

MemHPLC

Tools enabling Innovation

Membrane solutions for the laboratory

Membrane Cell for HPLC Units

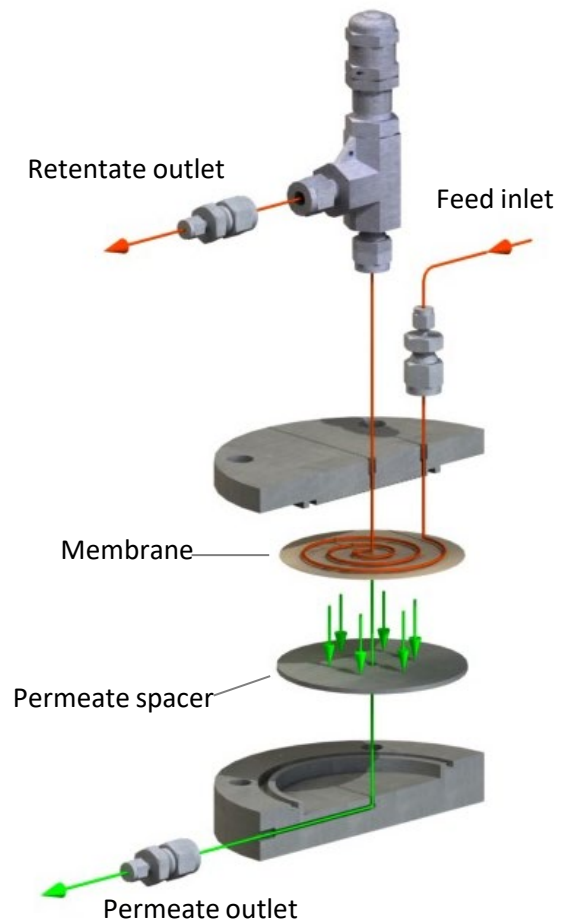
The MemHPLC is a unique membrane cell for crossflow filtration, which is designed to be connected to standard HPLC units.

The MemHPLC will enable the testing of membrane-based applications such as fractionation, purification and concentration of molecules.

Ultrafiltration, Nanofiltration and Reverse Osmosis applications can be tested at an early stage enabling innovation to start in the laboratory.

Key Features

- Plugs into any HPLC device
- Crossflow filtration unit
- Batch operation
- High operating pressures
- Wide range of membranes available



Further Information

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Applications

Aromas and Colorants

Herbal extract fractionation & concentration
Natural colour purification & concentration
Aroma sterilization & concentration
Evaporator condensate treatment

Natural Oils

De-waxing
De-colourization
Purification
Concentration
Oil/water separation

Chemical

Acid/caustic recovery
Catalyst separation
Solvent exchange & recovery
Polymer purification & concentration
Condensate water purification

Bio-pharma

Enzyme & protein concentration
Peptide concentration & de-salting
API or oligosaccharide purification & concentration
Solvent recovery or exchange

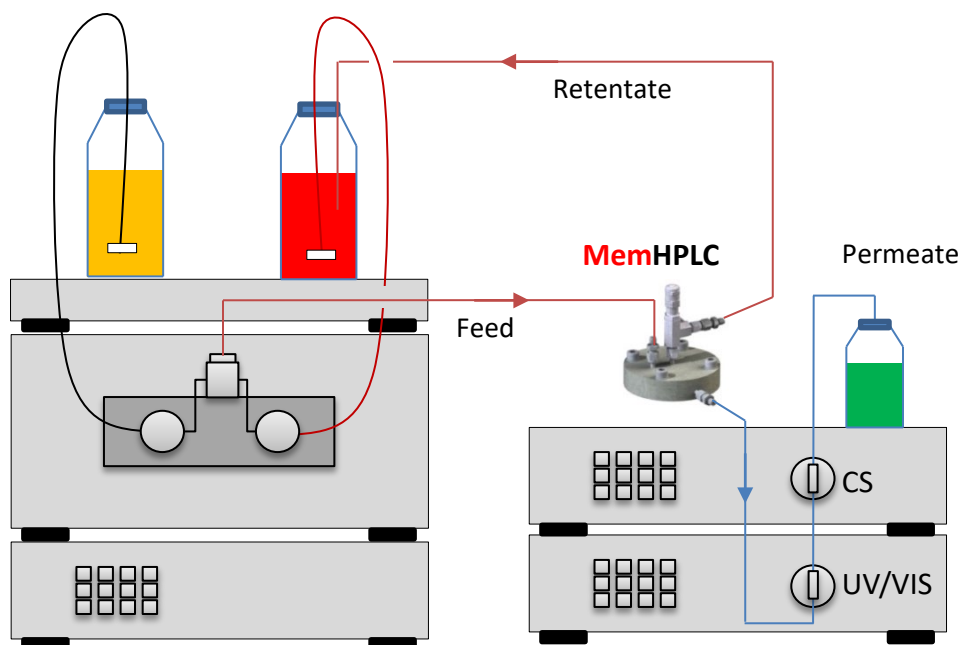
Food & Extracts

Protein or extract fractionation & concentration
Hydrolysate fractionation & concentration
Sugar fractionation & concentration
De-alcoholization of beer and wine
Soy milk debittering

Biofuels

Organic acid clarification & purification
Organic acid concentration
Sugar clarification & concentration
Ethanol purification
Condensate water recovery

For a specific application not listed above ask our specialists at info@mmsx.com

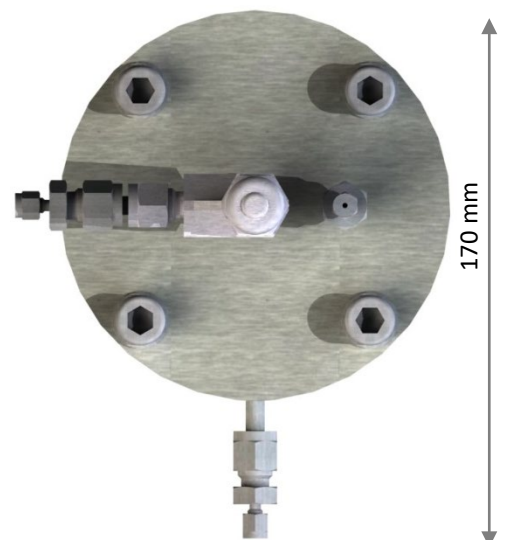
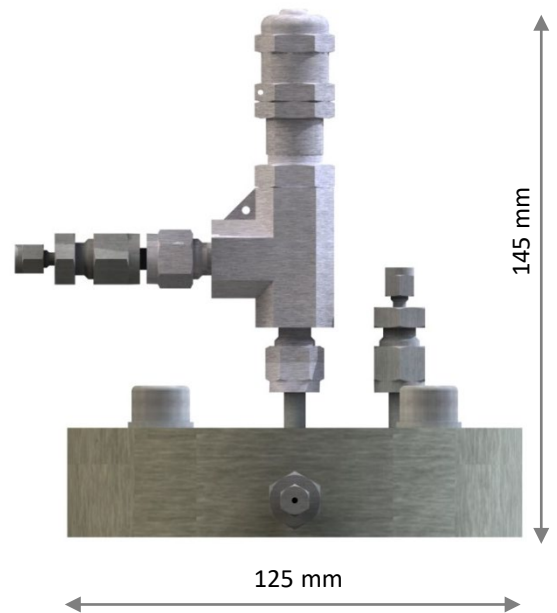


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Specifications

Dimensions (L x W x H)	170 x 125 x 145 mm
Weight	1 kg
Membrane area	28 cm ²
Channel diameter	1 mm equivalent
Path length	970 mm
Permeate flow rate	Approx. 0.5 – 2.5 ml/min
Crossflow velocity	0.3 – 1 m/s
Cell body	Stainless steel 316L
Cell dead volume	~5-10 ml
Permeate spacer	Stainless steel 316L
O-rings	EPDM (others on request)
Pressure rating	PN40, (PN64 on request)
Working temperature	5 - 80 °C (limitations due to membrane possible)



Particularly suitable for...

- Aqueous solution
- Solutions with particle size < 100 µm
- Simple applications
- Little or no experience in membrane technology
- Existing HPLC pump
- Low budget

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Options

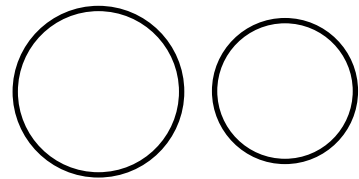
Manometers

Manometers or pressure transducers can be added to the feed, retentate and permeate lines as an option.



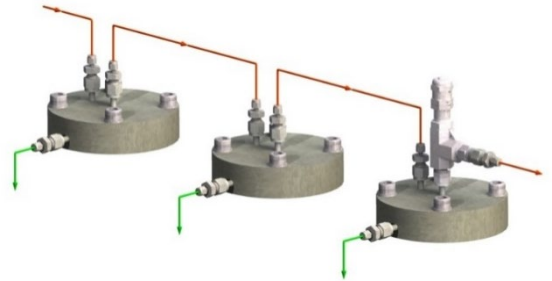
Additional O-ring Materials

O-rings are available in EPDM, FKM or FFKM (depending on the product requirements).



Additional Cells

Additional MemHPLC cells can be added to allow screening trials (optional: pressure holding valve).



Membrane Cutting Tool

Circular punch of high resistance steel to cut out 75 mm disks.



Membrane Cut-Offs

Wide range of pore sizes and cut-offs available:

- Microfiltration (0.1 – 1.4 μm)
- Ultrafiltration (1 – 250 kDa)
- Nanofiltration (100 – 1000 Da)
- Reverse Osmosis

