

A SERIES | AK Elements

Reverse Osmosis

Brackish Water, Low Pressure

The A-Series family of proprietary thin-film reverse osmosis membrane elements are characterized by high flux and excellent sodium chloride rejection.

AK Low Pressure Brackish Water Elements are selected when high rejection and extremely low operating pressures are desired. These elements allow significant energy savings since good rejection is achieved at operating pressures as low as 100 psig.

AK Low Energy Brackish Water Elements feature a net, tape, fiberglass or Durasan outerwrap and standard feed spacers.

ELEMENT SPECIFICATIONS

MODEL	FLOW GPD (m ³ /d)	REJECTION AVG./MIN.	ACTIVE AREA FT ² (m ²)
AK2540FF	710 (2.7)	99.0% / 98.0%	29 (2.6)
AK2540TF	710 (2.7)	99.0% / 98.0%	27 (2.5)
AK4040C	2,475 (9.4)	99.0% / 98.0%	95 (8.8)
AK4040CF	2,350 (8.9)	99.0% / 98.0%	90 (8.4)
AK4040FF	2,200 (8.3)	99.0% / 98.0%	85 (7.9)
AK4040NF	2,200 (8.3)	98.5% / 98.0%	85 (7.9)
AK4040TF	2,200 (8.3)	99.0% / 98.0%	89 (8.3)
AK8040C	9,900 (37.5)	99.0% / 98.0%	380 (35.3)
AK8040F	10,000 (34.8)	99.0% / 98.0%	365 (33.9)
AK8040F-400	11,000 (39.8)	99.0% / 98.0%	400 (37.2)
AK8040N	9,200 (34.8)	98.5% / 98.0%	350 (32.5)
AK8040N-400	10,500 (39.8)	98.5% / 98.0%	400 (37.2)

Specification is based on a 500 mg/L NaCl solution at 115 psi (793 kPa) operating pressure, 77°F (25°C), pH 7.5 and 15% recovery. Individual flux may vary +25%/-15%. Average salt rejection after a minimum of 24 hours of continuous operation.

OPERATING AND DESIGN PARAMETERS

THIN-FILM MEMBRANE (TFM™)

TYPICAL OPERATING PRESSURE	TYPICAL OPERATING PROCESS FLUX	MAXIMUM PRESSURE	MAXIMUM TEMPERATURE	RECOMMENDED pH	CHLORINE TOLERANCE
110 psig (758 kPa)	10-20 GFD (15-35 LMH)	400 psig (2,758 kPa)	122°F (50°C)	Optimum Rejection pH: 7.0-7.5 Operating pH Range: 4.0-11.0 Cleaning pH range: 2.0-11.5	1,000 ppm-hrs., Dechlorination recommended

Feed NTU: <1, Feed SDI: <5



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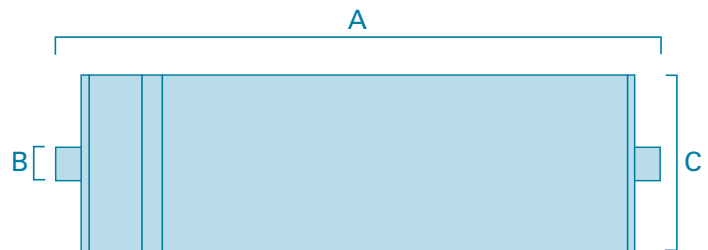
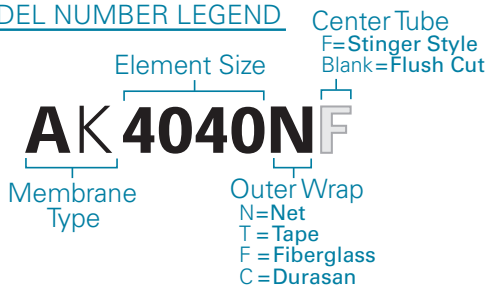
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Brackish Water, Low Pressure

MAXIMUM PRESSURE DROP	ELEMENTS PER PRESSURE VESSEL					
	1	2	3	4	5	6
ΔP - psig (kPa)	10 (69)	20 (138)	30 (207)	38 (262)	45 (310)	50 (345)

ELEMENT DIMENSIONS AND WEIGHT

MODEL NUMBER LEGEND



MODEL	DIMENSIONS INCHES(MM)			DRY BOXED
	A	B	C*	WEIGHT LBS (KG)
AK2540FF	40.00 (1016)	0.750 (19)	2.40 (61)	5 (2.3)
AK2540TF	40.00 (1016)	0.750 (19)	2.40 (61)	5 (2.3)
AK4040C	39.25 (1016)**	0.625 (16)	3.88 (99)	12 (5.5)
AK4040CF	40.00 (1016)	0.750 (19)	3.88 (99)	12 (5.5)
AK4040FF	40.00 (1016)	0.750 (19)	3.88 (99)	12 (5.5)
AK4040NF	40.00 (1016)	0.750 (19)	3.88 (99)	12 (5.5)
AK4040TF	40.00 (1016)	0.750 (19)	3.88 (99)	12 (5.5)
AK8040C	40.00 (1016)	1.125 (29)	7.88 (200)	32 (14.5)
AK8040F	40.00 (1016)	1.125 (29)	7.88 (200)	32 (14.5)
AK8040F-400	40.00 (1016)	1.125 (29)	7.88 (200)	32 (14.5)
AK8040N	40.00 (1016)	1.125 (29)	7.88 (200)	32 (14.5)
AK8040N-400	40.00 (1016)	1.125 (29)	7.88 (200)	32 (14.5)

* The element diameter (dimension C) is designed for optimum performance in GE pressure vessels. Other pressure vessel dimension and tolerance may result in excessive bypass and loss of capacity.

** Including ATDs



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