

Aquaporin Inside® CLEAR Plus FR 4040 & 4040XL

High Capacity Low Energy Advanced Reverse osmosis



High water flow with enhanced rejection performance



Fouling resistant and low energy water treatment



Biomimetic product incorporating nature's water channels

PRODUCT TYPE

The Aquaporin Inside® CLEAR membrane series are biomimetic products that get their unique properties from their embedded aquaporin proteins, nature's water channels.

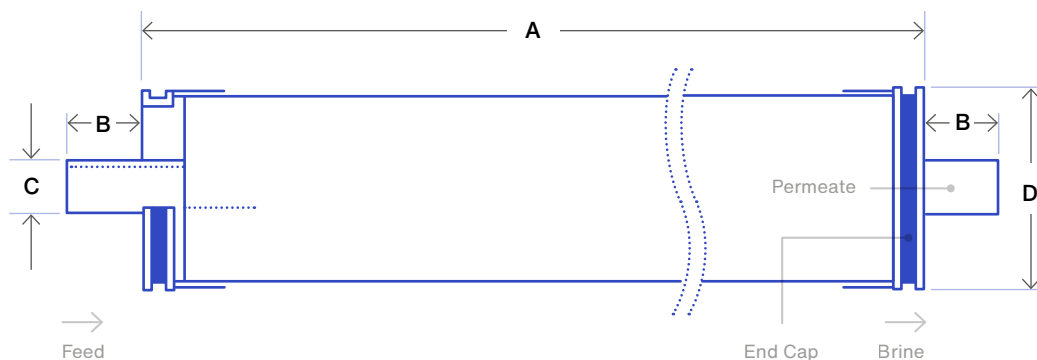
All Aquaporin Inside® CLEAR membranes are available in standard configurations and can easily fit into any commercial or industrial RO system.

PRODUCT SPECIFICATIONS

Product name	Item no.	Element type	Active membrane area	Product performance			Test conditions	
				Permeate flow rate	Typical rejection	Minimum rejection	Feed water	Pressure
Aquaporin Inside® CLEAR Plus FR 4040	40107	Fiberglass, wet	85 ft ² 7.9 m ²	1,800 GPD	99.0%	98.5%	2,000 ppm NaCl	125 psi (8.6 bar)
Aquaporin Inside® CLEAR Plus FR 4040XL	40108	Tape wrap, wet	97 ft ² 9.0 m ²	2,100 GPD	99.0%	98.5%	2,000 ppm NaCl	125 psi (8.6 bar)

The stated product performances are tested at 25°C (77°F), 15% recovery, pH 7-8. Permeate flow rate and rejections are stated after a minimum of 60 min operation. Individual element permeate flow rate may vary ± 15%.

ELEMENT DIMENSIONS



Dimensions (inches / millimeters)

Product name	A	B	C	D
Aquaporin Inside® CLEAR Plus FR 4040 series	40.0 / 1016.0	1.05 / 26.7	0.75 / 19.1	3.95 / 100.3

Aquaporin A/S reserves the right to change specifications without prior notice.

The CLEAR Plus FR 4040 element series fits standard 4 inch inner diameter pressure vessels. For element loading use only glycerine to lubricate o-rings and brine seal.

OPERATING SPECIFICATIONS

Maximum operating pressure	41.4 bar (600 psi) for fiberglass 20.7 bar (300 psi) for tape wrap	Maximum feed water SDI	5 (15 min)
Maximum feed flow rate	3.6 m ³ /h (16 gpm)	Maximum feed water turbidity	1 NTU
Maximum operating temperature	45°C (113°F)	pH range (operation)	3-10
Maximum pressure drop	0.7 bar (10 psi)	pH range (short-term cleaning, 25°C / 77°F)	1-12
		Free chlorine tolerance	< 0.1 ppm

ADDITIONAL INFORMATION

- ✓ Permeate from the first hour of operation should be discarded. Do not use this initial permeate for consumption.
- ✓ To prevent biological growth during prolonged system shutdowns, it is recommended that membrane elements be immersed in a preservative solution. Rinse out the preservative solution before use.
- ✓ Elements contained in the boxes must be kept dry at room temperature (5-35°C / 41-95°F) and should not be stored in direct sunlight.
- ✓ Keep elements moist at all times after initial wetting.
- ✓ The presence of free chlorine and other oxidizing agents can cause premature membrane failure. Since oxidation damage is not covered under warranty, Aquaporin A/S recommends removing residual free chlorine by pretreatment prior to membrane exposure.
- ✓ The information provided in this document is for informative purposes only. It is the responsibility of the user to ensure appropriate usage of this product. Aquaporin A/S assumes no obligation, liability, or damages incurred for the misuse of the product. This document does not express or implies any warranty as to the merchantability or fitness of the products.

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