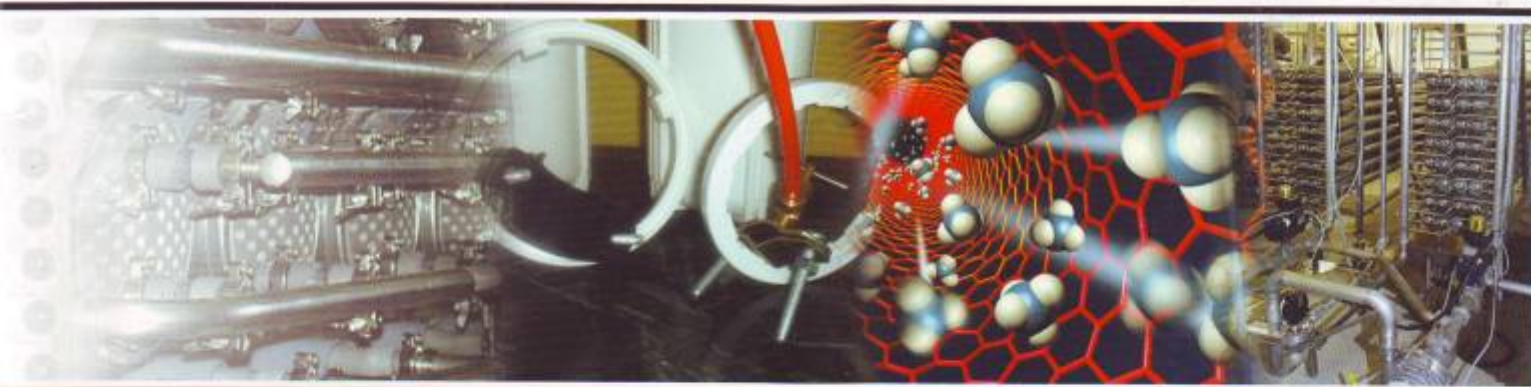


Brackish Water Membrane Products - GE WATER & PROCESS TECHNOLOGY

Thermax Description	GE Model No.	Nominal Active Surface Area ft ² (m ²)	Permeate Flow Rate gpd (m ³ /d)	Applied feed Pressure bar (psig)	Average Salt Rejection NaCl (%)	Single Element Membrane Dia mm (inches)	Single Element Permeate Tube Dia mm (inches)	Feed Spacer Thickness (mil)
TCDM 80	AG 8040 F	365 (33.9)	10,000 (37.9)	15.5 (225)	99.5	200 (7.88)	29 (1.125)	31
TCDM 81	AG 8040 F 400	400 (37.2)	11,000 (41.6)	15.5 (225)	99.5	200 (7.88)	29 (1.125)	27
TCDM 40	AG 4040 FM	85 (7.9)	2200 (8.3)	15.5 (225)	99.5	99 (3.88)	19 (0.75)	27
TCDM 41	AK 4040 FM	85 (7.9)	2200 (8.3)	7.93 (115)	99	99 (3.88)	19 (0.75)	27

(We honor any specific requirements apart from the above stated models)



Standard Test Conditions

- Solute : Sodium Chloride (NaCl)
- TDS (ppm) : 2000 (500*)
- Feed Pressure (psi) : 225 (115*)
- Temperature (°C) : 25
- pH : 7.5
- Recovery (%) : 15

Operating Limits

- Membrane Type : Thin Film Membrane (TFM®)
- Maximum Operating Pressure (psi) : 600 (400*)
- Maximum Operating Temperature (°C) : 50
- Maximum Pressure Drop : 10 psig (69 kPa) per element
: 60 psig (345 kPa) per vessel
- Optimum rejection pH : 7.0-7.5
- Operating pH range : 4.0-11.0
- Cleaning pH range : 2.0-11.5
- Free Chlorine Tolerance (ppm-hours) : 1000, Dechlorination recommended
- Typical Operating Flux (LMH) : 15-35
- Maximum Feed Turbidity (NTU) : < 1
- Maximum Feed SDI : < 5

* for AK 4040 FM

AG Series

Standard Brackish Water RO Elements



The A-Series, family of proprietary thin-film reverse osmosis membrane elements are characterized by high flux and high sodium chloride rejection. AG Standard Brackish Water Elements are selected when high rejection and operating pressures as low as 200 psi (1,379 kPa) are desired. These elements allow moderate energy savings, and are considered a standard in the industry.

The part numbers featured below are produced in India and distributed primarily through our Hoskote location.

Table 1: Element Specification

Membrane	A-Series, Thin-Film Membrane (TFM*)
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Model	Average permeate flow gpd (m3/day) ²	Average NaCl rejection ^{1,2}	Minimum NaCl rejection ^{1,2}
AG4040FM	2,200 (8.3)	99.5%	99.0%
AG4040TM	2,200 (8.3)	99.5%	99.0%
AG8040F	9,600 (36.3)	99.5%	99.0%
AG8040F WET	9,600 (36.3)	99.5%	99.0%
AG8040F 400	10,500 (39.8)	99.5%	99.0%
AG8040F 400 WET	10,500 (39.8)	99.5%	99.0%

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

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

Model	Active area ft ² (m ²)	Outer wrap	Part number
AG4040FM	85 (7.9)	Fiberglass	3033327
AG4040TM	85 (7.9)	Tape	3033328
AG8040F	365 (33.9)	Fiberglass	3033329
AG8040F WET	365 (33.9)	Fiberglass	3033610
AG8040F 400	400 (37.2)	Fiberglass	3033611
AG8040F 400 WET	400 (37.2)	Fiberglass	3033612

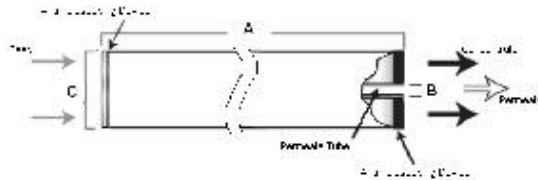


Figure 1: Element Dimensions Diagram – Female

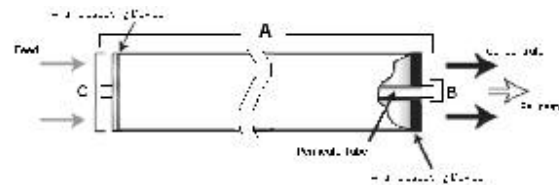


Figure 2: Element Dimensions Diagram – Male

Table 2: Dimensions and Weight

Model	Dimensions, inches (cm)			Boxed Weight lbs (kg)
	A	B ²	C ³	
AG4040FM	40.0 (101.6)	0.75 (1.90) OD	3.9 (9.9)	8 (3.5)
AG4040TM	40.0 (101.6)	0.75 (1.90) OD	3.9 (9.9)	8 (3.5)
AG8040F	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	32 (14.5)
AG8040F WET	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)
AG8040F 400	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	32 (14.5)
AG8040F 400 WET	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)

¹ These elements are bagged dried, unless specified WET, before shipping.

² Internal diameter unless specified OD (outside diameter).

³ 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.

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Table 3: Operating and CIP parameters

Typical Operating Pressure	200 psi (1,379 kPa)
Typical Operating Flux	10-20GFD (15-35LMH)
Maximum Operating Pressure	Tape 450 psi (3,103 kPa) Other outerwrap: 600 psi (4,137 kPa)
Maximum Temperature	Continuous operation: 122°F (50°C) Clean-In-Place (CIP): 122°F (50°C)
pH Range	Optimum rejection: 7.0-7.5, Continuous operation: 4.0-11.0, Clean-In-Place (CIP): 2.0-11.5
Maximum Pressure Drop	Over an element: 12 psi (83 kPa) Per housing: 50 psi (345 kPa)
Chlorine Tolerance	1,000+ ppm-hours, Dechlorination recommended
Feedwater	NTU < 1 SDI < 5