

Operating instructions
PUROTAP® disposable cartridge

Installation
Function
Operation
Maintenance



ELYSATOR 
engineering water

swiss made 

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1. Safety instructions



Not drinking water



Maximum 60 °C



Maximum pressure 4 bar @ 20 °C (not constantly)



Do not open the cartridge



Operation under supervision



Recyclable or



Household
waste

PUROTAP® highpower & nexion



Throughput 10 l/min

PUROTAP® micro



Throughput 4-5 l/min



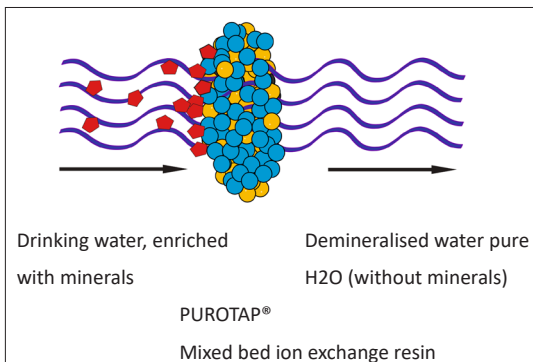
Protect from direct
sunlight

2. Function

2.1. Function of PUROTAP® highpower & nexion

The PUROTAP® cartridge filters lime (calcium, sodium and magnesium) and aggressive substances such as sulphates, nitrates and chlorides out of the fill water. The cartridge uses a mixed bed ion exchanger to provide demineralised, fully demineralised water. This method does not transfer any chemical additives to the water. The device operates without an external power connection. The cartridge is spent when the discharged water has a conductivity value of $\geq 50 \mu\text{S}/\text{cm}$.

2.2. Function of PUROTAP® micro blue



The PUROTAP® micro blue cartridge with a coloured cover is spent when the resin it contains turns from blue to beige.

Beige = spent



Blue = effective

3. Standard delivery

- PUROTAP® disposable cartridge (PUROTAP® 1000 highpower / PUROTAP® 500 highpower / PUROTAP® 750 nexion / PUROTAP® micro)
- Operating instructions

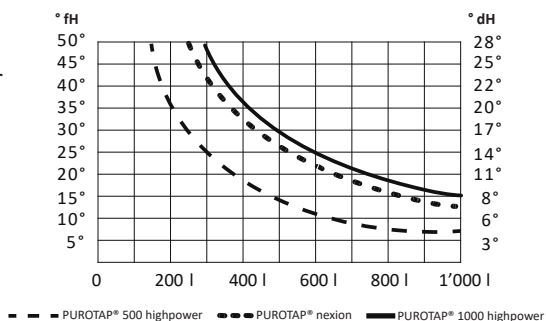
4. Specification

4.1. Dimensions

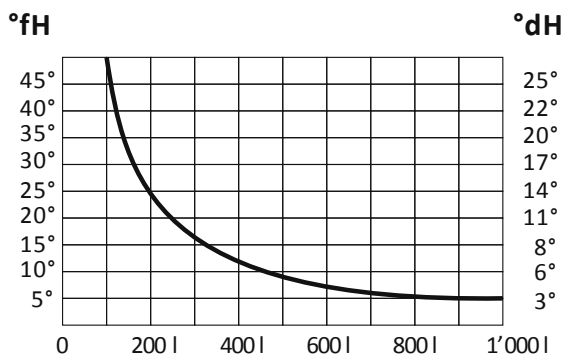
3/4" connections, male

4.2. Performance data of PUROTAP® highpower & nexion

The accompanying table shows the capacity of a full desalination cartridge as a function of the total hardness of the fill water. Example: at a hardness of 20 °fH/11 °dH, PUROTAP® 500 delivers approximately 375 litres of demineralised water, while PUROTAP® 1000 delivers 750 l. PUROTAP® nexion is suitable for systems with low operating temperatures and high water contents. It removes carbon dioxide during demineralisation and thus increases the pH value without the use of additives.



4.3. Performance data for PUROTAP® micro blue



The above table shows the capacity of a full desalination cartridge as a function of the total hardness of the fill water.

Example: at a hardness of 20 °fH/11 °dH, PUROTAP® micro blue delivers

approximately 250 litres of demineralised water; at a hardness of 15 °fH/8 °dH, approximately 330 litres.

5. Operation

5.1. Topping up

Easy system filling, without electricity or a pump.

Connect the cartridge to the drinking water and heating system with a hose and vent. Fill with water at max. 10 litres per minute (PUROTAP® micro blue: 4-5 litres/min) and max. 4 bar pressure at 20 °C.

For systems with surface heating systems, refer to point 5.2.

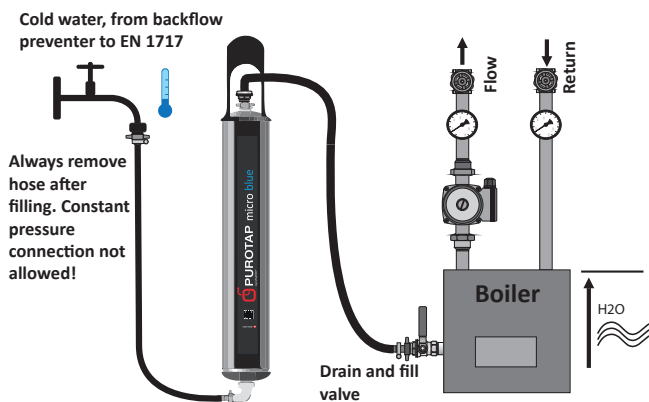
According to European standards, fill water for heating systems should be demineralised. Practical experience has shown that, even at a low hardness level, limescale deposits can cause damage to modern appliances, such as wall mounted gas boilers, heat pumps and solar thermal systems. Demineralised water from the PUROTAP® cartridges contains almost no minerals. Its electrical conductivity is extremely low, allowing it to act as a corrosion inhibitor.



Manufacturer and supplier information and instructions on the use of demineralised water (fully desalinated water) must be complied with and take precedence at all times.

PUROTAP® cartridges comply with the following standards and guidelines:

- EN 12828
- VDI Guideline 2035
- SWKI BT 102-01
- ÖNORM 5195-1
- DIN 50930



For use as a refill unit for heating systems that are not under constant pressure.



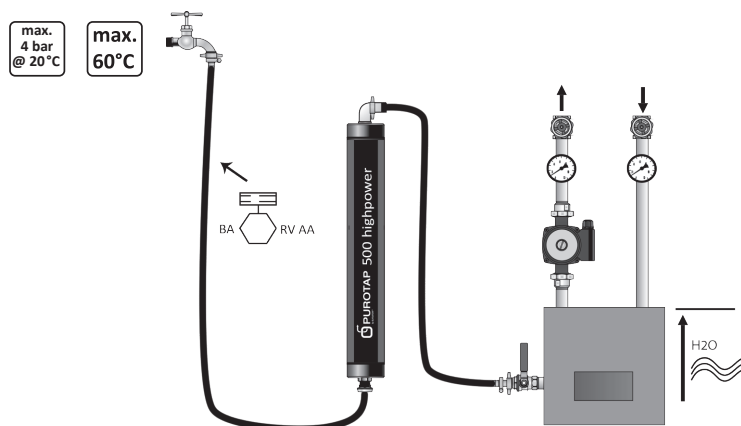
Where EN 1717 is applicable (Germany), a pipe separator must also be installed for filling.

The cartridges do not contain an automatic shut-off mechanism. Work with the cartridge may only be carried out under constant supervision. The cartridges may only be pressurised for the duration of the filling process.

Temp. max. 60 °C, pressure max. 4 bar at 20 °C

Affix adhesive labels (item no. 100871) on the central heating boiler so that it is clearly visible.





Sign to confirm correct filling.

If filling is carried out without testing the water quality, use the cartridge just once with the max. number of litres specified on the diagram. Recycle after use or dispose of as household waste.

5.2. System flushing with auxiliary pump

Direct filling via an ion exchanger is not suitable in systems with surface heating systems that can only be vented by means of flushing.

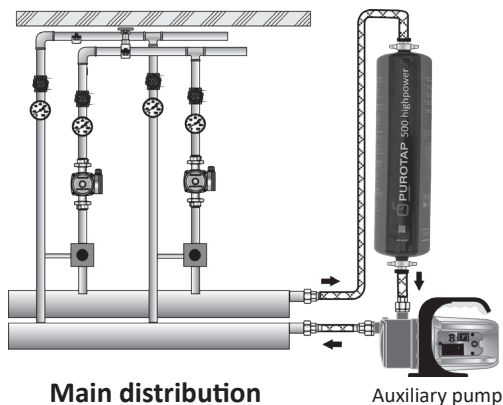
The capacity is not sufficient to expel air from a horizontal line. In these cases, we recommend filling with raw water and then demineralisation via system flushing.

Using a separate pump (e.g. jet pump, impeller pump, centrifugal pump) and 2 reinforced hoses, the ion exchanger is integrated into the main circuit of the heating system. Which connectors are used is less important than ensuring that the circulation pumps are operating and that all valves are open and allow thorough mixing of the system water.



The temperature on the cartridge may temporarily be maximum 60 °C. Pressure max. 4 bar at 20° C. It should be connected on a return line with the lowest possible temperature. Use sufficiently pressure and temperature resistant hoses (reinforced hoses). Work must be supervised.

Connect the pump downstream of the cartridge, so there is no pump pressure on the cartridge!



Run the cartridge until it is spent. Determine the number or size of the cartridges required based on the system content and capacity diagram on page 2.

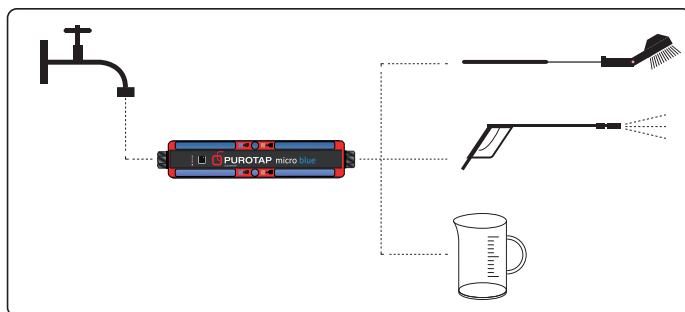
Affix the "Demineralised" adhesive label (item no. 100 871) on the central heating boiler so that it is clearly visible. Sign to confirm correct filling.

5.3. Additional applications

Due to its purity, demineralised water is suitable for various household applications. The cartridges can be connected easily to any commercially available garden hose.



Please note that the cartridge must be monitored at all times in this scenario and must not be constantly subjected to water pressure.



5.4. Using the meter enables accurate values to be determined

The meter (item no. 102 120) enables the flow rate and water quality to be monitored. This ensures that the cartridge is fully utilised and replaced at the right time.

The meter enables the cartridge to be used easily multiple times for smaller water volumes until it is completely spent.

Using the PUROTAP® LFM-20 meter (item no. 102 120)



PUROTAP® LFM-20



PUROTAP® LFM-20
meter

General safety instructions



The resin from the cartridge must not get into the system. Before each use, check the retention strainers on both sides of the cartridge. Work with the cartridge must be supervised.

Test heating of the system after filling is recommended to eliminate the oxygen and carbon dioxide gases normally contained in tap water.

6. Commissioning

- Simply connect to a drinking water line (≤ 4 bar @ 20 °C) and you're done!
- Throughput max. 10 l/min. PUROTAP® highpower & nexion
- Throughput max. 4-5 l/min. PUROTAP® micro blue
- Do not permanently connect the cartridge to a pressure line.
- Rinse the cartridge briefly before each use if it has not been used for a long period of time, to prevent algal and bacterial growth.

7. Recycling



You can now return these products to selected trade partners or directly to ELYSATOR Engineering AG.

We'll recycle for you!



Scan the QR code for more information about recycling.

8. Resin quality

QUALITY CERTIFICATE



Certified vacuum-packed quality resin

Tested PUROTAP® 2-component mixed bed resin for reliable full desalination. Removes limescale and corrosive salts from water. The vacuum pack protects against oxidation for maximum long-term performance. ELYSATOR Engineering AG checks the quality and mix of the PUROTAP® resin with the greatest care. Conductivity, pH value and water hardness are regularly tested and certified by Aquitest, the largest Swiss water laboratory.



View resin analyses

9. Maintenance

These devices do not require any maintenance.

10. Consumables

Item no.	Designation
101 197	PUROTAP® micro blue, replacement cartridge
101 036	PUROTAP® 500 highpower, replacement cartridge
100 853	PUROTAP® 1000 highpower, replacement cartridge
101 966	PUROTAP® 750 nexion, replacement cartridge
100 280	PUROTAP® device battery (3 pce)

11. Accessories

Item no.	Designation
102 277	PUROTAP® connector (2 pce)
102 120	PUROTAP® LFM-20 meter