

Installation and operating manual

WATEX RO75GPD

REVERSE OSMOSIS SYSTEM (without pump)



Read this manual carefully before installation and use.

Introduction

Thank you for choosing WATEX equipment for the preparation of clean drinking water.

Attention! Read the complete operating instructions before unpacking or starting the installation.

This system is intended for the preparation of drinking water. It is normally installed in a kitchen cabinet under the sink, close to the cold-water supply and drain. The treated water may be used for drinking, food preparation and beverages.

1. The water filter set includes

The equipment is supplied in two packages containing:

- drinking-water filter system with filter housings
- filter cartridges
- purified-water pressure tank
- drinking-water faucet
- filter-housing wrench
- feed-water connection set with valve, adapter and seals
- drain connection set with drain saddle and tubing
- mounting screws
- installation and operating manual

2. Water filter technical specifications

Filter-system dimensions: 420 x 160 x 467 mm (length x width x height)

Purified-water tank dimensions: 240 mm diameter x 350 mm height

Filter-system weight with water: 10 kg

Working pressure: 2.4-4.0 bar

Feed-water temperature: +5 to +38 °C

Ambient temperature: +5 to +50 °C

Minimum feed-water requirement: central water supply or iron-free groundwater

Required connections: cold-water supply and drain

Nominal production: up to 12 L/h or 290 L/day*

Usable purified-water volume in tank: approximately 5 L

Purified-water-to-drain-water ratio: approximately 1:3**

** Actual production depends on feed-water pressure, temperature and total dissolved solids (TDS).*

*** Drain-water volume decreases as feed pressure increases within the permitted range.*

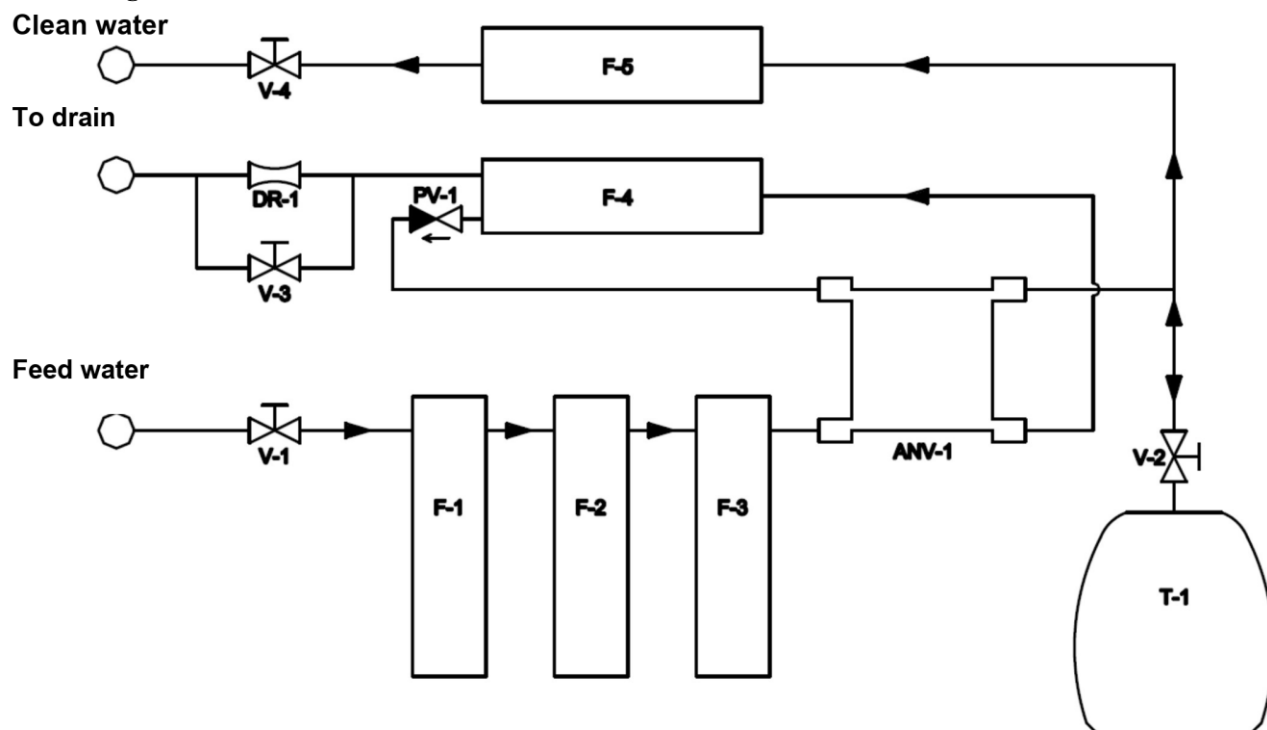
3. RO75GPD operating principle

The WATEX RO75GPD is a five-stage drinking-water treatment system combining mechanical prefiltration, activated-carbon adsorption and reverse osmosis. The prefilters reduce sediment, rust, turbidity, free chlorine, odours and organic compounds. The reverse-osmosis membrane reduces dissolved salts, heavy metals, nitrates, nitrites, ammonium, pesticides, colloids and microorganisms. The carbon postfilter improves the taste and odour of the treated water. No treatment chemicals are dosed. The automatic shut-off valve stops the feed and drain flows when the storage tank is full. The manual flush valve allows the membrane surface to be rinsed periodically.

The system contains five treatment stages:

1. **Polypropylene sediment cartridge (5 µm)** - removes sediment, rust, turbidity and suspended particles.
2. **Activated-carbon cartridge** - reduces free chlorine, unpleasant taste and odour, colour, and organic or organochlorine compounds.
3. **Polypropylene fine-filter cartridge (1 µm)** - retains fine particles and activated-carbon dust to protect the RO membrane.
4. **Reverse-osmosis membrane (nominal pore size 0.0001 µm)** - is the principal treatment stage and reduces dissolved salts, metals, organics, colloids and microorganisms.
5. **Activated-carbon postfilter** - conditions the stored water immediately before it reaches the drinking-water faucet.

4. Technological schematic



Abbreviations

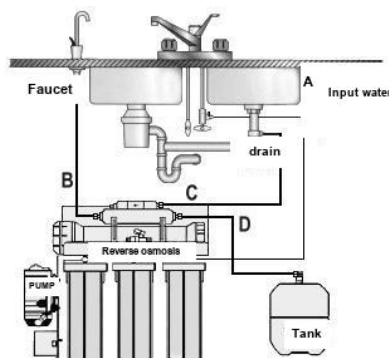
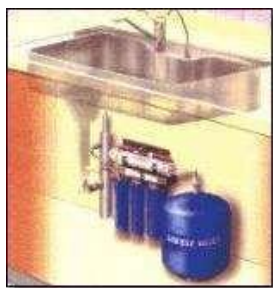
V-1 feed-water valve
V-2 purified-water tank valve
V-3 RO membrane flush valve, normally closed
V-4 drinking-water faucet
F-1 5 µm sediment cartridge
F-2 activated-carbon cartridge
F-3 1 µm sediment cartridge

F-4 reverse-osmosis membrane
F-5 coconut-shell activated-carbon postfilter
PV-1 check valve
ANV-1 automatic shut-off valve
DR-1 flow restrictor
T-1 purified-water pressure tank

5. Technical requirements for installation and use

- Use only microbiologically safe cold water of known quality. Provide adequate disinfection before or after the system if the feed water is not microbiologically safe.
- Confirm that enough space is available for the system, pressure tank, tubing and drinking-water faucet.
- No electrical connection is required. The pressure tank may stand upright or lie on its side. If necessary, place it in an adjacent cabinet without kinking the tubing.

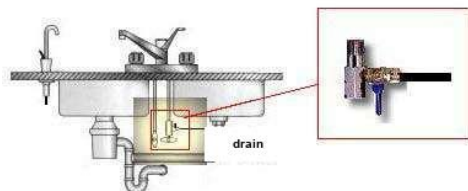
5.1. Installation arrangement under a kitchen sink



5.2. Feed-water connection

Connect the system to the cold-water supply only. Close the feed-water shut-off valve before beginning work.

1. The standard set contains a 1/2 in threaded feed-water adapter, seals and a 1/4 in feed-water valve.
2. Apply 3-4 turns of PTFE sealing tape to the valve thread and screw the valve into the side port of the adapter. Do not overtighten.
3. Close the dwelling's cold-water shut-off valve and release pressure at the sink faucet. Disconnect the flexible hose, install the adapter without twisting the pipework, and reconnect the hose.



FEED-WATER CONNECTION INSTALLATION

5.3. Drinking-water faucet installation

Use an existing spare sink opening where available. If a new opening is required:

1. For porcelain or enamel, use a variable-speed drill with a carbide-tipped bit to remove the surface layer within a 13 mm circle, without striking the metal base.
2. Drill a 7 mm pilot hole slowly through the base material. A drop of cutting oil may be used on metal.
3. Enlarge the hole to 13 mm. Insert the faucet, fit the washers and nut underneath, and tighten the 9/16 in nut while holding the faucet in position.

5.4. Drain saddle installation

1. Choose a point on a straight section of the drain pipe, away from a waste-disposal unit and above the trap.
2. Drill a 7 mm hole in the drain pipe.
3. Align the saddle opening and sealing pad with the drilled hole. A drill bit may be used temporarily for alignment.
4. Tighten both saddle screws evenly. Do not overtighten.

5.5. Purified-water pressure tank installation

1. Apply 4-5 turns of PTFE sealing tape to the tank's metal thread.
2. Thread the plastic tank valve on by hand until sealed. Do not cross-thread or overtighten it.
3. With the tank empty, verify an air precharge of 0.7-0.9 bar. Adjust only with the water side fully depressurised.

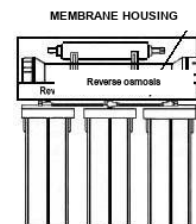
5.6. System placement and wall mounting

1. Mark the two screw positions using the mounting bracket on the back of the system.
2. Install suitable screws, leaving the heads slightly proud.
3. Hang the system securely on the screw heads and confirm that it cannot lift free during servicing.

5.7. Reverse-osmosis membrane installation

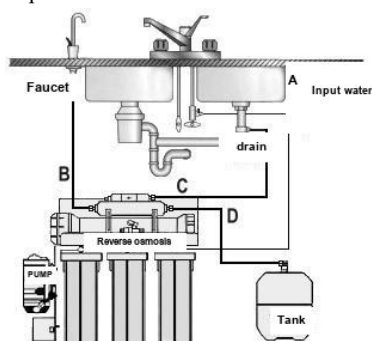
Keep the membrane in its sealed original packaging until installation to prevent contamination and transport damage.

1. Unscrew the membrane-housing cap.
2. Remove the membrane from its packaging. Insert the end with the small O-rings first and push it fully into the housing socket. The brine seal remains toward the threaded cap end.
3. Check that the housing O-ring is clean and correctly seated, then refit and tighten the cap by hand.



5.8. Tubing connections

Cut four separate lengths from the supplied 1/4 in (approximately 6.35-7 mm OD) tubing. Make square cuts and push every tube fully into its quick connector.



- A. Connect the feed-water valve to the inlet of the first, 5 µm prefilter housing.
- B. Connect the outlet of the final carbon postfilter to the drinking-water faucet.
- C. Connect the drain saddle to the membrane concentrate line through the flow restrictor.
- D. Connect the pressure tank to the T-connector at the outlet of the final carbon postfilter.

5.9. First commissioning

1. With all connections complete, keep the tank valve closed and slowly open the feed-water valve. Inspect every connection for leaks.
2. Open the drinking-water faucet. Water should begin to drip after several minutes; initial air and carbon fines are normal.
3. Let water run to drain through the faucet for 30 minutes to flush the prefilters and carbon postfilter.
4. Close the faucet and open the tank valve. Allow the tank to fill, typically for 2-3 hours.
5. Open the faucet and drain the first full tank completely. Close the faucet and allow the tank to refill before drinking the water.

6. Troubleshooting

Problem	Possible cause	Corrective action
Water leak	Damaged seal or loose connection	Reseat or replace the seal; remake and tighten the connection correctly.
Reduced purified-water flow	Low feed pressure	Measure the feed pressure and restore it to the specified range.
Reduced purified-water flow	Clogged or exhausted cartridges	Inspect and replace the affected cartridges.
Reduced purified-water flow	Feed-water valve V-1 partly or fully closed	Open V-1 fully.
Water taste or odour has changed	Exhausted carbon media	Replace cartridges F-2 and F-5.
Water taste or odour has changed	Damaged or exhausted membrane	Replace membrane F-4.
Water taste or odour has changed	Water has stood unused in the tank	Drain the tank and sanitise the system before returning it to service.
Water flows continuously to drain	Automatic shut-off valve faulty or tank pressure incorrect	Check the tank precharge and replace ANV-1 if necessary.

If the problem remains, contact Watex Estonia OÜ: 58862212 or info@veefiltrid.ee.

7. Warranty

Keep the purchase document and any warranty card supplied with the product. Manufacturing defects identified during the stated warranty period are handled in accordance with the manufacturer's instructions and the applicable Watex Estonia OÜ warranty conditions. This commercial warranty does not limit the customer's statutory rights.

When requesting warranty service, provide proof of purchase, the product model and serial number, and a clear description of the fault.

Warranty service may be refused if:

- the product was installed, used or maintained contrary to this manual
- unauthorised repair, alteration or disassembly is evident
- the product identification or serial number has been altered or removed
- damage was caused by foreign matter, freezing, fire, flooding, impact, unsuitable water quality, pressure outside the specified range or another external event
- non-approved cartridges, membranes or spare parts caused the fault

8. Water filter maintenance

Replacement intervals depend on feed-water quality and water consumption. Heavy use or poor feed-water quality may require earlier replacement.

5 and 1 µm sediment cartridges	Activated-carbon cartridge	RO membrane	Activated-carbon postfilter
F-1 and F-3	F-2	F-4	F-5
6-12 months	6-12 months	2-3 years or when output falls	6-12 months

9. Filter-cartridge replacement

1. Close feed-water valve V-1 and tank valve V-2.
2. Open faucet V-4 to release all water pressure.
3. Use the housing wrench to unscrew each prefilter housing.
4. Remove the old cartridge. Clean and sanitise the housing as required, then install the correct new cartridge.
5. Inspect, clean and correctly seat every housing O-ring. Refit and hand-tighten the housing with the wrench without overtightening.
6. Open V-1 slowly and inspect for leaks. With V-2 still closed, flush to the open faucet until the water runs clear.
7. Close V-4, open V-2 and return the system to service.

10. Preventive membrane flushing

Flush the membrane regularly to help maintain production and extend membrane life.

Once a month, open membrane flush valve V-3 for 10 minutes while the system is supplied with water, then close V-3 completely.

The increased concentrate flow helps remove part of the deposit accumulated on the membrane surface.

11. Optional treatment cartridges

The following cartridges may be installed where required by the application:

1. alkaline post-treatment cartridge for raising the treated-water pH, up to approximately 8.5 depending on feed water
2. mineralisation cartridge for adding selected minerals to the treated water

WARRANTY TERMS AND CONDITIONS

The manufacturer's commercial warranty period for this equipment is 24 months from the documented purchase date, unless the sales document states otherwise.

The equipment must receive regular maintenance at least once every year and the replaceable elements must be serviced at the intervals stated in this manual.

Warranty obligations are administered by Watex Estonia OÜ in accordance with the manufacturer's conditions, the sales terms and applicable law. The customer must follow the technical limits and operating instructions in this manual.

The commercial warranty applies to manufacturing defects when the product has been correctly installed, operated and maintained. Confirmed covered defects are remedied by Watex Estonia OÜ or its authorised service partner.

The commercial warranty does not apply if:

1. the product is mechanically damaged or its identification labels have been altered
2. the product was stored or operated in unsuitable environmental or water conditions
3. the product was dismantled, modified or repaired by an unauthorised person
4. damage resulted from fire, flood, freezing, war, another force-majeure event or circumstances outside the reasonable control of the customer and supplier
5. the claimed fault was caused by installation or commissioning not performed in accordance with this manual

For warranty service, contact Watex Estonia OÜ at info@veefiltrid.ee or 58862212 and provide proof of purchase.