

ClearWater Tech

OZONE WATER & AIR TREATMENT Since 1986



A DIVISION OF
PENTAIR

POOLS

BEVERAGE

INDOOR AIR TREATMENT

AGRI-FOOD

COMMERCIAL LAUNDRY

WATER TREATMENT



EarthSafe
TECHNOLOGY

OZONE TECHNOLOGY

SMART + SUSTAINABLE + DESIGN + ENGINEERING + MANUFACTURING

OZONE TECHNOLOGY

Ozone Technology

Ozone is the most powerful oxidizer and disinfectant commercially available that can be safely used in water treatment. It is an environmentally friendly alternative to chemicals. Due to the instability of the ozone molecule, it is generated at the point-of-use and is easily converted back to oxygen. Ozone can oxidize material in water 3,200 times faster than chlorine and 5,600 times faster than bromine.

Smart and Sustainable

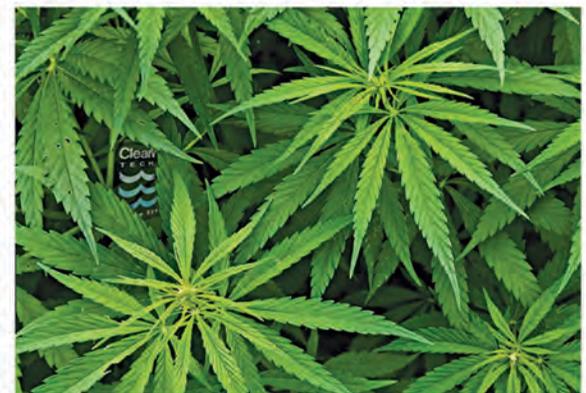
Ozone's ability to disinfect in cold water is more sustainable and significantly more cost effective than using hot water as the disinfectant. Heating water takes a tremendous amount of energy and cost. The same level of disinfection can be achieved with cold water and ozone. Since ozone is produced on-demand and on-site, the cost of transporting chemicals is eliminated.

Custom Designed Engineered Solutions

ClearWater Tech is a complete manufacturing facility with the expertise to design, engineer, and build ozone specific products for original equipment manufacturers (OEM) based on their specifications.

Association Memberships and Testing Agencies

ClearWater Tech is proud to support and acknowledge its partners in the industry. In addition, ClearWater Tech works with various agencies to provide third party regulatory and product verification testing.



MARKET APPLICATIONS

ClearWater Tech serves the global market as the leading designer and manufacturer of ozone generation equipment and related peripheral equipment, serving a wide range of water and air purification applications and markets since 1986.

TECHNOLOGY CENTER

ClearWater Tech offers the most advanced ozone systems in the industry. Delivering highly efficient, air-cooled, reliable, corona discharge systems that reduce water use, and harsh chemicals. We take great pride in knowing our ozone water treatment systems are working around the world keeping water cleaner and food safer.

SUPPORT & CUSTOMER SERVICE

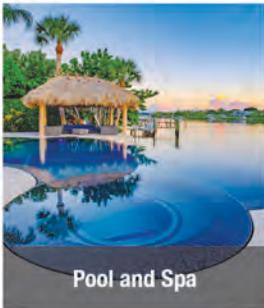
The team at ClearWater Tech is ready to support you with all of your ozone related application and design questions and needs.

- OEM joint product design and development
- Ozone application engineering
- Technical and field support
- Project commissioning and start-up
- Custom turnkey system design
- Factory sales and customer service
- Product leasing
- Marketing support
- Specific regulatory certification

WORLDWIDE DEALER NETWORK

ClearWater Tech sells its products through a professional distributor and dealer network that provides product support worldwide. These partners are supported by ClearWater Tech's customer and technical support teams. Our talented design and development team serves to keep ClearWater Tech connected with the latest innovations in ozone technology.

MARKETS



Pool and Spa



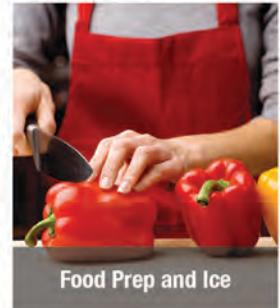
Ozone Laundry



Indoor Cannabis Facilities



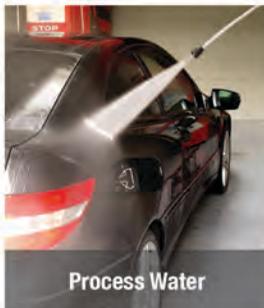
Beer, Wine, Hard Cider



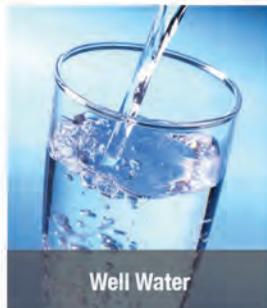
Food Prep and Ice



Indoor Air



Process Water



Well Water



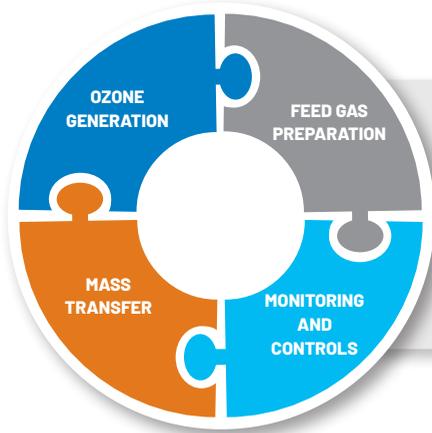
Bottled Water



OEM Solutions

WALL-MOUNT FULLY-INTEGRATED OZONE SYSTEM

Ozone Systems are Comprised of Four Basic Components:



1-OZONE GENERATION

ClearWater Tech ozone generators utilize corona discharge (CD) generation chambers to produce high volumes of ozone gas at high concentrations, up to 170 grams per hour at 6.0% concentration by weight.

2-FEED GAS PREPARATION

Ozone production from CD generators is enhanced when the atmospheric air (21% oxygen) feed gas is clean and dry. Ozone is generated from concentrated oxygen (>90% oxygen) to yield higher concentrations of ozone.

CHECK VALVE ASSEMBLY

This assembly is a safety device used to keep water from back flowing to the ozone generator. They are sized according to the ozone generator and injector manifold used.

INJECTOR MANIFOLD

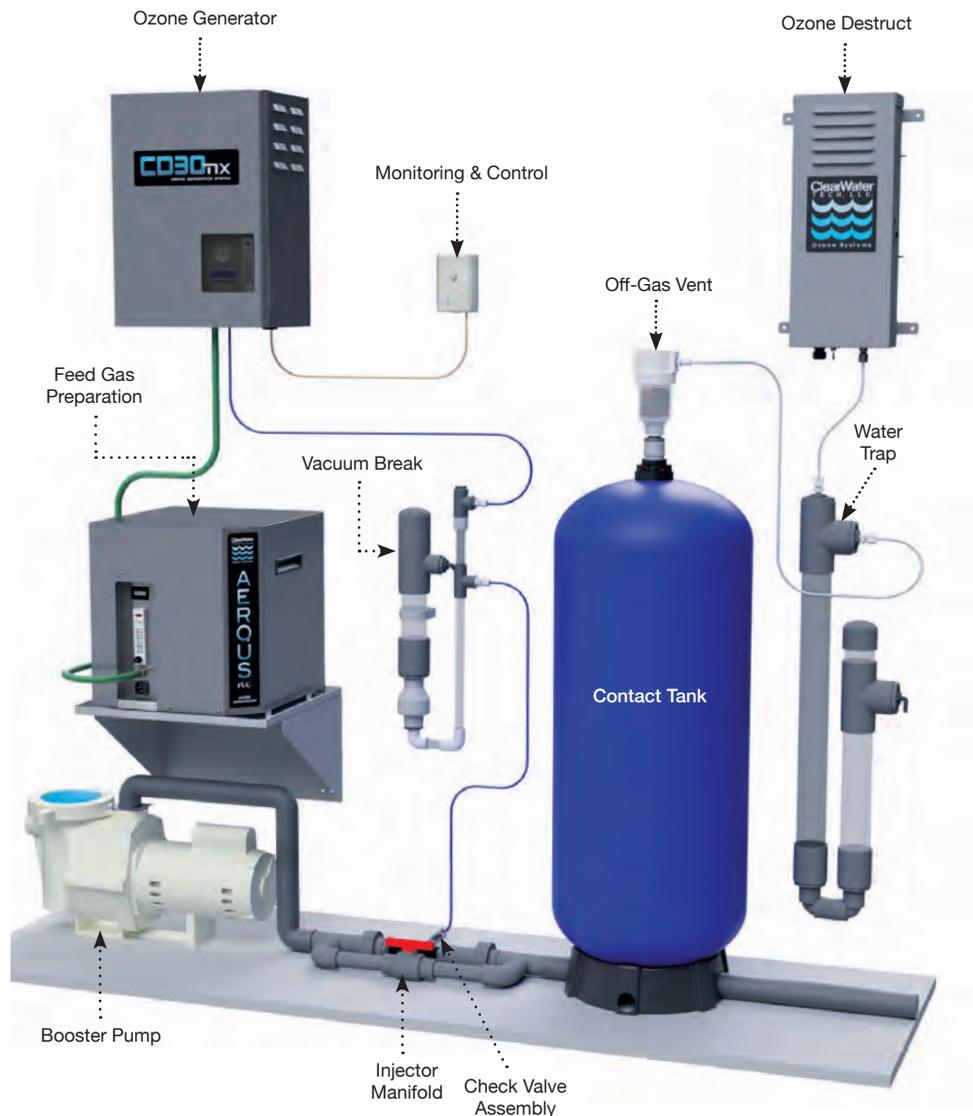
The manifold creates the vacuum (suction) to draw the ozone gas safely into the water flow and optimize mass transfer of ozone gas into the water. It is sized based on the ozone system used, system pressures, pipe size, and water flow rates.

OFF-GAS VENT

This vent allows the contact tank to remain pressurized while relieving oxygen and ozone gas, which has not remained dissolved in the water.

BOOSTER PUMP

A pump may be required to boost pressure or water flow through the ozone injector manifold facilitating optimal vacuum at the point of ozone gas injection. The pump size is based on the ozone requirements, system pressure, and water flow rates.



NOTE: The contact tank, ozone destruct, and water trap are optional components and not required for ozone operation.

WALL-MOUNT FULLY-INTEGRATED OZONE SYSTEM

3-MONITORING & CONTROL

Ozone generators may require monitoring and control devices to optimize and regulate dissolved and ambient ozone levels. ClearWater Tech generators are engineered to easily interface to these devices to maintain specific ozone levels.

4-MASS TRANSFER

In ozone mass transfer, ozone gas is dissolved into a stream of water through a ClearWater Tech venturi injector and transferred to a contact tank. Excess ozone gas is vented from the top of the tank through a destruct device that safely converts the excess ozone back to oxygen.

VACUUM BREAK

This is a safety mechanism to prevent water from flowing back into the ozone generator via an atmospheric break between the ozone injector and the ozone system.

CONTACT TANK

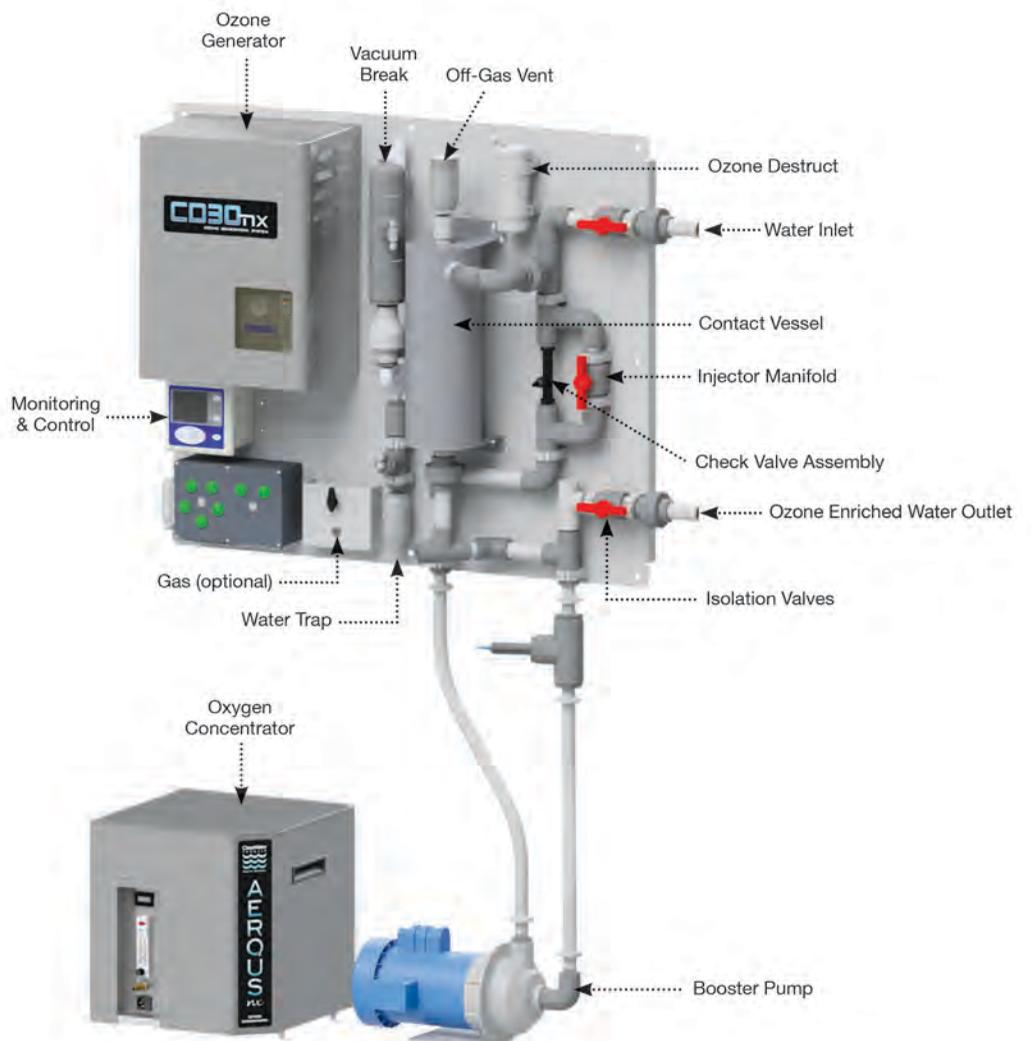
A contact tank provides controlled contact time for ozone to mix with and sanitize water. Longer contact times provide greater oxidation and microbe kill rates, and enable the ozone off-gas to be vented safely from the water.

OZONE DESTRUCT

A catalyst system that destroys ozone by instantly converting it back into oxygen. Once converted, the oxygen is released back into the atmosphere.

WATER TRAP

The water trap is used to separate any moisture from the ozone gas flowing out of the off-gas vent. Water accumulated in the trap is released to the drain, while dry ozone gas is directed to the ozone destruct.



WALL-MOUNT SERIES

OZONE GENERATORS



CD1500P



CD2000P



CD15nx



CD30nx

Wall-Mount Series

ClearWater Tech wall-mount series set a new standard for the highest ozone output in an air-cooled unit. Engineered to provide optimal efficiency for demanding installations and built with powder coated or stainless enclosures for longevity and durability.



FEATURES

- Compact, wall-mounted
- 1% to 10% wt. concentration
- Regulated universal power supply
- Pressurized or vacuum delivery
- Oxygen or dry air feed
- Remote 4-20 mA control
- Manual 0-100% ozone output control
- Powder coated or stainless steel
- UL & ULc approved (CD15nx & CD30nx)

APPLICATIONS

- Waste water treatment
- Commercial spas
- Residential pools
- Bottled water fill lines
- Residential well water
- Aquaculture
- Water features
- Large volume water stores
- Greenhouse/hydroponics



WALL-MOUNT SPECIFICATIONS

Unit	Grams Per Hour @ SCFH		Concentration By Weight @ Rated SCFH		120V/60Hz, AMPS	220V/50Hz AMPS, Single Hot Leg	240/60Hz, AMPS	90-250V 47-63Hz, AMPS	Dimensions (inches)			Wt. lbs
	Dry Air	Oxygen	Dry Air	Oxygen					H	W	D	
CD1500	4.5 @ 10	10 @ 6.0	1.30	4.50	1.60	0.09	0.80	2.1 - 0.80	27.0	9.25	5.50	25.0
CD1500P	6.0 @ 10	15 @ 7.5	1.80	5.40	1.60	0.09	0.80	2.1 - 0.80	27.0	9.25	5.50	25.0
CD15nx	6.0 @ 10	15 @ 7.5	1.80	5.40	1.60	0.09	0.80	2.1 - 0.80	21.0	10.20	9.80	32.0
CD2000	9.0 @ 20	20 @ 12	1.30	4.50	2.80	1.60	1.40	3.7 - 1.4	23.0	20.25	5.50	37.0
CD2000P	12 @ 20	30 @ 15	1.80	5.40	2.80	1.60	1.40	3.7 - 1.4	23.0	20.25	5.50	37.0
CD30nx	12 @ 20	30 @ 15	1.80	5.40	2.80	1.60	1.40	3.7 - 1.4	21.0	15.80	9.80	44.0

Output charts available for all products.

MINI SERIES OZONE GENERATORS

Mini Series

The Mini Series produce more ozone using less electrical energy than any other ozone generators on the market today. With features that include compact size, fully adjustable ozone output, convenient electrical interface plug, and 4-20mA control circuitry, these units are a perfect combination of versatility, efficiency, and solid-state reliability.



CD10



CD12



CD10/AD



CD12/AD

FEATURES

- Compact, wall-mounted
- Air-cooled
- Solid state electronics
- LED status display
- Remote 4-20 mA control
- Available in stainless steel
- UL & ULc approved
- Manual 0-100% ozone output control

APPLICATIONS

- Residential pools and spas
- Commercial pools and spas
- Residential well water
- Bottled water
- Waste water treatment
- Aquaculture
- Zoos and aquariums

“ We promote an organic approach to sanitation and only use ClearWater Tech ozone systems. Whether it's 2.6 or 30 grams of ozone produced, the results and customer satisfaction is always positive. ClearWater Tech does this better than anyone else.” William T. Drakeley, Jr. - Drakeley Pool Company



MINI-SERIES SPECIFICATIONS

Unit	Grams Per Hour @ SCFH		Concentration By Weight @ Rated SCFH		120V/60Hz, AMPS	220V/50Hz AMPS, Single Hot Leg	240/60Hz, AMPS	90-250V 47-63Hz, AMPS	Dimensions (inches)			Wt. lbs
	Dry Air	Oxygen	Dry Air	Oxygen					H	W	D	
CD10	1.3 @ 4	4 @ 4	1.0	3.0	0.80	0.70	0.70	1.1 - 0.70	19.0	9.00	5.00	9.50
CD10/AD	1.3 @ 4		1.0		2.00	1.10	1.00	2.6 - 1.0	19.5	11.50	5.00	14.5
CD12	2.6 @ 8	8 @ 8	1.0	3.0	1.70	1.00	0.90	2.3 - 0.9	21.5	11.50	5.00	14.5
CD12/AD	2.6 @ 8		1.0		3.20	1.60	1.60	4.2 - 1.6	19.5	15.25	7.50	34.0

MICROZONE | ULTRAVIOLET OZONE GENERATORS

Microzone Series

Superior ozone performance in a compact size, the corona discharge Microzone Series are easy to install and deliver tremendous value with minimal complexity.

FEATURES

- Compact, wall-mounted
- Main power indicator
- Low power consumption
- No air preparation required
- Interlock relay; optional
- Air-cooled

APPLICATIONS

- Residential spas
- Ornamental water features
- Small aquariums
- Fresh water holding tanks
- Machine coolant
- Well water treatment



Microzone 100



Microzone 325



PRO400



Microzone 300P

MICROZONE SPECIFICATIONS

Unit	Grams Per Hour @ SCFH	Concentration By Weight @ Rated SCFH	120V/60Hz, AMPS	220V/50Hz AMPS, Single Hot Leg	240/60Hz, AMPS	Dimensions (inches)			Wt. lbs
	Ambient Air	Ambient Air				H	W	D	
Micro 100	0.1 @ 3.0	0.10	0.10	0.05	0.05	3.10	3.10	1.54	0.50
Micro 300P	0.30 @ 6.5	0.14	0.30	0.16	0.15	9.75	5.25	3.50	2.25
Micro 325	0.325 @ 3.0	0.32	0.30	0.16	0.15	5.60	10.0	3.60	5.00
Micro 550	0.550 @ 6.0	0.27	0.50	0.28	0.25	5.60	10.0	3.60	6.00
PRO400	0.5 @ 5.0	0.30	0.50	0.28	0.25	6.25	9.375	3.50	3.00



PR-1300



S-1200

Ultraviolet Series

ClearWater Tech's family of UV ozone systems are built with high efficiency and low power requirements. Stainless steel construction and ultra efficient electronic ballasts provide a simple and inexpensive method for water purification.

FEATURES

- Low power consumption
- Stainless steel construction
- Capable of pressurization

APPLICATIONS

- Residential pools and spas
- Ornamental water features
- Small aquariums
- Odor and mold control

ULTRAVIOLET SPECIFICATIONS

Unit	Grams Per Hour @ SCFH	Concentration By Weight @ Rated SCFH	120V/60Hz, AMPS	220V/50Hz, AMPS Single Hot Leg	240/60Hz, AMPS	Dimensions (inches)			Wt. lbs
	Ambient Air	Ambient Air				H	W	D	
MZ-250	0.1 @ 10	0.03	0.33	0.20	0.20	10.00	4.50	4.50	6.00
UV-275	0.1 @ 10	0.03	0.43	0.25	0.25	10.00	7.50	5.50	7.00
S-1200	0.25 @ 20	0.04	0.80	0.40	0.40	20.00	7.50	4.50	9.00
PR-1300	0.25 @ 20	0.04	0.90	0.45	0.45	20.00	9.00	4.00	21.0
CS-1400	0.5 @ 30	0.05	0.80	0.40	0.40	32.00	7.50	4.50	15.0
UV-2800	1.0 @ 60	0.05	1.60	0.80	0.80	33.00	8.50	3.50	25.0

APEX | APEX Ae SERIES OZONE GENERATORS

Apex Series

The Apex Series makes ordering the properly sized and designed package as simple as possible. We took our most popular ozonators and combined them with all the ancillary components that make up the perfect installation for exceptional water.

FEATURES

- Ozone generator
- Air preparation
- Gauges/meters
- Electrical controls
- Backflow prevention
- LED status display
- Injector manifold

APPLICATIONS

- Residential pools and spas
- Commercial pools and spas
- Well water
- Bottled water
- Waste water
- Water features
- Aquaculture
- Ponds



Apex VIII

APEX SPECIFICATIONS

Unit	Grams Per Hour @ SCFH			Concentration By Weight @ Rated SCFH			120V/60Hz, AMPS	220V/50Hz AMPS, Single Hot Leg	240/60Hz, AMPS	90-250V 47-63Hz, AMPS	Dimensions (inches)			Wt. lbs
	Ambient Air	Dry Air	Oxygen	Ambient Air	Dry Air	Oxygen					H	W	D	
Apex I	1.0 @ 60			0.05			1.60	0.94	0.80		33.0	8.50	3.50	25.0
Apex II		1.3 @ 4			1.00		2.00	1.10	1.00	2.6 - 1.0	19.5	11.5	5.00	14.5
Apex III		2.6 @ 8			1.00		3.20	1.60	1.60	4.2 - 1.6	21.5	11.5	5.00	34.0
Apex IV			4.0 @ 4.0			3.00	6.60	3.80	3.30		19.0	9.00	5.00	9.50
Apex VI			8.0 @ 8.0			3.00	7.50	4.10	4.00		21.5	11.5	5.50	14.5
Apex VII			15 @ 7.5			5.40	7.40	4.00	3.90		21.0	10.25	9.80	32.0
Apex VIII			30 @ 15			5.40	8.60	4.70	4.50		21.0	15.80	9.80	44.0

NOTE:

1. Dimensions and weight for ozone generator only

Apex Ae Series

Plug and play, the Apex Ae Series are fully integrated ozone packages. Built with a weather shielded housing, they include all pre-assembled components that come in an attractive and durable package for indoor or outdoor use.

FEATURES

- Ozone generator
- Oxygen concentrator
- Backflow prevention
- Indoor or outdoor
- Remote 4-20 mA control
- Manual 0-100% ozone output control
- Powder coated or stainless steel

APPLICATIONS

- Residential swimming pools
- Commercial swimming pools and spas
- Bottled water
- Water features
- Ponds
- Waste water
- Well water



Apex A4e

APEX Ae SERIES SPECIFICATIONS

Unit	Grams Per Hour @ SCFH	Concentration By Weight @ Rated SCFH	120V/60Hz, AMPS	220V/50Hz AMPS, Single Hot Leg	Dimensions (inches)			Wt. lbs
					Oxygen	Oxygen	Oxygen	
A4e	4.0 @ 4.0	3.00	6.60	3.80	32.50	28.0	22.0	130.0
A8e	8.0 @ 8.0	3.00	7.50	4.10	32.50	28.0	22.0	135.0
A15e	15.0 @ 7.5	5.40	7.40	4.00	32.50	28.0	22.0	145.0

SKID-MOUNT OZONE GENERATORS

Skid-Mount

Designed and engineered as complete self-contained systems, the skid-mount systems provide an ozone output range of 1.3 to 30 grams and can handle the toughest water treatment applications.



POE10



HDO3

FEATURES

- Turnkey, pre-plumbed, pre-wired
- Built-in air preparation
- Stainless or powder coated steel frame
- Ozone injection system
- Booster pump
- Recirculation loop¹
- Off-delay timer¹
- Backflow prevention
- Contact tank
- Integrated dissolved ozone monitor²

NOTES:

1. These features are standard on the POE systems only
2. These features are standard on the HDO3 systems only

APPLICATIONS

- Large residential pools
- Residential well water (POE specific)
- Commercial pools
- Greenhouse and hydroponics
- Cannabis facilities
- Fishing vessels
- Seafood processing plants
- Clean-in-Place
- Bottling lines/Water stores
- Small community drinking water
- Cooling towers
- Multi-family and vend laundry facilities

“My customers are seafood processors and packers from Canada, the USA, to South America who supply supermarkets, retailers, and restaurants. They insist on the highest quality product with a longer shelf-life that ozone water treatment provides. ClearWater Tech’s ozone systems deliver that and more with the most advanced equipment and professional tech support.”

Peter Rubenstein, Pressure Techniques International

SKID-MOUNT SPECIFICATIONS

Unit	Grams Per Hour @ SCFH			Concentration By Weight @ Rated SCFH		PPM @ GPM	Max GPM @ PSI	120V/60Hz, AMPS	220V/50Hz AMPS, Single Hot Leg	240/60Hz, AMPS	Dimensions (inches)			Wt. lbs
	Ambient Air	Dry Air	Oxygen	Dry Air	Oxygen						H	W	D	
CD15/O2			10 @ 6		4.50				4.00 (4)	3.90 (4)	72.0	26.0	29.0	210.0
CD20/O2			20 @ 12		4.50				4.70 (4)	7.00 (4)	72.0	26.0	29.0	225.0
POE10		1.3 @ 4						11.4 (5)	6.00 (5)	5.50 (5)	68.0	29.0	29.0	200.0
POE12		2.6 @ 8						15.6 (5)	8.10 (5)	7.50 (5)	68.0	29.0	29.0	200.0
POE1000HT (3)	1.0 @ 20			0.15		0.43 @ 10 (1)		4.90 (5)			11.5	24.8	4.40	21.00
HDO3-I			8 @ 8		3.00	4.3 @ 8 (1)	8 @ 20 (2)		11.8 (5)	11.1 (5)	66.0	20.0	29.0	280.0
HDO3-II			20 @ 14		4.00	6.7 @ 13 (1)	13 @ 20 (2)		12.4 (5)	11.6 (5)	66.0	20.0	29.0	300.0
HDO3-III			30 @ 15		5.40	10 @ 13 (1)	13 @ 20 (2)		12.4 (5)	11.6 (5)	66.0	20.0	29.0	300.0

NOTES:

1. Anticipated results obtained at 7.5 pH, 70°F municipal water. PPM is stated at 100% mass-transfer.
2. Required flow rate through system for anticipated results. Higher flow rates require a sidestream to system.
3. Main power connection is user supplied and terminated; pump performance is 10 gpm.
4. Amp rating is given for base system. This system can power a pump up to 1 Horse Power max. If a pump is added, the amp draw of the pump must be added to the given amp draw of the system, for the total draw.
5. Amp rating is given with factory installed pump.

OXIDICE | COMMERCIAL ACTIVTAPP OZONE GENERATORS



OXIDICE™

Ice Machine Disinfectant *for the* Purest Ice Possible

Oxidice treats the ice machine's incoming water supply, internal compartments, and storage bin to create a clean environment for pure ice to be made. It reduces the growth of bacteria, molds, yeast, and other contaminants by disinfecting the air, water, and surfaces within the machine. It provides commercial level clean without commercial level chemicals that can affect taste.



OXIDICE SPECIFICATIONS

Ozone Output	250 mg/hr @ 4.0 SCFH on Ambient Air
Outlet	3/16" Barb
Power	90-250 V 47/63 Hz, Amps: 0.38 - 0.17
Ambient Conditions	32° - 95°F; (0° - 35°C) 10 - 90% RH Non-Condensing
Air Flow	2 - 4 SCFH, Back pressure 2 PSI Max
Dimensions/Weight	5.60"H x 10.0"W x 3.60"D 3.50 lbs

FEATURES

- Variable ozone output
- LED status indicators
- Microprocessor controlled
- Unique application method
- Universal power supply
- Automated service timer

APPLICATIONS

- Restaurants/Bars
- Hospitality
- Seafood processing
- Cruise ships
- Convenience stores
- Manufacturing
- Business offices
- Hospitals
- Vending machines
- Grocery stores

ActivTapp Commercial Series

The ActivTapp Commercial Series (ACS) operates with your existing faucet and sink. It automatically turns on when the water flows infusing ozone into your cold rinse water. Rinsing your food products with ozone-enriched water adds another dimension of safety to your food preparation process. The Proof-of-Delivery (POD) technology assures the operator that ozone is being delivered to the faucet at the prescribed amount via an oxidation-reduction potential (ORP) signal in the water.



ACS SERIES



ACS STATUS PANEL
PROOF OF DELIVERY

FEATURES

- 300 mg/hr ozone output per outlet
- LED status indicators
- Microprocessor controlled
- Universal power supply
- Automated service timer
- Built-in ORP monitor
- Real time ozone measuring
- Output status indicators
- Micro processor to control:
 - Service intervals
 - Status

APPLICATIONS

- Fruit and vegetable rinse systems
- Surface sanitation
- Seafood processing
- Butcher blocks
- Hand wash station
- Wash cloths
- Food/meat/poultry processing
- Package sanitation
- Process water disinfection

ACS SPECIFICATIONS

Unit	Water Flow Rate	Number of Outlets	Inlet Water Pressure	Ozone Level Per Outlet	Ambient Ozone	Inlet & Outlet Connection	Input Power Watts	Overall Dimensions	Mounting Dimensions	Wt.
ACS-1	1-4 GPM	1	40-100 PSI	0.5 PPM @ 4 GPM	less than 0.08 PPM	3/4" MNPT	90-264 VAC, 50-60 Hz, 50w	10.5"H x 17.12"W x 2.57"D	16" wide	6.00
ACS-2	1-4 GPM	2	40-100 PSI	0.5 PPM @ 4 GPM	less than 0.08 PPM	1/2" MNPT (3x) 3/4" MNPT (1x)	80-264 VAC, 50-60 Hz, 50w	19.5"H x 17.25"W x 3.75"D	18.5" wide	20.0
ACS-3	1-4 GPM	3	40-100 PSI	0.5 PPM @ 4 GPM	less than 0.08 PPM	1/2" MNPT (4x) 3/4" MNPT (1x)	80-264 VAC, 50-60 Hz, 50w	21.75"H x 17.25"W x 3.75"D	18.5" wide	25.0

COMMERCIAL LAUNDRY OZONE GENERATORS

EcoTex Advanced Laundry Series

Ozone laundry technology provides an eco-friendly, cold-wash laundry system that improves the quality and cleanliness of laundry textiles. Activated oxygen is nature's safest, most effective disinfecting agent. Energy consumption, water use, cycle times, drying times, detergent use, and chemical use are all reduced. Additionally, linens are softer to the skin, cleaner, and smell fresher.



FEATURES

- Compact, wall-mounted
- Turnkey, pre-plumbed, pre-wired¹
- Stainless steel or powder coated enclosure
- 0-100% ozone output
- Booster pump¹
- Recirculation loop¹
- Ozone safety controls²
- Backflow prevention¹
- Continuous ozone injection²
- Off-delay timer¹
- Oxygen feed gas system²
- Expandable design²

APPLICATIONS

- Hospitality
- Long term care
- Hospitals
- Correctional
- Coin laundry
- Fluff-and-fold
- Fire station
- Multi-housing
- Athletic facilities
- Residential homes

NOTES:

1. Applies to the POE only.
2. Applies to NatureWash-HD and EcoTex.



2 to 25 lb - 3.5 to 12 kg
SIZED WASHERS



25 to 50 lb - 12 to 24 kg
SIZED WASHERS



50 to 1000 lb - 24 to 455 kg
SIZED WASHERS



DELIVERS OZONATED WATER
UP TO 40 GPM

LAUNDRY SPECIFICATIONS

Unit	Grams Per Hour @ SCFH			Concentration By Weight @ Rated SCFH		PPM @ GPM	120V/60Hz, AMPS	220V/50Hz AMPS, Single Hot Leg	240/60Hz, AMPS	90-250V 47-63Hz, AMPS	Dimensions (inches)			Wt. lbs
	Ambient Air	Dry Air	Oxygen	Dry Air	Oxygen						H	W	D	
NW	0.2 @ 3					0.3 @ 2.0	0.50	0.30	0.30		17.12	10.55	2.57	6.00
NHD1		1.3 @ 4		1.00			2.00	1.10	1.00	2.6 - 1.0	19.5	11.50	5.00	14.5
NHD2		2.6 @ 8		1.00			3.20	1.60	1.60	4.2 - 1.6	19.5	15.25	7.50	34.0
ECO1			4 @ 4		3.00		0.80	0.70	0.70	1.1 - 0.7	20.5	12.75	5.50	21.0
ECO2			8 @ 8		3.00		1.70	1.00	0.90	2.3 - 0.9	20.5	16.00	7.50	30.0
ECO3			15 @ 7.5		5.40		1.60	0.90	0.80	2.1 - 0.8	19.5	15.75	6.50	38.0
ECO4			30 @ 15		5.40		2.80	1.60	1.40	3.7 - 1.4	19.5	20.75	9.00	55.0
POE12		2.6 @ 8		1.00			15.6 (1)	8.10 (1)	7.50 (1)		68.0	20.0	29.0	200

NOTES:

1. Amp rating is given with factory installed pump.
2. NatureWash, NatureWash-HD, and EcoTex amperage draw provided as unit only.

COMMERICAL CABINETS OZONE GENERATORS

Cabinets

Designed for larger commercial applications, the corona discharge cabinets provide an ozone output range from 40 to 170 grams per hour. These industrial strength systems are housed in a powder coated cabinet and made with the highest quality materials and components for the most demanding conditions.

FEATURES

- Automatic control
- Manual 0-100% ozone output control
- Remote 4-20 mA control
- Regulated power supply
- System interface controls
- Air-cooled stainless steel ozone reaction chambers
- Powder coated steel enclosure
- Gauges/meters

APPLICATIONS

- Commercial swimming pools
- Waste water
- Aquatic life support
- Bottling plants
- Food processing
- Beverage processing
- Small community potable water systems



“ We have integrated ClearWater Tech ozone systems into our package skid offerings for many years. These products are dependable and reliable, and are backed by a professional sales and tech service team we value greatly.”

John Overby, Ozone Water Systems



CD6000P



CD12000P

CABINET SPECIFICATIONS

Unit	Grams Per Hour @ SCFH	Concentration By Weight @Rated SCFH	220V/50Hz AMPS, Single Hot Leg	240/60Hz, AMPS	Universal 208/240V 47-63 Hz, AMPS	Dimensions (inches)			Wt. lbs
	Oxygen	Oxygen				H	W	D	
CD4000HO	40 @ 28	4.00	3.5 (1, 2)	3.2 (1, 2)	3.7 - 3.2 (1, 2)	42.0	28.5	14.0	149
CD4000P	56 @ 24	6.00	3.5 (1, 2)	3.2 (1, 2)	3.7 - 3.2 (1, 2)	42.0	28.5	14.0	149
CD6000HO	60 @ 42	4.00	4.7 (1, 2)	4.3 (1, 2)	5.0 - 4.3 (1, 2)	52.0	40.5	18.0	264
CD6000P	84 @ 36	6.00	4.7 (1, 2)	4.3 (1, 2)	5.0 - 4.3 (1, 2)	52.0	40.5	18.0	264
CD8000HO	80 @ 56	4.00	5.3 (1, 2)	4.5 (1, 2)	5.6 - 4.5 (1, 2)	52.0	40.5	18.0	314
CD8000P	112 @ 48	6.00	5.3 (1, 2)	4.5 (1, 2)	5.6 - 4.5 (1, 2)	52.0	40.5	18.0	314
CD12000HO	120 @ 84	4.00	8.0 (1, 2)	7.4 (1, 2)	8.5 - 7.4 (1, 2)	70.0	40.5	18.0	421
CD12000P	170 @ 72	6.00	8.0 (1, 2)	7.4 (1, 2)	8.5 - 7.4 (1, 2)	70.0	40.5	18.0	421

NOTES:

1. Amp rating provided as ozone generator only.
2. Amp rating is given for base system. This system can power a pump up to 1 horse power max. If a pump is added, the amp draw of the pump must be added to the given amp draw of the system for the total draw.

NX SERIES OZONE GENERATORS



Grand Hyatt Resort, Kauai Installation

Nx Series

With the industries first on-board System Information and Diagnostics (S.I.D.) LCD Display, the Nx Series, featuring the CD30nx, provides a seamless user interface to control and monitor ozone production and system diagnostics.

The CD30nx allows for universal power input and produces 30 g/h at five percent concentration by weight with oxygen feed gas. The new drive circuitry of the CD30nx utilizes Self-Resonating Technology (SRT), which allows the system to automatically adjust for pressure, flow, and other potential current variations to optimize ozone output and the systems electronic stability.



Nx SERIES 120 G/H PACKAGE

FEATURES

- CD30nx ozone generator
- Compact, wall-mounted design
- System Information and Diagnostics (S.I.D.) LCD Display
- Z-Bar mounting system
- Stainless steel enclosure
- Dual pressurized, user serviceable reaction chambers
- Built-in pressure gauge and feed gas flow meter
- Universal regulated power supply 90-250VAC 47-63HZ
- Self-Resonating Technology (SRT)
- Auxiliary oxygen concentrator output control
- Manual ozone output control
- Remote 4-20mA ozone output control
- Proportional isolated 4-20mA output signal
- Programmable master alarm output for remote monitoring

Nx SERIES SPECIFICATIONS

Ozone Output:	60 grams per hour @ 5% by weight @ 30 SCFH (oxygen) 90 grams per hour @ 5% by weight @ 45 SCFH (oxygen) 120 grams per hour @ 5% by weight @ 60 SCFH (oxygen)
Feed Gas:	Oxygen – 93% +/- 3% oxygen purity
Feed Gas Pressure:	10 psi (0.69 bar)
Safety Protection:	Vacuum switch, pressure switch, thermal switch, fault sensor, fused
Ozone Control:	Manual push button 0-100% Remote 4-20mA 0-100% input signal (4mA=0%, 20mA=100%)
Output Signal 4-20mA:	Isolated 4-20mA proportional to ozone output, non-powered
Master Alarm Signal:	Normally open relay contact – 100mA max
Output Signal 24VDC:	24VDC 300mA max output
Auxiliary Switched Power:	Power output dependent of system main power input – 660 watts max
External Loop:	Dry-contact interface – ozone shutdown (volt-free contact)
Ambient Operating Conditions:	95° F (35° C) max, 0-90% R.H. non-condensing, continuous
Power Rating:	90-250VAC 47-63HZ, 3.7-1.4 amps (per 30nx, unit only) Note: If an oxygen concentrator is powered by the CD30nx, add the current draw of both systems for total current draw
Ozone Generator Dimensions:	21.0"H x 15.8"W x 9.8"D; 44 lbs. (1)
Oxygen Concentrator Dimensions:	16.6"H x 15.2 W x 15.7"D; 50 lbs. (1)
Display Languages:	English, Spanish, French

NOTES:

1. Weight and dimensions per CD30nx and AEROUSnx.

APPLICATIONS

- Waste water
- Commercial pools and spas
- Residential pools
- Potable water
- Bottled water production lines
- Aquaculture
- Water features
- Large volume water stores

C-Series Mobile Disinfection Cart

The C-Series mobile disinfection cart delivers ozone-enriched water for surface disinfection. Wash down floors, walls, equipment, rinse barrels and tanks with the push of a button. Easy to maneuver, the system replaces traditional hot water and harsh chemicals with safe disinfection on contact. The system also comes standard with a separately controlled ozone and oxygen gassing feature.

This supply of ozone gas offers you greater disinfection options and can be used to gas and preserve stored barrels instead of using Sulfur Dioxide.



FEATURES

- Easy to use push button controls – full system monitoring indicators
- Microprocessor with built-in soft start and self-diagnostics
- Rotary vane booster pump – boosts low pressure water supplies for better coverage
- Ozone production up to 10 grams/hour via gas outlet
- Typical ozone dosage rate is 5.2 ppm at 10 gpm (higher flow with side stream)¹
- Separately controlled ozone and oxygen gas outlet (user programmable)
- Built-in oxygen concentrator delivering 93% oxygen at 15 SCFH
- Welded stainless steel tubing frame and water safe stainless exterior
- Built-in tool basket
- Designed for easy service access or maintenance
- Critical parts are fully-contained for water safe operation
- Gas flow meter

APPLICATIONS

- Surface disinfection
- Cannabis facilities
- Seafood processing
- Wineries/Breweries/Cideries
- Bottled beverages
- Dairy cases
- Meat/Poultry processing
- Fishing vessels
- Odor control
- Produce misters



“ I feel good using the C1 Cart from ClearWater Tech especially knowing that the by-products are water and oxygen. The ozone generator is constantly making oxygen. We're not dumping chemicals down the drain, so the return on investment is pretty substantial over a period of two years. Our beers taste better, tanks are coming out cleaner. There is no potential for contamination. An insurance step that I can't live without.”

Jim Crooks, Master Blender, Barrelworks Firestone Walker Brewing Company, Buelton, CA

C-SERIES MOBILE DISINFECTION CART SPECIFICATIONS

Unit	Grams Per Hour @ SCFH	Concentration By Weight @Rated SCFH	PPM @ GPM	120V/60Hz, Amps	220V/50Hz Amps, Single Hot Leg	240/60Hz, Amps	Dimensions (inches)			Wt.
							H	W	D	lbs
C1 Cart	12 @ 15	2.10	5.2 @ 10 (1)	14.6			54.3	20.6	26.3	160
C2 Cart	12 @ 15	2.10	5.2 @ 10 (1)		7.60	7.50	54.3	20.6	26.3	160

NOTES:

1. Anticipated results obtained at 7.5 pH, 70°F municipal water. PPM is stated at 100% mass-transfer

CLEAN-IN-PLACE SERIES

OZONE GENERATORS



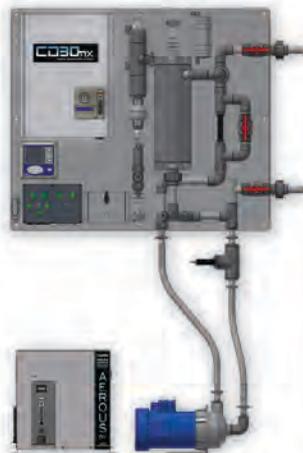
CIP800

Clean-In-Place Series

The Clean-In-Place (CIP) systems provide ozone delivery in a complete componentized, wall-mount package. Dissolved ozonated water can be plumbed to multiple points-of-use throughout the facility providing superior disinfection.

FEATURES

- Ozone generator
- Air preparation
- Electrical controls
- Injector manifold
- Gauges/meters
- Injection
- Backflow prevention



CIP3000PM

Clean-In-Place Panel-Mount Series

The Clean-In-Place Panel Mount (CIP-PM) ozone systems provide complete ozone delivery in an all-in-one, wall-mountable package. Dissolved ozonated water can be plumbed to multiple points-of-use throughout the facility providing superior disinfection. The CIP-PM's On-Board Circulation Loop allows for constant water flow and pressure delivery. The only requirements are for the power source, oxygen concentrator, booster pump, and water connections to be made.

FEATURES

- Ozone generation
- Electrical controls
- Auto circulation loop timer
- Injection and contacting
- Ozone degas and destruction
- Optional: ozone and oxygen gassing (not included with CIP260), and bypass valve for higher water flow rates

APPLICATIONS

- Surface disinfection
- Cannabis facility
- Seafood processing
- Wineries/Breweries/Cideries
- Bottled beverages
- Dairy cases
- Meat/Poultry processing
- Fishing vessels
- Odor control
- Produce misters

CIP & CIP-PM SPECIFICATIONS

System	Grams Per Hour @ SCFH	Concentration By Weight	Feed Gas Type	Water Inlet/Outlet (inches)	Water Flow Rate (max)		Inlet Pressure Range (PSI)	Amperage Draw			Dimensions (Inches)			Wt. lbs
					GPM	LPM		120VAC 60HZ	220VAC 50/60HZ	240VAC 60HZ	H	W	D	
CIP260	2.6	1.0	Dry Air	1.0" Socket	5.0-15	19-57	40 - 60	3.2	1.6	1.6	19.0	9.00	5.00	14.5
CIP800	8.0	3.0	Oxygen	1.0" Socket	5.0-15	19-57	40 - 60	7.5	4.1	4.0	19.0	9.00	5.00	14.5
CIP1500	15.0	5.4	Oxygen	1.5" Socket	15-40	57-151	40 - 60	7.4	4.0	3.9	19.0	9.00	5.00	32.0
CIP3000	30.0	5.4	Oxygen	2.0" Socket	30-80	113-300	40 - 60	8.6	4.7	4.5	19.0	9.00	5.00	44.0
CIP260PM	2.6	1.0	Dry Air	1.0" FPT	20	75	40 - 60	17.9	9.3	8.7	42.0	36.0	12.6	300
CIP800PM	8.0	3.0	Oxygen	1.0" FPT	20	75	40 - 60		11.8	11.1	42.0	36.0	12.6	350
CIP1500PM	15.0	5.4	Oxygen	1.0" FPT	20	75	40 - 60		11.7	11.0	42.0	36.0	12.6	350
CIP3000PM	30.0	5.4	Oxygen	1.0" FPT	20	75	40 - 60		12.4	11.6	42.0	36.0	12.6	350



AirWaves - Residential Indoor Air

Breathe easier inside your home with a unique whole-home air purifying system. Reduce unwanted odors from smoke, pets, cooking, and other household sources using nature's strongest purifiers, ozone and ultraviolet light. Operating silently, and continuously inside the HVAC ventilation system, the AirWaves unit services up to 3,000 square feet of living space cleaning the air safely, and effectively.

FEATURES

- Adjustable output
- In-duct installation and operation
- Combined strength of ozone and UV
- Automatic flow sensor
- Easy to maintain
- No moving parts

AIRWAVES SPECIFICATIONS

Unit	Total Power	Voltage	Minimum Duct Depth	Exposed Size (Outside of Duct)			Dimensions (inches)			Wt. lbs
				H	W	D	H	W	D	
AirWaves	47 W at Maximum Output Setting	120VAC/60Hz, 220VAC/50Hz Power Supply: UL & CE Listed	14.00	12.5	4.50	2.75	12.5	4.50	15.75	2.60



ComAir 20T - Commercial Indoor Air

The ComAir 20T Air Treatment System from ClearWater Tech, is the most advanced commercial grade HVAC sterilization system available. Installed in the centralized HVAC system providing UV germicidal killing power of 300 microwatts and 0-100% variable ozone output, it effectively reduces bacteria and viruses and eliminates unwanted odors leaving behind fresh, clean air.

There is an optional remote odor controller and/or a specifically designed ambient ozone sensor to measure and control ozone output.

FEATURES

- Adjustable output
- In-duct installation and operation
- Combined strength of ozone and UV
- Stainless steel construction
- Microprocessor controlled
- Automated operation with HVAC system
- No moving parts
- Boost function for extreme odor control

APPLICATIONS

- Cannabis facilities
- Pet hospitals
- Commercial retail
- Casinos
- Health facilities
- Restaurants/bars
- Office buildings
- Factories
- Food processors

COMAIR SPECIFICATIONS

Unit	Total Power	Voltage	Minimum Duct Depth	Exposed Size (Outside of Duct)			Dimensions (inches)			Wt. lbs
				H	W	D	H	W	D	
ComAir 20T	150W at Maximum Output Setting	90VAC-270VAC 50/60HZ	18.00	15.00	6.00	4.00	14.50	6.75	20.00	5.00



Ambient
Ozone Sensor



Remote Odor Controller

AIR PREPARATION

OXYGEN CONCENTRATORS & AIR DRYERS

AEROUSnx™



The AEROUSnx™ Oxygen Concentrator provides a safe and reliable oxygen source to deliver efficient ozone production in the harshest environments.

Designed for commercial applications, it delivers up to 95% dry oxygen at 15 SCFH. The concentrated oxygen is created on-site through the *pressure swing adsorption (PSA) process, providing a constant flow of oxygen. It is used in tandem with ClearWater Tech's ozone systems to delivery high quality output ozone.

**Pressure Swing Adsorption is a cost-efficient molecular process that uses a sieve material to produce a high purity oxygen or nitrogen.*

FEATURES

- Gas flow meter
- External air filters
- Easy to service
- Produces -80°F dew point feed gas
- Anodized aluminum base and stainless steel enclosure for outdoor conditions
- Generated on-site; oxygen on demand
- Engineered for high humidity environments

AEROUSnx™ SPECIFICATIONS

Oxygen Output	15 SCFH (7 LPM) @ 10 PSIG
Oxygen Purity	93% + / - 3%
Sound Level	60 dB(A)
Dimensions/Weight	16.6" H x 15.2" W x 15.7" D; 50 lbs
Power Requirements	120VAC 60 HZ, 5.8 AMP, 1 Phase 220/240VAC 50/60 HZ, 3.1 AMP, 1 Phase
Operating Conditions	Specifications listed are based on the following atmospheric operating conditions: Temperature -22°F to 104°F (-30°C to 40°C), Relative humidity <85%; System must be adequately ventilated

APPLICATIONS

- Ozone generation
- Cutting, brazing and welding
- Glass blowing
- Hydroponics
- Industrial gas supplies
- Jewelry making
- Muffler shops
- Aquaculture
- Veterinary
- Waste water treatment
- Cannabis facilities



AD40

AD40 - Heat Regenerative Air Dryer

The AD40 is an automatic, heat regenerative desiccant air dryer designed to accompany ClearWater Tech ozone systems. It is rated for use in environments with up to 75% relative humidity.

Rack-Mounted Oxygen Systems

Designed specifically for the commercial ozone cabinets, ClearWater Tech offers multiple, rack mounted, oxygen concentration systems available in four configurations.



RMS60nx

AIR PREPARATION SPECIFICATIONS

Unit	Packaged With	Max SCFH @ 21% Dry Air	Max SCFH @ Oxygen 90% (+3%/-5%)	120V/60Hz, AMPS	220V/50Hz, AMPS, Single Hot Leg	240/60Hz, AMPS	Dimensions (Inches)			Wt. lbs
							H	W	D	
AD40	CD10, CD12, CD1500, CD2000	20		1.0	0.6	0.5	25.0	12.5	4.25	10.0
RMS30nx	CD4000HO, CD4000P		30	11.6	6.2	6.2	49.0	19.0	23.0	150
RMS45nx	CD6000HO, CD6000P		45		9.3	9.3	60.0	42.0	19.0	215
RMS60nx	CD8000HO, CD8000P		60		12.4	12.4	60.0	42.0	19.0	275
RMS90nx	CD12000HO, CD12000P		90		18.6	18.6	70.0	42.0	19.0	400



Ozone Sensor

Ambient Ozone Sensor

Ozone levels can be measured with high accuracy and functionality with the use of a portable ambient ozone sensor. The sensor assures that the ozone levels are operating below OSHA limits for a safe workplace.



Dissolved Ozone Analyzer

Dissolved Ozone Analyzer

The Rosemount analytical controller is an easy-to-read display that measures dissolved ozone in parts per million (ppm) gathering real-time information from the easy-to-read LCD display of ozone ppm, water temperature, and 4-20mA output range.



Ozone Injector Manifold

Ozone Injector Manifold

ClearWater Tech injection systems use only Mazzei® injectors for efficient and effective mass transfer of ozone into the water. The injectors work together to optimize performance by raising the ozone concentration while lowering the gas-to-liquid ratio.



Vacuum Break

Vacuum Break

The vacuum break, or j-break, provides a positive atmospheric “break” between the ozone injector manifold and the ozone generator, preventing water from flowing back into the ozone generator should the venturi check-valve fail.

Contact Tanks

To maximize the effectiveness of ozone, it must be thoroughly mixed and have adequate time to react with the contaminants in the water before returning to usage or further processing. All contact tanks are designed to achieve maximum ozone contact efficiency and are approved by NSF International and come in a variety of sizes from 30 to 850 gallons depending on the application.

Ozone Catalytic Destruct System (OCD)

The off-gas destruct system consists of two components; the ozone destruct unit (a heated chamber filled with manganese dioxide and copper oxide), and a water trap. The two-stage system is designed for convenient installation on a vertical surface adjacent to the contact tank. Used in conjunction with the off-gas vent, this ozone destruct system is an efficient way to properly vent the contact tank for indoor applications.



Ozone Catalytic Destruct System



Ozone Contact Tanks

NOTABLE INSTALLATIONS



Environmental Protection Agency
Disease control lab test on seawater

Ripley's Aquarium, Myrtle Beach, SC
Penguin Exhibit

Nike World Campus, Redmond, OR
320,000 gallon main pool and 8,500 gallon children's pool

Culligan Water
Bottling sterilization system

Beverly Hills Hotel, Beverly Hills, CA
Commercial laundry

Modern Times Beer, San Diego, CA
Surface sanitation

The Pentagon, Washington, DC
Recreational pool and spa

Sea World, Orlando, FL
Marine recovery and quarantine pools

CaroMont Health, Gastonia, NC
Commercial laundry

Subaru, Cherry Hill, NJ
80,000 gallon DI storage

Hyatt Regency Resort and Spa, Maui, HI
Hotels pools & spas

Slade Gorton, Boston, MA
CIP surface sanitation

United Nations Headquarters, NY
Memorial fountain

Legoland, Carlsbad, CA
250,000 gallon, two-story aquarium

Pier Fish Company, New Bedford, MA
Surface water disinfection

Halter Ranch Winery, Paso Robles, CA
Surface sanitation

NASA Johnson Space Center, Houston, TX
Training pool

Fess Parker Winery, Los Olivos, CA
Surface sanitation

Marion Correctional Institution, Marion, OH
Commercial laundry

General Dynamics, Scranton, PA
Metal working coolant bactericide

Refugio Ranch Vineyards, Los Olivos, CA
Surface sanitation

Stone Brewing, Richmond, VA
Surface sanitation

Cheesecake Factory, CA
Surface sanitation

City Center, Las Vegas, NV
Multiple water features

Ready Foods, Denver, CO
Microbial control in chilling water

New England Patriots Gillette Stadium
Reclamation of treated wastewater



A DIVISION OF
PENTAIR

Ozone Systems for Water and Air Purification

800-262-0203 | 805-549-9724 | 850 Capitolio Way, San Luis Obispo, CA 93401
sales@cwtozone.com | cwtozone.com | rev110319

EarthSafe
TECHNOLOGY