

# SPECIFICATION SHEET

## MEMCOR® B50N Membrane Filtration Module

### B50N MODULE SPECIFICATIONS

Parameter	Details
Module Operating Process	Submerged Ultrafiltration
Application	Membrane Bioreactor (MBR) Systems
Membrane Type	Hollow Fiber
Filtration Flow Direction	Outside to Inside
Backwash Type	Relaxation
Membrane Material	PVDF (Polyvinylidene Fluoride)
Other Wetted Module Components	Polyurethane, Fibreglass, Polyamide, Silicone Rubber, SS316
Nominal Membrane Pore Size	0.04 $\mu\text{m}$
Part numbers	GMID: 00012090869 Smart PN: 118322
Nominal Membrane Area	50 m <sup>2</sup> / 538 ft <sup>2</sup>
Nominal Module Length (Overall)	2000 mm / 78.8 in
Nominal Module Pot Dimensions (Overall)	203 mm x 203 mm / 8.0 in x 8.0 in Square
Approximate Module Mass	23 kg / 51 lb



## B50N MODULE OPERATING SPECIFICATIONS

Parameter	Details
Operating Temperature Range	> 0 to 40 °C / > 32 to 104 °F (Must not be exposed to freezing conditions)
Temperature Range for Transportation and Storage	Preferred range 5 to 25 °C / 41 to 77 °F Allowable range > 0 to 40 °C / > 32 to 104 °F (shipment/storage in a temperature controlled container (or reefer) at 20 °C / 68 °F recommended). Modules must not be exposed to freezing conditions and must remain moist at all times.
Typical Feed pH Range	6.0 – 9.0 pH <sup>Note i</sup>
Allowable pH Range for Cleaning	2.0 – 10.5 pH typical
Typical Maximum Available Trans-Membrane Pressure (TMP) in Filtration	50 kPa / 7.3 psi <sup>Note ii</sup>
Maximum Allowable TMP at any time	+75 kPa / +11 psi to -110 kPa / -16 psi
Typical target chlorine concentration during cleaning:	
- Maintenance Wash	200 – 600 mg/L @ 20 °C / 200 – 600 ppm @ 68 °F
- CIP	500 - 1000 mg/L @ 20 °C / 500 – 1000 ppm @ 68 °F
Maximum chlorine concentration during cleaning	1500 mg/L @ 20 °C / 1500 ppm @ 68 °F <sup>Note iii</sup>
Maximum total chlorine exposure	1,000,000 mg.h/L @ 25 °C / 1,000,000 ppm.h @ 77 °F <sup>Note iv</sup>

### Notes:

- Exposure to chloramines is not recommended in feeds below 6.5 pH.
- Maximum available filtration TMP is based on a number of variables including atmospheric pressure, module submergence depth and filtrate pump NPSH requirement. The actual value may vary slightly from that shown.
- The recommendation for maximum chlorine cleaning solution concentration is to account for an initial rapid consumption of chlorine at the start of a MW or CIP cleaning cycle. The targeted chlorine cleaning solution concentration is then typically 200 to 1000 ppm for the remainder of the cycle.
- Please consult DuPont Water Solutions for additional guidance on exposure limits and for operation at different temperatures.