

Operating instructions
ELYSATOR® trio .1

Installation
Function
Operation
Service



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1. Safety instructions



Must be supervised



Not drinking water



Maximum 90 °C



Maximum 6 bar pressure

2. Function

ELYSATOR® appliances provide your heating system with sustainable protection from corrosion. The following functions are combined into one appliance:

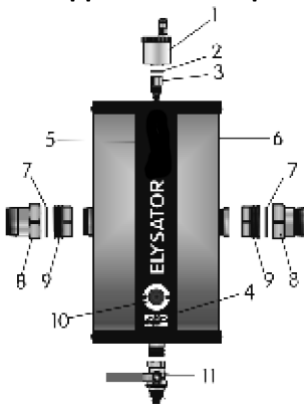
- Suspended solids filter
- pH regulation by means of a sacrificial anode
- Micro gas bubble separator
- Magnetic flow filter

3. Standard delivery

- Appliance
- Air vent
- 2 × connections
- Operating instructions

4. Specification

4.1. Appliance description



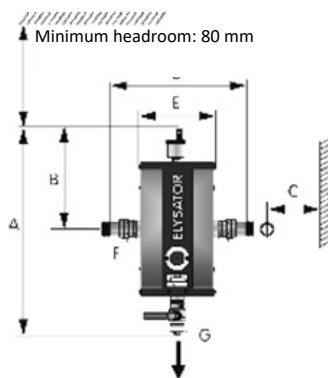
1. Air vent
2. Gasket
3. Air vent coupling
4. Operating meter
5. Cover
6. Vessel with EPP insulation, 3-part
7. Gasket
8. Coupling
9. Coupling
10. Magnet
11. Drain valve

4.2. Dimensions

Material of vessel: Stainless steel 1.4301 /

AISI 304 / SS 2333

Insulation: EPP

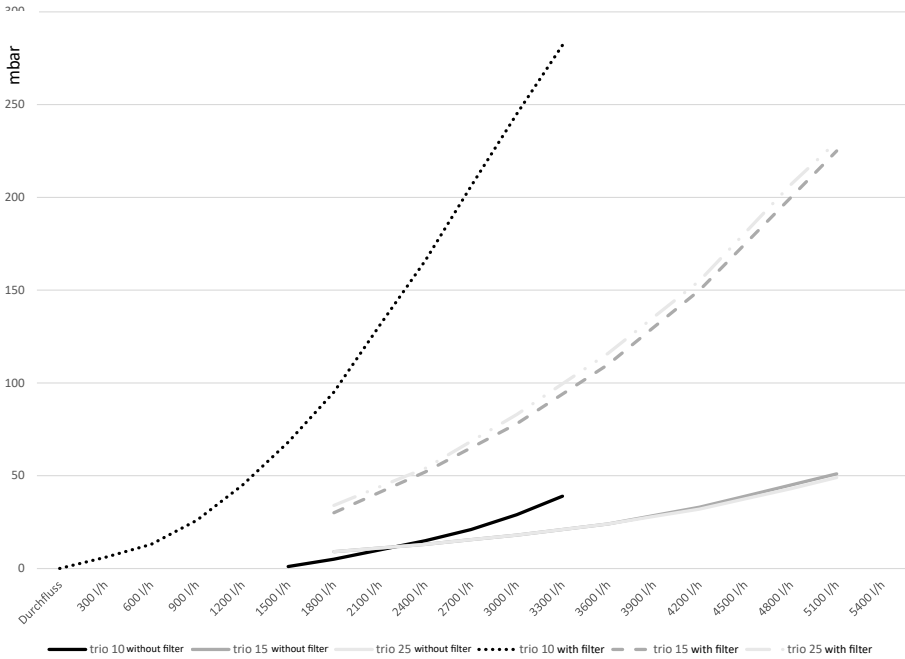


	Dimensions ELYSATOR®	trio 10.1	trio 15.1	trio 25.1
A	Overall height	432 mm	580 mm	750 mm
	Height (casing)	276 mm	431 mm	610 mm
B	Top edge centre connection	210 mm	290 mm	290 mm
C	Wall centre connection	72 mm	120 mm	120 mm
D	Width incl. coupling	260 mm	360 mm	360 mm
E	Width	145 mm	240 mm	240 mm
	Depth (excl. magnet)	145 mm	240 mm	240 mm
	Depth (incl. magnet)	171 mm	256 mm	256 mm
F	Input/output connection	1 "	1.5 "	1.5 "
G	Drain connection	¾ "	¾ "	¾ "
	Weight	5 kg	9.5 kg	13.1 kg

4.3. Performance data

ELYSATOR®	trio 10.1	trio 15.1	trio 25.1
System volume	< 500 l	< 1'500 l	< 5'000 l
Max. throughput	3 m ³ /h	5 m ³ /h	7 m ³ /h
Pmax	6 bar		
Tmax	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 ELYSATOR®:

- The entire system water should flow through the ELYSATOR® at regular intervals.
- To ensure that the oxygen can be separated out efficiently, an installation position close to the diffusion point (underfloor heating) should be selected.
- For ease of maintenance, it is recommended that a ball shut-off valve is installed on both the input and output lines of the appliance.

IMPORTANT NOTE

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

5.2. Connection

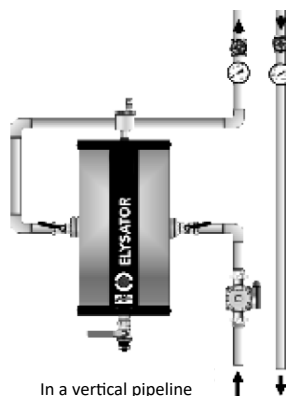
The appliances in the "trio" range are designed for installation in the main circuit. Optimum degassing is achieved in the flow line. Install in the return line if your priority is magnetite separation.

IMPORTANT NOTE

When operating with the filter, pay attention to the direction of flow! The opening in the foam filter must be at the inlet. The foam filter is only visible at the outlet.

If the flow direction does not match, the vessel can be turned 180° in its insulation. Details on how to open the insulation can be found in the "Maintenance" chapter. The hole in the foam filter must be at the inlet. The foam filter is only visible at the outlet.

Kits for installation in the bypass circuit are available for all types.



6. Commissioning

6.1. Filling/venting

The ELYSATOR® can be filled with demineralised water via the drain valve. To do so, the air vent on the appliance must be unscrewed. The two shut-off valves* must be closed. During the filling process, the air valve on the air vent connection must be pressed. Once water starts to come out of the top of the ELYSATOR®, the air vent can be screwed back on and the shut-off valves*

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

* Customer to supply

7. Operation

7.1. System water

The quality of the heating water must comply with the general guidelines (VDI 2035, Parts 1 & 2, SWKI BT 102-01, ÖNORM 5195-1), unless the system manufacturer requests different values. The ELYSATOR® must not be operated with water that has been enriched with chemical substances.

7.2. Checking the condition of the anode

During operation, the condition of the anode must be checked every month. The condition of the anode can be viewed on the operating meter.



If the meter is in the green zone, the anode is working normally.

8. Maintenance

8.1. Interpreting the operating meter and actions required

8.1.1. Needle deflection is in the green zone

Normal operation; the lower the reading, the less work the anode needs to do.

8.1.2. Needle deflects to maximum for more than one heating season

The anode is working hard. The ELYSATOR® may be undersized or the water

quality may be poor. A water analysis is recommended.

8.1.3. Needle deflection is close to the red zone

The anode may be coated in a barrier layer and can therefore only work to a limited degree. Remove sludge from the ELYSATOR® and fill with tap water. If, after one day (with the shut-off valves closed) the meter reads a higher value than before, then the system is OK. The ELYSATOR® can then be filled with demineralised water again and put back into operation. If not, then the ELYSATOR® must be opened up and checked.

8.1.4. Needle is in the red zone

The anode is spent or coated with a barrier layer. The appliance must be opened up and checked. The anode may need to be cleaned or replaced.

8.1.5. Needle shows the same reading over a long period

First, check the operating meter. To do so, remove the contact blade from the blade terminal (see chapter "Checking and replacing the anode"). If the indicator now moves to the far left, it is working properly. This also means that the ELYSATOR® is working correctly and no further action is required.

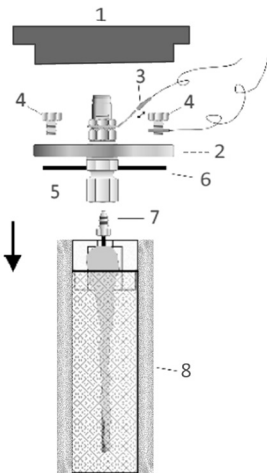
8.2. Sludge removal

De-sludge the ELYSATOR® regularly. Exactly how often this is required depends on the amount of sludge. We recommend sludge removal once a year.

1. Close the shut-off valve in the supply line
2. Close the shut-off valve in the output line
3. Unscrew the air vent
4. Remove the cap from the drain valve
5. If necessary, connect a hose and route it to a bucket/drain
6. Remove the magnet
7. Open the drain valve (if blocked, use a screwdriver to clear it)
8. Release the vacuum by pressing the air valve on the air vent connection
9. Connect the ELYSATOR® to the fresh water mains

10. Fill with fresh water (press the air valve on the air vent connection)
11. Drain the ELYSATOR® as described above
12. Repeat the procedure until the water comes out clean
13. Fill the ELYSATOR® with demineralised water via the drain valve, as described above
14. Close the drain valve and screw on the cap
15. Screw on the air vent
16. Open the supply and output lines

8.3. Checking and changing the anodes and solids filter



1. Drain the ELYSATOR® (see chapter "*Sludge removal*")
 2. Remove upper EPP insulation (1)
 3. Remove contact blade (3) from the blade terminal
 4. Remove screw (4)
 5. Remove front and rear EPP insulation if necessary
 6. Remove the remaining screws
 7. Remove flange (2) together with anodes and retainer
 8. If installed, remove the filter from the vessel
 9. Clean the inside of the vessel
10. Remove the adhesive label from the new filter. Install a new filter (8) (if required), inserting it into the vessel from the top so that it touches the inner wall of the vessel. When doing so ensure that the opening in the filter is positioned so that it lies centrally above the pipe on the water supply side.
 11. Secure insulating screw(s) (5) to flange (2) using a size 17 open-ended spanner
 12. Loosen and unscrew the anode cone screw(s) (7) using a size 10 open-ended spanner
 13. Screw on new anode(s)

14. Place a new flange gasket (6) on the edge of the vessel and align it with the screw holes
15. Insert flange (2) together with anodes and retainer
16. Insert first screw (4) together with cable connection
17. Insert remaining screws (4)
18. Tighten all screws evenly (tightening torque 18 Nm)
19. Check insulating screw and tighten if necessary
20. Reconnect contact blade (3) to blade terminal
21. Re-attach EEP insulation (2)
22. Fill the ELYSATOR® with water (as described in the "Sludge removal" chapter)

The filter should be replaced every year. The ELYSATOR® can also be operated without a solids filter.

9. Spare parts list

Designation ELYSATOR®	trio 10.1	trio 15.1	trio 25.1
Anode fittings	100923	100925	100909
Filter (incl. gasket)	102182	102188	102189
Flange gasket	102183	100237	100237
Operating meter	100272	102087	102088
Air vent	100 711		
Magnet	100 618		

10. Accessories

Designation ELYSATOR®	trio 10.1	trio 15.1	trio 25.1
Bypass circuit kit	101 000	101001	

