

gaffey

WATER TREATMENT FOR LIFE

chloriDOS[®] iOX[®]

PRODUCT INFORMATION
chloriDOS iOX (PI) – 5-40 (V1.0 EN)



iOX[®]: 5, 10, 20, 40 g/h ClO₂

Safe, reliable & efficient on-site generation of chlorine dioxide.

Function

chloriDOS[®] iOX[®] range of systems provide a batch supply of chlorine dioxide solution for on-demand chemical dosing & disinfection applications, generated from chlorite/acid chemical reagent process.

The iOX[®] automatically draws and mixes precise volumetrically measured amounts of acid and chlorite, under vacuum, from respective chemical storage containers from up to 50m away if required. The reacted chlorine dioxide solution is homogenised and diluted with a volumetrically controlled flow of cold water prior to dispensing into the integral storage tank under atmospheric pressure.

Retention time of the chlorite/acid mixing is continuously controlled within the generator and automatically diluted and dispensed into the product batch tank, the level of which is governed by electronic level sensors.



PATENTED
Process technology

**MADE IN
BRITAIN**

WRAS
APPROVED PRODUCT

chloriDOS
iOX®

Benefits

- Batch preparation and dosing apparatus all fully contained within a single, lockable unit
- Safe handling of chemical reagents drawn from containers under vacuum
- Vacuum process eliminates need of chemical reagent dosing pumps and associated loss of prime and pump head maintenance
- Batch dilution volumetrically controlled
- Reagent consumption precisely governed by volumetric flow sensors optimising chemical usage
- A second and third dosing pump can be connected externally for multi-point dosing
- Simple and low maintenance frequency
- Low whole life costs

Areas of Application

- Combating legionella in water systems
- Food & beverage CIP disinfection
- Cooling tower biocide treatment
- Food washing / processing treatment
- Municipal potable water disinfection
- Secondary disinfection in public buildings
- Commercial swimming pool filter hygiene
- Odour control in waste processes

Chlorine
Dioxide
Systems

FEATURES

- iOX® model range offers 5, 10, 20 and 40 g/h chlorine dioxide generation capacity
- Durable and attractive plastic equipment cover with security lock facility
- Easy to operate membrane keypad multi-lingual control panel & OLED display with green, amber and red LED operational status indicators
- Operational parameters displayed with code protected programming
- Alarm event log with real time clock recording
- Volumetric measurement and data storage of chemical reagent consumption volumes and site water meter usage
- Service due & reactor replacement alert
- Corrosion resistant PVDF valves and sensors
- Modbus (optional) to monitor and alert chemical reagent usage, site water/process usage volumes, control status and data trending
- Two-year product warranty



SPECIFICATION

iOX[®] Technical Data

Description	unit	chloriDOS [®] iOX [®] model capacity			
		5	10	20	40
Chlorine dioxide (ClO ₂) capacity	g/h	5	10	20	40
ClO ₂ generation strength	%	2*			
ClO ₂ batch solution strength	mg/l	500	1000	1500	
ClO ₂ batch solution production rate	l/h	9.9	9.9	13.3	26.6
ClO ₂ batch tank nominal volume	l	8.5			
Power supply	V	100 - 230V~ / 50-60Hz			
Power rating	VA	20			
Combined peak dosing pump output dosing pump(s) not included	l/h	15			30
Feed water pressure	Bar	2 - 16			
Nominal water consumption	l/h	9.7	9.4	12.3	24.6
Total reagent consumption 1:1 ratio	l/h	0.25	0.5	1.0	2.0
Protection class	IP	54			
Permissible ambient temperature	°C	5 - 35			
Permissible feed water temperature	°C	5 - 20			
Permissible reagent temperature	°C	10 - 35			

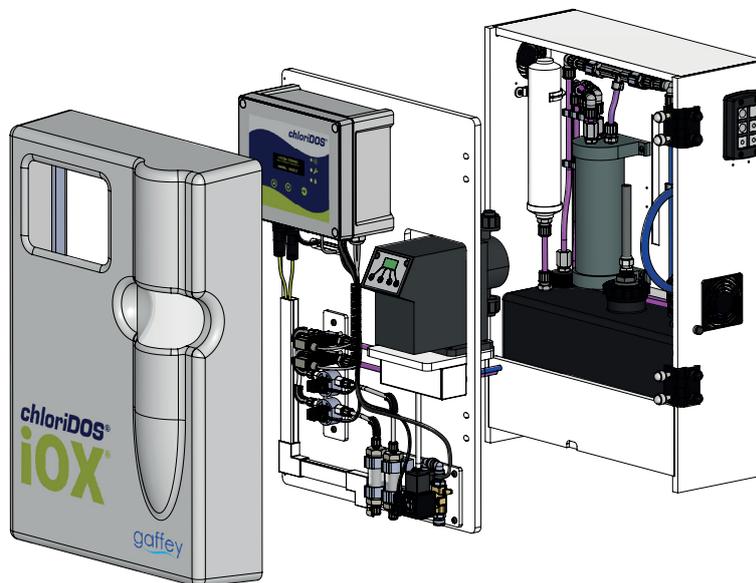
* precursor concentration (by weight): 9% HCl / 7.5% NaClO₂

iOX[®] Match-Code System Build & Supply Information

Generator capacity	
G005	5g/h chlorine dioxide generator at 500mg/l ClO ₂ solution
G010	10g/h chlorine dioxide generator at 1000mg/l ClO ₂ solution
G020	20g/h chlorine dioxide generator at 1500mg/l ClO ₂ solution
G040	40g/h chlorine dioxide generator at 1500mg/l ClO ₂ solution
Cover	
C0	Grey cover hood
Pump configuration	
P0	Without pump fitted
P1	With pump fitted
Power supply	
V1	100 - 230V~ 50/60Hz
G005	C0
	P0
	V1
Match code order example	

DESCRIPTION

iOX[®] Design Concept

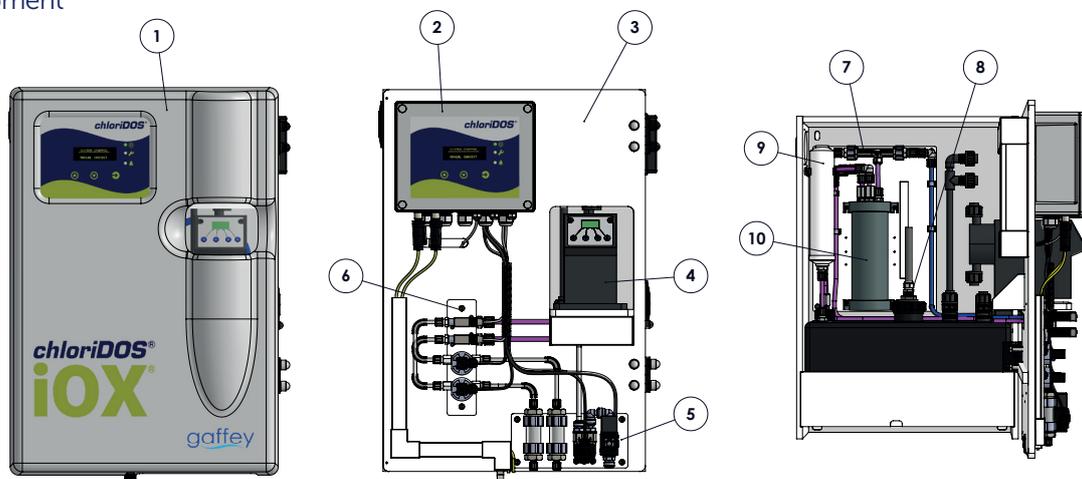


Operation

Metering

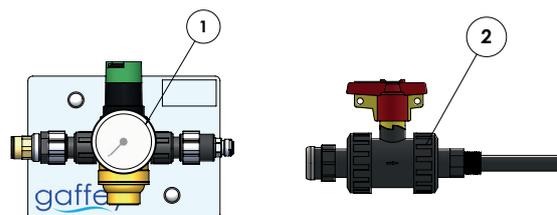
Vacuum Batch Generation

Feature Equipment



Item	Feature Equipment Description
1	iOX [®] plastic cover
2	chloriDOS [®] controller & OLED display
3	Hinged metering & control board assembly
4	Internal ClO ₂ dosing pump (optional)
5	Dilution water flow control
6	Chemical reagent flow control
7	Reagent vacuum & dilution device
8	Batch tank level sensor device
9	Batch tank carbon air scrubber
10	ClO ₂ reactor assembly

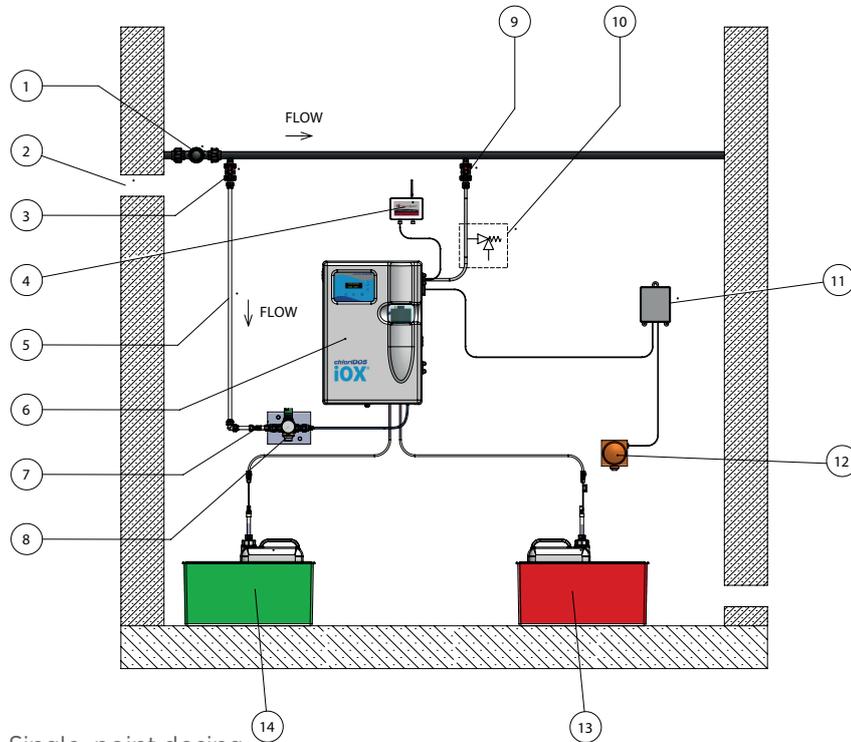
Ancillary Equipment



Item	Ancillary Equipment Description
1	Cold water supply pressure regulator/filter assembly
2	Dosing pump injection/isolation valve assembly

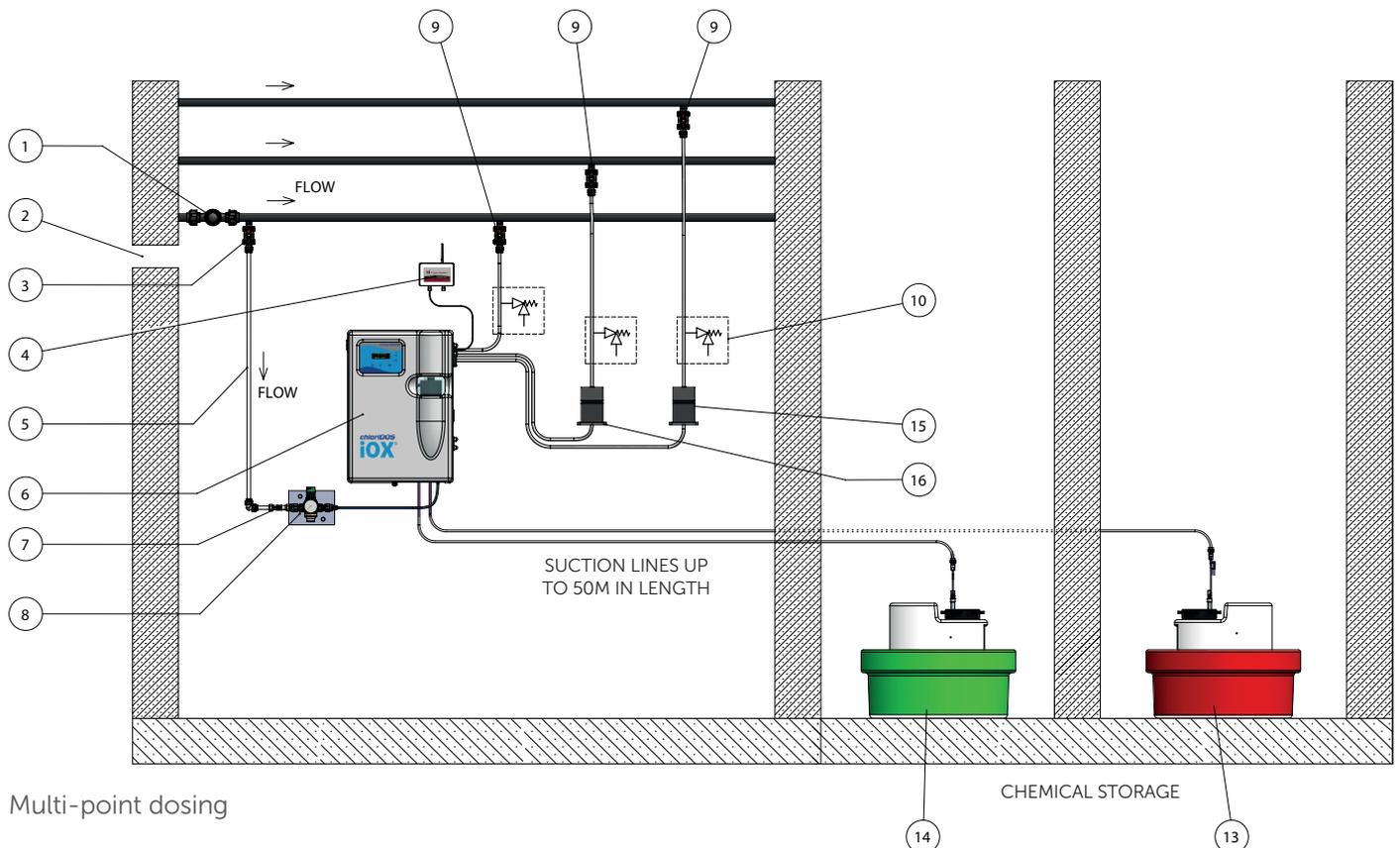
DESCRIPTION

iOX® installation schematics



Item	Description
1	Site pulsed water meter (site)
2	Natural room ventilation (site)
3	Cold water feed isolation (site)
4	COMM's/telemetry (optional)
5	Cold feed pipe work (site)
6	iOX®I chlorine dioxide generator
7	Water supply double check valve (site)
8	Water pressure regulator/filter
9	ClO ₂ dosing injection point
10	Dosing retention/relief (optional)
11	Gas detector panel
12	Gas detector panel
13	Chlorite reagent drum/tank (optional)
14	Acid reagent drum/tank (optional)
15	Tertiary dosing pump
16	Secondary dosing pump

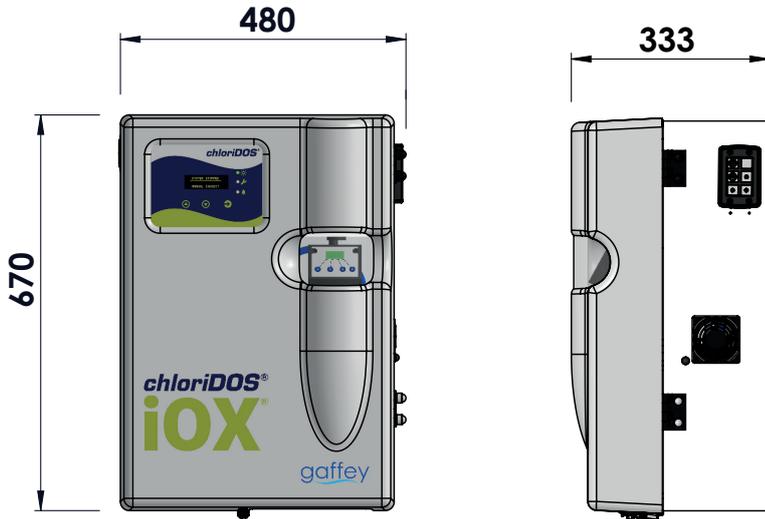
Single-point dosing



Multi-point dosing

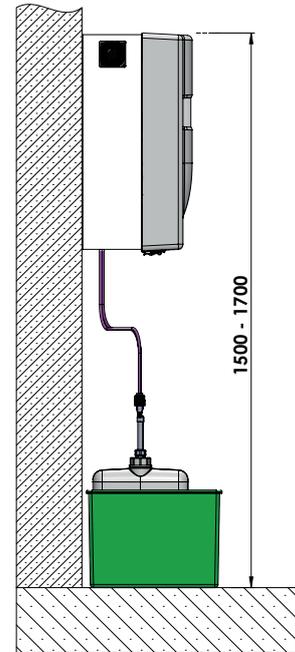
DIMENSIONS & WEIGHT

iOX[®] Overall Dimensions

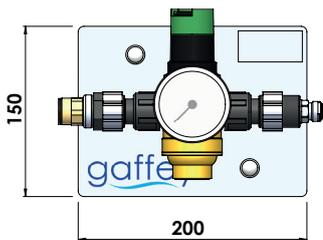


Shipping weight: 23kg

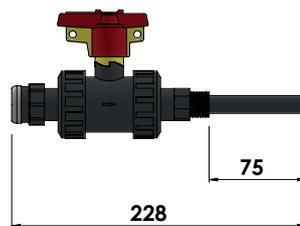
Recommended Installation Arrangement Dimensions



Water PRV Dimensions



Injection Isolation Valve Dimensions



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