

MICRODYN BIO-CEL® 104

Scope of Supply

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. This product specification sheet provides details about the standard scope of supply, available accessories and spare parts of MICRODYN BIO-CEL® 104 modules.

BIO-CEL® 104 modules are shipped on wooden pallets. Details for shipment dimensions and container transport see page 2.

Part numbers in the table below are the standard scope of supply; accessories are required for proper installation and operation of the module. See more details about required accessories on page 3.

Part Number	Remarks
00350215	Shipped on a wooden pallet

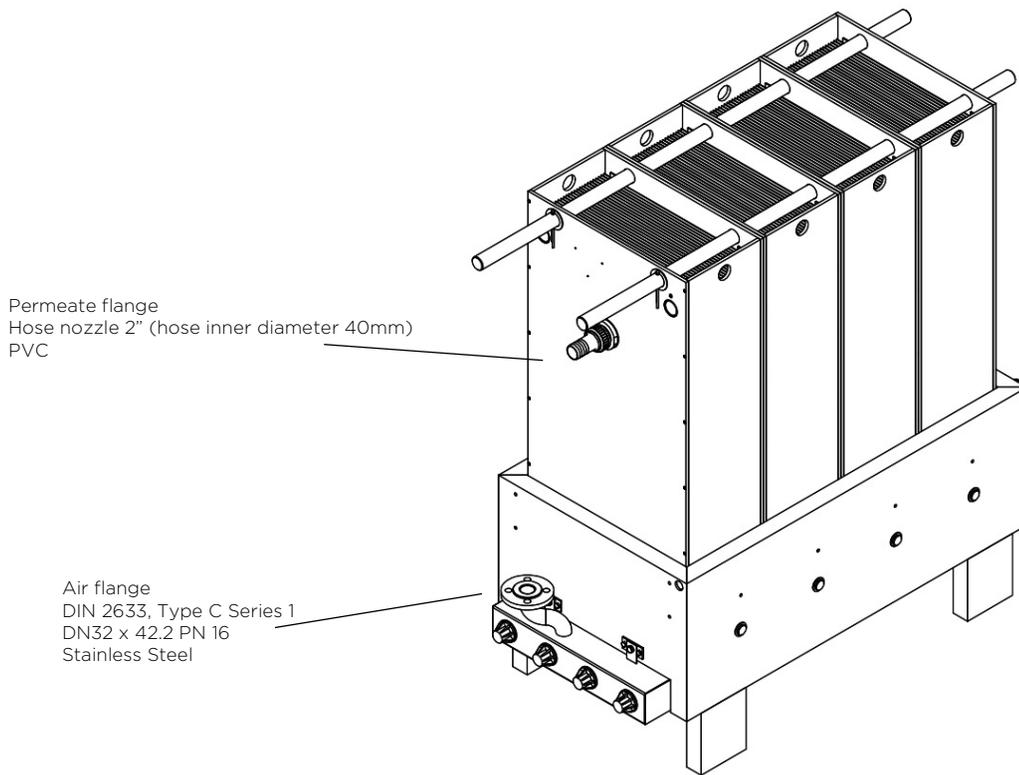


Figure 1. MICRODYN BIO-CEL® 104 scope of supply

Table 1. Wooden pallet shipment dimensions

	length	width	height	weight
BIO-CEL® 104	1,600mm (5.2 ft)	745mm (2.4 ft)	1,713mm (5.6 ft)	260 kg (574 lb)

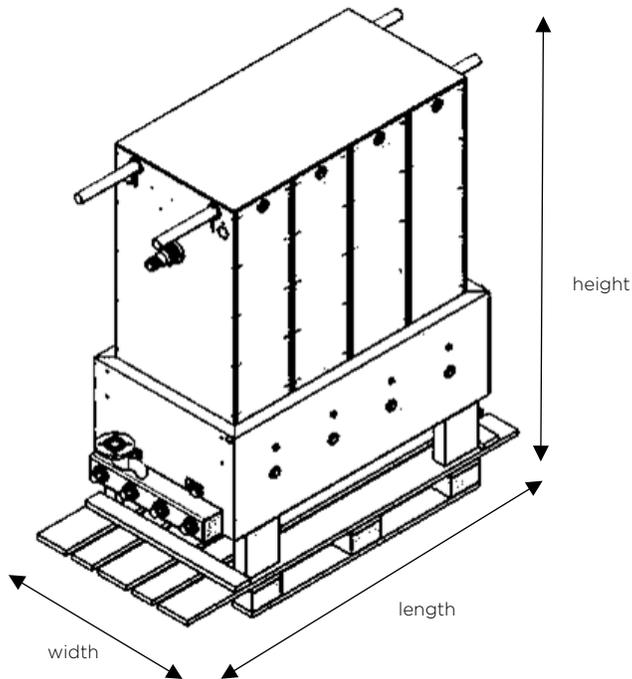


Figure 2. MICRODYN BIO-CEL® 104 in transport packaging

Table 2. standard container inner dimensions

	length	width	height
20 ft container	5,898mm (19.4 ft)	2,350mm (7.7 ft)	2,360mm (7.7 ft)
40 ft container	12,032mm (39.5 ft)	2,350mm (7.7 ft)	2,360mm (7.7 ft)
Door opening	-	2,340mm (7.7 ft)	2,280mm (7.5 ft)

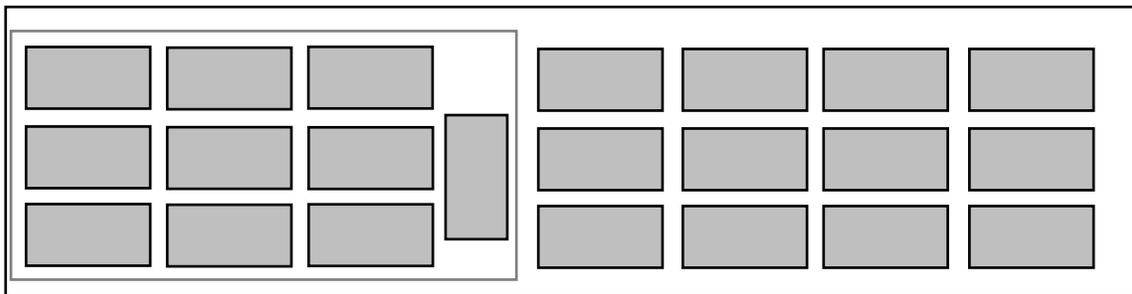


Figure 3. MICRODYN BIO-CEL® 104 arrangement in 20/40 ft container (10 / 21 pcs capacity)

MICRODYN BIO-CEL® 104

Accessories

To ensure proper installation and operation of MICRODYN BIO-CEL® MBR modules, certain accessories are necessary. These accessories are listed in the following table. More detailed information can be found in the BIO-CEL MBR OEM Design Guidelines.

These accessories can be purchased from MICRODYN-NADIR or produced by a third-party supplier. Details of these required accessories are provided in Figures 4-6. Detailed drawings are available on request.

Position	Part Number	Drawing Numbers	Accessory	Remarks
A1	00350161	-	BIO-CEL® 52/104 Permeate Set	Elbow: PVC DN32, PN16 incl. flat sealing and fastening material (drawings available)

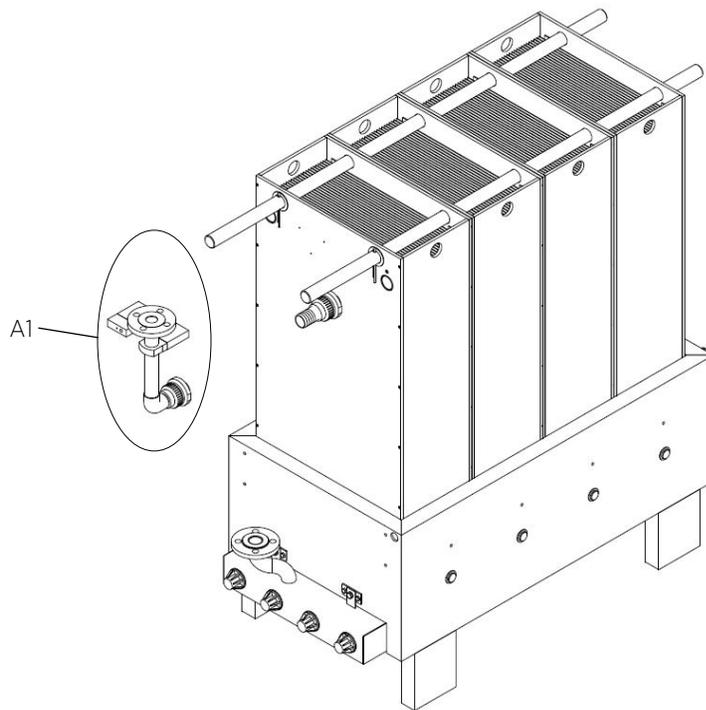


Figure 4. MICRODYN BIO-CEL® 104 exploded drawing of available accessories

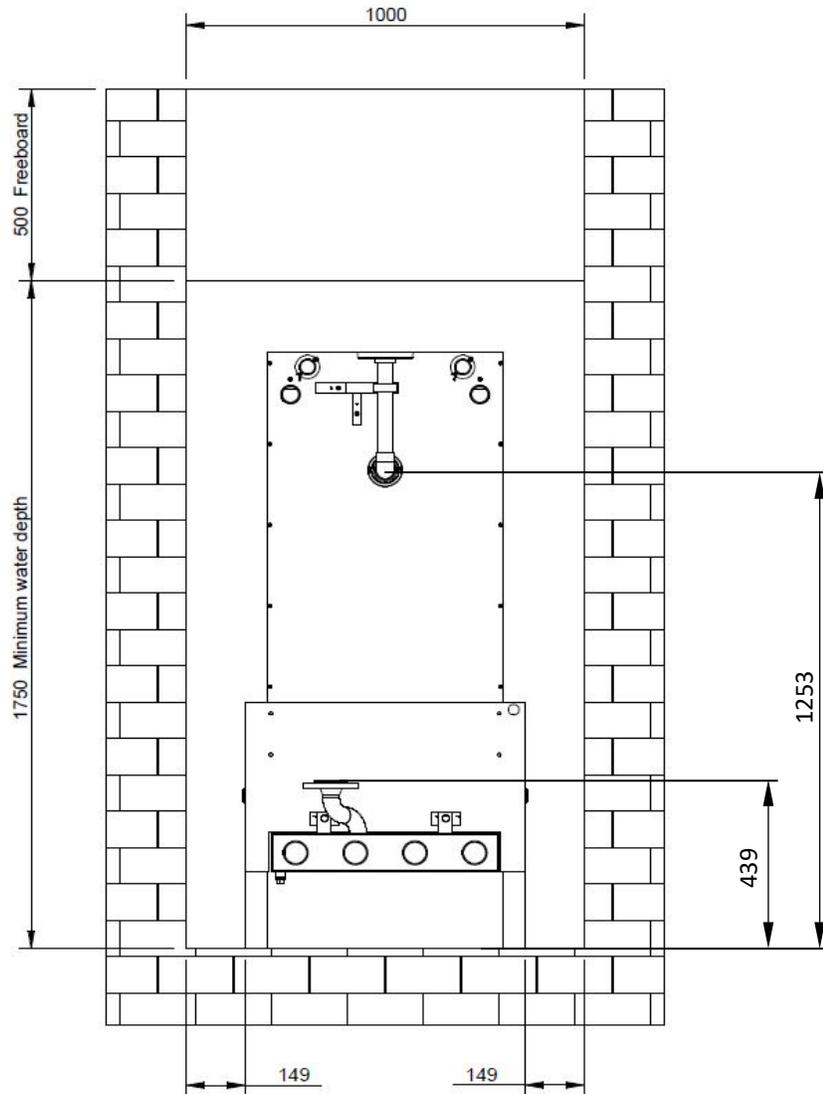


Figure 5. MICRODYN BIO-CEL® 104 with available accessories in standard filtration tank with minimum clearances (connection side view)

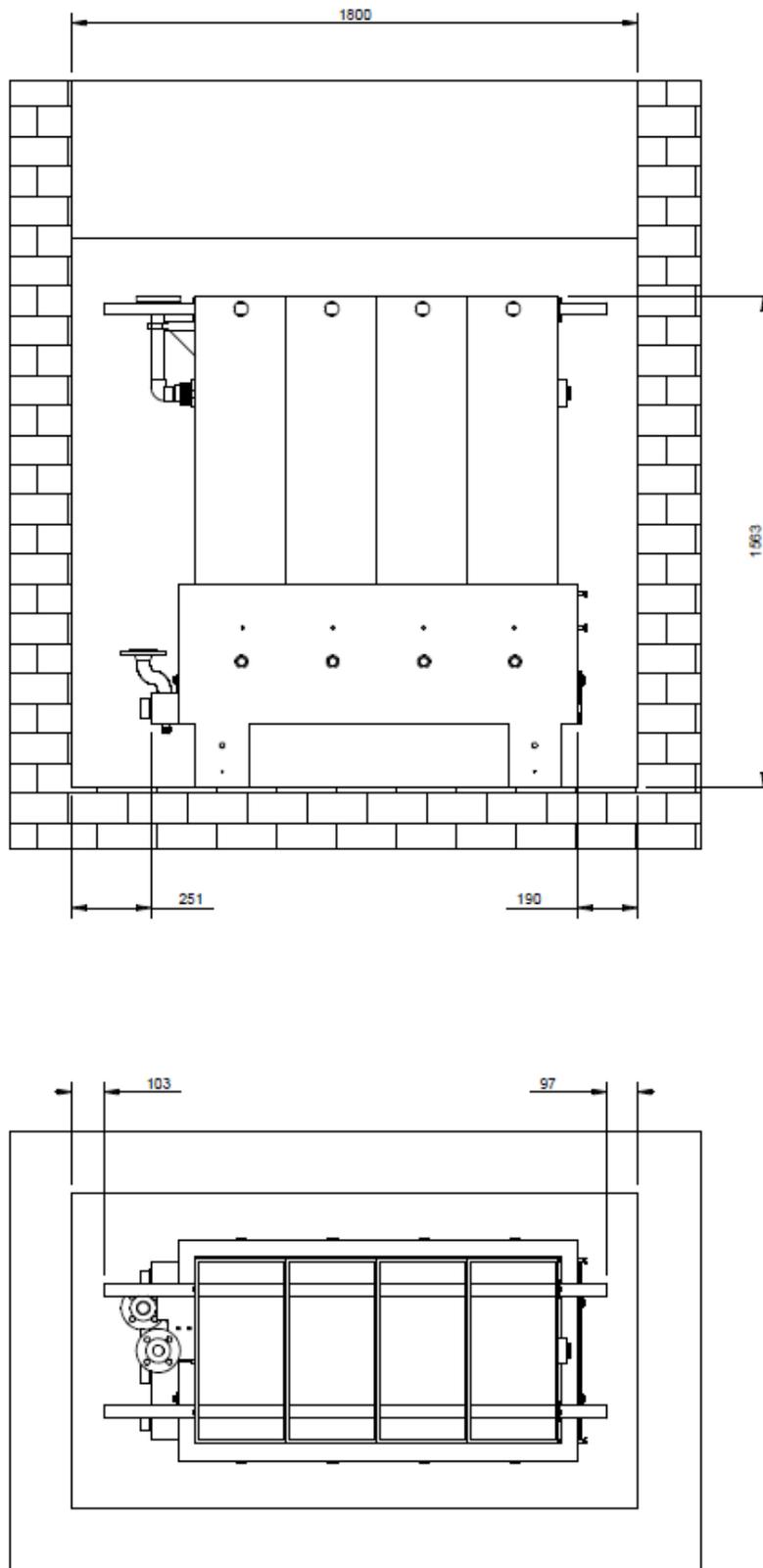


Figure 6. MICRODYN BIO-CEL® 104 with accessories in standard filtration tank with minimum clearances (top and side view)

MICRODYN BIO-CEL® 104

Spare Parts

No spare parts are typically required within the first 5 years of operation. If there is a need for spare parts, MICRODYN-NADIR can supply all necessary parts according to the table below and the drawings in Figure 7. For further information see the MICRODYN BIO-CEL® MBR O&M Manual or contact MICRODYN-NADIR.

Position	Part Number	Spare Part	Remarks
S1a	00350216	MICRODYN BIO-CEL® C26 Cassette Replacement for BIO-CEL® 52/104	Packed in set of 4 on pallet. PN is for a single cassette- use when ordering 4 (or multiple of 4) cassettes.
S1b	00350217	MICRODYN BIO-CEL® C26 Cassette Replacement for BIO-CEL® 52/104	Packed in cardboard box. PN is for a single cassette- use when ordering 1 or 2 cassettes.
S2	00350003	BIO-CEL® 104 Base Unit	spare part includes diffuser set
S3a	00350028	BIO-CEL® 104 Diffuser Set PUR	4 diffusers + connectors (Polyurethane)
S3b	00350262	BIO-CEL® 104 Diffuser Set SIL	4 diffusers + connectors (Silicone)
	00350393	BIO-CEL® 104 Diffuser Hose Set PUR	4 diffuser hoses + clamps without support pipe (Polyurethane)
	00350395	BIO-CEL® 104 Diffuser Hose Set SIL	4 diffuser hoses + clamps without support pipe (Silicone)
-	00350072	BIO-CEL® Diffuser Assembly Tool ^a	Torque wrench with special wrench socket
S4	00350091	BIO-CEL® 104 Connection Set	Necessary to change cassettes
S5	On request	BIO-CEL® 52 /104 2" Hose Nozzle PVC	for hose inner diameter 40 mm
S6	On request	Lifting Bars	Incl. steel parts
S7	00350161	BIO-CEL® 52/104 Permeate Set	Elbow: PVC DN32, PN16 incl. flat sealing and fastening material (drawings available)
-	00350027	BIO-CEL® 52/104 Gasket Set	5x O-ring EPDM, 2x DN32 flat gasket EVA, 1x flat gasket EPDM
-	00350007	BIO-CEL® 52/104 Steel Parts	1.4571/SS316Ti

a A normal torque wrench may be used. Drawings for the special wrench socket are available on request.

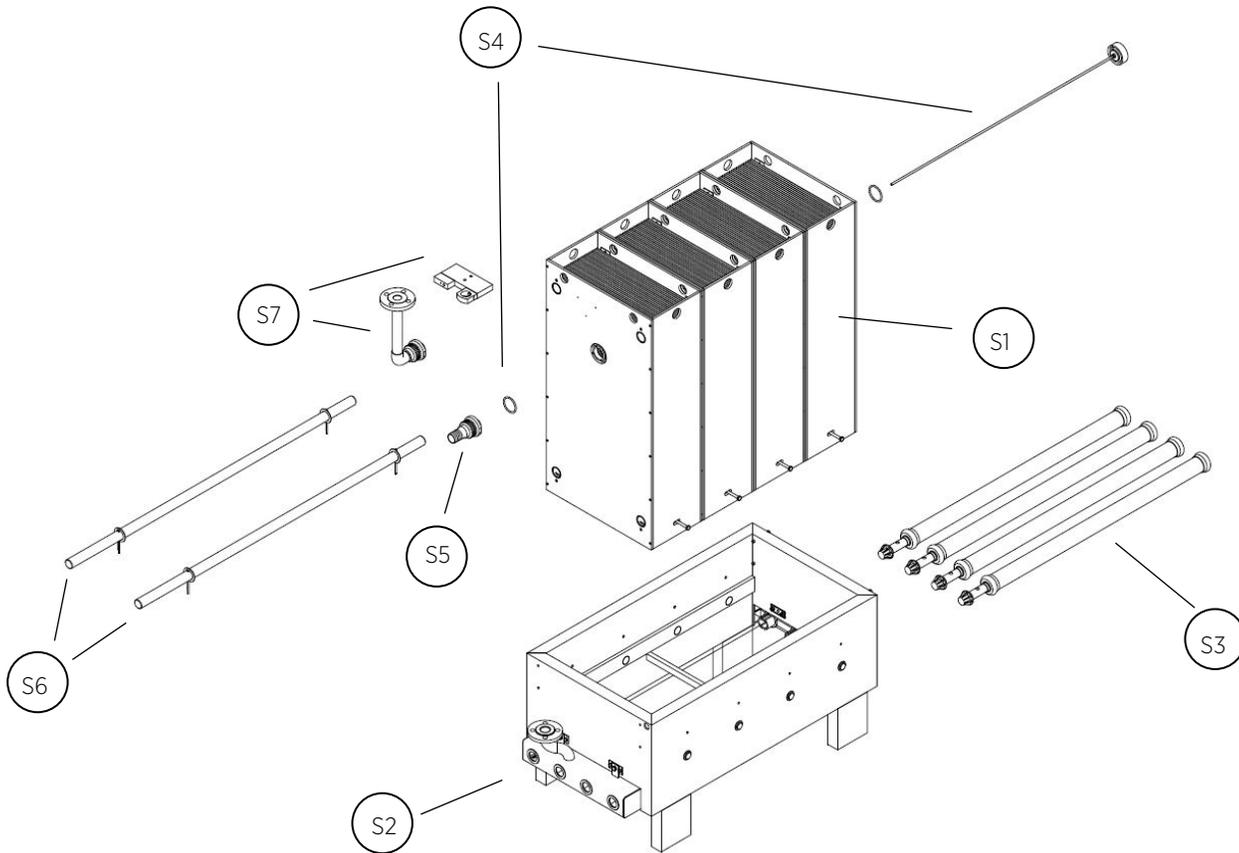


Figure 7. MICRODYN BIO-CEL*104 exploded drawing showing available spare parts

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