Fact Sheet

Duraslick* Series

Low Fouling NF/RO Elements

Duraslick* is a family series of membrane elements engineered for use with fouling-prone brackish water applications and industrial effluent treatment before reuse or discharge. Duraslick* is designed to utilize an innovative three-layer membrane, of which a proprietary middle layer creates extreme smoothness, and provide a high rejection of salts.

Independent studies have demonstrated that Duraslick* elements are superior to standard polyamide spiral wound membrane elements for salt removal in fouling environment. Duraslick* elements retrofit existing systems to obtain stable permeate flux, reduced overall energy usage, increased membrane service life and an extension of operating time between required cleanings, which in turn reduces expenditures on required chemicals.

Table 1: Element Specification

Membrane	Thin-film membrane (TFM*)

Model	Average permeate flow gpd (m3/day)[1,2]	Average NaCl rejection[1,2]	Minimum NaCl rejection[1,2]
Duraslick RO2540	550 (2.1)	98.5%	97.0%
Duraslick RO4040	1,900 (7.2)	98.5%	97.0%
Duraslick RO8040	7,700 (29.1)	98.5%	97.0%

[1] Average salt rejection after 24 hours operation. Individual flow rate may vary +25%/-25%.
[2] Testing conditions: 2,000 ppm NaCl solution at 225 psig (1,551 kPa) operating pressure, 77°F (25°C), pH 7.5 and 15% recovery.

Model	Average permeate flow gpd (m3/day)[1,2]	Average MgSO4 rejection [1,2]	Minimum MgSO4 rejection [1,2]
Duraslick NF2540	600 (2.3)	98.0%	96.0%
Duraslick NF4040	2,400 (9.1)	98.0%	96.0%
Duraslick NF8040	8,600 (32.6)	98.0%	96.0%

[1] Average salt rejection after 24 hours operation. Individual flow rate may vary +25%/-25%.
[2] Testing conditions: 2,000 ppm $MgSO_4$ solution at 110 psi (760 kPa) operating pressure, 77°F (25°C), pH 7.5 and 15% recovery.

Model	Spacer mil (mm)	Active area ft² (m²)	Outer wrap	Part number
Duraslick RO2540	30 (0.76)	28 (2.6)	Fiberglass	1231055
Duraslick RO4040	30 (0.76)	85 (7.9)	Fiberglass	1231048
Duraslick RO8040	30 (0.76)	369 (34.3)	Fiberglass	1231014
Duraslick NF2540	30 (0.76)	28 (2.6)	Fiberglass	1234385
Duraslick NF4040	30 (0.76)	85 (7.9)	Fiberglass	1234307
Duraslick NF8040	30 (0.76)	369 (34.3)	Fiberglass	1234182

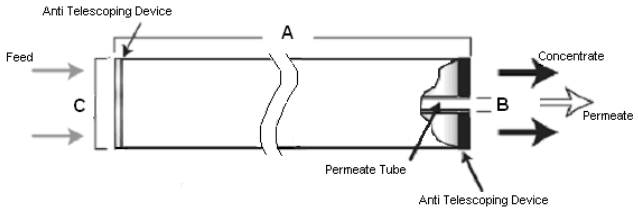

Figure 1: Element Dimensions Diagram – 8040

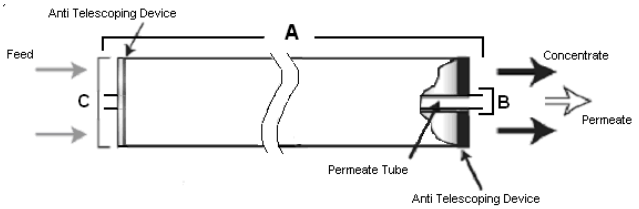

Figure 2: Element Dimensions Diagram – 2540 & 4040

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Table 2: Dimensions and Weight

Model[1]	Dimensions, inches (cm)			Boxed
	A	B[2]	C[3]	Weight lbs (kg)
Duraslick XX2540	40.0 (101.6)	0.75 (1.9) OD	2.4 (6.1)	4 (1.8)
Duraslick XX4040	40.0 (101.6)	0.75 (1.9) OD	3.9 (9.9)	9 (4.1)
Duraslick XX8040	40.0 (101.6)	1.125 (2.86)	7.9 (20.0)	29 (13.2)

[1] These elements are dried and bagged before shipping.
[2] Internal diameter.
[3] The element diameter (dimension C) is designed for optimum performance in GE pressure vessels. Others pressure vessel dimension and tolerance may result in excessive bypass and loss of capacity.

Table 3: Operating and CIP parameters

Typical Operating Pressure	Duraslick RO: 200psi (1,379 kPa) Duraslick NF: 100psi (690 kPa)
Typical Operating Flux	10-15GFD (15-25LMH)
Maximum Operating Pressure	600psi (4,137 kPa)
Maximum Temperature	Continuous Operation: 122°F (50°C) Duraslick RO Clean-In-Place: 122°F (50°C) Duraslick NF Clean-In-Place: 104°F (40°C)
pH Range	Duraslick RO: Continuous Operation: 4.0 – 10.0 Clean-In-Place (CIP): 2.0 – 10.5 Duraslick NF: Continuous Operation: 3.0 – 9.0 Clean-In-Place (CIP): 2.0 – 10.5
Maximum Pressure Drop	Over an element: 12psi (83 kPa) Per housing: 50psi (345 kPa)
Chlorine Tolerance	500 ppm-hrs, dechlorination recommended
Feedwater	NTU < 1 SDI < 5