

Operating instructions
H₂O GUARD® lift

Installation
Function
Operation
Service



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1. Safety instructions



Not drinking water



Maximum 90 °C



Maximum 6 bar pressure



Recyclable

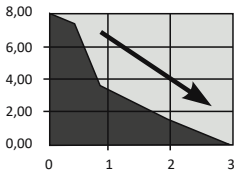
2. Function

The devices from the H₂O GUARD® lift series protect your heating system from damage by corrosion and contamination.

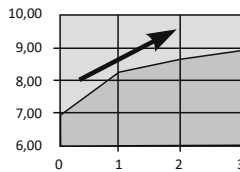
The following functions are combined in the H₂O GUARD® lift:

- ① Oxygen is bound and reduced
- ② Rapid pH regulation in the alkaline range by means of high-purity magnesium balls
- ③ Conductivity of the circulating water is slowly reduced
- Suspended solids filter (260 µm)
- Micro gas bubble separator (degassing)
- Magnetic flow filter (neodymium magnet)
- 2 fully integrated ball valves

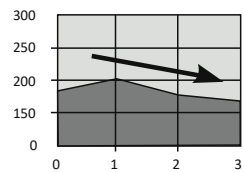
① Oxygen dissolved O₂ mg/l



② pH value



③ Electrical conductivity µS/cm



Reduce oxygen + increase pH + reduce electrical conductivity = safe corrosion protection

3. Standard delivery

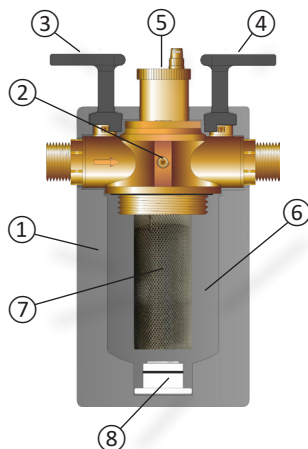
1 × complete H₂O GUARD® lift comprising:

- Head
- Canister
- pH booster
- Insulation
- Operating instructions

4. Specification

4.1. Device description

1. Insulation
2. Head
3. Shut-off valve, supply line
4. Shut-off valve, output line
5. Air vent
6. Canister
7. pH booster
8. Magnet



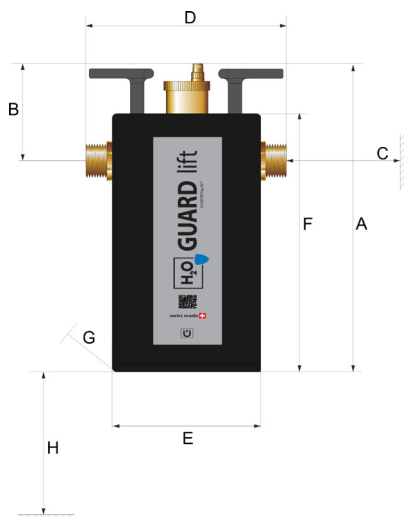
4.2. Dimensions

Canister: 1.4301 / AISI 304 / SS 2333

Head: Brass

Insulation: EPP

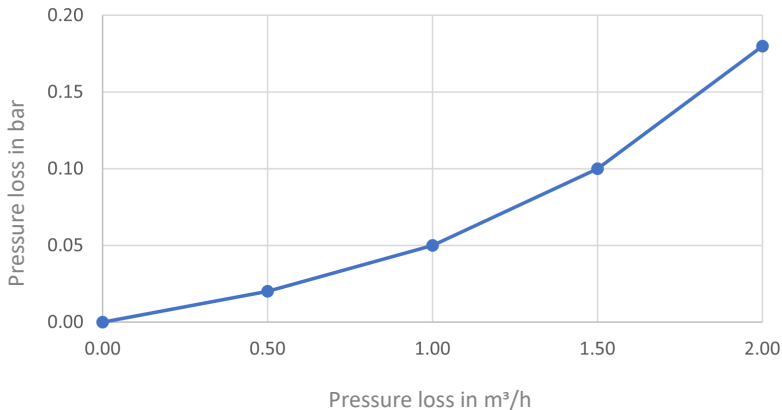
		H₂O GUARD® lift
A	Overall height	310 mm
B	Top edge centre connection	100 mm
C	Wall centre connection	100 mm
D	Overall width	182 mm
E	Insulation width	150 mm
F	Insulation height	260 mm
G	Insulation depth	150 mm
H	Minimum clearance to the ground	100 mm
	Connection thread	1" male
	Weight	5 kg



4.3. Performance data

	H ₂ O GUARD® lift
System volume	< 400 l
Demineralisation performance	none
Max. throughput	2 m ³ /h
P _{max}	6 bar
T _{max}	90 °C

4.4. Pressure loss



5. Installation

5.1. Determining the installation position

Please bear in mind the following points when selecting the installation position of an H₂O GUARD® lift:

- The entire system water should flow through the H₂O GUARD® lift at regular intervals.
- To ensure that the oxygen can be separated out efficiently, an installation position close to the diffusion point (e.g. underfloor heating) should be

selected.

- Installation position: Horizontal

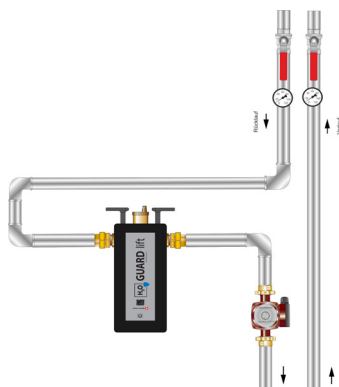
IMPORTANT NOTE!



Selecting the correct installation position for an H₂O GUARD® lift is the responsibility of the heating contractor. We are happy to provide the contractor with assistance.

5.2. Connection

The devices in the H₂O GUARD® lift range are designed for installation in the main circuit. Optimum degassing is achieved in the flow line. Filtration plus magnetite separation is the main focus when installing in the return. The flow direction is depicted by an arrow on the brass head. If this does not suit, the device can be turned 180° and the insulation refitted.



6. Commissioning

6.1. Filling/Venting (see image in 4.1.)

The H₂O GUARD® lift is filled by the pressure in the expansion vessel.

1. Close shut-off valve (3) in the supply line
2. Wait until no more air escapes from air vent (5)
3. Open the shut-off valve in output line (4)

Filling is also possible together with the entire system by expelling air.

7. Operation

7.1. System water

The quality of the heating water must comply with the general guidelines (VDI 2035, SWKI BT 102-01, ÖNORM 5195-1) unless the system manufacturer requests other values. The H₂O GUARD® lift can also be operated with water that has been enriched with chemical substances. Chemical additives must continue to be dosed and monitored in accordance with the manufacturer's instructions. The sacrificial anode system, however, works more reliably with water without chemical additives.

7.2. Checking the pH booster

Periodic inspection of the pH booster is mandatory (e.g. together with sludge removal, see 8.2). An inspection should be carried out at least once a year.

- If pH and/or conductivity are within the optimal range: only check/clean the stainless steel strainer (otherwise the system throughput will be obstructed).
- If there are no more magnesium balls inside the strainer and/or further water treatment (pH value increase / conductivity reduction) is required, change the pH booster (part no. 102 688).

8. Maintenance

8.1. Replacing the pH booster

1. Remove insulation (1)
2. Close shut-off valve (3) in the supply line
3. Close shut-off valve (4) in the output line
4. Remove magnet (8) from canister (6)
5. Unscrew canister (6)
6. Unscrew pH booster (7) from head (2)
7. Screw pH booster (7) into head (2)
8. Wash out canister (6) (scrub with wire brush if necessary)
9. Screw canister (6) back on
10. Insert magnet (8)
11. Attach insulation (1)
12. Open the shut-off valve in supply line (3) again
13. Wait until no more air escapes from air vent (5)
14. Open the shut-off valve in output line (4) again

8.2. Sludge removal and checking or changing the pH booster

The H₂O GUARD® lift should undergo regular sludge removal. Exactly how often this is required depends on the amount of sludge. However, we recommend sludge removal at least once a year. At the same time, the condition of the pH booster/strainer can also be checked.

1. Remove insulation (1)
2. Close shut-off valve (3) in the supply line
3. Close shut-off valve (4) in the output line
4. Remove magnet (9) from canister (6)
5. Unscrew canister (6)
6. Check/clean/change the pH booster (7) or strainer

The pH booster can be inspected visually. The balls are found in the strainer.

- Balls or parts of them are still present → pH booster is OK → refit

There are no balls left in the strainer:

- If pH and / or conductivity are within the optimal range: only check- / clean the stainless steel strainer (otherwise the system throughput will be obstructed).
- Further water treatment (pH value increase / conductivity reduction) is required: change the pH booster (item no. 102 688).

7. If necessary: unscrew used pH booster (7) from head (2)
8. If necessary: screw new pH booster (7) into head (2)
9. Wash out canister (6) (scrub with wire brush if necessary)
10. Screw canister (6) back on
11. Insert magnet (8)
12. Attach insulation (1)
13. Open the shut-off valve in supply line (3) again
14. Wait until no more air escapes from air vent (5)
15. Open the shut-off valve in output line (4) again

9. Spare parts

Designation	Item no. H ₂ O GUARD® lift
O-ring	100 255
H ₂ O GUARD® lift, pH booster	102 688

10. Accessories

Designation	Item no. H ₂ O GUARD® lift
EEAG union, 1" fem./1" fem.	101 973
Gasket for EEAG union, 1" fem./1" fem.	102 309

EEAG union, 1" fem./1" male	100 301
Gasket for EEAG union, 1" fem./1" male	100 242

Wall bracket kit	102 607
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