

Performance Data Sheet for the Reverse Osmosis System with Microbial Boost					
Model	Replacements	Operating pressure range	Operating temp. range	Recovery rating	Efficiency rating
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%
Daily Production (DPR)					
11.64 gallons 44 liters					
Manufactured by: A. O. Smith Corporation 11270 West Park Pl #170 Milwaukee, WI 53224 877.333.7108					



This system has been tested according to NSF/ANSI 42, 53, 58, 401, and P231 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, and P231.

NSF/ANSI 42	Minimum Reduction	Overall % Reduction	Results
Chlorine Reduction, Free Available	<0.5 mg/l	96.06%	Pass
Chloramine Reduction, Free Available	<0.5 mg/l	96.06%	Pass
Particulate Reduction (particles 0.5 to <1 µm)	85%	99.9%	Pass

NSF/ANSI 53	Minimum Reduction	Overall % Reduction	Results
Asbestos Reduction	99%	>99%	Pass
Cyst Live Cryptosporidium & Giardia	99.95%	>99.99%	Pass
Mercury Reduction pH 6.5	<2 ug/L	>96.6%	Pass
Mercury Reduction pH 8.5	<2 ug/L	>96.7%	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
Perfluorooctanoic acid (PFOA) & Perfluorooctane sulfonate (PFOS)	0.07 ug/L	95.8%	Pass
Turbidity	<0.5 NTU	99.1%	Pass
VOC Surrogate Test (as chloroform)	See Table 8.2	99.4%	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
Nitrate 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	Reduction Requirement	Minimum Reduction	Overall % Reduction	Results
Atenolol	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
Phenytol	30 ng/L	95.50%	95.6%	Pass
TCEP	700 ng/L	98%	98%	Pass
TCPP	700 ng/L	97.8%	97.8%	Pass
Trimethoprim	20 ng/L	96.7%	96.7%	Pass
Microplastics (particles 0.5 to <1 µm)	At least 10,000 particles/mL	≥85%	99.9%	Pass

System is certified by IAPMO R&T against the Standards 42, 53, 58, and 401, and conforms to NSF/ANSI Protocol P231 for the reduction of the claims specified on the Performance Data Sheet and at www.IAPMO.org.



- 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.
- The contaminants covered in NSF/ANSI 401 have been deemed as incidental/emerging compounds and have been detected in drinking water supplies at trace levels. These compounds can affect some consumers' perception of drinking water quality.
- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

Table 8.2 - Performance data sheet reduction claims for 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%
chloropirin	—	0.015	0.0002	99%
2,4-D	0.07	0.110	0.0017	98%
dimethochloropropane (DMCP)	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%
haloacetanitriles (HAN)	—	—	—	—
bromochloroacetanitrile	—	0.022	0.0005	98%
chloroacetanitrile	—	0.024	0.0006	98%
dichloroacetanitrile	—	0.0096	0.0002	98%
trichloroacetanitrile	—	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)	—	Influent/ Unfiltered	Effluent/ Filtered	Percent Reduction
bromodichloromethane (THM)	0.080	0.300	0.015	95%
bromoform (THM)				
chloroform (THM)				
chlorodibromomethane (THM)				
xylenes (total)	10	0.070	0.001	>99%



Filter is only to be used with cold water.



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.

Datos de rendimiento para el Sistema de ósmosis inversa con Microbial Boost						
Modelo	Repuesto	Rango de presión de funcionamiento	Rango de temp. de funcionamiento	Clasificación de recuperación	Clasificación de eficiencia	Producción diaria (DPR)
AO-US-RO-MB-4000	AO-US-RO-MB-R y AO-US-RO-MEM	275-689 KPa 40-100 psi	4.44-32.2 °C 40-90 °F	29.43%	17.91%	44 litros 11.64 galones
Manufactured by: A. O. Smith Corporation 11270 West Park Pl #170 Milwaukee, WI 53224 877.333.7108						



Este sistema ha sido probado de acuerdo con NSF/ANSI 42, 53, 58, 401 y P231 para la reducción de las sustancias que se enumeran a continuación. La concentración de las sustancias indicadas en el agua que ingresa al sistema se redujo a una concentración menor o igual al límite permitido para el agua que sale del sistema, como se especifica en NSF/ANSI 42, 53, 58, 401 y P231.

NSF/ANSI 42	Reducción mín.	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 (particulates 0.5 to <1 µm)	85%	99.9%	Aprobado

NSF/ANSI 53	Reducción mín.	Porcentaje total de reducción	Resultados
Asbestos Reduction	99%	>99%	Aprobado
Cyst Live Cryptosporidium & Giardia	99.95%	>99.99%	Aprobado
Mercury Reduction pH 6.5	<2 ug/L	>96.6%	Aprobado
Mercury Reduction pH 8.5	<2 ug/L	>96.7%	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
Perfluorooctanoic acid (PFOA) & Perfluorooctane sulfonate (PFOS)	0.07 ug/L	95.8%	Aprobado
Turbidity	<0.5 NTU	99.1%	Aprobado
VOC Surrogate Test (as chloroform)	Ver Tabla 8.2	99.4%	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	15mg/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	Requisito de reducción	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	200 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
Phenitoin	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
Microplastics (particulates 0.5 to <1 µm)	At least 10,000 particles/mL	≥85%	99.9%	Aprobado

Tabla 8.2 - Afirmaciones de reducción de la hoja de datos de rendimiento para productos químicos orgánicos incluidos por pruebas sustitutas				
COV (según la prueba de sustitutos con el uso de cloroformo)	Nivel normativo de agua potable (MGC/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	0.077	0.0018	98%
chlorobenzene	0.01	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)	—	Entrante/ Sin filtrar	Saliente/ Filtrada	Porcentaje de reducción
bromodichloromethane (THM)	0.080	0.300	0.015	95%
bromoform (THM)				
chlorodibromomethane (THM)				
xylene (total)	10	0.070	0.001	>99%



El sistema está certificado por IAQMO R&T según las normas 42, 53, 58, 401 y P231 para la reducción de las afirmaciones especificadas en la hoja de datos de rendimiento y en www.IAQMO.org.



El filtro solo se debe usar con agua fría.



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.

- 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.
- Los contaminantes incluidos en NSF/ANSI 401 se han considerado incidentales/emergentes compuestos y se han detectado en los suministros de agua potable en niveles mínimos. Los compuestos pueden afectar la percepción de algunos consumidores sobre la calidad del agua potable.
- No lo use con agua microbiológicamente insegura o de calidad desconocida sin la adecuada desinfección antes o después del sistema.