nx filtration

Technical datasheet

WMC225 HYDRAcap series

Hollow fiber ultrafiltration module for water and wastewater applications

Release TDS015 – WMC225 HYDRAcap series, Rev. 01 – 20240704

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General Information

The WMC225 HYDRAcap modules are designed for water treatment, as well as industrial and municipal wastewater reuse. These modules excel in removing turbidity, suspended solids, and virus and bacteria. The modules offer outstanding pH and chlorine resistance. The WMC225 HYDRAcap series is available in different membrane surface areas.

Membrane characteristics

Membrane material	Modified PES
Membrane fiber inner diameter	0.8 mm (0.031”)
Pore size	0.02 µm
MWCO [1]	150 kDa
Filtration mode	Inside-Out; Vertical
Operation mode	Dead-end or cross-flow

Operating Conditions [2]

Typical flux	50 – 100 l/m²/h (30 – 60 gfd)
Backwash flux	100 – 250 l/m²/h (60 - 150 gfd)
Max. system pressure [3]	5 bar (72 psi)
Max. transmembrane pressure [3]	3 bar (44 psi)
Max. backwash pressure [3]	3 bar (44 psi)
Max. active chlorine concentration	500 ppm @ pH>10
Max. cumulative active chlorine exposure	250,000 ppm-hours @ pH>10
Max. particle size	200 µm
Max. TSS	200 ppm
Max. turbidity	100 NTU
Max. Temperature during operation & cleaning	40°C (104°F)
pH range during operation	2-12
pH range during cleaning	1-13

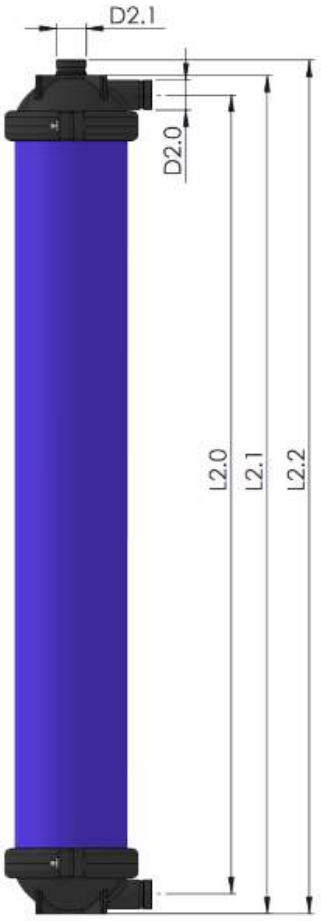
[1] Molecular Weight Cut Off (MWCO) is an estimation as it depends on size, shape, charge and polarity of the compound being tested, as well as test conditions. Measured with dextran.
[2] The limitations shown here are for general use. The values may be more conservative for specific projects to ensure the best performance and longest life.
[3] Maximum pressures at 20°C (68°F).

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Module Specification

Materials of Construction	WMC225 HYDRAcap40	WMC225 HYDRAcap60	WMC225 HYDRAcap60+
Housing	PVC-U	PVC-U	PVC-U
Internals	ABS, PP, PVC-U	MBS, PP, Noryl	MBS, PP, Noryl
Potting	Epoxy resin	Epoxy resin	Epoxy resin

Dimensions	WMC225 HYDRAcap40	WMC225 HYDRAcap60	WMC225 HYDRAcap60+
Membrane Surface Area	30 m^2 (320 ft^2)	46 m^2 (500 ft^2)	56 m^2 (605 ft^2)
L2.0	1092 mm (43”)	1600 mm (63”)	1600 mm (63”)
L2.1	1172 mm (46.13”)	1680 mm (66.13”)	1680 mm (66.13”)
L2.2	1202 mm (47.32”)	1710 mm (67.32”)	1710 mm (67.32”)
D2.0	60.3 mm (2.37”)	60.3 mm (2.37”)	60.3 mm (2.37”)
D2.1	60.3 mm (2.37”)	60.3 mm (2.37”)	60.3 mm (2.37”)



Available Module types	WMC225 HYDRAcap40	WMC225 HYDRAcap60	WMC225 HYDRAcap60+
Product-Code	SETUF0030	SETUF0032	SETUF0033

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);

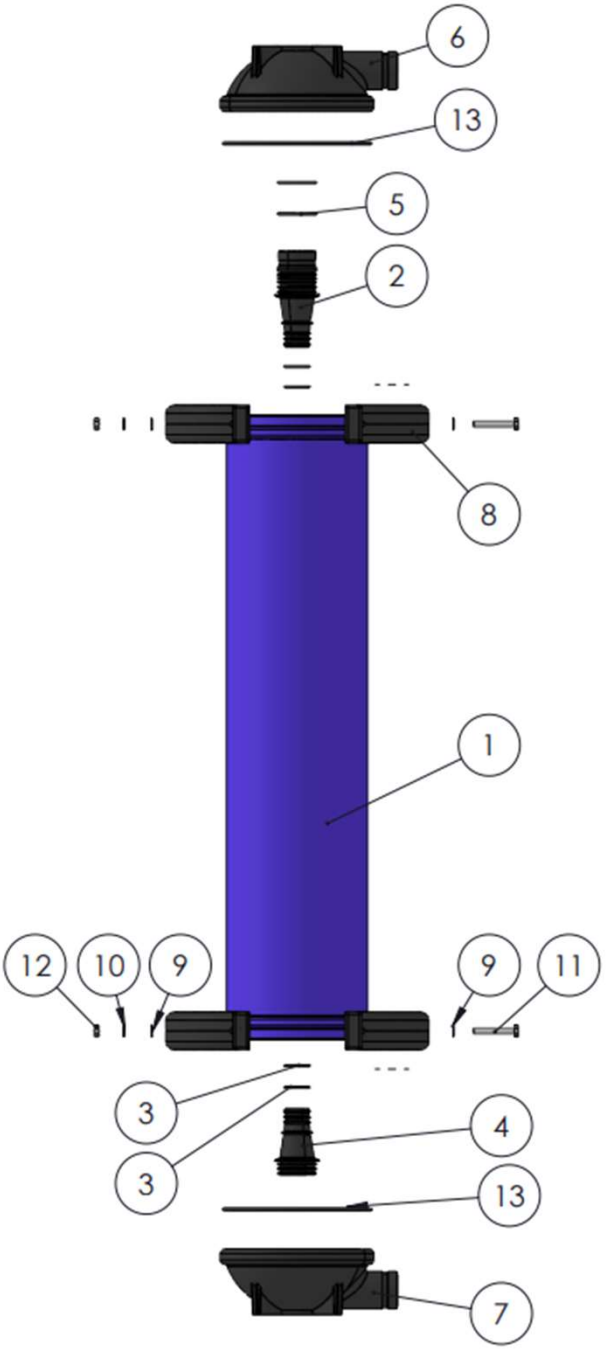
Ex-factory storage solution: 84wt% water, 15wt% glycerin and 1wt% sodium metabisulfite;

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Connection Configuration

Assembly Components

(1)	WMC225 HYDRAcap Module
(2)	Product end adapter
(3)	O-ring #2-221 E540-70 EPR
(4)	Plug Dead End
(5)	O-ring #2-228 E540-70 EPR
(6)	End cap Molded Ported
(7)	End Cap Molded Nonported
(8)	Plastic Clamp 4 Molded Endcap
(9)	Washer D125-1A-M10-GALV
(10)	Spring Washer D127B-M10-GALV
(11)	Hex Bolt D931-M10x65-8.8zp
(12)	Hex Nut D934-M10-Gr.08 zp
(13)	O-ring #2-373 E540-80 EPR



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Weight Information

Weight	WMC225 HYDRAcap40	WMC225 HYDRAcap60	WMC225 HYDRAcap60+
Dry weight Module including assembly components	23.5 kg (52 lbs)	34.5 kg (76 lbs)	39 kg (86 lbs)
Filled module with assembly components	55.5 kg (122 lbs)	84.5 kg (186 lbs)	89 kg (196 lbs)

Shipping Information

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

For large shipments, modules are loaded in a wooden crate with a max. of 12 modules per crate:
- Crate dimensions WMC225 HYDRAcap40: 100 x 126 x 173 cm; 40 x 50 x 68 in (L x W x H)
- Crate dimensions WMC225 HYDRAcap60/60+: 100 x 126 x 191 cm; 40 x 50 x 75 in (L x W x H)

Weight stated is shipping weight including preservative solution.

Shipping weight	WMC225 HYDRAcap40	WMC225 HYDRAcap60	WMC225 HYDRAcap60+
Shipping weight per module	28 kg (62 lbs)	40 kg (88 lbs)	44.5 kg (98 lbs)
Shipping weight per crate (12 modules)	470 kg (1036 lbs)	600 kg (1323 lbs)	640 kg (1411 lbs)

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