

Operating instructions
ELYSATOR® type 260c
ELYSATOR® type 500c
ELYSATOR® type 800c

Installation
Function
Operation
Service



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1. Safety instructions



Not drinking water



Maximum 100 °C



Maximum 10 bar pressure



100 % recycling

2. Function

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

- pH regulation by means of a high efficiency magnesium corrosion-protective magnesium anode
- Micro gas bubble separator and automatic air vent
- Magnetic flow filter: 4 neodymium magnets à 12,000 Gauss
- Sediment separation through special routing of water

3. Standard delivery

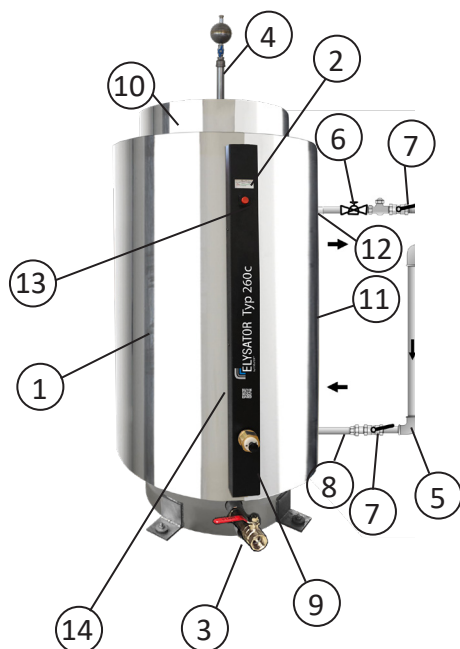
ELYSATOR® type 260c	ELYSATOR® type 500c / 800c
1 × ELYSATOR® device type 260c	1 × ELYSATOR® device type 500c / 800c
1 × flow control valve 1¼"	1 × flow control valve 1½"
1 × air vent ELYSATOR® air-vent INOX	1 × air vent ELYSATOR® air-vent INOX
1 × pipe coupling 1¼"	1 × pipe coupling 1½"
1 × elbow 90° 1¼"	1 × elbow 90° 1½"
1 × reducer coupling ¾" - ⅝" (air vent)	1 × reducer coupling ¾" - ⅝" (air vent)
1 × pipe connector ¾", l = 250 mm (air vent)	1 × pipe connector ¾", l = 250 mm (air vent)
1 × ball valve ⅝" (air vent)	1 × ball valve ⅝" (air vent)
1 × ball valve 1½" (outlet)	1 × ball valve 1½" (outlet)
2 × ball valves 1¼" (inlet and outlet)	2 × ball valves 1½" (inlet and outlet)
2 × pipe connectors 1¼", l = 100 mm	2 × pipe connectors 1½", l = 100 mm

1 × operating instructions

1 × operating instructions

4. Specification

4.1. Device description



- 1 Cylinder with insulation
- 2 Indicator
- 3 Drain valve
- 4 Air vent with gasket, ball valve, extension and reducer coupling
- 5 Elbow
- 6 Flow control valve
- 7 Shut-off valve (2×)
- 8 Coupling
- 9 Magnet
- 10 Cover
- 11 Inlet 1¼"
- 12 Outlet 1¼"
- 13 Rocker switch
- 14 Duct

Type 260c



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- 2 Indicator
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- 6 Flow control valve
- 7 Shut-off valve (2×)
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- 9 Magnet
- 10 Cover
- 11 Inlet 1½"
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- 13 Rocker switch
- 14 Duct

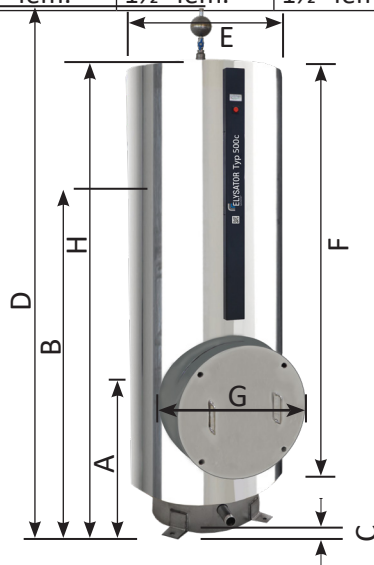
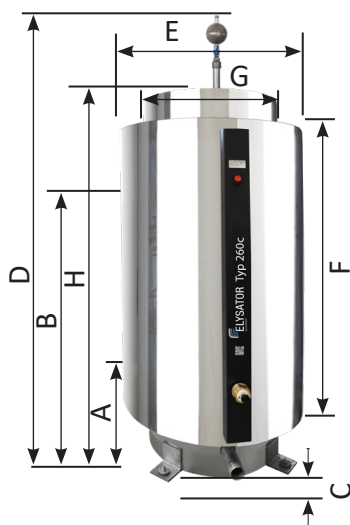
4.2. Dimensions

Cylinder material: INOX 1.4435 / AISI 316L / SS 2353

Insulation: PU foam

Cover plate: INOX 1.4301 / AISI 304 / SS 2333, polished

Dimension		ELYSATOR® type 260c	ELYSATOR® type 500c	ELYSATOR® type 800c
A	Inlet height	385 mm	385 mm	527 mm
B	Outlet height	1010 mm	1675 mm	1572 mm
C	Height of drain from floor	100 mm	100 mm	190 mm
D	Overall height	1800 mm	2445 mm	2404 mm
E	Cylinder diameter	684 mm	684 mm	882 mm
F	Cylinder height	1075 mm	1840 mm	1715 mm
G	Flange cover diameter	370 mm	500 mm	550 mm
	Inlet/outlet connection	1¼" fem.	1½" fem.	1½" fem.
	Drain connection	1¼" fem.	1½" fem.	1½" fem.



H	Height from base to cover	1371 mm	2016 mm	1975 mm
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Type 260c

Type 500c/800c

4.3. Performance data

	ELYSATOR® type 260c	ELYSATOR® type 500c	ELYSATOR® type 800c
System volume up to	70 m³	120 m³	200 m³
Recommended throughput	40 l/min	65 l/min	100 l/min
Pmax	10 bar	10 bar	10 bar
Tmax	100 °C	100 °C	100 °C
Weight	218 kg	317 kg	480 kg
Adjustable throughput	20 - 70 l/min	30 - 120 l/min	30 - 120 l/min

5. Installation

5.1. Determining the installation position

Bear in mind the following points when selecting the installation position of an ELYSATOR®:

- The entire system water content 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 (e.g. underfloor heating) should be selected.
- The devices in the ELYSATOR® industrial series are designed for installation in a secondary circuit. For adjustable throughput see chapter 4.3.

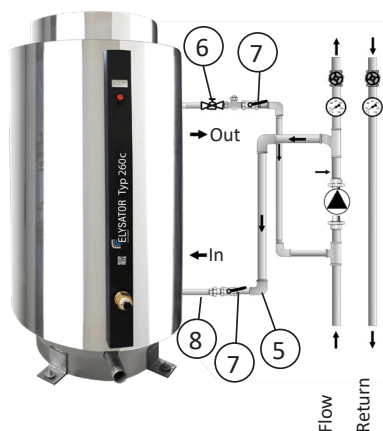


IMPORTANT NOTE!

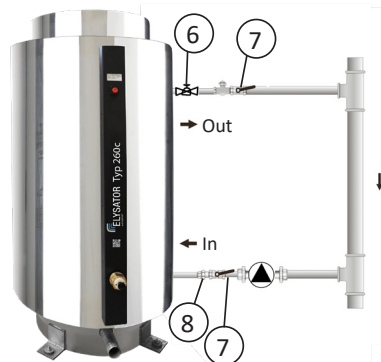
Selecting the correct installation position for an ELYSATOR® is the responsibility of a heating contractor. We are happy to provide the contractor with assistance.

5.2. Connection

Version 1:



Version 2:



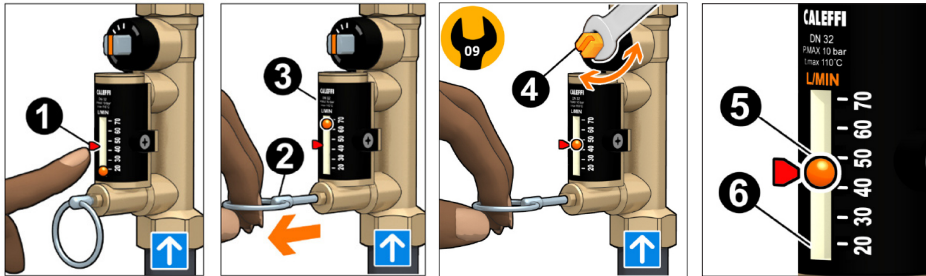
6. Commissioning

6.1. Filling/venting

The ELYSATOR® can be filled with demineralised water via the drain valve. To do so, the air vent on the device must be unscrewed. The two shut-off valves must be closed. 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 again.

6.2. Setting the throughput with a flow control valve

Set the throughput according to the values in the chart in chapter 4.3.



- On indicator (1), mark the reference value for setting the valve.
- Pull ring (2) to open the slide valve that blocks the throughput of fluid through flow meter (3) during normal operating conditions.
- Hold the slide valve open and use a special spanner to make the adjustment on valve regulating spindle (4). The reading is indicated by a metal ball (5) on a measuring scale in l/min on transparent cylinder (6).
- After completing the adjustment, release ring (2) of the flow meter slide valve. An integral spring automatically returns the slide valve to the closed position.

7. Operation

7.1. System water

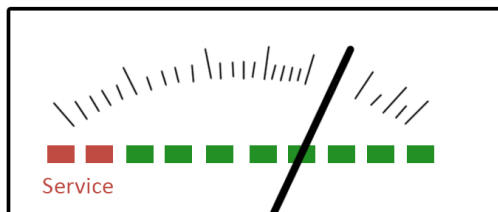
The quality of the heating water must comply with the general guidelines (VDI 2035, SWKI BT 102-01, ÖNORM 5195-1) unless the system manufacturer requests other values. The ELYSATOR® may also be operated with water that has been enriched with chemical substances. The corrosion-protective magnesium anode system, however, works more reliably with water without

chemical additives.

7.2. Checking the condition of the anode

During operation, the ELYSATOR® function must be checked every 6 months. This is shown on the wear indicator on the duct.

As long as the wear indicator is in the green zone, the anode is operating normally (exemplary illustration, the scale may show different values). If the indicator is in the red zone (Service), refer to chapter "8. Maintenance".



8. Maintenance

8.1. Interpreting the wear indicator and actions required

8.1.1. Needle deflection is in the green zone

Normal operation; the lower the wear indicator 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

In the event of low water conductivity ($< 100 \mu\text{S}/\text{cm}$), needle deflection is

minimal. Your ELYSATOR® is now working with very limited operation and is virtually in "standby mode". Check the wear indicator by pressing the button. If pressing the button causes the wear indicator reading to change, the wear indicator is functioning correctly. If the needle does not move, the wear indicator is likely to be faulty and needs to be replaced. If the wear indicator is functioning correctly, a barrier layer may have formed on the anode, leaving it unable to function properly. Remove sludge from the ELYSATOR® and fill it with tap water. If after one day (with the shut-off valves closed) the wear indicator reads a higher value than before, then the system is OK. The ELYSATOR® can then be re-filled with demineralised water and put back into operation. Otherwise the ELYSATOR® must be opened and inspected as the anode may need to be replaced.

8.1.4. Needle is in the red zone

The anode has been consumed or is coated with a barrier layer and therefore no longer functions properly. The ELYSATOR® must be opened and inspected as the anode may need to be replaced.

8.1.5. Needle shows the same reading over a long period

Check the wear indicator by pressing the button. If pressing the button causes the wear indicator reading to change, the wear indicator is functioning correctly. If the needle does not move, the wear indicator is likely to be faulty and needs to be replaced.

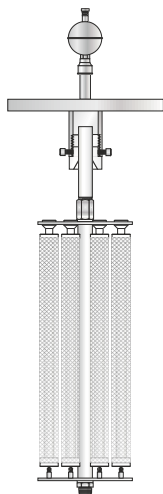
8.2. Sludge removal

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

Procedure: (see image under 4.1.)

1. Close valve (7) in supply line

2. Close valve (7) in output line
3. Unscrew air vent (4)
4. Open ball valve on air vent (4)
5. Connect a tube and route it to an output line
6. Pull out magnet (9)
7. Open the drain valve (if blocked, use a screwdriver or wire to clear it)
8. Connect drain (3) to fresh water supply
9. Fill with fresh water (flush)
10. Drain the ELYSATOR® as described in steps 1-7
11. Repeat the procedure until the water comes out clean when draining
12. Fill the ELYSATOR® with demineralised water via the drain valve, as described in steps 8-9
13. Close drain valve (3)
14. Screw on air vent (4), (ball valve on air vent must be open)
15. Open supply and output valves (7)



8.3. Replacing the anodes in type 260c

1. Drain the ELYSATOR® (see chapter "*Sludge removal*", steps 1-7)
2. Remove top cover (10)
3. Disconnect lug and terminal contacts (2 pce.)
4. Undo flange screws (8 ×) and lift flange, release anode tree from flange, and disconnect the contact of the copper cable
5. Withdraw anode tree upwards
6. Slide the anodes out from the anode tree
7. Slide new anodes into the anode tree
8. Check flange gasket
9. Insert anode tree
10. Connect the contact of the copper cable
11. Connect anode tree with flange

12. Reconnect lug and terminal contacts (2 pce.)
13. Evenly tighten all flange screws diagonally (8 ×)
14. Replace cover (10)

The ELYSATOR® type 260c is fitted with 6 anodes.

8.4. Checking and assessing the condition of the anodes

The corrosion-protective magnesium anode is located inside the strainer and can be checked visually.

- Anode has a diameter < 10 mm or only a thin steel wire can be seen -> Replace the anode.
- Anode still has a diameter > 10 mm but is covered with a layer of dirt -> Replace the anode.
- Anode still has a diameter > 10 mm -> You can continue to use the anode.

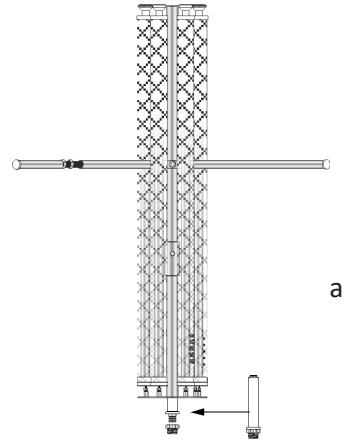
8.5. Replacing the wear indicator and the control button

1. Remove cover (10)
2. Disconnect contacts
3. Remove self-tapping screws from duct (14)
4. Remove duct (14)
5. Replace wear indicator (2) or control button (13) as appropriate
6. Refit duct (14) and replace the screws
7. Screw on and tighten contact
8. Replace cover (10)

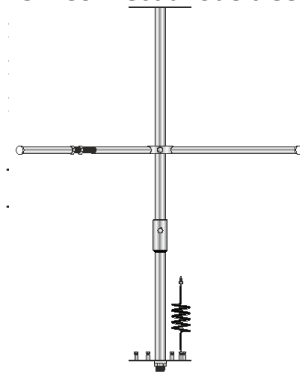
8.6. Replacing the anodes in types 500c + 800c

1. Drain the ELYSATOR® (see chapter "*Sludge removal*", steps 1-7)
2. Remove cover from the bottom at the front
3. Disconnect lug and terminal contacts (2 pce.)
4. Undo flange screws (12 ×) and swing flange outwards
5. Disconnect the contact of the copper cable

6. Release the adjustable side bar
7. Remove all 3 side bars
8. Leave the bars in the cylinder!
9. Clean the inside of the ELYSATOR® tank wall (with wire brush if necessary), so that the current can flow again after the inspection
Tank wall = cathode
10. Detach used anode plugs, lift them little and slide them out
11. Fit new anode plugs
12. Fit the 3 side bars and brace and secure them with the one adjustable bar
13. Reconnect the contact of the copper cable
14. Check flange gasket
15. Connect anode tree with flange



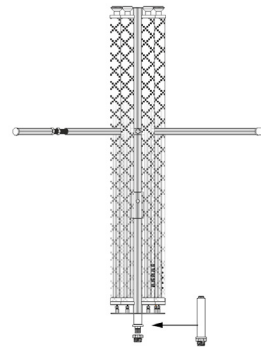
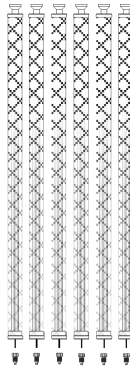
a



terminal cable screw over
is fitted
is fitted

es.
es.

es.
es.



+

=

Anode tree
incl. bar

Anode plugs

Complete
anode tree

9. Spare parts

Designation	ELYSATOR® type 260c	ELYSATOR® type 500c	ELYSATOR® type 800c
Anode fittings	101 673	100 991	100 992
Flange gasket	101 674	101 735	101 736
Air vent	100 402	100 402	100 402
Indicator	100 275	100 275	100 275
Rocker switch	100 704	100 704	100 704
Flow control valve	102 157	102 158	102 158