



**filtration**

**HYDROFLUX**  
epco

# WMC110 dNF40

**Technical  
Datasheet**

Nanofiltration membrane module for water and  
wastewater applications

## WMC110 dNF40

Nanofiltration membrane module for water and wastewater applications

### Product description

The WMC110 dNF40 nanofiltration modules have the following features:

- Use for treatment of ground and surface water; reuse of industrial and municipal wastewater effluents
- Excellent removal of color, turbidity, divalent ions and dissolved organics, including micropollutants
- Inside-out operation in a cross-flow filtration mode, backwashable
- Limited pretreatment required, no coagulation and no sludge production
- Vertical mounting in a skid and used for small flow rates and pilots
- Excellent pH and chlorine tolerance

### Membrane specifications

Membrane material	Modified PES
MWCO <sup>1</sup>	400 Dalton
Min. MgSO <sub>4</sub> rejection <sup>2</sup>	91%
Membrane charge	Negative @ pH=7
Membrane fiber inner diameter	0.7 mm

<sup>1</sup> Molecular Weight Cut-Off (MWCO) is an estimation as it depends on size, shape, charge and polarity of the compound being tested, as well as test conditions.

<sup>2</sup> Test conditions: 5.0 mMol/L MgSO<sub>4</sub>, 3.0 bar, 25°C, v=0.5 m/s

### Typical operating ranges

Max. system pressure <sup>3</sup>	10 bar (145 psi)
Max. transmembrane pressure <sup>3</sup>	6 bar (90 psi)
Max. backwash pressure <sup>3</sup>	6 bar (90 psi)
Max. temperature during operation & cleaning	40°C (104°F)
pH range during operation	2-12
pH range during cleaning	1-13
Max. active chlorine concentration	500 ppm @ pH>10
Max. cumulative active chlorine exposure	250,000 ppm-hours @ pH>10
Cross-flow velocity range <sup>4</sup>	0.1 – 1.0 m/s (0.66 – 6.6 m <sup>3</sup> /h per module) 0.3 – 3.3 ft/s (2.90 – 29 gpm per module)

<sup>3</sup> Maximum pressures at 20°C.

<sup>4</sup> Recommended velocity depends on feed water quality.

### Feed water specifications

Max. TSS	300 ppm
Max. turbidity	150 NTU
Max. particle size	150 µm

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### Module specifications

**Membrane Surface Area** 14.7 m<sup>2</sup> (154 ft<sup>2</sup>)

#### Module Dimensions

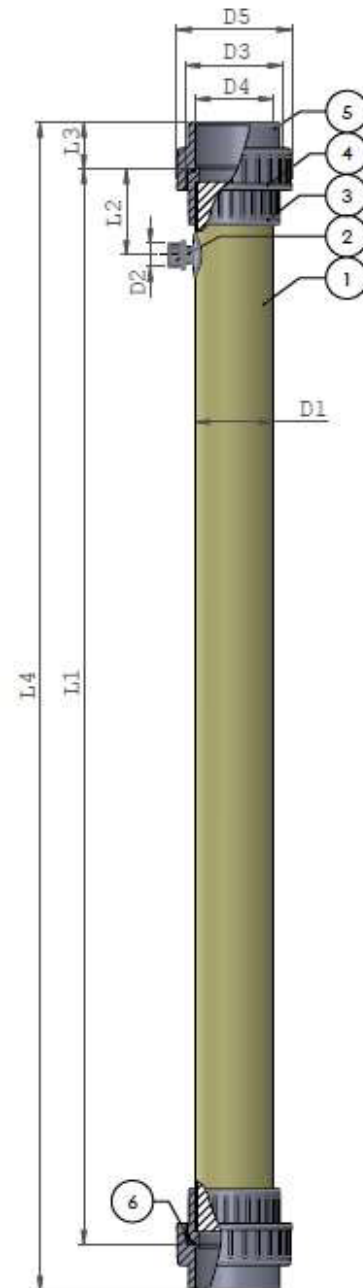
L1	1546 mm (60.86")	D1	110 mm (4.33")
L2	131 mm (5.16")	D2	1.0" BSPP
L3	66 mm (2.60")	D3	5.0" BSPP
L4	1678 mm (66.06')	D4	110 mm (4.33")
		D5	163 mm (6.42")

### Materials of construction

<b>Housing</b>	PVC-U Cream
<b>Internals</b>	PE
<b>Material</b>	Epoxy resin

### Assembly components

1. Module
2. Permeate connection
3. Union bush
4. Nut
5. Union end
6. O-ring



### Product certifications



K100616



K100658



K100659

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### Weight information

- Module (without accessories): 11.5 kg (25.5 lbs);
- Module with all accessories (2 union ends): 12.5 kg (27.5 lbs);
- Module full of water and all accessories: 20 kg (44 lbs);

### Storage instructions

- New modules in original packaging can be stored for max. 1 year from shipping date in a dry place, protected from sunlight or any heat source, at temperatures between 0 and 40°C (32 and 104°F);
- Ex-factory storage solution: 79% water, 20% glycerin and 1% sodium bisulfite;

### Shipping information

- Each module is individually packed in a vacuum sealed plastic bag;
- Modules and endcaps are shipped in the same cardboard box. Box dimensions: 180 x 21 x 21 cm; 70 x 8.3 x 8.3 in (L x W x H);
- Shipping weight per box: 13.5 kg (30 lbs.);

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