

Performance Data Sheet

Pro 400 HR



**This system has been tested according to NSF/ANSI 58, 372 and CSA B483.1 for reduction of the substances listed below. 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. The substances are:
Arsenic (V), Chromium (III), Lead and TDS.**

This reverse osmosis system contains replaceable treatment components, critical for the effective reduction of total dissolved solids. It is the user's responsibility to, and the manufacturer strongly recommends that the user, periodically have the product water tested to verify the system is performing properly.

If Pro 400 HR filters and membrane elements are not used, health related contaminant reduction claims are invalid.

SPECIFIC CONTAMINANT PERFORMANCE

Contaminants	Influent (avg. mg/L)	Effluent (ave. mg/L)	Effluent (max. mg/L)	Ave. % reduction
Arsenic (V) ¹	0.2731	0.002	0.0173	99.3
Chromium (III)	0.2864	0.0013	0.0067	99.5
Lead	0.1474	0.0005	0.00091	99.7
TDS	749	35.5	-	95.3

1 – This system 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 system reduces pentavalent arsenic, but may not remove other forms of arsenic.

This system is to be used on water supplies containing a detectable free-chlorine residual at the system inlet or on water supplies that have been demonstrated to contain only pentavalent arsenic. Treatment with chloramines (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic. Please see the Arsenic Facts section of this performance data sheet.

Testing performed under standard laboratory conditions. Actual results may vary

SPECIFIC PERFORMANCE RATING

Product Water Production	1826 Gallons Per Day (6912 Liters Per Day)
Average System Recovery	61.1%
Average System Efficiency	57.7%

Average System Recovery is 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 operated as designed (without a pressurized storage tank).

Average System Efficiency rating is 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.

System efficiency rating is identical to recovery rating when the system is tested without a storage tank or when the storage tank is bypassed.

SYSTEM SPECIFICATIONS AND OPERATING PARAMETERS

Inlet Water Condition	Minimum	Maximum
Pressure	29 psi (2 bar)	145 psi (10 bar)
Flow	10 L/min	-
TDS	0 mg/L	1500 mg/L
Conductivity	0 µS/cm	2000 µS/cm
Temperature	35.6 °F (2 °C)	95 °F (35 °C)
Hardness	0 mg/L	200 mg/L
Iron (II)	0 mg/L	1.5 mg/L
Iron (III)	0 mg/L	0.3 mg/L
Turbidity	0 FNU	0.5 FNU

Actual system performance will vary depending on varying water temperature and pressure, TDS levels and inlet water chemistry. Operating the system in water conditions outside the minimum or maximum operating parameters may result in reduced system performance and membrane element life.

Warning: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

RO SYSTEM & FILTRATION COMPONENTS

Prefilter I	Sediment Filter	919240002
Prefilter II	Granulated Activated Carbon Filter	919240003
Membrane	High Rejection Membrane	150718900-SP
Refer to Owner's Manual for electrical requirements, installation instructions and servicing/replacement component recommendations.		

WARRANTY

Refer to www.bluewatergroup.com/warranty for more information on Limited warranty.

ARSENIC FACTS SECTION

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 laboratory 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 website: 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 Pro 400 system is designed to remove pentavalent arsenic. It will not convert trivalent arsenic to pentavalent arsenic. The system was tested in a lab. Under testing conditions, the system reduced 0.30 mg/L (ppm) pentavalent arsenic to 0.010 mg/L (ppm) (the USEPA standard for drinking water) or less. The performance of the system may be different at your installation. Have the treated water tested for arsenic to check whether the system is working properly

The RO component of the Pro 400 system must be replaced 3-5 years to ensure that 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.

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