

Reverse Osmosis (RO) Drinking Water System
Model(s) – RO450/RO450M



This system has been tested according to NSF/ANSI 58 for reduction of the substances listed below in Table I. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system as specified in NSF/ANSI 58.

Contaminant	Influent Challenge Concentration mg/L	Minimum Reduction Efficiency	Average Reduction Efficiency
Sodium (as Sodium Chloride)	739.80	92.6%	94.0%
TDS (Total Dissolved Solids)	739.80	92.6%	94.0%



Tested and certified by CSA Group to NSF/ANSI 58 for the reduction of TDS and Sodium, to CSA B483.1 and to NSF/ANSI 372

TABLE - I

- NOTE**
1. The standards referenced in table-1 evaluate performance for use with disinfected water.
 2. All testing performed under standard laboratory conditions. Actual performance may vary.
 3. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. This system may be installed on disinfected water that may contain filterable cysts.
 4. Contaminants reduced by this filter are not necessarily present in water. Individuals requiring water of specific microbiological purity should follow the advice of their doctor or local health unit.

The system has also been independently tested by independent laboratory for the reduction of the following (TABLE – II). Claims not certified by CSA Group.

Contaminant	Influent Challenge Concentration mg/L	Minimum Reduction Efficiency	Average Reduction Efficiency
Barium ⁽¹⁾	10.0 ± 10%	100%	100%
Cadmium ⁽¹⁾	0.03 ± 10%	86.1%	94.6%
Chlorine ⁽²⁾	2.0 mg/L ± 10%		> 98%
Chromium III ⁽¹⁾	0.30 ± 10%	96.5%	96.8%
Chromium VI ⁽¹⁾	0.30 ± 10%	74.8%	86.6%
Copper ⁽¹⁾	3.0 ± 10%	98.2%	99.2%
Cyst ⁽¹⁾	> 50,000/mL	99.95%	99.98%
Fluoride ⁽¹⁾	8.0 ± 10%	94.8%	96.7%
Lead ⁽¹⁾	0.15 ± 10%	94.7%	98.5%
Mercury ⁽¹⁾	0.006 ± 10%	78.1%	95.4%
Nitrate ⁽¹⁾ *	27.0 ± 10%	82.1%	96.1%
Selenium ⁽¹⁾	0.10 ± 10%	93.3%	98.0%

TABLE - II

⁽¹⁾ – Tested/verified by independent laboratory according to NSF/ANSI 58.

⁽²⁾ – Tested/verified by independent laboratory according to NSF/ANSI 42.

* - This system may be used for treatment of influent concentrations of no more than 27 mg/L (27 PPM) Nitrate measured as N and is certified for Nitrate reduction only for water supplies with a pressure of 40 psig (280 kPa) or greater

Technical Specifications

- **Daily Production Rate** : 17.7 US Gal/day (67 L/Day)
- **Average Recovery^v** : 18%
- **Average Efficiency Rating^w** : 9.1%
- **Operating Pressure** : 45 psi (min) to 100 psi (max) [(310kPa min-689 kPa max)]
- **Operating Temperature** : 4°C (39°F) min to 38°C (100°F) max

^v - Recovery rating means the percentage of the influent water to the membrane portion of the system that is available to the user as reverse osmosis treated water when the system is operated without a storage tank or when the storage tank is bypassed.

^w - Efficiency rating means the percentage of the influent water to the system that is available to the user as reverse osmosis treated water under operating conditions that approximate typical daily usage.

Operating Specifications

The unit should be operated with water that meets the following minimum criteria. Source water exceeding chemical parameters (listed below) requires pre-treatment.

Max Hardness	< 170mg/L (<10 GPG ⁽¹⁾)	Iron (Fe)	< 0.1 ppm (mg/L)
Manganese (Mn)	< 0.05 ppm (mg/L)	Hydrogen Sulfide	= 0.00 ppm (mg/L)
Feed Water TDS	= 1500 ppm (1500 mg/L) max	Feed water pH	= 3.0 to 11.0
Feed Water Turbidity	= 1.0 NTU (max)		

⁽¹⁾ GPG means grains per gallon. 1 grain = 17.1 mg/L

General Installation conditions & Needs

See product manual for installation, operation and maintenance instructions.

Replacement filters & parts

This RO system contains a replaceable treatment component critical for effective reduction of total dissolved solids. The product water shall be tested periodically to verify that the system is performing satisfactorily. RO Membrane: Model ROM50 ; Pre-filters: Model HP1 & CF2 Post-filter: Model IM200

See product manual for details and other replacement parts.

Operation & Maintenance

See product manual for maintenance instructions. User is responsible for general maintenance.

Warranty – Limited 1 year warranty. See product manual for details.



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