

AUTOMATIC AND MANUAL AIR VENT VALVES

3/8" AND 1/2" AUTOMATIC AIR VENT VALVE WITH LATERAL PURGE

1. DESCRIPTION

The air vent valve is designed to be installed in heating systems in order to automatically remove air from the circuit, thus ensuring a better thermal exchange. Extraction of air from the system helps to eliminate any noise arising from imperfect circulation of the fluid medium.

The air vent valve must always be installed in a vertical position in order to ensure correct operation. The plug should not to be closed completely tight, but left slightly loose in order to allow the discharge of air via an incision on the male thread. The plastic plug is provided with a sealing seat and can be closed if necessary.



Fig.1

With no air in the circuit, the water inside the valve maintains the float in such a position that it can close the shutter.

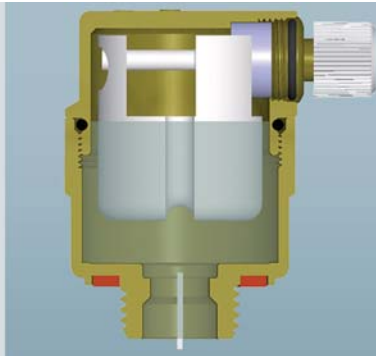
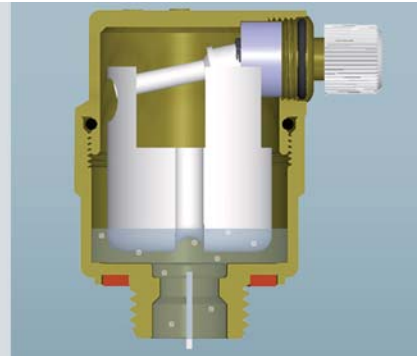


Fig.2

The presence of air in the system reduces the water level in the valve and consequently the float level drops and the water discharge opens.



If debris in the system interferes with the normal working of the valve, it is possible to unscrew and remove the cover and float. On the stem holding the float is a rubber disk, which operates as a shutter when the float lifts the stem. It is essential to check for the presence of any debris which

may prevent the shutter reaching the end of its stroke. A plastic flow separator placed inside the 3/8" or 1/2" connection forces the air bubbles upwards and generates micro-currents in the fluid which ease any bubbles towards the higher side of the valve.

1.1 NON-RETURN VALVE

The installation of a non-return valve near the automatic air vent valve makes it possible to repair or replace the device without the need to close off water supply to the system.

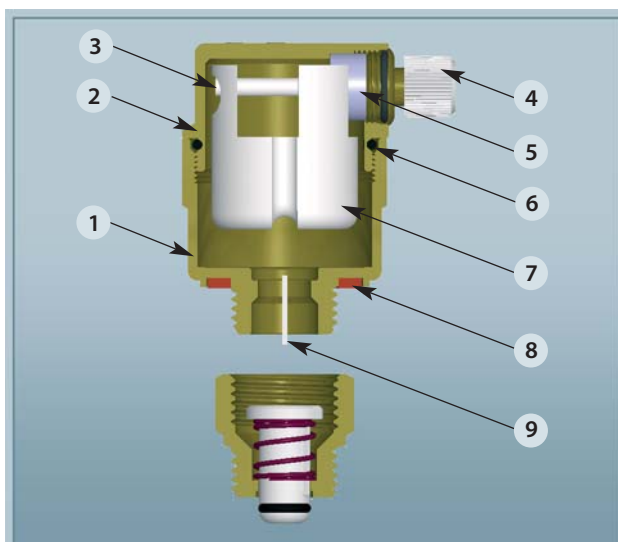


Art. 2075



Art. 2080

1.2 CONSTRUCTION MATERIALS AND TECHNICAL FEATURES



- 1 – Air vent valve body: CW617N brass
- 2 – Air vent valve cover: CW617N brass
- 3 – Stem: Nylon[®]
- 4 – White plug: Hostaform[®]
- 5 – Bush: Nylon[®]
- 6 – Sealing O-ring: EPDM
- 7 – Float: Polypropylene
- 8 – Gaskets: Gold Gasket /EPDM
- 9 – Flow separator: Hostaform[®]

Technical features

| | |
|-----------------------------|--------------------------|
| Nominal pressure: | 10 bar |
| Max. flow temperature: | 110°C |
| Max. differential pressure: | 4 bar |
| Compatible media: | water, water with glycol |

STRAIGHT AND ANGLED AUTOMATIC AIR VENT VALVE, SIZES 1/4" - 3/8" - 1/2" - 3/4"

2. DESCRIPTION

Just like our valve Art. 2040, the straight and angled air vent valves – Arts. 2045, 2050, 2055 and 2060 - are designed to be installed in heating systems in order to automatically remove air from the circuit, thus ensuring a better thermal exchange. The air vent valve must always be installed in a vertical position in order to ensure correct operation.

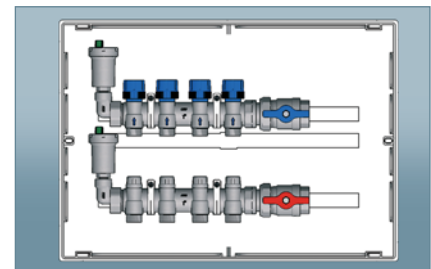
Moreover, the plug should not be closed completely tight, but left slightly loose in order to allow the discharge of air via an incision on the male thread. The plastic plug is provided

with a sealing seat and can be closed if necessary. If debris in the system interferes with the normal working of the valve, it is possible to unscrew and remove the cover and the float. On the stem holding the float is a rubber disk, which operates as a shutter when the float lifts the stem. It is essential to check for the presence of any debris which may prevent the shutter reaching the end of its stroke.

Units are available in brass and chrome-plated versions.



Below you can see an example of the application of straight air vent valves on thermoelectric manifolds in housings. The same result can be achieved even with an angled valve, using a straight terminal fitting.



2.1 NON-RETURN VALVE

The installation of a non-return valve near the automatic air vent valve makes it possible to repair or replace the device without the need to close off water supply to the system.

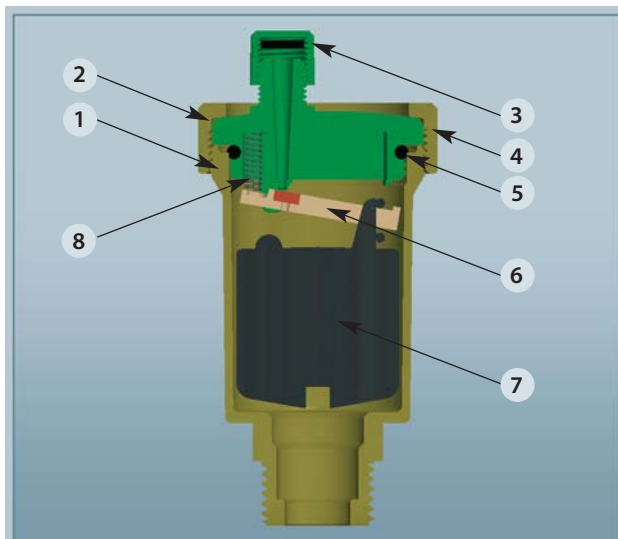


Art. 2075



Art. 2080

2.2 CONSTRUCTION MATERIALS AND TECHNICAL FEATURES



- 1 – Air vent valve body: CB753S brass
- 2 – Cover ring: CW617N brass
- 3 – Plug: POM resin
- 4 – Cover: POM resin
- 5 – Sealing O-ring: EPDM
- 6 – Lever: Hostaform®
- 7 – Float: Polypropylene
- 8 – Spring: AISI302 steel

Technical features

| | |
|-----------------------------|--------------------------|
| Nominal pressure: | 10 bar |
| Max. flow temperature: | 110°C |
| Max. differential pressure: | 4 bar |
| Compatible media: | water, water with glycol |

MANUAL AIR VENT VALVES

3. DESCRIPTION

The FAR manual air vent valve is installed on radiators in order to automatically remove air released during system filling from the circuit, thus ensuring a better thermal exchange. It is available in 1/8", 1/4", 3/8" and 1/2" sizes. P.T.F.E. sealing on the thread makes it possible to screw the valve directly onto the radiator fitting without the need for additional types of seal such as hemp, P.T.F.E. tape, etc...



Art. 6135

3.1 TECHNICAL FEATURES

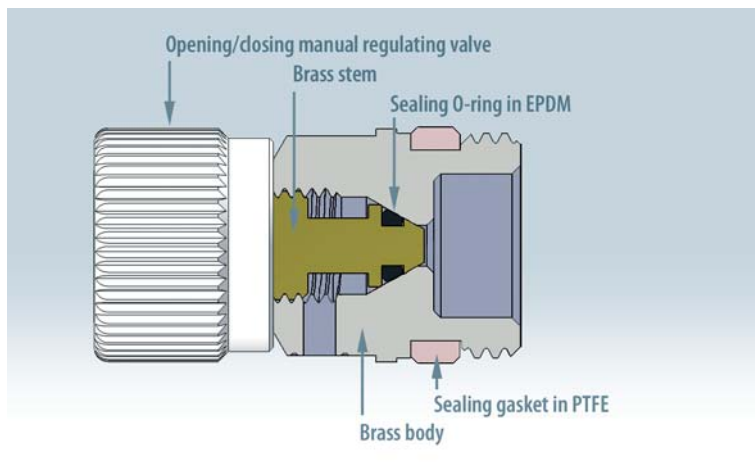
The shutter of the manual valve is constructed in such a way that as closure takes place a seal is created between valve body and shutter stem by means of the EPDM O-ring. Subsequently a second metallic seal is made between valve body and the shutter.

The valve comprises:

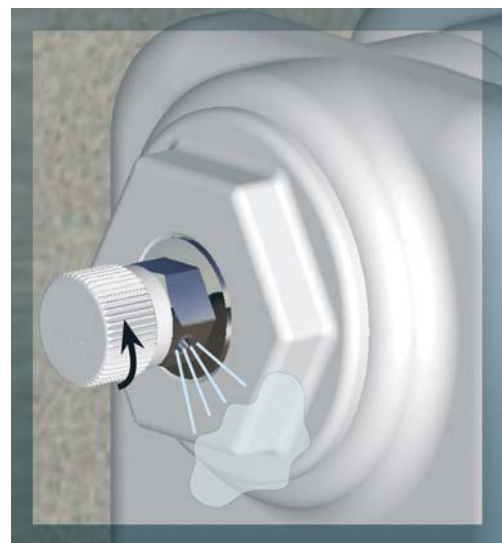
- Plastic manual regulating valve
- Seal on the stem through EPDM O-ring
- PTFE gasket
- Body in CW614N brass
- Shutter in CW614N brass

Technical features

| |
|--------------------------------|
| Nominal pressure: 10 bar |
| Max. Working temperature: 95°C |



Installation overview



3.2 SWIVELLING MANUAL AIR VENT VALVES



The manual valve Art. 6135, is the simplest solution: however, there are also other types of air vent valve which make it possible to direct the discharge without being conditioned for screwing by the positioning of the valve's drain hole. For valves Art. 6010 and 6015 a hose is available in the event of a connection to a discharge pipe being required. The valve Art. 6015 has a manual regulating valve for discharge opening, while for valves Arts. 6010 and 6020 it is necessary to use a key with a square head Art 6300 or a flat screwdriver. On the right you can see an example of an air vent valve in a radiator application.



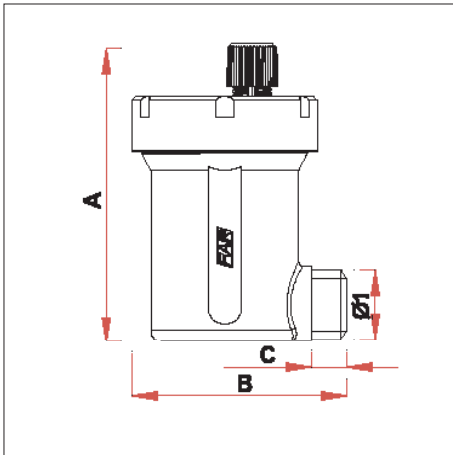
The technical features for all swivelling manual air vent valves are the same:

- Plastic manual regulating valve
- Seal on the stem through EPDM O-ring
- EPDM O-ring on the thread
- Body in CW614N brass
- Shutter in CW614N brass

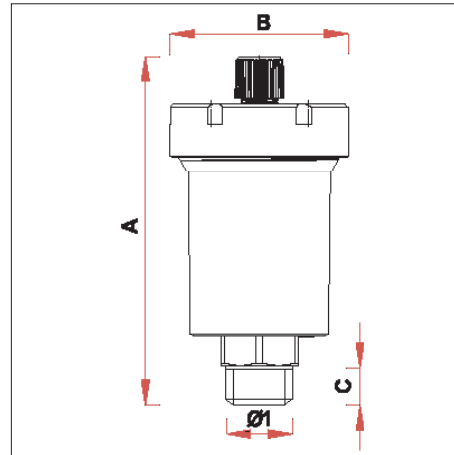
Technical features

| |
|--------------------------------|
| Nominal pressure: 10 bar |
| Max. Working temperature: 80°C |

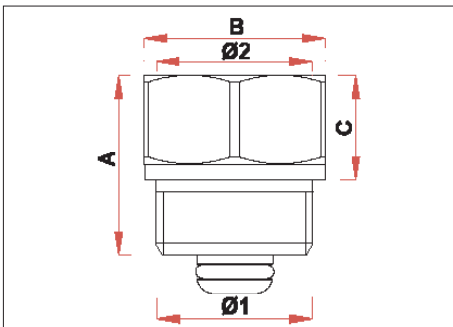
4. DIMENSIONAL FEATURES



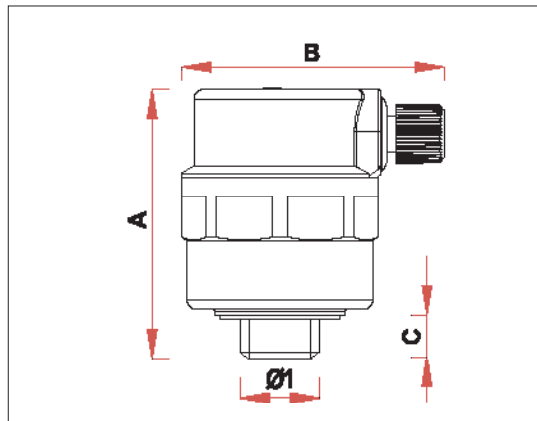
| CODE | Ø1 | A | B | C |
|--------------|------|----|----|----|
| 2055-2060 14 | G1/4 | 71 | 52 | 9 |
| 2055-2060 38 | G3/8 | 71 | 53 | 10 |
| 2055-2060 12 | G1/2 | 71 | 56 | 12 |
| 2055-2060 34 | G3/4 | 71 | 56 | 12 |



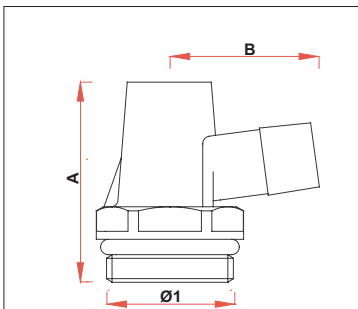
| CODE | Ø1 | A | B | C |
|--------------|------|----|----|----|
| 2045-2050 14 | G1/4 | 86 | 44 | 9 |
| 2045-2050 38 | G3/8 | 87 | 44 | 10 |
| 2045-2050 12 | G1/2 | 89 | 44 | 12 |
| 2045-2050 34 | G3/4 | 91 | 44 | 12 |



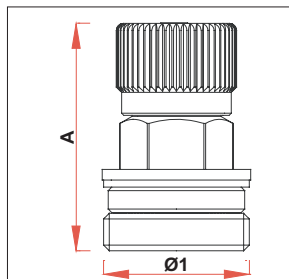
| CODE | A | B | C | Ø1 | Ø2 |
|----------------|----|----|----|------|------|
| 2075 3814 | 21 | 17 | 12 | G3/8 | G1/4 |
| 2075-2080 38 | 23 | 20 | 14 | G3/8 | G3/8 |
| 2075-2080 3812 | 24 | 22 | 14 | G1/2 | G3/8 |
| 2075-2080 12 | 24 | 24 | 14 | G1/2 | G1/2 |



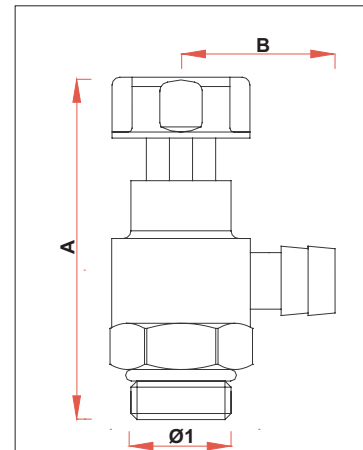
| CODE | Ø1 | A | B | C |
|--------------|------|----|----|---|
| 2040-2043 38 | G3/8 | 57 | 54 | 9 |
| 2040-2043 12 | G1/2 | 57 | 54 | 9 |



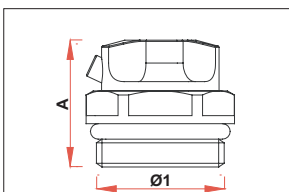
| CODE | A | B | Ø1 |
|---------|----|----|------|
| 6010 12 | 32 | 22 | G1/2 |



| CODE | A | Ø1 |
|---------|----|------|
| 6135 18 | 32 | G1/8 |
| 6135 14 | 35 | G1/4 |
| 6135 38 | 36 | G3/8 |
| 6135 12 | 36 | G1/2 |



| CODE | A | B | Ø1 |
|---------|----|----|------|
| 6015 14 | 45 | 20 | G1/4 |
| 6015 38 | 45 | 20 | G3/8 |



| CODE | A | Ø1 |
|---------|----|------|
| 6020 38 | 21 | G3/8 |
| 6020 12 | 21 | G1/2 |