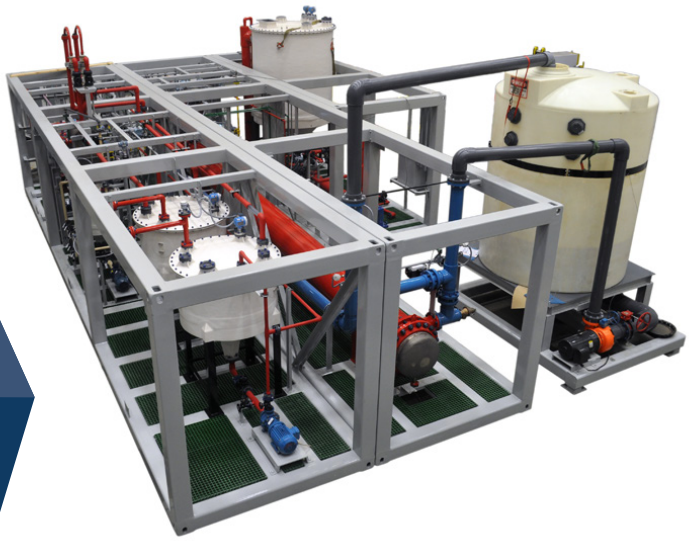
DRY CHLORINE

CONTINUOUS

385 GPL



Powell
Making Chemical Processes Better®

Sodium Hypochlorite High Strength Low Salt System

Some systems are simply built. Ours are engineered.

Our Sodium Hypochlorite High Strength Low Salt Systems (HSLS Hypo Systems) are engineered to safely produce premium quality high strength sodium hypochlorite with minimal salt content while reclaiming up to thirty-five percent of the salt used to make the chlorine and sodium hydroxide raw materials. This high-quality product is significantly more stable than bleach produced by traditional production processes.

The HSLS Hypo System is a unique two stage process consisting of a chlorination stage and a salt removal stage. The system has an automatic industrial control system requiring minimal human interaction.

We build our systems from the ground up to provide state-of-the-art, efficient, and custom-engineered machines with unparalleled customer support.

Advantages

Capacity

Produces as much as 220 m^3 of 385 g/L available chlorine of sodium hypochlorite in a 24-hour day.

Accuracy

Salt recovery equal to 50% of chlorine fed into the process.

Efficiency

Engineered to convert chlorine to sodium hypochlorite with 99.0% efficiency while minimizing chlorate formation.

Custom Solutions

- Available in various production rates to meet project capacity requirements
- Engineered to have a repeatable final product strength with less than 1% variance
- Has a turndown ratio of 4:1
- Half life that is almost twice that of standard sodium hypochlorite

System Performance

- Fully assembled, programmed and electrically and hydrostatically tested
- Skid mounted design engineered for transport via truck or shipping container
- Meets international and domestic standards
- Cooling towers can be used instead of mechanical refrigeration to reduce energy costs

Process Design

- Automatic operation for limited operator intervention
- Touch screen HMI (Human Machine Interface) to view all critical process data
- Easily network to other Powell equipment or an existing DCS system
- Utilizes VPN devices to provide a secure, remote connection, for troubleshooting, programming updates, and training

Automation

Raw Materials & Utilities

Cl — Liquid chlorine minimum 8 bar or Vapor Chlorine minimum 0.2 bar

NaOH — 50% Sodium Hydroxide at 3 bar

H_2O — Softened water at 3 bar

Deionized water at 3 bar if dissolving salt is required

Three phase for motors
Single phase for control system

Clean, dry, oil-free instrument air 5.5 bar minimum

Cooling water of 18°C

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