OLTRE$_{CAP}$-P Series Inside-Out ULTRAFILTRATION MEMBRANES

PRODUCT DESCRIPTION	Membrane Material	Permanently hydrophilic PS
	Membrane Configuration	Capillary
	Normalized Filtration Pore Size	45,000 Dalton
	Potting Material	Epoxy
	Housing Material	PVC/ABS
	Preservative	Glycerin (35%)

MODULE SPECIFICATIONS	Model	Membrane ID/OD	Membrane area
	OLTRE$_{CAP}$ -1030-P-B	1.0/1.5mm (0.039/0.059”)	23 m^2 (247.5 ft^2)
	OLTRE$_{CAP}$ -1060-P-B	1.0/1.5mm (0.039/0.059”)	50 m^2 (538.1 ft^2)
	OLTRE$_{CAP}$ - 1080-P-B	1.0/1.5mm (0.039/0.059”)	68 m^2 (731.9 ft^2)

APPLICATION DATA	Typical Filtrate Flux	60-120 L/m^2h (35 -71 GFD)
	Maximum Applied Feed Pressure	0.5 MPa (73psi)
	Maximum TMP	0.2 MPa (30psi)
	Maximum Backwash Pressure	0.2 MPa (30psi)
	CIP Chlorine Concentration	100-200ppm
	Instantaneous H_2O_2 Tolerance	200 ppm
	Operating Temperature	5-40°C (41-104°F)
	Operating pH Range	1-13
	Operation Mode	Dead-end or Cross flow

TYPICAL PROCESS CONDTIONS	Backwash Flux	180-240L/m^2h (106-141 GFD)
	Backwash Duration	30-60 seconds
	Backwash Frequency	15-120 minutes
	CEB Frequency	0-4 times per day
	CEB Duration	1-10 minutes
	Cleaning Chemicals©	NaClO or H_2O_2 , NaOH, HCL, citric acid or oxalic acid

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SPECIAL FEATURE

Permanently Hydrophilic Membrane (State of Art Technology)

The stabilized operating flux for most of UF or MF membrane products is much lower than their initial flux resulting from the loss of membrane hydrophilic by polymer reconfiguration. OLTRE$_{CAP}$ UF membrane ensures steady flux by fixing the hydrophilicity permanently, using a cross-link technology.

Low Molecular Weight Cut Off

Typically, OLTRE$_{CAP}$ membrane offers very fine filtration at a MWCO at 45,000 Dalton, which is very high end of filtration grade for Ultrafiltration in water treatment.

Larger Diameter Capillaries

SEM Cross-Section Photograph

Larger Diameter of the capillaries endow better anti-fouling properties to the membranes. OLTRE$_{CAP}$ Series membrane presents only larger diameter UF capillary membranes (ID/OD=1.0/1.5mm, 1.2/1.8mm, 1.5/2.2mm) for better performances.

Even Arrangement of the Membranes (State of Art Technology)

A large number of membrane capillaries are evenly distributed inside a pressure vessel by a so-called sub-grouping technology so that each membrane capillary works in very similar environments.

Soft Potting (State of Art Technology)

The “roots” of the capillaries are the weakest portions in membrane modules and may be broken during operation. These portions of membranes in OLTRE$_{cap}$ UF modules are protected by a soft layer of potting material.

SEM Cross-Section Photograph

APPLICATION

OLTRE$_{CAP}$ – P membrane modules can be used to purify well and surface water for drinking water, to filter sewage and waste water for water recycle, and to treat surface or sea water for RO and NF systems.

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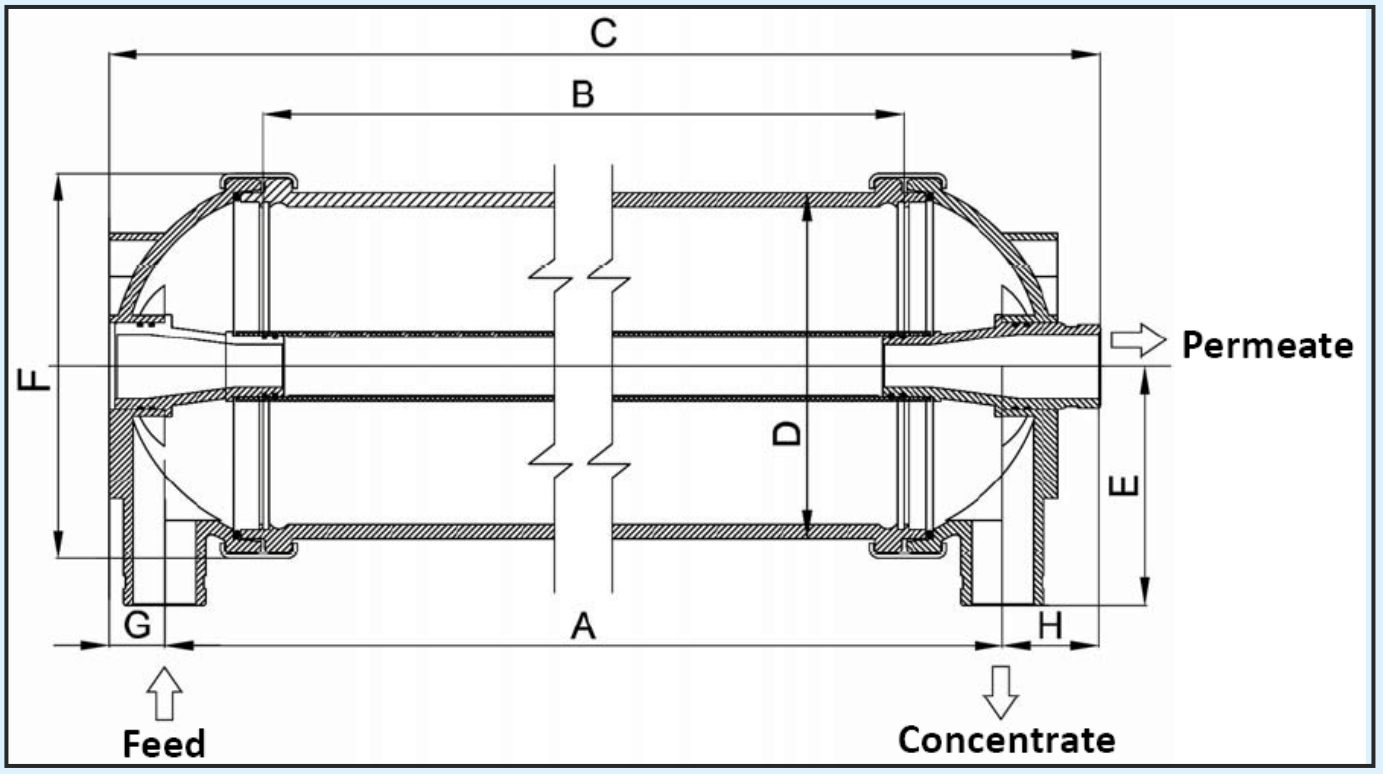

MODULE DIMENSIONS

	A	B	C	D	E	F	G	H
OLTRECAP -1030-P	800mm	750mm	858mm	ϕ250mm	172mm	ϕ277mm	40mm	75mm
B/C/D	(31.5”)	(29.6”)	(33.8”)	(ϕ9.8”)	(6.8”)	(ϕ10.9)	(1.6”)	(3.0”)
OLTRECAP -1060-P	1600mm	1500mm	1715mm	ϕ250mm	172mm	ϕ277mm	40mm	75mm
B/C/D	(63.0”)	(59.1”)	(67.5”)	(ϕ9.8”)	(6.8”)	(ϕ10.9”)	(1.6”)	(3.0”)
OLTRECAP -1080-P	2100mm	2000mm	2215mm	ϕ250mm	172mm	ϕ277mm	40mm	75mm
B/C/D	(82.7”)	(78.7”)	(87.2”)	(ϕ9.8”)	(6.8”)	(ϕ10.9”)	(1.6”)	(3.0”)

Illustrate: Feed, Permeate and Concentrate pipe connections are all VICTAULIC 2 .

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