

Performance Data Sheet

Model: AP-R05500

Reverse Osmosis / Drinking Water System



System tested and certified by NSF International against NSF/ANSI Standards 42 and 58 and CSA B483.1 for the 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 Standard 58.

Contaminant Reduction Determined by NSF testing.

Contaminant Reduction	Average Influent	NSF specified Challenge Concentration	Avg % Reduction	Average Product Water Concentration	Max Permissible Product Water Concentration	NSF Reduction Requirements	NSF Test Report
Arsenic	0.31 mg/L	0.30 mg/L ± 10%	99.6%	0.001 mg/L	0.010 mg/L	N/A	J-00058998
Barium	9.7 mg/L	10 mg/L ± 10%	99.4%	0.054 mg/L	2.00 mg/L	N/A	J-00058995
Cadmium	0.030 mg/L	0.03 mg/L ± 10%	99.2%	0.0002 mg/L	0.005 mg/L	N/A	J-00058996
Chromium (Hexavalent)	0.29 mg/L	0.3 mg/L ± 10% (added as hexavalent)	99.5%	0.001 mg/L	0.1 mg/L	N/A	J-00058994
Chromium (Trivalent)	0.31 mg/L	0.3 mg/L ± 10% (added as trivalent)	99.6%	0.001 mg/L	0.1 mg/L	N/A	J-00058995
Copper	2.9 mg/L	3.0 mg/L ± 10%	99.4%	0.01 mg/L	1.3 mg/L	N/A	J-00058999
Cyst	187,000 cysts/L	Minimum 50,000 cysts/L	99.99%	6 cyst/L	N/A	≥99.95%	J-00058998
Fluoride	9.1 mg/L	8.0 mg/L ± 10%	98.0%	0.18 mg/L	1.5 mg/L	N/A	J-00058997
Lead	0.15 mg/L	0.15 mg/L ± 10%	99.3%	0.001 mg/L	0.01 mg/L	N/A	J-00058996
Radium 226/228	25 pCi/L	25 pCi/L ± 10%	80.0%	5 pCi/L	5 pCi/L	N/A	J-00058995
Selenium	0.1 mg/L	0.10 mg/L ± 10% (added as ½ selenite and ½ selenate)	98.0%	0.002 mg/L	0.05 mg/L	N/A	J-00058997
Turbidity	117 NTU	11 ± 1 NTU	99.9%	0.11 NTU	0.5 NTU	N/A	J-00058998
TDS	740 mg/L	750 mg/L ± 40 mg/L (added as sodium chloride)	94.1	43 mg/L	N/A	≥75%	J-00034261

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

Application Guidelines/Water Supply Parameters

Membrane Type	TFCM	Water Supply Parameters	
		Component	Limit
Water Supply, chlorinated or non-chlorinated		Hardness	<350 mg/L
		Iron	<0.1 mg/L
Water Pressure	30-125 psi (207 -862 kPa)	Manganese	<0.05 mg/L
Water Temperature (Cold Water use only)	40° F - 100° F (4.4° C - 38° C)	Hydrogen Sulfide	0
pH Range	4.0 – 11.0	Turbidity	<1 NTU
Maximum TDS level	2000		

System Production: 11 gal/day (41.6 L/day)

Post Filter Chlorine Taste and Odor capacity: 2,500 gallons (9,463 liters)

System Efficiency: 13.2% Efficiency rating means 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.

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

Warning: To reduce the risk associated with the ingestion of contaminants: Do not use with water that is microbiologically unsafe or unknown quality without adequate disinfection may be used on disinfected waters that may contain filterable cysts. EPA Establishment No. 070595-CT-001

CAUTION: To reduce the risk associated with property damage due to water leakage: Read and follow all instructions before installation and use of this system

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Reverse Osmosis / Activated Carbon Drinking Water Appliance

Components	
Sediment Prefilter:	5 Micron Depth/Activated Carbon
Membrane Type:	Thin Film Composite (TFCM)
Carbon Postfilter:	Activated Carbon
Tank Capacity:	2.4 gal max (9.1 liters)
See parts diagram for details.	

Important Quality Assurance Requirements:

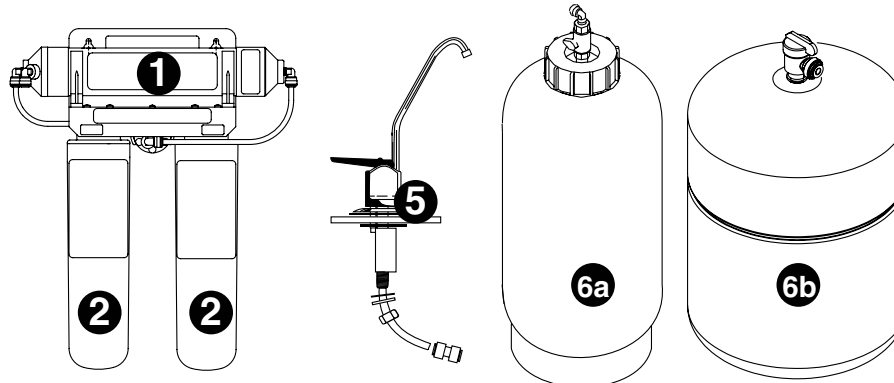
These Reverse Osmosis Drinking Water Appliances contain treatment components that are critical for effective reduction of Total Dissolved Solids as well as inorganic contaminants. We strongly recommend that the user test the water a minimum of every 6 months to verify that the appliance is performing satisfactorily.

This reverse osmosis system contains a replaceable component (part number 56084-01, TFCM Membrane) critical to the efficiency of the system. Replacement of the reverse osmosis component should be with one of the identical specifications, as defined by the manufacturer, to provide you with the same efficiency and contaminant reduction performance.

It is essential that the manufacturer's recommended installation, maintenance and filter replacement requirements be carried out for the product to perform as advertised. Failure to do so may result in product failure and property damage including leakage and will void warranty.

For complete warranty information, please refer to the Limited Warranty in your Installation, Operation and Maintenance Instruction Manual.

Routine Maintenance
Sediment Prefilter and Carbon Postfilter: Change every year 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 36 months. If a Percent Rejection (PR) Monitor is not used, then your dealer may offer a semi-annual testing service.



Not shown to scale

Parts List

- 1) TFCM Membrane P/N: 56084-01
- 2) Carbon Pre and Post filter – P/N: 55981-01 (Purchased as a pair)
- 3) Shut Off Valve P/N 60-90119 (Not Shown)
- 4) Flow Control – P/N: 82-60510 (Not Shown)
- 5) Faucet – P/N: 82-60510
- 6) Storage Tank - P/N:56-11125 or P/N: 56-18125

California Residents: Please visit www.3Mpurification.com or call 1-800-222-7880 to obtain prices of replacement parts.

State of California
Department of Public Health
Water Treatment Device
Certificate Number
06-1815
Date Issued: August 17, 2011

Trademark/Model Designation

Aqua-Pure APRO5500

Replacement Elements

55981-01 (Pre & Post)
56084-01 (RO membrane)

Manufacturer: 3M Purification Inc.

The water treatment device(s) listed on this certificate have met the testing requirements pursuant to Section 116830 of the Health and Safety Code for the following health related contaminants:

Microbiological Contaminants and Turbidity

Cysts
Turbidity
TDS

Organic Contaminants

Inorganic/Radiological Contaminants

Arsenic¹ (pentavalent)
Barium
Cadmium
Chromium (hexavalent)
Chromium (trivalent)
Copper
Fluoride
Lead
Radium 226/228
Selenium

Rated Service Capacity: n/a

Rated Service Flow: 11 gpd

Conditions of Certification:

Do not use where water is microbiologically unsafe or with water of unknown quality, except that systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.

¹ Claims for arsenic reduction shall only be made on water supplies maintaining detectable residual free chlorine at the reverse osmosis (RO) system inlet. Water systems using an in-line chlorinator should provide a minimum of 1 minute chlorine contact time before the RO system.

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Reverse Osmosis / Drinking Water System

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 AP-R05500 system is designed to reduce 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) 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 if the 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 56084-01 (TFCM Membrane) can be purchased from the original point of purchase or from 3M Purification Inc. at 1-800-222-7880.



Parts and service available from:

3M Purification Inc.

400 Research Parkway

Meriden, CT 06450 U.S.A.

Toll Free: 1-800-222-7880

Worldwide: 203-237-5541

Fax: 203-238-8701

www.aquapure.com • www.3mpurification.com

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