

Ultra Filtration Membranes



Description

Aventura is an authorized seller of the HYDRAcap series of Ultra Filtration membranes of Hydranautics (Nitto Denko), a global leader in membrane technology. These membranes offer the combined benefits of high recovery and low footprint requirement due to their optimized membrane areas and novel cleaning regimes

Features

- ▶ Low fouling hydrophilic membranes
- ▶ Tolerant to chlorine, peroxide and other oxidants
- ▶ Resistant to pH extremes
- ▶ High filtration flux
- ▶ Operational flexibility
- ▶ Low pressure operation
- ▶ Long service life
- ▶ NSF61 Certification

Applications

- ▶ Drinking water treatment
- ▶ Pre-treatment to reverse osmosis and nanofiltration
- ▶ Desalination pre-treatment
- ▶ Industrial process water treatment
- ▶ Municipal wastewater

Technical Specifications

Model			HYDRAcap 40	HYDRAcap 60	HYDRAcap 80	HYDRAcap 40-LD	HYDRAcap 60-LD	HYDRAcap MAX 40	HYDRAcap MAX 60	HYDRAcap MAX 80	
		Units									
Performance ¹	Filtrate Flow	m ³ /h	1.8-4.3	2.7-6.7	3.7-9.0	1.1-28	1.8-4.3	1.7-5.5	2.7-8.6	3.6-11.6	
	Filtrate Turbidity	NTU	≤ 0.07	≤ 0.07	≤ 0.07	≤ 0.07	≤ 0.07	≤ 0.10	≤ 0.10	≤ 0.10	
	Bacteria Removal	log	≥ 4	≥ 4	≥ 4	≥ 4	≥ 4	≥ 4	≥ 4	≥ 4	
Type	Membrane Polymer		PES	PES	PES	PES	PES	PVDF	PVDF	PVDF	
	Nominal Membrane Area	m ²	30	46	62.2	19.3	30	52	78	105	
	Fiber Dimensions	mm	0.8/1.4	0.8/1.4	0.8/1.4	1.2/2.0	1.2/2.0	0.6/1.2	0.6/1.2	0.6/1.2	
	Pore size	micron	0.02	0.02	0.02	0.02	0.02	0.08	0.08	0.08	
Application Data ²	Typical Filtrate Flux Range	l/m ² /h	59-145	59-145	59-145	59-145	59-145	34-110	34-110	34-110	
	Maximum Applied Feed Pressure	psig (bar)	73 (5)*	73 (5)*	73 (5)*	73 (5)*	73 (5)*	73 (5.0)*	73 (5.0)*	73 (5.0)*	
	Maximum Trans-membrane Pressure	psig (bar)	20 (1.4)	20 (1.4)	20 (1.4)	20 (1.4)	20 (1.4)	30 (2.0)	30 (2.0)	30 (2.0)	
	Maximum Backwash Trans-membrane Pressure	psig (bar)	20 (1.4)	20 (1.4)	20 (1.4)	20 (1.4)	20 (1.4)	-	-	-	
	Instantaneous Chlorine Tolerance	ppm	100**	100**	100**	100**	100**	5000***	5000***	5000***	
	Instantaneous Hydrogen Peroxide Tolerance	ppm	200**	200**	200**	200**	200**	-	-	-	
	Maximum Chlorine Exposure	ppm-hours	200000	200000	200000	100000	100000	750000	750000	750000	
	Maximum Instantaneous Feed Turbidity	NTU	100	100	100	200	200	300	300	300	
	Maximum Operating Temperature	°F (°C)	104 (40)	104 (40)	104 (40)	104 (40)	104 (40)	104 (40)	104 (40)	104 (40)	
	pH Operating Range		4.0-10.0	4.0-10.0	4.0-10.0	4.0-10.0	4.0-10.0	4.0-10.0	4.0-10.0	4.0-10.0	
	Cleaning pH Range		1.5-13.0	1.5-13.0	1.5-13.0	1.5-13.0	1.5-13.0	1.0-3.0	1.0-3.0	1.0-3.0	
	Operating Mode		Inside to Outside Filtration Direct Flow or Cross Flow						Outside to Inside Filtration Dead End or Cross flow mode		
Typical Process Conditions	Backwash Flux	l/m ² /h	170-255	170-255	170-255	170-255	170-255	-	-	-	
	Air Scour Rate ³	m ³ /h	-	-	-	-	-	12.3-15.4	12.3-15.4	12.3-15.4	
	Backwash/ Air Scour ³ Duration	seconds	30-60	30-60	30-60	30-60	30-60	120-240	120-240	120-240	
	Backwash/ Air Scour ³ Frequency	minutes	20-60	20-60	20-60	20-60	20-60	20-60	20-60	20-60	
	Maintenance Clean Frequency	times per day	0 to 4	0 to 4	0 to 4	0 to 4	0 to 4	1 to 3	1 to 3	1 to 3	
	Maintenance Clean Duration	minutes	1 to 30	1 to 30	1 to 30	1 to 30	1 to 30	20 to 30	20 to 30	20 to 30	
	Disinfection Chemicals		NaOCl, H ₂ O ₂ , ClO ₂ or NH ₂ Cl						NaOCl, ClO ₂ or NH ₂ Cl		
	Cleaning Chemicals		NaOH, HCl, H ₂ SO ₄ OR Citric Acid						NaOH, HCl, H ₂ SO ₄ OR Citric Acid		

*At 68°F (20°C)

**For 15 minutes or less

***For 60 minutes or less

¹Typical module performance for most feedwaters

²The limitations shown here are for general use. Operating at more conservative values for specific projects may ensure the best performance and longest life of the membrane.

³Air scouring for HYDRAcap MAX series

Disclaimer:

We believe the information provided here to be accurate. The information and data are offered in good faith, but without any guarantee as the conditions and methods of use of our products are beyond our control. The customer is fully responsible for the effects of incompatible chemicals or elements. It is the customer's responsibility to determine the appropriateness of our products for their specific end uses.

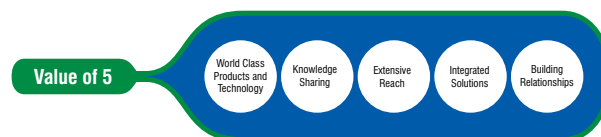


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