



# ROMICON<sup>®</sup> 6" HOLLOW FIBER CARTRIDGES

6" Diameter Hollow Fiber Ultrafiltration Cartridges

## PRODUCT DESCRIPTION

**Membrane Polymer:** Polysulfone  
**Housing Construction:** Polysulfone  
**Seal/Potting Material:** Proprietary Epoxy Compound  
**Storage Solution:** Glycerin

**Options:**  
**Lumen size:** 20 mil (0.5 mm), 43 mil (1.1 mm), 60 mil (1.5 mm), 75 mil (1.9 mm), 106 mil (2.7 mm)  
**Membrane Type:** PM5, PM10, PM30, PM50, PM100, or PM500

**Special Construction for Specific Applications:**  
**Vinegar Filtration:** Selected PM50 and PM500 cartridges are available for vinegar filtration.  
**Citrus Filtration:** Selected PM10, PM50 and PM500 cartridges are available for citrus filtration.  
**ROMIPRO™ Cartridges:** Selected cartridges of all membrane types are available with components that have passed USP Class VI test guidelines.

## CARTRIDGE AVAILABILITY AND MEMBRANE AREA

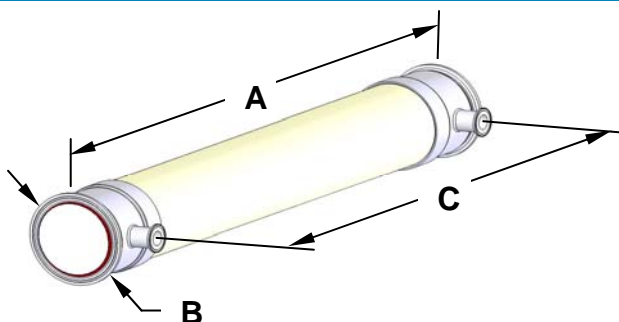
| Membrane Type   | MWCO (Dalton) or Pore size (µm) | Fiber Diameter [mil (mm)] |                 |                 |                 |
|---|---------------------------------|---------------------------|-----------------|-----------------|-----------------|
|   |                                 | 43 (1.1)                  | 60 (1.5)        | 75 (1.9)        | 106 (2.7)       |
| PM5   | 5,000                           | •                         |                 |                 |                 |
| PM10  | 10,000                          | •                         | •               |                 |                 |
| PM30  | 30,000                          | •                         |                 |                 |                 |
| PM50  | 50,000                          | •                         | •               | •               |                 |
| PM100   | 100,000                         | •                         |                 |                 |                 |
| PM500   | 500,000                         | •                         |                 | •               | •               |
| <b>Membrane Area [ft<sup>2</sup> (m<sup>2</sup>)]</b> |                                 | <b>97 (9.0)</b>           | <b>97 (9.0)</b> | <b>80 (7.4)</b> | <b>64 (5.9)</b> |

## OPERATING AND DESIGN INFORMATION\*

**Maximum Inlet Pressure:** 40 psi (2.8 bar)  
**Maximum Transmembrane Pressure:** 35 psi (2.4 bar)  
**Maximum Operating Temperature (at pH 6.0):** 140°F (60°C)  
**Maximum Cleaning Temperature:** 130°F (54°C)  
**Maximum Permeate Side Back Pressure:** 20 psi (1.4 bar)  
**Maximum Differential Pressure Feed Side:** 30 psi (2.1 bar)  
**Allowable pH:** 1.5 – 13.0 @ 130°F (54°C)  
**Maximum Total Chlorine (During Cleaning):** 200 ppm @ pH 10-10.5, 130°F (54°C)  
 0 ppm @ pH less than 9.5

\* Consult KMS Process Technology Group for specific applications.

## NOMINAL DIMENSIONS



| A           | B            | C                | Permeate Connection | Process Connection |
|-------------|--------------|------------------|---------------------|--------------------|
| inches (mm) | inches (mm)  | inches (mm)      |                     |                    |
| 43 (1,092)  | 6.67 (169.4) | 38 11/16 (982.7) | 1½" sanitary        | 6" sanitary        |

# ROMICON® 6" HOLLOW FIBER CARTRIDGES

## MEMBRANE CHARACTERISTICS

ROMICON® cartridges should be selected for filtration of liquids based on the separation range needed. They provide stable productivity, ease of cleaning and reliable operation. KMS ROMICON® cartridges are crossflow-type filters, in which the feed solution is pumped across the cartridge to minimize solids cake buildup on the membrane. Crossflow filters provide efficient filtration at low operating pressure, allowing long process runs while reducing cleaning time, cleaning frequency, and labor costs.

## 6" HOLLOW FIBER CARTRIDGE HARDWARE

| Item | Part Description       | KPN                          |
|------|------------------------|------------------------------|
| 1    | 6" gasket              | 0090424                      |
| 2    | 6" Process Cap adapter | 0040321                      |
| 3    | 6" Coupling            | 0040322                      |
| 4    | 2½" Cartridge Gasket   | EPDM 0090411<br>BUNA 0090410 |
| 5    | 2½" Coupling           | 0210468                      |
| 6    | 1" Gasket              | EPDM 0090394<br>BUNA 0090395 |
| 7    | 1" Coupling            | 0210465                      |

## LUBRICANTS

For cartridge installation, use only water or glycerin to lubricate seals. The use of petroleum or vegetable-based oils or solvents may damage the cartridge and will void the warranty.

## EXPOSURE TO CHEMICAL OXIDANTS

Exposure to chemical oxidants for thorough cleaning and sanitization may prove necessary and useful.

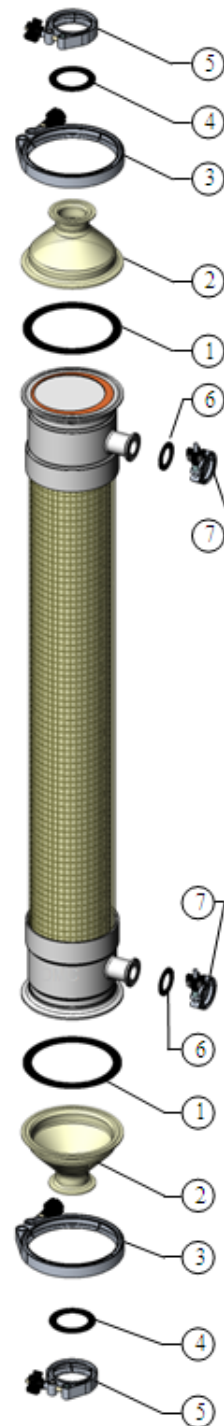
- Chemical oxidants commonly used in food applications include peracetic acid blends, hydrogen peroxide, and sodium hypochlorite. Please consult KMS for recommended addition rates, frequency of use, and tolerance.
- Potassium metabisulfite (without catalyst such as cobalt) is the preferred chemical to eliminate residual chlorine or similar oxidizers prior to processing the feed stream.

## KMS CAPABILITY

KMS is the leader in crossflow membrane technology, manufacturing reverse osmosis, nanofiltration, microfiltration, and ultrafiltration membranes and membrane systems. The industries served include food, dairy and beverage, pharmaceutical, biotechnology, water and wastewater, semiconductors, automotive, chemical and general manufacturing. KMS adds value by providing top quality membrane products and by sharing its experience in the design and supply of thousands of crossflow membrane systems worldwide.

## 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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