

BIO-CEL® Diffusers

Silicone hoses used for submerged MBR Modules for Wastewater Treatment

The BIO-CEL® MBR series is ideal for biological wastewater treatment in industrial and municipal applications. BIO-CEL MBR combines the benefits of traditional hollow fiber and plate and frame configurations without any of their inherent disadvantages. The module has an extremely high packing density due to the thin and self-supporting membrane sheets, and the laminate offers a self-healing mechanism.

HOSE CHARACTERISTICS

Material	Silicone
Shore hardness to DIN 53.505	A 60 +/- 5
Tear strength ISO 34-1 B	> 35 N/mm
Perforation	1.2 mm
Diameter	64.5 ± 1

OTHER SPECIFICATIONS

Diffuser support tube material	Polypropylene (PP)
Diffuser sealing	EPDM
Clamp Material Options	Stainless Steel 1.4301/304 (V2A) On request: SS 1.4571/316Ti (V4A)

OPERATING PARAMETERS

pH Range	2.0 – 11.0
Inflow Temperature Range	5 – 90°C (41 – 194°F)
Pressure loss	See diagram below
Total Chlorine Resistance	1,000,000 ppm•hr

PRESSURE LOSS

Expected Diffuser Pressure Loss*	70 – 90 mbar (0.87 – 1.16 psi)
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* Pressure loss should be recorded during commissioning and cleaned according to TSG-C-WW002_BIO-CEL_Diffuser Monitoring & Cleaning

Mann+Hummel designed an own diffuser grid system optimized for MBR systems. Therefore, the pressure loss is measured inhouse within the technical department at our own test bench. The pressure loss varies for different module sizes.

IMPORTANT INFORMATION

Storage & Handling:

BIO-CEL® MBR modules must be handled and stored appropriately to ensure proper operation and to prevent membrane damage. Please see BIO-CEL® MBR – Storage Conditions (TB-WW002).

Mann+Hummel Water & Fluid Solutions reserves the right to change specifications without prior notification.

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