Performance Data Sheet

Contaminant Reduction Table: Model QCRO4V-50				
This system has been tested according to WQA S-300 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.				
Substance	**Influent challenge concentration mg/L**	**Maximum permissible product water concentration mg/L**	**Minimum % Reduction**	**Average % Reduction**
Arsenic (+5)†	0.30 ± 10%	0.010	98.7	99.6
Barium	10.0 ± 10%	2.0	97.7	98.8
Cadmium	0.03 ± 10%	0.005	97.3	98.8
Chromium (+6)	0.3 ± 10%	0.1	97.6	99.1
Chromium (+3)	0.3 ± 10%	0.1	99.6	99.7
Copper	3.0 ± 10%	1.3	98.3	99.0
Fluoride	8.0 ± 10%	1.5	96.3	97.7
Lead	0.15 ± 10%	0.010	99.3	99.3
Radium (226/228)	25 pCi/L ± 10%	5 pCi/L	80.0	80.0
Selenium	0.10 ± 10%	0.05	97.8	98.1
Turbidity	11 ± 1 NTU	0.5 NTU	96.7	98.9
TDS	750 ± 20%	187	84.5	85.1

† 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 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.

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 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 QCRO4V-50 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) or 0.050 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 QCRO4V-50 system must be replaced every three (3) years to ensure that the system will continue to remove pentavalent arsenic. The component identification and locations where you can purchase the component listed in this installation/operation manual