Duraslick* Series

Low Fouling NF/RO Elements

Duraslick* is a family series of membrane elements engineered for use with fouling-prone brackish water applications. 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 desalination of difficult feed water sources. Duraslick* elements retrofit existing systems to obtain lower fouling, 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. Duraslick* HS elements are specially designed for comparatively higher suspended solids levels.

Table 1: Element Specification

Membrane	Thin-film membrane (TFM*)

Model	Flow average gpd (m3/day)[1]	Salt rejection average (NaCl)[1,2]	Salt rejection min. (NaCl)[1,2]
Duraslick RO 2540	675 (2.6)	98.6%	97.0%
Duraslick RO 4040	2,000 (7.6)	98.6%	97.0%
Duraslick RO 4040 HS	1,500 (5.7)	98.6%	97.0%
Duraslick RO 8040	7,700 (29.1)	98.6%	97.0%
Duraslick RO 8040 HS	6,100 (23.1)	98.6%	97.0%

[1] Average salt rejection after 24 hours operation. Individual flow rate may vary +25%/-25%.
[2] Testing conditions: 800ppm NaCl solution at 225psig (1,551 kPa) operating pressure, 77°F, pH7.5 and 15% recovery.

Model	Flow average gpd (m3/day)[1]	Salt rejection average ($MgSO_4$)[1,2]	Salt rejection min. ($MgSO_4$)[1,2]
Duraslick NF 2540	690 (2.6)	98.6%	96.0%
Duraslick NF 4040	2,200 (8.3)	98.6%	96.0%
Duraslick NF 4040 HS	1,700 (5.7)	98.6%	96.0%
Duraslick NF 8040	10,200 (38.6)	98.6%	96.0%
Duraslick NF 8040 HS	7,600 (23.1)	98.6%	96.0%

[1] Average salt rejection after 24 hours operation. Individual flow rate may vary +25%/-25%.
[2] Testing conditions: 2,000ppm $MgSO_4$ solution at 100psig (690 kPa) operating pressure, 77°F, pH7.5 and 15% recovery.

Model	Spacer Mil (mm)	Active Area ft² (m²)	Outerwrap	Part Number
Duraslick RO 2540	30 (0.76)	27 (2.5)	Fiberglass	1231055
Duraslick RO 4040	30 (0.76)	85 (7.9)	Fiberglass	1231048
Duraslick RO 4040 HS	35 (0.89)	64 (5.9)	Fiberglass	1234386
Duraslick RO 8040	30 (0.76)	350 (32.5)	Fiberglass	1231014
Duraslick RO 8040 HS	35 (0.89)	278 (25.8)	Fiberglass	1234403
Duraslick NF 2540	30 (0.76)	24 2.2)	Fiberglass	1234385
Duraslick NF 4040	30 (0.76)	78 (7.2)	Fiberglass	1234307
Duraslick NF 4040 HS	35 (0.89)	60 (5.6)	Fiberglass	1234405
Duraslick NF 8040	30 (0.76)	350 (32.5)	Fiberglass	1234182
Duraslick NF 8040 HS	35 (0.89)	263 (24.4)	Fiberglass	1234183

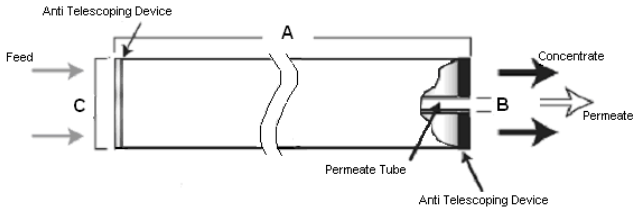


Figure 1: Element Dimensions Diagram - Female

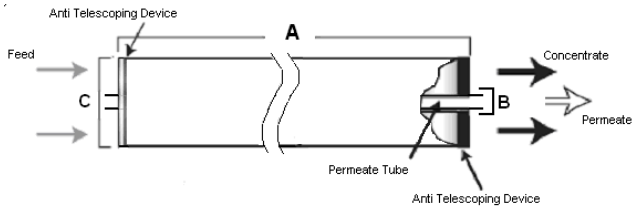


Figure 2: Element Dimensions Diagram - Male

Table 2: Dimensions and Weight

Model[2]	Dimensions, inches (cm)			Boxed
	A	B[1]	C[3]	Weight lbs (kg)
Duraslick RO 2540	40.0 (101.6)	0.75 (1.9) OD	2.4 (6.1)	5 (2.3)
Duraslick RO 4040	40.0 (101.6)	0.75 (1.9) OD	3.9 (9.9)	8 (3.5)
Duraslick RO 4040 HS	40.0 (101.6)	0.75 (1.9) OD	3.9 (9.9)	8 (3.5)
Duraslick RO 8040	40.0 (101.6)	1.125 (2.86)	7.9 (20.0)	32 (14.5)
Duraslick RO 8040 HS	40.0 (101.6)	1.125 (2.86)	7.9 (20.0)	32 (14.5)
Duraslick NF 2540	40.0 (101.6)	0.75 (1.9) OD	2.4 (6.1)	5 (2.3)
Duraslick NF 4040	40.0 (101.6)	0.75 (1.9) OD	3.9 (9.9)	8 (3.5)
Duraslick NF 4040 HS	40.0 (101.6)	0.75 (1.9) OD	3.9 (9.9))	8 (3.5)
Duraslick NF 8040	40.0 (101.6)	1.125 (2.86)	7.9 (20.0)	32 (14.5)
Duraslick NF 8040 HS	40.0 (101.6)	1.125 (2.86)	7.9 (20.0)	32 (14.5)

[1]Internal diameter unless specified OD (outside diameter).
[2]These elements ship dry.
[3] The element diameter (dimension C) is designed for optimum performance in GE Water & Process Technologies pressure vessels. Others pressure vessel dimension and tolerance may result in excessive bypass and loss of capacity.

Table 4: Operating and CIP parameters

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