

INDU-COR™ HD Tubular Modules

High-Density Multitubular Ultrafiltration Modules for Industrial and MBR Applications

PRODUCT DESCRIPTION

Membrane Chemistry:	PVDF Ultrafiltration membrane
Molecular Weight Cut-Off:	0.03 micron (nominal)
Construction:	Potted multitubular modules using 8-mm diameter tubules in FRP or CPVC shell or inserted into a 316 stainless steel housing
Gasket Material:	EPDM (supplied with connection kit)
Options:	Shell material: CPVC, FRP, or 316SS

PRODUCT SPECIFICATIONS

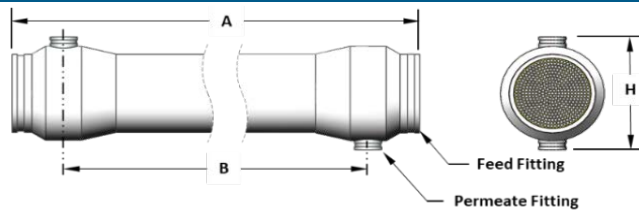
Koch Part Number	Product Description	Module Diameter	Module Length ft (m)	Number of Tubules	Membrane area ft ² (m ²)	Shell Material
0714100	4010-INDU-COR HD-FRP	4"	9.8 (3.0)	91	68.9 (6.4)	FRP
0714101	6010-INDU-COR HD-FRP	6"	9.8 (3.0)	200	163.6 (15.2)	FRP
0714102	6010-INDU-COR HD-CPVC	6"	9.8 (3.0)	200	163.6 (15.2)	CPVC
0714103	8010-INDU-COR HD-FRP	8"	9.8 (3.0)	365	292.8 (27.2)	FRP
0714104	8010-INDU-COR HD-CPVC	8"	9.8 (3.0)	365	292.8 (27.2)	CPVC
0714105	10013-INDU-COR HD-FRP	10"	13.1 (4.0)	588	574.8 (53.4)	FRP
0714106	10010-INDU-COR HD-FRP	10"	9.8 (3.0)	588	430.5 (40.0)	FRP
0714107	10006-INDU-COR HD-FRP	10"	6.6 (2.0)	588	280.0 (26.0)	FRP
0714108	10006-INDU-COR HD-SS	10"	6.6 (2.0)	602	285.2 (26.5)	Insert into 316SS

OPERATING AND DESIGN INFORMATION*

Maximum Inlet Pressure:	90 psi @ 120 °F (6.2 bar @ 49 °C)
Maximum Operating Temperature (Continuous Exposure):	122°F (50 °C)
Maximum Operating Temperature (Short Term Exposure, cleaning):	130°F (54 °C)
Maximum Permeate Side Back Pressure:	3 psi (0.2 bar)
Minimum Outlet Pressure:	5 psi (0.3 bar)
Maximum Feed Side Pressure Drop (3 m and 4m long modules):	12 psi @ 120 °F (0.8 bar @ 49 °C)
Maximum Feed Side Pressure Drop (2 m long modules):	9 psi @ 120 °F (0.6 bar @ 49 °C)
Allowable pH - Continuous Exposure:	2.0 - 10.0 @ 120 °F (49 °C)
Allowable pH - Short Term Exposure (Cleaning):	1.5 - 10.5 @ 120 °F (49 °C)

*Consult KSS Process Technology Group for specific applications.

NOMINAL DIMENSIONS



Module Type	A Inches (mm)	B Inches (mm)	H Inches (mm)	Feed Fitting	Permeate Fitting
4010-INDU-COR HD-FRP	118.1 (3,000)	111.0 (2,820)	7.9 (200)	DN100	DN40
6010-INDU-COR HD-FRP	118.1 (3,000)	111.0 (2,820)	9.8 (250)	DN150	DN50
6010-INDU-COR HD-CPVC	118.1 (3,000)	111.0 (2,820)	9.8 (250)	DN150	DN50
8010-INDU-COR HD-FRP	118.1 (3,000)	111.0 (2,820)	13.0 (330)	DN200	DN65
8010-INDU-COR HD-CPVC	118.1 (3,000)	111.0 (2,820)	13.0 (330)	DN200	DN65
10013-INDU-COR HD-FRP	157.5 (4,000)	145.7 (3,700)	14.2 (360)	DN250	DN80
10010-INDU-COR HD-FRP	118.1 (3,000)	106.3 (2,700)	14.2 (360)	DN250	DN80
10006-INDU-COR HD-FRP	78.7 (2,000)	66.9 (1,700)	14.2 (360)	DN250	DN80
10006-INDU-COR HD-SS	78.7 (2,000)	63.0 (1,600)	14.2 (360)	DN250	DN80

OPERATING GUIDELINES

Feed flow vs. pressure drop guidelines should be followed for optimal process and cleaning performance. Feed flow during process conditions should be set to avoid exceeding the product limits described in page 1 of this document.

Module Diameter	Module Length	Linear Velocity		Circulation Flow		Approximate Pressure Drop	
		ft/sec	m/sec	gpm	m ³ /hr	psi	bar
4"	3 m	9	2.7	196	44.5	8.7	0.6
4"	3 m	12	3.7	268	60.9	11.6	0.8
6"	3 m	9	2.7	430	97.7	8.7	0.6
6"	3 m	12	3.7	502	113.9	11.6	0.8
8"	3 m	9	2.7	785	178.3	8.7	0.6
8"	3 m	12	3.7	1,076	244.4	11.6	0.8
10"	4 m	9	2.7	1,265	287.3	11.6	0.8
10"	3 m	9	2.7	1,265	287.3	8.7	0.6
10"	3 m	12	3.7	1,733	393.7	11.6	0.8
10"	2 m	9	2.7	1,265	287.3	5.8	0.4
10"	2 m	12	3.7	1,733	393.7	8.7	0.6

*Data based on water at 77° F and specific gravity of 1.0.

Membrane Incompatibility

Prior to exposing the membrane to any chemical, the chemical should be reviewed by Koch Separation Solutions. Aside from the listed chemicals below, synthetic coolants, semi-synthetic coolants, kerosenes, naphtha, gasoline, floc polymers may affect membrane performance.

Chemicals that should be avoided include the following:

- **Aprotic Solvent** (e.g., Dimethyl Formamide, Dimethyl Acetamide, N-Methyl Pyrrolidine, etc.)
- **Chlorinated Solvents** (e.g., Methylene Chloride, Chloroform, Carbon Tetrachloride, etc.)
- **Ketones** (e.g., Acetone, Diacetone Alcohol, etc.)
- **Silicones** or Silicone based Defoamers (e.g., Siloxane)
- **Fatty Acids and Fatty Esters** (e.g., Palmitic acid, Stearic acid)

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

Koch Separation Solutions, Inc. 850 Main Street, Wilmington, MA 01887
Main: +1-978-694-7000 • Fax: +1-978-657-5208 • Toll Free: +1-888-677-5624

For complete contact information and listing of our global locations, visit www.kochseparation.com

©2020 Koch Separation Solutions, Inc. All rights reserved worldwide. For related trademark information, visit www.kochseparation.com/legal.