H2O DESAL
ELYSATOR Eng. AG™

Operating instructions
H2O DESAL® filt 33

Installation
Function
Operation
Service



ELYSATOR
engineering water

swiss made

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1. Safety instructions



Not drinking water



Maximum 4 bar pressure at 20 °C



Maximum 1 bar pressure at 40 °C



Disposal with household waste



Operation under super-
vision



Maximum throughput 3 l/min

2. Function

Heating and cooling systems use water as a heat transfer medium. The water circulates from the heat generator to the consumer. Various circumstances can lead to impurities in the water in both new and existing systems. Contamination can lead to malfunctions, a loss of efficiency and costly repair work. Contamination can take the form of foreign substances such as welding residues, dirt or corrosion products. According to the guidelines, recirculated water should appear clear and be free of sediment. Foreign substances can be removed from the system by means of filtration.

The H_2O DESAL® filt 33 cartridge contains a layer of natural filter granules for the mechanical separation of foreign substances from circulating water, as well as an ion exchange resin as an additional treatment step. Magnetite is also retained by a magnetic tape. The cartridge attachment supplied is used for coarse prefiltration.

The H_2O DESAL® filt 33 cartridge can also be used in the bypass flow during operation. Only two hoses are required for use, as well as a pump where applicable.

In a closed system, the H_2O DESAL® filt 33 cartridge is connected in the bypass flow and operated with a pump at a low flow rate. The system volume should be circulated at least three times. Up to 1000 litres can be cleaned with one cartridge, depending on the degree of water contamination. For larger system volumes or high levels of contamination, several cartridges or the H_2O DESAL® filt 55 cartridge set must be used in combination with the PUROTAP® leader device.

Due to the risk of transferring contaminants, the cartridge may only be used once on a system. The cartridge must be disposed of after a single use.



- Pre-rinsing necessary
- Connect in the bypass flow
- At least 3 system circulations recommended
- For single use

3. Standard delivery

- H_2O DESAL® filt 33 cartridge (including prefilter attachment and flow limiter to 3 l/min)
- Operating instructions

4. Specification

4.1. Properties of the H_2O DESAL® filt 33 cartridge

The H_2O DESAL® filt 33 cartridge performs 5 functions in a single step:

- Cartridge attachment for coarse prefiltration
- Coarse filter granulate for coarse filtration
- Fine filter granulate for fine filtration
- Magnetic tape for magnetite separation
- Ion exchange resin for stabilisation

4.2. Dimensions

H_2O DESAL® filt 33	**Dimension**
Height of the cartridge	88 cm
Diameter	11 cm
Weight	approx. 4.0 kg

4.3. Performance data

H_2O DESAL® filt 33	**Dimension**
Capacity	Depends on the degree of contamination of the system water; at most until blockage occurs
Max. throughput	3 l/min (the lower the flow rate, the more efficient the cleaning effect)
Operating pressure for max. 24h	Maximum 4 bar at 20 °C Maximum 1 bar at 40 °C
Retention rate	Removes particles up to approx. 5 µm
Recommended use	System volume up to approx. 1000 l

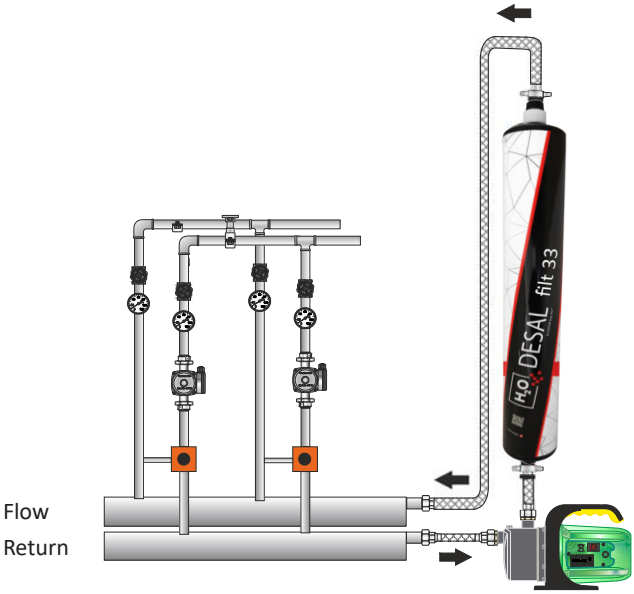


For larger volumes, use the H_2O DESAL® filt 55 in combination with the PUROTAP® leader.

5. Operation

5.1. Connection and commissioning

The H_2O DESAL® filt 33 should only be used in the bypass flow (partial flow process) at the coldest point in the system.



The flow limiter (3 l/min) at the cartridge outlet must always be used.

In general, the lower the flow rate, the better the filtration result.
The device with the H_2O DESAL® filt 33 cartridge is integrated into the bypass flow of the system together with a separate pump (e.g. jet pump, centrifugal pump) and 2 reinforced hoses. The H_2O DESAL® filt 33 cartridge should be connected on the pressure side of the auxiliary pump. The flow direction indicated on the cartridge must always be observed. It is important that the system's circulation pumps are in operation and that all valves are open and enable thorough mixing of the system water.

The cartridge must be monitored during use and must not be permanently pressurised.
Before use, the cartridge must be pre-rinsed with clean water (drinking water or even better, demineralised water) until clear water flows out of it. This flushes out any loose powder particles from the filter material. The pre-rinse water can be safely discharged into the drain.

The spent cartridges can be disposed of as household waste.

5.2. Performing system water treatment

- After pre-rinsing, connect the H_2O DESAL® filt 33 cartridge with pump in the bypass flow
- Switch on the pump
- Leave the unit to run while supervised until the entire system volume has circulated at least 3 times; see the PUROTAP® LFM-20 for volume measurement.
- Switch off the pump
- Remove the cartridge
- All components used (pump, hoses, etc.) must be rinsed thoroughly with clean water after each use to remove any dirt residues and to prevent the transfer of contaminants.
- With high levels of contamination, clean and reinsert the foam filter (in the transparent prefilter).

6. Maintenance

The H_2O DESAL® filt 33 cartridge is maintenance-free and designed for single use only (transfer of contaminants).

7. Spare parts

Item no.	Designation
102 716	H_2O DESAL® complete volume regulator, for d-TOC 33 and filt 33, ¾" female, for optimum flow

8. Consumables

Item no.	Designation
102 888	H_2O DESAL® filt 33 cartridge

9. Options

Item no.	Designation
102 905	H_2O DESAL® coarse filter unit including flow limiter

10. FAQ H_2O DESAL® filt 33

What should I do if the flow rate decreases sharply or the pressure is too high?

- Clean the prefilter

If the problem persists:

- The cartridge is clogged due to heavy soiling → Replace cartridge

What should I do if the filtration result is inadequate (cartridge is not blocked)?

- Additionally circulate the system volume at a lower flow rate (2 l/min) to achieve a better filtration effect

11. Disclaimer

All the information in this document is based on current knowledge and does not purport to be complete. No liability claims may be brought in relation to this information.

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