

# HM 4040 - FRE High Performance Fouling Resistance RO Element

#### **Product Description**

Membrane Type

: Cross Linked Fully Aromatic Polyamide Composite

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Refreshing the Planet

Construction

: Spiral Wound Element

Application

Feed Spacer

34 mil (0.864 mm) with modified geometry

Model	Diameter	Active Surface Area	Salt Rejection	Product Flow Rate
	Inches	Ft <sup>2</sup> (m <sup>2</sup> )	%	gpd (l/h)
HM 4040-FRE	4.0	85 (7.89)	99.6	2600 (409.5)

Brackish Water and Waste Water

### **Test Conditions**

Feed Water Pressure	:	225 psi (15.8 kg/cm²)
Feed Water Temperature	:	77°F (25°C)
Feed Water Concentration	:	1500 ppm NaCl Solution
Recovery Rate	:	15%
Feed Water pH	:	6.5 - 7

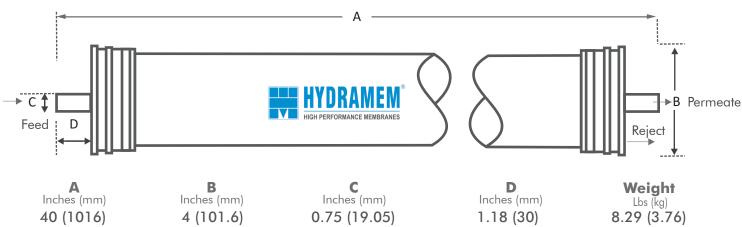
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Notes:

Minimum salt rejection is 99.5% Permeate flow may vary +/-15% Membrane active area variation – +/- 2

## Dimensions



All Membrane Elements are supplied with a brine seal, interconnector and O rings

#### **Operating Limits**

Maximum Operating Pressure	:	600 psi (42.18 kg/cm²)
Maximum Operating Temperature	:	113°F (45°C)
Feed Water Chlorine Concentration	:	<0.1 ppm
Feed Water pH Range, Continuous Operatio	n :	2 - 11
Feed Water pH Range, Chemical Cleaning	:	1 - 13
Maximum Feed Water SDI (15 Minute Test)	:	$SDI \leq 5$
Maximum Feed Turbidity	:	NTU ≤ 1.0
Maximum Pressure Drop for each Element	:	15 psi

#### **Operating Information**

- 1. For the recommended design range, please consult the latest HYDRAMEM technical bulletin, design guidelines or call an application specialist. If the operating limits given in this product information bulletin are not strictly followed, the limited warranty will be null and void
- 2. Follow instructions mentioned on the caution sticker placed on product packaging.
- 3. The customer is fully responsible for the effects of chemicals that are incompatible with the elements.
- 4. For element loading, use only the recommended silicon lubricant. The use of petroleum based lubricant or vegetable based oils may damage the element irreversibly.
- 5. Membranes shows some resistance to short-term attack by chlorine (Hypochlorite). Continuous exposure should be avoided as it may damage the membrane.

To the best of our knowledge, the information contained in this publication is accurate. Ion Exchange (India) Ltd., maintains a policy of continuous development and reserves the right to amend the information given herein without notice. Please contact our regional/branch office for current product specification.

HYDRAMEN<sup>®</sup> is the registered trademark of Ion Exchange (India) Ltd.

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