System & Installation Specifications
Reverse Osmosis (RO) Systems

AQUA SOLUTIONS®

Water purification, pure and simple™

Models: RO2001, RO2002, RO2003, RO2004, RO2006.

- ☐ The system shall remove 94-99% of the dissolved inorganic ions, and up to 99% of the dissolved organics, suspended solids and microorganisms found in ordinary tap water.
- ☐ The system shall produce purified water at an average rate of:

  10 Liters per hour for model RO2001
  20 Liters per hour for model RO2002
  30 Liters per hour for model RO2003
  40 Liters per hour for model RO2004
  60 Liters per hour for model RO2006
- ☐ The system shall start up & shut down automatically, as required to fill the storage tank.
- ☐ The system shall include a low pressure switch to shut the system down in the event of low incoming water pressure.
- ☐ The system shall include an automatic electric solenoid valve that prevents water from flowing through the system to drain when the system is shut down.
- ☐ The system shall include high performance TFC (thin film composite) reverse osmosis membranes.
- ☐ The system shall not require periodic backflushing, fast forward flushing or other cleaning cycles.
- ☐ The system shall include a pressurized storage tank with a pressure switch that automatically shuts the system down when the tank is full, and automatically turns the system back on as water is removed from the tank.
- ☐ The pressurized storage tank shall have a rated capacity of 42 liters (model RO2001), or 130 liters (models RO2002, RO2003, RO2004, and RO2006).
- ☐ The system shall include a 1-micron, high-performance activated carbon/sediment prefilter cartridge (Model RO2001, RO2002, and RO2003).
- ☐ Model RO2004 and RO2006 require the purchase of a two or three stage prefilter assembly that includes an activated carbon filter.
- ☐ The system shall include a flow totalizer to monitor total incoming water usage for prefilter cartridge changeout.
- ☐ The system shall include a digital, temperature compensated TDS meter to monitor water quality.
- ☐ The system shall include product and reject flow meters to monitor and control flow rates.
- ☐ The system's overall dimensions for the cabinet shall be approximately 20" wide by 20" high by 12" deep.
- ☐ The system cabinet shall be bench, shelf, or wall-mountable at no extra charge.
- ☐ The system price shall include a 2 year warranty in the USA and Canada, and a 1 year warranty elsewhere.
- ☐ The system shall be made in U.S.A.

See other side for installation and start-up information.

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Installation and Start-up of AQUA SOLUTIONS' RO Systems

As shipped, AQUA **SOLUTIONS'** Reverse Osmosis Water Purification Systems can be bench, shelf or wall-mounted at no extra charge. While bench mounting affords more flexibility, shelf or wall mounting can get the system up and out of the way, conserving bench space for other uses. Regardless of the initial mounting method, it can be changed at any time. Complete, detailed mounting instructions are included in the Operating Manual.

The system requires a source of incoming feed water at 25-50 psi from a user-supplied shutoff valve located within 15' of the LEFT SIDE of the system, plus 2 grounded 110 VAC electrical outlets within 5' of the right side of the system. Electrical consumption is less than 3 amps total. The system also requires a drain or sink within 15' of the system.

Note that the operating weight of the system can approach 100 pounds. If shelf-mounting, make sure the shelf can support this weight. If wall-mounting, make sure the wall can support this weight. In the case of wallboard attached to metal studs, attach a piece of 3/4" plywood directly to the studs first, and attach the system to the plywood. When wall-mounting, use 4 appropriate "industrial strength" 1/4" lag bolts, 1/4 " toggle bolts, or 1/4" masonry anchor bolts, depending on wall type, to attach the cabinet to the wall.

Except for the user-supplied inlet valve, all items required for installation are included with the system. More detailed instructions are included in the Operating Manual supplied with the system. The system cabinet measures approximately 20" wide by 20" tall by 12" deep. The RO storage tank is external to the cabinet and usually sits on the floor. The 42-Liter RO tank is 15" in diameter by 25" high. The 130-Liter RO tank is 22" in diameter by 40" tall. After mounting the system cabinet, proceed as follows:

a. Install a 1/4", 3/8", or 1/2" NPT female shut off valve on an appropriate water supply line. If the shut off valve is 1/2" NPT, reduce it down to 1/4" or 3/8" NPT female. Make sure valve is closed.

b. Install a 1/4" or 3/8" NPT male by 1/4" tube fitting (both are supplied with system) on shut off valve, using Teflon tape on threads.

c. Install 1/4" OD black polyethylene tubing (20' supplied with system - cut to required length) from 1/4" push-in type water inlet fitting marked "Water Inlet", located on bottom left side of system cabinet, to Jaco type fitting on valved water source.

d. Screw the RO tank valve/gauge assembly, onto the tank outlet using Teflon tape on the threaded fittings. Tighten firmly. Note that on the smaller (42 liter) tank supplied with Model RO2001, the tank outlet is located on top of the tank. On the larger (130 liter) tank supplied with all other models, or as an option on Model RO2001, the outlet is located on the bottom of the tank and passes through a hole in the tank base. Locate the tank on the floor within 15' of the RO system cabinet.

e. Install 1/4" OD red polyethylene tubing (20' supplied with system - cut to required length) from 1/4" push-in type outlet fitting marked "RO Reject", located on right side of system cabinet, to a suitable drain or sink. Note that RO reject water will flow out of this tubing at 8-16 gallons per hour whenever the RO System is running.

f. Install remaining 1/4" OD red tubing from the Jaco fitting on the storage tank drain valve (V-1) to a suitable drain or sink.

g. Install 1/4" OD blue polyethylene tubing (20' supplied with system - cut to required length) from 1/4" push-in type outlet fitting marked "RO Product", located on right side of system cabinet, to Jaco type fitting on the storage tank, located between the pressure gauge and the drain valve (V-1).

h. Install remaining 1/4" OD blue tubing from the 1/4" Jaco tube fitting on the outlet valve (V3) on storage tank to inlet fitting on a Type I Water Purification System, or to other applications. Note that some systems might include 3/8" OD blue tubing, or 1/2" clear tubing, with an appropriate Jaco tube fitting attached to V-3.

i. Open cabinet door and make sure water inlet valve (located on black water inlet tubing on left bottom inside the cabinet) is closed and ALL pressure gauges on the system read zero. Note that the valve is closed when the handle is perpendicular to the direction of flow, and open when parallel to it.

j. Install the ten inch activated carbon prefilter cartridge (part number) in the clear filter bowl, making sure the black gaskets are in place. Attach the filter bowl to the housing located inside the system cabinet, making sure the O-ring on the bowl is in place, and hand-tighten firmly.

k. Note that the RO Cartridge(s) are already installed in the system.

l. Connect the wires that emerge from the back right corner of the system cabinet to the transformer. DO NOT PLUG THE TRANSFORMER POWER CORD INTO THE 110 VAC RECEPTACLE AT THIS TIME.

m. Inspect work done, making sure that system water inlet valve is CLOSED and the system's ELECTRICAL CORDS ARE NOT PLUGGED IN.

n. Follow detailed start-up instructions in the Operating Manual. Call AQUA SOLUTIONS at 800-458-2021 with any technical questions or comments.