

Professional Practical Experience

Optimum Water Technologies' management and technical teams truly understand electrochlorination. With an average of 15-20 years of industry experience in design, development, engineering, installation, commissioning, and technical support, each member of our team is dedicated to serving the needs of our valued clients worldwide.

Spares and Technical Service

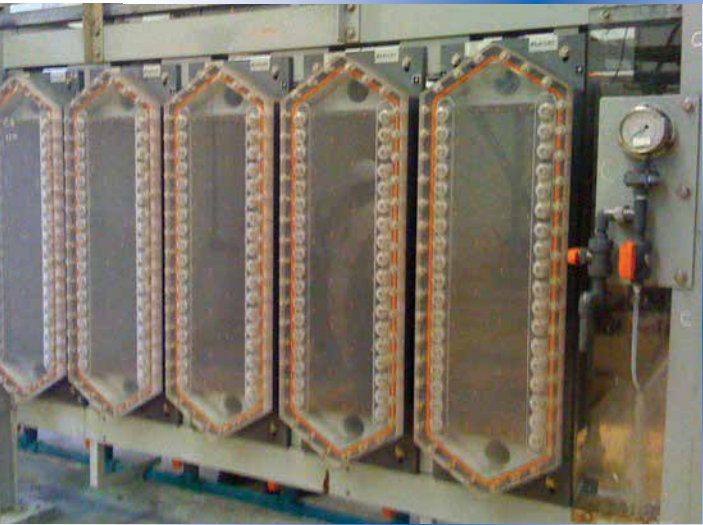
Optimum Water Technologies offers replacement spare parts and technical service support to existing electrochlorination plants, including:

Electrolyzer Replacement: Optimum Water Technologies can perform site surveys to replace existing outdated technology with Optimum MPC electrolyzers for lower capital cost, maintenance and overall life cycle cost.

Spare Cell Components: Optimum Water Technologies supplies competitively priced spare parts for Optimum MPC systems and replacements for other competitor systems for both parallel plate cells and concentric tube (CTE) cells.

Anode Coating: Optimum Water Technologies' affiliated company, Optimum Anode Technologies, is a leading supplier of anode coating and plating technology through its new modern facility located near Los Angeles, California.

Commissioning and Technical Support: Our team of experienced service engineers and electrochemical technology specialists have the knowledge and know-how to successfully commission systems and solve complex technical issues.



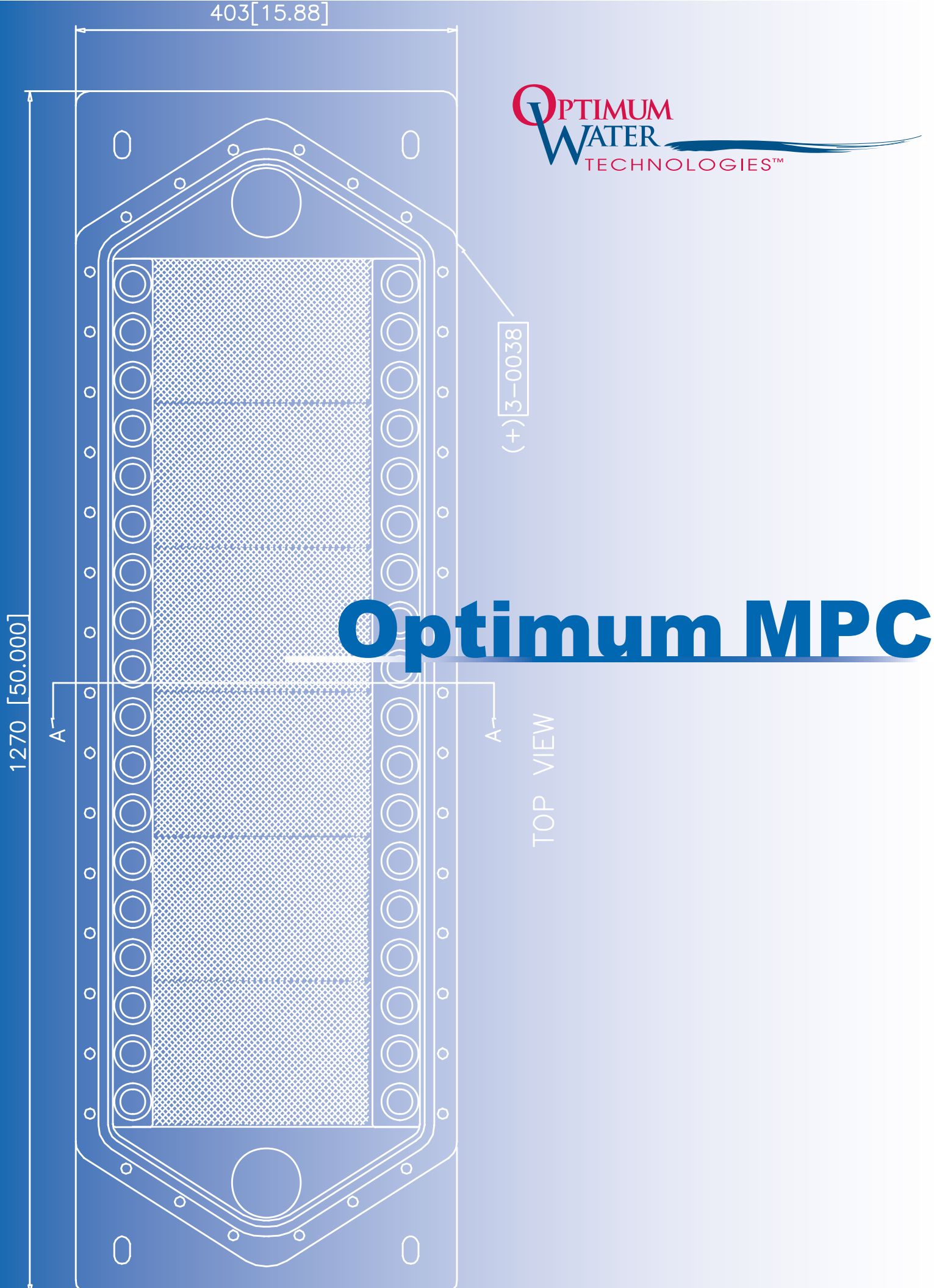
For more information about Optimum Water Technologies products and services or to request a no-obligation price quotation, we invite you to visit us at:
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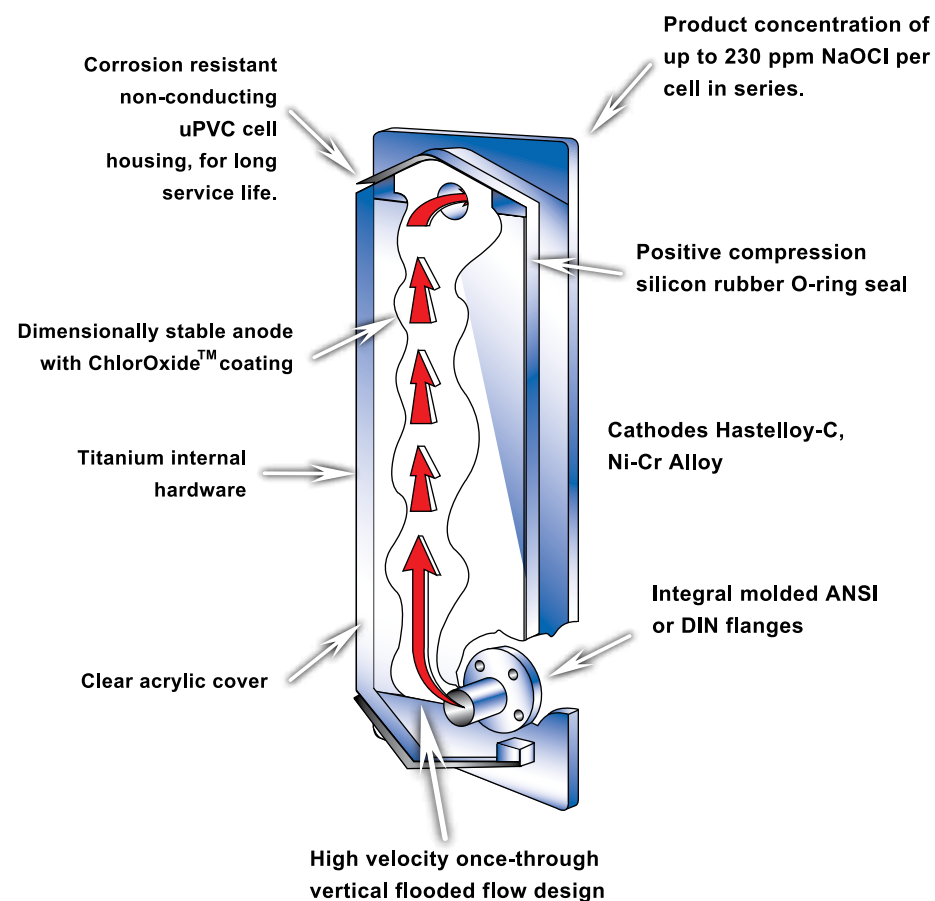
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Optimum MPC Sanilec® Replacements

Optimum Water Technologies
Optimum MPC seawater
replacement electrolyzers offer
superior performance and
continuous operation for
Sanilec® installations ready for
an improvement. Optimum MPC
electrolyzers are engineered
and manufactured to exceed
OEM standard specifications,
without the added cost.



Optimum MPC Features & Benefits

- Monopolar cell design with 1, 3, or 6 cells per electrolyzer for maximum flexibility in plant layout and operation
- Reliable operation for maximum availability (uptime) and efficiency
- Robust housing design resists cracking and provides long service life
- Expanded titanium dimensionally stable anodes with ChlorOxide™ coating with guaranteed life for low power consumption and stable voltage profile
- Hastelloy-C cathodes for optimum corrosion resistance with minimum calcareous deposit and seawater fouling. Not subject to hydrogen damage as titanium cathodes.
- Clear cover allows operators to see inside the cell
- Viton and silicon rubber gaskets provide positive sealing properties
- Titanium internal fasteners resist corrosion and flow induced vibration

Optimum MPC Electrolyzer Data Sheet

Individual Electrolyzer/ Cell Data Output:		Six Cell Arrangement					Three Cell Arrangement		Single Cell Arrangement				
		30/6	60/6	120/6	240/6	320/6	300/3	360/3	75/1	150/1	300/1	330/1	400/1
Available Chlorine Production	LB/day	30	60	120	240	320	300	360	75	150	300	330	400
	KG/day	13.6	27.2	54.4	108.9	145.2	136.1	163.3	34.0	68.1	136.1	149.7	181.5
Hydrogen Production	(scfm)	0.1	0.2	0.4	0.8	1.1	1.1	1.3	0.3	0.5	1.1	1.2	1.4
	(normal cubic meters / hr)	0.2	0.4	0.7	1.4	1.9	1.8	2.1	0.4	0.9	1.8	2.0	2.4
Sodium Hypochlorite Concentration (ppm)		60	120	170	170	180	210	200	160	210	210	230	220
Physical Data													
Electrical													
DC Amperage (Nominal) *		100	185	365	730	960	1800	2160	1375	2750	5500	6050	7200
DC Volts* @ 20°C, 19,000 ppm CL ⁻		27.0	27.0	27.0	27.0	27.0	13.5	13.5	4.5	4.5	4.5	4.5	4.5
*Note: Please consult OPTIMUM WATER TECHNOLOGIES for the exact amperage and voltage based upon seawater conditions.													
Cells per Electrolyzer Body		6	6	6	6	6	3	3	1	1	1	1	1
Cathodes per Cell		1	2	4	8	11	9	11	2	4	8	9	11
Total Cathodes per Electrolyzer		6	12	24	48	66	27	33	2	4	8	9	11
Anodes per Cell		2	3	5	9	12	10	12	3	5	9	10	12
Total Anodes per Electrolyzer		12	18	30	54	72	30	36	3	5	9	10	12
Active Sides per Electrolyzer		12	24	48	96	132	54	66	4	8	16	18	22
Active Anode Area	(square feet)	4.2	8.4	15.7	31.0	43.0	38.5	46.1	9.6	19.1	38.2	42.0	50.9
	(square meters)	0.4	0.8	1.5	2.9	4.1	3.6	4.4	0.9	1.8	3.6	3.9	4.7
Dimensions	Height/inches	50	50	50	50	50	50	50	50	50	50	50	50
	millimeters	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270
	Width/inches	16	16	16	16	16	16	16	16	16	16	16	16
	millimeters	403	403	403	403	403	403	403	403	403	403	403	403
Weight	Thickness/inches	8	8	9	10	9	10	9	8	9	10	10	11
	millimeters	203	204	217	248	219	248	219	204	218	255	255	270
	Dry Lb	178.4	178.4	189.4	253.3	281.9	262.1	281.9	178.4	189.4	253.3	262.1	281.9
Volume	Dry Kg	81.00	81.00	86.00	115.0	128.0	119.0	128.0	81.00	86.00	115.0	119.0	128.0
	Operating Lb	193.8	193.8	220.3	290.7	332.6	304.0	332.6	193.8	220.3	290.7	304.0	332.6
	Operating Kg	88.00	88.00	100.0	132.0	151.0	138.0	151.0	88.00	100.0	132.0	138.0	154.0
Design Data													
Temp. Increase	°F	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	°C	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Velocity	Feet per minute	120	120	120	120	120	120	120	120	120	120	120	120
	Meter per minute	37	37	37	37	37	37	37	37	37	37	37	37
Pressure drop	PSI	2	2	2	2	2	2	2	2	2	2	2	2
	Bar	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Maximum Operating Pressure													
PSI		45	45	45	45	45	45	45	45	45	45	45	45
	Bar	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Flow Rate	Gallons per minute	40	40	60	120	150	120	150	40	60	120	120	150
	Cubic meters per hr.	9	9	14	27	34	27	34	9	14	27	27	34