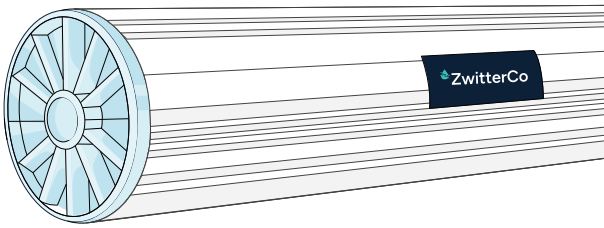
Expedition

Superfiltration (SF) Membrane



Revolutionary membrane solutions for challenging wastewater

ZwitterCo Expedition SF membranes are designed for extremely challenging wastewater applications with high or extreme levels of organic fouling potential. Powered by ZwitterCore™ technology, these Superfiltration membranes use a proprietary water-permeable zwitterionic copolymer membrane with precisely controlled pore size to enable new paradigms in membrane treatment. Expedition SF membranes excel at removing colloidal and fine suspended solids, emulsified or free oil, proteins, starches, and other large dissolved or suspended organic material from water and wastewater.

Main Benefits

- Enable wastewater and effluent treatment where it was never possible
- Adaptable solution with high turndown
- High reliability and tolerant of upsets
- Cost-effective membrane filtration for difficult water

Ideal Applications

- Industrial Water Reuse
- RO Pretreatment

Product Specifications

Element Size	8040	4040	2540
Membrane Area - ft^2 (m^2)	300 (37.2)	64 (6)	27 (2.5)
Feed Spacer – mil	46		
Nominal Pore Size/MWCO	0.0015 µm / 1 kDa		
Membrane Chemistry	Proprietary ZwitterCore™		

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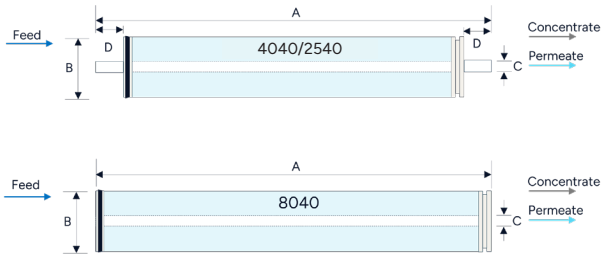
SF Membrane

Dimensions in. (mm)				
Size		8040	4040	2540
A	Element Length in (mm)	40 (1016)	40 (1016)	40 (1016)
B	Element Diameter in (mm)	7.9 (201)	3.9 (99)	2.4 (61)
C	Permeate Tube Diameter in (mm)	1.125 (28.6)	0.75 (19)	0.75 (19)
D	Male Permeate Tube Length Past Scroll End in (mm)	-	1.05 (26.7)	1.2 (30.2)



Operating Specifications	
Max Operating Pressure - psi (bar)	225 (15)
Max Pressure Drop (per element) – psi (bar)	15 (1)
Max Pressure Drop (per vessel) – psi (bar)	60 (4)
Max Operating Temp - °C (°F)	60 (140)
pH Range: Continuous Operation	2-11
pH Range: Cleaning	1-12 at up to 50°C (122°F)
Free Chlorine Tolerance	2,500,000 ppm-hours

Operating Information

1. ZwitterCo Expedition SF elements are shipped wet, preserved with 1% sodium metabisulfite, and vacuum-sealed in oxygen-minimizing bags. Each element is boxed individually. Elements must be stored in original packaging in a cool, shaded environment (23°F to 95°F / -5°C to 35°C). Freezing during transit does not damage the elements, but they must be fully thawed before use.

2. Operational guidelines and chemical compatibility must be followed as specified in ZwitterCo Expedition SF documentation. For optimal performance and system design, refer to the latest technical resources, design tools, or consult a ZwitterCo application specialist. Deviation from stated conditions or use of incompatible chemicals may impact membrane performance and may void the Limited Warranty.

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