

Performance Data Sheet

Model: 4US-RO-S01

Use Replacement Cartridges: 4US-RO-PRE (Pre-filter), 4US-RO-M01 (RO Membrane Module), and 4US-RO-POST (Post-filter)
Reverse Osmosis / Activated Carbon Drinking Water Appliance

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 Standard 42 and 58.



System tested and certified by NSF International against NSF/ANSI Standard 42, Standard 53, and Standard 58 for the reduction of substances as listed below.

Capacity 8.11 gpd (gallons per day) / 30.7 lpd (liters per day)

Contaminant Reduction Determined by NSF testing.

Substance Reduction	Average Influent	NSF Specified Challenge Concentration	Avg % Reduction	Average Product Water Concentration	Max Permissible Product Water Concentration	NSF Reduction Requirements	NSF Test Report
Standard 42 Performance Claims							
Chlorine Taste and Odor	2.0 mg/L	2.0 mg/L ± 10%	97.5%	0.05 mg/L	N/A	≥ 50%	J-00107993
Standard 53 Performance Claims							
Atrazine	0.009 mg/L	0.009 mg/L ± 10%	93.1%	0.0007 mg/L	0.003 mg/L	N/A	J-00110490
Benzene	0.016 mg/L	0.015 mg/L ± 10%	91.5%	0.001 mg/L	0.005 mg/L	N/A	J-00108006
Cyst*	134,250 cysts/L	Minimum 50,000 cysts/L	99.99%	2 cyst/L	N/A	≥99.95%	J-00110981
Lead pH @6.5	0.148 mg/L	0.15 mg/L ± 10%	>99.3%	0.001 mg/L	0.010 mg/L	N/A	J-00108001
Lead pH @8.5	0.145 mg/L	0.15 mg/L ± 10%	>99.3%	0.003 mg/L	0.010 mg/L	N/A	J-00108005
P-Dichlorobenzene	0.245 mg/L	0.225 mg/L ± 10%	99.7%	0.0005 mg/L	0.075 mg/L	N/A	J-00108007
Toxaphene	0.016 mg/L	0.015 mg/L ± 10%	93.3%	0.001 mg/L	0.003 mg/L	N/A	J-00108008
Standard 58 Performance Claims							
Arsenic (pentavalent)	0.32 mg/L	0.30 mg/L ± 10%	98.1%	0.006 mg/L	0.010 mg/L	N/A	J-00122054
Asbestos	136 MF/L	10 ⁷ to 10 ⁸ MF/L; fibers greater than 10 µm in length	99.9%	< 1 MF/L	N/A	≥ 99%	J-00122066
Barium	9.6 mg/L	10 mg/L ± 10%	96.8%	0.31 mg/L	2.00 mg/L	N/A	J-00122055
Cadmium	0.028 mg/L	0.03 mg/L ± 10%	98.9%	0.0003 mg/L	0.005 mg/L	N/A	J-00122059
Chromium (Hex.)	0.28 mg/L	0.3 mg/L ± 10% (added as hexavalent)	97.2%	0.008 mg/l	0.1 mg/L	N/A	J-00122054
Chromium (Tri.)	0.32 mg/L	0.3 mg/L ± 10% (added as triavalent)	96.7%	0.010 mg/l	0.1 mg/L	N/A	J-00122055
Copper	2.9 mg/L	3.0 mg/L + 10%	99.1%	0.03 mg/L	1.3 mg/L	N/A	J-00121469
Nitrate/Nitrite	31 mg/L	30 mg/L ± 10% (added as 27 mg/L NO ₃ and 3 mg/L NO ₂)	79.0%	6.5 mg/L	10 mg/L (No more than 1.0 mg/L shall be in the form of NO ₂ as N.)	N/A	J-00124165
Radium 226/228	25 pCi/L	25 pCi/L ± 10%	80.0%	5 pCi/L	5 pCi/L	N/A	J-00122055
Selenium	0.1 mg/L	0.10 mg/L ± 10% (added as ½ selenite and ½ selenate)	97.6%	0.002 mg/L	0.05 mg/L	N/A	J-00122057
Total Dissolved Solids (TDS)	760 mg/L	750 mg/L ± 40 mg/L (added as sodium chloride)	94.5%	42 mg/L	N/A	≥ 75%	J-00122067
Turbidity	11 NTU	11 ± 1 NTU	99.1%	0.1 NTU	0.5 NTU	N/A	J-00122064
The following Pharmaceutical reduction claims have not been certified by NSF International or by the State of California.							
Claims tested and verified by independent laboratory:							
Atenolol	838 ng/L	N/A	99.4%	5.0 ng/L	N/A	N/A	J-00110065/ J-00112746
Fluoxetine	831 ng/l	N/A	99.4%	5.0 ng/L	N/A	N/A	J-00110065/ J-00112746
Trimethoprim	328 ng/L	N/A	99.4%	2.0 ng/L	N/A	N/A	J-00110065/ J-00112746

* Based on the use of Cryptosporidium parvum oocysts

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Application Guidelines/Water Supply Parameters			
Membrane Type	TFCM	Water Supply Parameters	
Water Supply, chlorinated or non-chlorinated		Component	Limit
		Hardness	10 gpg (grains per gallon)
Water Pressure	40-125 psi (276 -862 kPa)	Iron	<0.1 ppm
Water Temperature	40° F - 100° F (4.4° C - 38° C)	Manganese	<0.1 ppm
pH Range	4.0 – 10.0	Hydrogen Sulfide	<0.1 ppm
Maximum TDS level	2000	Turbidity	<1 NTU

System Production: 8.11gallons per day (gpd) (30.7 liters per day)

Post-filter Chlorine Taste and Odor capacity: 750 gallons (2,839 liters)

System Efficiency: 9.01% 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.

Recovery Rating: 23.04% Recovery rating is the percentage of 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.

It is essential that the manufacturer's recommended installation, maintenance and filter replacement requirements be carried out for the product to perform as advertised. See Installation Manual for Warranty information.

Note: While the testing was performed under standard laboratory conditions, actual performance may vary.

Important Quality Assurance Requirements: The Reverse Osmosis Drinking Water Appliance contains treatment components that are critical for effective reduction of Total Dissolved Solids as well as inorganic contaminants. We strongly recommend that the user test the water a minimum of every 6 months to verify that the appliance is performing satisfactorily.

Replacement Cartridge: 4US-RO-PRE (Pre-filter), 4US-RO-M01 (RO Membrane Module), and 4US-RO-POST (Post-filter)

For estimated costs of replacement elements please call 1-800-388-3458 or visit our website at www.filtrete.com



WARNING

To reduce the risk associated with ingestion of contaminants:

- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before and after the system. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts.

EPA Establishment Number 10350-MN-005

CAUTION

To reduce the risk associated with property damage due to water leakage:

- **Read and follow** Use Instructions before installation and use of this system.
- Installation and use **MUST** comply with all state and local plumbing codes.
- **Do not** install if water pressure exceeds 125 psi (862 kPa). If your water pressure exceeds 80 psi, you **must** install a pressure limiting valve. Contact a plumbing professional if you are uncertain how to check your water pressure.
- **Do not** install where water hammer conditions may occur. If water hammer conditions exist you **must** install a water hammer arrester. Contact a plumbing professional if you uncertain how to check for this condition.
- **Do not** install on hot water supply lines. The maximum operating water temperature of this filter system is 100° F (38° C).
- **Protect filter from freezing.** Drain filter when temperatures drop below 40°F (4.4°C).
- The disposable pre and post filter cartridges **MUST** be replaced every 6 months, at the rated capacity or if a noticeable reduction in flow rate occurs. The disposable RO Membrane **MUST** be replaced every 24 months, at the rated capacity or if a noticeable reduction in flow rate occurs.

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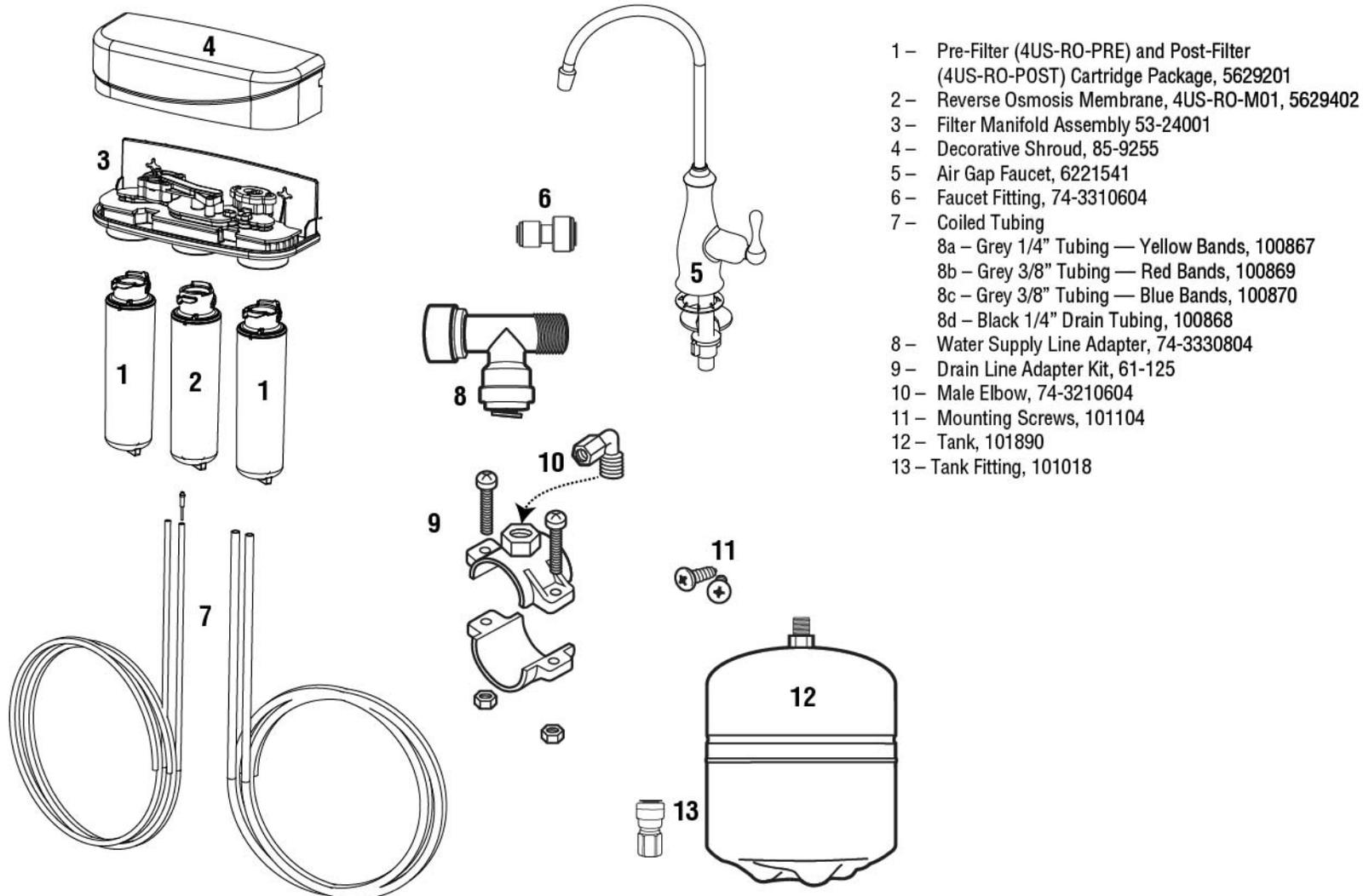
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Routine Maintenance

- **Sediment Pre-filter(s) and Carbon Post-filter:** The disposable pre and post filter cartridges **must** be replaced every 6 months or sooner, depending on feed water quality

Membrane: Change as required based on periodic TDS rejection tests or an on-site monitor (PR). The maximum recommended service life is 24 months.
Please refer to the Use & Care Guide for complete maintenance requirements.



- 1 - Pre-Filter (4US-RO-PRE) and Post-Filter (4US-RO-POST) Cartridge Package, 5629201
- 2 - Reverse Osmosis Membrane, 4US-RO-M01, 5629402
- 3 - Filter Manifold Assembly 53-24001
- 4 - Decorative Shroud, 85-9255
- 5 - Air Gap Faucet, 6221541
- 6 - Faucet Fitting, 74-3310604
- 7 - Coiled Tubing
 - 8a - Grey 1/4" Tubing — Yellow Bands, 100867
 - 8b - Grey 3/8" Tubing — Red Bands, 100869
 - 8c - Grey 3/8" Tubing — Blue Bands, 100870
 - 8d - Black 1/4" Drain Tubing, 100868
- 8 - Water Supply Line Adapter, 74-3330804
- 9 - Drain Line Adapter Kit, 61-125
- 10 - Male Elbow, 74-3210604
- 11 - Mounting Screws, 101104
- 12 - Tank, 101890
- 13 - Tank Fitting, 101018

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Systems must be installed and operated in accordance with manufacturer's recommended procedures and guidelines. Failure to follow installation, operation, and maintenance instructions may result in leakage and will void warranty. See Installation Manual for Warranty information.

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 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 below for further information.

ARSENIC FACT 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 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 US Environmental Protection Agency website: www.epa.gov/safewater/arsenic.html

There are two forms of arsenic: pentavalent arsenic (also called As(V) or 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 reducing 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 chloramines) 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 4US-RO-S01 systems are designed to reduce pentavalent arsenic. They will not convert trivalent arsenic to pentavalent arsenic. These systems were tested in a lab. Under those 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 performances of these systems may be different at your location. Have the treated water tested for arsenic to check if your system is working properly.

The pentavalent arsenic reduction component of this system must be replaced at the end of its useful life of three years. The replacement component 4US-RO-M01 can be purchased from the original point of purchase.

NITRATES

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 280 kPa (40 psig) or greater.