

## HYDRAcube® Technology

### Get the most out of your UF system

HYDRAcube® is a simple, compact and robust integrated rack solution. HYDRAcube® is designed to exploit the major advantages of HYDRAcap®MAX technology, the innovative solution in pressurized ultrafiltration by Hydranautics. By combining feed, filtrate and air supply in a single piece, HYDRAcube® provides a complete UF rack solution which drastically reduces footprint, saves engineering costs and makes assembly and maintenance works of the UF system much easier.

### HYDRAcube® Technology Offers:

- **Simplicity:** One piece (HYDRAcube® header) combining all the streams entering in and flowing out of the UF rack! Feed, Filtrate & Air lines integrated into single piece on top and bottom of each module.
- **Pre-Engineered System:** Minimum amount of pieces. Fast and easy to install. Quality control simplified.
- **Modularly Expandable System:** All HYDRAcap®MAX modules can be easily connected, added or removed. A single HYDRAcube® rack can contain from 2 to 34\* HYDRAcap®MAX modules.
- **Reliable construction:** Reinforced PP material pieces connected through BPE (Sanitary Flange) to ensure a reliable seal. Self-supported structure. Pressure-rated to directly feed RO membranes.
- **Compact footprint:** Huge footprint savings compared to a conventional rack design.
- **Fully integrated system:** Capacity to fit 24 HYDRAcap®MAX 60 UF modules in a 20-feet HC container and 64 HYDRAcap®MAX 60 UF modules in a 40-feet HC container, using HYDRAcube® technology, for a containerized system solution. This is a complete working system which includes pumps, strainers, valves, blowers, PLC, HMI, etc.

### Footprint Comparison

HYDRAcube® kit	No. of modules	HYDRAcube®, m <sup>2</sup> (ft <sup>2</sup> )	Conventional rack, m <sup>2</sup> (ft <sup>2</sup> )	% decrease
2x2	4	0.73 (7.83)	1.40 (15.1)	48%
2x4	8	1.28 (13.8)	2.27 (24.4)	44%
2x6	12	1.83 (19.7)	3.19 (34.4)	43%
2x8	16	2.38 (25.65)	4.01 (43.2)	41%
2x10	20	2.96 (31.86)	4.96 (53.4)	41%
2x12	24	3.51 (37.8)	5.93 (63.8)	41%
2x14	28*	4.07 (43.74)	6.61 (71.1)	39%
2x16*	32*	4.62 (49.68)	7.32 (78.8)	37%

\*With HYDRAcube® Gen.2



## HYDRAcube® builds on proven HYDRAcap®MAX Technology:

- **Highest Membrane Area:** Modules available with membrane area up to 105 m<sup>2</sup> per module
- **TIPS PVDF fiber:** Leading to higher mechanical strength and chemical tolerance
- **Air Scour:** Allows for backwash-free operation – our standard method of cleaning
- **Dual End Filtration:** Filtrate is taken from top and bottom of the modules to provide even flow distribution along the length of the fiber



The following table illustrates examples of HYDRAcube® racks which can be provided.

HYDRAcube® Rack Offerings	HYDRAcube® rack	HYDRAcap®MAX module	Membrane area per module m <sup>2</sup> (ft <sup>2</sup> )	No. of rows	No. of modules per row	Total no. of modules per rack	Total membrane area per rack m <sup>2</sup> (ft <sup>2</sup> )
	HYDRAcube40-2x2	HYDRAcap®MAX 40	52 (559.72)	2	2	4	208 (2,239)
	HYDRAcube40-2x4	HYDRAcap®MAX 40	52 (559.72)	2	4	8	416 (4,478)
	HYDRAcube40-2x8	HYDRAcap®MAX 40	52 (559.72)	2	8	16	832 (8,956)
	HYDRAcube40-2x12	HYDRAcap®MAX 40	52 (559.72)	2	12	24	1,248 (13,433)
	HYDRAcube60-2x2	HYDRAcap®MAX 60	78 (839.58)	2	2	4	312 (3,358)
	HYDRAcube60-2x4	HYDRAcap®MAX 60	78 (839.58)	2	4	8	624 (6,717)
	HYDRAcube60-2x8	HYDRAcap®MAX 60	78 (839.58)	2	8	16	1,248 (13,433)
	HYDRAcube60-2x12	HYDRAcap®MAX 60	78 (839.58)	2	12	24	1,872 (20,150)
	HYDRAcube60-2x17*	HYDRAcap®MAX 60	78 (839.58)	2	17	34*	2,652 (28,546)
	HYDRAcube80-2x2	HYDRAcap®MAX 80	105 (1,130.21)	2	2	4	420 (4,521)
	HYDRAcube80-2x4	HYDRAcap®MAX 80	105 (1,130.21)	2	4	8	840 (9,042)
	HYDRAcube80-2x8	HYDRAcap®MAX 80	105 (1,130.21)	2	8	16	1,680 (18,083)
HYDRAcube80-2x12	HYDRAcap®MAX 80	105 (1,130.21)	2	12	24	2,520 (27,125)	
HYDRAcube80-2x17*	HYDRAcap®MAX 80	105 (1,130.21)	2	17	34*	3,570 (38,427)	

\*HYDRAcube® Gen.2 will allow 17 modules per row and total 34 modules per rack. HYDRAcube® Technology is Patent Pending.

## Solutions You Need.

## Technologies You Trust!

### Hydranautics Corporate office

401 Jones Road, Oceanside, CA 92058, USA Toll Free: +1-800-CPA-PURE Tel: +1 760 901 2500 Fax: +1 760 901 2578  
Web: [www.membranes.com](http://www.membranes.com) Email: [hy-info@nitto.com](mailto:hy-info@nitto.com)

#### Americas

401 Jones Road,  
Oceanside,  
CA 92058, USA  
Tel: +1 760 901 2500

#### Europe and Africa

Calle Constitucion 3,  
3° 5° Sant Just  
Desvern,  
08960 Barcelona,  
Spain  
Tel: +34 934 731 722

#### Middle East

Office no. 31, Bldg no .  
S10122 (A2) South Zone,  
Jebel Ali Free Zone,  
P.O.Box 112839  
Dubai, UAE  
Tel: +971 4 889 5806

#### Indian Subcontinent

516 'C' Wing - 215  
Atrium, Andheri Kurla  
Road, Andheri (East),  
Mumbai 400059,  
India  
Tel: +91 22 4003 0500

#### China

15-16F, The Place Tower  
C, 150 Zunyi Road,  
Changning District,  
Shanghai 200051,  
P.R. China  
Tel: +86 21 5208 2255

#### SEA & Oceania

438 Alexandra Road  
#19-01/04,  
Alexandra Point,  
Singapore 119958  
Tel: +65 6879 3820

#### Japan

26F, Shinagawa  
Season Terrace,  
1-2-70, Konan,  
Minato-ku, 108-0075,  
Tokyo, Japan  
Tel: +81 3 6632 2044