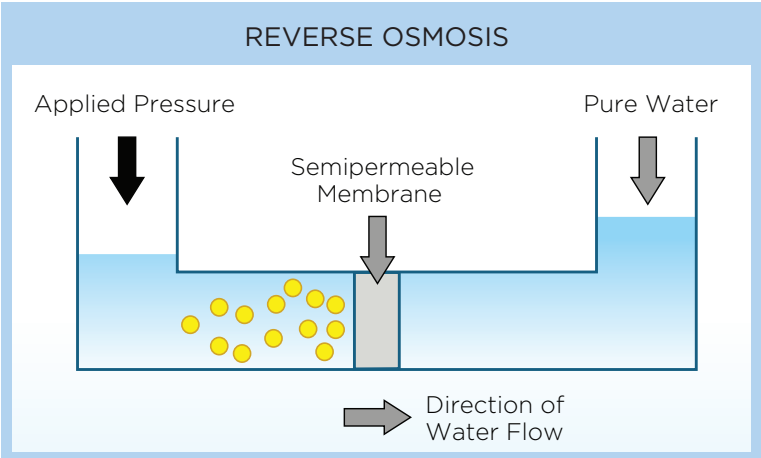
AVIDITY SCIENCE

Puro™ Type 3 Reverse Osmosis System

Overview

The Puro™ water system produces high-quality water with low energy consumption through the use of innovative low energy RO technology. By using a specially designed recirculation system, the RO membranes are guaranteed a long service life.



Features & Benefits

- >50% recovery of RO water.
- Excellent monitoring of conductivity.
- Internal boost pump included to cope with varying inlet water pressure.
- First maintenance kit included.
- Integrated automatic membrane rinse cycle.
- SD card or touchscreen interface.
- Bench, tank or wall mounting options.
- Wall mounting installation kit included.

Puro™ Type 3 Reverse Osmosis System

Specifications

UNIT SPECIFICATIONS
Part Number:
- 7120-2200-010 10L / Hour
- 7120-2200-020 20L / Hour
- 7120-2200-050 50L / Hour
- 7120-2200-080 80L / Hour

Unit Dimensions
- 20 in. (W) x 19 in. (H) x 11 in. (D)
  510 mm (W) x 490 mm (H) x 290 mm (D)
- Shipping Weight: 55 lb (25 kg)

Power Supply
- 100-240 VAC; 50/60 Hz

Water Quality
- RO Water Quality: Type 3
- Organics and Particulate Rejection: >99%
- System Recovery: >50%

Feed Water Requirements
- Flow Rate at Pressure
  - Puro 10 RO unit: 1.0 lpm @ 10 kPa, 0.1 bar (0.27 gpm @ 1.5 psi) minimum
  - Puro 20 RO unit: 1.0 lpm @ 10 kPa, 0.1 bar (0.27 gpm @ 1.5 psi) minimum
  - Puro 50 RO unit: 2.0 lpm @ 10 kPa, 0.1 bar (0.53 gpm @ 1.5 psi) minimum
  - Puro 80 RO unit: 2.5 lpm @ 10 kPa, 0.1 bar (0.66 gpm @ 1.5 psi) minimum
- Inlet pressure: 1.5 psi (10 kPa, 0.1 bar) minimum to 87 psi (600 kPa, 6.00 bar) maximum (NOTE: Minimum pressure must be maintained at the flow rate specified above)
- Temperature: 41°F to 95°F (5°C to 35°C)
- Minimum Feed Water Pressure: 1.5 psi (0.1 bar)
- Maximum Feed Water Pressure: 87 psi (6 bar)
- pH: 3.0-9.0
- Total Dissolved Solids: 800 ppm maximum
- Conductivity: <1400µS
- Chlorine concentration tolerance: <0.1 ppm max

Waste Water Drain Requirements
- 1/4 in. tube and 5/16 in. tube connection to 1-1/2 in. (38 mm) pipe minimum, with a minimum safety distance of 3/4 in. between tube end and waste water drain
- Floor level drain not to exceed 6.56 pipe feet (2000 mm) of the RO drain outlet

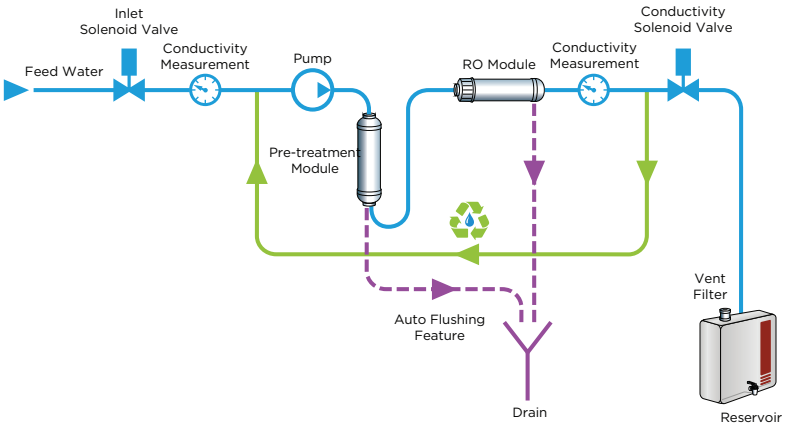
All specifications are subject to change without notice.

Operation

Using high recovery reverse osmosis (RO) technology, Puro efficiently removes up to 99% of contaminants from the municipal feed water to produce primary grade water.

The Puro can be purchased with an available 30 liter, 60 liter or 100 liter capacity storage tank.

PURO FLOWCHART: T3 unit



Application

The Puro is able to create primary grade, Type 3 water for several different applications, including higher purity water systems, final rinse glass washers, autoclaves, steam generators and stability chambers, also to feed ultrapure water systems such as Alto. The integral boost pump simplifies installation and avoids unexpected costs or reduced flow rates due to poor inlet pressure. Puro is fed directly from your municipal water supply.

In water purification, external pressure is applied to the more concentrated side of the membrane to reverse the natural osmotic flow. This forces the feed water through the semipermeable membrane. The impurities are deposited on the membrane surface and flushed to drain. The pure water passing the membrane is referred to as the permeate.

	Puro 10	Puro 20	Puro 50	Puro 80
Production Rate at 15°C	10 l/hr	20 l/hr	50 l/hr	80 l/hr
Overall Rejection Rate	98%	98%	98%	98%
Rejection Rate for Bacteria	>99%	>99%	>99%	>99%
Rejection Rate for Particles	>99%	>99%	>99%	>99%
Feed Water Pressure	0.1-6 bar	0.1-6 bar	0.1-6 bar	0.1-6 bar