



# SUPER-COR<sup>®</sup> ULTRAFILTRATION MODULES

*Ultrafiltration Multitube Modules for Juice Processing*

**PRODUCT DESCRIPTION**

**Membrane Material:** PVDF  
**Membrane Type:** Ultrafiltration  
**Molecular Weight Cutoff\*:** HFM-180: 100,000 Daltons  
 HFM-513: 500,000 Daltons  
**Configuration:** Nineteen (19) ½" diameter tubules in a polysulfone shell  
**Applications:** Juice processing  
**Regulatory Information:** Compliant with food contact regulations per US FDA CFR Title 21, EC Reg. No. 1935/2004 and EU Reg. No. 10/2011  
**Options:** HFM-180 membrane for light juices  
 HFM-513 for all juices

\* - The nominal separation range and retention characteristics of the membranes are highly dependent upon the nature of the liquid being processed and on several other operating parameters. This information should, therefore, be used as a guide only

**SPECIFICATIONS**

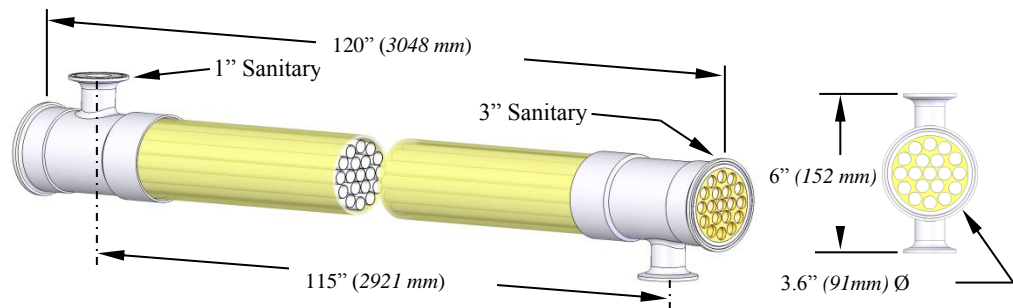
Part Numbers	Model	Membrane Area	
		ft <sup>2</sup>	(m <sup>2</sup> )
0712010	SUPER-COR <sup>®</sup> 3010-HFM-180	24	(2.2)
0712070	SUPER-COR <sup>®</sup> 3010-HFM-513	24	(2.2)

**OPERATING AND DESIGN INFORMATION\***

**Maximum Operating Pressure:** 90 psi @ 120°F (6.2 bar @ 49°C)  
**Minimum Outlet Pressure:** 10 psi (0.7 bar)  
**Maximum Permeate Pressure:** 3 psi (0.2 bar)  
**Typical Feed Side Pressure Drop Per Module:** 4-5 psi (0.27-0.35 bar)  
**Maximum Feed Side Pressure Drop Per Module:** 5 psi @ 120°F (0.35 bar @ 49°C)  
**Maximum Operating Temperature at pH 8:** Continuous 120°F (49°C)  
 Short term 130°F (54°C)  
**Allowable pH Range at 120°F (49°C):** Continuous 2.0 – 10.0  
 Short term 1.5 – 10.5  
**Maximum Chlorine (cleaning):** 200 ppm @ pH 10-10.5, 120°F (49°C)

\* Consult KMS Process Technology Group for specific applications.

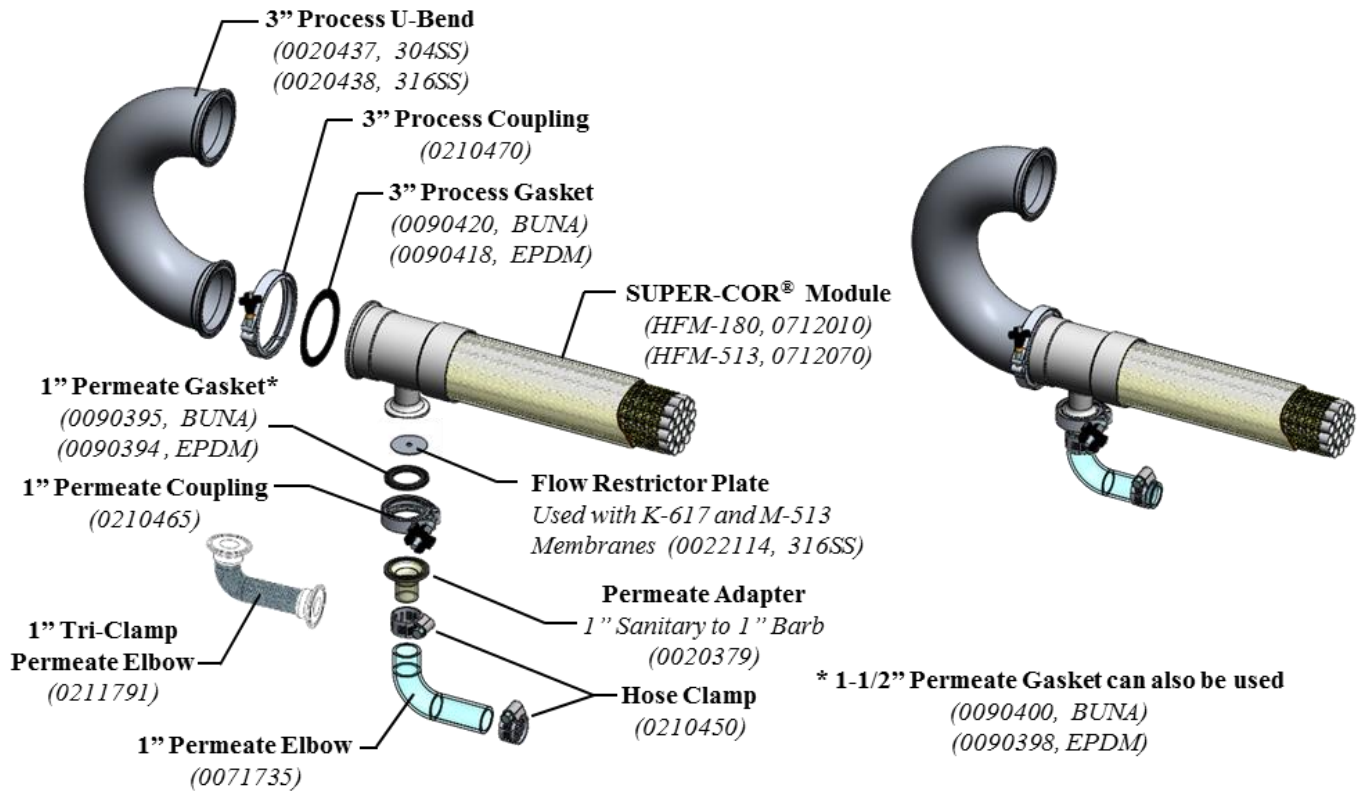
**NOMINAL DIMENSIONS**



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**SUPER-COR® TUBULAR MODULE ASSEMBLY**



**Service and Ongoing Technical Support:**

Koch Membrane Systems (KMS) has an experienced staff of professionals available to assist end-users and OEM's for optimization of existing systems and support with the development of new applications.

**KMS Capability**

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

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