

# PW Series

## Industrial Ultrafiltration – Post treatment of RO and NF

The P-Series family of polyethersulfone ultrafiltration membrane elements are characterized by a 20,000 molecular weight cut-off and greater than 96% rejection of Cytochrome-C (13,300 MW protein). PW Elements are used for pretreatment of process water, post treatment of ultrapure water and for the removal of organics.

Table 1: Element Specification

Membrane	P-Series, Polyethersulfone			
Model	Spacer mil (mm)	Active area ft <sup>2</sup> (m <sup>2</sup> )	Outer wrap	Part number
PW2540C30	30 (0.76)	23 (2.1)	Cage	1207350
PW2540F30	30 (0.76)	28 (2.6)	Fiberglass	1207352
PW2540F50	50 (1.27)	22 (2.0)	Fiberglass	1207351
PW4025T	50 (1.27)	50 (4.6)	Tape	1207369
PW4040C30	30 (0.76)	82 (7.6)	Cage	1207372
PW4040C50	50 (1.27)	63 (5.8)	Cage	1207371
PW4040F30	30 (0.76)	79 (7.3)	Fiberglass	3050051
PW8040C50	50 (1.27)	264 (24.5)	Cage	1207399
PW8040F30	30 (0.76)	365 (33.9)	Fiberglass	1207404
PW8040F50	50 (1.27)	269 (25.0)	Fiberglass	1207403
PW8340C50	50 (1.27)	276 (25.6)	Cage	1223936

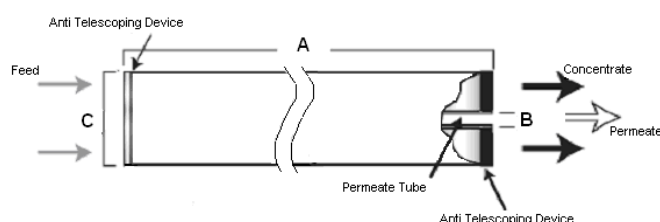


Figure 1: Element Dimensions Diagram – Female

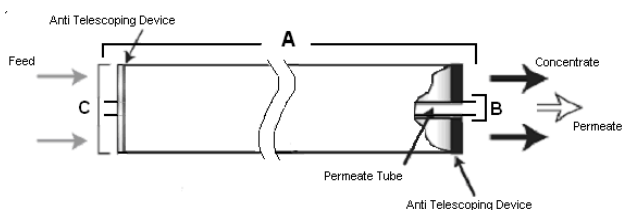


Figure 2: Element Dimensions Diagram – Male



Table 2: Dimensions and Weight

Model <sup>1</sup>	Dimensions, inches (cm)			Boxed Weight lbs (kg)
	A	B <sup>2</sup>	C <sup>3</sup>	
PW2540	40.0 (101.6)	0.75 (1.9) OD	2.4 (6.1)	4 (1.8)
PW4025	25.0 (63.5)	0.625 (1.59)	3.9 (9.9)	5 (2.3)
PW4040C	38.75 (98.4)	0.625 (1.6)	3.9 (9.8)	9 (4.1)
PW4040F	40.0 (101.6)	0.75 (1.90) OD	3.9 (9.9)	8 (3.5)
PW8040	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	29 (13.2)
PW8340	40.0 (101.6)	1.138 (2.89)	8.3 (21.1)	42 (19.1)

<sup>1</sup> These elements are bagged dry before shipping.

<sup>2</sup> Internal diameter unless specified OD (outside diameter).

<sup>3</sup> The element diameter (dimension C) is designed for optimum performance in GE pressure vessels. Other pressure vessel dimension and tolerance may result in excessive bypass and loss of capacity.

Table 3: Operating and CIP parameters

Typical Operating Pressure	80-135 psig (555 – 931 kPa)
Typical Operating Flux	10-25GFD (15-40LMH)
Maximum Operating Pressure	200 psig (1,379 kPa)
Clean Water Flux <sup>1</sup>	1.3-2.5 gfd/psi (30-60 lmh/bar) at 77°F (25°C)
Maximum Temperature	Continuous operation: 122°F (50°C) Clean In Place (CIP): 122°F (50°C)
pH Range	Continuous operation: 4.0-11.0, Clean In Place (CIP): 2.0-11.5
Maximum Pressure Drop	Over an element: 12 psig (83 kPa) Per housing: 50 psig (345 kPa)
Chlorine Tolerance	5,000+ ppm-days

<sup>1</sup>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.