



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 |
|---------------|-----------------------|-------------------|---------------------|---------|
| Atenolol | 30 ng/L | 94.2% | 94.2% | Pass |
| BisphenolA | 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 |

| 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% |
| 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% |
| 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% |

- 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.



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 | Producción diaria (DPR) |
| AO-US-RO-MB-4000 | AO-US-RO-MB-Rand AO-US-RO-MEM | 275-689 kPa 40-100 psi | 4.44-32.2° C 40-90° F | 29.43 % | 17.91 % | 50.4 liters 13.32 gallons |
| Manufactured by: A.D. Smith Corporation 11270 West Park Place Milwaukee, WI 53224 877.333.7108 | | | | | | |



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 | .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 | Concentración máxima | Reducción mínima | Porcentaje total de reducción | Resultados |
|---------------|----------------------|------------------|-------------------------------|------------|
| Atenolol | 30 ng/L | 94.2 % | 94.2 % | Aprobado |
| BisphenolA | 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 (PFQA) & Perfluorooctanoate sulfonate (PFOS) | 1.5 ± 10 % ug/L | 0.07 ug/L | 95.8 % | Aprobado |

| 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 |
| alacolor | 0.002 | 0.050 | 0.001 | >98 % |
| atrazine | 0.003 | 0.100 | 0.003 | >97 % |
| benzene | 0.005 | 0.081 | 0.001 | >99 % |
| carbofenol | 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) | — | — | — | — |
| bromochloroacetone/nitrile | — | 0.022 | 0.0005 | 98 % |
| dibromoacetone/nitrile | — | 0.024 | 0.0006 | 98 % |
| dichloroacetone/nitrile | — | 0.0096 | 0.0002 | 98 % |
| trichloroacetone/nitrile | — | 0.015 | 0.0003 | 98 % |
| haloacetones (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-T (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) | — | — | — | — |
| bromoform (THM) | 0.080 | 0.300 | 0.015 | 95 % |
| chloroform (THM) | — | — | — | — |
| chlorodibromomethane (THM) | — | — | — | — |
| xlyenes (total) | 10 | 0.070 | 0.001 | >99 % |

- 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.

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

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.

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



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.