



# ROMICON<sup>®</sup> 5" HOLLOW FIBER CARTRIDGES

5" 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.  
**ISOCON Cartridge:** ISOCON PM10 20-mil cartridge is available for high temperature cleaning  
**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

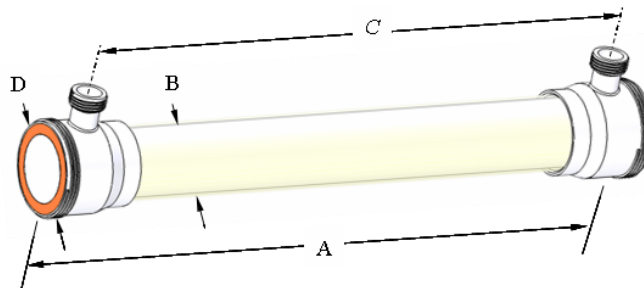
Membrane Type	MWCO (Dalton) or Pore size (µm)	Fiber Diameter [mil (mm)]				
		20 (0.5)	43 (1.1)	60 (1.5)	75 (1.9)	106 (2.7)
PM5	5,000		•			
PM10	10,000	•	•	•		
PM30	30,000		•			
PM50	50,000		•	•	•	
PM100	100,000	•	•			
PM500	500,000		•		•	•
<b>Membrane Area [ft<sup>2</sup> (m<sup>2</sup>)]</b>		132 (12.3)	66 (6.2)	66 (6.2)	52 (4.8)	40 (3.7)

## 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	D	Permeate Connection	Process Connection
inches (mm)	inches (mm)	inches (mm)	inches (mm)		
43 (1092)	5.0 (127)	38 5/8 (981)	6.0 (152)	1 1/2" NPSM	6" NPSM

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## 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.

## Exposure to Chemical Oxidants:

While not recommended for use on a daily basis, exposure to chemical oxidants for thorough cleaning and sanitization may prove necessary and useful.

Potassium metabisulfite (without catalyst such as cobalt) is the preferred chemical to eliminate residual chlorine or similar oxidizers prior to processing process liquid.

## Lubricants:

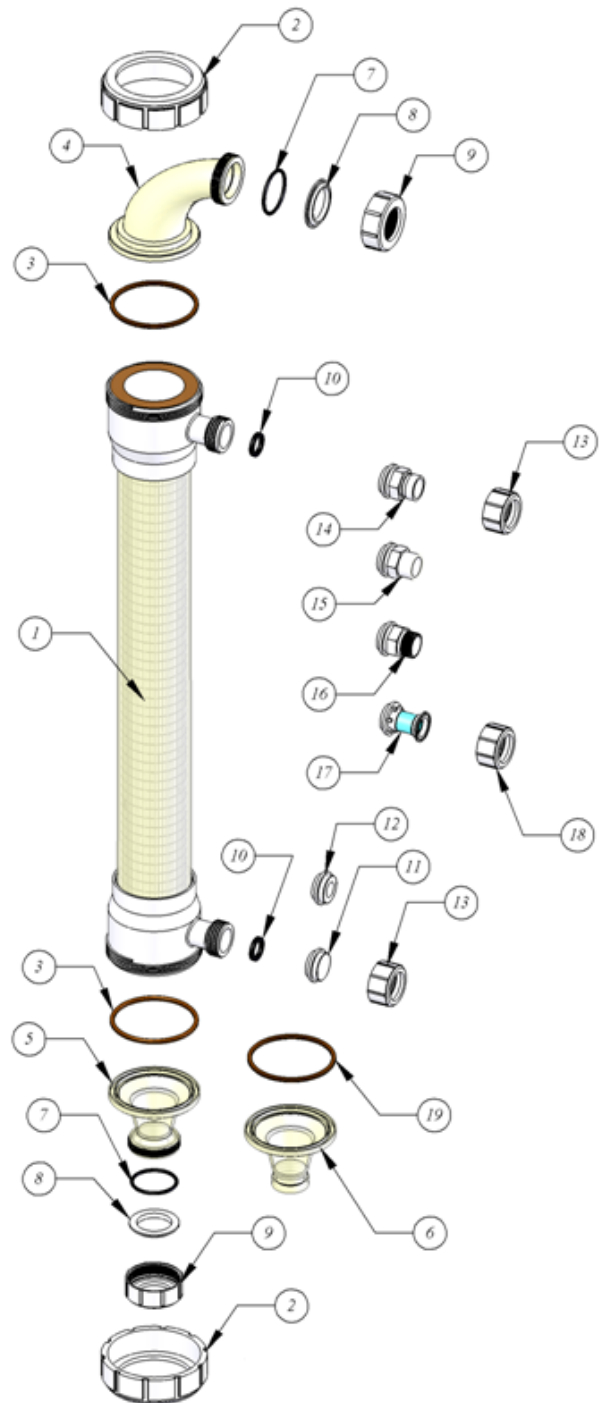
For cartridge installation, use only water or glycerin to lubricate seals. The use of petroleum or vegetable-based oils or solvents may damage the cartridge and will void the warranty.

## 5" HOLLOW FIBER CARTRIDGE HARDWARE

Item	Part Description	KPN
1	5" HF Cartridge	072XXXX
2	Process Cap Nut	0040364
3	Cartridge Gasket	EPDM 0090443 BUNA 0090444
4	Cartridge Reducing Elbow	0040365
5	Cartridge Straight adapter (threaded)	0040376
6	Cartridge Straight adapter (Victaulic)	0213000
7	Manifold Gasket	EPDM 0090439 BUNA 0090432
8	Cartridge Backup Ring	0040368
9	Manifold Cap Nut	0040367
10	Permeate Port Gasket	EPDM 0090447 BUNA 0090446
11	Permeate Plug	0040375
12	Permeate Adapter 3/4" NPTF	0040372
13	Permeate Cap Nut (for 14, 15, 16)	0040370
14	Permeate Adapter (Victaulic)	0213076
15	Permeate Adapter Plain	0213093
16	Permeate Adapter NPT	0213077
17	Permeate Adapter Sanitary	0211787
18	Permeate Cap Nut (for part 17)	0040377
19	Cartridge Seal	0211094

## 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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