

# MICRODYN MD 150 CU 2M

## Capillary Microfiltration Modules

MICRODYN capillary microfiltration modules are a modern filtration method for the separation of suspended particles or emulsified liquids. The highly porous symmetrical structure of the MICRODYN polypropylene membrane leads to high permeability rates. The MICRODYN membrane is available in 0.1- and 0.2-micron options, with a very narrow pore size distribution to allow for sharp separations.

The MICRODYN membrane is very resistant to abrasion and other mechanical damage due to its homogeneous construction, unlike asymmetrically structured ceramic membranes. The chemical resistance and pH resistance (0 - 14) of the modules is unmatched due to the polypropylene membrane material.

### MEMBRANE CHARACTERISTICS

|                          |                     |
|--------------------------|---------------------|
| <b>Membrane Polymer</b>  | Polypropylene (PP)  |
| <b>Inner Diameter</b>    | 1.8 mm (0.1 inches) |
| <b>Nominal Pore Size</b> | 0.2 µm              |

### MODULE SPECIFICATIONS

|                              |   |
|------------------------------|---|
| <b>Housing Material</b>      | Polysulfone (PS)                          |
| <b>Potting Material</b>      | Polyurethane (PU)                         |
| <b>Number of Capillaries</b> | 1800                                      |
| <b>Nominal Membrane Area</b> | 6.3 m <sup>2</sup> (68 ft <sup>2</sup> )  |
| <b>Free Flow Area</b>        | 46 cm <sup>2</sup> (7.1 in <sup>2</sup> ) |

### OPERATING PARAMETERS

|   |                         |
|---|-------------------------|
| <b>Temperature Range</b>  | 5 - 40 °C (41 - 104 °F) |
| <b>Maximum TMP inside to outside<sup>a</sup></b>                    | 2.2 bar (32 psi)        |
| <b>Maximum TMP inside to outside<sup>b</sup></b>                    | 2.2 bar (32 psi)        |
| <b>Maximum Backpulse Pressure above Outlet Pressure<sup>c</sup></b> | 1.0 bar (14.5 psi)      |
| <b>Maximum Backpulse Pressure above Outlet Pressure<sup>d</sup></b> | 0.5 bar (7.3 psi)       |
| <b>Feed Flow Rate at Axial Velocity of 1 m/s</b>                    | 16,400 l/h (72 GPM)     |
| <b>Housing Maximum Pressure</b>                                     | 3.0 bar (43.5 psi)      |

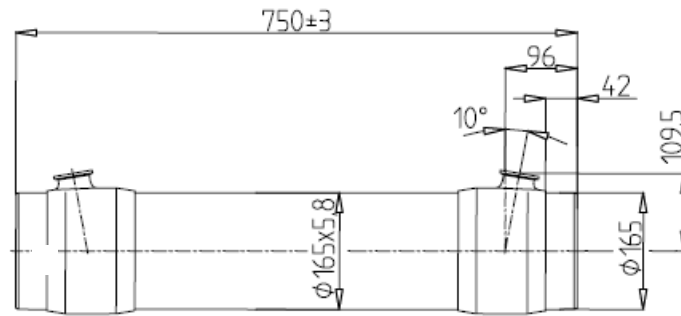
a This value is applicable at 25 °C (77 °F).

b This value is applicable at 40 °C (104 °F).

c This value is applicable at 25 °C (77 °F).

d This value is applicable at 40 °C (104 °F).

**DIMENSIONS**



all dimensions in mm

|                                   |                    |
|-----------------------------------|--------------------|
| <b>Length</b>                     | 750 mm (29.5 in)   |
| <b>Diameter</b>                   | 165 mm (6.5 in)    |
| <b>Connection for Permeate</b>    | Cone flange R 1 ½" |
| <b>Connection for Concentrate</b> | Cone flange R 1 ½" |

**IMPORTANT INFORMATION**

**Storage & Handling:**

MICRODYN Capillary Modules must be handled and stored appropriately to ensure proper operation and to prevent membrane damage. Please see MICRODYN MF Modules – Technical Manual and MICRODYN MF Modules – Handling Instructions.

**Chemical Cleaning:**

To obtain a high filtration capacity on a long-term basis, a chemical cleaning of MICRODYN Capillary Modules is required at times. Please see MICRODYN MF Modules – Chemical Cleaning of MICRODYN Modules and MICRODYN MF Modules – Handling Instructions.

MANN+HUMMEL Water & Fluid Solutions reserves the right to change the specifications without prior notification.

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