

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 40* 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 single 20-foot HC container and 64 HYDRAcap™ MAX 60 UF modules in a single 40-foot 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

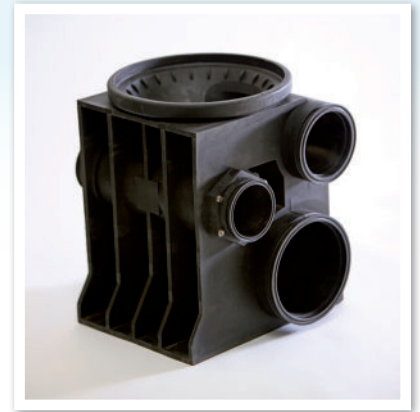
HYDRAcube™ kit	No. of modules	HYDRAcube™, m ² (ft ²)	Conventional rack, m ² (ft ²)	% decrease
2x2	4	0.73 (7.83)	1.40 (15.1)	48%
2x4	8	1.28 (13.8)	2.27 (24.4)	44%
2x6	12	1.83 (19.7)	3.19 (34.4)	43%
2x8	16	2.38 (25.65)	4.01 (43.2)	41%
2x10	20	2.96 (31.86)	4.96 (53.4)	41%
2x12	24	3.51 (37.8)	5.93 (63.8)	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 m² 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	HYDRAcap™ MAX module	Membrane area per module m ² (ft ²)	No. of rows	No. of modules per row	Total no. of modules per rack	Total membrane area per rack m ² (ft ²)
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 20 modules per row and total 40 modules per rack. HYDRAcube™ Technology is Patent Pending.

HYDRAcube® Rack Offerings

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 Email: hy-marketing@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

UAE
Tel: +971 54236 7224

Saudi Arabia
Tel: +966 50344 8539

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