

# AXEON

## HF5-Series Membrane Elements

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**AXEON Ultra Low Energy HF5-Series Reverse Osmosis Membranes** are manufactured using the industry's leading membrane film technology. These membranes offer reliability, high performance and deliver consistent results. They provide increased production, high rejection rates and ultra low energy consumption by operating at low applied pressures.

- Ultra Low Energy
- High Flow Capacities
- Improved System Performance
- Superior Quality and Cost Savings
- Individually Vacuum Tested
- Made in the U.S.A.



Engineered Membrane Solutions

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# AXEON HF5-Series Membrane Elements

**AXEON HF5-Series Membranes** are the only elements on the market that operates at a pressure of only 80 psi – which equals more energy savings. **AXEON HF5-Series Membranes** are available in all standard inch commercial sizes and feature a protective tape wound exterior. **AXEON HF5-Series** are the best choice to counter the negative effects of cold temperatures on reverse osmosis production. All elements are shipped dry for an indefinite shelf life and easier handling. **AXEON HF5-Series Membrane Elements** are 100% vacuum integrity tested and may also be ordered as individually wet tested.



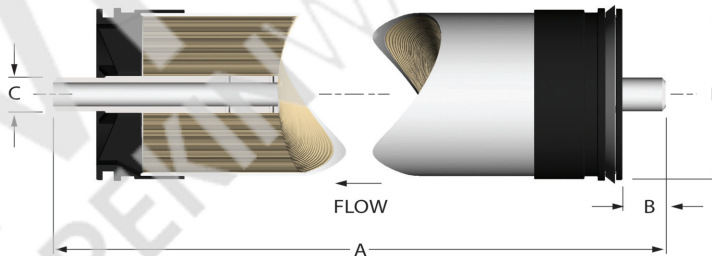
## Operating Limits

- Membrane Type: Polyamide Thin-Film Composite
- Maximum Operating Temperature: 113°F (45°C)
- Maximum Operating Pressure: 400 psi (27.58 bar)
- pH Range, Continuous Operation\*: 2 – 11
- pH Range, Short Term Cleaning (30 Min.): 1 – 13
- Maximum Feed Silt Density Index: 5
- Chlorine Tolerance: 0 ppm

\* Maximum temperature for continuous operations above pH10 is 95° F (35°c)

Product Specifications						
Part Number	Description	Applied Pressure psi (bar)	Permeate Flow Rate psi (gpd)	Applied Pressure psi (bar)	Permeate Flow Rate gpd (m <sup>3</sup> /d)	Nominal Salt Rejection (%)
200392	HF5 – 4014	80 (5.52)	600 (2.27)	100 (6.89)	720 (3.72)	98.5
200393	HF5 – 4021	80 (5.52)	1000 (3.79)	100 (6.89)	1200 (4.54)	98.5
200394	HF5 – 4040	80 (5.52)	2500 (9.46)	100 (6.89)	3000 (11.36)	98.5

**Test Parameters:** 550 TDS Filtered (5 Micron), De-Chlorinated, Municipal Feed Water, 77 Degrees F, 15% Permeate Recovery, 6.5 - 7.0 pH Range, at the Specified Operating Pressure. Data Taken After 30 Minutes of Operation. Maximum Pressure drop for each element is 13 psi. Minimum salt rejection is 96%. Permeate flow for individual elements may vary +/- 20%.



Dimensions inch (mm):				
Description	A	B	C	D
HF5 – 4014	14 (355.6)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
HF5 – 4021	21 (533.4)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
HF5 – 4040	40 (1016.0)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)

Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, the manufacturer recommends removing residual free chlorine by pretreatment prior to membrane exposure. Wet tested membrane elements must be kept sealed and moist when in storage. Drying out may occur and damage the membrane permanently. Prevent elements from freezing or being exposed to direct sunlight. Wet tested elements are vacuum sealed in a polyethylene bag containing 1.0% sodium meta-bisulfite and then packaged in a cardboard box. Discard the permeate for the first twenty-four hours of operation. The permeate flow (product water flow) varies with feed water temperature. For membrane warranty information, please contact the manufacturer.

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