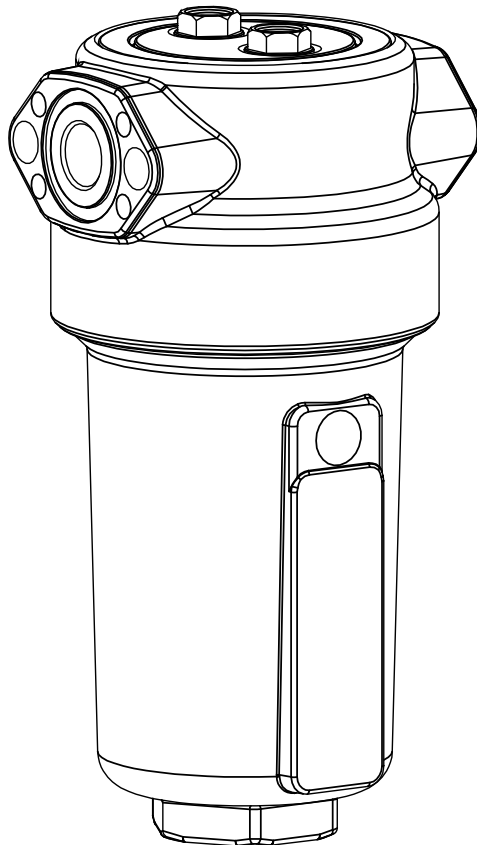




Installation and operating manual

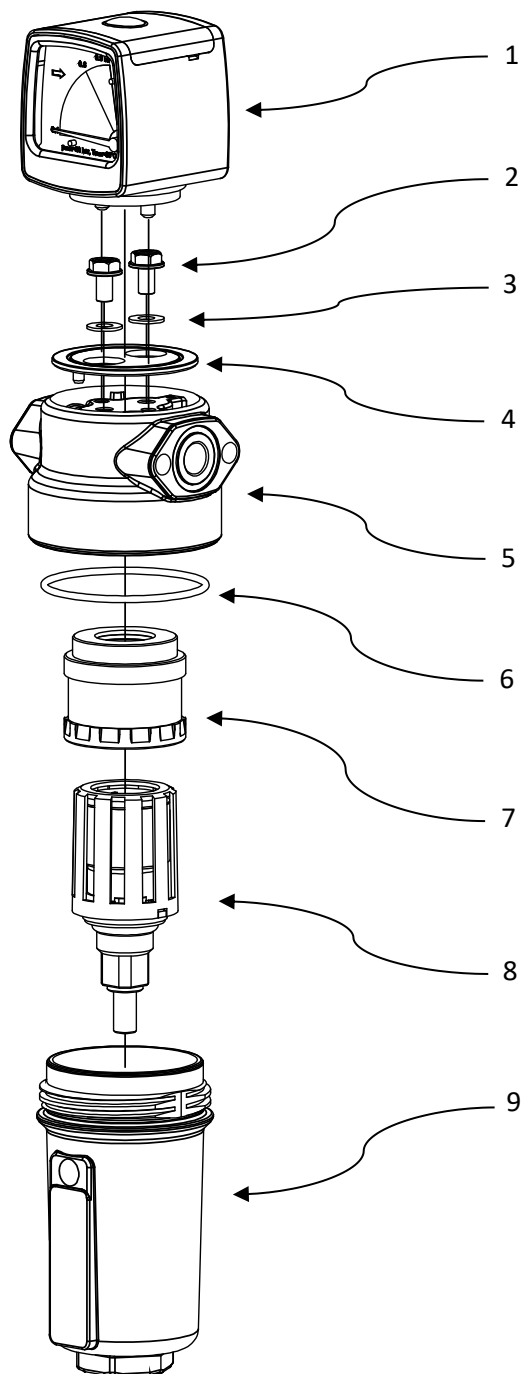
AAF compressed air filter



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



Components



Part

- 1 Pressure drop indicator (optional)
- 2 Screw
- 3 Flat seal
- 4 Head cover
- 5 Filter head
- 6 O-ring seal
- 7 Filter or cyclone element
- 8 Condensate drain (optional)
- 9 Filter bowl

* Filter housing size 0006 - 0016 does not contain the components: 1, 2, 3, 4, 8.

Technical data

| FILTER HOUSING | PIPE SIZE [inch] | FILTER ELEMENT ⁽¹⁾ | FLOW CAPACITY | | DIMENSIONS [mm] | | | | VOLUME [l] | WEIGHT [kg] |
|----------------|------------------|-------------------------------|----------------------|--------|-----------------|-----|----|-----|------------|-------------|
| | | | [Nm ³ /h] | [scfm] | A | B | C | D | | |
| AAF 0006 | 1/8 | 03528 | 10 | 6 | 105 | 55 | 14 | 50 | 0,07 | 0,23 |
| AAF 0016 | 1/4 | 05528 | 18 | 11 | 125 | 55 | 14 | 70 | 0,09 | 0,24 |
| AAF 0026 | 1/4 | 03844 | 25 | 15 | 145 | 73 | 18 | 50 | 0,22 | 0,42 |
| AAF 0036 | 3/8 | 03844 | 30 | 18 | 145 | 73 | 18 | 50 | 0,22 | 0,42 |
| AAF 0046 | 1/4 | 06050 | 35 | 22 | 189 | 88 | 32 | 60 | 0,44 | 0,72 |
| AAF 0056 | 3/8 | 06050 | 60 | 35 | 189 | 88 | 32 | 60 | 0,45 | 0,71 |
| AAF 0076 | 1/2 | 07050 | 78 | 46 | 189 | 88 | 32 | 80 | 0,45 | 0,70 |
| AAF 0106 | 3/4 | 14050 | 120 | 70 | 257 | 88 | 32 | 150 | 0,64 | 0,78 |
| AAF 0186 | 1 | 12075 | 198 | 116 | 261 | 125 | 37 | 160 | 1,4 | 1,9 |
| AAF 0306 | 1 | 22075 | 335 | 197 | 361 | 125 | 37 | 250 | 2,0 | 2,4 |
| AAF 0476 | 1 1/2 | 32075 | 510 | 300 | 461 | 125 | 37 | 350 | 2,6 | 2,6 |
| AAF 0706 | 1 1/2 | 50075 | 780 | 459 | 641 | 125 | 37 | 530 | 3,6 | 3,5 |
| AAF 0946 | 2 | 51090 | 1000 | 588 | 698 | 164 | 49 | 520 | 6,0 | 6,1 |
| AAF 1506 | 2 | 76090 | 1500 | 882 | 944 | 164 | 49 | 770 | 8,3 | 8,0 |
| AAF 1756 | 2 1/2 | 76090 | 1680 | 990 | 944 | 164 | 49 | 770 | 8,4 | 7,6 |
| AAF 2006 | 3 | 51140 | 2160 | 1270 | 802 | 242 | 60 | 630 | 16,7 | 14,1 |
| AAF 2406 | 3 | 75140 | 2760 | 1620 | 999 | 242 | 60 | 770 | 21,3 | 16,7 |

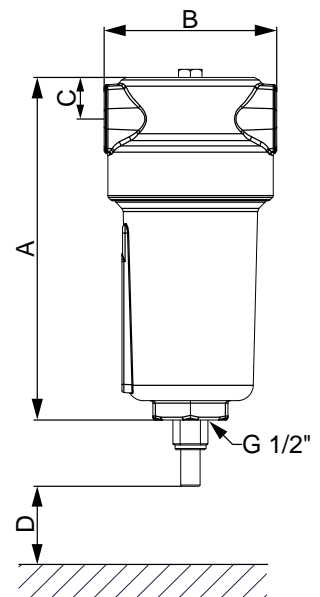
Flow capacity at 7 bar(g), 20°C

⁽¹⁾ Or integrated Cyclone element

| | | |
|-----------------------|---------------|-------------|
| Operating temperature | 1,5 - 65 °C | 35 - 149 °F |
| Operating pressure | 0 - 16 bar(g) | 0 - 232 psi |

MATERIALS

| | |
|----------------------|--|
| Housing material | Aluminium |
| Fittings, Screws | Brass, Brass-zinc plated, Steel |
| Cover | ABS |
| Sealing | NBR |
| Cyclone element | PA6 30% glass fibre, Steel 1,4301 |
| Corrosion protection | Electrophoretic Coating (KTL) |
| Outside protection | Powder paint coated (Epoxi-polyester base) |
| Lubricant | 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 COP

| [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 |
| COP | 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 2)

AAF 0006 - AAF 0476

Article 4.3

AAF 0706 – AAF 1756

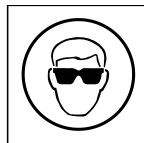
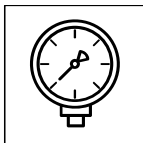
Category 1, Module H

AAF 2006 - AAF 2406

Category 2, Module H

There is a Technical datasheet available for additional technical specifications, 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.

The 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 the 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 the assembled system are 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.
- The filter has been designed for primarily static pressure. Rapid changes of pressure are not allowed.
- Ensure that the filter is not subject to vibrations that could cause fatigue fractures.
- The filter is not to be subjected to mechanical stresses.
- 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 stress.
- Use original spare parts only.
- Use the device for the appropriate purpose only.

Appropriate use



AAF series filters are designed for high efficient removal of solid particles, water, oil aerosols, hydrocarbons, odour and vapours from compressed air systems. This appliance must be used only for the purpose for which it was specifically designed. All other uses are to be considered incorrect.

Specifically:

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

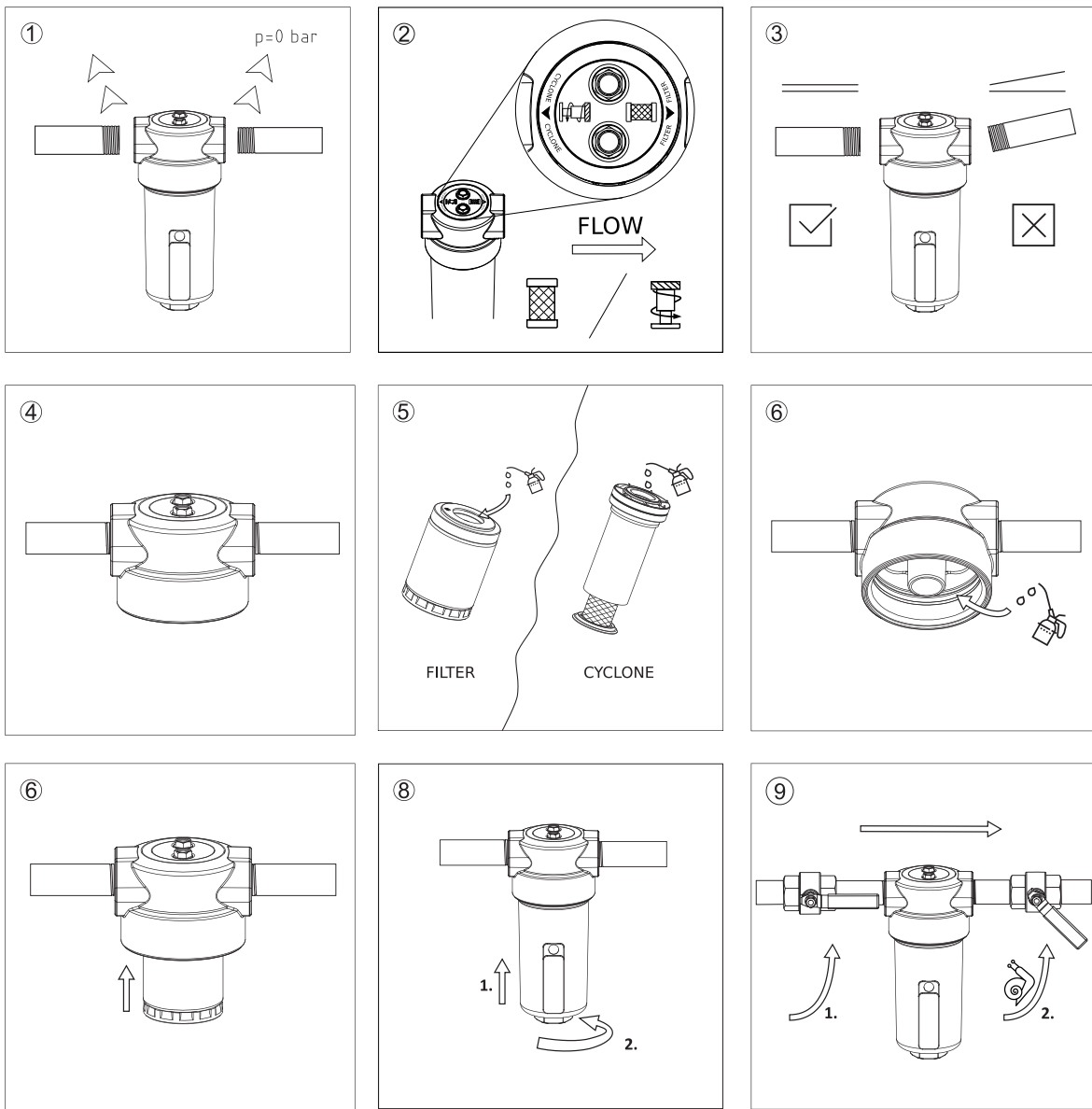
Warning: internal corrosion can seriously reduce the safety of installation: check it while changing the cartridge.

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.

The filter and filter elements must be stored indoors in a dry place. Store them in original packing until they are used.

Installation

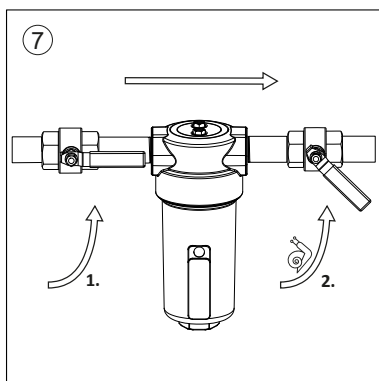
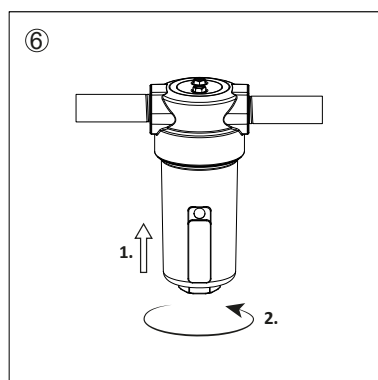
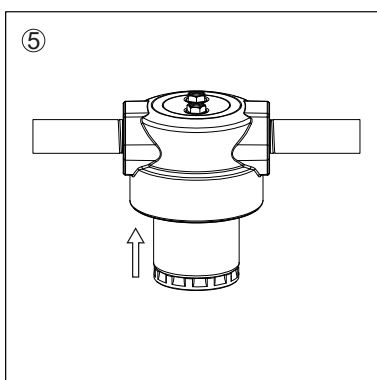
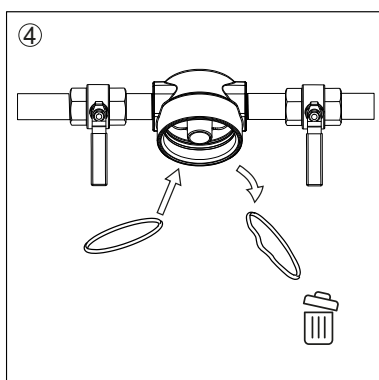
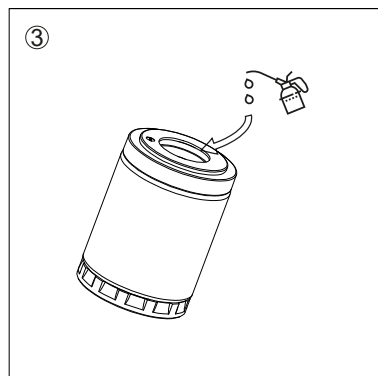
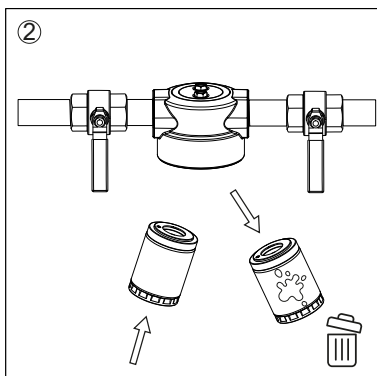
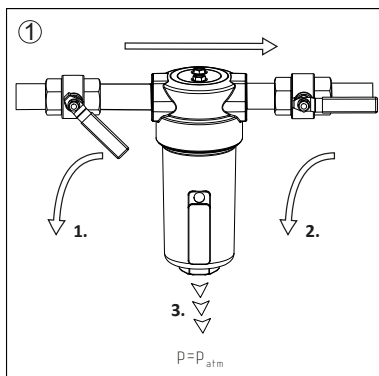


Operations should be performed only by qualified personnel. Never operate with installation under pressure. The user is responsible for ensuring that the filter will never operate at a pressure exceeding the nominal values. Eventual over-pressure could be dangerous and hazardous to the operator and the equipment.

The filter assembly and installation procedures are as follows:

- Depressurize the system before carrying out the installation work.
- Connect the filter head to the compressed air piping and check that the airflow corresponds to the direction of the arrow positioned on the filter head cap. Symbols indicate different flow direction for cyclone and for filter with particulate element.
- Lubricate the O-ring and the sealing surfaces of the filter head and cartridge use multipurpose grease.
- Fit the filter cartridge on the filter head simply by pressing. Tightness is ensured by one o-ring.
- Fit the filter bowl and tight it accurately.
- Filters must always be installed in a vertical position with sufficient space around. The minimum distance (D in the technical data table) has to be assured under the filter bowl, which is necessary for filter cartridge change.
- Stick the adhesive label showing the month and year for the next filtering element change (max. one year) on the filter bowl.
- Slowly pressurize the installation and check it for air leakage.
- Ensure that filter is not be subjected to mechanical stress.

Changing the filter element



Maintenance



Hazard due to a sudden release of pressure!

Never remove any parts of the filter for as long as the filter is still pressurized!

Depressurize the filter before carrying out any work on the filter.

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:

- If installed, regularly check pressure drop indicator to ensure filter element is not saturated and pressure drop is within acceptable limits
- If installed, ensure a trouble-free operation of the condensate drain.
- Replace filter elements, as stated in the filter element product data sheet.
- Never use unsuitable tools to open and close the filter housings.
- The housing O-ring can be damaged during filter element change. To prevent air leakage and malfunction, replace the housing O-ring if necessary for the 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.
- The Filter has been designed for a life of 10 years in a normal operating environment. After ten years, periodical checks of filter integrity are strongly recommended for safe operation.
- Slowly apply pressure and carry out a check for leaks once the maintenance work has been finished.

Disposing of filter elements:

The filter element or cartridge might be contaminated by the filtered substances. Heed the notes on hazardous substances for the filtered gas and appropriate disposal regulations when disposing.

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.
- If unauthorized or unqualified persons work with or on the filter
- 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.
- The filter and filter elements did not be store indoors and in a dry place.
- If the operator damaged the O-ring during the replacement of the filter elements and do not replace it.

OMEGA AIR d.o.o. Ljubljana

Cesta Dolomitskega odreda 10

SI-1000 Ljubljana, Slovenia

T: +386 (0)1 200 68 00

F: +386 (0)1 200 68 50

info@omega-air.si

