

# CG Series

**DESAL**<sup>®</sup>  
MEMBRANE PRODUCTS

## High Flux Brackish Water RO Elements (Cellulose Acetate)

The C-Series family, a triacetate/diacetate blend, has a higher flux and better mechanical stability than standard cellulose acetate. C-Series elements offer a lower per element cost and increased chlorine resistance compared to thin-film elements.

CG High Flux Elements are used for brackish water desalination and process stream concentration at 225 psig (1,551 kPa) operating pressure.

**Table 1: Element Specification**

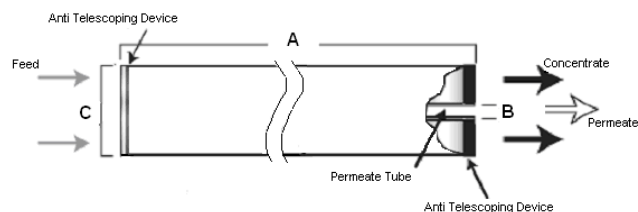
Membrane	C-series, cellulose acetate
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Model	Flow average gpd (m <sup>3</sup> /day) <sup>1</sup>	Salt rejection average (NaCl) <sup>1,2</sup>	Salt rejection minimum (NaCl) <sup>1,2</sup>
CG2540FM	600 (2.3)	93.0%	85.0%
CG4040F	2,000 (7.6)	93.0%	85.0%
CG8040F	7,300 (27.6)	93.0%	85.0%

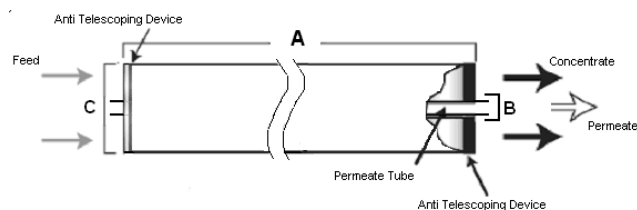
<sup>1</sup> Average salt rejection after 24 hours operation. Individual flow rate may vary +25%/-15%.

<sup>2</sup> Testing conditions: 500 ppm NaCl solution at 210 psig (1,448 kPa) operating pressure, 77°F, pH 6.5 and 15% recovery.

Model	Active Area ft <sup>2</sup> (m <sup>2</sup> )	Outerwrap	Part Number
CG2540FM	27 (2.5)	Fiberglass	1206891
CG4040F	90 (8.4)	Fiberglass	1206893
CG8040F	350 (32.5)	Fiberglass	1206896



**Figure 1: Element Dimensions Diagram - Female**



**Figure 2: Element Dimensions Diagram - Male**

**Table 2: Dimensions and Weight**

Model <sup>2</sup>	Dimensions, inches (cm)			Boxed Weight lbs (kg)
	A	B <sup>1</sup>	C <sup>3</sup>	
CG2540FM	40.0 (101.6)	0.75 (1.90) OD	2.4 (6.1)	5 (2.3)
CG4040F	40.0 (101.6)	0.625 (1.59)	3.9 (9.9)	8 (3.5)
CG8040F	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	32 (14.5)

<sup>1</sup>Internal diameter unless specified OD (outside diameter).

<sup>2</sup>These elements are shipped dry.

<sup>3</sup> 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 3: Operating and CIP parameters**

Typical Operating Pressure	60-200 psig (414-1,379 kPa)
Typical Operating Flux	10-18 GFD (17-30 LMH)
Maximum Pressure	450 psig (3,103 kPa)
Maximum Temperature	Operating: 86°F (30°C) Cleaning: 86°F (30°C)
Recommended pH	Operating Range pH: 5.0-6.5, Cleaning Range pH: 3.0-8.0
Recommended Pressure Drop	Over an element: 12 psig (83 kPa) Per housing: 50 psig (345 kPa)
Chlorine Tolerance	1 ppm maximum continuous 30 ppm for 30 min. during sanitization
Feedwater	NTU < 1 SDI < 5



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