

RO100 Reverse Osmosis System



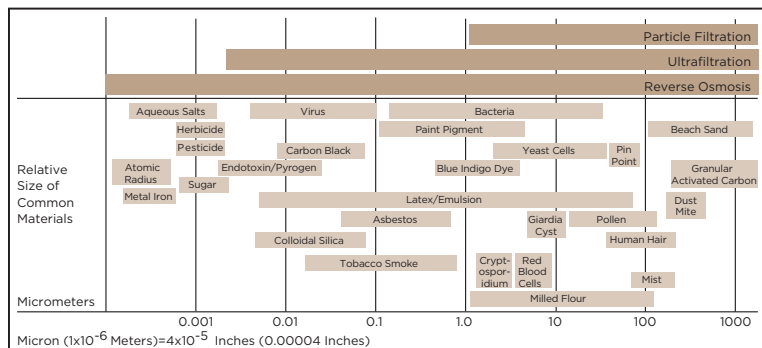
Overview

The Avidity Science RO100 is a reverse osmosis water purification system designed specifically to provide contaminant free water for laboratories and animal research facilities. The RO100 effectively removes contaminants which add uncontrolled variables to your research and can adversely affect animal health.

The system provides 100-200 gallons per day of contaminant free water at a constant flow rate for a variety of laboratory functions. The RO100 is ideally suited for an Avidity Science recirculation or flushing automated watering system.

Control of all RO functions and operating parameters is simplified with the user-friendly control panel.

WATER FILTRATION CHART



Features & Benefits

- Removes 99% of contaminants from incoming water supply for variable free studies.
- Built in conductivity monitoring calculates actual percent of rejection. This is useful in determining when to change the membrane.
- Easy to install prefiltration pack lengthens the life of the membranes.
- Uses industry standard TFC membranes which incorporate the latest industry advancements for optimal filtration.
- Includes one dry contact for connection with optional monitoring equipment.
- User friendly touchscreen allows for precise control of all RO functions and operating parameters, including: viewing of inlet condition, permeate condition, temperature and tank height.
- Automatic flushing cycle to ensure longer life of reverse osmosis membranes.
- Easy to operate and reliable. Allows total control over the water produced for a low operating cost.
- RO100 unit languages include: English, French and German.
- CE listed.
- Up to 50% recovery of water.

*Local water conditions may dictate additional pretreatment to achieve specified performance.

RO100 Reverse Osmosis System

Specifications

UNIT SPECIFICATIONS

Part Number:

- 7120-2200-050 Reverse Osmosis PURO 50 Unit

Reverse Osmosis Unit Dimensions:

- 19.30 in. (W) x 20.10 in. (H) x 11.45 in. (D)
490 mm (W) x 510 mm (H) x 290 mm (D)
- Shipping Weight: 55 lb (25 kg)

Reverse Osmosis Machine:

- Input power: 100-240 VAC, 50/60 Hz, 160 VA
- Thermoplastic housing
- Prefilter (20 micron sediment filter; activated carbon filter)

Reverse Osmosis Pump/Motor Devices include:

- Feedwater prefilters
- Pump
- Membrane
- Control panel
- Switches
- Gauges
- Solenoids
- Meters
- Piping, fittings and valves

OPTIONS

Pre-RO Filtration Options:

- Sand Filter
- Carbon Filter
- Ultrafiltration

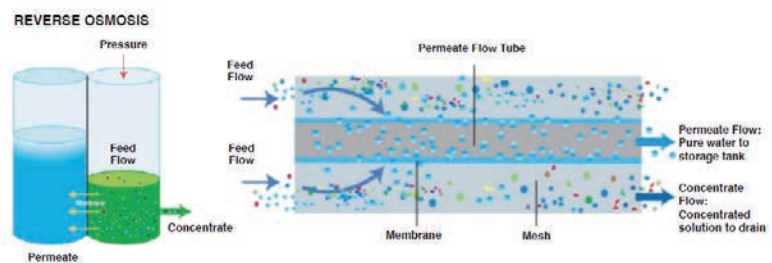
Post-RO Filtration Options:

- pH Monitor
- Post Chemical Injection - Injection Station for Post Chlorination or Post Acidification. These kits are for chlorine or acid injection into the permeate water. The kits consist of wall mounted injection panel, chemical pump and 5 gallon solution tank assembly with required installation plumbing.

Operation

The RO100 Reverse Osmosis Water Purification System is designed to ensure a water supply that is virtually free from contaminants. The system works on the principle of separating prefiltered incoming feed water into a less concentrated solution (permeate) and a more concentrated solution (concentrate) by forcing the water through a semipermeable membrane. The concentrate contains contaminants from the original feed flow, while the permeate is virtually contaminant free. The permeate is funneled to the storage tank to be recirculated through the automated watering system or application.

Membrane life is extended by virtue of the system's automatic back flushing cycles. A user initiated cleaning cycle ensures sanitization of the system using chlorine tablets to protect the system against microbiological growth. Control and monitoring of the system are accomplished with an easy to use touchscreen to view alarms and current measurement values for water quality, temperature and consumables.



Applications

The RO100 is ideally suited for a variety of laboratory functions requiring contaminant free water. The system provides total control of all water purification system functions. Monitoring of water quality parameters, including feedwater conductivity, RO permeate conductivity, water temperature and tank level monitoring are readily available.

System alert and alarm icons are shown on a backlit LCD touchscreen to clearly show message importance. The unit alarms to conductivity, low pressure, permeate temperature and other conditions. The unit also displays maintenance messages including 'membrane replacement is needed' and 'exchange pretreatment cartridge.'

A facility feed water analysis is required for determination of any potential pretreatment requirements. The RO100 is an easy to use, cost effective system for laboratory high quality water applications.



All specifications are subject to change without notice.

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