DIOX-A 10
CHLORINE DIOXIDE GENERATOR

WALLACE & TIERNAN® PROCESS TECHNOLOGY

The DIOX-A 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 constant strength up to a 10 g/h. For the generation, hydrochloric acid (9%) and sodium chlorite (7.5%) are used. The strength of the two basic chemicals is balanced in a ratio that ensures an optimal yield of chlorine dioxide.

The DIOX-A 10 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 10 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.

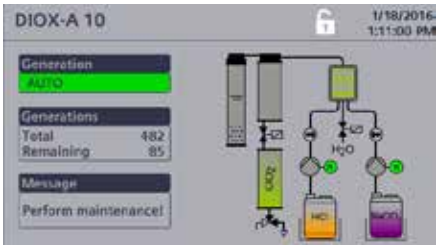
It is highly effective against biofilm formation as well as viruses, bacteria, protozoa and cysts; including Legionella.

APPLICATIONS

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

Key Benefits

- Batch system with integrated product tank; extendible with additional tank
- Intuitive, user-friendly touchpanel with animated process graphics
- Extensive communication capabilities
- Compact design for easy installation



ANIMATED PROCESS FLOW SCHEME VIEW

Method of operation

In the Wallace & Tiernan® DIOX-A generator, chlorine dioxide is produced as an aqueous solution of constant strength. For the generation, hydrochloric acid (9%) and sodium chlorite (7.5%) are used. Both reagents are fed by means of peristaltic pumps directly from commercial carboys into a pressureless reaction tank.

The precise feed rate of the peristaltic pumps is constantly monitored by flow totalisers. Any undue deviation of the flow rate or a failure of the operating water supply will automatically shut down the system and set off an alarm signal. The surplus of hydrochloric acid in the reaction tank ensures a high conversion rate of the chlorite into chlorine dioxide.

TECHNICAL DATA

	DIOX-A 3	DIOX-A 10
Standard capacity	3 g/h ClO_2	10 g/h ClO_2
ClO_2 strength in the storage tank	0,7 g/l	2,0 g/l

$NaClO_2$ solution (7.5 %):
Standard carboy or storage tank

HCl solution (9 %):
Standard carboy or storage tank

Operating water pressure: 4 – 16 bar

Power supply: 1/N/PE AC 230 V, 50/60 Hz
Operation at 115 V/60 Hz is available with additional external transformer.

Power consumption: max. 1 kVA

Fuse: max. 10 A

Dimensions (W x H x D): 800 x 1000 x 300 mm

Weight: approx. 50 kg

After a defined reaction time, the chlorine dioxide solution of approx. 20 g/l is flushed out by water into an emission-free preparation tank and simultaneously diluted to < 2.5 g/l. At this concentration the solution remains stable over extended periods. From the preparation tank the chlorine dioxide solution flows into the storage tank from where the dilute solution is metered by one or more metering systems. This dual-tank arrangement ensures always a constant dosing strength irrespective of the actual feed rate.

The gas volume displaced by the filling and emptying of the process tanks is passed and neutralised emission-free through an absorption unit. For the reagent supply tanks optional bunds are available.

CONTROL

SIMATIC® S7-1200 CPU 1214C
SIMATIC HMI KTP400 Basic Panel with 4'' TFT wide-screen display, 65536 colors, LED backlight with automatically dimming, code-protected service menu

Connections (optional):

- Process Monitoring System via RS 485
- PROFIBUS® DP slave
- PROFINET® IO device
- MODBUS® TCP

Unpowered inputs:
External release

Unpowered Outputs:
Two alarm relays (functions selectable)

EVOQUA WATER TECHNOLOGIES

Auf der Weide 10, 89312 Günzburg, Germany
+49 (8221) 904-0 www.evoqua.com

Wallace & Tiernan is a trademark of Evoqua, its subsidiaries or affiliates, in some countries. Simatic is a trademark of Siemens, its subsidiaries or affiliates. PROFIBUS and PROFINET are trademarks of Profibus International. MODBUS is a trademark of Schneider Automation, Inc. 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.085.260.000.DE.PS.1017

Wallace & Tiernan® Products worldwide

Australia +61 3 8720 6597 info.au@evoqua.com
Canada +1 905 944 2800 canadainfo@evoqua.com
China +86 21 6057 7247 sales.cn@evoqua.com
France +33 1 41 15 92 20 wtfra@evoqua.com
Germany +49 8221 9040 wtger@evoqua.com
Singapore +65 6830 7165 sales.sg@evoqua.com
UK +44 300 124 0500 info.uk@evoqua.com
USA +1 856 507 9000 wt.us@evoqua.com