



## **DIOX-A 10K CHLORINE DIOXIDE GENERATOR**

### **WALLACE & TIERNAN® PROCESS SYSTEMS**

The DIOX-A 10K generator is the synonym of reliability in chlorine dioxide technology combining high safety performance with durability, simplicity and low maintenance. Chlorine dioxide is produced as an aqueous solution of stable strength up to 10 kg/h. For the generation, concentrated solutions of sodium chlorite (24.5 %  $\text{NaClO}_2$ ) and hydrochloric acid (30 - 38 %  $\text{HCl}$ ) are used.

The DIOX-A 10K generator delivers all the benefits of chlorine dioxide with safety and efficiency in mind. The powerful disinfectant prevents trihalomethane (THM) formation and will not react with ammonia to form less active chloramines. The DIOX-A 10K generator is known for the effective elimination of chlorophenols, oxidation of inorganic compounds such as iron and manganese, and successful control of taste, odor and color. It is highly effective against biofilm formation as well as viruses, bacteria, protozoa and cysts; including Legionella.

### **APPLICATIONS**

- Drinking water
- Industrial; process water, food and beverage, cooling towers
- Legionella control
- Wastewater treatment

### **Key Benefits**

- Inherent safe operation with double injector for chemical aspiration
- Monitoring of temperature and vent gas aspiration in the product tank
- High level of accuracy with V-notch control of precursors
- Intuitive user-friendly colour touch panel
- Extended communication capabilities

## METHOD OF OPERATION

The precursor chemicals, hydrochloric acid and sodium chlorite are simultaneously aspirated using a common flow rate controlled injector, diluted with water and combined. As a result of this inherently safe operational mode, the concentrated chemicals cannot be mixed and react in the undiluted state. The flow rate control in the aspiration lines means that level differences in the tanks of the basic chemicals have no influence on the process. Expensive reagent transfer equipment is not required.

A reaction tank designed according to DVGW W 624 ensures a max. conversion rate to chlorine dioxide. As a result of the constant supply to the reactor a consistently high quality of the prepared solution is achieved at all times.

The generator works intermittently depending on the filling level of an external storage tank. During the filling process the displaced air-gas mixture is aspirated by a vent gas aspiration injector. For safety reasons, the gas phase in the product tank is permanently monitored with regard to temperature.

The chlorine dioxide system is available with an optional integrated booster pump.

All flow rates are continuously measured and can be displayed on the touch panel. The control system continuously monitors and regulates the preparation process.

Chlorine dioxide preparation capacity	1 kg/h (50 ppd)	2.5 kg/h (130 ppd)	5 kg/h (260 ppd)	10 kg/h (530 ppd)
Flow sodium chlorite solution	6.6 l/h (42 gal/d)	16.5 l/h (105 gal/d)	33 l/h (209 gal/d)	66 l/h (418 gal/d)
Flow hydrochloric acid solution	6.6 l/h (42 gal/d)	16.5 l/h (105 gal/d)	33 l/h (209 gal/d)	66 l/h (418 gal/d)
Weight (with booster pump)	240 kg (530 lb)	240 kg (530 lb)	240 kg (530 lb)	250 kg (550 lb)

\*DIOX-A 10K: ONLY WITHOUT BOOSTER PUMP.

## TECHNICAL DATA

### Power supply (without booster pump):

1/N/PE AC 230 V 50/60 Hz

### Power supply (with booster pump):

3/N/PE AC 400/230 V 50 Hz

### Power consumption (without/with booster pump):

approx. 0.3 kVA/4.1 kVA

### Back up fuse max. (without booster pump): 1 x 20 A

### Back up fuse max.(with booster pump): 3 x 20 A

### Enclosure rating: IP 54

### Dimensions (W x H x D):

1350 x 1880 x 790 mm (53 x 74 x 31 inch)



Auf der Weide 10, 89312 Günzburg, Germany

+49 (8221) 904-0 [www.evoqua.com](http://www.evoqua.com)

Wallace & Tiernan is a trademark of Evoqua, its subsidiaries or affiliates, in some countries. PROFIBUS is a trademark of PROFIBUS Nutzerorganisation e.V.. All information presented herein is believed reliable and in accordance with accepted engineering practices. Evoqua makes no warranties as to the completeness of this information. Users are responsible for evaluating individual product suitability for specific applications. Evoqua assumes no liability whatsoever for any special, indirect or consequential damages arising from the sale, resale or misuse of its products. In the United States, chlorine dioxide generation systems are marketed under the Millennium brand.

© 2017 Evoqua Water Technologies GmbH Subject to change without notice WT.085.215.000.DE.PS.0817

#### Wallace & Tiernan® Products worldwide

##### Australia

+61 3 8720 6597  
[info.au@evoqua.com](mailto:info.au@evoqua.com)

##### Canada

+1 905 944 2800  
[canadainfo@evoqua.com](mailto:canadainfo@evoqua.com)

##### China

+86 21 6057 7247  
[sales.cn@evoqua.com](mailto:sales.cn@evoqua.com)

##### France

+33 1 41 15 92 20  
[wtfra@evoqua.com](mailto:wtfra@evoqua.com)

##### Germany

+49 8221 9040  
[wtger@evoqua.com](mailto:wtger@evoqua.com)

##### Singapore

+65 6830 7165  
[sales.sg@evoqua.com](mailto:sales.sg@evoqua.com)

##### UK

+44 300 124 0500  
[info.uk@evoqua.com](mailto:info.uk@evoqua.com)

##### USA

+1 856 507 9000  
[wt.us@evoqua.com](mailto:wt.us@evoqua.com)