

# Generate Chlorine and Sodium Hypochlorite On-site and On-demand



*Electrolyzer Unit*

## Industrial size capacity for on-site applications

**Klorigen™** modularized generators safely and cost effectively produce chlorine gas, sodium hydroxide and sodium hypochlorite at the point-of-use in system configurations with output volumes ranging from 100 to 2,000 lbs per day.

Eliminate the dangers associated with liquefied and pressurized chlorine gas and bulk sodium hypochlorite and the dependence on third party gas and hypo suppliers. Ideal for most industries and municipalities currently using a form of chlorine for disinfection, sterilization or bleaching.

### **The many features and benefits:**

- Replaces pressurized chlorine gas to eliminate potential for toxic release
- Produces membrane grade sodium hydroxide at 15% concentration
- Produces ultra pure sodium hypochlorite at 12% trade concentration
- Minimal operator involvement with quiet operation and few rotating components
- Easily adaptable to SCADA control systems for remote monitoring and control
- Components are NSF certified and hypo product complies with NSF/ANSI 60
- Multi-year warranty and maintenance contracts are available



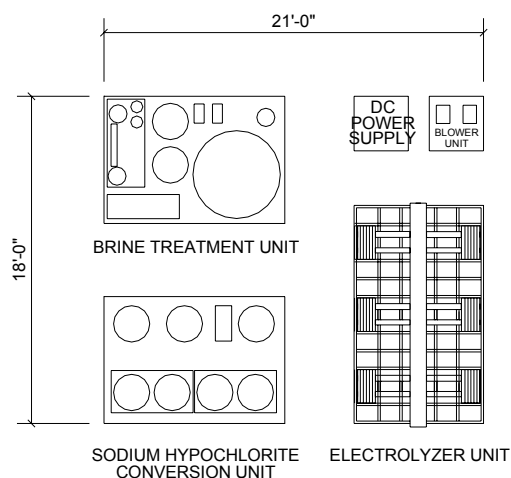
# Specifications

Daily Production Rates	K1	K2	K4	K6
Chlorine gas (lb)	100 - 300	300 - 600	600 - 1,200	1,200 - 2,000
Sodium Hydroxide @ 15% (gal)	80 - 240	240 - 480	480 - 960	960 - 1,600
Sodium Hypochlorite @ 12% trade (gal) (converted from chlorine gas and sodium hydroxide)	100 - 300	300 - 600	600 - 1,200	1,200 - 2,000

Operational Data (Consumption per pound of Chlorine or gallon of Hypo)	
Salt, food grade (lb)	1.65
Water (gal)	0.95
Electrical power (AC kWh)	1.75 (+/- 5%)
Hydrogen content (% in vented air)	Less than 2% of LEL

Patents Pending

## Standard K6 Hypo Configuration



## Construction

- Structural assemblies of chemical-resistant, non-conducting pultruded FRP
- Stainless steel fasteners
- CPVC valves with Teflon seals
- All piping is CPVC, solvent bonded and thermal welded

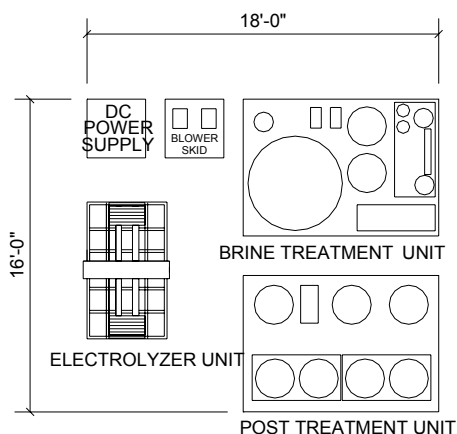
## Electrolyzer

- Partitioned cell using ion selective Nafion® membrane technology with coated titanium DSA® electrodes

## Power supply

- Precision engineered SCR (thyristor) DC power supply
- Constant current regulated to maintain steady state DC output within 1%

## Standard K2 Gas Configuration



## Automation

- PLC capable of interfacing with most existing systems for remote control and monitoring

## Conditioning

- Water and brine to ultra pure levels

## Options

- Storage tanks and transfer pumps
- Brine storage systems
- SCADA interface / RS 232