HP Series

FACT SHEET

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 (m^3/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%.

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

(2) 2000 ppm $MgSO_4$ feed solution, 100 psi operating pressure, 77°F (25°C), pH7 and 15% permeate recovery.

Model	Active area ft^2 (m^2)	Outer wrap	Part number
HP4040F30	80 (7.4)	Fiberglass	3151070
HP8040F30	400 (37.1)	Fiberglass	3149763

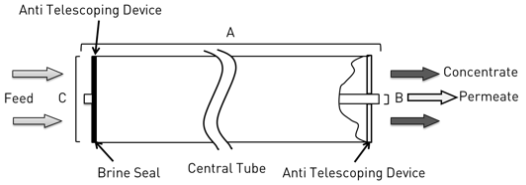

Figure 1a: Element Dimensions Diagram – Male

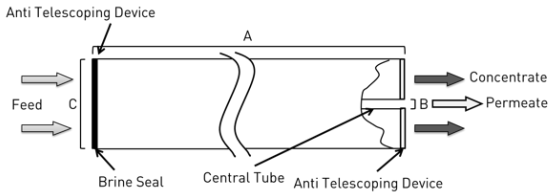

Figure 1b: Element Dimensions Diagram – Female

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	Continuous operation: 122°F (50°C) Clean-In-Place (CIP): 122°F (50°C)
pH Range	Continuous operation 3.0 – 9.0 Clean-In-Place (CIP): 2.0 – 11.0 (1)
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_{15} < 5

(1) Refer to Cleaning Guidelines Technical Bulletin TB1194.

Table 3: Dimensions and Weights

Model	Fig.	Dimensions, inches (cm)			Boxed Weight lbs (kg)
		A	B	C	
HP4040F30	1a	40.0 (101.6)	0.75 (1.90)	3.9 (9.9)	11 (5)
HP8040F30	1b	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	35 (16)

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