



PRODUCT DESCRIPTION

| | |
|----------------------------------|----------------------------|
| Membrane Material | Permanently Hydrophilic PS |
| Membrane Configuration | Capillary |
| MWCO (Molecular Weight Cut Off) | 45,000 Dalton |
| Potting Material | Epoxy |
| Housing Material | UPVC |
| Preservative | Glycerin (35%) |

MODULE SPECIFICATIONS

| MODEL | Membrane ID/OD | Membrane Area |
|------------------------------------|------------------------------|---|
| OLTRE _{CAP} -1030 – P - B | 1.0/1.5 mm (0.039/ 0.059") | 23 m ² (247.5 ft ²) |
| OLTRE _{CAP} -1060 – P - B | 1.0/1.5 mm (0.039/ 0.059") | 50 m ² (538.1 ft ²) |
| OLTRE _{CAP} -1080 – P - B | 1.0/1.5 mm (0.039/ 0.059") | 68 m ² (731.9 ft ²) |

APPLICATION DATA

| | |
|---|---|
| Typical Filtrate Flux | 60 -120 L/m ² · h (35 -71 GFD) |
| Maximum Applied Feed Pressure | 0.5 MPa (73 psi) |
| Maximum TMP | 0.2 MPa (30 psi) |
| Maximum Backwash Pressure | 0.2 MPa (30 psi) |
| CIP Chlorine Concentrate | 100 - 200 ppm |
| Instantaneous H ₂ O ₂ Tolerance | 200 ppm |
| Maximum Feed Turbidity | 100 NTU |
| Operating Temperature | 5 - 40 (41 -104) |
| Operating pH Range | 1~13 |
| Operation Mode | Dead-end or cross flow |

TYPICAL PROCESS CONDITIONS

| | |
|--------------------|--|
| Backwash Flux | 180 - 240 L/m ² · h (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 ₂ O ₂ , NaOH, HCl, citric acid or oxalic acid |



SPECIAL FEATURES

Permanently Hydrophilic Membrane (proprietary technology)

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

Lower Molecular Weight Cut Off

Typically OLTRE_{CAP} UF membrane offers very fine filtration at a MWCO at 45,000 Dalton, which is the very high end of UF filtration grade in water treatment.

Larger Diameter Capillaries

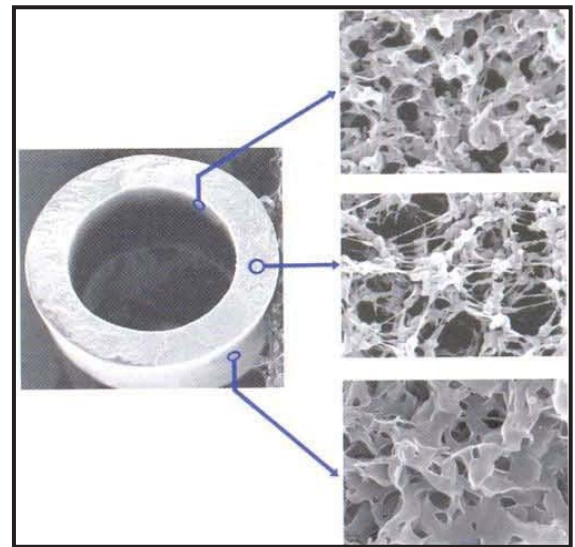
Larger diameters of the capillaries endow better anti-fouling properties to the membranes. OLTRE_{CAP} UF presents larger diameter UF capillary membranes (ID/OD=1.0/1.5mm) for better performances.

Even Arrangement of the Membranes (patented 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 (patented technology)

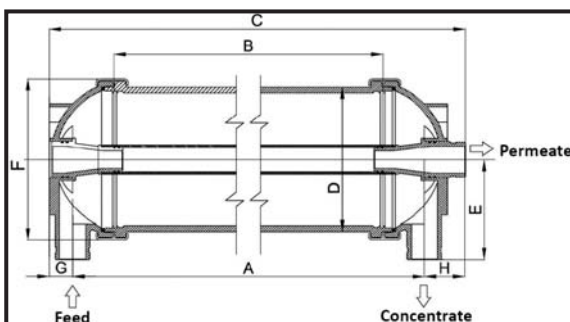
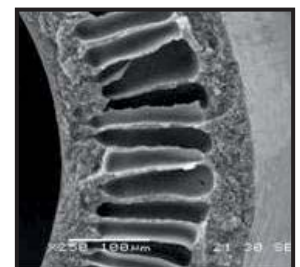
The "roots" of the capillaries are the weakest portions in membrane modules, and may break during operation. These portions of membranes in OLTRE_{CAP} UF modules are protected by a soft layer of potting material.



APPLICATIONS

OLTRE_{CAP} - P membrane modules can be used to purify well and surface water for drinking water, to filter treated waste water for reuse, or filter surface or sea water before RO or NF systems.

SEM Cross-Section Photograph



MODULE DIMENSION

| | A | B | C | D | E | F | G | H |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-----------------|--------------------|----------------|----------------|
| OLTRE _{CAP} -1030- P - B | 850mm (33.5") | 750mm (29.6") | 965mm (38") | Φ250mm (Φ9.8") | 172mm (6.8") | Φ286mm (Φ11.3") | 40mm (1.6") | 75mm (3.0") |
| OLTRE _{CAP} -1060- P - B | 1600mm (63.0") | 1500mm (59.1") | 1715mm (67.5") | Φ250mm (Φ9.8") | 172mm (6.8") | Φ286mm (Φ11.3") | 40mm (1.6") | 75mm (3.0") |
| OLTRE _{CAP} -1080- P - B | 2100mm (82.7") | 2000mm (78.7") | 2215mm (87.2") | Φ250mm (Φ9.8") | 172mm (6.8") | Φ286mm (Φ11.3") | 40mm (1.6") | 75mm (3.0") |