# Operating and Maintenance Instructions for Air Valve for Sewage of Plastic Ord.No. 989-00





## 1. Intended use / product description:



Sample image Female thread outlet 3"

**Medium**: Municipal sewage (acc. to EN 1085)

Max. operating pressure: 6 bar

Material: AV body: PA66

Valve basket: POM

Float rod/pressure spring: stainless steel

Float: PP

Outlet elbow: PE 100 Strainer: stainless steel

**Types**: Female thread outlet 3", flanged outlet DN50, DN80

The air valve of plastic featuring the roll-on membrane technology is perfectly suitable for taking in and releasing major amounts of air during filling or draining of pipelines and for continuous in-service ventilation. The valve seat is not in contact with the medium.

The air valve operates continuously from 0 to 6 bar, reliably sealing when unpressurized.

The low weight af the air valve of PA allows an easy and quick installation. Moreover, via the profile clamp of stainless steel the valve can be quickly opened and closed in case of maintenance and/or cleaning.

Special functions on request:

- Only air intake or only air release
- With outlet elbow for connecting a Hawle exhaust air kit for air valves

For installation, assembly, and maintenance, the applicable standards and regulations, accident prevention regulations, as well as the trade associations' provisions shall be observed and complied with.

The air valve should be installed, assembled, and maintained by skilled personnel only.

### 2. Installation

The air valve has to be installed on a vertical outlet directly on the pressure pipe.

Important: A laterally displaced arrangement of air valves should be avoided. The air valve is designed for installation in manholes.

Below the air valve, a shut-off valve has to be provided to enable maintenance work.

The outlet elbow allows connection to a sufficiently large vent pipe to be established by customer.

For installation and operation of air valves, see also DVGW sheet W 334.

For installing the air valve in the pipeline, the respective DWA provisions for establishing threaded and/or flanged connections shall be observed.

#### 3. Commissioning:

After the successful installation of the air valve, a function check has to be performed.

If the pipeline is subjected to pressure testing, the air valve has to be put out of operation. To this end, the shut-off valve below the valve must be closed.

After the successful pressure test, the shut-off valve has to be opened slowly, and the air valve is subjected to a function test and visual inspection under operating pressure.

When filling the pipeline, the maximum filling rate as specified in DVGW sheet W334 shall be observed. Before filling the pipeline, it has to be checked if the air release device of the manhole is able to discharge the air volume.

**Important**: Before flushing the air valve with compressed air, it must be closed or provided with an air release stop Ord. No. 986-01 performing this function automatically. Valves already installed can be retrofitted with the air release stop.

### 4. Servicing and maintenance

**Important**: Air valves contain compressed air. Prior to any maintenance work, air valves shall be put out of operation and depressurized via the ball valve!

Pursuant to DVGW W392-2 and/or W400-3, air valves have to be maintained at least once per year or more frequently, especially when installed in sewage pressure pipes with a high soiling tendency.

We recommend performing the first maintenance after a period of approx. 4 - 8 weeks and take the result of this maintenance as a basis for determining further maintenance intervals.

Inspections at regular intervals will increase the functional reliability of the air valve.

Before all maintenance work, the air valve has to be isolated from the pipeline by closing the shut-off valve. Any excess pressure in the air valve must be released by briefly opening the ball valve.

When entering manholes, the general safety precautions must always be observed. When working in manholes, we recommend to ensure forced ventilation of the construction and to carry out maintenance work only with pumps switched off.

After maintenance work, perform a function check.

#### 4.1 Cleaning the valve

1. Screw off the outlet elbow.	
	2. Loosen and remove the clamp.

3. Pull the clamp up and off.





4. Lift the body halves containing the valve mechanism off each other.

- 5. Clean the body and all soiled components and flush them, especially the slots of the upper body part.
- 6. Turn the roll-on membrane at the rubber nipple outside and check it for deposits and mechanical damage. Remove any deposits by wiping them off by means of a damp cloth. If the membrane has to be exchanged, take it out of the retaining groove and replace it by a new one.

#### 4.2 Installation of the membrane

1. Pull the membrane over the cup and check its correct seat in the groove.





- 2. Fixing the membrane in the upper body part: Lead the rubber nipple through the bore in the upper body part and pull it through the hole from above until you can hear and feel the bulge engage on the rubber nipple.
- 3. Further installation is carried out in reverse order of dismantling.
- 4. Functional check

## 5. Further information

If you need more information, please request our comprehensive specialist information on air valves.

## If you have any other questions or if you need more information, please contact:

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