filtration

Technical datasheet

NX Ultra Integrated Rack

Modular, plug-and-play rack for NX Ultra 80 T ultrafiltration modules

Release TDS044 – NX Ultra Integrated Rack, Rev. 00 – 20260828

NX Ultra Integrated Rack

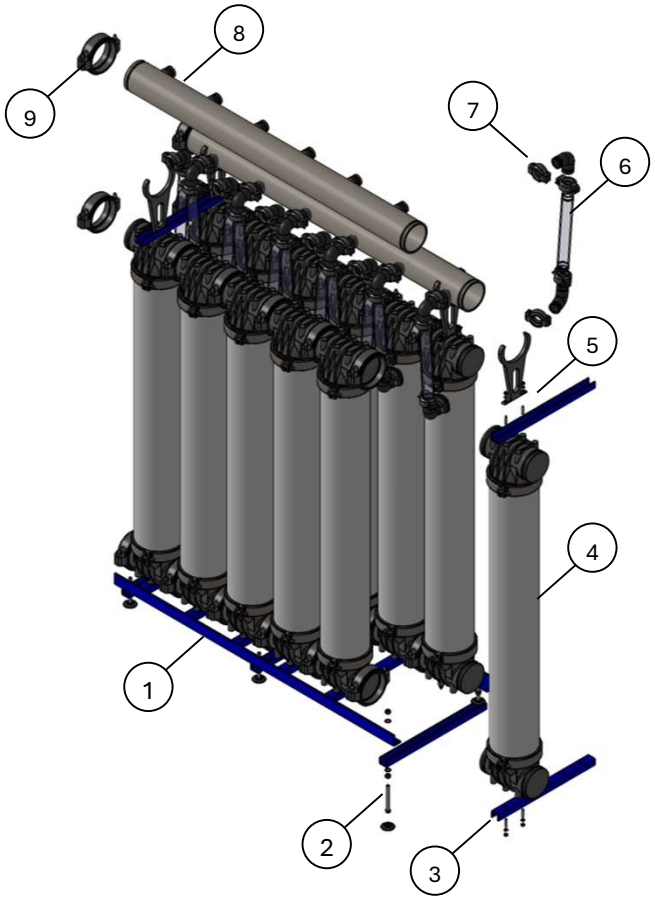
General Information

The NX Ultra Integrated Rack is a pre-engineered rack solution designed for the efficient integration of NX Ultra 80 T ultrafiltration modules into water treatment systems. Combining a compact footprint with robust mechanical construction, the rack provides a standardized platform for the installation and operation of the membrane modules.

The design simplifies system assembly and ensures accurate module alignment while minimizing installation time and site complexity. Designed for scalability, NX Ultra Integrated Racks can be configured to accommodate a wide range of treatment capacities and plant layouts.

Operating conditions

Max. system pressure	5 bar (73 psi)
Max. rate of pressure change	0.5 bar/s (7.3 psi/s)
Max. temperature during operation & cleaning	40°C (104°F)
Max. rate of temperature change	3 °C/min (9 °F/min)



Main components

1	Base Frame
2	Bottom crossbeam
3	Adjustable feet
4	NX Ultra 80 T Module
5	Top crossbeam + Permeate header bracket
6	Permeate collector
7	Coupling 2“
8	Permeate header
9	Coupling 6“

1. The operation at any combination of the maximum limits for temperature, pressure, pH, or chemical concentration, during either filtration or cleaning, will impact membrane lifetime.

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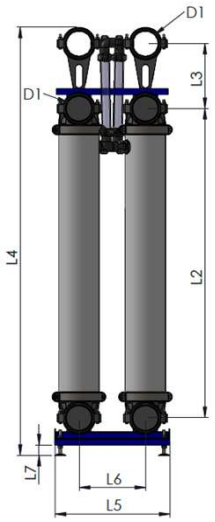
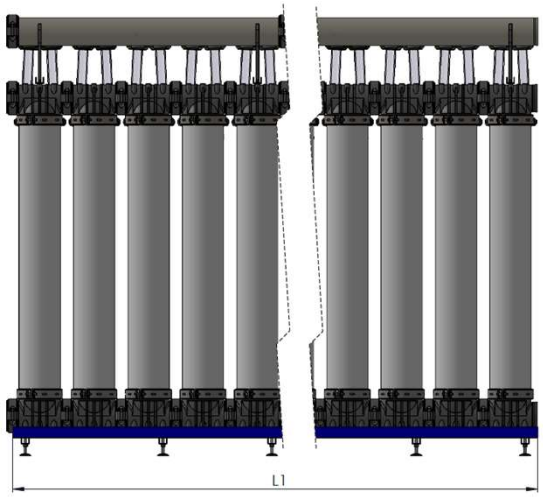
2row configuration – Single-sided connection

Dimensions

L1	See specification table below
L2	1925 mm (75.8”)
L3	405 mm (15.9”)
L4	2674 mm (105.3”)
L5	710 mm (28.0”)
L6	410 mm (16.1”)
L7	40-90 mm (1.6-3.5”)
D1	6” OGS cut groove





No. of Modules	Length [1]		Footprint		Membrane surface area	
	mm	inch	m²	ft²	m²	ft²
4	655	25.8	0.47	5.01	320	3444
8	1315	51.8	0.93	10.05	640	6889
10	1645	64.8	1.17	12.57	800	8611
12	1975	77.8	1.40	15.09	960	10333
14	2305	90.7	1.64	17.62	1120	12056
16	2635	103.7	1.87	20.14	1280	13778
18	2965	116.7	2.11	22.66	1440	15500
20	3295	129.7	2.34	25.18	1600	17222
22	3625	142.7	2.57	27.70	1760	18945
24	3955	155.7	2.81	30.23	1920	20667
26	4285	168.7	3.04	32.75	2080	22389
28	4615	181.7	3.28	35.27	2240	24111
30	4945	194.7	3.51	37.79	2400	25834

1. Length excluding central header manifold.

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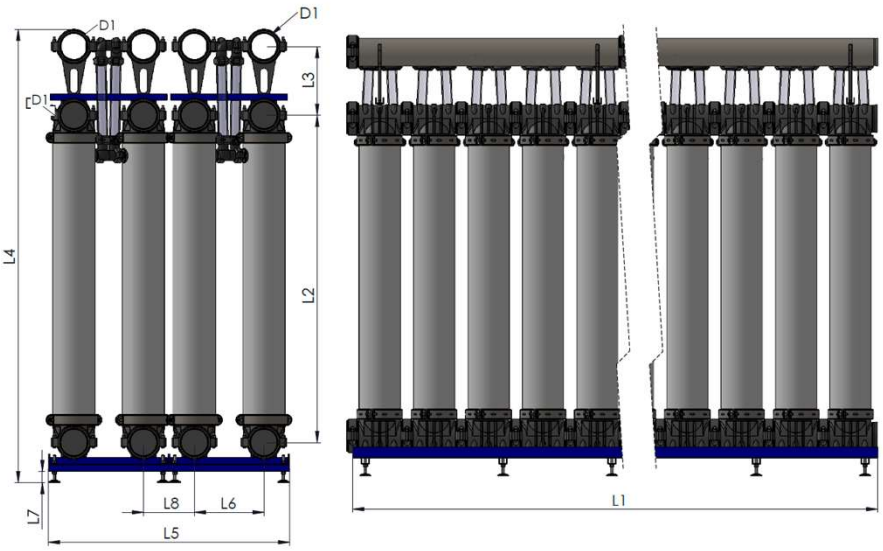
4row configuration – Single-sided connection

Dimensions

L1	See specification table below
L2	1925 mm (75.8”)
L3	405 mm (15.9”)
L4	2674 mm (105.3”)
L5	1420 mm (55.9”)
L6	410 mm (16.1”)
L7	40-90 mm (1.6-3.5”)
L8	300 mm (11.8”)
D1	6” OGS cut groove



No. of Modules	Length [1]		Footprint		Membrane surface area	
	mm	inch	m^2	ft^2	m^2	ft^2
32	2635	103.7	3.74	40.28	2560	27556
36	2965	116.7	4.21	45.32	2880	31000
40	3295	129.7	4.68	50.36	3200	34445
44	3625	142.7	5.15	55.41	3520	37889
48	3955	155.7	5.62	60.45	3840	41334
52	4285	168.7	6.08	65.50	4160	44778
56	4615	181.7	6.55	70.54	4480	48223
60	4945	194.7	7.02	75.58	4800	51667

1. Length excluding central header manifold.

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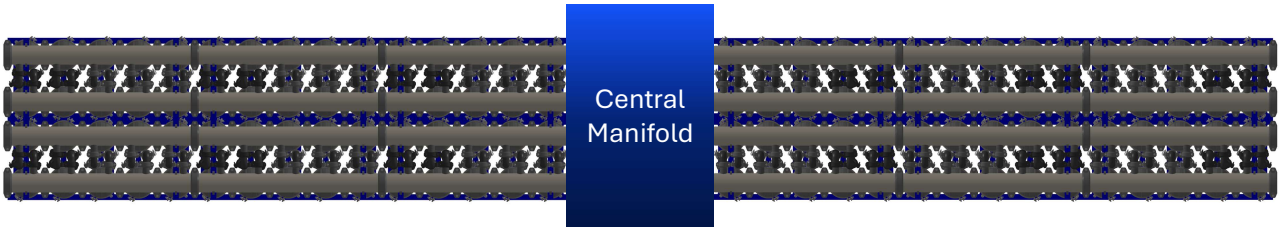
4row configuration – Butterfly arrangement

Where system size is substantial, a butterfly arrangement offers a viable design option. Such 4row layouts place two wings of 4row NX Ultra Integrated Racks on either side of a manifold running through the centre. A schematic of a 120-module butterfly, each wing holding 60 modules, is shown below. In 4-row butterfly arrangements, a limited asymmetry between the two wings is allowed. The difference between the wings may be no more than one row position, equivalent to a maximum difference of four modules. For example, one wing may contain a 4x14 configuration while the other contains a 4x15 configuration.



No. of Modules	Length [1]		Footprint		Membrane surface area	
	mm	inch	m^2	ft^2	m^2	ft^2
64	5270	207.48	7.48	80.55	5120	55112
68 [2]	5600	220.47	7.95	85.59	5440	58556
72	5930	233.46	8.42	90.64	5760	62001
76 [2]	6260	246.46	8.89	95.68	6080	65445
80	6590	259.45	9.36	100.73	6400	68890
84 [2]	6920	272.44	9.83	105.77	6720	72334
88	7250	285.43	10.30	110.81	7040	75779
92 [2]	7580	298.43	10.76	115.86	7360	79223
96	7910	311.42	11.23	120.90	7680	82668
100 [2]	8240	324.41	11.70	125.95	8000	86112
104	8570	337.40	12.17	130.99	8320	89556
108 [2]	8900	350.39	12.64	136.03	8640	93001
112	9230	363.39	13.11	141.08	8960	96445
116 [2]	9560	376.38	13.58	146.12	9280	99890
120	9890	389.37	14.04	151.17	9600	103334

1. Length excluding central header manifold.
2. Asymmetric rack arrangement.

NX Ultra Integrated Rack

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