

## QuantumFlux

### Seawater Reverse Osmosis (RO) Element

#### Qfx SW 400 ES

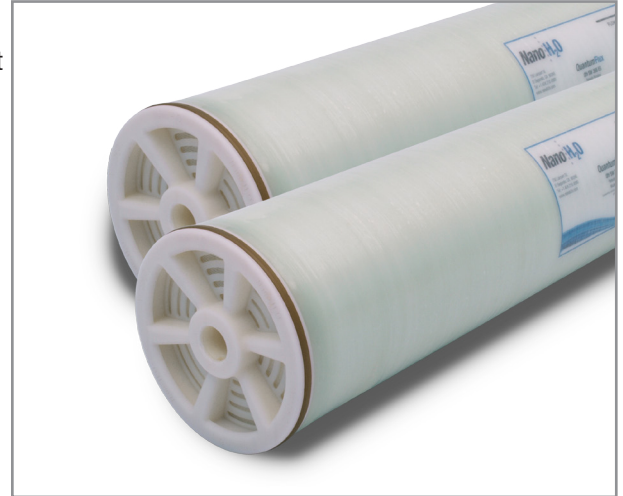
#### Overview

NanoH<sub>2</sub>O's thin-film nanocomposite (TFN) **QuantumFlux** membranes lower the cost of desalination by improving energy efficiency and productivity. Qfx membranes feature benign nanomaterials incorporated into the thin-film polyamide layer of a composite membrane. This innovative patented and patent-pending technology significantly increases membrane permeability while matching best-in-class salt rejection.

- Higher flux with requisite salt rejection
- Standard 8-inch spiral wound element design
- Easy to retrofit existing RO plants
- NSF Standard 61 Certified

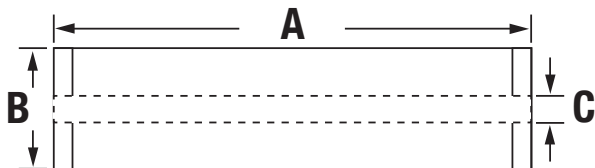
#### Product Specifications

Configuration: 8-inch spiral wound  
 Membrane Polymer: Thin-film nanocomposite (TFN) polyamide



Product Number	Permeate flow rate m <sup>3</sup> /d (gpd)	Minimum NaCl Rejection %	Stabilized NaCl Rejection %	Active Membrane Area m <sup>2</sup> (ft <sup>2</sup> )	Feed Spacer mil	Stabilized Boron Rejection %
Qfx SW 400 ES	52 (13,700)	99.7	99.8	37 (400)	28	89

Note: The above values are normalized to the following conditions: 32,000 ppm NaCl, 5 ppm boron, 5.5 MPa (800 psi), 25°C (77°F), pH 8, 8% recovery. Permeate flows for individual elements may vary +/- 15%.



Part Number	Length A	Element O.D. B	Perm Tube I.D. C	Weight kg (lbs.)
Qfx SW 400 ES	1016 mm (40 in.)	200 mm (7.9 in.)	28.6 mm (1.125 in.)	16.4 (36)

#### Operating Specifications

For more information and operating guidelines, visit [www.nanoh2o.com](http://www.nanoh2o.com)

Max. Applied Pressure:	8.27 MPa (1200 psig)
Max. Chlorine Concentration:	< 0.1 ppm
Max. Operating Temperature:	45°C (113°F)
pH Range, Continuous (Cleaning):	2-11 (1-13)
Max. Feedwater Turbidity:	1.0 NTU
Max. Feedwater SDI (15 mins):	5.0
Max. Feed Flow:	17.0 m <sup>3</sup> /h (75 GPM)
Min. Ratio of Concentrate to Permeate Flow for any Element:	5:1
Max. Pressure Drop ( $\Delta P$ ) for Each Element:	0.7 bar (10 psi)

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