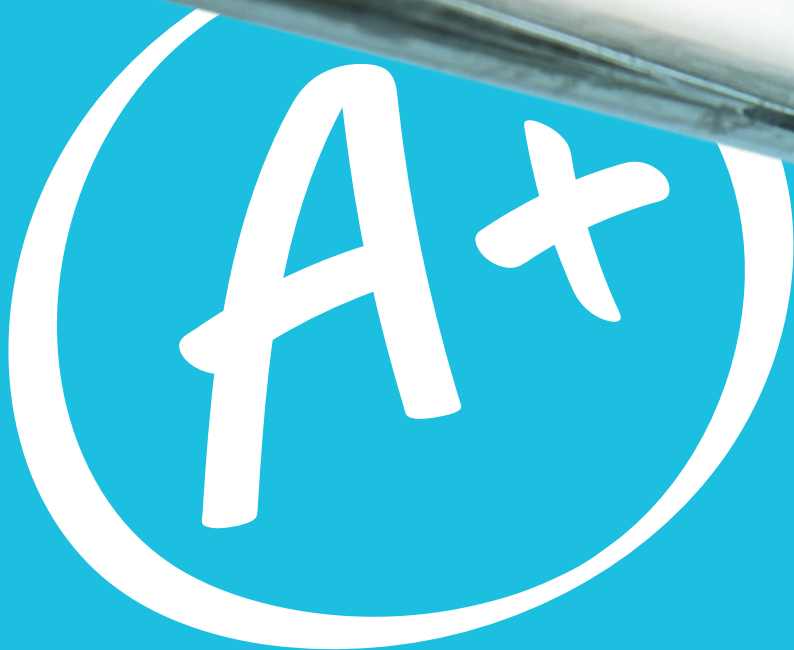


Introducing

# XE3-SERIES REVERSE OSMOSIS MEMBRANES



# AFFORDABLE. AVAILABLE. ADVANCED.

AXEON's E-Series Reverse Osmosis Membranes, including the XE3-Series, are built on over three decades of technological membrane innovation. This has culminated into Variable Flow Technology (VFT), which allows operators and equipment manufacturers to configure a variety of reverse osmosis systems at their desired operating pressure while simultaneously maximizing performance. VFT also reduces the need for multiple membrane types and their respective inventory requirements.

**AFFORDABLE:** Pricing that keeps you competitive

**AVAILABLE:** Most items are in stock for immediate delivery

**ADVANCED:** Incorporates cross-link layering technology into polyamide membrane sheets

# ARE YOU READY FOR EFFICIENCY?

The AXEON E-Series Reverse Osmosis Membranes are the result of decades developing reliable membrane technology. "E" stands for *efficiency*—something that customers have come to rely on from AXEON.



VFT reduces the need for multiple membrane types and inventory levels due to the range of operating pressures.



The advanced membrane construction of our low-pressure and high-flow thin film composite commercial membranes allows for higher flow and rejection rates.



All AXEON membranes are packaged securely to ensure safe delivery, whether shipped in pallets or individually.

AXEON XE3-Series RO Membranes are the #1 choice for tap and brackish applications, offering high flow, efficiency and purity in one.





# GO WITH THE FLOW

## ALL NEW VARIABLE FLUX TECHNOLOGY™

Most Efficient  
Operating Pressure

Maximized Rejection  
Performance

Highest Variable Flow Rates  
in the Industry



Unbeatable performance backed by more than three decades of AXEON's experience in the water filtration industry. Look for our **Watermark of Distinction.**

Call (800) 320-4074

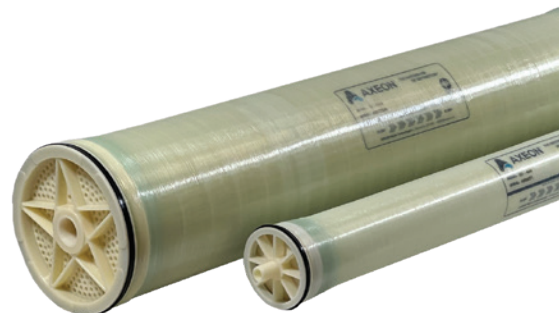
SCAN NOW



LEARN MORE

# XE3–SERIES RO MEMBRANES

**AXEON® XE3–Series RO Membranes** utilize Variable Flow Technology (VFT). VFT gives RO system equipment operators and manufacturers the ability to configure and design a variety of RO systems at their desired operating pressure and flow rates while maximizing salt rejection performance.



## APPLICATIONS

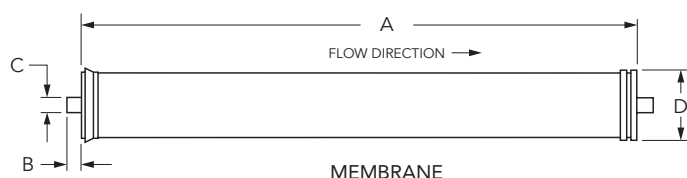
- Water treatment
- Medical
- Hydroponics
- Food service
- Hospitality
- Car washing
- Beverages
- Manufacturing
- Window washing

## BENEFITS

- Cold water capabilities
- Flexible operating pressures
- Less inventory requirements
- Substantial cost savings
- High permeability
- Low operating pressure

## OPERATING LIMITS

Maximum Operating Pressure (psi / MPa)	600 / 4.14
Operating Temperature Range (°F / °C)	32-113 / 0-45
Maximum Feed Silt Density Index (SDI <sub>15</sub> )	5.0
Free Chlorine Tolerance (mg/L)	0.1
pH Range—Continuous Operation	3-10
pH Range—Short-Term Cleaning	1-13
Maximum Element Pressure Drop (psi / MPa)	15 / 0.1



## SPECIFICATIONS

Description	Applied Pressure (psi / bar)	Permeate Flow Rate (gpd / M <sup>3</sup> /d)	Nominal Salt Rejection %
XE3–4021	100 / 9.30	1,000 / 4.54	98.00
XE3–4040	100 / 9.30	3,500 / 13.63	98.00
XE3–8040	100 / 9.30	13,000 / 59.09	99.00

DIMENSIONS (IN / MM)				
Description	A	B	C	D
XE3–4021	21 / 533	1.04 / 26.5	0.75 / 19.10	3.90 / 99
XE3–4040	40 / 1016	1.04 / 26.5	0.75 / 19.10	3.90 / 99
XE3–8040	40 / 1016	N/A	1.12 / 28.5	7.90 / 201

STANDARD TEST CONDITIONS <sup>A</sup>					
Description	Solution (mg/L)	Temperature (°F / °C)	pH	Max Operating Pressure (psi / MPa)	Recovery (%)
XE3–4021	500 NaCl	77 / 25	7.5 - 8.0	100 / 0.69	15
XE3–4040	500 NaCl	77 / 25	7.5 - 8.0	100 / 0.69	15
XE3–8040	500 NaCl	77 / 25	7.5 - 8.0	100 / 0.69	15

A. Individual flow rate may vary ±15%



Proper start-up of reverse osmosis water treatment systems is essential to prepare the membranes for operating service and to prevent membrane damage due to overfeeding or hydraulic shock. Before initiating system start-up procedures, membrane pretreatment, loading of the membrane elements, instrument calibration and other system checks should be completed. Avoid any abrupt pressure or cross-flow variations on the spiral elements during start-up, shutdown, cleaning or other sequences to prevent possible membrane damage. During start-up, a gradual change from a standstill to operating state is recommended as follows:

- Feed pressure should be increased gradually over a 30-60 second time frame.
- Cross-flow velocity at set operating point should be achieved gradually over 15-20 seconds.
- Permeate obtained from first hour of operation should be discarded.
- Maximum pressure drop across an entire pressure vessel (housing) is 15 psi / 1.03 bar.
- Avoid static permeate-side backpressure at all times.

Under certain conditions, the presence of free chlorine, chloramines and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, the manufacturer recommends removing all oxidizing agents by pretreatment prior to membrane exposure. Please contact the manufacturer or your supplier for more information.

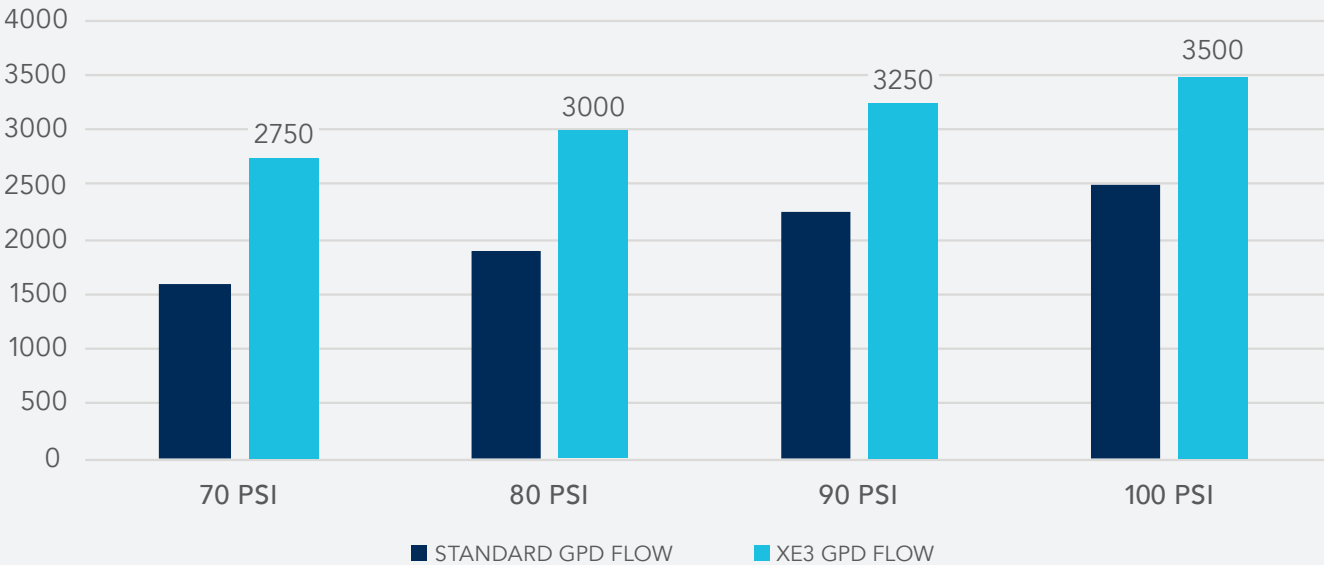
Do not use this initial permeate for drinking water or food preparation. Keep elements moist at all times after initial wetting. To prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution. Rinse out the preservative before use. For membrane warranty details, please contact the manufacturer or your supplier for more information.

If operating limits and guidelines given in this product specification sheet are not strictly followed, the warranty will be null and void. The customer is fully responsible for the effects of incompatible chemicals and lubricants on elements. Use of any such chemicals or lubricants will void the warranty. These membranes may be subject to drinking water application restrictions in some countries; please check the application status before use and sale. The use of this product in and of itself does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the complete system design and on the operation and maintenance of the system.

No freedom from infringement of any patent owned by the manufacturer or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, customer is responsible for determining whether products and the information in this document are appropriate for customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. The claims made may not have been approved for use in all countries. The manufacturer assumes no obligation or liability for the information in this document. AXEON reserves the right to update this information periodically for the purposes of quality and accuracy. **NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.**

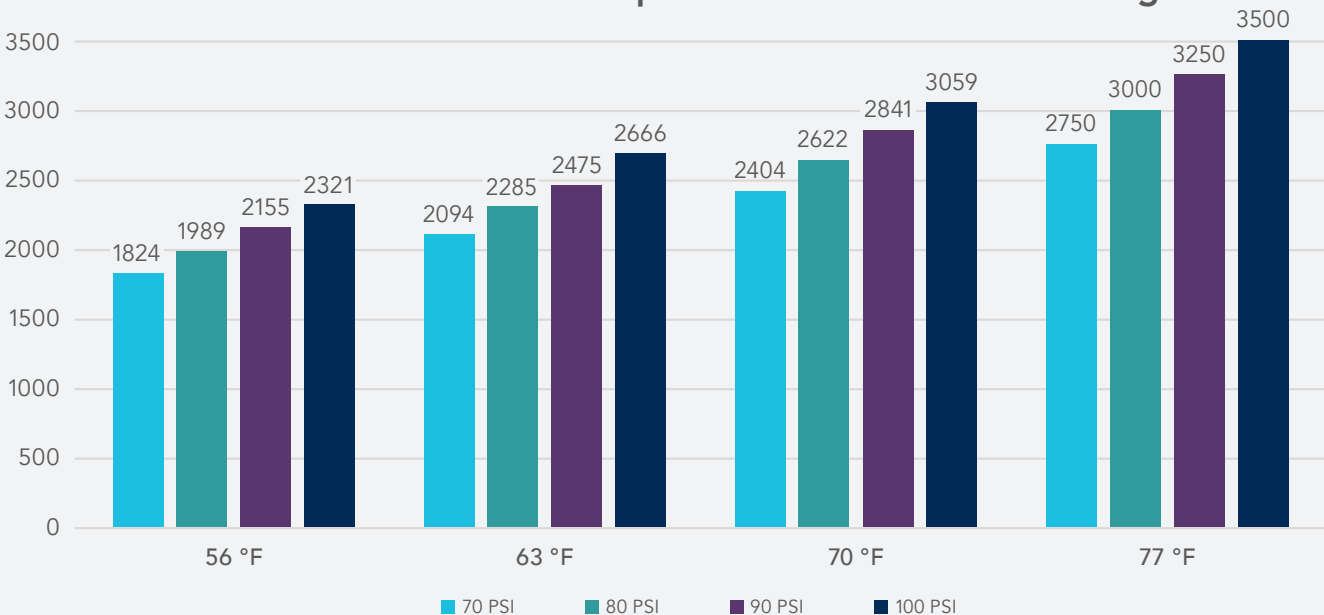
# TESTING SPECIFICATIONS AND CONDITIONS

## XE3-Series GPD Flow Comparison



**Warranty Evaluation Test Conditions:** Permeate flow and salt rejection based on the following test conditions: 550 ppm, filtered and dechlorinated municipal tap water, 77 °F / 25 °C, 15% recovery 4040 at the specified operating pressure. Minimum salt rejection is 96.0%. Permeate flows for warranty evaluation may vary +/-20%.

## AXEON XE3-4040 Temperature Performance Testing



**Note:** To maintain a desired production rate at a lower temperature, increasing the applied pressure may be effective. Ensure that your system and components can safely handle the increased pressure. Consult with a technician to confirm that adjustments are within safe operating limits.

# AXEON XE3-4040 MEMBRANE PERFORMANCE COMPARISONS



XE3-4040	vs.	Competitor's Brand
3,500 gallons per day		2,860 gallons per day
100 active sq. ft. of membrane		85 active sq. ft. of membrane
70-100 PSI low operating pressure		100-225 PSI operating pressure

## WHAT CAN XE3-4040 WITH VFT DO FOR YOU?

- ✦ Pumpless RO membrane
- ✦ Cold water capabilities
- ✦ Low pressure and high flow
- ✦ Uses less energy to operate
- ✦ Increases RO system output
- ✦ Decreases RO system pressure
- ✦ Versatile for feed water conditions
- ✦ Reduces inventory levels and models

## XE3-4040 TESTING

PSI	Feed TDS (ppm)	Feed Temp (°F)	Permeate TDS (ppm)	Permeate Flow	Temp. Correct at 77 °F Permeate Flow (gpd)
<b>Sample #1</b>					
70	376	73.7	8.8	2,582	2,750
80	378	74.3	8.3	2,850	3,001
90	378	74.1	7.9	3,192	3,370
100	379	74.2	7.3	3,534	3,732
<b>Sample #2</b>					
70	376	73.5	8.9	2,572	2,750
80	378	74.3	8.3	2,736	2,881
90	378	74.1	7.7	3,237	3,418
100	379	74.2	7.4	3,511	3,707





Unbeatable performance backed by more than three decades of AXEON's experience in the water filtration industry. Look for our Watermark of Distinction. Call (800) 320-4074 or visit us at [AXEONwater.com](https://www.axeonwater.com) to learn more.

MKT-701-B 10/23/24

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