## Hypochlorite Generation



C'treat Hypochlorite Generation systems are designed and built to the same standards as C'treat's world leading offshore Reverse Osmosis watermakers.

The rugged and compact construction is ideal for the offshore energy sector, marine markets, LNG terminals, refineries, petrochemical plants, waste water treatment plants, power plants, desalination plants, and any other application in a demanding environment that requires seawater for process or cooling.



## Products & Services

C'treat's Hypochlorite generation systems produce Sodium Hypochlorite (NaOCl) in non-HazMat concentrations (<1%), which is a well-known and proven biofoulant, on site so that there is no need to procure, transport, and handle dangerous chemicals. As the NaOCl is made on demand there is also no concern for the natural deterioration of the solution over time.

The process produces variable but conservative concentrations of NaOCl so that the need for cell cleaning is minimized.

The hypochlorite units are sized to customers' requirements and can be configured with or without storage and dosing systems. Standard capacities are up to 4 Kg/hr (of chlorine equivalent). Other capacities can be accommodated.

All components of any configuration are rigidly mounted to a single, rugged, welded-steel, box-frame type skid that is sandblasted and finished to offshore painting specifications.

The process consists of passing filtered seawater through electrolytic cell(s) – of either plate or tubular construction - which will convert sodium chloride (NaCl) to sodium hypochlorite (NaOCl). The resulting solution is ready for service and the by-product of the reaction, hydrogen ( $H_2$ ), is diluted with air and appropriately vented.

A PLC controls, monitors, and safeguards the entire NaOCl generation process and, if so configured, the system's storage and dosing requirements. The PLC can be interfaced with a facility's SCADA system.

The Hypochlorite Generation system can meet global area classification specifications (e.g. IEC Zone 2, NEC Cl 1 Div 2, etc.)

The Hypochlorite Generation systems are designed, assembled, and tested in C'treat's ISO 9001:2015 manufacturing facility in The Woodlands, Texas, U.S.A.

Typical applications in treating the biofouling of seawater include:

- Firewater systems
- Cooling water systems
- Ballast water systems







Various dosing configurations

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