



PERFORMANCE DATA SHEET

A. O. Smith water filtration systems are obsessively engineered to provide you with clean water. A Performance Data Sheet is your proof that the system performs; the data sheet discloses test results from IAPMO of each filtration system against NSF water filtration testing criteria and standards.

IAPMO, International Association of Plumbing and Mechanical Officials, is a complete service organization that provides testing and certification for drinking water filtration systems. IAPMO requires that each contaminant is reduced by a certain percentage specific to the water filtration system against NSF standards.

Take a look. Review the data. If you need help or have a question, we've got you covered.

Give us a call at
877.333.7108

For additional information, www.iapmo.org.

Performance Data for the Drinking Water System AO-US-RO-MB-4000						
Models	Replacement	Operating pressure range	Operating temp. range	Recovery rating	Efficiency rating	Daily Production (DPR)
AO-US-RO-MB-4000	AO-US-RO-MB-R and AO-US-RO-MEM	40-100 psi 275-689 kPa	40-90° F 4.44-32.2° C	29.43%	17.91%	13.32 gallons 50.4 liters
Manufactured by: A.O. Smith Corporation 11270 West Park Place Milwaukee, WI 53224 877.333.7108						



Testing performed by IAPMO R&T against NSF/ANSI Standards 42, 53, 58, 401, and NSF Protocol P473 & P231 and in accordance with the California Department of Health Services Drinking Water Treatment Device Program. This system has been tested according to NSF/ANSI 42, 53, 58, 401 & P473 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 42, 53, 58, 401, P473 & P231.

NSF/ANSI 42	Minimum Reduction	Overall % Reduction	Results
Chlorine Reduction, Free Available	<0.5mg/l	96.06%	Pass
Chloramine Reduction, Free Available	<0.5mg/l	96.06%	Pass
Particulate Reduction	85%	99.9%	Pass

NSF/ANSI 53	Minimum Reduction	Overall % Reduction	Results
Cyst Live Cryptosporidium & Giardia	99.95%	>99.95%	Pass
Mercury Reduction pH 8.5	<2 ug/L	>96.7%	Pass
Mercury Reduction pH 6.5	<2 ug/L	>96.6%	Pass
Lead Reduction pH 6.5	<10 ug/L	>99.4%	Pass
Lead Reduction pH 8.5	<10 ug/L	>99.3%	Pass
MTBE Reduction	<5 ug/L	86.6%	Pass
Turbidity	<0.5 NTU	99.1%	Pass
VOC Surrogate Test	95%	99.4%	Pass
Asbestos	99%	>99%	Pass

NSF/ANSI 58	Maximum Concentration	Minimum Reduction	Overall % Reduction	Results
Arsenic Pentavalent	0.30mg/L ± 10%	80.0%	97.6%	Pass
Barium	10.0mg/L ± 10%	80.0%	95.2%	Pass
Cadmium	0.30mg/L ± 10%	83.3%	95.3%	Pass
Chromium Hexavalent	0.30mg/L ± 10%	66.7%	97.0%	Pass
Chromium Trivalent	0.30mg/L ± 10%	66.7%	96.6%	Pass
Copper	0.30mg/L ± 10%	56.7%	96.6%	Pass
Fluoride	8.0mg/L ± 10%	81.2%	95.7%	Pass
Lead	.15mg/L ± 10%	93.3%	96.6%	Pass
Nitrate/Nitrite	30.0mg/L ± 10%	66.7%	82.4%	Pass
Radium 226/228	25pCi/L ± 10%	80.0%	80.0%	Pass
Selenium	0.10mg/L ± 10%	50.0%	97.9%	Pass
TDS	750mg/L ± 10%	75.0%	95.0%	Pass
Turbidity	11 ± NTU	95.4%	99.1%	Pass

NSF/ANSI 401	Maximum Concentration	Minimum Reduction	Overall % Reduction	Results
Atranolol	30 ng/L	94.2%	94.2%	Pass
Bisphenol A	300 ng/L	98.80%	98.9%	Pass
Carbamazepine	200 ng/L	98.6%	98.6%	Pass
DEET	200 ng/L	98.7%	98.7%	Pass
Estrone	20 ng/L	96.30%	96.5%	Pass
Ibuprofen	60 ng/L	95.3%	95.4%	Pass
Linuron	20 ng/L	96.6%	96.6%	Pass
Meprobamate	60 ng/L	94.7%	94.7%	Pass
Metolachlor	200 ng/L	98.6%	98.6%	Pass
Naproxen	20 ng/L	96.3%	96.4%	Pass
Nonyl phenol	200 ng/L	97.50%	97.5%	Pass
Phenytoin	30 ng/L	95.50%	95.6%	Pass
TCEP	700 ng/L	98%	98%	Pass
TCP	700 ng/L	97.8%	97.8%	Pass
Trimethoprim	20 ng/L	96.7%	96.7%	Pass

NSF P473	Influent challenge concentration	Maximum permissible concentration	Overall % reduction	Results
Perfluorooctanoic acid (PFOA) & Perfluorooctane sulfonate (PFOS)	1.5 ± 10% ug/L	0.07 ug/L	95.8%	Pass

- All contaminants reduced by this filter are listed.
- Not all contaminants listed may be present in your water.
- Does not remove all contaminants that may be present in tap water.

- Filter is only to be used with cold water.
- Filter usage must comply with all state and local laws.
- Testing was performed under standard laboratory conditions, actual performance may vary.

- Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.
- See owner's manual for general installation conditions and needs plus manufacturer's limited warranty.

Organic chemicals included by surrogate testing				
VOCs (by surrogate testing using chloroform)	Drinking water regulatory level (MCL/MAC) mg/L	Influent/Unfiltered	Effluent/Filtered	Percent Reduction
alachlor	0.002	0.050	0.001	>98%
atrazine	0.003	0.100	0.003	>97%
benzene	0.005	0.081	0.001	>99%
carbofuran	0.04	0.190	0.001	>99%
carbon tetrachloride	0.005	0.078	0.0018	98%
chlorobenzene	0.1	0.077	0.001	>99%
chloropirrin	—	0.015	0.0002	99%
2,4-D	0.07	0.110	0.0017	98%
dibromochloropropane (DBCP)	0.0002	0.052	0.00002	>99%
o-dichlorobenzene	0.6	0.080	0.001	>99%
p-dichlorobenzene	0.075	0.040	0.001	>98%
1,2-dichloroethane	0.005	0.088	0.0048	95%
1,1-dichloroethylene	0.007	0.083	0.001	>99%
cis-1,2-dichloroethylene	0.07	0.170	0.0005	>99%
trans-1,2-dichloroethylene	0.1	0.086	0.001	>99%
1,2-dichloropropane	0.005	0.080	0.001	>99%
cis-1,3-dichloropropylene	—	0.079	0.001	>99%
dinoseb	0.007	0.170	0.0002	99%
endrin	0.002	0.053	0.00059	99%
ethylbenzene	0.7	0.088	0.001	>99%
ethylene dibromide (EDB)	0.00005	0.044	0.00002	>99%
haloacetonitriles (HAN)	—	—	—	—
bromochloroacetonitrile	—	0.022	0.0005	98%
dibromoacetonitrile	—	0.024	0.0006	98%
dichloroacetonitrile	—	0.0096	0.0002	98%
trichloroacetonitrile	—	0.015	0.0003	98%
haloketones (HK)	—	—	—	—
1,1-dichloro-2-propanone	—	0.0072	0.0001	99%
1,1,1-trichloro-2-propanone	—	0.0082	0.0003	96%
heptachlor (H-34, Heptox)	0.0004	0.025	0.00001	>99%
heptachlor epoxide	0.0002	0.0107	0.0002	98%
hexachlorobutadiene	—	0.044	0.001	>98%
hexachlorocyclopentadiene	0.05	0.060	0.000002	>99%
lindane	0.0002	0.055	0.00001	>99%
methoxychlor	0.04	0.050	0.0001	>99%
pentachlorophenol	0.001	0.096	0.001	>99%
simazine	0.004	0.120	0.004	>97%
styrene	0.1	0.150	0.0005	>99%
1,1,2,2-tetrachloroethane	—	0.081	0.001	>99%
tetrachloroethylene	0.005	0.081	0.001	>99%
toluene	1	0.078	0.001	>99%
2,4,5-TP (silvex)	0.05	0.270	0.0016	99%
tribromoacetic acid	—	0.042	0.001	>98%
1,2,4-trichlorobenzene	0.07	0.160	0.0005	>99%
1,1,1-trichloroethane	0.2	0.084	0.0046	95%
1,1,2-trichloroethane	0.005	0.150	0.0005	>99%
trichloroethylene	0.005	0.180	0.0010	>99%
trihalomethanes (THMs)	—	—	—	—
bromodichloromethane (THM)	0.080	0.300	0.015	95%
bromochloromethane (THM)				
chloroform (THM)				
chlorodibromomethane (THM)	10	0.070	0.001	>99%
xylenes (total)				



System Tested and Certified by IAPMO R&T LAB and IAPMO R&T against NSF/ANSI Standards 42, 53, 58 and 401. Conforms to NSF Protocol P473 and P231 as verified and substantiated by test data.



For use with municipally treated water only. Do not use with water that is microbiologically unsafe or of unknown water quality without adequate disinfection before or after the system.

Datos de rendimiento para el sistema para agua potable AO-US-RO-MB-4000					
Modelos	Repuesto	Rango de presión de funcionamiento	Rango de temp. de funcionamiento	Clasificación de recuperación	Clasificación de eficiencia
AO-US-RO-MB-4000	AO-US-RO-MB-R and AO-US-RO-MEM	275-689 kPa 40-100 psi	4,44-32,2 °C 40-90° F	29.43 %	17.91 %
Producción diaria (DPR)					
50.4 liters 13.32 gallons					
Manufactured by: A.O. Smith Corporation 11270 West Park Place Milwaukee, WI 53224					



Pruebas realizadas por IAPMO R&T conforme a las normas NSF/ANSI 42, 53, 58 y 401, y el protocolo P473 y P231 de NSF, y según el Programa de Dispositivos de Tratamiento de Agua Potable del Departamento de Servicios de Salud de California. Este sistema se probó conforme a las normas NSF/ANSI 42, 53, 58, 401 y P473 para la reducción de las sustancias que se indican más adelante. Se redujo la concentración de las sustancias indicadas en el agua que entra al sistema a una concentración menor que o igual al límite permitido para el agua que sale del sistema, según se especifica en las normas NSF/ANSI 42, 53, 58, 401, P473 y P231.

NSF/ANSI 42	Reducción mínima	Porcentaje total de reducción	Resultados
Chlorine Reduction, Free Available	<0.5 mg/l	96.06 %	Aprobado
Chloramine Reduction, Free Available	<0.5 mg/l	96.06 %	Aprobado
Particulate Reduction	85 %	99.9 %	Aprobado

NSF/ANSI 53	Reducción mínima	Porcentaje total de reducción	Resultados
Cyst Live Cryptosporidium & Giardia	99.95 %	>99.95 %	Aprobado
Mercury Reduction pH 8.5	<2 ug/L	>96.7 %	Aprobado
Mercury Reduction pH 6.5	<2 ug/L	>96.6 %	Aprobado
Lead Reduction pH 6.5	<10 ug/L	>99.4 %	Aprobado
Lead Reduction pH 8.5	<10 ug/L	>99.3 %	Aprobado
MTBE Reduction	<5 ug/L	86.6 %	Aprobado
Turbidity	<0.5 NTU	99.1 %	Aprobado
VOC Surrogate Test	95 %	99.4 %	Aprobado
Asbestos	99 %	>99 %	Aprobado

NSF/ANSI 58	Concentración máxima	Reducción mínima	Porcentaje total de reducción	Resultados
Arsenic Pentavalent	0.30mg/L ± 10 %	80.0 %	97.6 %	Aprobado
Barium	10.0mg/L ± 10 %	80.0 %	95.2 %	Aprobado
Cadmium	0.30mg/L ± 10 %	83.3 %	95.3 %	Aprobado
Chromium Hexavalent	0.30mg/L ± 10 %	66.7 %	97.0 %	Aprobado
Chromium Trivalent	0.30mg/L ± 10 %	66.7 %	96.6 %	Aprobado
Copper	0.30mg/L ± 10 %	56.7 %	96.6 %	Aprobado
Fluoride	8.0mg/L ± 10 %	81.2 %	95.7 %	Aprobado
Lead	1.5mg/L ± 10 %	93.3 %	96.6 %	Aprobado
Nitrate/Nitrite	30.0mg/L ± 10 %	66.7 %	82.4 %	Aprobado
Radium 226/228	25pCi/L ± 10 %	80.0 %	80.0 %	Aprobado
Selenium	0.10mg/L ± 10 %	50.0 %	97.9 %	Aprobado
TDS	750mg/L ± 10 %	75.0 %	95.0 %	Aprobado
Turbidity	11 ± NTU	95.4 %	99.1 %	Aprobado

NSF/ANSI 401	Concentración máxima	Reducción mínima	Porcentaje total de reducción	Resultados
Atenolol	30 ng/L	94.2 %	94.2 %	Aprobado
Bisphenol A	300 ng/L	98.80 %	98.9 %	Aprobado
Carbamazepine	200 ng/L	98.6 %	98.6 %	Aprobado
DEET	200 ng/L	98.7 %	98.7 %	Aprobado
Estrone	20 ng/L	96.30 %	96.5 %	Aprobado
Ibuprofen	60 ng/L	95.3 %	95.4 %	Aprobado
Linuron	20 ng/L	96.6 %	96.6 %	Aprobado
Meprobamate	60 ng/L	94.7 %	94.7 %	Aprobado
Metolachlor	200 ng/L	98.6 %	98.6 %	Aprobado
Naproxen	20 ng/L	96.3 %	96.4 %	Aprobado
Nonyl phenol	200 ng/L	97.50 %	97.5 %	Aprobado
Phenytol	30 ng/L	95.50 %	95.6 %	Aprobado
TCEP	700 ng/L	98 %	98 %	Aprobado
TCPP	700 ng/L	97.8 %	97.8 %	Aprobado
Trimethoprim	20 ng/L	96.7 %	96.7 %	Aprobado

NSF P473	Concentración de riesgo de ingreso	Concentración máxima permitida	Porcentaje total de reducción	Resultados
Perfluorooctanoic acid (PFOA) & Perfluorooctane sulfonate (PFOS)	1.5 ± 10 % ug/L	0.07 ug/L	95.8 %	Aprobado

- Se indican todos los contaminantes que reduce este filtro.
- Es posible que no todos los contaminantes indicados estén presentes en su agua.
- No elimina todos los contaminantes que pueden estar presentes en el agua de la llave.



El filtro solo se debe usar con agua fría.



El uso del filtro debe cumplir con todas las leyes estatales y locales.



Las pruebas se realizaron en condiciones de laboratorio estándar, el rendimiento real puede variar.



Es posible usar sistemas certificados para la reducción de quistes en aguas desinfectadas que puedan tener quistes filtrables.



Consulte el manual del propietario para conocer las condiciones y necesidades generales de instalación más la garantía limitada del fabricante.

Productos químicos orgánicos incluidos por la prueba de sustitutos				
COV (según la prueba de sustitutos con el uso de cloroformo)	Nivel normativo de agua potable (NMC/CMA) mg/L	Entrante/ Sin filtrar	Saliente/ Filtrada	Porcentaje de reducción
alachlor	0.002	0.050	0.001	>98 %
atrazine	0.003	0.100	0.003	>97 %
benzene	0.005	0.081	0.001	>99 %
carbofuran	0.04	0.190	0.001	>99 %
carbon tetrachloride	0.005	0.078	0.0018	98 %
chlorobenzene	0.1	0.077	0.001	>99 %
chloropicrin	—	0.015	0.0002	99 %
2,4-D	0.07	0.110	0.0017	98 %
dibromochloropropane (DBCP)	0.0002	0.052	0.00002	>99 %
o-dichlorobenzene	0.6	0.080	0.001	>99 %
p-dichlorobenzene	0.075	0.040	0.001	>98 %
1,2-dichloroethane	0.005	0.088	0.0048	95 %
1,1-dichloroethylene	0.007	0.083	0.001	>99 %
cis-1,2-dichloroethylene	0.07	0.170	0.0005	>99 %
trans-1,2-dichloroethylene	0.1	0.086	0.001	>99 %
1,2-dichloropropane	0.005	0.080	0.001	>99 %
cis-1,3-dichloropropylene	—	0.079	0.001	>99 %
dinoseb	0.007	0.170	0.0002	99 %
endrin	0.002	0.053	0.00059	99 %
ethylbenzene	0.7	0.088	0.001	>99 %
ethylene dibromide (EDB)	0.00005	0.044	0.00002	>99 %
haloacetonitriles (HAN)	—	—	—	—
bromochloroacetonitrile	—	0.022	0.0005	98 %
dibromoacetonitrile	—	0.024	0.0006	98 %
dichloroacetonitrile	—	0.0096	0.0002	98 %
trichloroacetonitrile	—	0.015	0.0003	98 %
haloketones (HK)	—	—	—	—
1,1-dichloro-2-propanone	—	0.0072	0.0001	99 %
1,1,1-trichloro-2-propanone	—	0.0082	0.0003	96 %
heptachlor (H-34, Heptox)	0.0004	0.025	0.00001	>99 %
heptachlor epoxide	0.0002	0.0107	0.0002	98 %
hexachlorobutadiene	—	0.044	0.001	>98 %
hexachlorocyclopentadiene	0.05	0.060	0.000002	>99 %
lindane	0.0002	0.055	0.00001	>99 %
methoxychlor	0.04	0.050	0.0001	>99 %
pentachlorophenol	0.001	0.096	0.001	>99 %
simazine	0.004	0.120	0.004	>97 %
styrene	0.1	0.150	0.0005	>99 %
1,1,2,2-tetrachloroethane	—	0.081	0.001	>99 %
tetrachloroethylene	0.005	0.081	0.001	>99 %
toluene	1	0.078	0.001	>99 %
2,4,5-TP (silvex)	0.05	0.270	0.0016	99 %
tribromoacetic acid	—	0.042	0.001	>98 %
1,2,4-trichlorobenzene	0.07	0.160	0.0005	>99 %
1,1,1-trichloroethane	0.2	0.084	0.0046	95 %
1,1,2-trichloroethane	0.005	0.150	0.0005	>99 %
1,1,2-trichloroethylene	0.005	0.180	0.0010	>99 %
trihalomethanes (THMs)	Influent/ Unfiltered	Effluent/ Filtered	Percent Reduction	
bromodichloromethane (THM)	0.080	0.300	0.015	95 %
bromoform (THM)				
chloroform (THM)				
chlorodibromomethane (THM)	10	0.070	0.001	>99 %
xylenes (total)				



Sistema probado y certificado por IAPMO R&T LAB y IAPMO R&T contra las normas NSF/ANSI 42, 53, 58 y 401. Conforme al protocolo P473 y P231 de NSF, según se verifica y corrobora mediante los datos de prueba.



Solo para uso con agua tratada localmente. No usar con agua que no sea microbiológicamente segura o cuya calidad sea desconocida sin la desinfección previa o posterior adecuada del sistema.