MembraSAL for Coffee — 120 l/h

User guide · installation, setup and maintenance

Version 1.0 — 17 October 2026

1. Welcome

Thank you for choosing the MembraSAL for Coffee. It is made for busy businesses with several coffee machines. 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 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 in two steps. First the water passes through a pre-filter and two membranes (reverse osmosis). These reduce dissolved salts, including limescale. Then a remineralisation cartridge and a carbon block add magnesium and remove the last off-taste. You set how much with a control valve. This gives you water that suits your coffee and your machines.

The water is stored in a pressure tank inside the unit. When the tank is full, the MembraSAL briefly flushes itself and goes to rest. As soon as you draw water, it starts again.

Component	Specifications
Dimensions (w × h × d)	55 × 58.5 × 28 cm
Capacity	120 litres per hour at 20 °C water temperature; 84 litres per hour at 10 °C
Reduction of dissolved salts	80 to 95%, before remineralisation
Pump operating pressure	6 to 9 bar
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 24 V
Power consumption	0.18 kW
Operation	display with three touch buttons (square, up arrow, down arrow). Your system comes with a phone app; you will receive it on delivery.
Mounting	on the floor or on the wall

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

3. Before you start

In the box

- The MembraSAL for Coffee
- Pre-filter with filter cartridge
- Supply hose
- Product water hose
- Drain hose (flushing water)
- Clamp for the drain

- Set of extra couplings and hoses
- The first set of remineralisation cartridge and carbon block

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.
- On the floor or on the wall. The pre-filter stands on the floor, fixed to the wall with a bracket.
- A power socket and a drain nearby.
- Enough space for the installer and to replace filters.

Water, connections and power

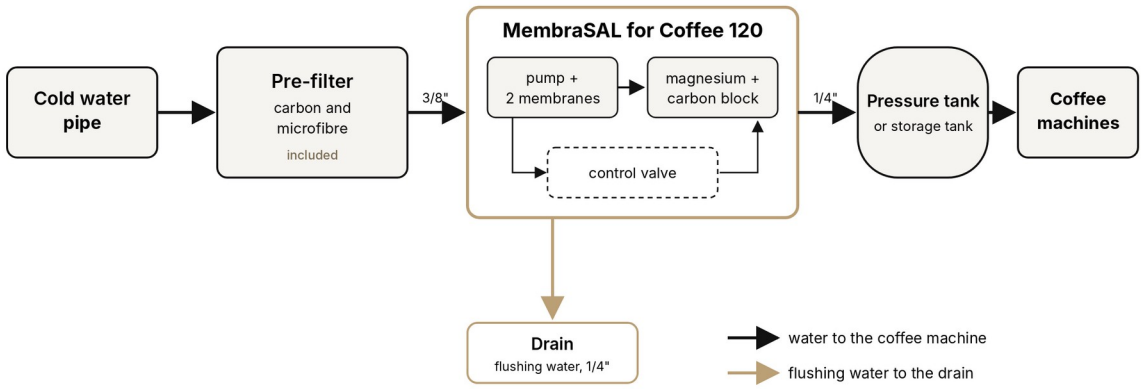
Component	Requirement
Supply water pressure	2 to 6 bar; fluctuations at most 1 bar
Supply water temperature	5 to 30 °C
Hardness	0 to 15 °dH
Dissolved salts	less than 1500 ppm
Acidity (pH)	6.5 to 9 in normal use
Turbidity	less than 1 NTU; silt density index (SDI) less than 3
Iron and manganese	each less 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
Extra pressure tank (optional)	at most 80 litres, with the correct pre-charge pressure
Power	230 V, 50 Hz, European plug (1/N/PE)

You can find your water hardness by entering your postcode on your water company's website. If you don't know whether your water falls within these values, ask your installer.

4. Installation

This part is for the installer.

Set-up MembraSAL for Coffee 120



Schematic, not to scale. The plug goes into a standard socket (230 V).

1. **Position.** Unpack the MembraSAL and place it in its permanent location, on the floor or on the wall.
2. **Pre-filter.** Place the pre-filter on the floor, with the bracket fixed to the wall. Check that the filter cartridge is in place.
3. **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.
4. **Drain.** Connect the drain hose (1/4") to the drain, using the clamp supplied.
5. **Bleed.** Open the water. Hold the red button on top of the pre-filter until all the air is out and the supply pressure gauge shows pressure.
6. **Power.** Plug into the socket. The MembraSAL first flushes automatically and then starts working normally.
7. **Leak check.** Fully close the remineralisation control valve. Check that everything stays dry.
8. **Flush.** Let the MembraSAL run for about 10 minutes and let the product water run to the drain.
9. **Set the remineralisation.** Set the control valve (see chapter 5). Then flush to the drain for another 10 to 20 minutes.
10. **Connect to the machines.** Connect the product water hose (1/4") to the coffee machines, via a pressure tank or a storage tank with float. The MembraSAL is now ready for use.
11. **Counter.** The filter counter stays at the factory start value.

5. Commissioning and setup

The control panel

The display has lights with a name on the left and right. A small arrow shows which value you are currently seeing. Below the display are three buttons: the **square button** (select and confirm), **up arrow** and **down arrow** (scroll and adjust values).

On the display	Meaning
PERM. µS	Conductivity of the water coming out, in µS. The higher, the more dissolved minerals.
FEED µS	Conductivity of your mains water, in µS
CARTRIDGE	How many litres the filters will still last
PERM. FLOW	How much water is being produced now, in litres per minute
FLUSH	Flushing, in seconds

On the display	Meaning
SETTINGS	Settings menu
STAND BY	At rest: the tank is full
LOW PRES.	Water pressure on the supply too low

For the first 2 minutes after switching on, you see dashes at PERM. µS. Then the value appears. The display can measure values up to 1700 µS. If the value is higher, you also see dashes.

Setting the remineralisation

With the control valve you determine how much water passes the remineralisation cartridge, and therefore how much magnesium goes into your water. You see the result as the PERM. µS reading. More minerals gives a higher number.

1. Press the **up arrow** to keep only PERM. µS on screen. The display then does not switch for 2 minutes.
2. Remove the cover of the unit and loosen the lock nut of the control valve.
3. Slowly turn the valve **clockwise** for more minerals (higher number), or **anticlockwise** for fewer.
4. Wait a moment until the number is stable. Satisfied? Lock the valve with the lock nut.
5. Refit the cover. Press the up arrow once more to let the display switch again.

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

Note: the MembraSAL warns when PERM. µS is higher than the alarm value (factory setting 200 µS). If you end up above that value after setting the remineralisation, have the installer adjust the alarm value.

Settings (installer only)

Select SETTINGS with the arrows and press the square button. Scroll with the arrows, select a setting with the square button, adjust with the arrows and confirm with the square button. Select ESC to close the menu.

No.	Setting	Range	Factory
P-1	Flushing time	1 – 60 seconds	10 seconds
P-2	Number of drain valve openings per minute	1 – 5	2
P-3	Duration of those openings	1 – 28 seconds	4 seconds
P-4	Flow meter setting — do not change	1 – 1400	1300
P-5	Filter counter	1 – 9999 litres	9999 litres
P-6	PERM. µS alarm value	1 – 2000 µS	200 µS

6. Daily use

- **The display** automatically alternates between PERM. µS, FEED µS, CARTRIDGE and PERM. FLOW.
- **STAND BY** means the tank is full. That is normal. When entering and leaving rest, the MembraSAL briefly flushes.

- **Is PERM. µS flashing?** Then the value is higher than the alarm value. See chapter 8.
- **Are the bottom bars flashing and is CARTRIDGE at 0?** Then it is time to replace the filters (chapter 7).
- **Flushing manually:** select FLUSH with the arrows and press the square button. Pressing again stops the flushing.
- **Check now and then** that the hoses and couplings are dry.

7. Maintenance and replacement

Stick to these intervals, even if the water still seems fine.

When	What	Who
Every 6 months, or sooner if the water pressure becomes too low	Replace the cartridge in the pre-filter	You or your installer
Every 6 months	Replace remineralisation cartridge and carbon block	You or your installer
Every year	Replace the membranes and booster pump	Installer
Every year	Service check. What your installer checks every year is described in the service manual supplied on delivery.	Installer
Every 2 years	Replace the pressure tanks (product water and flushing water)	Installer
In the event of a fault (see chapter 8)	Check the air pressure in the tanks: product water tank 0.7 – 1.0 bar, flushing water tank 1 – 1.2 bar	Installer
After each replacement	Reset the filter counter: hold both arrow buttons together for 6 seconds	You or your installer

Replacing the pre-filter

1. Close the water supply to the pre-filter.
2. Disconnect the quick couplings by loosening the union nuts. Take the filter out of the holder and let the water drain out.
3. Loosen the wing nut, remove the clamp band and take off the head. Pull the old cartridge off the central coupling.
4. Rinse the inside of the head, the bowl and the rubber ring with water.
5. Fit the new cartridge. Reassemble the head and bowl with the clamp band and tighten the wing nut until it stops.
6. Put the filter back in the holder. Note the arrow on the head: it points in the flow direction. Do not swap inlet and outlet.
7. Open the water and check that everything stays dry.

Replace remineralisation cartridge and carbon block

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.

Only use original cartridges and membranes from H2Ot. You order them as: **SorCA replacement cartridge 20 inch — carbon and microfibre**, **Replacement membrane — MembraSAL for Coffee 120 l/h** (two per system), and the remineralisation cartridge with magnesium and the carbon block for the MembraSAL for Coffee.

8. Troubleshooting

What do you see?	Possible cause	Solution
LOW PRES. is lit; the MembraSAL does not work until this is resolved	Too little or no water pressure on the supply	Check that the tap is open. The supply must deliver at least 2 bar.
	Pre-filter blocked	Inspect the pre-filter and replace the cartridge if necessary
	Pressure sensor opening blocked	Have the installer check the sensor
Bottom bars flashing, CARTRIDGE at 0	Filters are due for replacement	Replace the filters and reset the counter (both arrows for 6 seconds)
PERM. µS flashing	Membrane fouled	The installer has the membrane replaced
	Pump delivers too little pressure	The installer checks the pump
	Mains water with a lot of dissolved salts	Have the values of your mains water checked (chapter 3)
	Too little water drawn	Draw water or flush manually (FLUSH)
STAND BY is lit, but the tank is empty	Problem in the pipe to the machines or in the pressure sensor	Check the pipe; have the installer check the sensor
STAND BY is lit and the MembraSAL keeps switching on and off	Remineralisation cartridge blocked or used up	Replace the cartridge
	Air pressure in the tank not correct (should be 0.7 – 1.0 bar) or pressure switch not correct	The installer checks and replaces the tank and pressure switch if necessary
The MembraSAL runs, but no water comes out	Pump or inlet valve defective (the pump pressure gauge should show 5 to 10 bar)	Contact your installer
Dashes at PERM. µS or FEED µS	The first 2 minutes after switching on, or value higher than 1700 µS	Wait a moment; if it persists, have the values checked

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

- Electrical work only by a professional. First unplug and make sure there is no more voltage.
- 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 open the housing for repairs; the installer does that.
- 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 building 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, remineralisation cartridges and carbon blocks 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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