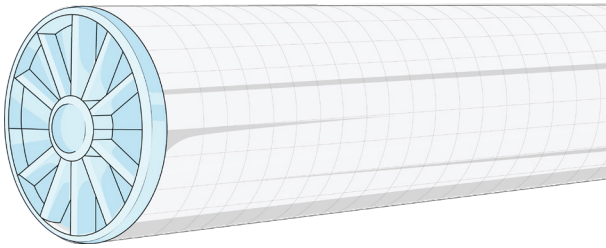
Evolution

RO 8040-30 Membrane



Productivity Gains from Shorter Cleaning

ZwitterCo Evolution RO anti-fouling membranes are powered by ZwitterShield™, a membrane technology using ZwitterCo's patented zwitterionic chemistry. This breakthrough technology creates a permanent barrier to irreversible organic fouling and prevents the adhesion of proteins, fats, carbohydrates, and other organic compounds. Evolution RO membranes do not require enzyme cleaning and are a direct replacement for conventional RO membranes.

Main Benefits

- Reduce cleaning time by 1 hour or more per day
- Eliminate enzyme washes
- Reduce cleaning costs by over 50%

Ideal Applications

- Permeate polishing
- Water Recovery
- Effluent concentration

Regulatory Status

FDA compliant for whey and milk processing. Contact ZwitterCo regarding other applications.

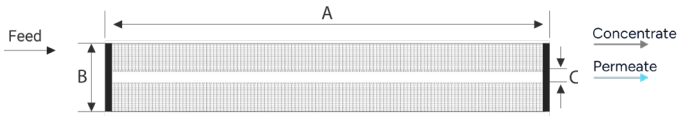
Product Specifications

Element Size	8040
Membrane Area - ft^2 (m^2)	380 (35.3)
Feed Spacer – mil	30
Membrane Chemistry	Polyamide with ZwitterShield™

Evolution

RO Membrane

Dimensions in. (mm)		
Size		8040
A	Element Length in (mm)	40 (1016)
B	Element Diameter in (mm)	7.9 (201)
C	Permeate Tube Diameter in (mm)	1.125 (28.6)



Operating Specifications	
Max Operating Pressure - psi (bar)	800 (55)
Max Pressure Drop (per element) – psi (bar)	15 (1)
Max Pressure Drop (per vessel) – psi (bar)	60 (4)
Max Operating Temp - °C (°F)	50 (122)
Max Cleaning Temp - °C (°F)	50 (122)
pH Range: Continuous Operation	2-10
pH Range: Cleaning	1-12
Free Chlorine Tolerance – ppm*	< 0.1

Removal of free chlorine and other oxidizing agents to prevent damage to membranes is recommended. Oxidizing agents, such as free chlorine, in contact with ZwitterCo Evolution RO may result in shortened operating life or membrane failure. Such oxidation damage is excluded from the warranty.

Operating Information

1. ZwitterCo Evolution RO elements are shipped wet, preserved with 1% food-grade 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 Evolution RO technical manual. 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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