



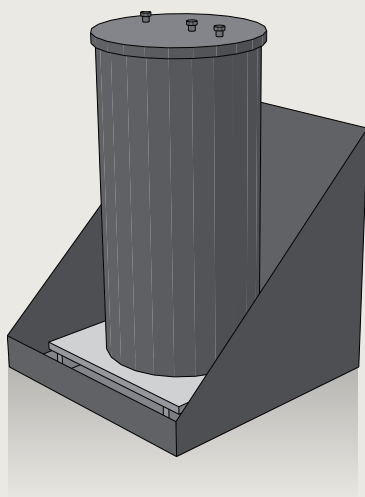
# WATER TREATMENT

## Clorious2 Generator

**The Clorious2 Generator is the first technologically advanced chlorine dioxide generator based on the chlorite peroxodisulphate method.**

To this end, the well known chlorite peroxodisulphate method was modified aimed at optimising the reaction process. The result is a patented method which safely generates a stable, highly pure chlorine dioxide solution without the use of hydrochloric acid or chlorine as precursor feedstock chemicals.

# Clorious2 Generator



## SAFETY

- Double wall, temperature controlled reactor
- Redox controlled water casing
- Frost protection
- Chlorine dioxide gas warning device
- Inlet and outlet at the top
- Automatic self-controlled pumps with fault diagnosis
- Leak detection sensor
- Spill containment

## CONVENIENCE

- Fully automated operation
- Remote-controlled system operation including remote diagnosis and transfer of operating status
- Real time data logging
- Monitoring of reactor level and consumption
- Adjustable empty precursors warning system
- Automatic indication of order and supply needs
- Control by water metering, 4 - 20 mA, e.g. online chlorine dioxide measurement, redox or IDM

## AREAS OF APPLICATION

- Odour control, e.g. hydrogen sulphide, mercaptans, etc.
- Control of biofilm, slime and microbial contamination on machines and in industrial processes e.g. in the pulp and paper industry (PT 12)
- Control of biofilm, fouling and microbial contamination in open and closed cycle cooling systems, re-cooling units, air scrubbers and evaporative condensers (PT 11)
- Sanitation of wastewater (PT 2)
- Disinfection of drinking water (PT 5)
- Applications in the food and beverage industry, e.g. cleaning in place (CIP), bottle washing (PT 4)

## METHOD

- Patented generation method
- Complete conversion of chlorite
- No hydrochloric acid or chlorine species ( $\text{Cl}_2$ ,  $\text{OCl}^-$ ,  $\text{HClO}$ )
- Highly pure precursor chemicals

## CLORIOUS2

- Small corrosion tendency
- Minimal chlorite and chlorate building
- Low vapour pressure
- Ready-to-use chlorine dioxide solution
- Long-term stability
- No minimum consumption or problems during dosing interruption
- Highly concentrated, pure chlorine dioxide solution
- Safe to use
- Simple to operate

## GENERATOR

- Robust reactor design
- No pressure
- No aggressive gas phase
- No contact between dosing pumps and chlorine dioxide solution
- Variable capacity and concentration
- PFA HP fittings and hoses
- Precise digital membrane dosing pump (Grundfos DDA-FCM series)
- No external water inlet
- Continuous and batch production

## TECHNICAL DATA

Clorious2 Generator	Clorious2-300	Clorious2-1200
<b>ClO<sub>2</sub> capacity</b>	0 - 300 g/h	0 - 1200 g/h
<b>ClO<sub>2</sub> concentration</b>	20 g/l	
<b>Precursors</b>	Brenntag Clorious2 Sys Ox & Brenntag Clorious2 Tech S Available in drums, IBC and tanks	
<b>Max. dosing capacity</b>	15 l/h	60 l/h
<b>Control</b>	myDatalogMUC Pawn Script (C equivalent) Industrial interface 8 x 4-20 mA, 2 x RS485, 1 x RS232 Buffer battery for (outage) / failure alarm signal	
<b>ClO<sub>2</sub> gas warning device</b>	Dr. A. Kuntze K 100 GAS	
<b>Protection class</b>	IP 54	
<b>Power supply</b>	230 V / 50 Hz, 13 A	
<b>Weight approx.</b>	35 kg	80 kg
<b>Installation site</b>	Inside, frost protected	

## Brenntag GmbH

Messeallee 11  
45131 Essen, Germany  
Tel. +49 201 6496-1867  
clorious2@brenntag.de

