USER MANUAL

# Safir Water Purifier

5-stage reverse osmosis · 75 GPD · With / without pump · 12 L tank

**5** stages
Filtration




3-05-SAF

Made in Türkiye

# Contents


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Read the whole manual before installing the unit and keep it near the unit. This manual covers both the pump and the non-pump version; information that applies only to the pump version is marked “Pump model”.

# 01 Safety

**Cold water only**

Feed water must be 5–38 °C. Do not connect the unit to a hot water line.

**Mains water**

Use microbiologically safe mains water. Well and spring water need pre-treatment.

**Pressure**

If mains pressure is above 7 bar, use a pressure reducer.

**Location**

Choose a dry, level place protected from frost and direct sunlight.

**Electricity**

Pump model: Plug the adapter into an earthed socket. Do not touch it with wet hands; do not run the unit if the cable is damaged.

**Close the valve**

Close the valve (on the pump model also unplug the adapter) before maintenance, when away for a long time or in case of a leak.

**Users**

The unit must not be used by children or persons with limited abilities.

**Repairs**

Repairs must be done by an authorised service. Use original parts and filters only.

**CAUTION**

Do not use bleach, solvents or abrasive products for cleaning. They damage the membrane.

# 02 Working principle

Reverse osmosis forces water under pressure through a very fine membrane. Dissolved salts, heavy metals and other contaminants cannot pass and are sent to the drain with the reject water.

The Safir **has a storage tank**: purified water is stored in the pressure tank and comes from the tank when you open the faucet. When the tank is full, the shut-off valve closes the feed water (on the pump model the high-pressure switch also stops the pump) and the unit stops.

**Water is purified**
Water passes the pre-filters and the membrane; reject water goes to the drain.

→

**Stored in the tank**
Purified water collects in the pressure tank.

→

**Served at the faucet**
Water passes the final filter on its way to the faucet.

# 03 Specifications

| | |
|---|---|
| Stock code | **3-05-SAF** |
| Filtration | 5 stages |
| Tank | 12 L metal tank (3.2 gal) |
| Faucet | Luxury faucet |
| Connection | Quick-connect, 3/8" feed adapter |
| Valve | Shut-off valve |
| Unit size | 290 × 460 × 380 mm |
| Package / weight (No pump) | 325 × 550 × 415 mm · 9.40 kg |
| Package / weight (With pump) | 325 × 550 × 415 mm · 11 kg |

| **FEED WATER CONDITIONS** | |
|---|---|
| Feed pressure (no pump) | 3–7 bar |
| Feed pressure (with pump) | 0.2–7 bar |
| Feed water temperature | 5–38 °C (41–100 °F) |
| Feed water TDS | Max. 500 ppm |
| Feed water pH | 3–11 |
| Hardness | Max. 20 °F |
| Pump supply | 24 V DC (via adapter) |

* Nominal value at 25 °C. Output varies with water temperature, pressure and TDS. Lower output with cold water in winter is normal.

# 04 Box contents

**1** Purification unit
filters and membrane fitted



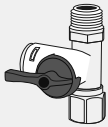
**2** Purified water faucet



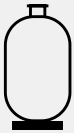
**3** Connection tubing



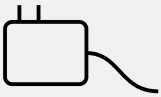
**4** Feed water valve



**5** Pressure tank



**6** Pump adapter (pump model)



**7** User manual



The membrane may come fitted or packed separately. If separate, fit it before installation (page 10).

# 05 Before installation

- ☐ I chose a level, dry, frost-free place out of direct sunlight, with enough room to change the filters.
- ☐ Pump model: there is an earthed socket nearby, protected from splashes.
- ☐ Mains pressure is between 3–7 bar. If higher, I have a pressure reducer.
- ☐ Below 3 bar mains pressure the pump model must be used.

**OBTAIN SEPARATELY**
Drain saddle (clamp) · pressure reducer (recommended)

**TOOLS NEEDED**
Drill, 5 and 12 mm bits, spanner or adjustable wrench, PTFE tape, cutter

# 06 Parts and functions

Numbers match the water path diagram (page 6); the tag shows where the part is found.

## INLET AND PRE-FILTRATION

**1** **Feed water valve** IN THE BOX
Takes water from the cold water line to the unit. Close it for maintenance and when the unit is not used for a long time.

**2** **Pressure reducer** OBTAIN SEPARATELY
Keeps mains pressure steady and safe and protects the unit from pressure surges. **Not included. Mandatory if mains pressure is above 7 bar.**

**3** **2.5" Inline Sediment 5 µm (Quick-connect)** FITTED
Retains sand, rust and sediment. Replace: 6–12 months.

**4** **2.5" Inline GAC Carbon (Quick-connect)** FITTED
Reduces chlorine, taste and odour. Replace: 6–12 months.

**5** **2.5" Inline CTO Carbon (Quick-connect)** FITTED
Reduces residual chlorine and organics. Replace: 6–12 months.

## PRESSURE AND CONTROL

**6** **Shut-off valve** FITTED
Closes the feed water automatically when the tank is full, so no water runs to the drain while the unit is idle.

**7** **Low-pressure switch** PUMP MODEL
Stops the pump when water is cut off or pressure is too low, so the pump never runs dry.

**8** **Pump** PUMP MODEL
Raises the water pressure to the level the membrane needs and keeps production going at low mains pressure.

## PURIFICATION

**9** **75 GPD Membrane Filter** FITTED
Separates dissolved salts and contaminants. Replace: 12–24 months.

**10** **Flow restrictor** FITTED
Builds the pressure the membrane needs and limits reject water. The unit cannot purify if it is removed.

**11** **Check valve** FITTED
Prevents water in the tank from flowing back to the membrane.

**12** **High-pressure switch** PUMP MODEL
Stops the pump when the tank is full or the faucet is closed and restarts it as water is drawn.

## STORAGE AND OUTLET

**13** **Pressure tank and tank valve** IN THE BOX
Stores purified water under pressure. The tank valve must be open in use.

**14** **2" Inline Post Carbon (Quick-connect)** FITTED
Polishes taste and odour as the final stage. Replace: 6–24 months.

**15** **Purified water faucet** IN THE BOX
Supplies purified water only.

# 07 Water path and installation

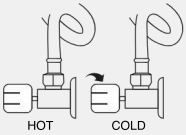
Water flows through the unit in this order. Numbers match the parts list (page 5).

1. Feed water valve
2. Pressure reducer
3. 2.5" Inline Sediment 5 µm (Quick-connect)
4. 2.5" Inline GAC Carbon (Quick-connect)
5. 2.5" Inline CTO Carbon (Quick-connect)
6. Shut-off valve
7. Low-pressure switch
8. Pump
9. 75 GPD Membrane Filter
10. Flow restrictor
11. Check valve
12. High-pressure switch
13. Pressure tank and tank valve
14. 2" Inline Post Carbon (Quick-connect)
15. Purified water faucet

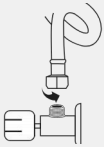
**Reject water:** From the membrane to the drain

## STEP 1 Water inlet ①

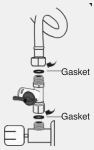
**A** Close the cold water angle valve under the sink.



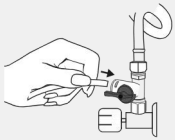

**B** Remove the flexible hose from the angle valve.



**C** Fit the feed water valve in between with its gaskets and tighten.



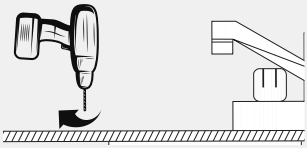

**D** Connect the unit's inlet tubing to the valve.



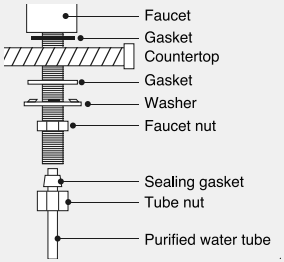
* If a pressure reducer is used, fit it between the valve and the unit.

## STEP 2 Faucet

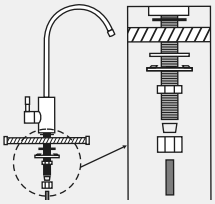
**A** Drill the worktop with a 5 mm, then a 12 mm bit. Use a diamond bit on marble and granite, an HSS bit on steel sinks.



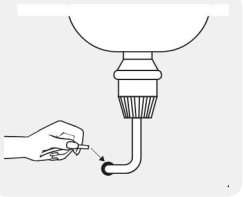
**B** Fit the parts in this order and tighten the nut.




**C** Connect the purified water tubing to the faucet with the nut and insert.



## STEP 3 Reject water



Fit the drain saddle (clamp) to the sink drain pipe, **above the trap**. Drill the pipe through the clamp hole and connect the reject water tubing.

The tubing must not kink and must slope down to the drain. Do not remove the flow restrictor.

## STEP 4 Pressure tank

Wrap PTFE tape on the tank thread and fit the tank valve by hand. Connect the tank tubing to the valve and stand the tank upright next to the unit.

STEP 5 **Connections**

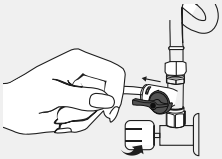
| UNIT CONNECTION | CONNECT TO |
|---|---|
| Water inlet | Feed water valve / pressure reducer |
| Tank outlet | Tank valve |
| Purified water (final filter outlet) | Faucet |
| Reject water (flow restrictor outlet) | Drain saddle |



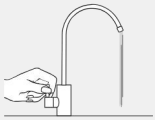
- Cut the tubing to length **squarely** with a cutter.
- Push the tubing fully into the fitting. Pull back gently to check it is seated.
- Pump model: plug in the adapter only after all water connections are complete.

# 08 First start-up

**A** Open the valve. Check the filters and connections for leaks.



**B** Open the tank valve and wait for the tank to fill (about 1–2 hours). Drain **the first full tank** completely through the faucet.



- When the tank has filled again, the unit is ready for use.
- A white, milky look in the first days is air and clears by itself.
- If the unit has not been used for more than 2 days, discard the first 1–2 minutes of water.

# 09 Maintenance and filter change

| STAGE | FILTER | FUNCTION | REPLACE |
|---|---|---|---|
| **1** | 2.5" Inline Sediment 5 µm (Quick-connect) | Retains sand, rust and sediment | **6–12 months** |
| **2** | 2.5" Inline GAC Carbon (Quick-connect) | Reduces chlorine, taste and odour | **6–12 months** |
| **3** | 2.5" Inline CTO Carbon (Quick-connect) | Reduces residual chlorine and organics | **6–12 months** |
| **4** | 75 GPD Membrane Filter | Separates dissolved salts and contaminants | **12–24 months** |
| **5** | 2" Inline Post Carbon (Quick-connect) | Polishes taste and odour as the final stage | **6–24 months** |

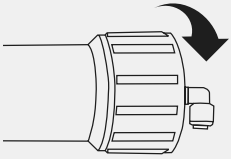
Intervals depend on water quality and use and are shorter with heavy use. Less water or a change in taste means it is time to replace. Replace the filters at least every 12 months.

### Inline filters (quick-connect)

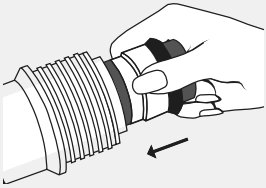
1. Close the valve and the tank valve (on the pump model also unplug the adapter). Open the faucet to release pressure.
2. Press the collets at both ends of the filter and pull the tubing out.
3. Fit the new filter **with the arrow pointing in the direction of flow** and push the tubing fully in.
4. Open the valves and check for leaks. Discard the first 10 minutes of water.

# 10 Membrane change

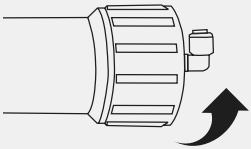
**A** Remove the tubing and open the cap in the direction of the arrow.



**B** Push the new membrane in, O-ring end first.



**C** Close the cap firmly in the direction of the arrow.



1. Close the valve (on the pump model also unplug the adapter) and open the faucet to release pressure.
2. Pull the old membrane out with pliers and clean the inside of the housing.
3. When fitting the new membrane, the black brine seal must be **on the cap side**.
4. Turn the water on (on the pump model plug in the adapter), discard the first **15 minutes** of water; on tank units drain the first full tank and check for leaks.

# 11 Cleaning and storage

- **Cleaning:** wipe the outside with a damp cloth. Disinfection by an authorised service once a year is recommended.
- **Not used for over a month:** close the valve (on the pump model also unplug the adapter) and empty the tank through the faucet. Before using again, replace the filters and have the unit disinfected.
- **Transport:** close the valve and drain the unit. Carry it upright; protect it from impact, heat, moisture, dust and sunlight. Do not store where it can freeze.
- **Disposal:** bag used filters and tie them closed; do not cut or open the membrane. Take the pump and electrical parts to an e-waste collection point.

# 12 Troubleshooting

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| **No water or little water** | Valve or tank valve closed | Open the valves. |
| | Pre-filters clogged | Replace the pre-filters. |
| | Tubing kinked or crushed | Straighten the tubing. |
| | Cold feed water (winter) | Normal; output rises as the water warms. |
| **Tank does not fill** | Low mains pressure | Check the pressure; below 3 bar the pump model is needed. |
| | Membrane clogged | Replace the membrane. |
| **Water runs to the drain when the tank is full** | Shut-off valve or check valve faulty | Close the valve and contact service. |
| **Pump does not run** | Adapter unplugged, no power | Check the plug and socket. |
| | No water or valve closed | Check the valve and the mains water. |
| | Switch, adapter or pump fault | Contact service. |
| **Pump runs continuously or cycles on and off** | Faucet not fully closed or a leak in the line | Check the faucet and connections. |
| | High-pressure switch faulty | Contact service. |
| **Milky water, foam** | Air in the system | Normal; clears shortly. |
| **Bad taste or odour** | Filters at end of life | Replace the filters. |
| | Not enough water run after installation or a change | Drain the first tank or run the faucet for 15 minutes. |
| **Leaks at connections** | Tubing not pushed fully in or cut at an angle | Cut the tubing square and refit. |
| | Seal out of place | Seat or replace the seal. |
| **Noise from the unit** | Uneven floor or unit touching the cabinet | Place the unit on a level surface, clear of anything. |

**IF THE PROBLEM PERSISTS**
Close the valve, unplug the adapter and contact an authorised service.

# 13 Maintenance log

MODEL

☐ Without pump ☐ With pump

SERIAL NO

INSTALLATION DATE

.... / .... / .....

INITIAL OUTLET TDS

ppm

| DATE | STAGE REPLACED (✓) | | | | | OUTLET TDS | BY / SIGNATURE |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | | |
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Keep this manual near the unit.

**HSC Water** · hscwater.com · +90 (212) 914 14 34

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