



- QUICKGUIDE -



Version with flange



Version with female thread

Table of contents

1.	Intended use / product description	Page 2
2.	Installation	Page 2
3.	Commissioning and pressure testing	Page 2
3.1	Commissioning	Page 2
3.2	Pressure testing	Page 3
3.2.1	Pressure testing of the installed AV	Page 3
3.2.2	Pressure testing of pipeline	Page 3
4.	Servicing and maintenance	Page 3
5.	Special functions	Page 3
5.1	Special function closing aid Ord. No. 009 878 1570	Page 3
5.2	Special function "Air intake only" or "Air release only" Ord. No. 987 999 2000	Page 3
5.3	Special function with outlet elbow 2" MTHR Ord. No. 987 800 1310	Page 3
5.4	Special function "Oxidator" version Ord. No. 987 999 4000	Page 3
	Parts list	Page 4

1. Intended use / product description

Medium: potable water
Working range: 0 - 16 bar
Material: see parts list
Possible connections: flange DN50, DN80; DN100 IG 2"

Product identification:

Nennweite / Size
Flansch DNxx/IG 2"
Flange xx"/female thread 2"
Druckstufe:
max. pressure
PN16
250 psi
Gehäuse/Body:
Edelstahl
stainless steel
European standard:
EN1074-4
DVGW - W
Herstelljahr:
Year of manufacture:
xxx
Seriennummer:
Serial No.:
xxxxxxx
Made in Germany

The HaVent® air valve with roll-on diaphragm technology is perfectly suitable for taking in and releasing high amounts of air during filling or draining of pipelines and for releasing major amounts of air during operation within operating range. The AV operates continuously from 0 to 16 bar, perfectly sealing even in unpressurized condition. No minimum response pressure is needed. The sealing principle with a roll-on diaphragm helps to absorb pressure surges.

With integrated ball valve for pressure relief and sample taking.

Due to the high air intake capacity, the AV is additionally provided with effective vacuum protection.

Max. air release capacity: 700 m³/h (on filling the pipeline)

Max. release cross section: 1,500 mm²

Max. cross section for in-service venting: 200 mm²

During installation and maintenance operations, the applicable standards and guidelines, accident prevention regulations and the regulations of professional associations are to be observed and complied with.

Installation and maintenance operations may be performed by qualified personnel only.

2. Assembly:



2x open-ended wrench A/F 24 (version with flange) and A/F 70 (version with female thread)

Air valves are installed at high points, at points of change in pipe inclination, in descending line sections, in case of slightly descending or horizontal pipe runs, upstream and downstream of control valves, as well as downstream of pumps.

The outgoing outlet must be in a direct connection with the atmosphere. Any downstream line parts, e.g. for draining off splash water, must be dimensioned sufficiently large to ensure the atmospheric connection.

For detailed planning specifications for new construction and retrofitting, please refer to the technical information for planners regarding air valves and air valve sets, as well as the current DVGW sheet W 334.

The air valve has to be installed on a vertical outlet directly on the pressure pipe. The need for an air release dome as specified in DVGW sheet W 334 has to be checked. A laterally displaced arrangement of air valves / air valve sets must be avoided.

Before installation, it must be ensured that the pressure line is free from dirt, drilling chips, or other foreign matter. If necessary, the pressure line must be flushed.

Installation shall be performed in unpressurized condition. To this end, the line must be depressurized if necessary. In a pressurized line, a shut-off element below the AV shall be closed before installation.

For installing the AV in the pipeline, the respective DVGW provisions for establishing a flanged or threaded connection shall be observed.

If exhaust air pipes are installed from the valve, care shall be taken that no water accumulating in the exhaust air pipe is able to flow back into the valve (e.g. elbows pointing downward with water drain hole at the lowest point). The exhaust air pipes must not allow any water retention caused by reduced cross sections, either.

If there is a risk of frost, the air valve must be provided on site with frost-proof insulation.

3. Commissioning and pressure testing

3.1 Commissioning

For commissioning, the unpressurized line must be filled and repressurized if required, and/or the shut-off element below the AV must be opened.



Important: Acc. to DVGW W334, the maximum filling rate must be limited to 0.25 m/s to avoid pressure surges. Before filling the pipeline, it has to be checked if the air release devices of the manholes are able to discharge the air volume.

Note: During start-up ventilation, a minor quantity of splash water is blown off via the valve.

3.2 Pressure testing

3.2.1 Pressure testing of the installed AV

After successful maintenance or subsequent installation of the AV, pressure testing must be performed considering the maximum operating pressures as specified in the DVGW regulations.

After the leakage test, a function check has to be performed.

3.2.2 Pressure testing of the pipeline

Before the pipeline is subjected to a pressure test, AVs shall be put out of service. To this end, the shut-off valve below the valve must be closed.

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

4. Servicing and maintenance

As specified in the DVGW regulations W400-3, AVs must be maintained at least once a year. Depending on the composition of the water, it may be necessary to reduce the maintenance intervals. Regular inspection will increase the functional reliability of the AV.

For cleaning, we recommend using lukewarm water. Before reinstallation, all components shall be disinfected by means of disinfectants approved for potable water applications observing the manufacturer's instructions.

Foreign matter washed into the valve body (e.g. PE chips left over from drilling, wood, polystyrene, ...) as well as deposits (e.g. in case of ferrous or manganiferous water qualities or water qualities containing suspended matter) may impair the proper sealing function.



Important: Before maintenance, AVs shall be put out of service. Maintenance shall be performed in unpressurized condition.

For detailed instructions on servicing and maintenance with a detailed maintenance procedure and spare parts, see the complete version of the Air valve HaVent® for potable water PN 16, order no. 987-00.



5. Special functions

The following special functions are available for the Air Valve HaVent® for Potable Water PN16.

- 5.1 Special function closing aid Ord. No. 009 878 1570
- 5.2 Special function "Air intake only" or "Air release only" Ord. No. 987 999 2000
- 5.3 Special function with outlet elbow 2" MTHR Ord. No. 987 800 1310
- 5.4 Special function "Oxidator" version Ord. No. 987 999 4000

All special functions are available ex factory or can be retrofitted on site, if required.

For a detailed description of the special functions, see the complete version of the operating and maintenance instructions.



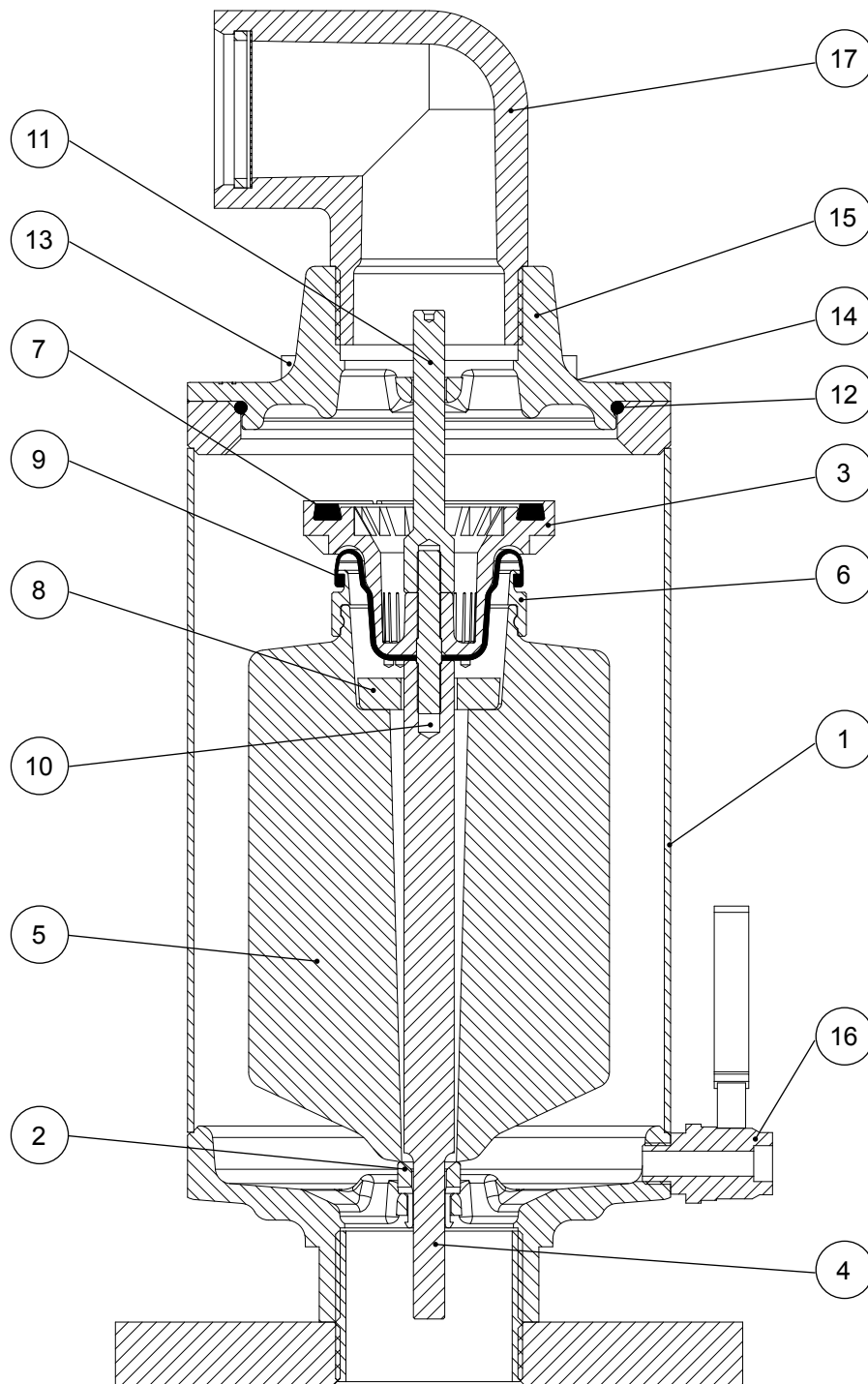
The maintenance of the AVs with special functions is carried out in the same way as the descriptions of the standard version.

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

Hawle Armaturen GmbH
- Application Engineering -
Liegnitzer Str. 6
D - 83395 Freilassing
Phone: +49 (0)8654 6303-0
Telefax: +49 (0)8654 6303-222
E-Mail: info@hawle.de
Web: www.hawle.de

Air valve HaVent® for potable water PN 16

Parts list



No	Qty.	Short description	Material
1	1	Housing	Stainless steel
2	1	Closing sleeve	POM
3	1	Valve basket	POM
4	1	Guide rod	POM
5	1	Float	PP
6	1	Roll-on diaphragm adaptor	POM
7	1	Flat gasket	EPDM
9	1	Roll-on diaphragm	EPDM
10	1	Grub screw M8x30	Stainless steel
11	1	Guide of valve basket	POM
12	1	O-ring 116x4	EPDM
13	5	Hexagon socket head screw M8x16	Stainless steel
14	5	Shim ring	Stainless steel
15	1	Housing upper part	Stainless steel
16	1	Ball valve 1/4" FTNR-MTHR	Ms
17	1	Outlet elbow d63 mm with MTHR2" and screen	PE