

MICRODYN RO

High Rejection

Brackish Water RO Elements

The MICRODYN RO series of brackish water reverse osmosis (RO) membranes is ideal for water purification applications. These elements feature our best membranes for upgrading an RO system and offer very high solute rejection. MICRODYN RO elements are available in standard 4" and 8" spiral wound designs to meet all your new equipment and direct replacement needs.

MEMBRANE CHARACTERISTICS

Membrane chemistry	Thin-film composite polyamide
Stabilized salt rejection	99.6%
Minimum salt rejection	99.4%

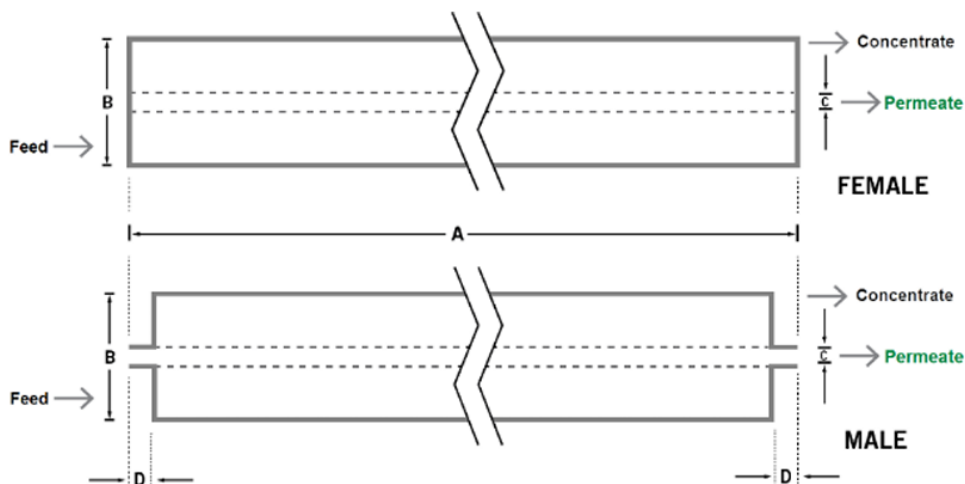
ELEMENT SPECIFICATIONS

Model	4040-TW	4040-BW	8040-BW-365	8040-BW-400	8040-BW-400/34	8040-BW-440
Permeate flow in m ³ /d (GPD) ^a	9.3 (2,450)	9.3 (2,450)	38.0 (10,050)	41.6 (11,000)	41.6 (11,000)	45.4 (12,000)
Membrane area in m ² (ft ²) ^b	7.9 (85)	7.9 (85)	33.9 (365)	37.2 (400)	37.2 (400)	40.9 (440)

^a Test conditions: 1,500 ppm NaCl, 15.5 bar (225 psi), 25°C (77°F), 15% recovery, pH 8.0, 30 minutes operation. Flow rates will be no more than 15% below the values shown. Product specifications may change without notice as design revisions occur.

^b All models in this sheet have diamond-shaped feed spacers.

PHYSICAL DIMENSIONS



ELEMENT SPECIFICATIONS

Model	4040-TW	4040-BW	8040-BW-365	8040-BW-400	8040-BW-400/34	8040-BW-440
Dim. A in mm (in)	1,016 (40.0)	1,016 (40.0)	1,016 (40.0)	1,016 (40.0)	1,016 (40.0)	1,016 (40.0)
Dim. B in mm (in)	99 (3.9)	99 (3.9)	201 (7.9)	201 (7.9)	201 (7.9)	201 (7.9)
Dim. C in mm (in) ^c	19.1 (0.75)	19.1 (0.75)	28.6 (1.125)	28.6 (1.125)	28.6 (1.125)	28.6 (1.125)
Permeate tube ^d	Male	Male	Female	Female	Female	Female
Outerwrap type	Tape	Fiberglass	Fiberglass	Fiberglass	Fiberglass	Fiberglass
Weight in kg (lb) ^e	4 (9)	4 (9)	16 (36)	16 (36)	16 (36)	17 (37)

^c Diameters for Dimension "C" are as follows: For female elements, "C" is the inner diameter; for male elements, "C" is the outer diameter.

^d Male elements have a protruding permeate tube, indicated as "D" in the diagram. Dimension "D" is 26.7 mm (1.05 in).

^e Shipping weight is dependent on packaging material and quantity shipped.

OPERATING PARAMETERS

Maximum operating pressure	Tape outer wrap models: 21 bar (300 psi) Fiberglass outer wrap models: 41 bar (600 psi)
Maximum operating temperature	45°C (113°F)
Cleaning pH range ^f	1.0-12.0
Chlorine tolerance ^g	<0.1 ppm
Maximum pressure drop	1 bar (15 psi) per element; 4 bar (60 psi) per housing
Maximum SDI15	5.0
Maximum turbidity	1 NTU

^f Refer to temperature and pH limits in the [Membrane Cleaning Guide - Water Application Elements](#) (TSG-C-001).

^g Pretreatment is recommended for the removal of free chlorine and other oxidizing agents to prevent damage to membranes. Oxidizing agents, such as free chlorine, in contact with polyamide membranes may result in shortened operating life or membrane failure. Such oxidation damage is excluded from warranty. Refer to the [Membrane Operating Guide - Recommendations for Water Purification](#) (TSG-O-012).

IMPORTANT INFORMATION

- Start-up:** MANN+HUMMEL Water & Membrane Solutions recommends flushing elements for 30 minutes at low pressure and discarding permeate during the flush prior to operation. For a more detailed start-up procedure, please see the [Element Start-Up Guide - System Start-Up](#) (TSG-O-005).
- Cleaning:** MICRODYN RO membrane elements must be cleaned periodically to ensure proper operation and prevent membrane damage. Please see the [Membrane Cleaning Guide - Water Application Elements](#) (TSG-C 001).
- Storage:** MICRODYN RO membrane elements must be stored appropriately to ensure proper operation and to prevent membrane damage. Please see the Element Storage Guides ([TSG-O-009](#) and [TSG-O-010](#)).

CUSTOMIZABLE SPECIALTY ELEMENTS

MANN+HUMMEL Water & Membrane Solutions offer a full range of membranes and element designs for challenging water and process applications. Technologies include low-fouling RO, submerged ultrafiltration (UF), continuous high temperature, ultra-high pressure, unique sanitary designs, and more. Contact us to customize a product that satisfies your specific requirements.

Contact

Americas

USA: +1 805 964 8003
customerservicemus@mann-hummel.com

Asia

APAC: +65 658 68181
info.wfs@mann-hummel.com
China: +86 512 88931188
waterchina@mann-hummel.com
India: water.india@mann-hummel.com

Europe

Germany: +49 611 7118 7480
Italy: +39 0721 1796201
info.wfs@mann-hummel.com