



# MemTech™ SW-HF 400 4040 & 8040

## Sea Water-High Flux (SW-HF) 400 RO Membranes

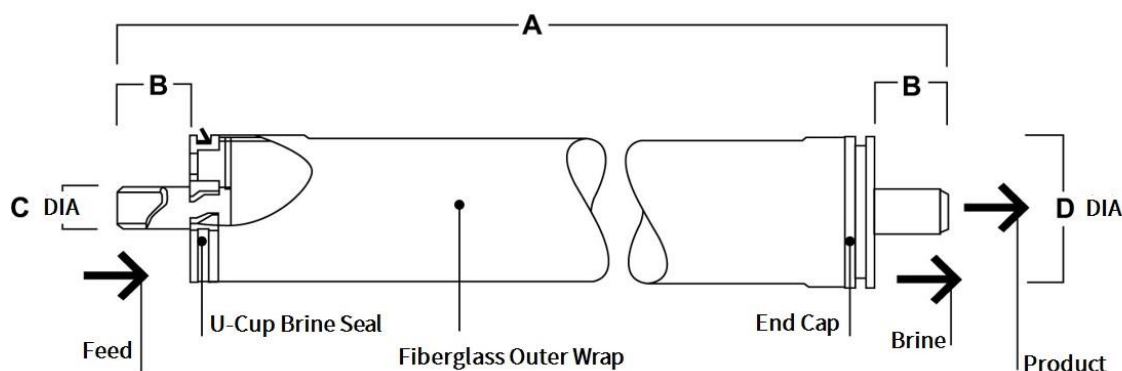
KEY FEATURES	Applications
<p>The SW-HF has key features of:</p> <ul style="list-style-type: none"><li>➤ Low operation pressure,</li><li>➤ High permeate flow,</li><li>➤ SW-HF 400 membrane elements offer the best salt rejection (99.5%) at <b>40,000 ppm</b> salt concentrations and high productivity at lower feed pressures.</li><li>➤ The RO element incorporates a proprietary feed spacer technology to reduce the pressure drop and provide long-term stable performance,</li><li>➤ As a result, the product has excellent anti-fouling properties, less chemicals are used, and less energy consumption are required.</li><li>➤ These membranes are designed for seawater, high salinity brackish water and treatment of high salinity waters for various industry.</li></ul>	<p>The SW-HF series of low-pressure elements is generally suitable for treating:</p> <ul style="list-style-type: none"><li>➤ Seawater</li><li>➤ High salinity Brackish water,</li><li>➤ High salinity Surface water,</li><li>➤ High salinity Municipal wastewater</li><li>➤ Dairy applications</li><li>➤ Pharmaceutical applications</li><li>➤ Oil and Gas industry</li><li>➤ Cement industry</li><li>➤ Steel industry</li></ul>

### Typical Properties

Product	Active Membrane Area ft <sup>2</sup> (m <sup>2</sup> )	Permeate Flow Rate GPD (m <sup>3</sup> /d)	Stabilized Salt Rejection %	Feed Spacer mil
SWHF-400- 4040	100(9.2)	2500 (9)	99.5	34
SWHF-400- 8040	400(37.2)	7,000 (27)	99.5	34

1. Test conditions: 32,000 ppm NaCl, 700 psig (48bar), pH 8, 77°F (25°C), 15 % recover.
2. Minimum salt rejection is 98.5 %.
3. Individual elements may have different permeate flows by +/- 15%.

### Element Dimensions



Product	Dimensions – inches (mm) 1 inch = 25.4 mm			
	A	B	C	D
BWLP-4040	40.0 (1,016)	1.05 (26.7)	0.75 (19)	3.9 (99)
BWLP-8040	40.0 (1,016)	1.19 (30.2)	1.25 (28.6)	7.9 (200)



## Operation Specifications and cleaning limits\*

Membrane Type	SWLP-4040	SWLP-8040
Membrane Materials	Polyamide Thin-Film Composite	
Maximum Operating Temperature <sup>a</sup>	113 °F (45 °C)	113 °F (45 °C)
Maximum Operating Pressure	1200 psi (83 bar)	1200 psi (83 bar)
Maximum Feed Flow Rate	16 gpm (3.6 m <sup>3</sup> /h)	75 gpm (17 m <sup>3</sup> /h)
Maximum Pressure Drop	15 psig (1.0 bar)	15 psig (1.0 bar)
pH Range	2 - 11	2 - 11
Maximum Feed Silt Density Index (SDI)	SDI 5	SDI 5
Free Chlorine Tolerance	< 0.1 ppm	< 0.1 ppm

1. Over pH 10, the maximum continuous temperature is 95 °F (35 °C).
2. In certain conditions, free chlorine and other oxidizing agents can cause premature membrane failure. Pretreatment prior to membrane exposure is recommended to prevent oxidation damage, since oxidation damage is not covered by warranty.

## General Information

1. After initial wetting, keep elements moist at all times
2. The limited warranty will be null and void if the operating limits and guidelines are not strictly followed.
3. For the purpose of preventing biological growth during prolonged system operation shutdowns, membrane elements should be immersed in a preservative solution
4. The customer is fully responsible for the effects of incompatible chemicals and lubricants on elements
5. The maximum pressure drop across an entire pressure vessel (housing) is 50 psi (3.4 bar).
6. Always avoid static backpressure on the permeate side
7. The permeate obtained from the first hour of operation should be discarded.
8. Make sure there are no abrupt changes in pressure or crossflow
9. During start-up, shutdown, cleaning, or other sequences, spiral elements should be protected from damage. It is recommended to gradually transition from a standstill to an operating state during startup:
10. The feed pressure should be gradually increased over a 30-60-minute period
11. The crossflow velocity should be gradually increased over 15-20 seconds to reach the set operating point.
12. It is crucial that the system is designed and operated correctly in order to reduce cysts and pathogens effectively.
13. The permeate obtained from the first hour of operation should be discarded.

## Important Information

14. To prevent membrane damage due to overfeeding or hydraulic shock, it is essential to start up reverse osmosis water treatment systems properly. As a result of following the proper start-up sequence, system water quality and productivity goals can also be achieved.
15. Pretreatment of the membrane, loading of the membrane elements, instrument calibration, and other system checks should be completed before starting the system

## Regulatory Note

Please check the application status of this product before using or selling it; some countries may restrict the use of this product in drinking water.