

Submerged UF Specification

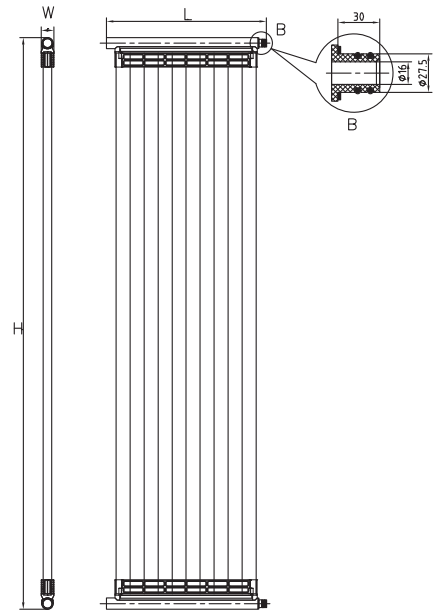
Memstar submerged membrane bioreactor (MBR) modules combine advanced engineering concepts and best-in-class TIPS fiber technology to provide the highest performing MBR ultrafiltration products in the market. These modules are typically applied in MBR applications treating municipal and industrial wastewaters, from a wide variety of industries such as textile, petrochemical, refinery, and food and beverage.

Key Features and Benefits

- High mechanical strength = Long life
- Extreme caustic and oxidant tolerance = Long life, challenging applications
- Patented air scouring device = Low energy consumption
- High packing density = Fewer skids, smaller footprint
- Dense crystalline and monolithic structure = Direct Integrity Testing capability

Module Specifications

| Module Type | SMM-1015T | SMM-1522T | SMM-2030T |
|---|---------------------|-------------------|-------------------|
| Membrane Material | PVDF (TIPS) | | |
| Nominal Pore Size (um) | 0.04 | | |
| Filtration Mode | Outside-in | | |
| Housing Material | ABS | | |
| Potting Material | Epoxy/Polyurethane | | |
| Filtration Surface Area (m ²)[ft ²] | 15 [161] | 22 [237] | 30 [323] |
| Wet Weight (kg) [lbs] | 9 [20] | 11 [24] | 13 [29] |
| L (mm) [inches] | 571 [22.5] | 571 [22.5] | 571 [22.5] |
| W (mm) [inches] | 45 [1.8] | 45 [1.8] | 45 [1.8] |
| H (mm) [inches] | 1040 [40.9] | 1540 [60.6] | 2040 [80.3] |
| Filtrate Pipe Port Pipe Port | Single OD32 UPVC | Dual OD32 UPVC | Dual OD32 UPVC |

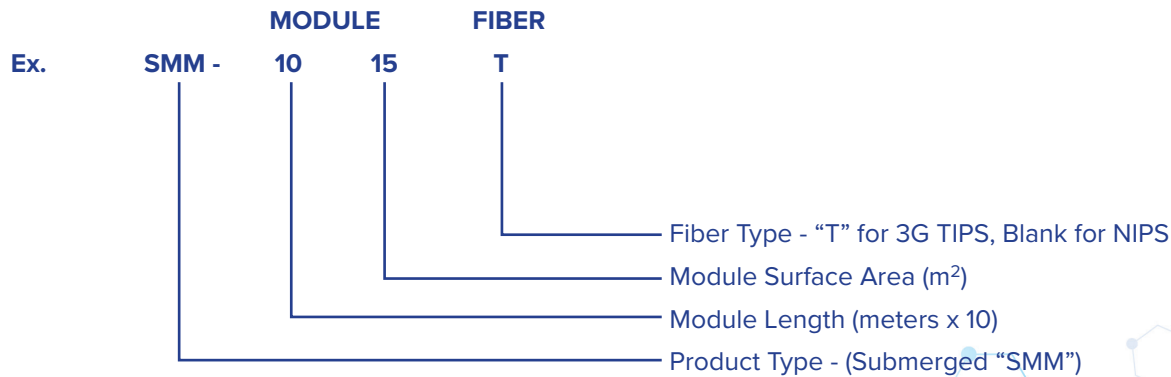


| MODULE OPERATING PARAMETERS | ALLOWABLE RANGE |
|---|---|
| Operating temperature (°C) [°F] | 5 – 45 [41-113] |
| Typical flux (LMH) [gfd] ¹ | 8 – 30 [5-18] |
| Instantaneous chlorine tolerance (ppm) | 5,000 |
| Maximum lifetime chlorine tolerance (ppm-hrs) | 1,000,000 |
| Maximum transmembrane pressure (bar) [psi] | 0.5 [7] |
| Maximum backwash pressure (bar) [psi] | 0.5 [7] |
| Oil content in feed water (ppm) | < 2 |
| pH range | Operating: 1 – 12; Cleaning: 1 – 14 |
| Air scour rate (m ³ /hr/module) [cfm/module] | 2 - 2.5 [1.3 - 1.6] |
| Membrane tank MLSS ² (mg/L) | 5,000-10,000 Recommended - 6,000-8,000 |
| Particle size in feed water ³ (mm) | ≤ 2 |



- 1 - Flux selection depends on feed type and water quality. Please consult Memstar for flux selection.
- 2 - Please consult Memstar for higher values.
- 3 - The primary concern is sharp objects entering the treatment system such as branches, plastic pieces, sand, etc.

Product Numbering Guide



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