



Water filters AWF with self-cleaning

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Art.-No. 42 110 00, 42 120 00, 42 130 00

NOTE!

The product may only be used if you have fully read and understood these operating instruction. The manual is also available on the AFRISO websites on the Internet.

WARNING!



AWF water filters may only be installed, commissioned, and dismantled by trained personnel.

Changes and modifications carried out by unauthorised persons may cause danger and are prohibited for safety reasons.

AWF water filters are not suitable for use with water that contains:

- large quantities of sand,
- coarse bodies larger than 2 mm,
- silt,
- chloride ions concentrations higher than 200 mg/l,
- chemicals such as oils, solvents, acids, bases and glycols.

APPLICATION

Filters are used in drinking water installations. They are installed between the water meter and the pressure regulator. They protect the installation from impurities that can cause damage or malfunction of its components.

WORKING PRINCIPLE

Tap water enters the filter and is directed inside the mesh. All solid impurities are captured on its surface. The treated medium is then directed to the outlet connection. The impurities retained by the filter mesh accumulate at the bottom of the bowl. The plug at the top of the filter can be replaced by a pressure gauge with a G $\frac{1}{4}$ " connection. The pressure gauge will indicate the water pressure at the filter inlet.



Fig. 1 Diagram of water flow through the AWF filter

CONSTRUCTION



- A. G $\frac{1}{4}$ " plug
- B. Brass head
- C. Filtration mesh
- D. O-ring seal
- E. Transparent bowl
- F. Date recorder
- G. Drain valve
- H. Hose connector
- I. Wrench

Fig. 2 Construction of the AWF water filter

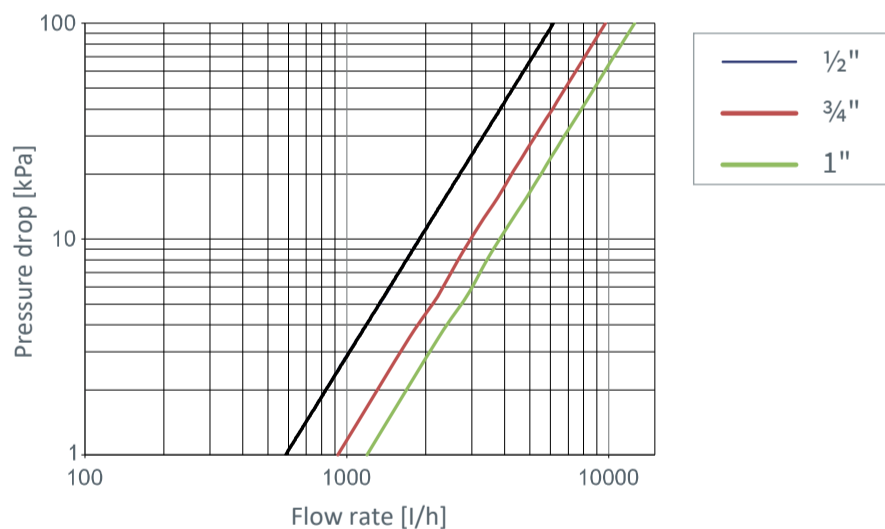
The design of the filtration mesh allows all precipitated impurities to be retained inside the filter even when the flow is completely blocked. Pressing water is unable to penetrate the mesh and carry away the captured impurities thanks to the mesh's fusion with special plastic clamping rings.



Fig. 3 Construction of a filtration mesh to prevent impurities from entering the installation

The filtration mesh is designed to resist hydraulic impacts without deformation and crushing.

HYDRAULIC CHARACTERISTICS



DIMENSIONS [mm]

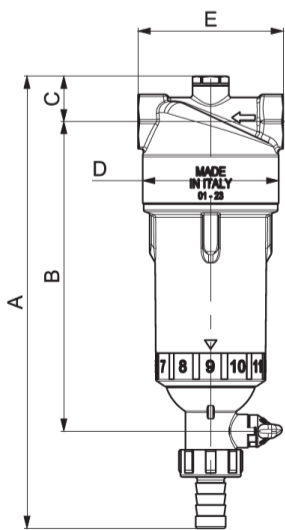


Fig. 4 Dimensions of the AWF water filters

Model	AWF 110	AWF 120	AWF 130
Connections	G $\frac{1}{2}$ " F	G $\frac{3}{4}$ " F	G1" F
A	224,5	228,5	229,5
B	154	156	157
C	22,5	24,5	24,5
D	67,5	67,5	67,5
E	72	76	80

INSTALLATION

The AWF water filter should be installed on the pipe supplying the installation with drinking water immediately after the water meter in a frost-protected room. It captures any solid impurities that may cause malfunctioning of the pressure regulator, thermostatic mixing valves and other sensitive installation components. The filter can only be installed on horizontal pipes, with the drain valve facing downwards (Fig. 5). The arrow on the brass head indicates the direction of water flow from the source (from the water meter) to the installation. (Fig. 6). The installation of shut-off valves on the filter connections is recommended to facilitate maintenance work.

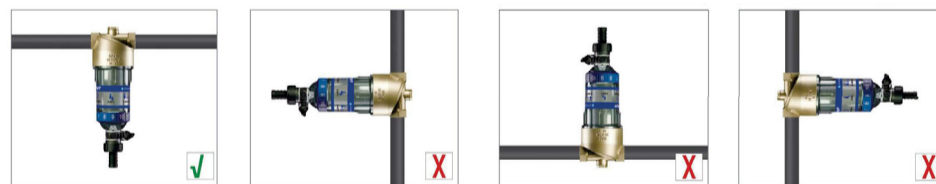


Fig. 5 Permissible installation position of the AWF filters



Fig. 6 Arrow of the direction of water flow through the AWF filter

An example of an AWF water filter installation diagram is shown in the figure below (Fig. 7).

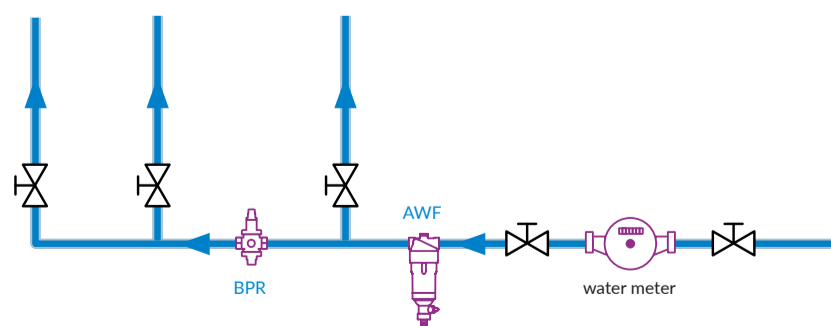


Fig. 7 Example of AWF filter installation diagram

A distance of at least 20 mm must be maintained between the outlet of the filter drain valve and the drain outlet to the sewerage system. The minimum diameter of the drain pipe must be 40 mm and the section of inclined pipe before the siphon must be at least 1 m long (Fig. 8). Alternatively, a bucket or bowl of adequate volume can be placed under the filter drain at a minimum distance of 20 mm.

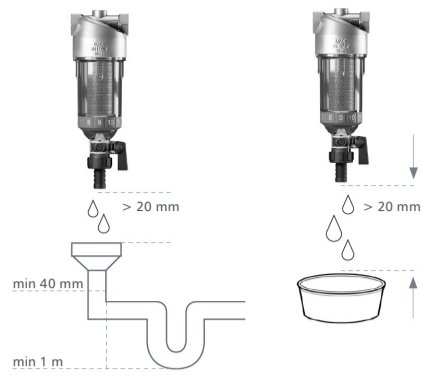


Fig. 8 Location of the drain to the sewerage system or the container collecting water from the filter.

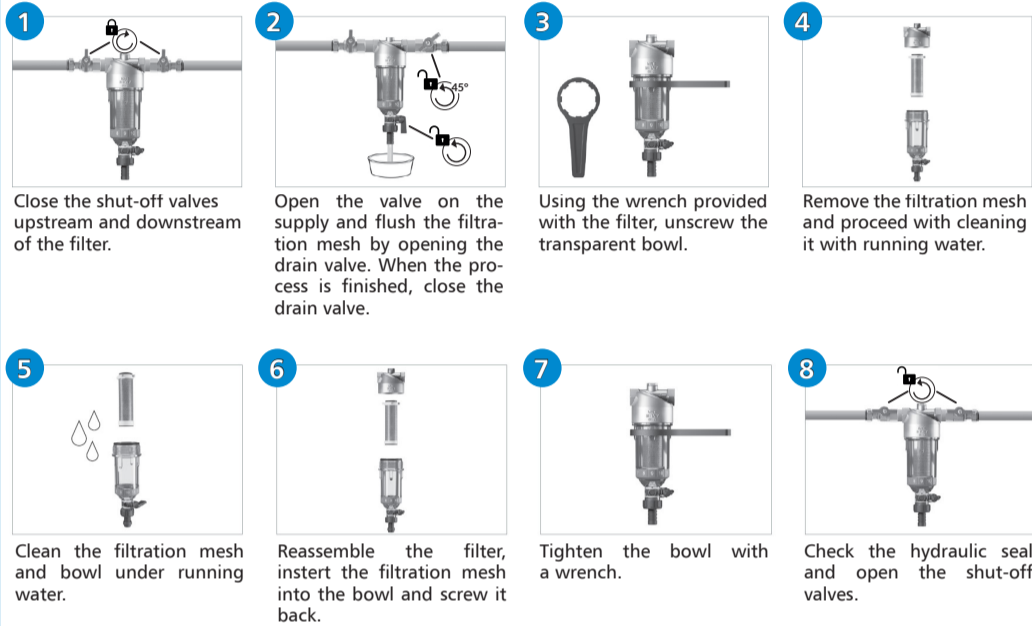
When the manual drain valve is opened, water discharges from the installation at high speed, removing accumulated impurities in the filter bowl while cleaning the filter mesh.

MAINTENANCE

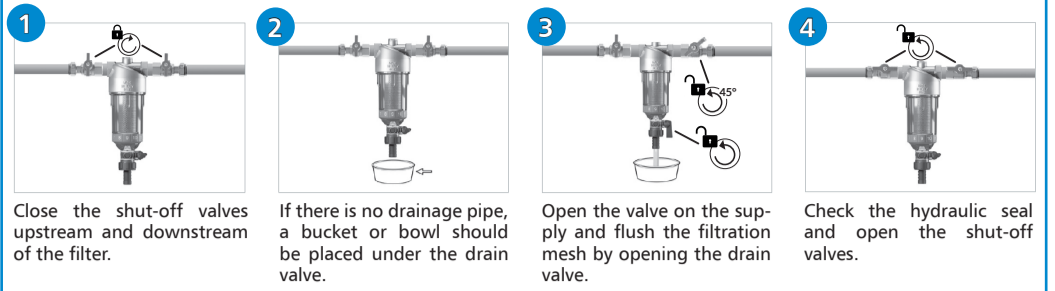
NOTE! If maintenance requires dismantling the equipment, the parts that come into contact with drinking water must be handled with care from a hygiene point of view to avoid contamination of the hydraulic system. Do not use any detergents or cleaning agents.

The frequency of routine removal of impurities from the filter depends on the degree of water contamination. The amount of impurities caught by the filter can be monitored in real time thanks to the transparent bowl. Routine cleaning of the filter is recommended every three months. Full cleaning of the filter including checking for leaks in the connections is recommended at least once a year.

Full filter cleaning



Routine filter cleaning



It is possible to record the date of the last filter cleaning. The month of cleaning can be set on the monthly date recorder located at the bottom of the bowl.

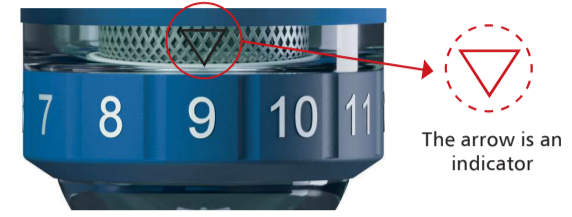


Fig. 9 Date recorder located in the bottom part of the bowl

TECHNICAL DATA

Parameter	Value / material
Water temperature	5÷30°C
Ambient temperature	5÷40°C
Water pressure	max 12 bar
Degree of filtration	90 µm
Kvs (depending on version)	AWF 110: 6,2 m³/h AWF 120: 9,7 m³/h AWF 130: 12,6 m³/h
Flow rate at 0,2 bar pressure drop (depending on version)	AWF 110: 2,7 m³/h AWF 120: 4,3 m³/h AWF 130: 5,6 m³/h
Flow rate at 0,5 bar pressure drop (depending on version)	AWF 110: 4,3 m³/h AWF 120: 6,8 m³/h AWF 130: 8,8 m³/h
Connections (depending on version)	AWF 110: G½" F AWF 120: G¾" F AWF 130: G1" F
Housing material	CW617N brass + polyamide
Filtration mesh material	AISI 304 stainless steel
Sealing material	EPDM

APPROVALS AND CERTIFICATES

The product is subject to the Pressure Directive 2014/68/EU and is not CE marked in accordance with Article 4.3 (recognised engineering practice).

The product is hygienically certified by the National Institute of Public Health NIH in Poland.

DECOMMISSIONING, DISPOSAL

1. Dismantle the device.
2. In the interest of environmental protection, the decommissioned appliance must not be disposed of with unsorted household waste. The device must be taken to a suitable disposal centre.

AWF filters are built from recyclable materials.

WARRANTY

Product warranty in accordance with the general conditions of sale and delivery. The warranty becomes invalid as a result of unauthorized modifications or installation that is inconsistent with these operating instructions.

CUSTOMER SATISFACTION

For AFRISO customer satisfaction is paramount. If you have any questions, suggestions or product problems, please contact us.