

# Culligan®

Chlorine Dioxide Generators



Culligan: World Leader in Water Treatment

# Chlorine Dioxide Generators

## For Commercial and Industrial Use

Chlorine Dioxide is a well established biocide with many advantages over other forms of water treatment. Chlorine Dioxide can be produced on site in a special plant. Generally this plant mixes two chemicals, often sodium chlorite and an acid such as hydrochloric, in a controlled environment at a specific ratio. The product of the plant is then used to dose the system. The concentration of a treatment is usually between 0.3—0.5mg/l and is not detectable within a system in regard to taste and odour.

Chlorine Dioxide is DWI approved for use in hot and cold water systems (max 0.5ppm total oxidant as free ClO<sub>2</sub>) and tested by BSRIA for Legionella efficacy. The plant is easily applied and monitored and can be used at higher pH levels where chlorine and bromine are less effective.

The generators are preassembled on supporting frames made from corrosion resistant polyethylene, ready for wall mounting. The units come complete with all necessary components to enable trouble free installation including; suction valves, suction tubing, low level switches and two meters of connecting cable.

For flexibility the precursor and dilution storage tanks can be selected and sized from our standard range to suit the application. Typically for small applications standard 25 litre containers are used complete with bunds. However, Tanks can be provided from 100 – 1000 litre capacity complete with bunds and low level control alarms.

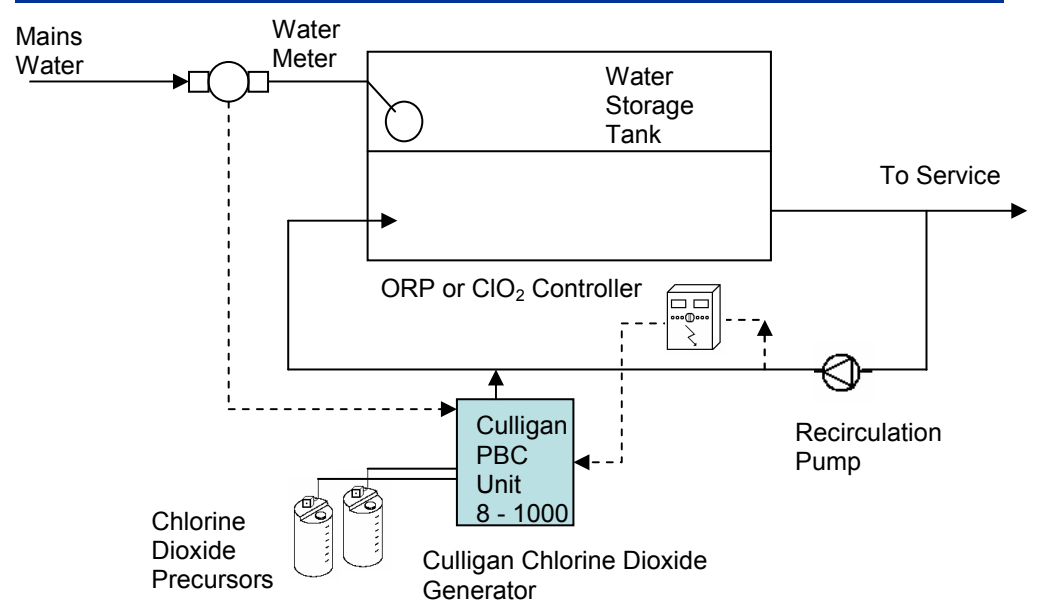
## Main Applications

- Drinking water
- Hot and cold water services
- Process water
- Pulp and paper bleaching

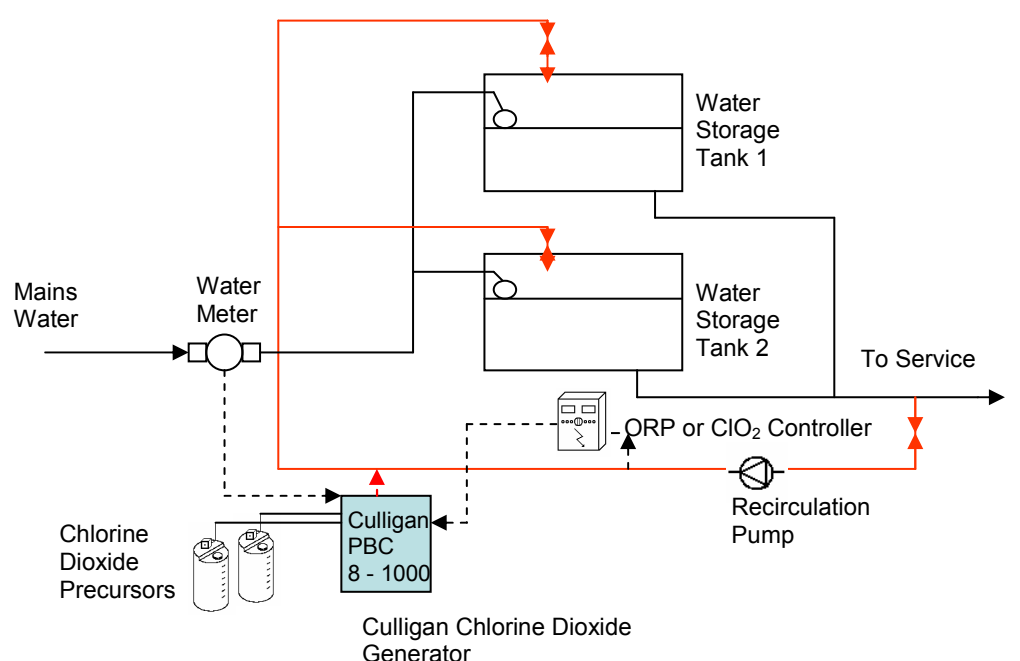
## Typical Users

- Office blocks, hotels and apartments
- Schools, colleges and universities
- Hospitals and laboratories
- Sports and leisure facilities
- Food and manufacturing industries
- Pharmaceutical industry
- Paper and electronics industries

## Typical Installation—Single Tank



## Typical Installation—Twin Tank



## PBC08 Generator

The PBC08 is part of the Culligan Chlorine Dioxide Generator range. The unit uses Hydrochloric Acid (HCl) 9% and Sodium Chlorite (NaClO<sub>2</sub>) at 7.5% to produce Chlorine Dioxide in a safe, controlled method up to 8 grams per hour, with a maximum delivery pressure of 6 BAR.

The unit comprises of a three stage electronic dosing pump system which controls the concentration of the reagents and dilution water using flow sensors. The production of the ClO<sub>2</sub> is controlled by a microprocessor complete with alphanumeric display and alarm system. The dosing can be operated manually or modulated automatically using analogue or external impulse signals. The reactor and controlling sensors for dosage are contained on the frame behind the control panel.



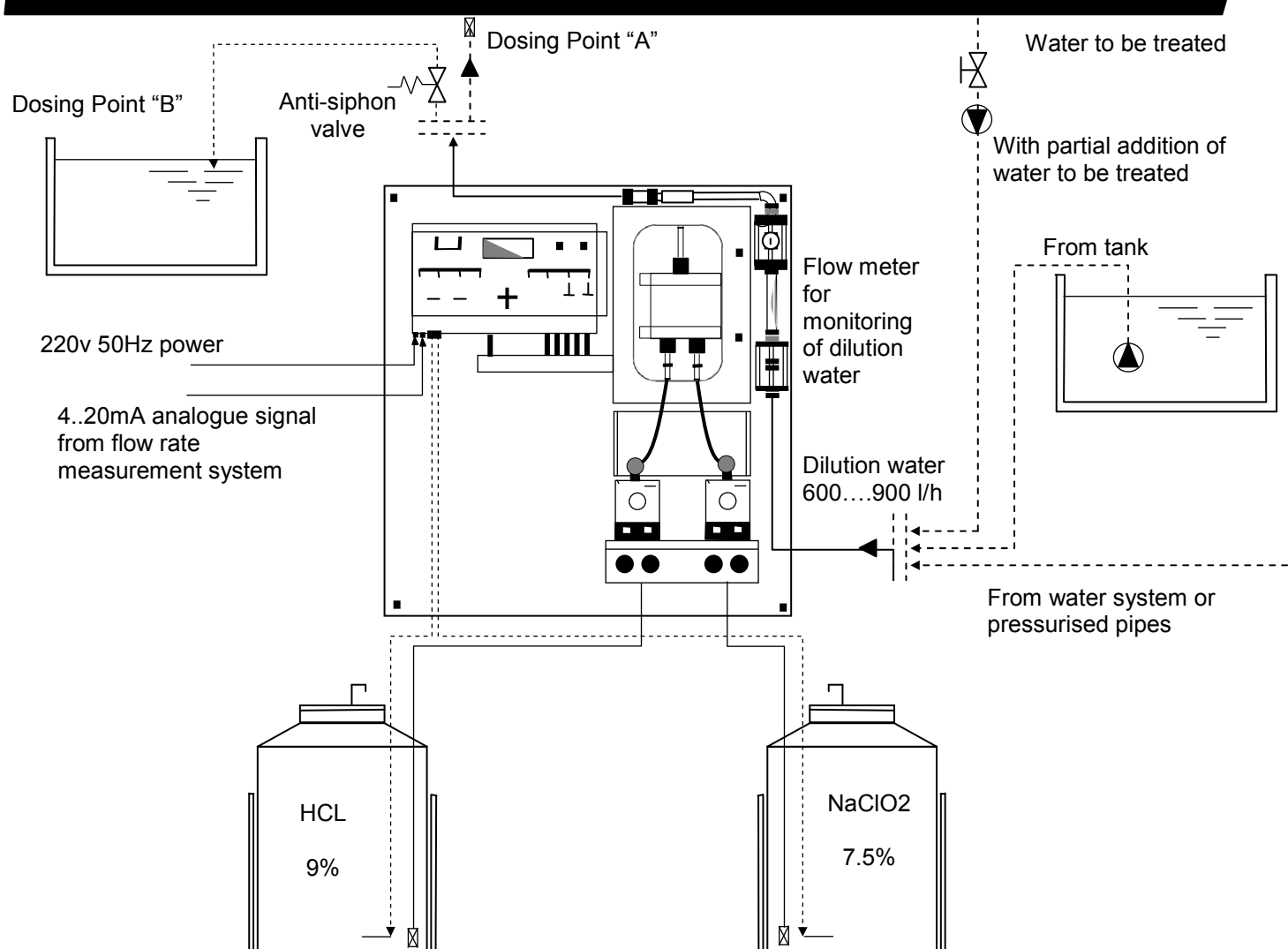
## PBC30—1000 Generators

These units use Hydrochloric Acid (HCl) 9% and Sodium Chlorite (NaClO<sub>2</sub>) at 7.5% to produce Chlorine Dioxide in a safe, controlled method, between 35 – 1014 grams per hour.

The units comprises of a two stage electronic dosing pump system which controls the concentration of the reagents and dilution water using flow sensors. The production of the ClO<sub>2</sub> is controlled by a microprocessor complete with alphanumeric display and alarm system. The dosing can be operated manually or modulated automatically using analogue or external impulse signals. The reactor and controlling sensors for dosage are contained on the frame behind the control panel.



## Generator—Installation Options



## Technical Specifications: Chlorine Dioxide Generators

	Chlorine Dioxide Production (g/l)	Maximum Operating Pressure (BAR)	Maximum Dosing Amount— per pump (l/h)	Maximum Weight (kg)	Dimensions— w x h x d (mm)
PBC08 DSD	8	6	0.20	45	390 x 850 x 360
PBC 30	35	12	0.91	61	750 x 1000 x 300*
PBC 60	54	12	1.35	61	750 x 1000 x 300*
PBC 140	143	8	3.60	61	750 x 1000 x 300*
PBC 220	220	10	5.50	63	750 x 1000 x 300*
PBC 400	400	10	10.00	63	750 x 1000 x 300*
PBC 600	640	7	16.00	63	750 x 1000 x 300*
PBC 1000	1014	4	25.20	63	750 x 1000 x 300*

\*Preassembled version 1200 x 1000 x 300mm

## Electrical Specifications: Chlorine Dioxide Generators

<b>Power Supply:</b>	220Vac / 50Hz / 1 phase	<b>Power Rating:</b>	1kW (PBC08) 1.5 kW (PBC30-1000)
<b>Options:</b>	110Vac / 50Hz / 1 phase	<b>Operating Temperature:</b>	5—40°C
<b>Enclosure:</b>	IP 54	<b>Installation:</b>	Wall Mounted

## Electrical Control Options: Chlorine Dioxide Generators

- Manual run mode
- Automatic run mode with water meter signal by impulse contact or 4—20mA signal
- Automatic run mode with two signals: water meter and ClO<sub>2</sub> controller each by impulse contact or 4—20mA
- Further Optional Controls— ClO<sub>2</sub> or Redox monitor complete with sensors
- Gas alarm and control

## Quality Systems certified according to UNI ISO:9001

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In the interest of product development we reserve the right to alter specifications without prior notice. All photographs are to be used as guide only.  
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