

# All Things RO

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## HYDRANAUTICS MEMBRANES

Part Number	Size (inches) Diam. x Length	Square Feet	Test PSI	Flow GPD	Stabilized Rejection	Quantity Pricing (each)			
						1-5	6-11	12-24	25+
CPA-4040E	4.0 x 40	65	225	2,250	99.5%	145	140	135	130
CPA2-4040	4.0 x 40	85	225	2,250	99.5%	190	185	180	175
CPA5-LD-4040	4.0 x 40	80	225	2,100	99.7%	165	160	155	150
CPA2-8	8.0 x 40	365	225	10,000	99.7%	485	470	455	440
CPA3-8	8.0 x 40	400	225	11,000	99.7%	495	480	465	450
CPA5-LD	8.0 x 40	400	225	11,000	99.7%	510	495	475	460
CPA5 MAX	8.0 x 40	440	225	12,000	99.7%	545	530	515	495
CPA6-LD	8.0 x 40	400	225	8,000	99.8%	540	525	505	465
CPA6 MAX	8.0 x 40	400	225	8,800	99.7%	580	560	540	500
CPA7-LD	8.0 x 40	400	225	11,500	99.8%	575	555	535	495
CPA7 MAX	8.0 x 40	400	225	12,600	99.8%	595	580	560	540
ESNA1-LF-LD-4040	4.0 x 40	80	75	1,600	92.0%	235	230	225	215
ESNA1-LF2-LD-4040	4.0 x 40	80	75	2,000	86.0%	235	230	225	215
ESNA1-LF-LD	8.0 x 40	400	75	8,200	89.0%	575	555	540	520
ESNA1-LF2-LD	8.0 x 40	400	75	10,500	86.0%	575	555	540	520
ESPA50	1.8 x 12	??	65	50	99.0%	21	20	19	16
ESPA75	1.8 x 12	??	65	75	98.5%	22	21	20	17
ESPA-2514	2.5 x 14	5	150	250	99.4%	74	72	69	67
ESPA-2521	2.5 x 21	12	150	350	98.0%	84	81	79	76
ESPA-2540	2.5 x 40	25	150	750	98.0%	155	150	145	140
ESPA-4014	4.0 x 14	17	150	500	99.4%	130	126	122	118
ESPA-4021	4.0 x 21	28	150	1,000	99.4%	165	160	155	150
ESPA-4611	4.6 x 11	31	150	930	99.4%	245	235	230	220
ESPA1-4040	4.0 x 40	85	150	2,600	99.0%	190	185	180	175
ESPA1-LD-4040	4.0 x 40	80	150	2,450	99.3%	No longer available			
ESPA2-4040	4.0 x 40	85	150	1,900	99.6%	190	185	180	175
ESPA2-LD-4040	4.0 x 40	80	150	2,000	99.6%	190	185	180	175
ESPA3-4040	4.0 x 40	85	150	3,000	98.5%	190	185	180	175
ESPA4-4040	4.0 x 40	85	100	2,500	99.2%	No longer available			
ESPA4-LD-4040	4.0 x 40	80	100	2,350	99.2%	190	185	180	175
ESPA1-7	8.0 x 40	400	150	12,000	99.0%	495	480	465	450
ESPA2-7	8.0 x 40	400	150	9,000	99.6%	535	520	505	490
ESPA2-LD	8.0 x 40	400	150	10,000	99.6%	510	495	475	460
ESPA2 MAX	8.0 x 40	440	150	12,000	99.6%	535	515	500	485
ESPA2-LD MAX	8.0 x 40	440	150	12,000	99.6%	585	565	545	530
ESPA3-7	8.0 x 40	400	150	14,000	98.5%	560	540	525	485
ESPA4-7	8.0 x 40	400	100	12,000	99.2%	No longer available			
ESPA4-LD	8.0 x 40	400	100	12,000	99.2%	565	550	530	490
ESPA4 MAX	8.0 x 40	440	100	13,200	99.2%	585	565	550	505

--- MEMBRANES CONTINUED ON REVERSE ---

Part Number	Size (inches) Diam. x Length	Square Feet	Test PSI	Flow GPD	Stabilized Rejection	Quantity Pricing (each)			
						1-5	6-11	12-24	25+
LFC3-LD-4040	4.0 x 40	80	225	2,100	99.7%	265	260	255	250
LFC3-LD	8.0 x 40	400	225	11,000	99.7%	540	525	505	490
SanRO HS-4	4.0 x 40	90	180	2,200	99.7%	450	445	435	430
SanRO HS2-4	4.0 x 40	90	129	3,000	99.6%	450	445	435	430
SanRO HS-8	8.0 x 40	380	180	8,800	99.7%	1080	1045	1010	975
SanRO HS2-8	8.0 x 40	380	129	14,000	99.6%	1080	1045	1010	975
SWC-2514	2.5 x 14	5	800	110	99.4%	130	125	120	115
SWC-2521	2.5 x 21	10	800	220	99.4%	135	130	125	120
SWC-2538- Vill. M. clone	2.5 x 38	25	800	550	99.4%	270	270	270	270
<u>SWC-2540</u>	<u>2.5 x 40</u>	<u>25</u>	<u>800</u>	<u>520</u>	<u>99.4%</u>	<u>210</u>	<u>200</u>	<u>195</u>	<u>190</u>
SWC5-LD-4040	4.0 x 40	80	800	1,750	99.7%	210	205	200	190
SWC6-4040	4.0 x 40	85	800	2,500	99.7%	200	195	190	185
SWC6-LD-4040	4.0 x 40	80	800	2,350	99.7%	200	195	190	185
SWC4-LD	8.0 x 40	400	800	6,500	99.8%	580	560	540	525
SWC4 MAX	8.0 x 40	440	800	7,200	99.8%	635	615	595	575
<u>SWC5-LD</u>	<u>8.0 x 40</u>	<u>400</u>	<u>800</u>	<u>9,000</u>	<u>99.8%</u>	<u>580</u>	<u>560</u>	<u>540</u>	<u>525</u>
SWC5 MAX	8.0 x 40	440	800	9,900	99.8%	635	615	595	575
SWC6-LD	8.0 x 40	400	800	12,000	99.8%	580	560	540	525
SWC6 MAX	8.0 x 40	440	800	13,200	99.8%	645	630	605	585

**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): high flows at low pressure

- useful where energy is expensive or where cold water and/or high TDS require high 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

**HYDRAcap**: ultrafiltration -- for removal of viruses and other pathogens from surface water

**LFC** (Low Fouling Composite polyamide)

- flow and operating pressure is comparable to CPA2 elements
- has cationic (positive) charge; rejection varies with type and concentration of feed solute
- flux can be restored after cleaning

**SanRO**: Heat Sanitizable Sanitary Membranes (also available in CPA3, CPA4, ESPA2, and LFC3 styles)

**SWC**: (Sea Water)