

IMPORTANT NOTICE: Read this Performance Data Sheet and compare the capabilities of this unit with your actual water treatment needs. It is recommended that before purchasing a water treatment unit, you have your water supply tested to determine your actual water treatment needs.

BestWater® Home Water Treatment Products Performance Data Sheet



BestWater Reverse Osmosis System II® **High Performance TFC** *Countertop Model 52345*

The Ultimate in Home Water Treatment

- Three-stage reverse osmosis technology: Effective against a broader range of contaminants than any other single technology.
- The same advanced technology used for dialysis and desalination.
- Thin Film Composite (TFC) reverse osmosis membrane for high performance.
- Combination sediment/activated carbon pre-filter and activated carbon post-filter enhance the RO membrane's effectiveness and longevity.
- Reduces *Cryptosporidium* oocysts.



Tested and certified to NSF/ANSI Standard 58 for reduction of Total Dissolved Solids (TDS), Cysts, Turbidity, Arsenic (Pentavalent), Barium, Cadmium, Chromium (Hexavalent), Chromium (Trivalent), Copper, Fluoride, Lead, Radium 226/228, and Selenium. Conforms to NSF/ANSI Standard 53 for the reduction of Benzene, P-dichlorobenzene, and Toxaphene. System post-filter has been tested and certified to NSF/ANSI Standard 42 for the reduction of Chlorine Taste and Odor.

GENERAL INSTALLATION CONDITIONS AND NEEDS

Installation and use of all BestWater systems must comply with state and local laws and regulations. These systems must be installed on a cold water source in accordance with the detailed instructions in the Owner's Manual. The BestWater High Performance TFC Countertop is not intended to purify non-drinkable sources of water. Do not use with water that is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the system. This system is NSF tested and certified for cyst reduction and may be used on disinfected waters that may contain filterable cysts. This system is not rated for the removal of dissolved iron or hydrogen sulfide.

GENERAL OPERATIONAL AND MAINTENANCE REQUIREMENTS

Compliance with operational, maintenance, and replacement requirements as noted in the Owner's Manual is essential for the product to perform properly.

MANUFACTURER'S LIMITED WARRANTY

The BestWater Reverse Osmosis System II is covered by a special limited warranty listed in the Owner's Manual.

SPECIFICATIONS

Usage:	Potable water
Water Temperature:	Minimum 40° – Maximum 100° F (4° – 38° C)
Water Pressure:	Minimum 30 psi – Maximum 100 psi (2.10 – 7.03 kg/cm ² or 207 – 690 kPa)
Maximum Total Dissolved Solids (TDS):	1,800 ppm
pH:	Minimum 3 – Maximum 11
Storage Capacity:	1.72 gallons
Dimensions:	12"W x 15"H x 11.5"D
RO Membrane:	Thin film composite (TFC)
Production Rate:	Quality control specification: 16 – 24 gallons per day (61-91 liters per day) at 77° F, 60 psi, and 500 ppm TDS. NSF rated daily production rate: 11 gallons per day (42 liters per day) at 77° F, 50 psi, and 750 ppm TDS. Actual production rate: Will depend upon water temperature, water pressure, and TDS level. §
System Recovery:	16% (84% discharged as reject water)
Replacement Elements:	Pre-filter: change every 6 – 12 months RO Module: change every 18 – 24 months or when TDS reduction falls below 75% (see Owner's Manual). Post-filter: 500 gallons (1,893 liters) rated capacity or 6 – 12 months
Replacement Elements and Cost:	Pre-filter: #52340, SRP \$45.30 RO Module: #52350, SRP \$218.85 Post-filter: #52355, SRP \$37.50 <i>Available from your Shaklee Independent Distributor.</i>

§ The performance and element replacement frequency of this unit and all water treatment units will vary based on conditions and the amount of water used daily. (A family of four typically uses 700 – 800 gallons per year.) See illustration on reverse for replacement elements and other serviceable parts.

Contaminant Reduction Percentages^{††}

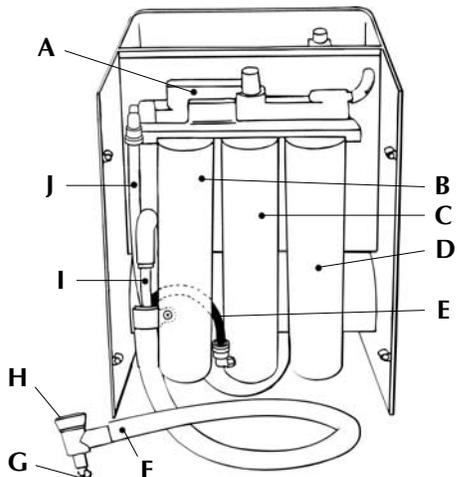
Contaminants currently regulated by primary drinking water standards:

	Average Influent Concentration	Average Effluent Concentration	Percent Reduction	USEPA MCL or action level
CLARITY				
Turbidity Reduction*	11.08 NTU	0.078 NTU	99.3	1.0 NTU**
CYST REDUCTION*				
Cysts, 3 – 4 microns:	111,000#/mL	1#/mL	99.99	99.95%
Cryptosporidium				
Giardia lamblia				
INORGANICS				
	ppm	ppm		ppm
Arsenic* (Pentavalent) [∞]	0.30	0.001	98.7	0.025
Barium*	10.2	0.13	98.7	2.0
Cadmium*	0.031	0.0001	99.7	0.005
Chromium (Hexavalent)*	0.30	0.006	98.0	0.1
Chromium (Trivalent)*	0.30	0.003	99.0	0.1
Copper*	3.0	0.04	98.7	1.3
Fluoride*	8.0	0.33	95.9	4.0
Lead*	0.154	0.002	98.7	0.015
Selenium*	0.1	0.001	99.0	0.05
RADIONUCLIDES				
Radium 226 & 228 ^{††}	25 pCi/L	5 pCi/L	80	5 pCi/L
VOLATILE ORGANIC CHEMICALS (VOCs)				
benzene	0.0138	0.0005	96.3	0.005
p-dichlorobenzene	0.270	0.0005	99.7	0.075
toxaphene	0.014	0.001	92.9	0.003

Reduction of contaminants *not* currently regulated by primary drinking water standards:

	Average Influent Concentration (ppm)	Percent Reduction
INORGANICS		
Calcium	56	>99
Chlorides	281	95
Magnesium	30	>99
Phosphates (as P)	7.13	>99
Potassium	25	92
Sodium	170	93

	Average Influent Concentration	Average Effluent Concentration	Percent Reduction
CHLORINES [§]	2.1 ppm	0.05 ppm	97.6
TOTAL DISSOLVED SOLIDS (TDS)*	758 ppm	30 ppm	96.0



- A. Trihead Manifold
- B. Pre-filter
- C. RO Module
- D. Post-filter
- E. Black Hose
- F. Quick Connect with Hose Assembly
- G. Flow Control Valve
- H. Quick Connect
- I. Blue Hose
- J. Green Hose

The contaminants or other substances reduced by this water treatment device are not necessarily in your water.

§ Model 52345 has been tested and certified by NSF *International*, and conforms to NSF/ANSI Standard 42, Aesthetic Effects, for reduction of Taste and Odor marked by § above.

* Model 52345 has been tested and certified by NSF *International*, and conforms to NSF/ANSI Standard 58 for the reduction of contaminants marked by * above.

† Barium used as surrogate for influent challenge.

** Nephelometric Turbidity Unit (NTU).

†† Note that while the testing was performed under standard laboratory conditions, actual performance may vary.

∞ This system shall only be used for arsenic reduction on chlorinated water supplies containing detectable residual free chlorine at the system inlet.

ARSENIC FACTS

Arsenic (abbreviated As) is found naturally in some well water. Arsenic in water has no color, taste or odor. It must be measured by a lab test. Public water utilities must have their water tested for arsenic. You can get the results from your water utility. If you have your own well, you can have the water tested. The local health department or the state environmental health agency can provide a list of certified labs. The cost is typically \$15 to \$30. Information about arsenic in water can be found on the Internet at the U.S. Environmental Protection Agency web site: www.epa.gov/safewater/arsenic.html.

There are two forms of arsenic: pentavalent arsenic (also called As(V), As(+5), and arsenate) and trivalent arsenic (also called As(III), As(+3), and arsenite). In well water, arsenic may be pentavalent, trivalent, or a combination of both. Special sampling procedures are needed for a lab to determine what type and how much of each type of arsenic is in the water. Check with the labs in your area to see if they can provide this type of service.

Reverse osmosis (RO) water treatment systems do not remove trivalent arsenic from water very well. RO systems are very effective at removing pentavalent arsenic. A free chlorine residual will rapidly convert trivalent arsenic to pentavalent arsenic. Other water treatment chemicals such as ozone and potassium permanganate will also change trivalent arsenic to pentavalent arsenic. A combined chlorine residual (also called chloramine) may not convert all the trivalent arsenic. If you get your water from a public water utility, contact the utility to find out if free chlorine or combined chlorine is used in the water system.

The BestWater 52345 system is designed to remove pentavalent arsenic. It will not convert trivalent arsenic to pentavalent arsenic. The system was tested in a lab. Under those conditions, the system reduced 0.30 mg/L (ppm) pentavalent arsenic to 0.001 mg/L (ppm) or less. The performance of the system may be different at your installation. Have the treated water tested for arsenic to check if the system is working properly.

The RO component of the 52345 system must be replaced (as stated in the specifications section) to ensure the system will continue to remove pentavalent arsenic. The component identification and locations where you can purchase the component are listed in the installation/operation manual.

MANUFACTURER'S LIMITED WARRANTY

This BestWater Reverse Osmosis System II[®] is covered by a special limited warranty listed in the Owner's Manual.