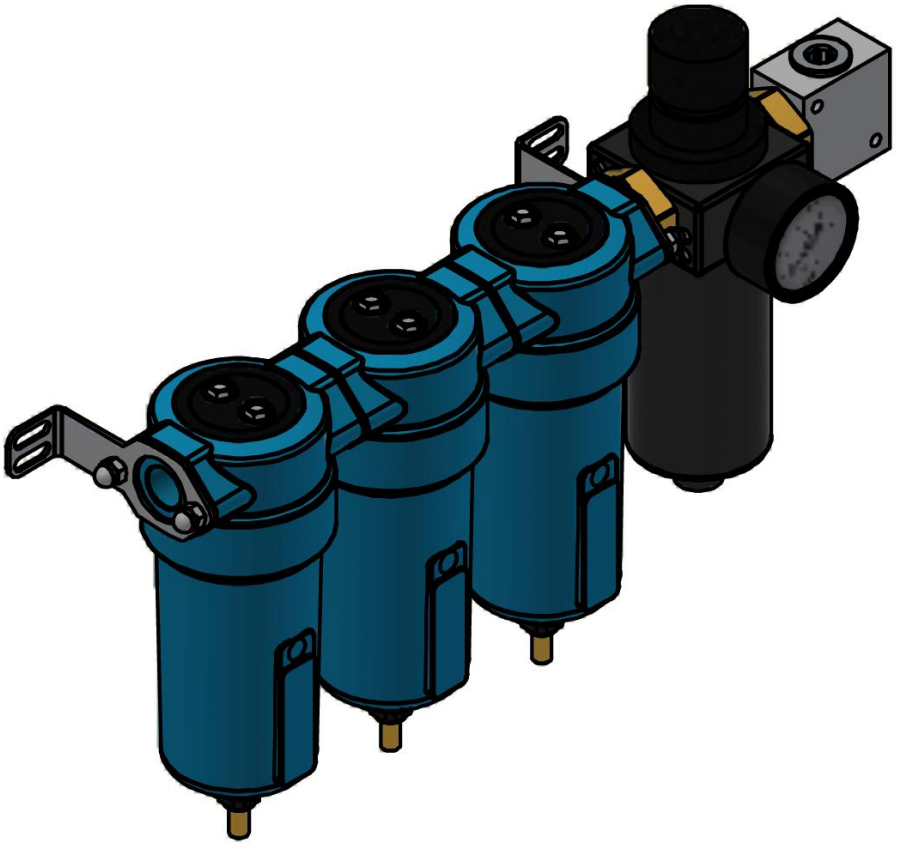
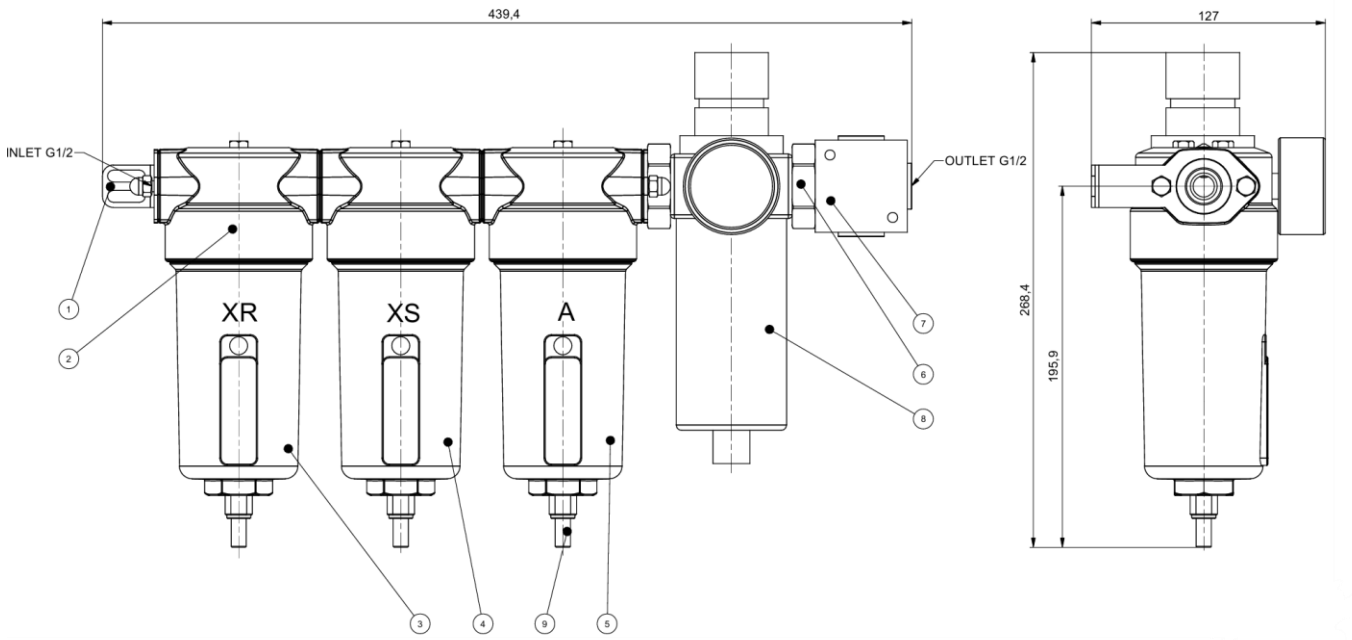
Installation and operating manual



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

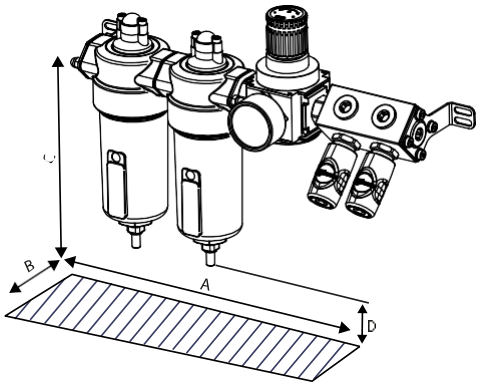
Components



	Part
1	Wall mounting kit
2	Filterset 600173
3	Prefilter 1µm 600175
4	Microfilter 0,01 µm 600176
5	Activated carbon filter 600177
6	Connection
7	Distribution block
8	Pressure regulator

MODEL	Connection [inch]	FLOW CAPACITY [Nm³/h]	[scfm]	DIMENSIONS [mm] A	B	C	D	Microfilter M 0,1µm	Microfilter S 0,01µm	Active Carbon A	Quick coupling
600173	1/2	78	46	439	127	275	80	•	•	•	2

Flow capacity at bar(g), °C
Standard is BSP pipe connection, other pipe connection on request.
(3) Separator including sintered filter - separates particles > 2 µm.



Operating temperature	1,5 - °C	35 - °F
Operating pressure	0 – 16 bar(a)	0 – 232 psi

MATERIALS

Filter housing material	Aluminium
Fittings, Screws	Brass, Steel-zinc plated, Stainless steel
Gauge	Steel, Glass
Sealing	NBR
Corrosion protection	Anodized
Outside protection	Powder paint coated (Epoxy-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 C_{OP}

OPERATING PRESSURE

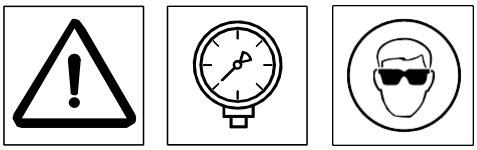
[bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
[psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
C_{OP}	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

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

600173	Not required

There is a 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 by 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 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 add-ons. The 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 in pressure are not allowed.
- Ensure that the filter is not subject to vibrations that could cause fatigue fractures.
- A 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 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 the filter is installed without any stresses.
- Use original spare parts only.
- Use the device for an appropriate purpose only.

Appropriate use

600173 series filters are designed for purifying compressed air from solid, liquid, and partially gaseous components. 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.
- A filter can only be used for “GROUPE ” fluids (PED 2014/68/EU).
- The filter cannot be used for explosive, toxic, flammable, corrosive, and “GROUPE ” 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 ungenuine 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 never operates at a pressure exceeding the nominal values. Eventual over-pressure could be dangerous and hazardous to the operator and the equipment.

The inclination of the unit must not exceed + / - ° in both axes. If the system is not installed correctly it could not work properly.

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. To maintain system efficiency, optimal performance, and best air quality, these rules of proper maintenance should be followed:

- 1 µm, and 0,01 µm filter grades should be changed at least once per year or when the pressure indicator shows red.
- Activated carbon filter grade should be replaced at least every 6 months or sooner if it is required for the specific application.

- If installed, regularly check the pressure drop indicator to ensure the filter element is not saturated, and pressure drop is within acceptable limits.
- If installed, ensure a trouble-free operation of the condensate drain. Check At least once a week if the condensate drain operates regularly.
- Never use unsuitable tools to open and close the filter housings.
- Replace filter elements, as stated in the filter element product data-sheet.
- The housing O-ring can be damaged during the filter element change. To prevent gas leakage and malfunction, replace the 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.
- The filter has been designed for a life of 10 years, in the normal operating environment. After 10 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.

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.
- Unauthorized constructional changes were made to the unit or if parts of the unit that may not be opened were dismantled.

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