triogen®
by BIO UV Group

AOP

AOP Clear - Advanced Oxidation Process

triogen® AOP Clear offers a unique advanced oxidation treatment of water for the leisure industry. The process combines the disinfection and oxidation properties of Ozone, UV and Hydroxyl radicals, making triogen® AOP Clear the most advanced treatment technology available for your pool.

APPLICATIONS

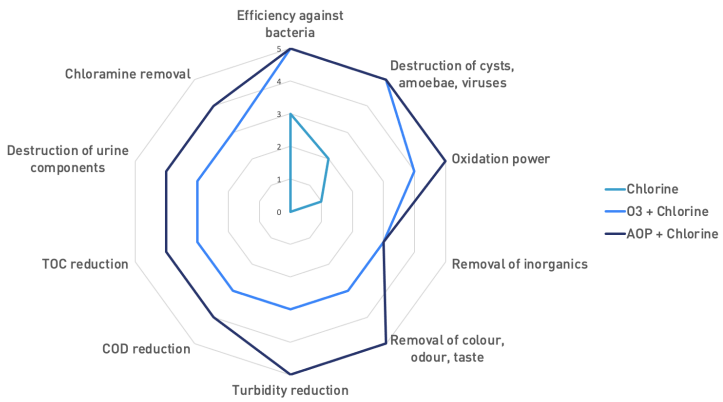
- Commercial pools
- Hotel, club and private pools
- Water parks, zoos and water features
- Sea lion and penguin pools

MAIN FEATURES

- Proven advanced oxidation technology since 1999 – redesigned for the 21st century
- Corona discharge Ozone modules designed for 10+ years operation
- Self contained unit with Ozone injected under vacuum, and UV destruction in a single unit
- Built-in Ozone dosing, Ozone contact tank, UV reaction chamber and Off-gas destructor
- High intensity long-life medium pressure 8,000-hour UV lamps
- Air-cooled, Oxygen-fed system with high humidity durability
- Schneider HMI and MODBUS for control
- Ethernet connectivity for remote control

BENEFITS

- Unparalleled and rapid removal of organic and inorganic pollutants not removed by Ozone or UV alone
- Combines the benefits of Ozone, UV, and Hydroxyl radicals to provide the highest quality and clarity of water
- Offers safe lowering of free chlorine residual through the inactivation of chlorine resistant organisms
- The UV light will photochemically destroy any residual ozone in the water, removing the need for deozonation equipment
- Plug-and-play, packaged, modular solution with a small footprint for ease of installation and operation
- Reduction of Chloramines and Trihalomethane levels, reducing irritation of skin, eyes, and respiratory system
- Designed for maximum operator and bather safety



The effectiveness of different solutions

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TECHNICAL DATA MODEL	Pool Volume	Bypass Flow Rate	Ozone Production	Feed Gas Production	Power Consumption	Power Supply	Weight (empty)	Weight (flooded)
	m³	m³/h	g/h	ltr/min	kW	v/ph/Hz	kg	kg
AOP Clear 300	300	12.5	12.5	5	3.6	230/1/50	255	405
AOP Clear 600	600	25.0	25.0	10	7.2	400/3/50	490	790
AOP Clear 900	900	37.5	37.5	15	10.8	400/3/50	725	1175
AOP Clear 1200	1200	50.0	50.0	20	14.4	400/3/50	960	1560
AOP Clear 1500	1500	62.5	62.5	25	18.0	400/3/50	1200	1950

QUALITY STANDARDS

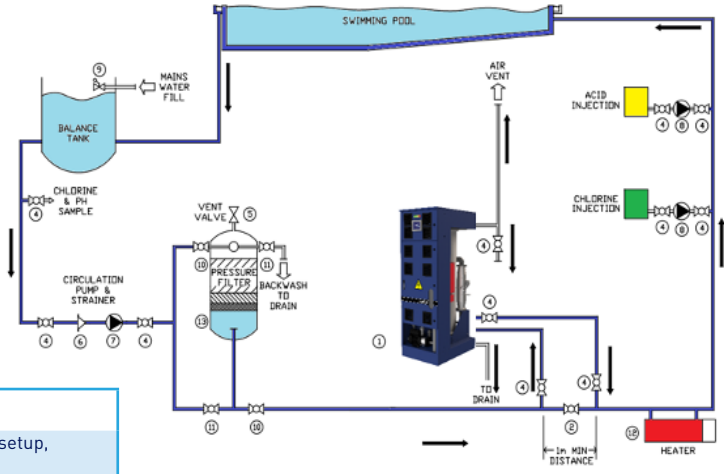
- ISO 9001 : 2015
- CE/UKCA Approved

MATERIALS

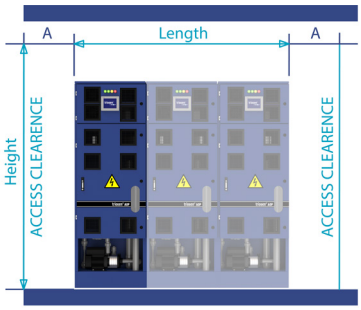
- Enclosure: epoxy coated mild steel
- Ozone module: 316L stainless steel electrode assembly inside a ceramic dialectric tube
- UV Vessel: 316L stainless steel

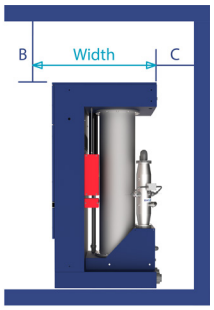
REMOTE CONTROL AND SIGNALS

INTERFACE	5,7'' Touch Screen
SCREENS	Overview, Operator menu, Factory settings, Lamp control, System setup, Maintenance, Alarm, Event, Service.
DATA	Cabinet temperature / Reactor temperature in°C, Lamps and system hou counter, system start counter.
ALARMS	Pump fault, low flow fault, ozone fault, VOD temperature fault, feed gas fault, panel open fault, UV lamp fault, service required.
TEMPERATURE SENSOR	Allows reading of the reactor temperature from 0 to 73°C.
UV SETPOINT	Adapts the power of the lamps from 50% to 100%.
REMOTE (ON/OFF)	Allows remote control of the device with potential free switch.
COMMUNICATION	MODBUS TCP communication protocol and Ethernet connectivity, allows you to read the data in real time and control the device remotely.



Typical/ Recommended Schematic





MODEL	Number of module(s) in parallel	Dimensions	Clearances			Connecting Pipework		
		L x H x W mm	A mm	B mm	C mm	In-Out OD mm/in	Vent OD mm/in	Drain OD mm/in
AOP Clear 300	1	650 x 1870 x 960	400	400	500	63/2	32/1	20/0.5
AOP Clear 600	2	1300 x 1870 x 960	400	400	500	90/3	32/1	20/0.5
AOP Clear 900	3	1950 x 1870 x 960	400	400	500	90/3	32/1	20/0.5
AOP Clear 1200	4	2600 x 1870 x 960	400	400	500	110/4	32/1	20/0.5
AOP Clear 1500	5	3250 x 1870 x 960	400	400	500	110/4	32/1	20/0.5

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30 + YEARS EXPERIENCE

Your local distributor:

BIO UV Group