



HFK-118 HIGH TEMPERATURE ELEMENTS

Ultrafiltration 8-inch Spiral Elements for PVA Recovery

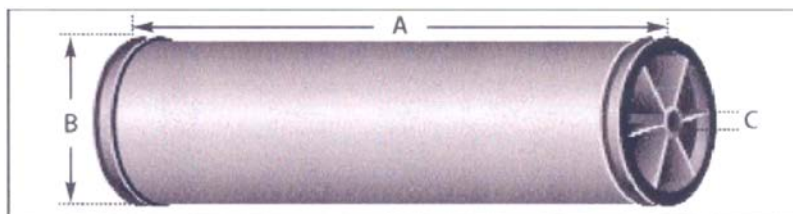
PRODUCT DESCRIPTION	Membrane Chemistry:	Proprietary Polyethersulfone Membrane
	Membrane Type:	HFK-118
	Molecular Weight Cut-Off (MWCO):	10,000 Daltons
	Construction:	Spiral wound element with hard overwrap
	Permeate Tube:	Polysulfone permeate tube
	Options:	Feed channel spacers: 46 mil (V) and 80 mil (F)

SPECIFICATIONS	Model	Part Number	Membrane Area	Feed Spacer
			ft ² (m ²)	mil (mm)
	PVA 8040-K118-VYHN	0750740	260 (24.2)	46 (1.1)
	PVA 8040-K118-FYHN	0750739	180 (16.7)	80 (2.0)

OPERATING AND DESIGN INFORMATION*	Typical Operating Pressure:	60-100 psi (4.1-6.9 bar)
	Maximum Operating Pressure:	100 psi (6.9 bar)
	Minimum Outlet Pressure:	15 psi (1.0 bar)
	Maximum Permeate Pressure:	5 psi (0.3 bar); No reverse pressure at any time
	Maximum Temperature:	185°F (85°C)
	Allowable pH - Continuous Operation:	2-10
	Allowable pH - Clean-In-Place (CIP):	1.5-10.5
	Maximum Pressure Drop Per Element:	20 psi (1.4 bar)
	Maximum Pressure Drop Per Vessel:	60 psi (4.1 bar)
	Hydrogen Peroxide Cleaning:	0.5% H ₂ O ₂ @ pH 10.5, 110°F (43°C) Maximum 90 minutes per cleaning

* Consult Process Technology group for specific applications.

NOMINAL DIMENSIONS



Model	A		B		C		Interconnector	O-Rings
	inches	(mm)	inches	(mm)	inches	(mm)		
PVA 8040-K118-VYHN	40.0	(1,016)	7.93	(201)	1.125	(28.6)	0030585	0035464
PVA 8040-K118-FYHN	40.0	(1,016)	7.93	(201)	1.125	(28.6)	0030585	0035464

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Chemical Exposure:

- Adherence to cleaning procedures including chemical concentrations, pH, temperature, and exposure time is necessary to achieve maximum useful element life. Accurate records should be maintained.
- KMS standard cleaning procedures should be followed. Recommended hydrogen peroxide exposure time at the defined conditions is 90 minutes per cleaning. Chlorine cleaning is not recommended.
- Residual peroxide concentration during cleaning cycle (CIP) should be 0.5% @ pH 10.5.
- Hydrogen peroxide should only be added to the cleaning solution after the pH has been adjusted to 10.5.
- Iron or other catalyzing metals in the presence of hydrogen peroxide will accelerate membrane degradation.

Additional Operating and Design Information:

Operational and cleaning limits for temperature, pressure and pH must be observed to maintain element performance warranty. Permeate pressure must not exceed feed or concentrate pressure at any time during operation, including start-up, shutdown and CIP. For operation outside these guidelines, please contact KMS.

Lubricants:

For element loading, use only the recommended silicone lubricant (or approved equivalent), water or glycerin to lubricate O-rings and brine seals. The use of petroleum based lubricants or vegetable based oils may damage the element and void the warranty.

Service and Ongoing Technical Support:

KMS has an experienced staff of professionals available to assist end users and OEM's for optimization of existing systems and support with the development of new applications.

The information contained in this publication is believed to be accurate and reliable, but is not to be construed as implying any warranty or guarantee of performance. We assume no responsibility, obligation or liability for results obtained or damages incurred through the application of the information contained herein. Refer to Standard Terms and Conditions of Sale and Performance Warranty documentation for additional information.

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For related trademark information, visit www.kochmembrane.com/legal

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