

PCI Membranes
Micro 240 & 960



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The MICRO 240 & 960 is designed for the economic, short term evaluation of membrane processes for separation and concentration at laboratory bench-scale.

This inexpensive module may be fitted, by the user, with samples of any of PCI Membranes' wide range of tubular Reverse Osmosis, Nanofiltration or Ultrafiltration membranes. Constructed in 316 stainless steel, the module has termination points allowing easy connection by flexible or welded couplings to existing equipment.

Larger modules and ancillary components are available if required.

"Reverse osmosis (RO) is a membrane separation method that removes many types of large molecules and ions from solutions by applying pressure to the solution when it is on one side of a selective membrane. The result is that the solute is retained on the pressurized side of the membrane and the pure solvent is allowed to pass to the other side. To be "selective," this membrane should not allow large molecules or ions through the pores (holes), but should allow smaller components of the solution (such as the solvent) to pass freely."

PROVEN MEMBRANES

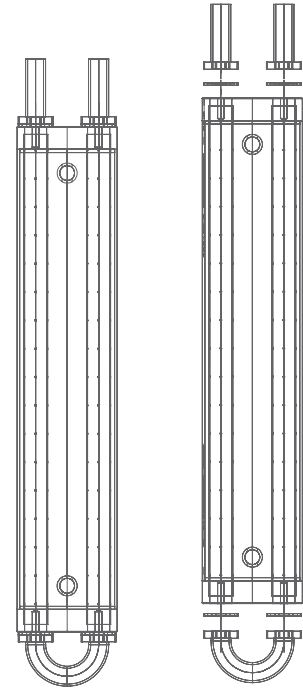
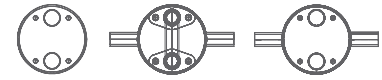
With applications in the food, beverage chemical, MBR and pharmaceutical industries.

COMPACT MODULAR DESIGN

Quick and easy plant construction.

TUBULAR MODULE

Minimal prefiltration required, suited to viscous liquids and high levels of suspended solids.



Dimensions		
	Micro 240	Micro 960
Length (m)	2 off 1.25cm dia x 30cm tubes connected in series	2 off 1.25cm dia x 1.2m tubes connected in series
Membrane Area (m ²)	240 cm ² (0.024m ²)	960 cm ² (0.096m ²)

Connection	
Permeate Flow	5-50 ml/min
Recommended Pressure	40 Bar for RO; 4 Bar for UF
Recommended Recycle Flowrate	18 l/min for RO, equivalent to 2.5m/s; 30 l/min for UF, equivalent to 4m/s;
Pressure Drop (Water) at 2m/s	0.15bar (2 psi)
Pressure Drop (Water) at 4m/s	0.5bar (7 psi)

Additional Details		
	Micro 240	Micro 960
Operating Pressure	55 Bar at 70°C; 70 Bar at 20°C max	55 Bar at 70°C; 70 Bar at 20°C max
Tubeside Volume	75ml	295ml
Permeate Volume (full)	514ml (Approx)	2061.2ml (Approx)
Permeate Volume (empty)	50ml (Approx)	215ml (Approx)
Construction	316 Stainless Steel with Nitrile rubber seals. (Other seal materials available)	316 Stainless Steel with Nitrile rubber seals. (Other seal materials available)