

# Certified Elements

## NSF 61 Certified Drinking Water RO and NF Elements

The National Sanitation Foundation (NSF) provides conformity assessment services in the area of public health for the food preparation and plumbing water industries. NSF is an organization accredited by the American National Standard Institute (ANSI) to certify products against several NSF/ANSI Standards, including NSF Standard 61. NSF/ANSI Standard 61 is a testing protocol that assures customers and regulators that products do not contribute to unsafe levels of contaminants in drinking water.

AG and AK certified elements are selected when incomparable confidence is requested from drinking water system components.

AG and AK certified elements feature a fiberglass outer wrap and standard feed spacers.

**Table 1: Element Specification**

Membrane	Thin-Film Membrane (TFM*)
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### AG Series - RO High Rejection Elements

Model	Average permeate flow gpd (m <sup>3</sup> /day) <sup>1,2</sup>	Average NaCl rejection <sup>1,2</sup>	Minimum NaCl rejection <sup>1,2</sup>
AG4040FM CERT	2,200 (8.3)	99.5 %	99.0 %

<sup>1</sup> Average salt rejection after 24 hours operation. Individual flow rate may vary +25%/-15%.

<sup>2</sup> Testing conditions: 2,000ppm NaCl solution at 225psi (1,551kPa) operating pressure, 77 °F, pH 7.5 and 15% recovery.

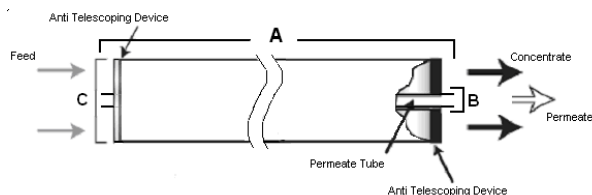
### AK Series - RO Low Energy Elements

Model	Average permeate flow gpd (m <sup>3</sup> /day) <sup>1,2</sup>	Average NaCl rejection <sup>1,2</sup>	Minimum NaCl rejection <sup>1,2</sup>
AK4040FM CERT	2,200 (8.3)	99.0 %	98.0 %

<sup>1</sup> Average salt rejection after 24 hours operation. Individual flow rate may vary +25%/-15%.

<sup>2</sup> Testing conditions: 500ppm NaCl solution at 115 psi (790kPa) operating pressure, 77 °F, pH 7.5 and 15% recovery.

Model	Active area ft <sup>2</sup> (m <sup>2</sup> )	Outer wrap	Part number
AG4040FM CERT	85 (7.9)	Fiberglass	1231652
AK4040FM CERT	85 (7.9)	Fiberglass	1231655



**Figure 1: Element Dimensions Diagram – Male**

**Table 2: Dimensions and Weight**

Model <sup>1</sup>	Dimensions, inches (cm)			Boxed Weight lbs (kg)
	A	B <sup>2</sup>	C <sup>3</sup>	
AG4040FM CERT	40.0 (101.6)	0.75 (1.90) OD	3.9 (9.9)	8 (3.5)
AK4040FM CERT	40.0 (101.6)	0.75 (1.90) OD	3.9 (9.9)	8 (3.5)

<sup>1</sup>These elements are bagged dried before shipping.

<sup>2</sup>Internal diameter unless specified OD (outside diameter).

<sup>3</sup>The element diameter (dimension C) is designed for optimum performance in GE Water & Process Technologies pressure vessels. Other pressure vessel dimension and tolerance may result in excessive bypass and loss of capacity.

**Table 3: Operating and CIP parameters**

Typical Operating Pressure	AG Series: 200 psi (1,379 kPa) AK Series: 100 psi (689 kPa)
Typical Operating Flux	10-20GFD (15-35LMH)
Maximum Operating Pressure	AG Serie: 600 psi (4,137 kPa), AK Serie: 400 psi (3,758 kPa)
Maximum Temperature	All: Continuous operation: 122°F (50°C) AG-AK Series Clean-In-Place (CIP): 122°F (50°C)
pH Range	AG-AK Series: Optimum rejection pH: 7.0-7.5 Continuous operation: 4.0-11.0 Clean-In-Place (CIP): 2.0-11.5
Maximum Pressure Drop	Over an element: 12psi (83kPa) Per housing: 50psi (345kPa)
Chlorine Tolerance	1,000+ ppm-hours, dechlorination recommended
Feedwater	NTU < 1 SDI < 5



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