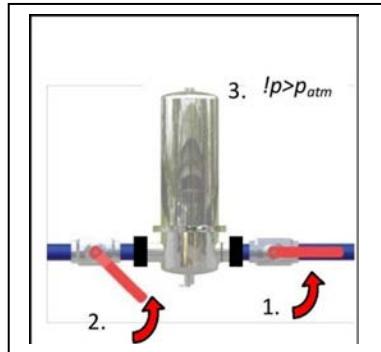
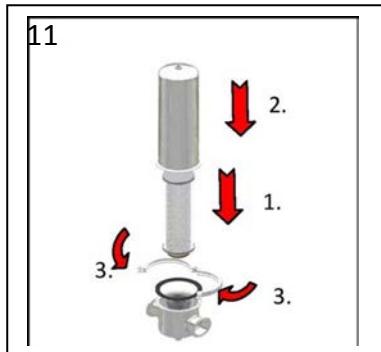
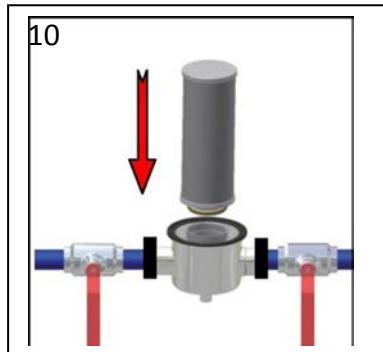
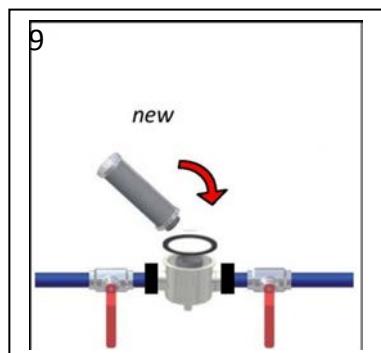
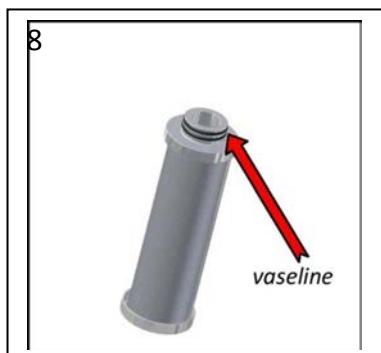
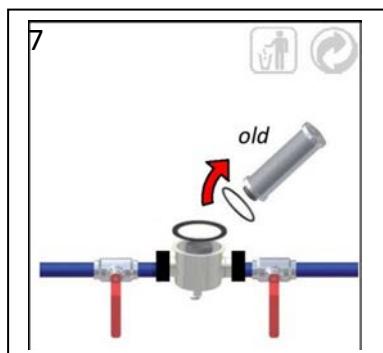
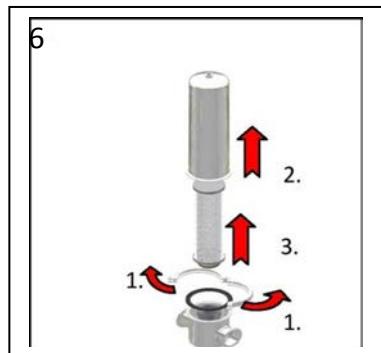
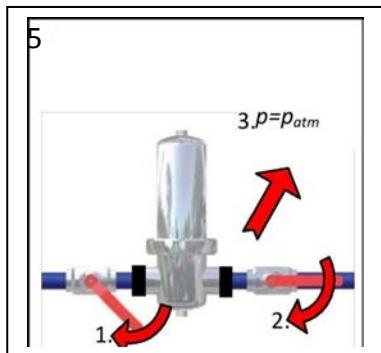
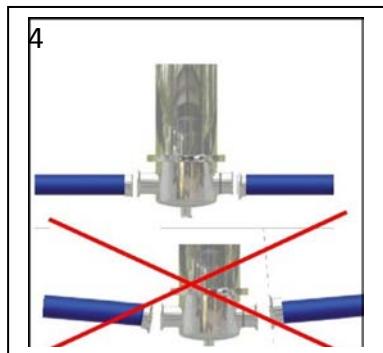
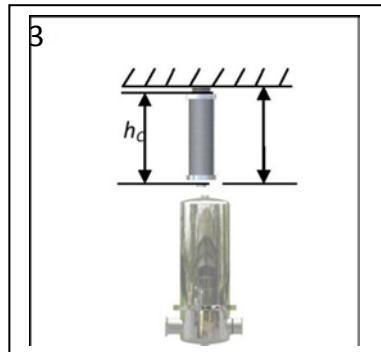
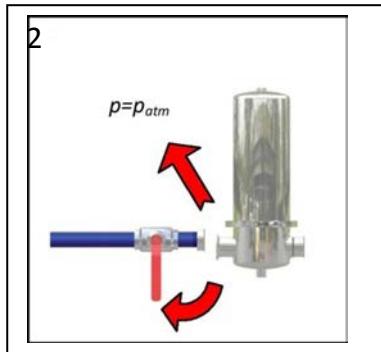
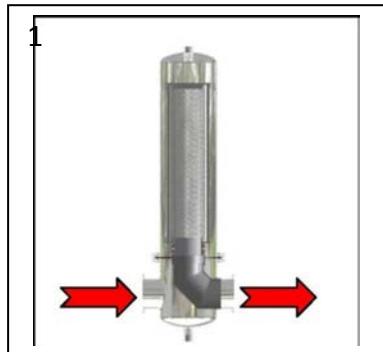
- ⟨ filter is not intended for human breathing without proper additional equipment.
- ⟨ filter can only be used for "GROUPE 2" fluids (PED 2014/68/EC).
- ⟨ filter can not be used for explosive, toxic, flammable, corrosive and "GROUPE 1" fluids (PED 2014/68/EC) without additional confirmation.

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

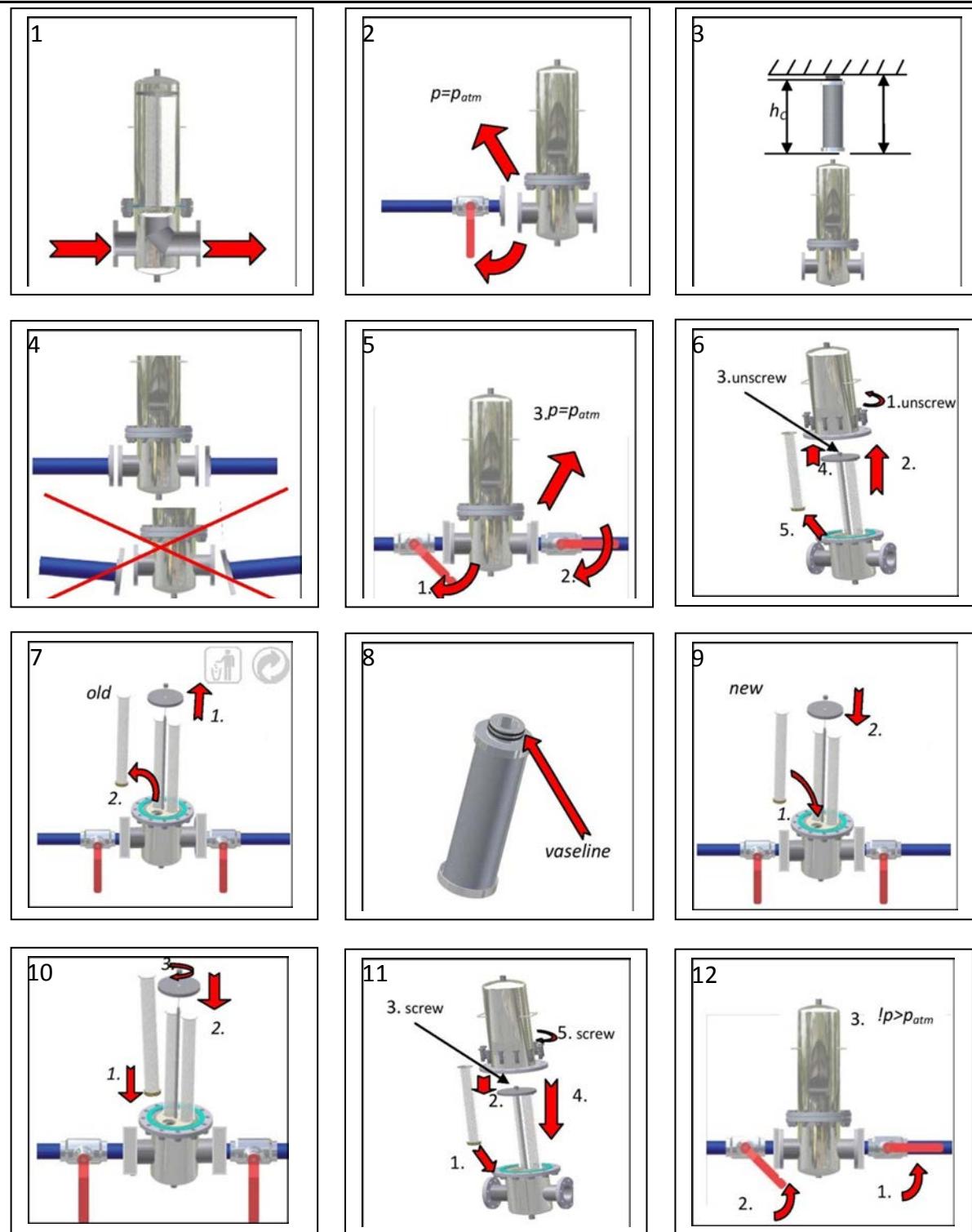
The manufacturer will under no circumstances be responsible for any damage resulting from improper, incorrect or unreasonable use.

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 of stainless steel filter housing type PC-EG 0006 - 0192



Installation of stainless steel filter housing type PC-EG 0432 - 1920



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:

- ⟨ Replace filter elements at least once a year or when pressure drop reaches max. 600 [mbar] or after prescribed number of sterilisation cycles.
- ⟨ 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 us.
- ⟨ 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.

<h2>Herstellerbescheinigung</h2> <p>Richtlinie für Druckgeräte 2014/68/EU</p>	<h2>Konformitätserklärung</h2> <p>Richtlinie für Druckgeräte 2014/68/EU</p>
<p>DE Name und Anschrift des Herstellers:</p> <p>ultrafilter gmbh Otto-Hahn-Strasse 1 D-40721 Hilden</p> <p>Hiermit wird bescheinigt, dass die Ergebnisse der an den unten genannten Druckgeräten vorgenommenen Prüfungen die Anforderung der DGRL 2014/68/EU Fluidgruppe 2, Artikel 4, Absatz 3 erfüllen.</p> <p>Beschreibung der Druckgeräte:</p> <p>Filtergehäuse PC-EG 0006 Filtergehäuse PC-EG 0009 Filtergehäuse PC-EG 0012 Filtergehäuse PC-EG 0018 Filtergehäuse PC-EG 0032 Filtergehäuse PC-EG 0048 Filtergehäuse PC-EG 0072</p> <p>Hilden, 24. Januar 2017</p>  <p>Dietmar Schüller Director ultrafilter Operations</p>	<p>DE Name und Anschrift des Herstellers:</p> <p>ultrafilter gmbh Otto-Hahn-Strasse 1 D-40721 Hilden</p> <p>Hiermit wird bescheinigt, dass die Ergebnisse der an den unten genannten Druckgeräten vorgenommenen Prüfungen die Anforderung der DGRL 2014/68/EU erfüllen.</p> <p>Fluidgruppe 2, Kategorie I, Modul: H</p> <p>Die Druckgeräte sind mit dem abgebildeten Zeichen gekennzeichnet: CE</p> <p>Beschreibung der Druckgeräte:</p> <p>Filtergehäuse PC-EG 0108 Filtergehäuse PC-EG 0144 Filtergehäuse PC-EG 0192</p> <p>Hilden, 24. Januar 2017</p>  <p>Dietmar Schüller Director ultrafilter Operations</p>
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Manufacturer Certificate Equipment Directive PED 2014/68/EC	Declaration of Conformity Equipment Directive PED 2014/68/EC
<p>GB Name and address of the manufacturer:</p> <p>ultrafilter gmbh Otto-Hahn-Strasse 1 D-40721 Hilden</p> <p>It is hereby certified that the results of the tests carried out on the pressure vessels listed below fulfil the requirements of directive PED 2014/68/EC Fluid Group 2, article 4, paragraph 3</p> <p>Description of the pressure vessels:</p> <ul style="list-style-type: none"> Filter housing PC-EG 0006 Filter housing PC-EG 0009 Filter housing PC-EG 0012 Filter housing PC-EG 0018 Filter housing PC-EG 0032 Filter housing PC-EG 0048 Filter housing PC-EG 0072 <p>Hilden, 24. Januar 2017</p>  <p>Dietmar Schüller Director ultrafilter Operations</p>	<p>GB Name and address of the manufacturer:</p> <p>ultrafilter gmbh Otto-Hahn-Strasse 1 D-40721 Hilden</p> <p>It is hereby certified that the results of the tests carried out on the pressure vessels listed below fulfil the requirements of directive PED 2014/68/EC.</p> <p>Fluid Group 2, Category I, Module H</p> <p>The pressure vessels are marked with the sign shown: CE</p> <p>Description of the pressure vessels:</p> <ul style="list-style-type: none"> Filter housing PC-EG 0108 Filter housing PC-EG 0144 Filter housing PC-EG 0192 <p>Hilden, 24. Januar 2017</p>  <p>Dietmar Schüller Director ultrafilter Operations</p>
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Notes



Hersteller / Manufacturer
ultrafilter GmbH

Deutschland / Germany

eMail info@ultrafilter.ch
www.ultrafilter.ch

Vertrieb / Sales
ultra.air ag
Leutschenbachstrasse 45
CH-8050 Zürich

Fon +41 (0)44 224 60 60
Fax +41 (0)44 224 60 61
eMail info@ultraair.ch
www.ultraair.ch

