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ATLANTIC RO

1 Jan 11

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HYDRANAUTICS MEMBRANES

Part Number	Size (inches) Diam. x Length	Flow Rate GPD	Nominal Rejection	Test Pressure	Quantity pricing (each)			
					1-5	6-11	12-24	25+
CPA2-4040	4.0 x 40	2,250	99.5%	225	\$198	194	187	184
CPA5-LD-4040	4.0 x 40	2,100	99.7%	225	\$198	194	187	184
CPA2 °	8.0 x 40	10,000	99.7%	225	486	474	462	450
CPA3 °	8.0 x 40	11,000	99.7%	225	510	497	485	472
ESPA1-4040	4.0 x 40	2,600	99.3%	150	\$204	199	194	189
ESPA2-4040	4.0 x 40	1,900	99.6%	150	204	199	194	189
ESPA2-LD-4040	4 x 40	1,900	99.6%	150	212	207	202	196
ESPA3-4040	4.0 x 40	3,000	98.5%	150	212	207	202	196
ESPA4-4040	4.0 x 40	2,500	99.2%	100	264	257	251	244
ESPA1-7	8.0 x 40	12,000	99.3%	150	522	509	496	483
ESPA2 -7	8.0 x 40	9,000	99.6%	150	534	521	507	494
ESPA2 -LD	8.0 x 40	10,000	99.6%	150	534	521	507	494
ESPA2 max(+)	8.0 x 40	12,000	99.6%	150	564	550	536	522
ESPA3-7	8.0 x 40	14,000	98.5%	150	540	527	513	500
ESPA4-7	8.0 x 40	12,000	99.2%	100	666	650	633	616
ESPA B	8.0 x 40	8,600	99.2%	100	570	556	542	527
ESPA B max	8.0 x 40	8,600	99.2%	100	600	585	570	555

Part Number	Size (inches) Diam. x Length	Flow Rate GPD	Nominal Rejection	Test Pressure	Quantity pricing (each)			
					1-5	6-11	12-24	25+
SWC5-4040	4.0 x 40	1,900	99.7%	800	264	257	251	244
SWC4 +	8.0 x 40	6,500	99.8%	800	612	597	581	566
SWC4-LD	8.0 x 40	6,500	99.8%	800	636	620	604	588
SWC4 max	8.0 x 40	7,200	99.8%	800	642	626	610	594
SWC4B	8.0 x 40	6,500	99.8%	800	648	632	616	599
SWC4B max	8.0 x 40	7,200	99.8%	800	678	661	644	627
SWC5	8.0 x 40	9,000	99.8%	800	648	632	616	599
SWC5-LD	8.0 x 40	9,000	99.8%	800	648	632	616	599
SWC5 max	8.0 x 40	9,900	99.8%	800	678	661	644	627
SWC6	8.0 x 40	12,000	99.8%	800	648	632	616	599
SWC6 max	8.0 x 40	13,200	99.8%	800	684	667	650	633

ESNA1-LF4040	4x 40	1,750	89.0%	75	252	246	239	233
ESNA1-LF2-4040	4x 40	1,870	87.0%	75	252	246	239	233
ESNA1-LF	8.0 x 40	8,200	91.0%	75	612	597	581	566
ESNA1-LF2	8.0 x 40	10,500	86.0%	75	612	597	581	566

LFC3-7	8.0 x 40	9,500	99.7%	225	606	591	586	556
LFC3-LD-4040	4 x 40	2,100	99.7%	225	240	234	228	222
LFC3-LD	8.0 x 40	11,000	99.7%	225	588	573	559	539
SanRO HS-4	4.0 x 40	2,200	99.7%	225	431	422	413	403
SanRO HS2-4	4.0 x 40	3,000	99.6%	225	443	433	424	414
SanRO HS-8	8.0 x 40	8,800	99.7%	225	949	928	908	891
SanRO HS2-8	8.0 x 40	14,000	99.6%	225	972	951	930	913
HYDRACoRe50	8.0 x 40	8,200	50.0%	75	1060	1052	1018	975

CPA (composite Polyamide)

- for Brackish water
- high flows at low pressure
- typical applications: desalting of well waters for municipal drinking water supplies, reducing TDS prior to ion-exchange, producing boiler make-up water for power plants; the CPA4 has been used to treat blow-down from power plants

ESNA (Energy Saving Nanofiltration)

- high flow at low feed pressure
- effectively rejects hardness, iron, color and tri-halomethane (THM) precursors from low TDS water
- ideal for removal of organics, bacteria, or viruses
- ESNA1 is a nanofilter which achieves 80% NaCl rejection
- good on feedwater with high iron and hardness

ESPA (Energy Saving Polyamide)

- useful where energy is expensive or where cold water and/or high TDS require high pressure
- high flows at low pressure
- typical applications: municipal drinking water plants, bottling operations, and light industrial uses
- ESPA1 is best on water with TDS from 1000 to 2000 ppm
- ESPA2 is best on brackish water (TDS >2000 ppm) - useful for nitrate removal or prior to ion exchange
- ESPA3 is best on water with TDS <1000 ppm
- ESPA4 is best for low pressure applications

Hydranautics' newer ESPA-B membranes provide 8,600 gallons per day (32.6 m³/d) of flow at 99.2% nominal salt rejection and 96% boron rejection, the new ESPA-B (B for Boron Rejection) is the highest boron rejecting, low pressure element in the industry.

LFC (Low Fouling Composite polyamide)

- flow and operating pressure is comparable to CPA2 elements
- LFC1 has neutral charge; rejection is comparable to ESPA1 element- applications include treatment of municipal wastewater, boiler blow-down, and high fouling surface waters.
- LFC3 has cationic (positive) charge; rejection varies with type and concentration of feed solute - flux can be restored after cleaning.

LD (Low Differential Pressure for High Flow/Low Fouling, easy to clean) Jan 11