



AFRISO Sp. z o.o. Customer Service Team
 Szałsza, ul. Kościelna 7 tel. 32 330 33 55
 42-677 Czekanów zok@afriso.pl
www.afriso.pl

Air separators AAS 260, 280, 281

Art.-No 77 260 00, 77 280 00, 77 281 00

NOTE

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

WARNING!



AAS air separators 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.
 Risk of burns from hot medium - see the MAINTENANCE section.

APPLICATION

AAS air separator is installed in central heating and cooling systems. It is used to remove air dissolved in the medium.

WORKING PRINCIPLE

As the fluid passes through the cartridge with the filter insert, it undergoes swirling motion, which promotes the release of gas micro-bubbles from the fluid. The microbubbles then settle in the space around the float, and when they reach the appropriate volume, they move upward, causing the float to lower and open the discharge of air through the automatic air vent.

CONSTRUCTION

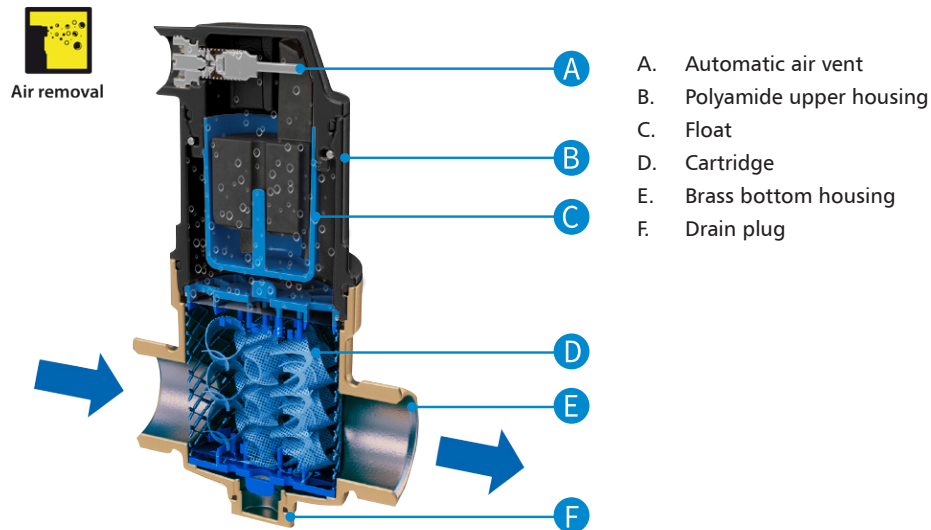


Fig. 1 Construction of the AAS air separator

DIMENSIONS [mm]

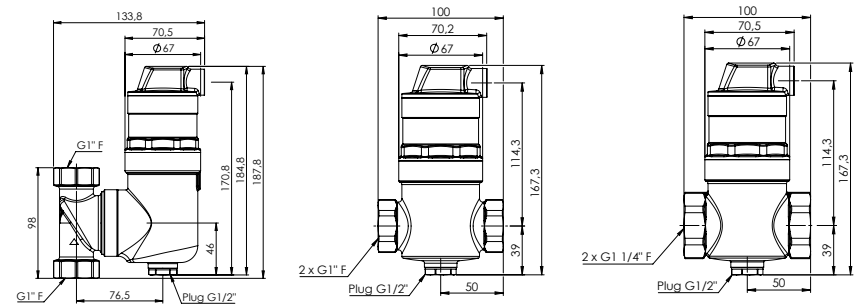


Fig. 2 Dimensions of air separators (respectively from left) AAS 260 / 280 / 281

INSTALLATION

Before installing the separator, the installation should be thoroughly flushed out, paying special attention to the removal of residues from soldering, pipe cutting, etc. For additional protection of the heat source and other components of the installation from contamination and corrosion, it is recommended to install a magnetic dirt separator ADS AFRISO and use corrosion inhibitor BCI AFRISO. In the case of heating installations, AAS air separators should be installed at the point where the medium reaches the highest temperature. As a rule, this is the supply pipe, just after the heat source. In cooling installations, the separator should be mounted on the return pipe, where the medium reaches a higher temperature. Shut-off valves must be installed before and after the separator, necessary during separator maintenance. AAS 280 and 281 separators can only be mounted on horizontal pipes, and their polyamide housing part should always face upward (fig. 4). The direction of flow in versions with a fixed connection does not matter. In the case of the AAS 260 separator with a movable connection (fig. 5), installation can be carried out on horizontal and vertical pipes with the polyamide part of the housing pointing upward (fig. 4), and the direction of flow does matter and is marked with an arrowhead on the brass housing (fig. 6). The automatic air vent can be rotated 360° on either version of the separator without closing the shut-off valves (fig. 7).

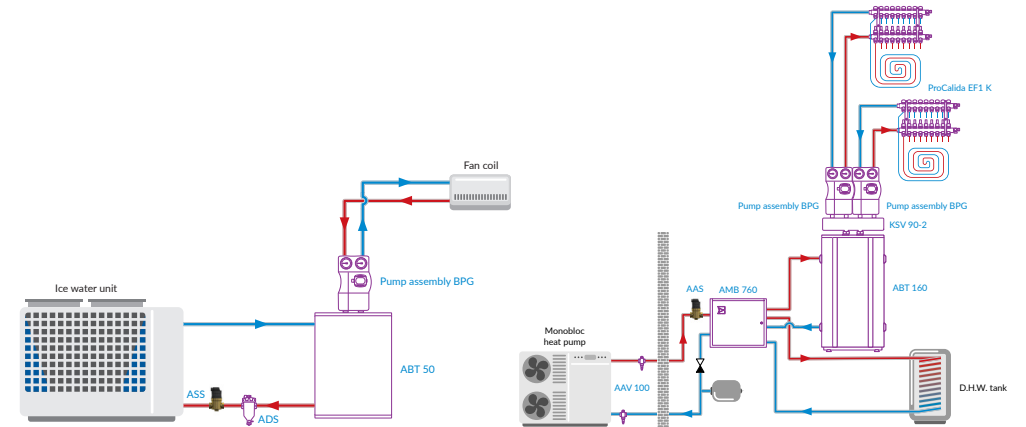


Fig. 3 Examples of installation diagrams with AAS air separator

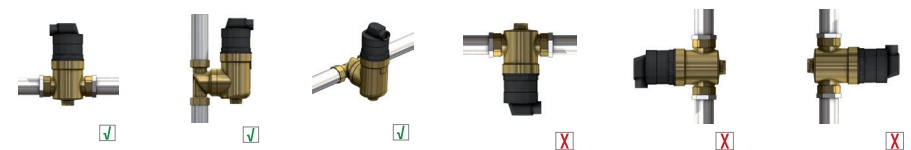


Fig. 4 Permissible installation position of the AAS air separator

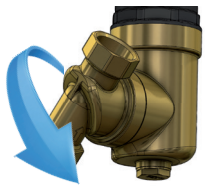


Fig. 5 Air separator AAS 260 with movable connection

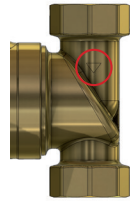


Fig. 6 Arrowhead indicating direction of flow in the air separator AAS 260



Fig. 7 Movable automatic air vent in AAS separators

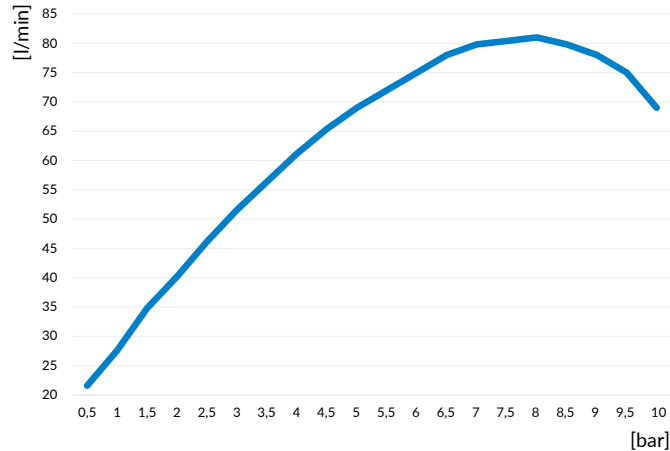


Fig. 8 Venting performance characteristics

MAINTENANCE

The air separator requires periodic maintenance at least every 12 months and whenever there is a marked decrease in the flow of the medium in the installation. The cartridge should be cleaned of accumulated impurities in it. Impurities precipitate during flow through the separator and settle inside. Before performing maintenance, close the shut-off valves before and after the separator and cool down the system. Then unscrew the plug of the bottom connection. The impurities along with the water will be removed. Using an adjustable wrench with the possibility of setting the opening to 63 mm, unscrew the upper polyamide part of the housing (fig. 9). From the dismantled polyamide part, unscrew the air vent plug with a flathead screwdriver (fig. 10), and then, using a size 10 Allen key, unscrew the air vent screw (fig. 11). A small amount of water should flow out of the automatic air vent. Proceed to clean the air vent or replace the vent components, if necessary.

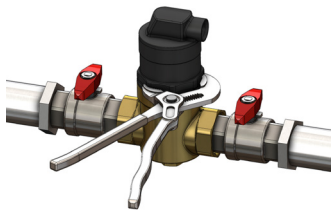


Fig. 9 Disassembly of the upper part of the housing



Fig. 10 Disassembly of the air vent plug

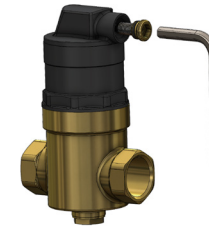


Fig. 11 Dissassembly of the air vent screw



Fig. 12 Montage of the air vent screw

When assembling the separator, first turn the polyamide upper housing upside down so that the vent hole is at the bottom, and then screw in the allen screw (fig. 12). This is a prerequisite for further correct operation of the air separator! Then screw in the air vent plug in any position already, and carefully screw the two housing together. Make sure that the polyamide part of the housing is well screwed into the brass part and the connection is tight.

TECHNICAL DATA

Parameter	Value / material
Operating temperature	max 100°C
Operating pressure	max 6 bar
Glycol concentration	max 50%
Kvs	AAS 260: 10,3 m ³ /h AAS 280: 20,4 m ³ /h AAS 281: 21,8 m ³ /h
Recommended flow	AAS 260: 2,1 m ³ /h AAS 280: 2,1 m ³ /h AAS 281: 3,5 m ³ /h
Connections	AAS 260: G1" F movable AAS 280: G1" F AAS 281: G1¼" F
Housing material	polyamide PA66 brass CW617N
Float	polypropylene
Cartridge	stainless steel AISI 302
O-ring gasket	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).

DECOMMISSIONING, DISPOSAL

1. Dismount 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.

AAS air separators are built from recyclable materials.

WARRANTY

Product guarantee in accordance with the general conditions of sale and delivery.

CUSTOMER SATISFACTION

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