

# WQA–Performance Data Sheet

Reverse Osmosis / Activated Carbon Drinking Water Appliance



Our H6000 and H6500 Reverse Osmosis Drinking Water Appliances have been tested and conform to NSF/ANSI Standard 58. The water treatment performance for specific claims are substantiated and verified by the “Reduction Performance” test data listed below. The concentration of the indicated substances in water entering the appliance was reduced to a concentration less than or equal to permissible limits for water leaving the appliance, as specified in NSF/ANSI Standard 58. While testing was performed under standard laboratory conditions actual performance may vary. H6000 and H6500 are certified by WQA to NSF/ANSI Standard 58.

## FACTORS WHICH AFFECT THE LIFETIME AND PERFORMANCE OF YOUR WATERMAX® RO

- TYPE OF MEMBRANE:** Cellulose Tri-Acetate (CTA): Up to 1,200 PPM TDS with pressure of at least 40 psi (276 kPa). Chlorine Tolerant- Some bacteria resistance- 5.0 to 9.0 pH- Excellent production rate- For use only with a chlorinated water supply.  
Thin-Film Composite (TFC): Up to 2,000 PPM TDS with pressure of at least 40 psi (276 kPa). Not chlorine tolerant- Bacteria resistant- 4.0 to 11.0 pH- Most advanced thin-film composite, non-cellulosic- Chemically stable- Highest production rate.
- SQUARE FEET OF MEMBRANE:** The square feet of membrane and the production of RO water are in direct proportions.
- WATER PRESSURE:** The higher the net pressure across the membrane, the greater the quantity of RO water. A minimum pressure of 40 psi (276 kPa) is recommended.
- TOTAL DISSOLVED SOLIDS:** The higher the TDS, the lower the production. Each 100 PPM represents about 1 psi (7 kPa) reduced pressure on the membrane. Thus, 1,000 PPM reduces the effective net pressure by 10 psi (69 kPa).
- WATER TEMPERATURE:** Colder water results in lower production. Temperatures above 85°F (29°C) are to be avoided because of problems with the membrane support structures and accelerated compaction rates of CTA membranes. TFC may be used at temperatures up to 113°F (45°C).
- SURFACE COATING OR FOULING:** A neglected pre-filter can allow sediment to accumulate on the cartridge surface and impair the necessary flow of water through the filter, thus reducing membrane life. Also, salts can precipitate on the membrane, plugging the pores and channels. A water softener or other types of pre-treatment installed before the RO appliance significantly reduces this load and extends membrane life.

Performance Claims for H6000 / H6500				
Substance	Influent challenge concentration mg/L	Maximum permissible product water concentration mg/L	Minimum % Reduction	Average % Rejection
Arsenic (+5)*	0.30 ± 10%	0.010	99.0	99.6
Barium	10.0 ± 10%	2.0	96.3	98.8
Cadmium	0.03 ± 10%	0.005	96.5	98.8
Chromium (+6)	0.3 ± 10%	0.1	95.7	99.1
Chromium (+3)	0.3 ± 10%	0.1	98.1	99.7
Copper	3.0 ± 10%	1.3	97.7	99.0
Fluoride	8.0 ± 10%	1.5	94.1	97.7
Lead	0.15 ± 10%	0.010	88.1	99.3
Radium (226/228)	25 pCi/L	5 pCi/L	80.0	80.0
Selenium	0.10 ± 10%	0.05	>94.0	>94.0
Turbidity	11 ± 1 NTU	0.5 NTU	97.6	98.9
TDS (H6000)	750 ± 40	187	89.4	91.5
TDS (H6500)	750 ± 40	187	95.9	96.8
Nitrate/Nitrite (H6500) †	36	10	90.1	91.2

Our Reverse Osmosis Drinking Water appliances contain replaceable treatment components, critical for the effective reduction of Total Dissolved Solids as well as inorganic contaminants. Each appliance will have some or all of the following replacement service components: sediment pre-filter, sediment/carbon block pre-filter (H6500 only), activated carbon pre-filter, prolonged contact filter, activated carbon post-filter, flow restrictor, and the membrane. (Please see replacement element diagrams on the next page.) The life expectancy of these components will vary from one water source to another. Therefore, we recommend that you, the user, have the water tested every six months to maintain acceptable water quality. Operational, maintenance and replacement requirements are essential for these appliances to perform to specification. To maintain the highest quality water, we recommend draining the storage tank every week. Ask your dealer about maintenance programs or monitoring devices for any of our drinking water appliances.

Test Parameters	
pH	7.5±0.5
TDS	200-500 mg/L
Temperature	77±2°F 25±1°C
Turbidity	≤ 1 NTU
Pressure	50±3 psi

\* This appliance has been tested for the treatment of water containing pentavalent arsenic (also known as As(V), As(+5), or arsenate) at concentrations of 0.30 mg/L or less. This appliance reduces pentavalent arsenic, but may not remove other forms of arsenic. This appliance is to be used on water supplies containing a detectable free chlorine residual at the appliance inlet or on water supplies that have been demonstrated to contain only pentavalent arsenic. Treatment with chloramine (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic. Please see the Arsenic Facts section.

† This system is acceptable for treatment of influent concentrations of no more than 27 mg/L nitrate and 3 mg/L nitrite in combination measured as N and is certified for nitrate/nitrite reduction only for water supplies with a pressure of 40 psi (276 kPa) or greater.

**WARNING!** These appliances must not be installed where the water source is microbiologically unsafe or of unknown quality without adequate disinfection before and/or after the appliance! A water source that is not potable relative to waterborne pathogens voids the warranty.

Operational maintenance and replacement requirements are essential for these appliances to perform to specification as advertised.