

PERFORMANCE DATA SHEET

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



This system has been tested according to NSF/ANSI 42, 53 and 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 42, 53 and 58.

Contaminant	Influent Challenge Concentration mg/L	Minimum Reduction Efficiency	Average Reduction Efficiency
Barium ⁽²⁾	10.0 ± 10%	100%	100%
Cadmium ⁽²⁾	0.03 ± 10%	86.1%	94.6%
Chromium III ⁽²⁾	0.30 ± 10%	96.5%	96.8%
Chromium VI ⁽²⁾	0.30 ± 10%	74.8%	86.6%
Copper ⁽²⁾	3.0 ± 10%	98.2%	99.2%
Cyst ⁽¹⁾	> 50,000/mL	99.95%	99.98%
Fluoride ⁽²⁾	8.0 ± 10%	94.8%	96.7%
Lead ⁽²⁾	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 ⁽²⁾	0.10 ± 10%	93.3%	98.0%
Sodium (as Sodium Chloride) ⁽¹⁾	739.80	92.6%	94.0%
Chlorine ⁽³⁾	2.0 mg/L ± 10%		> 98%
TDS (Total Dissolved Solids) ⁽¹⁾	739.80	92.6%	94.0%

TABLE- I

⁽¹⁾ - Tested and certified according to NSF/ANSI 58 by WQA under WQA Gold Seal Program ; ⁽²⁾ - Tested and verified by independent laboratory according to NSF/ANSI 58.

⁽³⁾ - Tested and verified by independent laboratory according to NSF/ANSI 42

* - This system is acceptable 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: 18.1 US Gal/day (68.5 Liters per day) - **Average Recovery^v** : 18% - **Average Efficiency Rating^{vv}** : 9.7%

Operating Pressure : 40 psi (min) to 100 psi (max) [(275kPa min-689 kPa max)] - **Operating Temperature :** 4°C (39°F) minimum 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.

^{vv} - 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 pH = 3.0 to 11.0 ; **Feed Water TDS (max)** = 1500 ppm (1500 mg/L)

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 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 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.

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.



Tested and certified to NSF/ANSI 58 for the reduction of TDS, Nitrate, Mercury, Sodium, Cyst (e.g. Cryptosporidium, Giardia).

® System tested and certified by the Water Quality Association against CSA B483.1



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