

SPIRAPAK™ MODULE: 4033-HFM-183-VPP

Spiral Ultrafiltration Module for Cathodic Electrocoat Paint

PRODUCT DESCRIPTION

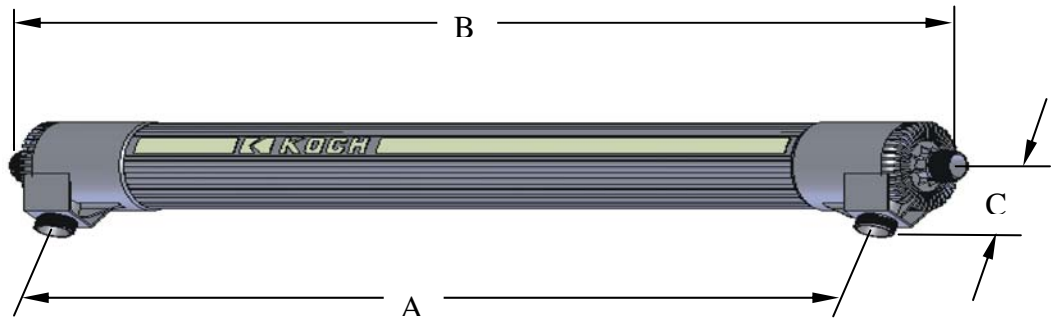
| | |
|------------------------|--|
| KMS Part Number: | 0700789 |
| Membrane Chemistry: | PVDF |
| Membrane Type: | HFM (positive charge) |
| Membrane Area: | 50 ft ² (4.6m ²) |
| Construction: | Spiral wound element with integrated PVC housing |
| Seal: | EPDM |
| Feed Spacer Thickness: | 0.043" (1.09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

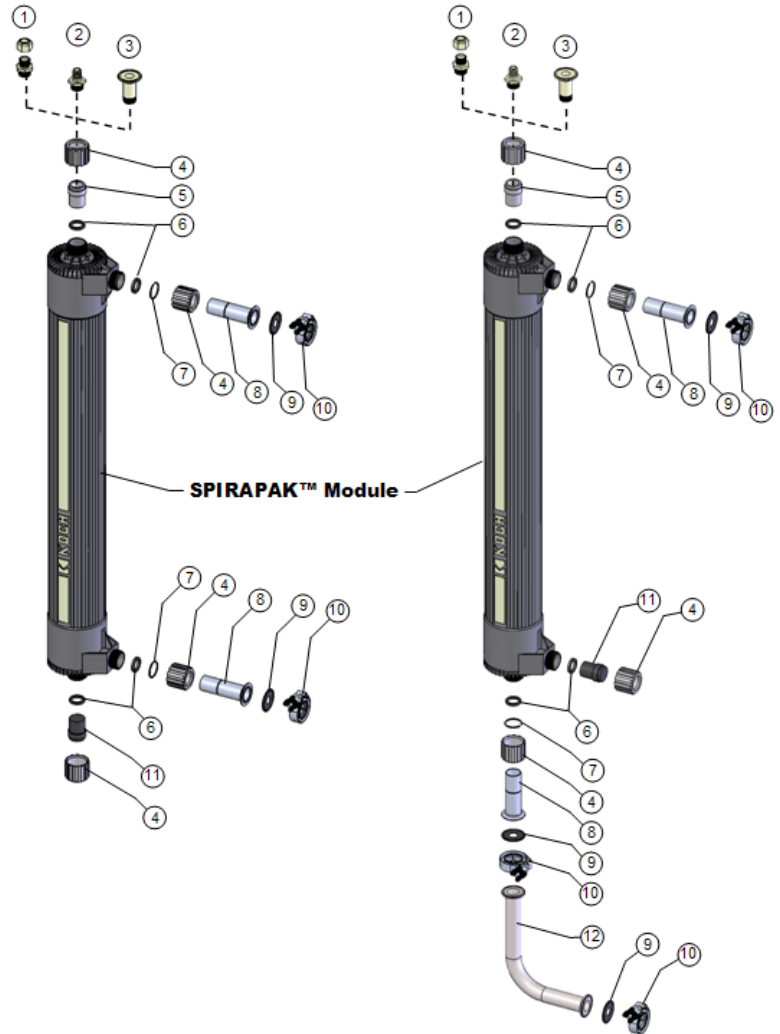
Prior to exposing the membrane to any chemical, the chemical should be reviewed by Koch Membrane Systems. Aside from the listed chemicals below, synthetic coolants, semi-synthetic coolants, kerosenes, naphtha, gasoline, floc polymers may affect membrane performance.

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/ 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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