The CAPITAL CONTROLS® G50 chlorine dioxide generator is a two-chemical system, utilizing chlorine gas 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
• All Vacuum System: The reagents are drawn into the generator by a vacuum, produced by an integral ejector. The chlorine dioxide gas produced by the generator is mixed with the ejector motive water and applied as a solution.
• Capacities: standard chlorine dioxide generator units are available in a range of capacities from 250 lb/day to 2500 lb/day (5 kg/h to 50 kg/h) of chlorine dioxide gas.
CAPITAL CONTROLS™ G50 Series
Chlorine Dioxide Generator

Technical Information:
Capacity:
Up to 2500 lb/day per skid
10 to 1, flowmeter indication and control limits.

Connections (2500 lb/day):
Ejector water inlet: 2" NPT (DN 50)
Cl₂ gas inlet: 1" NPT (DN 25)
Sodium chlorite inlet: ½" NPT (DN 15)
Chlorine dioxide solution outlet: 2" NPT (DN 5)

Electrical Requirements (2500 lb/day):
120 Vac or 220 Vac, 50-60 Hz - 15A

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

Reagents:
• Chlorine gas
• 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, vacuum gauge and Mag flowmeters for water and sodium chlorite
• 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.

Reagent Control Valves:
KYNAR, PVC

Recommended Accessories Available:
• 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 chlorine gas and sodium chlorite reagents are drawn into the generator under a vacuum, produced by an integral ejector. Reagent flow is controlled by Chloromatic™ valves, which are individually sized for each dosage capacity.

The chlorine dioxide gas is drawn out of the reaction chamber under a vacuum produced by the integral ejector where it is mixed with the ejector motive water and applied as a solution. The solution is passed through a sight glass for visual verification of product quality. The entire system is completely under vacuum from reagent draw into the generator to the ejector. If a low vacuum condition exists, valves will shut-off reagent flows to the generator. A low vacuum alarm contact is included.

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