

HBCR™ High Brine Concentration and Recovery Spiral Elements

HBCR™ High Brine Concentration and Recovery spiral membrane element is available as a standalone product or in combination with Forward Osmosis and Sea Water Reverse Osmosis. When used within a standalone process, an HBCR train is capable of generating greater than 200,000 TDS NaCl at 1,000 psi (70 bar) from NaCl Brines with 500 TDS NaCl permeate. The most common application is the re-concentration of draw solution in Forward Osmosis, generating above 100,000 TDS waste water concentrate and thereby minimizing ZLD costs.

- HBR-TFC-8040- I, II & III High Brine Concentration

Features and Benefits:

- High brine concentration: concentrating 35,000 TDS NaCl to 140,000 TDS using only 5 KWH per m³ of water removed
- System configuration similar to conventional SWRO equipment and components operated at 70 bar
- Robust design, long service life



Type	Configuration: Spiral Wound	Membrane Polymer: Composite Polyamide	Feed Spacer Material: Polypropylene	
	Nominal Membrane Area 400 ft ² (37 m ²)			
Dimensions	A Total Length 40.0 inches (1016 mm)	B ATD Diameter 7.89 inches (200 mm)	C Connection Int. Diameter 1.125 inches (28.6 mm)	Weight 36 lbs (16.4Kg)



P = Permeate
F = Feed
Cn = Concentrate

HBCR™ High Brine Concentration and Recovery

Membrane

Model#: HBR-TFC- 8040

Maximum Operating Limits:

Operating Pressure	Temperature	Pressure Differential	Feed Flow	Chlorine Concentration	Feedwater SDI	Freedwater Turbidity
1150 psi (80 bar)	113°F (45°C)	10 psi (0.7 bar)	75 gpm (17.0 m ³ /h)	<0.1 ppm	5.0	1.0 NTU

Other Operating Parameters:

Feedwater pH limits: 3.0 - 10.0

The limitations shown in Operating Limits are for general use. The values may be more conservative for specific projects to ensure the best performance and longest life of the membrane.

Notice:

Element is vacuum sealed in a polyethylene bag containing less than 1.0% sodium meta-bisulfite. Element is supplied with interconnector.

Guidelines:

Avoid static permeate-side back pressure at all times. For element loading use only silicon or glycerin to lubricate o-rings and brine seal.

The customer is fully responsible for the effects of incompatible chemicals on elements. The presence of free chlorine and other oxidizing agents will cause membrane failure, the damaged is not covered under warranty.

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