

## PORTABLE CHLORINE DIOXIDE SYSTEM – PTG SERIES

**FEATURES**

0.1 lb/day to 20 lb/day of Chlorine Dioxide  
 Portable Design  
 Replaceable Cartridges – No Acid On Site  
 Electric and Water Driven Pump Models  
 Dilute ClO<sub>2</sub> Solution Produced – Inherently Safe  
 Easy to Maneuver  
 Rugged Construction  
 Industry Proven Components

**APPLICATIONS**

Field Trials  
 Emergency Disinfection  
 Yearly Open Cooling System Cleaning  
 Secondary Disinfection Tank Cleaning

**The Molecule**

Chlorine Dioxide is the ultimate biocide. As a dissolved gas in solution, it can destroy and remove biofilm, eliminate both sessile and planktonic bacteria, and prevent their regrowth without interfering with most water treatment chemistry. As a weak oxidizer, it can destroy odors, clarify, and precipitate iron and manganese from contaminated water sources. As the ultimate biocide, it can eradicate Legionella and other harmful bacteria living and growing in water systems. These properties make Chlorine Dioxide the ideal biocide for most water treatment applications.

**The System**

The CLO<sub>2</sub>IX™ Portable Systems are the only mobile Chlorine Dioxide production systems. The rugged cart frame is built to take the abuse of going up and down stairs, over hoses, and through wet environments. In addition, the CLO<sub>2</sub>IX™ PTG Series Systems utilize replaceable ion exchange cartridges, so there is no need to regenerate the system. Whether the application is emergency service or yearly cooling tower cleaning, the system consistently produces Chlorine Dioxide by utilizing the company's patented Chlorine Dioxide production method.

**The Process**

The CLO<sub>2</sub>IX™ PTG System is based on *pure water* technology found routinely in the pharmaceutical and semiconductor industries where purity and safety are not optional. Instead of the traditional way of making Chlorine Dioxide by either mixing concentrated chemicals or through electrochemistry, which produces dangerous by-products, the CLO<sub>2</sub>IX™ method combines ion exchange and catalytic technologies to ensure consistent product quality in a rugged industrial piece of equipment

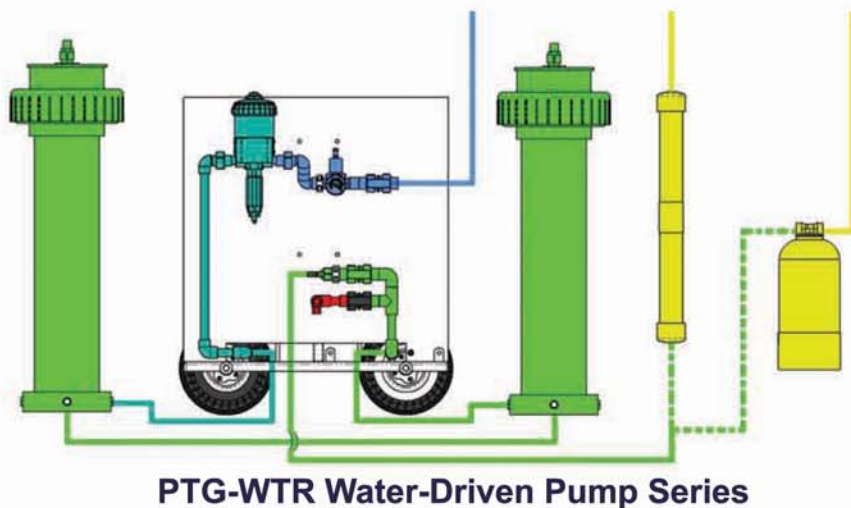
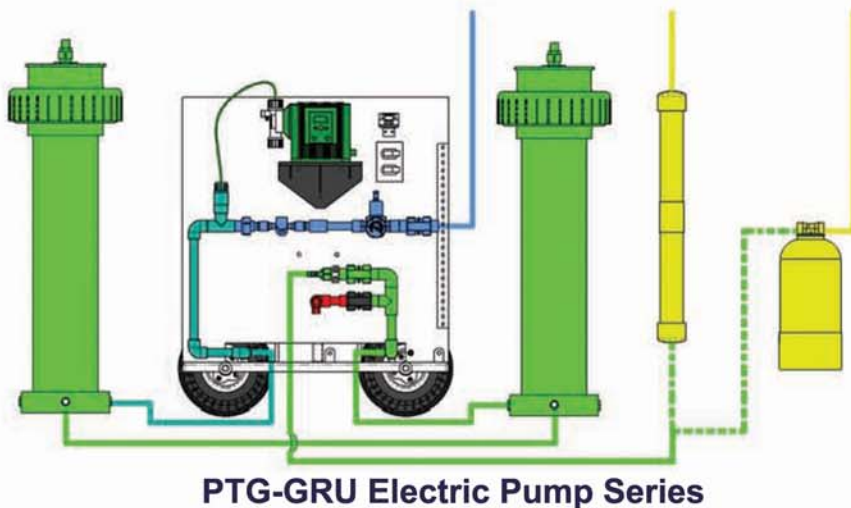


Hundreds of customers worldwide rely on CLO<sub>2</sub>IX™ Chlorine Dioxide Systems.

# THE PROCESS



# HOW THE SYSTEM WORKS



Color coded to schematic

<b>Inlet Potable Water</b>	A potable water source is required for the system.
<b>Sodium Chlorite</b>	A 25% NaClO <sub>2</sub> solution is diluted with potable water such that the resulting concentration of NaClO <sub>2</sub> is 1,250 mg/l.
<b>Chlorous Acid</b>	The dilute NaClO <sub>2</sub> flows through the ion exchange cartridge where the NaClO <sub>2</sub> is converted to HClO <sub>2</sub> through the exchange of the Na <sup>+</sup> in solution for the H <sup>+</sup> on the cation resin.
<b>Chlorine Dioxide</b>	The HClO <sub>2</sub> is converted to dilute ClO <sub>2</sub> in the catalyst cartridge. The concentration of solution is a safe 700 mg/l.
<b>Drain</b>	When the catalyst cartridges are changed, water is flushed through the system to drain.