

# INDU-COR™ Module: 12-HFM-251-ICV

## Industrial Multitubular Ultrafiltration Module

### PRODUCT DESCRIPTION

<b>Part Number (KPN)</b>	0712510
<b>Membrane Chemistry:</b>	PVDF
<b>Membrane Type:</b>	HFM (neutral charge)
<b>Membrane Area:</b>	45.5 ft <sup>2</sup> (4.2 m <sup>2</sup> )
<b>Molecular Weight Cut-Off:</b>	100,000 Dalton (nominal)
<b>Construction:</b>	Thirty (30) ½" diameter tubules in a PVC shell
<b>Face Plate:</b>	ABS
<b>Gasket:</b>	VITON®

### OPERATING AND DESIGN INFORMATION\*

<b>Maximum Inlet Pressure:</b>	90 psi @ 119 °F (6.2 bar @ 48 °C)
<b>Maximum Operating Temperature:</b>	122°F (50 °C) at 84 psi max
<b>Maximum Permeate Side Back Pressure:</b>	3 psi (0.2 bar)
<b>Minimum Outlet Pressure:</b>	5 psi (0.3 bar)
<b>Maximum Feed Side Pressure Drop:</b>	7.5 psi @ 119 °F (0.5 bar @ 48 °C)
<b>Allowable pH - Continuous Exposure:</b>	2.0 - 10.0 @ 119 °F (48 °C)
<b>Allowable pH - Short Term Exposure:</b>	1.5 - 10.5 @ 119 °F (48 °C)

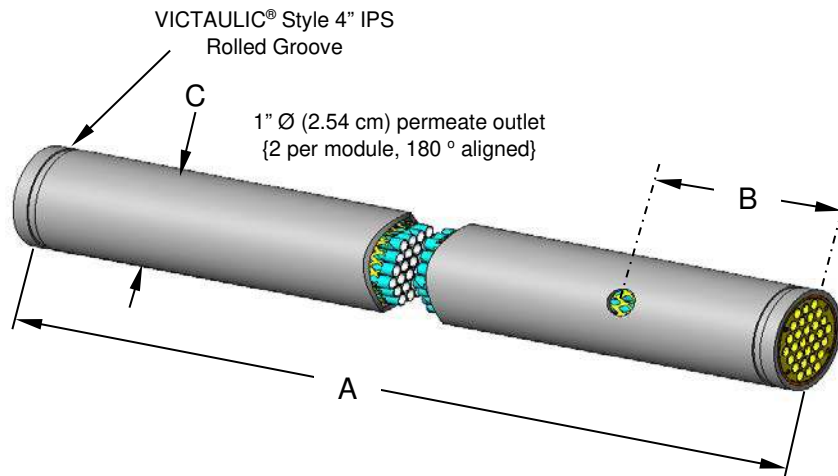
\*Consult KSS Process Technology Group for specific applications.

### FEED FLOW VS. PRESSURE DROP\*

Circulation Flow		Crossflow Velocity		Pressure Drop	
gpm	(m <sup>3</sup> /hr)	f/sec	(m/sec)	psi	(bar)
175	40	9	2.7	4.8	0.34
200	45	11	3.4	6.0	0.40
225	51	12	3.7	7.2	0.50

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

### NOMINAL DIMENSIONS



A		B		C	
inches	(mm)	inches	(mm)	inches	(mm)
144	(3658)	8	(203.2)	4 ½	(114.3)

OPERATING GUIDELINES

**Ancillary Parts**

KSS recommends that these membranes be used with KSS supplied ancillary parts. Sealing is provided by o-rings and gaskets. No additional sealing compound or tape is recommended for use on threaded connections.

**INDUCOR Module Process Pass Kits**

(One Process Pass Kit contains;)  
Two Permeate Port Saddle Assemblies  
Two 4" Coupling Assemblies

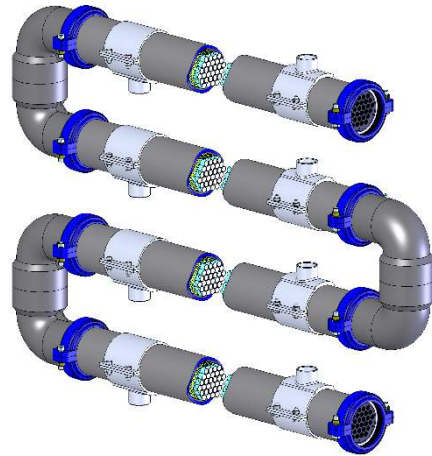
**Available in two styles of Permeate Port Saddle:**

1" IPS Socket Style Pass Kit                   KPN 0211875  
1" FNPT Threaded Style Pass Kit           KPN 0211885

**Permeate Port Saddle Assembly**

1" IPS Socket Style                   KPN 0020616  
1" FNPT Threaded Style           KPN 0020618

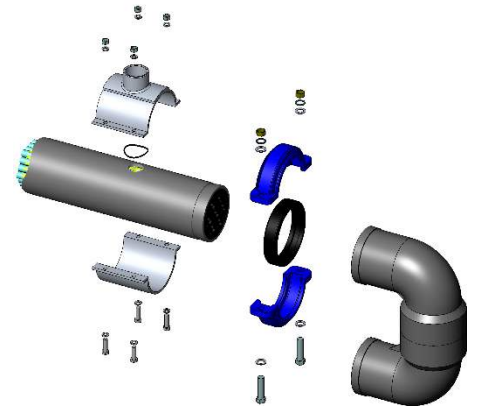
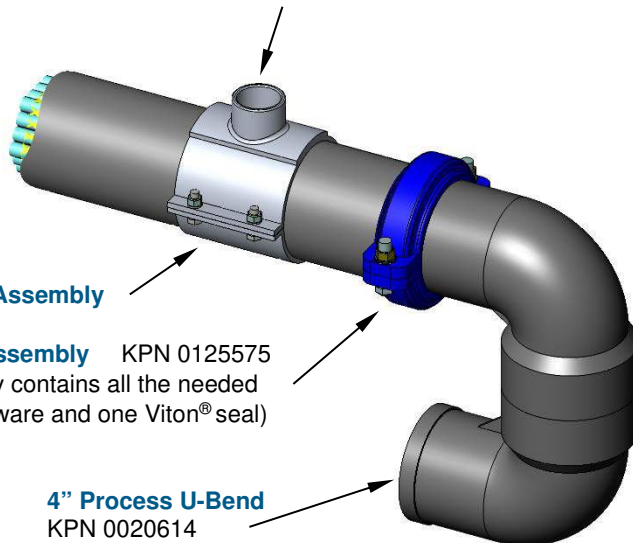
(Each assembly contains all the needed fastening hardware and one Viton® o-ring)



**Module Assembly**

**4" Coupling Assembly**   KPN 0125575  
(Each assembly contains all the needed fastening hardware and one Viton® seal)

**4" Process U-Bend**  
KPN 0020614



**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 Pyrolidine, 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)

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