



Submerged Microfiltration Membrane Bioreactor (MBR) Module

	HYDRAsub [®] - MBR	HSM1000-ES
Module Specifications	Configuration: Fiber Orientation: Filtrate Flow: Membrane Polymer: Pore Size (nominal): Number of Elements in Module: Nominal Membrane Area per Module: Permeate Connections: Air Connections: Guide Pipe Connections: Typical Module Dry Weight: Typical Module Wet Weight:	Submerged Membrane Vertical Bi-directional Polyvinylidene Flouride (PVDF) 0.4 µm 40 (25 m² each) 10760 ft² (1000 m²) (2)- 3" MNPT (2)- 3" MNPT (2)- To fit 3" pipe 2398 lbs (1090 kg) 4226 lbs (1916 kg)
Operating Specifications	Maximum Transmembrane Pressure (Vacuum): Maximum Backwash Pressure: Maximum Instantaneous Chlorine Concentration: Maximum Chlorine Tolerance: MLSS Range: Operating Temperature Range: Feed Water pH Range: Cleaning pH Range: Operating Mode:	-6 psig (-0.41 bar) 2 psig (0.14 bar) 5,000 ppma 742,000 ppm-hrsb 8,000 - 12,000 mg/Lc 41 - 104°F (5 - 40° C) 6.0 - 8.0 1.0 - 11.0 Outside to Inside
Typical Process Conditions	Operating Filtrate Flux†: Peak Operating Flux†: Chemically Enhanced Backwash (CEB) Flux: CEB Chemicals: Clean In Place (CIP) Flux: CIP Chemicals:	4-20 gfd (7-34 lmh) 30 gfd (51 lmh) 2.4 gfd (4 lmh) NaOCI d 2.4 gfd (4 lmh) NaOCI or Citric Acidd

^{† -}Depends on temperature and application

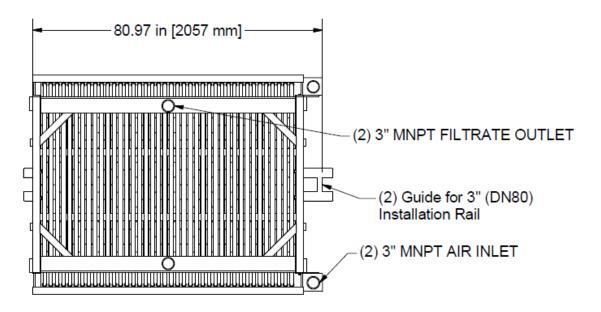
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a -For a maximum of 2 hours
b- Maximum chemical tolerance for estimated life span of membrane
c -In membrane tank at steady state for municipal wastewater
d- Refer to operating manual for chemical concentrations and cleaning frequencies

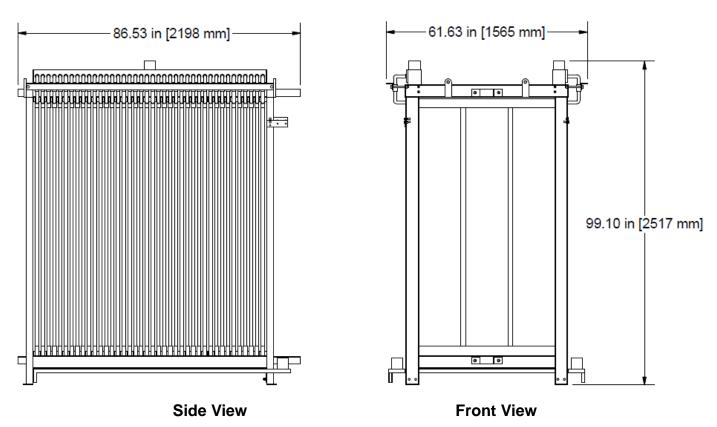




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Top View



Note: Cage is made of stainless steel 304. Connections are in English units. For more detailed drawings, contact Hydranautics.

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