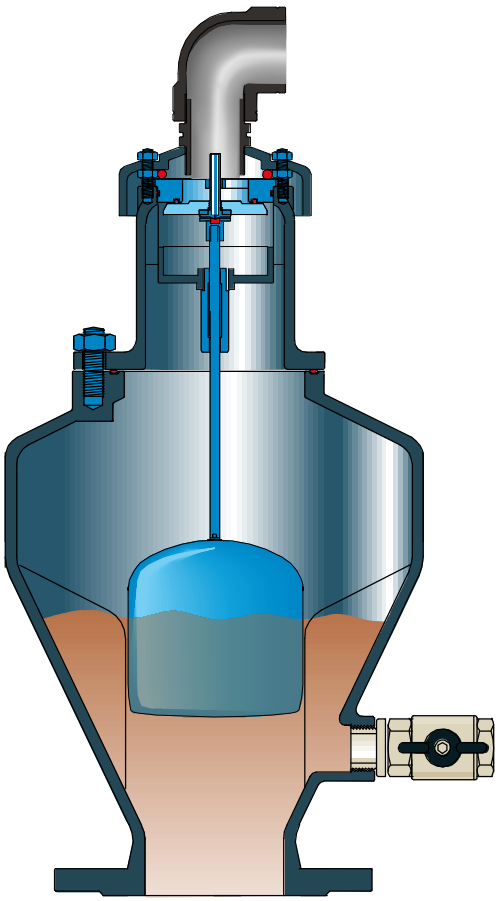
# Three functions automatic air valve for sewage Mod. SCF

SCF air valve will guarantee the proper operation of sewage lines allowing the entrance and the discharge of large volumes of air, both during pipe draining and filling operations, and the release of air pockets during working conditions.



**Construction and advantages**

- Large lower body designed with strongly sloped high walls to avoid deposit of grease and/or other material, and containing four fusion obtained nerves to guide the stainless steel float.

- Upper body containing an air release device protection cup against projections during rapid filling phases.

- Mobile block including a large AISI 304 stainless steel float, placed on the lower body and connected through a stainless steel rod to the air release system.

- Drainage valve for chamber control and draining.

- Nozzle and gasket holder (pat. pending) wear resistant thanks to gasket compression control.

- Maintenance can be easily performed from the top without removing the air valve from the pipe.

**Operating principle**

**1) Discharge of large volumes of air**
During pipe filling it is necessary to discharge as much air as the water flowing in.

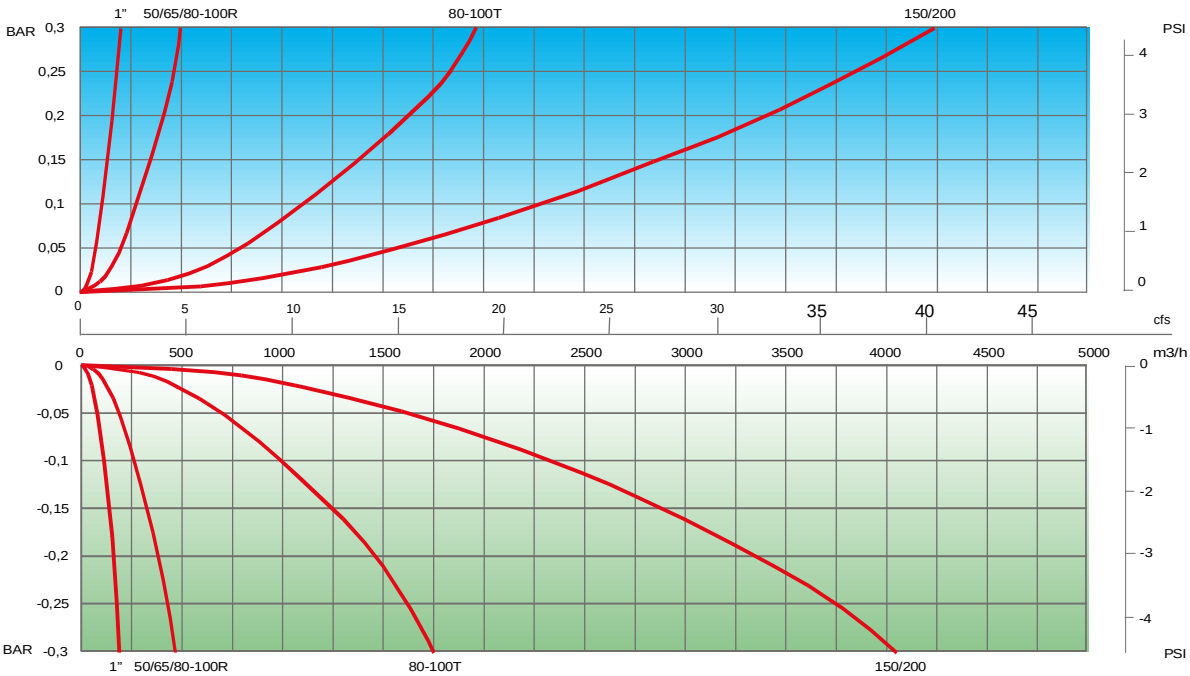
**2) Entrance of large volumes of air**
During pipeline draining or bursting phases it is necessary to bring in as much air as the quantity of out-flowing water to avoid vacuum conditions.

**3) Air release during working conditions.**
During operation, an air pocket is accumulated in the upper part of the valve's lower body, little by little it is compressed and its pressure arrives to water pressure, its volume increases pushing water downwards. Following Archimedes' principle the float, no longer sustained by water thrust, will fall down to free the nozzle hole helping the release of the air pocket, while the upper disk will close the main orifice due to an internal pressure.

For air flow performances of SCF please refer to the chart depicted on the next page.

## Air flow performance chart

AIR DISCHARGE DURING PIPE FILLING



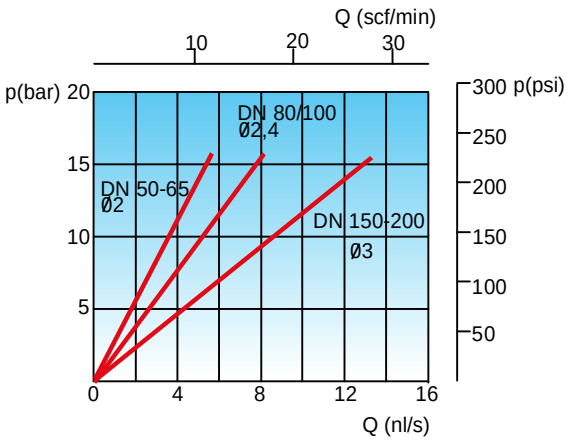

AIR INTAKE DURING PIPE DRAINING AND BURST

### Working conditions

Waste water 70°C/158 °F Max;
Maximum pressure 16 bar/ 232 psi;
Minimum pressure 0,2 bar/ 4.35 psi.

### Technical features

**Lower body, upper body and cover** entirely made in ductile cast iron internal and external painting with epoxy powders applied using FBT technology.
**Obturator** in polypropylene
**Nozzle and gasket holder** in stainless steel AISI 316
**Float and rod** in stainless steel AISI 304/316
**Nuts and bolts** in stainless steel A2
**Gaskets** in NBR
**Sealing seat** in stainless steel/anticorodal
**Drainage valve** in galvanized brass or stainless steel




AIR RELEASE DURING WORKING CONDITIONS
RELATIVE TO THE NOZZLE DN

| DN | A | B | C | D | E | Weight |
|---|---|---|---|---|---|---|
| 1” | CH 75 | 365 | 50 | 215 | 135 | 10 |
| 50/65 | 185 | 550 | 90 | 300 | 202 | 29 |
| 80/100 | 220 | 546 | 110 | 300 | 208 | 31 |
| 150 | 285 | 850 | - | 488 | 243 | 78 |
| 200 | 340 | 850 | - | 488 | 243 | 82 |