

# CAPITAL CONTROLS® L30 Series

## Chlorine Dioxide Generator

The CAPITAL CONTROLS® L30 chlorine dioxide generator is a two-chemical system, utilizing 31 wt % hydrochloric acid and 25 - 31 wt % sodium chlorite in the production of chlorine dioxide. A proven design, durable construction and the use of the best available corrosion-resistant materials assure efficient chlorine dioxide production, precise solution feeding, low maintenance and dependable operation for the life of the equipment.

### Key Benefits

**Inline Submerged Reactor:** The reagents are drawn into the inline reactor by the chemical dosing pumps. The chlorine dioxide solution concentration is less than 1 g/L %.

**Capacities:** Standard chlorine dioxide generator units are available in a range of capacities from 250 lb/day to 1500 lb/day (5 kg/h to 30 kg/h) of chlorine dioxide.



# CAPITAL CONTROLS® L30 Series

Chlorine Dioxide Generator

## Technical Information:

### Capacity:

Up to 1500 lb/day per skid

### Connections (1500 lb/day):

Ejector water inlet: 2" NPT (DN 50)  
Hydrochloric acid inlet: ¾" NPT (DN 20)  
Sodium chlorite inlet: ¾" NPT (DN 20)  
Chlorine dioxide solution outlet: 2" NPT (DN 50)

### Electrical Requirements (1500 lb/day):

220 - 230 Vac / 1 Ph / 50-60 Hz

### Input/Output Signals:

- 4-20 mADC inputs for process flow and/or residual feedback control
- Contact inputs for chlorine dioxide leak, reagent tank low level, dilution water low pressure and remote start/stop.
- Optional serial link RS485, RS422, RS232, MODBUS

### Reagents:

- 31% Hydrochloric acid wt. %
- 25% to 31% Sodium chlorite wt. %

### Dimensions:

72" L x 32" W x 72" H  
(1828.8 mm x 812.8 mm x 1828.8 mm)

### Standard Unit:

- Instrumentation: Sight glass, pressure transmitter & pressure gauges, Mag flowmeter for water, and flowmeters for sodium chlorite and acid
- Skid mounted, accessible, rigid tested plug-n-play for ease of installation
- PLC touch screen auto control

## Materials of Construction:

### Skid:

316 Stainless Steel, passivated

### Piping:

Schedule 80 PVC

### Reactor:

Inline, PVDF, CPVC / FRP

## Recommended Accessories Available:

- Dilution water pump, skid mounted
- Chlorine Dioxide Solution Concentration Monitor: 0 - 4000 ppm
- Chlorine Dioxide Gas Detector: 0 - 100 ppm
- Chlorine Dioxide Residual Analyzer: 0 - 10 mg/L
- Serial Link RS485, RS232, RS422, MODBUS

## Description of Operation

The acid and sodium chlorite reagents are pumped into the inline submerged reactor. Reagent flow is controlled by dosing pumps with 1:800 turndown ratio which are individually sized for each dosage capacity.

The chlorine dioxide solution is drawn out of the inline submerged reactor by an integral ejector. The solution is passed through a sight glass for visual verification of product quality. The entire reaction zone is completely submerged.

An automatically controlled system utilizes input signals for flow, residual or flow + residual control.

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