

## Catalytic Chlorine Dioxide - Clox-Cat R



- ◆ No chemical mixing
- ◆ No electro-chemical cassettes
- ◆ Doses directly into pressurised lines
- ◆ No high concentration solutions
- ◆ No chlorinated by-products
- ◆ No chlorine or excess acid
- ◆ No residual chlorite in chlorine dioxide product stream
- ◆ No storage of chlorine dioxide required
- ◆ No additional booster equipment
- ◆ Chlorine dioxide concentrations of less than 700 mg/litre
- ◆ Instantaneous Chlorine dioxide production in dilute solution

The Cloxide Catalytic range of chlorine dioxide generator systems deliver ultra-pure chlorine dioxide from 100 gms up to 25,000 gms per day.

The system uses:-

- ◆ **Cloxide R** - a modified sodium chlorite precursor for the generation of the chlorine dioxide
- ◆ **Regenerant S** - sulphuric acid for regeneration of the ion-exchange columns. Please note that this product is only used for regeneration and is not involved in the production of chlorine dioxide.
- ◆ **Catalytic Conversion Cartridge** - a catalytic granular bed ( $Pt/Al_2O_3$ ) selected for high activity and fast conversion of chlorous acid to chlorine dioxide

The chlorine dioxide output stream is delivered directly via a digital dosing injection system(s) on a proportional basis from either an impulse water meter or flow monitor.

Clearwater's Total Management and Service Package ensures that all aspects of operating this chlorine dioxide system are undertaken by trained engineers including maintenance and chemical handling.

Clearwater Technology Limited is the leading British Chlorine Dioxide total solutions provider.

Previously regulated to very specific needs in water treatment, new technology is creating a unique opportunity for Chlorine Dioxide to be applied throughout a wide range of applications that call for the prevention of microbial growth such as slimes and moulds, together with total pathogen control against such organisms as Cryptosporidium, Pseudomonas, Legionella and many more.

Chlorine Dioxide has been called the "ideal" biocide for a number of reasons:

- ◆ It works against a wide variety of bacteria, yeasts, viruses, fungi, protozoa, spores, moulds, mildews and other microbes. It is especially effective in killing Giardia, Cryptosporidium and Legionella
- ◆ It exhibits rapid kill of target organisms, often in seconds.
- ◆ It is effective at very low concentrations and over a wide pH range.
- ◆ It is effective across a wide temperature range including water up to 80°C
- ◆ It biodegrades in the environment.
- ◆ Unlike many other biocides, e.g. chlorine, it does not react with primary organics to form harmful trihalomethanes (THM's).
- ◆ It eradicates biofilm, and used as part of a preventative programme, eliminates recurrence within pipe work, equipment and systems.

## Catalytic Chlorine Dioxide - Clox-Cat R

Model	Chlorine Dioxide Output Range (gms/day)	Treat ___ m <sup>3</sup> of water / day at 1.0 ppm ClO <sub>2</sub>
CC-DWW03G-005	114 to 227	Up to 200
CC-DWW03G-010	227 to 454	Up to 450
CC-DWW03G-025	454 to 1135	Up to 1100
CC-DWW03G-050	1135 to 2270	Up to 2200
CC-DWW03G-100	2270 to 4540	Up to 4500
CC-DWW03G-200	4540 to 9080	Up to 9000
Larger models to specification	Up to 22,700	Up to 22,000

### Installation Electrical Requirements

240 VAC 10 Amp 50 Hz  
(110 volt option available)

### Feed Water Quality

Potable Water

### Maximum TDS

1,000 mg/litre as CaCO<sub>3</sub>

### Temperature Range

40°F to 100°F

### Incoming Water Pressure

40 psi to 100 psi (Regulator Fitted)

### Total Water Hardness

>170 mg/litre CaCO<sub>3</sub> Integral Water Softener will supplied specifically for the generator.

<170 mg/litre CaCO<sub>3</sub> no softener required

### Drain for Regenerant

Must be atmospheric

Air-gap or tundish to prevent syphoning

pH 5.0 to 7.0 (to drain when inlet pH>6.5)

### Generator Size

Width = 840 mm

Depth = 540 mm

Height = 1825 mm

### Shipping Weight

115 kilos

### Required replacements (undertaken under contract by Clearwater Trained Personnel)

Conversion Cartridge and Filters every 2,000 operating hours

Ion-exchange resin every two to three years

New delivery technologies bring the power of chlorine dioxide without the expense and complication of on-site generation or high level training.

Typical applications are:-

- ◆ Constant dosing of drinking water, cold and hot water systems within building services
- ◆ Product washing and system disinfection throughout the food industry. Disinfection and neutralisation as part of C.I.P. systems
  - ◆ Cooling Tower Water
- ◆ Intense disinfection for hydro-therapy pool and ancillary services within hospitals
- ◆ Elimination of white water mould and pink slime in swimming pools, including filter and balance tank biofilm build-up
- ◆ Improved disinfection within Spa Pools
- ◆ Eliminate fouling by micro-organisms in water softeners
- ◆ Treating bacteria in car/vehicle wash recycling water
- ◆ Prevents the formation of slime and odour causing bacteria and fungi within ice making machines
  - ◆ Tank Cleaning

For full technical and installation details please contact your local Clearwater Chlorine Dioxide Product Specialist

Clearwater Technology -

"Imagination"

"Innovation"

"Implementation"



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