ADH2OC industrial

Product Information

MEMBRANE BW30 PRO-4040

FilmTec™ BW30 PRO-4040 & BW30 PRO-2540

Fiberglassed Large Commercial Elements for Challenging Water Conditions

Key Features

- Delivers consistent water quality and higher rejection and flow than previous generation FilmTec™ BW30 product
- Based on historical FilmTec™ BW30 industry-standard RO membrane with decades of proven performance
- Outstanding durability resulting in stable, long-term performance and sustainable water solutions
- Enhanced fouling protection
- Dry elements achieve quick stabilization

Key Applications

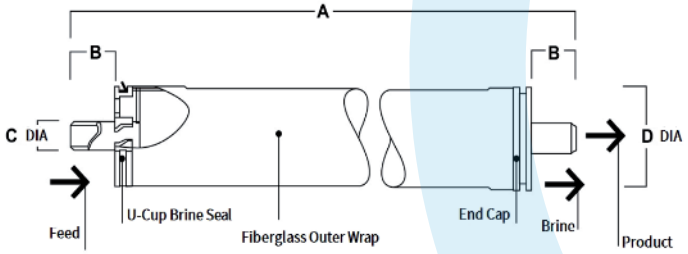
- Light industrial & Drinking water applications requiring stringent permeate quality
- Harsh feed water conditions

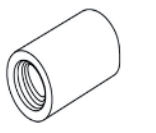
Typical Properties

Product	Part Number	Active Area ft^2 (m^2)	Permeate Flow Rate gpd (m^3/d)	Stabilized Salt Rejection %
BW30 PRO-4040	12080524	85 (7.9)	2,600 (9.8)	99.7
BW30 PRO-2540	12081023	28 (2.6)	1,000 (3.8)	99.7

1. Permeate flow and salt rejection based on the following test conditions: 2,000 ppm NaCl and 225 psig (15.5 bar), pH 8, 77°F (25°C) and 15% recovery.
2. Minimum salt rejection is 99.5%.
3. Permeate flows for individual elements may vary +/-15%.

Element Dimensions





FilmTec™ coupler part number 89055 is ordered separately for each element. Each coupler includes two 2-210 EPR O-rings (part number 89255).

Product	Dimensions – inches (mm) 1 inch = 25.4 mm A	B	C	D
BW30 PRO-4040	40.0 (1,016)	1.05 (26.7)	0.75 (19)	3.9 (99)
BW30 PRO-2540	40.0 (1,016)	1.19 (30.2)	0.75 (19)	2.4 (61)

1. Refer to FilmTec™ Design Guidelines for multiple-element systems of midsize elements (Form No. 45-D01588-en).
2. BW30 PRO-2540 Elements fit nominal 2.5-inch I.D. pressure vessel. BW30 PRO-4040 Elements fit nominal 4-inch I.D. pressure vessel.

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Operating and Cleaning Limits

Membrane Type	Polyamide Thin-Film Composite
Maximum Operating Temperature[a]	113°F (45°C)
Maximum Operating Pressure	600 psi (41 bar)
Maximum Feed Flow Rate	
4040 Elements	16 gpm (3.6 m³/h)
2540 Elements	6 gpm (1.4 m³/h)
Maximum Pressure Drop	15 psig (1.0 bar)
pH Range	
Continuous Operation[a]	2 - 11
Short-Term Cleaning (30 min.)[b]	1 - 13
Maximum Feed Silt Density Index (SDI)	SDI 5
Free Chlorine Tolerance[c]	< 0.1 ppm

a. Maximum temperature for continuous operation above pH 10 is 95°F (35°C).
b. Refer to FilmTec™ Cleaning Guidelines (Form No. 45-D01696-en).
c. Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, it is recommended that residual free chlorine be removed by pretreatment prior to membrane exposure. Please refer to Dechlorinating Feedwater (Form No. 45-D01569-en) for more information

General Information

- Keep elements moist at all times after initial wetting
- For successful operation of Reverse Osmosis (RO) and Nanofiltration (NF) membrane systems, the operation must follow the guidelines provided in the FilmTec™ Reverse Osmosis / Nanofiltration Elements Operation Excellence and Limiting Conditions Tech Fact (Form No. 45-D04388-en).
- To prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution
- The customer is fully responsible for the effects of incompatible chemicals and lubricants on elements
- Maximum pressure drop across an entire pressure vessel (housing) is 50 psi (3.4 bar)
- Avoid static permeate-side backpressure at all times
- Permeate obtained from the first hour of operation should be discarded.
- 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.
- 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.
- Permeate obtained from the first hour of operation should be discarded.

Important Information

- 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. Following the proper start-up sequence also helps ensure that system operating parameters conform to design specifications so that system water quality and productivity goals can be achieved.
- Before initiating system start-up procedures, membrane pretreatment, loading of the membrane elements, instrument calibration and other system checks should be completed.
- Please refer to the application information literature entitled Start-Up Sequence (Form No. 45-D01609-en) for more information.
- Please refer to the FilmTec™ Reverse Osmosis Membranes Technical Manual (Form No. 45-D01504-en).
- Please refer to Storage and Shipping of New FilmTec™ Elements (Form No. 45-D01633-en) for further information.

Regulatory Note

This product may be subject to drinking water application restrictions in some countries; please check the application status before use and sale.