



# WMC200 dNF80

Technical Datasheet

Nanofiltration membrane module for water and wastewater applications

## **NX** filtration

## Technical datasheet

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Nanofiltration membrane module for water and wastewater applications

#### **Product description**

The WMC200 dNF80 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 and dissolved organics, including some micropollutants;
- Inside-out operation in a cross-flow filtration mode, backwashable;
- O Limited pretreatment required, no coagulation and no sludge production;
- Vertical mounting in a skid;
- Excellent pH and chlorine tolerance;

#### **Membrane specifications**

Membrane material	Modified PES
MWCO <sup>1</sup>	800 Dalton
Min. MgSO4 rejection <sup>2</sup>	76%
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>	6 bar (90 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	40ºC (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 (2 – 20 m³/h per module)
<sup>3</sup> Maximum pressures at 20°C.	0.33 – 3.3 ft/s (8.8 – 88 gpm per module)
<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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D1 200 mm (7.87")

D4 315 mm (12.40")

D5 342 mm (13.46")

D2 2 1/2"

D3 1 1/4"

#### **Module specifications**

Membrane Surface Area	43 m² (463 ft²)
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#### **Module Dimensions**

- L1 1537 mm (60.51") L2 184 mm (7.24") L3 107 mm (4.21") L4 157 mm (6.18") L5 1892 mm (74.50") L6 1637 mm (64.45") L7 148 mm (5.83") L8 198 mm (7.80")
- L9 184 mm (7.24")

#### **Materials of construction**

Housing	PVC-U Cream
Internals	ABS/PP/PE
Material	Epoxy resin

#### **Assembly components**

- 1. Module
- 2. Feed/concentrate connection
- 3. Nut & bolt
- 4. Permeate interconnector (closed; bottom side)
- 5. Flange (bottom side)
- 6. Intermediate flange
- 7. O-ring (permeate side)
- 8. Flange O-ring
- 9. Flange (top side)
- 10. Permeate interconnector (open; top side)
- 11. O-ring (feed side)
- 12. Permeate connection

#### **Product certifications**



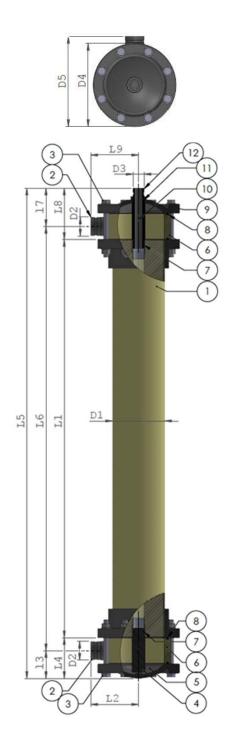
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#### Weight information

- Module (without accessories): 35 kg (81.5 lbs);
- Module with all accessories<sup>6</sup>: 54 kg (119.0 lbs);
- Module full of water and all accessories: 90 kg (198 lbs);

<sup>6</sup>accessories: endcaps, bolts, connectors, excl. feed and concentrate grooved couplings

#### **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;
- For small quantities, modules and endcaps are shipped in separate cardboard boxes;
- For large shipments, modules are loaded in a wooden crate with a max. of 8 modules per crate. Crate dimensions: 102 x 126 x 174 cm; 40 x 50 x 68 in (L x W x H);
- Shipping weight per module: 37 kg (81 lbs.);
- Shipping weight per endcap set: 10 kg (22 lbs.);
- Shipping weight per crate (8 modules), excl. endcap sets: 343 kg (756 lbs.);

Release WMC200F PVC-U dNF80-TDS 20210316 (replaces WMC200F PVC-U dNF80-TDS 20200611) +61 2 9089 8833 info@hydrofluxepco.au www.hydrofluxepco.au/

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