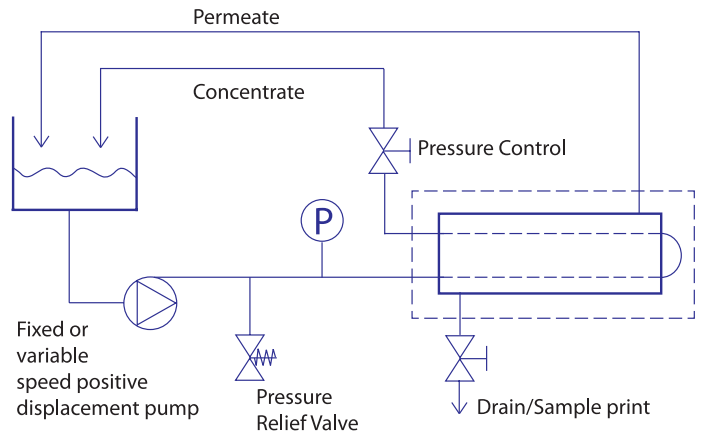
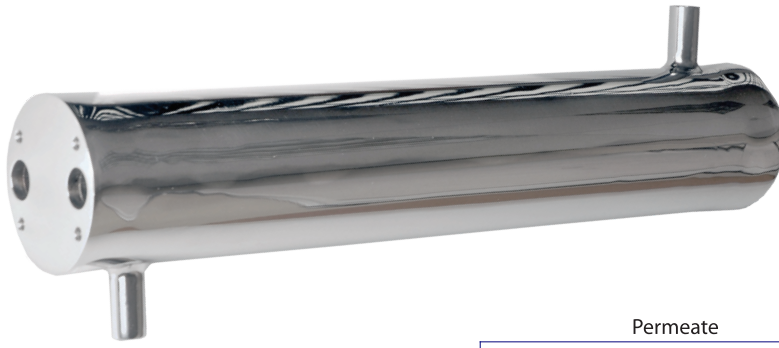
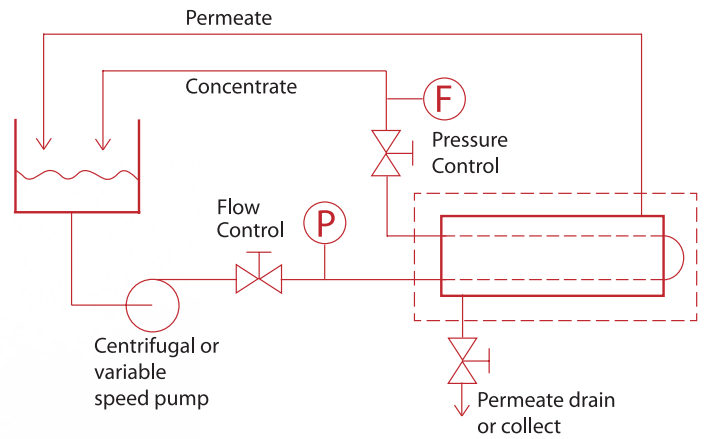




PRODUCT & TECHNICAL SHOWCASE  
MICRO 240 SERIES MEMBRANES  
& MODULES



RO Batch Recycle



UF Batch Recycle

# MICRO 240 SERIES

SHORT-TERM EVALUATION OF  
MEMBRANE PROCESSES

SEPARATION AND  
CONCENTRATION  
AT LABORATORY

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# MICRO 240

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## SHORT-TERM RO, NF & UF EVALUATION MODULES

The MICRO 240 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.



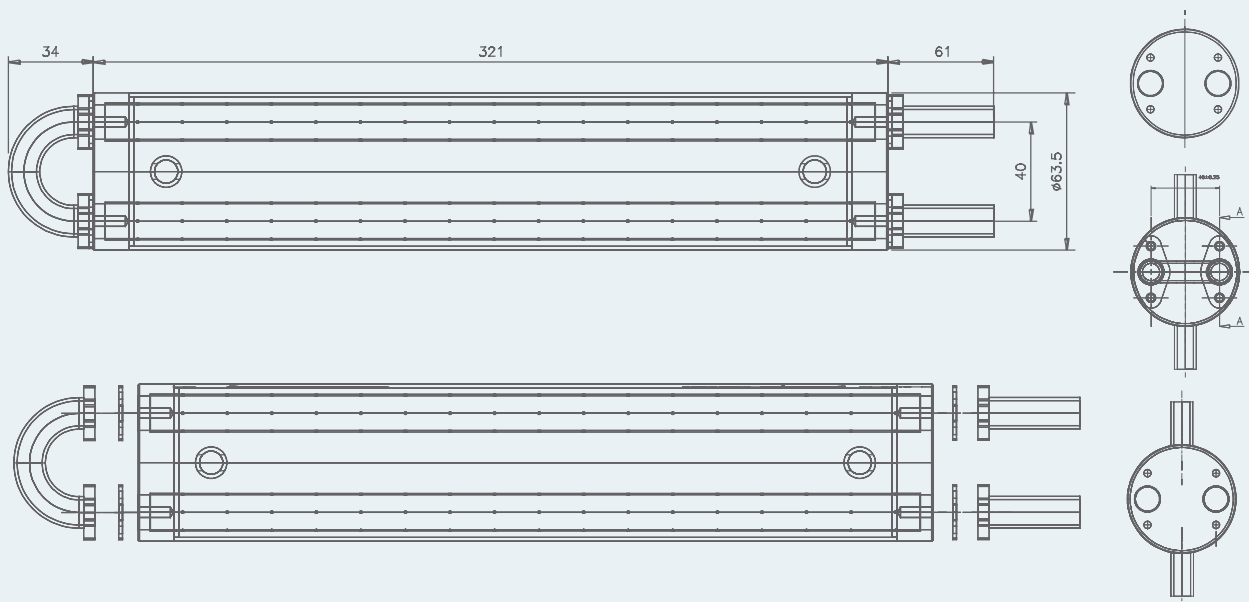
Constructed in 316 stainless steel, the module has termination points allowing easy connection by flexible or welded couplings to existing equipment.

Larger modules and ancillary components are available if required.

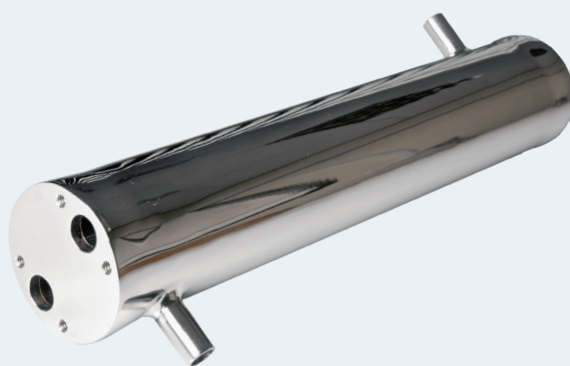
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“REVERSE OSMOSIS (RO) IS A MEMBRANE SEPARATION METHOD THAT REMOVES MANY TYPES OF LARGE MOLECULES AND IONS FROM SOLUTIONS BY APPLYING PRESSURE TO THE SOLUTION WHEN IT IS ON ONE SIDE OF A SELECTIVE MEMBRANE. THE RESULT IS THAT THE SOLUTE IS RETAINED 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.”

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- **PROVEN MEMBRANES**  
 With applications in the food, beverage, chemical, MBR and pharmaceutical industries
- **COMPACT MODULE DESIGN**  
 Quick and easy laboratory setup
- **TUBULAR MODULE**  
 Minimal prefiltration required, suited to viscous liquids and high levels of suspended solids



| Dimensions                      |   |
|---------------------------------|---|
| Length (m)                      | 2 off 1.25cm dia x 30cm tubes connected in series |
| Membrane Area (m <sup>2</sup> ) | 240 cm <sup>2</sup> (0.024m <sup>2</sup> )        |

| Operating Conditions          |  |
|-------------------------------|--|
| 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;<br>30 l/min for RO, 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      |   |
|-------------------------|---|
| Operating Pressure      | 55 Bar at 70°C; 70 Bar at 20°C max  |
| Tubeside volume         | 75ml  |
| Permeate volume (full)  | 750ml (Approx)  |
| Permeate volume (empty) | 50ml (Approx)   |
| Construction            | 316 Stainless Steel with Nitrile rubber seals. (Other seal materials available) |

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