

1. Intended use

The Hawle air release valve Order No. 986 can be used for venting pressure lines with an operating pressure of 0 - 16 bar. Media: municipal sewage water (according to EN 1085:2007), potable water. Max. operating pressure PFA = 16 bar.

During installation and with maintenance work, in addition to the assembly instructions, the applicable standards and regulations, accident prevention regulations and the regulations of the employers' liability insurance associations must be observed.

Caution: Air release valves contain compressed air. Before any maintenance work, the air release valve must therefore be taken out of operation and depressurised!

2. Machine description

The air release valve with patented diaphragm technology is ideally suited for the ventilation of large volumes of air under operating pressure.

The sealing seat does not come into contact with the media. The air release valve operates infinitely variably from 0 to 16 bar and seals perfectly even in a depressurised condition. The diaphragm and spring mechanism also dampen pressure surges.

The air release valve has a flushing closure. By connecting a flushing line, dirt can be flushed out of the air release valve quickly and easily. With heavy soiling, the interior must be removed, cleaned and replaced (see point 5).

3. Assembly

The air release valve must be mounted on a vertical outlet, directly on the pressure pipeline. Caution: A laterally displaced arrangement of the air release valves is to be avoided. The air release valve is designed for installation in shafts. A shut-off valve must always be provided under the air release valve to enable maintenance work to be carried out. The outlet elbow allows the connection to a sufficiently large air release pipeline to be provided by the customer. Further information on the installation and operation of air release valves can be found in the current DVGW data sheet W 334.

4. Commissioning and pressure testing

Air release valves are generally to be taken out of operation before pressure testing the pipeline. The shut-off valve below the valve must be closed for this purpose.

After successful pressure testing is completed, open the shut-off valve slowly and subject the air release valve to a functional and visual inspection under operating pressure.

The maximum filling speed must be complied with when filling the pipeline (DVGW Merkblatt W 334). Before filling the pipeline, check whether the ventilation devices in the shaft can divert the required amount of air.

Caution: Before flushing with compressed air, the air release valve must be closed or equipped with a ventilation stop order no. 986ES, which performs this function automatically. The retrofitting of already installed valves with an air release stop is possible.

5. Maintenance - servicing of the air release valve Order No. 986

According to DVGW W 392, air release valves must be maintained at least once a year and more frequently, especially in sewage pressure pipes with a high degree of contamination.

Work on air release valves may only be carried out by suitably trained personnel. We recommend carrying out the first maintenance after a period of about 4 to 8 weeks and defining future maintenance intervals based on the results of this initial maintenance.

Regular inspections improve the operational reliability of air release valves.

Before conducting any maintenance work, air release valves need to be disconnected from the pipe network by closing the shut-off valve. The overpressure in the air release valves needs to be released by briefly opening the ball valve.

General safety precautions must always be complied with when entering service shafts. When working in service shafts, we recommend forced ventilation of the structure and only performing maintenance work when pumps are switched off.

After maintenance work is completed, perform a proper pressure test in accordance with the applicable rules and regulations.

5.1 Open the housing screws.



5.2 Pull the flange with the complete valve mechanism upwards out of the housing and place it upright on a firm surface.



5.3 Unlock the fixing ring on the top of the flange with a suitable tool and pull the flange upwards.



Potable water version: blue coated

5.4 Unlock the screen disc by pressing in the safety hook, loosen it from the „ARV head“ by turning it to the left and pull it upwards.



5.5 Clean and flush the slots of the valve basket.



- 5.6 Pull the diaphragm out of the rubber nipple and check for sedimentary deposition and mechanical damage. Remove sedimentary deposition by wiping with a damp cloth. If it is necessary to replace the diaphragm, separate the diaphragm from the retaining groove and replace it with a new diaphragm.

Assembly the diaphragm:

- 5.7 Pull the diaphragm over the cup.



- 5.8 Check that the diaphragm is correctly seated in the groove.

- 5.9 Diaphragm mounting in the head:
Pass the rubber nipple through the bore of the valve head and pull it through the hole from above until you hear and feel a distinct snap of the thickening on the rubber nipple.



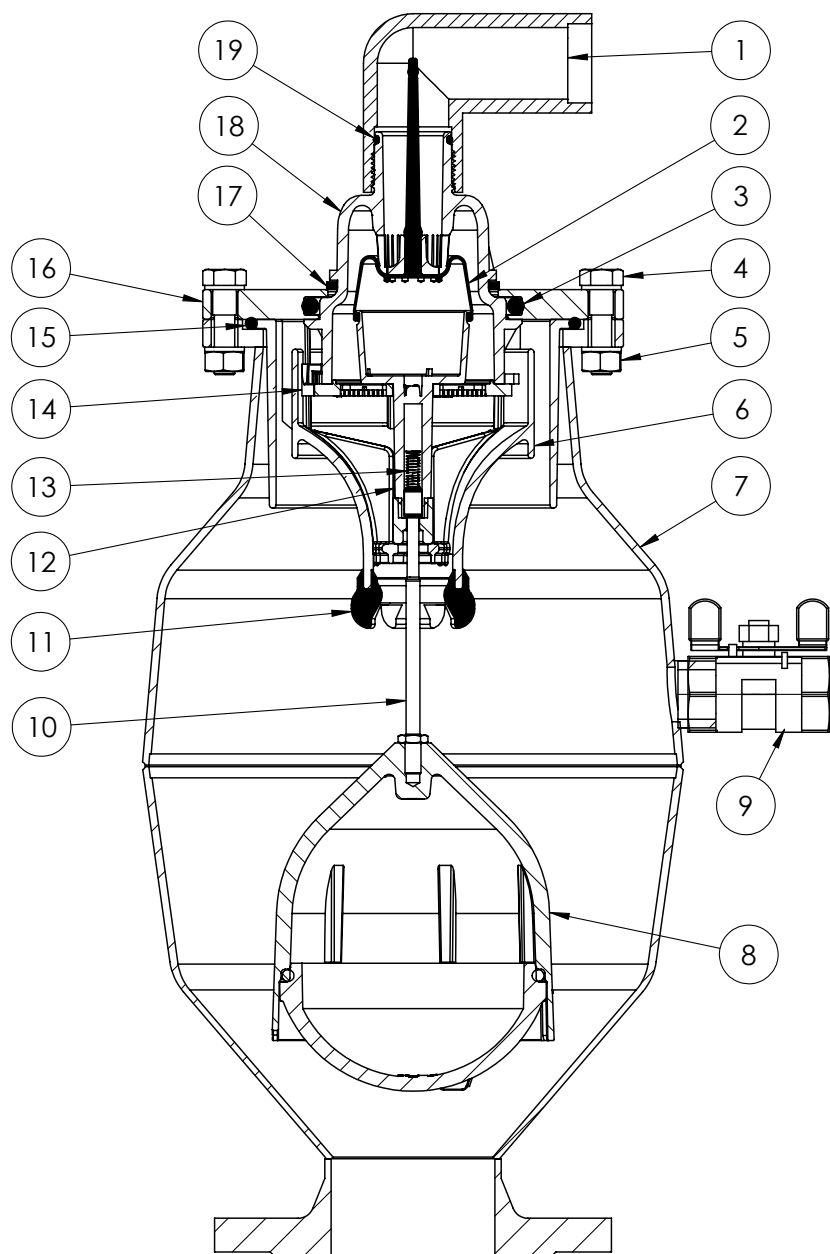
(Valve head shown cut.)

- 5.10 Further assembly is carried out in reverse order to dismantling.

- 5.11 Pressure testing.

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

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Item	Component	Material
1	Outlet elbow d 50 mm with female thread 1 1/2" and dirt filter	PE
2	Diaphragm	HNBR
3	O-ring 95 x 8.5	NBR
4	hexagonal bolt	Stainless steel
5	Hexagon nut	Stainless steel
6	protector	PP
7	body	Steel - Hawle epoxy powder coated or stainless steel
8	Float	POM
9	Ball valve 1"	Stainless steel
10	Complete rod	Stainless steel
11	Absorber ring	EPDM
12	Complete diaphragm cup	POM
13	Pressure spring	Stainless steel
14	Sieve disc	POM
15	O-ring 157 x 6	NBR
16	Clamping flange	Steel - Hawle epoxy powder coated or stainless steel
17	fixing ring	POM
18	Valve body - upper part	POM
19	O-ring 34 x 3	NBR