



Technical  
datasheet

**filtration**

# **WMD220 UF010 54**

Hollow fiber ultrafiltration module for water and  
wastewater applications

# WMD220 UF010 54

## General Information

The WMD220 UF010 54 is a tight ultrafiltration module, used for potable water production, RO pretreatment, municipal and industrial wastewater treatment. These membranes excel in rejecting colloidal silica, turbidity, suspended solids, and virus and bacteria while offering outstanding pH and chlorine resistance and excellent mechanical strength of the fibers. The modules can be used as final polishing step – for example to remove colloidal silica from boiler feed water or in the soft drink industry.

### Membrane characteristics

Membrane material	Modified PES
Membrane fiber inner diameter	0.7 mm (0.028")
MWCO <sup>1</sup>	10 kDa
Filtration mode	Inside-Out; Vertical <sup>2</sup>
Operation mode	Dead-end or cross-flow

## Operating Conditions

Typical flux	50 – 100 l/m <sup>2</sup> /h (30 – 60 gfd)
Backwash flux	100 – 250 l/m <sup>2</sup> /h (60 - 150 gfd)
Max. system pressure	3 bar (44 psi)
Max. filtration transmembrane pressure	3 bar (44 psi)
Max. backwash pressure	4 bar (58 psi)
Max. active chlorine concentration	500 ppm @ pH>10
Max. cumulative active chlorine exposure	250,000 ppm-hours @ pH>10
Max. particle size	150 µm
Max. TSS	300 ppm
Max. turbidity	150 NTU
Max. Temperature during operation & cleaning	40°C (104°F)
pH range during operation	2-12
pH range during cleaning	1-13

<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. Measured with PEG.

<sup>2</sup> For installation in pressure vessels, please contact NX Filtration.

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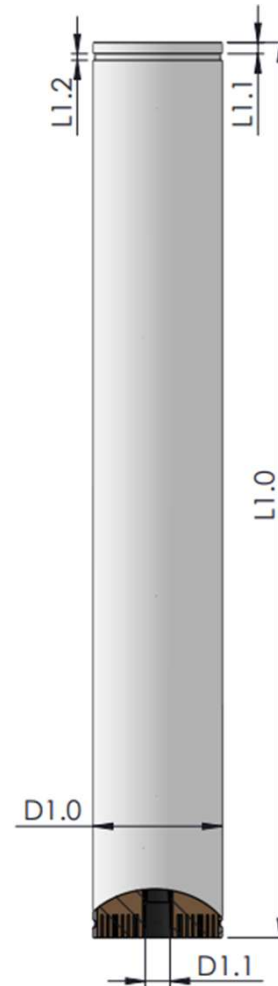
## Module Specification

### Materials of Construction

Housing	PVC-U
Internals	PP/engineering plastic
Potting	Epoxy resin

### Dimensions

Membrane Surface Area	54 m <sup>2</sup>
L1.0	1537.5 mm (60.5")
L1.1	19.1 mm (0.75")
L1.2	11.1 mm (0.44")
D1.0	220 mm (8.7")
D1.1	42.6 mm (1.7")



### Available Module type

WMD220 UF010 54

Product-Code

ELEUF0027

## Storage Information

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 1 and 40°C (33 and 104°F);

Ex-factory storage solution: 84wt% water, 15wt% glycerin and 1wt% sodium metabisulfite;

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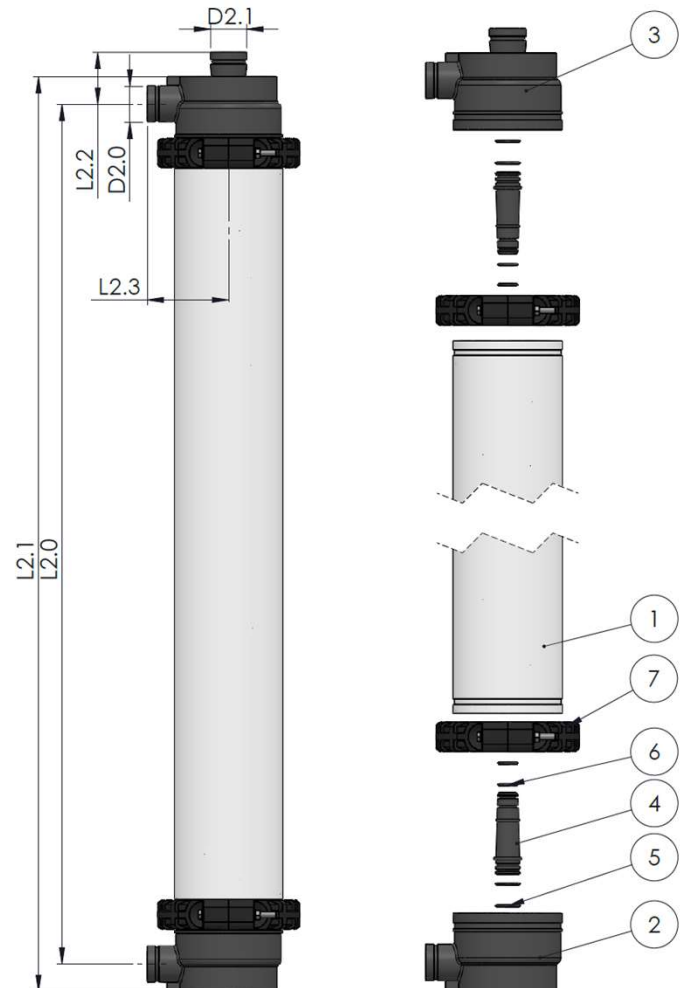
## Connection Configuration – Vertical

### Dimensions

L2.0	1740 mm (68.52")
L2.1	1852 mm (72.89")
L2.2	105 mm (4.13")
L2.3	165 mm (6.50")
D2.0	2.5" groove
D2.1	2.5" groove

### Assembly Components

(1)	WMD220 UF Module
(2)	End Cap Groove 8" Non-Ported
(3)	End Cap Groove 8" Ported
(4)	UF Groove permeate connector
(5)	O-ring EPDM Ø40.8x4.6 mm
(6)	O-ring EPDM Ø32.5x4.5 mm
(7)	75N Nylon Flexible Coupling DN200 8"



### Available Set (Components 1-7)

### WMD220 UF010 54 Vertical Set

Set-Code

SETUF0041

# WMD220 UF010 54

## Weight Information

Weight	WMD220 UF010 54 Vertical Set
Empty weight Module (without assembly components)	32 kg (70.5 lbs)
Empty weight Module including assembly components	41 kg (90 lbs)
Filled Module including assembly components	79 kg (174 lbs)

## Shipping Information

Each module is individually packed in a vacuum sealed plastic bag. For small quantities, modules and assembly components are shipped in separate cardboard boxes:

- Shipping weight per module: 40 kg (88 lbs.);
- Shipping weight per horizontal assembly (2 spacer rings + permeate interconnector): 1.5 kg (3 lbs.);
- Shipping weight per vertical end cap assembly (2 end caps + grooved couplings): 10 kg (22 lbs.);

For large shipments, modules are loaded in a wooden crate with a max. of 20 modules per crate:

- Crate dimensions: 100 x 125 x 173 cm; 40 x 50 x 68 in (L x W x H);
- Shipping weight per crate (20 modules), excl. assembly components: 700 kg (1543 lbs.)

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