



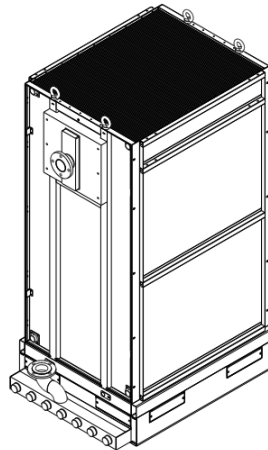
MICRODYN BIO-CEL[®] L-1

Submerged MBR Module for Wastewater Treatment

The MICRODYN 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.

MEMBRANE CHARACTERISTICS	Membrane	NADIR [®] UP150
	Membrane Polymer	Polyethersulfone (PES)
	Nominal Pore Size	0.04 µm
	Preservative	Glycerine 20 % / Sodium benzoate 3 %
MODULE SPECIFICATIONS	Housing Material Options	Stainless Steel 1.4301/304 (V2A) On request: SS 1.4571/316Ti or 1.4404/316L (V4A)
	Drainage Layer	Polyester (PET)
	Diffusors Material Options	Membrane hose: Polyurethane (PUR) Support tube: Polypropylene (PP)
	Nominal Membrane Area	480 m ² (5167 ft ²)

PHYSICAL DIMENSIONS



Dry Weight	420 kg (926 lb)
Wet Weight without Solids	700 kg (1543 lb)
Maximum Load for Lifting^a	1500 kg (3307 lb)
Length	1514 mm (5 ft)
Width	1107 mm (3.6 ft)
Height	2530 mm (8.3 ft)
Filtration Tank Minimal Water Level	3240 mm (10.6 ft)
Connection for Permeate	Fixed Flange, PP, DN 80, PN6
Connection for Aeration	Fixed Flange, DN 80, PN6, DIN 2631

^a Sludge deposit must be removed before lifting unit.

OPERATING PARAMETERS

pH Range	2.0 – 11.0
Temperature Range	5 – 40°C (41 – 104°F)
Maximum TMP during Filtration	- 400 mbar (-5.8 psi)
Maximum TMP during Regular Backwash	+150 mbar (+2.2 psi)
Air Scour Rate in V_N^b	$\leq 115 \text{ Nm}^3/\text{h}$ ($\leq 72 \text{ SCFM}$)
Recommended MLSS in MBR Tank	Up to 12 g/L
Maximum Particle Size in MBR Tank	2 mm
Total Chlorine Resistance	500,000 ppm•hr

IMPORTANT INFORMATION

**Scope of Supply,
Accessories & Spare Parts:** Please see *MICRODYN BIO-CEL® L-1 – Scope of Supply,
Accessories and Spare Parts (TDS-WW006)*.

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

^b V_N is the volumetric flow rate at standard conditions according to DIN ISO 2533:1979-12.



Headquarters
MICRODYN-NADIR GmbH
Building D512
Kasteler Straße 45
65203 Wiesbaden
Germany
info@microdyn-nadir.de
www.microdyn-nadir.de

USA Office
MICRODYN-NADIR US, Inc.
93 South La Patera Lane
Goleta, CA 93117
USA
info@microdyn-nadir.com
www.microdyn-nadir.com/en
www.microdyn-nadir.com/trisep

China Office
MICRODYN-NADIR (Xiamen) Co. Ltd.
No. 66 Jinting North Road Xinglin
Xiamen, China 361022
infochina@microdyn-nadir.com

Singapore Office
MICRODYN-NADIR Singapore Pte. Ltd.
18 Tuas Avenue 8
Singapore 639233
info@microdyn-nadir.com