

HP Series

industrial low pressure NF elements

The HP membrane is characterized by an approximate molecular weight cut-off of 100-200 Dalton for uncharged organic molecules. This membrane delivers a high permeate flux and features a high retention for salts including nitrate as well as for organics compounds.

The HP membrane element is designed to operate at low pressure for a variety of applications including partial softening of water in municipal and industrial markets.

Table 1: Element Specification

Membrane		Thin-film membrane (TFM*)	
Model	Test Salt	Average permeate flow gpd (m3/day)	Stabilized rejection
HP4040F30	NaCl	2,400 (9.1) ¹	85-95% ¹
	MgSO ₄	2,800 (10.6) ²	>98% ²
HP8040F30	NaCl	11,000 (41.6) ¹	85-95% ¹
	MgSO ₄	13,000 (49.2) ²	>98% ²

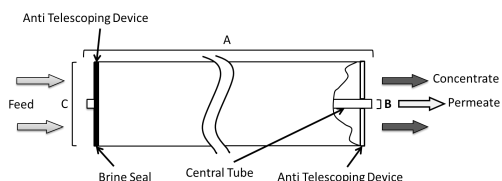
After 24 hours operation, individual flow rate may vary +25%/-25%.

¹ 500ppm NaCl feed solution, 75 psi operating pressure, 77°F (25°C), pH7 and 15% permeate recovery

² 2000 ppm MgSO₄ feed solution, 100 psi operating pressure, 77°F (25°C), pH7 and 15% permeate recovery

Model	Active area ft² (m²)	Outer wrap	Part number
HP4040F30	80 (7.4)	Fiberglass	3151070
HP8040F30	400 (37.1)	Fiberglass	3149763

Figure 1a: Element Dimensions Diagram – Male



Water Technologies & Solutions fact sheet

Figure 1b: Element Dimensions Diagram – Female

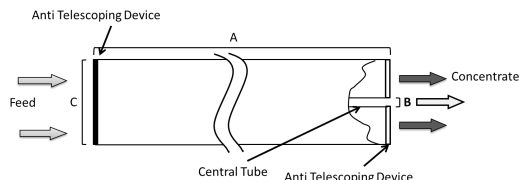


Table 2: Operating and CIP parameters

Typical Operating Pressure	70 psi (483 kPa gage)
Typical Operating Flux	10-20GFD (17-34LMH)
Maximum Operating Pressure	600psi (4,137kPa)
Maximum Temperature	122°F (50°C)
pH range	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	500+ ppm-hours, dechlorination recommended
Feedwater	NTU <1 SDI < 5

Table 3: Dimensions and Weights

Model ¹	Type	Dimensions, inches (cm)			Boxed Weight lbs (kg)
		A	B ¹	C	
HP4040F30	Male	40.0 (101.6)	0.75 (1.90) OD	3.9 (9.9)	9 (4)
HP8040F30	Female	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)

¹ Internal diameter unless specified OD (outside diameter).