



# SPIRAPAK™ MODULE: 4033-HFM-183-VPP

*Spiral Ultrafiltration Module for Cathodic Electrocoat Paint*

**PRODUCT DESCRIPTION**

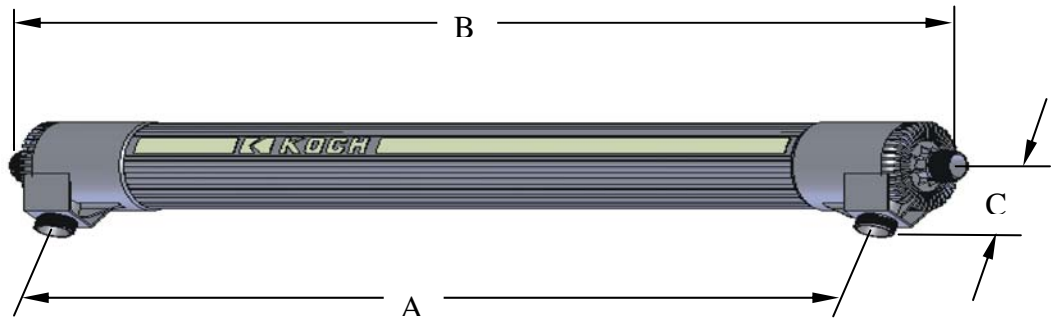
|                        |  |
|------------------------|--|
| KMS Part Number:       | 0700789  |
| Membrane Chemistry:    | PVDF   |
| Membrane Type:         | HFM (positive charge)                            |
| Membrane Area:         | 50 ft <sup>2</sup> (4.6m <sup>2</sup> )          |
| Construction:          | Spiral wound element with integrated PVC housing |
| Seal:                  | EPDM   |
| Feed Spacer Thickness: | 0.043" (1.09 mm)                                 |

**OPERATING AND DESIGN INFORMATION\***

|                                      |                                  |
|--------------------------------------|----------------------------------|
| Maximum Inlet Pressure:              | 80 psi @110°F (5.5 bar @ 43°C)   |
| Maximum operating temperature:       | 125°F (52°C)                     |
| Allowable pH – continuous operation: | 3 – 7 @ 125°F (52°C)             |
| Allowable pH – short term cleaning:  | 2 – 7 @ 125°F (52°C)             |
| Maximum Feed Side Pressure Drop:     | 40 psi @ 125° F (2.8 bar @ 52°C) |
| Maximum Permeate Pressure:           | 5 psi (0.3 bar)                  |

\*Consult Process Technology Group for specific information.

**NOMINAL DIMENSIONS**



| A           | B           | C           | Working Weight | Permeate and Process Connections |
|-------------|-------------|-------------|----------------|----------------------------------|
| inches (mm) | inches (mm) | inches (mm) | lbs (kg)       |                                  |
| 37(940)     | 44(1,120)   | 2.5(64)     | 45(20)         | 1- ¼ NPSM                        |

**MEMBRANE INCOMPATIBILITY**

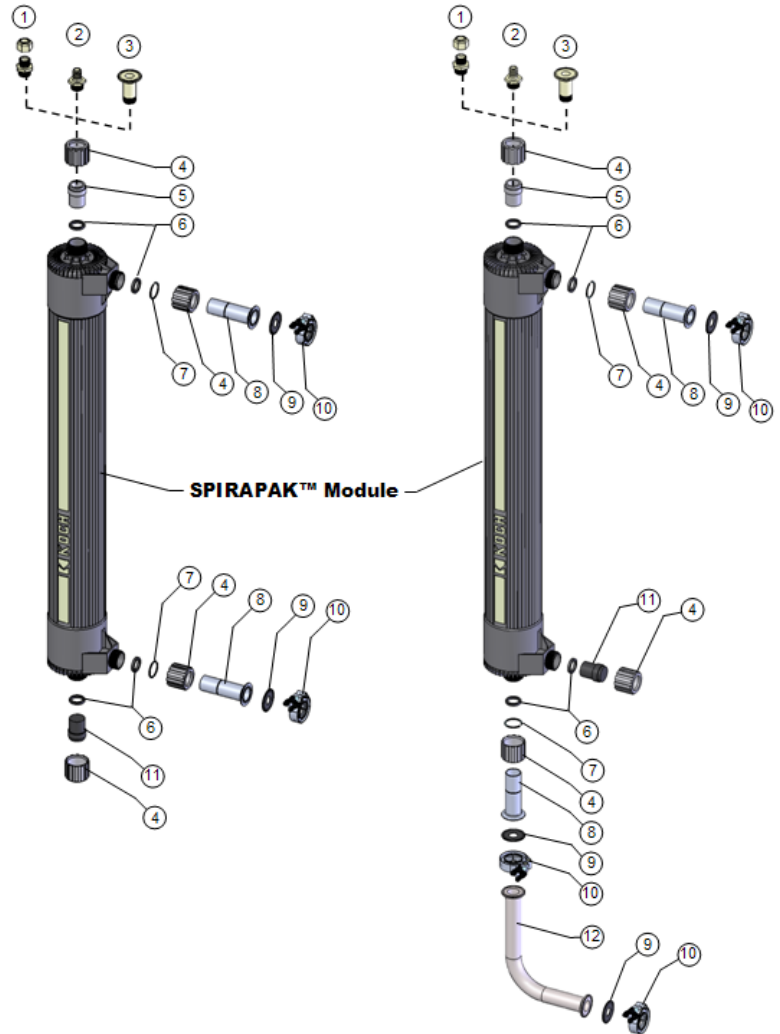
Prior to exposing the membrane to any chemical, the chemical should be reviewed by Koch Membrane Systems. Aside from the listed chemicals below, synthetic coolants, semi-synthetic coolants, kerosenes, naphtha, gasoline, floc polymers may affect membrane performance.

**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 )

**OPTIONS OF SPIRAPAK MODULE™ ASSEMBLY**

| Item | Description   | Qty/<br>Unit | KPN     |
|------|---|--------------|---------|
| 1    | Permeate connection Option #1 – 5/8" OD Rigid Tubing    | 1            | 0231208 |
| 2    | Permeate connection Option #2 – 1/2" ID Flex hose       | 1            | 0231207 |
| 3    | Permeate connection Option #3 – 1 1/2" Sanitary ferrule | 1            | 0212300 |
| 4    | Nut   | 4            | 0020281 |
| 5    | Permeate adapter  | 1            | 0030375 |
| 6    | Seal washer   | 4            | 0020370 |
| 7    | Retaining ring  | 2            | 0020310 |
| 8    | Process adapter   | 2            | 0216003 |
| 9    | 1 1/2" Sanitary seal                                    | 2            | 0090400 |
| 10   | 1 1/2" Sanitary coupling                                | 1            | 0210465 |
| 11   | Process plug  | 1 or 2       | 0030040 |
| 12   | Product Extension                                       | 1            | 0216002 |



**SERVICE AND ONGOING TECHNICAL SUPPORT**

Koch Membrane Systems, Inc. has an experienced staff of professionals available to assist end-users and OEMs for optimization of existing systems and support the development of new applications. Along with the availability of supplemental technical bulletins, Koch Membrane Systems, Inc. also offers a complete line of KOCHKLEEN® cleaning chemicals.

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