MembraSAL for Coffee — 100 l/h

Compact stainless steel with remineralisation, and without remineralisation

User guide · installation, setup and maintenance

Version 1.4 — 17 October 2026

1. Welcome

Thank you for choosing the MembraSAL for Coffee. It is made for cafés, restaurants and other businesses with one or a few coffee machines. It is so compact that it easily fits under a bar or in a cabinet. This guide applies to both versions. Where something applies to only one version, this is marked with **A** or **B**. In this guide you will read how it is installed, how to set it up and how to maintain it properly. The guide is made to be read on screen; there is no need to print it.

A qualified installer or the supplier of your coffee machine installs the MembraSAL. They know your situation and the regulations that apply where you are. Installation is not included in the price.

2. Your MembraSAL for Coffee

The MembraSAL works with reverse osmosis. A pump pushes the water under pressure through a membrane. The membrane holds back most of the dissolved salts, including limescale. The clean water (product water) goes to your coffee machine. The water with the substances held back (flushing water) goes to the drain.

The product water goes to a pressure tank. When it is full, the MembraSAL flushes the membrane for 10 seconds and goes to rest. As soon as water is drawn again, it starts by itself.

A only: after the membrane, the water passes through a **remineralisation cartridge**, which adds magnesium, and through a **carbon block**. This gives your coffee a full taste, and the carbon block largely removes any off-taste or odour.

A and B: with the **blending valve** you set how much pre-filtered water is blended in. This gives you water with a pleasant amount of minerals for your coffee.

Which version do you have?

	A — compact stainless steel, with remineralisation	**B — without remineralisation**
Webshop name	MembraSAL for Coffee — 100 l/h, compact stainless steel	MembraSAL for Coffee — 100 l/h, without remineralisation
Remineralisation with magnesium	yes	no
Carbon block after the membrane	yes	no
Blending valve	yes	yes
Pre-filter in the set	20 inch, carbon and microfibre	10-inch pre-filter set: fine filter and activated carbon with antiscalant
Mains water hardness	up to 5.4 °dH; harder: see chapter 3	up to 15 °dH; harder: softener before it
Replacing the pre-filter	every 3 months	every 3 months (whole set)
Replace remineralisation cartridge and carbon	every 6 months	—

	A — compact stainless steel, with remineralisation	B — without remineralisation
block		

Specifications (A and B)

Component	Specifications
Dimensions (w × d × h)	approx. 42 × 32 × 13 cm, lying flat; 36 cm deep with handle
Weight	approx. 10 kg
Capacity	100 litres per hour at 20 °C water temperature; 65 litres per hour at 10 °C
Reduction of dissolved salts	90 to 95%
Pump operating pressure	6 to 9 bar
Membranes	one
Connections	supply 3/8"; product water 1/4"; drain (flushing water) 1/4"
Power	230 V, 50 Hz, European plug; the unit itself runs on low voltage
Power consumption	1.2 kW; controller 10 W
Operation	display with three buttons: SELECT, CLEAR and FLUSH
Use	intermittent: at most 30 minutes in a row, then at least 15 minutes rest

Cold water gives fewer litres per hour. That is normal with reverse osmosis.

Not intended for continuous operation. The MembraSAL is made for intermittent use: at most 30 minutes at a time, then at least 15 minutes rest. With a pressure tank this happens automatically. This way the unit lasts longest.

3. Before you start

In the box

- The MembraSAL for Coffee
- Supply hose
- Product water hose
- Drain hose (flushing water) with clamp for the drain
- Set of hoses (1/4") and couplings for extra connections
- **A:** 20-inch pre-filter with the first cartridge (carbon and microfibre), and the first remineralisation cartridge and carbon block
- **B:** 10-inch pre-filter with the first pre-filter set (fine filter and activated carbon with antiscalant)

Pressure tank (optional)

The MembraSAL needs a pressure tank on the pipe to the coffee machine. The pressure tank is not included in the set. If you don't have a pressure tank yet (for example in hospitality), add the 18-litre pressure tank: **Pressure vessel for MembraSAL** (18 litres).

The right location

- A dry, frost-free room: between 5 and 40 °C. Also during storage before installation.
- Well lit (at least 150 lux) and well ventilated.
- Flat under the bar, in a cabinet or on the wall.
- A power socket and a drain nearby.
- Enough space for the installer and to replace filters. Leave at least 4 cm free below the pre-filter.

Water, connections and power

The membrane is sensitive. The water entering the MembraSAL therefore first passes through the pre-filter from the set.

Component	Requirement
Supply water pressure	2.5 to 6 bar; fluctuations at most 1 bar
Supply water temperature	5 to 30 °C
Hardness	**A:** at most 5.4 °dH. **B:** up to 15 °dH, thanks to the antiscalant in the pre-filter set. If your water is harder, see below.
Free chlorine	0 mg/l in the water before the pre-filter. Dutch mains water normally meets this. If there is free chlorine in your water, an extra activated carbon cartridge must be fitted before it.
Dissolved salts	less than 1,500 ppm
Acidity (pH)	6.5 to 9 in normal use
Turbidity	less than 1 NTU; silt density index (SDI) less than 3
Iron and manganese	each less than 0.1 mg/l
Oil and odour	no oil; odourless
Supply connection	3/8"
Product water and drain connection	1/4"
Flushing water drain	in accordance with the regulations that apply where you are
Pressure tank	on the pipe to the coffee machine; if you don't have one yet, choose the Pressure vessel for MembraSAL (18 litres). Air pressure in the tank: 1 – 1.2 bar
Power	230 V, 50 Hz, European plug (1/N/PE), circuit of at least 10 A

How hard is your water? Dutch mains water is usually about 5 to 15 °dH. You can find your water hardness by entering your postcode on your water company's website.

B: up to 15 °dH the pre-filter set from the set is sufficient. If your water is harder than 15

°dH, install a water softener before it, such as ZeNO.

A: harder than 5.4 °dH? Then the standard pre-filter cartridge from the set is not sufficient. Choose one of these two:

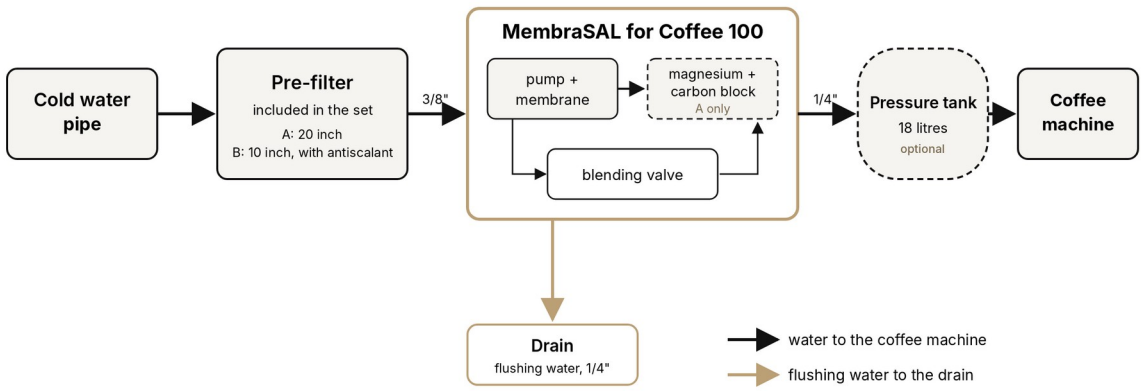
- **Pre-filter cartridge 20 inch — carbon, microfibre and antiscalant** instead of the standard cartridge. The antiscalant prevents limescale from precipitating on the membrane. You order this cartridge separately from H2Ot.
- **A water softener before it**, such as ZeNO or another softener.

If in doubt, ask your installer.

4. Installation

This part is for the installer.

Set-up MembraSAL for Coffee 100



Schematic, not to scale. A = compact stainless steel with remineralisation; B = without remineralisation. Dotted = A only or optional.

Fitting the pre-filter (A and B)

1. **Water off.** Close the water supply and release the pressure.
2. **Choose a spot.** Choose a spot on the wall. Leave space to unscrew the filter bowl later: at least 4 cm below the bowl.
3. **Fix the bracket.** Drill holes matching the holes in the bracket. Fix the bracket using all mounting holes and plugs suitable for the wall.
4. **Fit the filter cartridge.** Put the filter cartridge in the filter bowl and screw the bowl onto the head.
5. **Mind the direction.** The arrows on the head show how the water flows. Do not swap inlet and outlet.

Connecting the MembraSAL

1. **Position.** Unpack the MembraSAL and place it in its permanent location.
2. **Supply.** Connect the water pipe with a flexible hose to the inlet of the pre-filter. Connect the outlet of the pre-filter to the supply (3/8") of the MembraSAL.
3. **Drain.** Connect the drain hose (1/4", red) to the drain, using the clamp supplied.
4. **Product water.** Connect the product water hose (1/4", blue) to the pressure tank, and from there to the coffee machine. Do not swap the red and blue hoses.
5. **Flush the pre-filter.** First flush a new pre-filter to the drain, before the water goes to the MembraSAL. Carbon, iron particles or oil must not reach the membrane.
6. **Water on.** Open the water and check that everything stays dry.
7. **Power.** Plug into the socket. The MembraSAL first flushes for 30 seconds and then starts working normally.

8. **Flush.** Let the MembraSAL run for about 10 minutes and let the product water run to the drain, before connecting the coffee machine.
9. **Leak check.** Close the product water outlet, wait 5 minutes and check that all couplings are dry.
10. **Blending valve and filter counter.** Set the blending valve (see chapter 5). The installer leaves the filter counters at the factory start values.

5. Commissioning and setup

The control panel

The display shows what the MembraSAL is doing with lights and numbers. Below the display are three buttons.

On the display	Meaning
PURIFY	Lit when the MembraSAL is producing water
TDS – PPM	How many dissolved substances are still in the product water, in ppm. The lower, the purer.
F1 and F2	Coloured bars: how long the pre-filters will last
FLUSH	Lit during flushing
TIME – S	How many seconds of flushing remain
FULL	Lit when the pressure tank is full; the MembraSAL is then at rest
CHECK	Lit in the event of a fault: see chapter 8

Button	What it does
SELECT	Select, for example which filter bar you want to reset
CLEAR	Cancel a selection, or (held down) reset a filter counter
FLUSH	Start manual flushing (30 seconds)

Setting the blending valve (A and B)

With the blending valve you determine how much pre-filtered water is added to the product water. With A, that water then also passes through the remineralisation and the carbon block. More blending gives more minerals, and therefore a higher TDS – PPM reading. The valve is on the front, on the display side.

1. Loosen the lock nut of the blending valve.
2. Turn the control knob a little. Fully closed **clockwise** means: no blending.
3. Wait a moment until the TDS – PPM reading is stable.
4. Satisfied? Lock the valve with the lock nut.

Which value suits your coffee? That differs per coffee and per machine. Agree the value with your coffee supplier or the supplier of your coffee machine.

6. Daily use

- **PURIFY is lit** when the MembraSAL is producing water. The display then also shows the TDS value.

- **FULL is lit** when the tank is full. That is normal. The MembraSAL then flushes for 10 seconds and goes to rest.
- **Flushing manually:** press FLUSH. Flushing takes 30 seconds; after that the MembraSAL simply continues.
- **Do the F1 or F2 bars turn red?** Then it is time to replace the pre-filter (chapter 7).
- **Is CHECK lit?** See chapter 8.
- **Check now and then** that the hoses and couplings are dry.

7. Maintenance and replacement

These intervals come from the manufacturer. Stick to them, even if the water still seems fine.

When	What	Who
Every 3 months, or sooner if the water pressure becomes too low	**A:** replace the pre-filter cartridge. If you use the cartridge with antiscalant (for water harder than 5.4 °dH), replace that cartridge every 3 months. **B:** replace the whole pre-filter set (fine filter and activated carbon with antiscalant).	You or your installer
After each replacement	Reset the filter counter (see below)	You or your installer
Every 6 months	**A only:** replace the remineralisation cartridge and carbon block	You or your installer
Every year	Replace the membrane	Installer
Every year	Service check. What your installer checks every year is described in the service manual supplied on delivery.	Installer
In the event of a fault (see chapter 8)	Check the air pressure in the pressure tank: 1 – 1.2 bar	Installer

Resetting the filter counter

The F1 and F2 bars count down based on how long the MembraSAL has been running. After replacement you reset them:

1. Press SELECT until the bar of the replaced filter flashes.
2. Hold CLEAR until you hear a beep.
3. The bar stops flashing. The counter restarts at the factory start value.

Replacing the pre-filter (A and B)

1. Close the water supply and release the pressure.
2. Unscrew the filter bowl and take out the old cartridge. With B you replace both cartridges of the pre-filter set.
3. Rinse the bowl and the rubber ring with water.
4. Fit the new cartridge and screw the bowl back on.
5. First flush the new filter to the drain, before the water goes to the MembraSAL.
6. Open the water, check that everything stays dry and reset the filter counter.

Replacing the remineralisation cartridge and carbon block (A only)

1. Close the water supply and let the water drain out.
2. Hold down the locking button, turn the cartridge clockwise and take it out.

3. Remove the foil from the new cartridge.
4. Insert the new cartridge into the head and turn it anticlockwise until the locking button clicks.
5. Do the same with the carbon block.
6. Open the water, check for leaks and reset the filter counter.

Replacing the membrane (installer)

1. Unplug.
2. Close the water and release the pressure, also on the product water pipe.
3. Undo the screws at the back and remove the top.
4. Disconnect the membrane from the quick couplings (supply, product water, flushing water): remove the locking clip, press in the collar and pull out the hose.
5. Fit the new membrane in the same place.
6. Wet the hoses and push them back in as far as they will go. Refit the locking clips. Do not swap the red (flushing water) and blue (product water) hoses.
7. Without the cover, switch the water and power back on and flush as at the first commissioning.
8. Close the product water outlet, wait 5 minutes and check that everything is dry.
9. If everything is dry, refit the cover and tighten the screws.

Checking the air pressure in the pressure tank (installer)

1. Empty the tank: close the supply to the MembraSAL and let the water run out of the tank.
2. Unscrew the cap of the air valve on the tank and measure the pressure with a low-pressure gauge.
3. If the pressure is below 1 bar, pump in air up to 1 – 1.2 bar.
4. Refit the cap, close the tank outlet and reopen the supply.

Only use original cartridges and membranes from H2Ot. How to order them:

- **A and B — membrane:** Replacement membrane — MembraSAL for Coffee 100 l/h.
- **A — pre-filter:** SorCA replacement cartridge 20 inch — carbon and microfibre, or for water harder than 5.4 °dH the Pre-filter cartridge 20 inch — carbon, microfibre and antiscalant.
- **A — remineralisation:** the remineralisation cartridge with magnesium and the carbon block for the MembraSAL for Coffee.
- **B — pre-filter:** Pre-filter set 10 inch — fine filter and carbon with antiscalant.

8. Troubleshooting

What do you see?	Possible cause	Solution
SOURCE is lit and you hear a beep	Low or no water pressure on the supply	Check that the tap is open and that enough water is coming in
	Pre-filter blocked	Replace the filter cartridge
CHECK is lit	The MembraSAL has run too long continuously	Switch it off for 15 to 20 minutes. After that it should start flushing. If it doesn't, press CLEAR. If that doesn't help, contact your installer.
F1 or F2 red, and you hear a beep	Pre-filter is due for replacement	Replace the cartridge and reset the counter
The tank fills too slowly	Membrane fouled	The installer replaces the

What do you see?	Possible cause	Solution
		membrane
	Pump delivers too little pressure	Contact your installer
	Mains water with too many dissolved substances	The water must contain less than 1,500 ppm. Have your installer take a look.
	Mains water too cold	The water must be warmer than 5 °C
The tank is full, but the MembraSAL keeps running	Pressure switch set too high or broken	The installer adjusts or replaces the switch

Not working? First contact your installer. If something is broken within the warranty, email info@h2ot.nl with your order number and a photo. You will hear from us within 4 working days.

9. Safety

- Leave installation and electrical work to a professional. Unplug first before opening the cover.
- Make sure the water and pipes are depressurised before disconnecting anything.
- After every maintenance, check that all couplings stay dry before switching the MembraSAL back on.
- Do not let the MembraSAL run for more than 30 minutes continuously without rest.
- Ensure enough light and ventilation, and avoid slipping on spilled water.
- Transport and store the MembraSAL dry and frost-free, between 5 and 40 °C.
- Follow the water, electrical and drainage regulations that apply where you are.

10. Warranty and disclaimer

Warranty. Your MembraSAL comes with a **2-year warranty** on the main components. Pre-filters, membranes and cartridges are consumables and are not covered. If the product does not work when connected and you report this within 24 hours of installation, we will replace it free of charge, provided it was installed within 3 months of delivery. The installer's costs are your own. Is something broken within the warranty? Email info@h2ot.nl with your order number and a photo; you will hear from us within 4 working days.

Sealed. Membranes and cartridges are supplied factory-sealed. Once the seal is broken, we cannot take them back for hygiene reasons.

No medical advice. This guide is a user manual and not medical advice. Our products are not medicines or medical devices and are not intended to diagnose, treat, cure or prevent any disease. If you have questions about your health, please contact your doctor.

What a filter does. How much a system reduces depends on the composition of your water, the flow rate and timely replacement. The substances mentioned are reduced, not always completely removed.

Liability. To the extent permitted by law, H2Ot is not liable for damage caused by incorrect installation, use that deviates from this guide, or failure to replace consumables in time. Your statutory consumer rights always apply. Please also read our general terms and conditions at h2ot.nl.

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