

food EGG series

egg processing – egg white concentration

The EGG element features the A-Series family of proprietary thin film reverse osmosis membrane elements, characterized by high flux, and excellent sodium chloride rejection. The A-Series membrane has an average rejection of 99.5% on 2,000ppm NaCl at 25°C (77°F) and 225psi operating pressure.

The EGG elements provide high rejection of dissolved solids and low molecular weight organic constituents at operating pressures up to 600psi. The main application is the concentration of egg white.

The EGG elements feature a Durasan* Cage patented outer wrap, standard feed spacers and polysulfone parts. These elements comply with the USDA guidelines for the sanitary design and fabrication of dairy processing equipment or applicable 3-A sanitary standards.

The EGG elements comply with:

- FDA Regulations relevant sections of 21CFR
- EU Framework 1935/2004/EC
- Halal & Kosher certifications

Table 1: Element Specification

Membrane	Thin Film Membrane (TFM*)		
Model	Spacer mil (mm)	Active area ft² (m²)	Part number
EGG3840C50	50 (1.27)	58 (5.4)	3152161

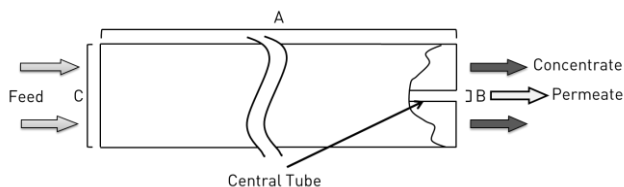


Figure 1: Element Dimensions Diagram

Table 2: Dimensions and Weight

Model	Dimensions, inches (cm)			Boxed Weight lbs (kg)
	A	B	C	
EGG3840C	38.75 (98.4)	0.833 (2.12)	3.8 (9.6)	7 (3.2)

Table 3: Operating parameters

Typical Operating Pressure	200-500psi (1,379-3,447kPa)
Typical Operating Flux	5-20 GFD (8-34 LMH)
Clean Water Flux (CWF) (1)	14 GFD (24 LMH) @ 225psi
Maximum Operating Pressure	600psi (4,137kPa)
Maximum Permeate Pressure (2)	60 psi (413 kPa)
Maximum Temperature	122°F (50°C)
pH Range	2.0-11.0
Recommended Pressure Drop	Over an element: 12psi (83kPa)
Maximum Pressure Drop	Over an element: 15psi (103kPa) Per housing: 60psi (414kPa)
Chlorine Tolerance	1000ppm-hours dechlorination recommended

(1) Clean water flux (CWF) is the rate of water permeability through the membrane after cleaning (CIP) at reproducible temperature and pressure. It is important to monitor CWF after each cleaning cycle to determine if the system is being cleaned effectively. CWF can vary ±25%.

(2) Permeate pressure should never exceed the concentrate pressure.

Table 4: CIP limits for RO elements

Temperature	pH minimum	pH maximum
< 50°C (122°F)	2.0	11.5
< 45°C (113°F)	1.5	11.5
< 35°C (95°F)	1.5	11.5
< 25°C (77°F)	1.0	12.0

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