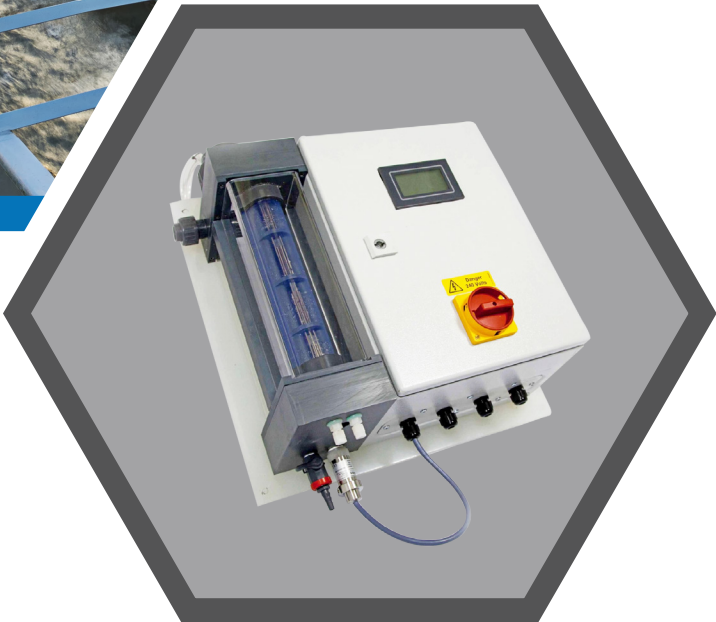


WATER PROCESS SOLUTIONS

Effective Electrochlorination Solutions

Sales Literature No. WPSSL01500



Electrochlorination

Electrochlorination is the process of generating a solution of Sodium Hypochlorite from three common place and readily available materials - salt, water and electricity. This process is economically proven to provide a low cost of ownership over the life of the systems.

The simple process occurs when a DC voltage is applied to a salt solution flowing between a series of electrodes. An electrical current results in a chemical reaction which produces a low strength Sodium Hypochlorite solution. The solution can be safely stored in a product tank and used to disinfect water.

As electrochlorination is an on-demand process it reduces the need to store large volumes of hazardous chemicals on site and eliminates the need for hazardous transportation.

The low strength sodium hypochlorite solution (typically 7g/l) has the added benefit of a moderate pH compared to alternate forms of disinfection chemicals.

This can be advantageous in maintaining an appropriate and effective pH of the water to ensure its maximum disinfection capability.

Description of the Process

Throughout the electrolytic process softened water is used to ensure the longevity of the system and prevent scale depositing on the surface of the electrodes.

The softened water is used to dissolve salt in a brine tank and to dilute the brine solution to a concentration which is suitable for the electrolytic process. The diluted brine flows through a series of electrodes within an electrolytic cell. The chemical reaction to generate the Sodium Hypochlorite is then initiated as a DC voltage, is applied across the electrodes causing the conversion of the brine into Sodium Hypochlorite.

The Sodium Hypochlorite flows into a second chamber, where the by-product hydrogen gas, is separated from the solution. All WPS-P series include a hydrogen dilution and ventilation systems to ensure Hydrogen is safely vented to atmosphere. The sodium hypochlorite flows out of the system into a product tank for metered injection to the process water.

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Integrator advantages & Selection Criteria

Integrator advantages

The WPS-P range of electrochlorinators is ideal for system integrators. By supplying only the core system, you can source your own tanks and softeners to help keep the installation cost down. Alternatively, we can source and supply everything for you.

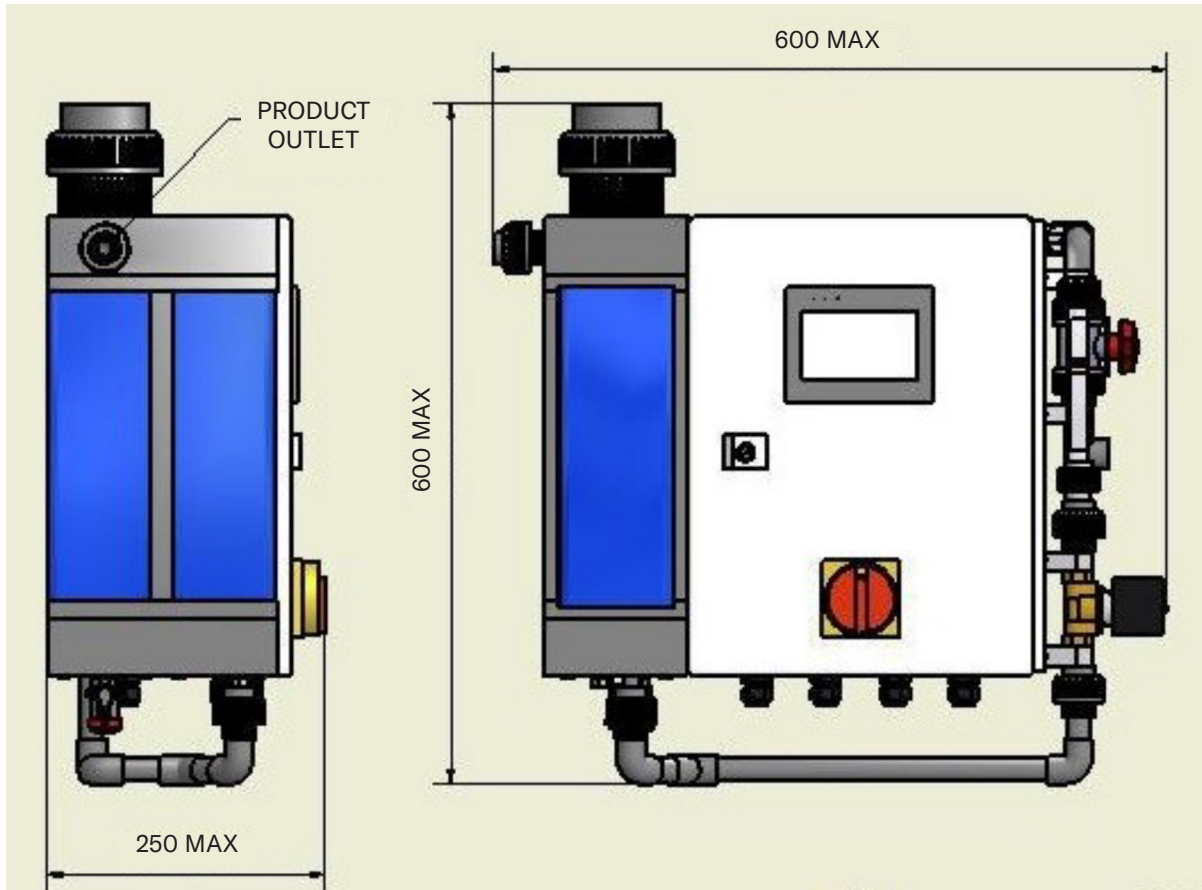
With two different systems configurations within the WPS-P range of electrochlorinators the wide range of disinfection applications can be treated using a single electrochlorinator. Capacities range from 50 g/h up to 400 g/h.

	Capacity Equivalent C12 g/h	Power Consumption kW/hr	Salt Consumption kg/h	Output l/hr
WPS-P:X50	50	0.28	0.2	8.2
WPS-P:X100	100	0.55	0.4	16.5
WPS-P:X200	200	1.1	0.8	33
WPS-P:X400	400	2.2	1.6	66

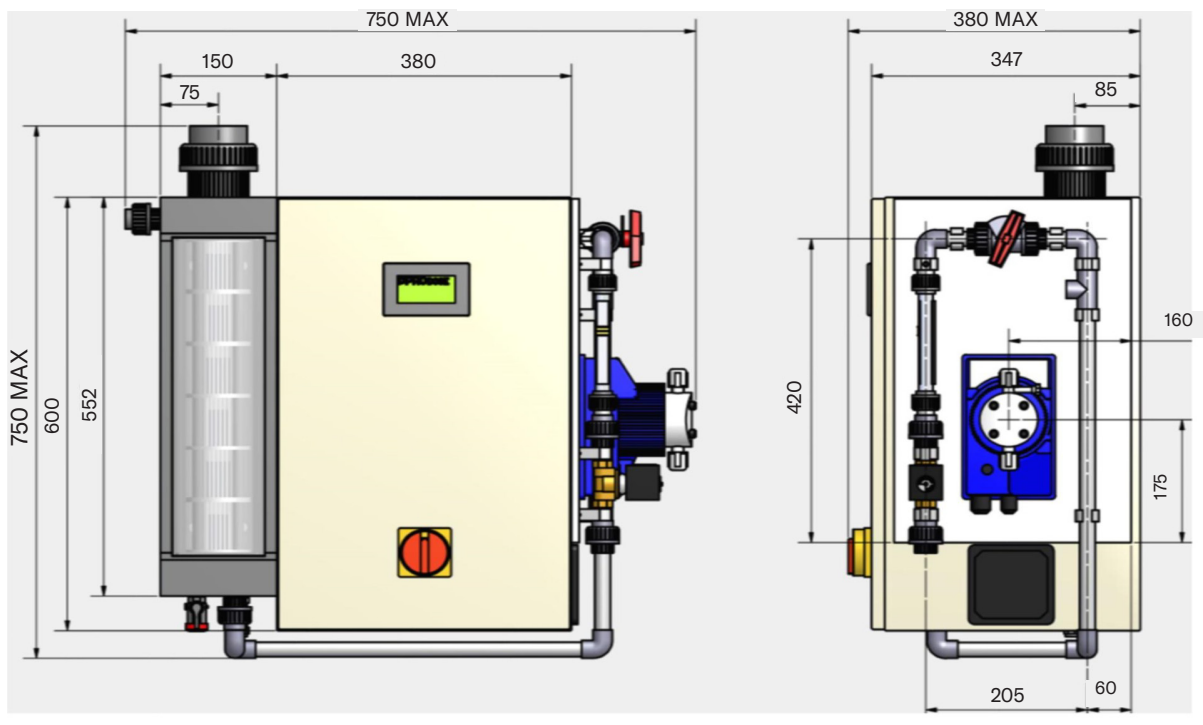
WPS-P:X Series Electrochlorinators

Standard features include;
Dual containment of cell with internal force air ventilation / Interlocked air flow sensor monitoring hydrogen dilution rate / Hydrogen degassing system / Automatic brine dilution system / 230V power requirement / DWI approved.

WPS-P:X50-100




WPS-P:X200-400





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