

CSM 4" MEMBRANES

UE4040-PF

Normal grade UF element for RO pretreatment

CSM[®]

SPECIFICATIONS:

General Features	Permeate flow rate:	3,500 GPD (13.2 m ³ /day)
	Molecular Weight Cut Off:	50-100K (Daltons)
	Effective membrane area:	75 ft ² (7.0 m ²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

- **Concentration: pure water**
- **Pressure: 20 psig**
- **77 °F (25 °C)**

2. Permeate flow rate for each element may vary but will be no more than 20%.

3. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Homogenous Asymmetric Flat Sheet
Membrane material:	Polysulfone (PSF)
Element configuration:	Spiral-Wound, Taping

Dimensions

Model Name	A	B	C	D	E	Part Number	
						Inter-connector	Brine Seal
UE4040-PF	40.0 inch (1,016 mm)	4.0 inch (102 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	1.05 inch (26.7 mm)	40000305	40000306



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All UE4040 elements fit nominal 4.0 inch (102 mm) I.D. pressure vessels.

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APPLICATION DATA:

Operating Limits

· Max. Pressure Drop / Element	15 psi (0.1 MPa)
· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
· Max. Operating Pressure	400 psi (2.78 MPa)
· Max. Feed Flow Rate	18 gpm (4.0 m ³ /hr)
· Min. Concentrate Flow Rate	4 gpm (0.91 m ³ /hr)
· Max. Operating Temperature	113 °F (45 °C)
· Operating pH Range	2.0–11.0
· CIP pH Range	1.0–13.0
· Max. Turbidity	1.0 NTU
· Max. SDI (15 min)	5.0

Design Guidelines for Various Water Sources

· Surface Water (SDI < 5)	10–15 gfd
· Softened Water (SDI < 3)	15–20 gfd
· RO permeate (SDI < 1)	21–30 gfd

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.