

Commercial Elements

Small Size Spiral-Wound Elements for Commercial Applications

AG High Rejection Brackish Water Commercial Elements are selected when high solute rejection is required and an operating pressure up to 200 psig is acceptable. These elements are considered a standard in the industry. AK Low Pressure Brackish Water Commercial Elements are selected when the highest solute rejection is not needed but a low operating pressure is desired. These elements allow significant energy savings since good rejection is achieved at operating pressures as low as 100 psig.

These elements are designed for light industrial or commercial applications. For cost optimization, they feature a tape outer wrap.

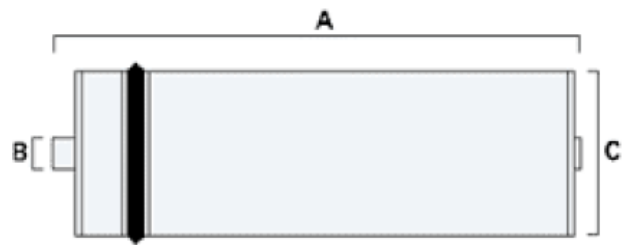


Figure 1: Element Dimensions Diagram – Male

Table 1: Element Specification

| Membrane | Thin-Film Membrane (TFM*) | | |
|----------|---|-------------------------------------|-------------------------------------|
| Model | Average permeate flow gpd (m3/day) ¹ | Average NaCl rejection ¹ | Minimum NaCl rejection ¹ |
| AG2521TM | 300 (1.14) | 99.5% NaCl ² | 99.0% NaCl ² |
| AG3218TM | 700 (2.6) | 99.5% NaCl ² | 99.0% NaCl ² |
| AG4021TM | 1050 (3.9) | 99.5% NaCl ² | 99.0% NaCl ² |
| AK2521TM | 300 (1.14) | 99.0% NaCl ³ | 98.0% NaCl ³ |
| AK3218TM | 700 (2.6) | 99.0% NaCl ³ | 98.0% NaCl ³ |
| AK4021TM | 1050 (3.9) | 99.0% NaCl ³ | 98.0% NaCl ³ |

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

² Testing conditions: 2,000ppm NaCl solution at 225psi (1,551kPa) operating pressure, 25°C (77°F), pH 7.5 and 15% recovery.

³ Testing conditions: 500ppm NaCl solution at 115psi (793kPa) operating pressure, 25°C (77°F), pH 7.5 and 15% recovery.

| Model | Active area ft ² (m ²) | Outer wrap | Part number |
|----------|---|------------|-------------|
| AG2521TM | 13 (1.2) | Tape | 1206719 |
| AG3218TM | 29 (2.7) | Tape | 1206739 |
| AG4021TM | 42 (3.9) | Tape | 1206750 |
| AK2521TM | 13 (1.2) | Tape | 1206799 |
| AK3218TM | 29 (2.7) | Tape | 1206803 |
| AK4021TM | 42 (3.9) | Tape | 1206812 |

Table 2: Dimensions and Weight

| Model ¹ | Dimensions, inches (cm) | | | Boxed Weight lbs (kg) |
|--------------------|-------------------------|----------------|----------------|-----------------------|
| | A | B ² | C ³ | |
| A*2521TM | 21 (53.3) | 0.75 (1.90) OD | 2.4 (6.1) | 2.1 (0.9) |
| A*3218TM | 18 (45.7) | 0.75 (1.90) OD | 3.2 (8.1) | 2.4 (1.1) |
| A*4021TM | 21 (53.3) | 0.75 (1.90) OD | 3.88 (9.9) | 3.3 (1.5) |

¹ These elements are bagged dried.

Table 3: Operating and CIP parameters

| | |
|----------------------------|--|
| Typical Operating Flux | 10-20GFD (15-35 LMH) |
| Maximum Operating Pressure | 400 psi (3,758 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: 3.0-10.0 Clean-In-Place (CIP): 1.0-12.0 |
| Chlorine Tolerance | 1000 ppm-hours, Dechlorination recommended |
| Feedwater ³ | NTU < 1 SDI < 5 |

³SDI is measured on a non-linear scale using a 0.45 micron filter paper. Additionally, finer colloids, particulates and microorganisms that pass through the filter paper and not measured in the SDI test, will potentially foul the RO element. For performance consistency and project warranty, please use Winflows projection software and consult your Filters with Membranes representative.