



KLORIGEN

By ATECPPOOL



KLORIGEN BSE-Series

HYPOCHLORITE GENERATION SYSTEM

KLORIGEN BSE-Series system generates a 0.8 % sodium hypochlorite solution through the electrolysis of brine, consuming only water, salt and electricity. By producing hypochlorite on-site and on-demand, the system eliminates concerns associated with transportation and storage of liquefied chlorine gas or commercial sodium hypochlorite solutions, making it ideal for any application requiring chlorination.

Due to its low concentration, the hypochlorite solution generated by the KLORIGEN BSE-Series system minimizes corrosion and degradation (loss of available chlorine during storage) issues typical of high-strength (10 –15 %) sodium hypochlorite solutions. In addition, the system offers lower operating costs than commercial hypochlorite, typically resulting in attractive payback periods.

FULL FEATURE MODULAR SYSTEM

Capacities to 24 kg/day and above

The KLORIGEN BSE-Series system is available at the following equivalent chlorine generation capacities:

Klorigen BSE Models	Available Chlorine (kg/d)	Salt Consumption (kg/d)	Rated Power kW
BSE 50	1.428	4.3	0.28
BSE 100	2.4	8.4	0.6
BSE 200	4.8	16.8	1.2
BSE 300	7.2	25.2	1.8
BSE 400	9.6	33.6	2.4
BSE 500	12	42	3
BSE 800	19.2	67.2	4.8
BSE 1000	24	84	6

KLORIGEN BSE-Series system electrolyzer is a fully automated, pre-packaged on-site hypochlorite generation system designed for fast and economical installation, safe operation, and easy maintenance. Modules are shipped intact and completely piped, wired and tested.

Key Benefits

- Inherently safe system design and process controls
- Highest process efficiency achieved without sacrificing quality of hypochlorite solution produced
- Robust electrolyzer construction for reliable operation, ease of cleaning and access
- Small system footprint, ease of installation



Compact Modular Design:

KLORIGEN BSE-Series pedestal is designed to minimize system footprint while maintaining accessibility to all components. Electrolytic cells are standard and sized to meet the rated capacity of the module. Standalone ancillary items, such as brine and hypochlorite tanks, are sized and selected to meet application specific requirements.

Fully Automated Operation:

A PLC-based control system provides fully automatic operation of the entire process and monitors key variables to ensure reliable operation of the system. Safety features such as run inhibit during a descaling process, and tank overflow protection are some of the many inherently safe interlocks built into the process controls. The control panel includes a touch-screen human-machine interface (HMI) to provide user-friendly access to operators.

Robust Electrolyzer Design:

The KLORIGEN BSE-Series system unique electrolyzer design optimizes salt and power consumption while providing easy access to the cell components for maintenance. A clear cast acrylic casing allows for visual inspection, and the improved end-connection cap design minimizes the potential for leaks. The electrolyzer is arranged horizontally for flow optimization; increasing residence time and heat transfer in each cell pass and minimizing hydrogen bubble size. The result is maximum process efficiency while yielding the highest quality hypochlorite solution.

EASE OF INSTALLATION AND MAINTENANCE

Installation Flexibility:

The KLORIGEN BSE-Series system pedestal is perfect for retrofit applications or installation in existing buildings since most units can pass through a standard doorway. The floor-mounted transformer/rectifier cabinet is typically installed adjacent to the for BSE-Series module to minimize the length of interconnecting power cables, however it can be installed in an adjoining room.

Plug-and-Play Convenience:

The electrolyzer system is shipped pre-assembled, pre-wired, and tested to verify hypochlorite production. Once the system is on site the electricity supply, brine solution and process water connections have to be connected to the system. The common outlet pipe for hypochlorite and hydrogen solution is piped to the hypochlorite storage tank. For correct installation and regular maintenance, we recommend our specially trained technicians.

Less Maintenance, Reduced Downtime:

All serviceable components are strategically arranged to facilitate quick access by maintenance personnel. The process water and brine management subassembly is panel mounted on the pedestal. The system is compatible both with flexible hydraulic hose or solid pipework and the electrical cables to the electrolyzer allow for easy connection and adjustments if needed. Piping and electrical connections are provided for the acid-cleaning system (sold separately).

