

ClearWater Tech, LLC.

Product Catalog

ClearWater
TECH, LLC.



Ozone Systems

Since 1986



CAMERON TAPP

PRESIDENT

"Advances in technology and the search for 'clean' yet powerful sanitation alternatives have created so many new opportunities for ClearWater Tech and our customers. There is no shortage of markets to serve with ozone."

MEMBERSHIPS



ClearWater Tech, LLC.

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OZONE systems

RELIABILITY SINCE 1986

It is my pleasure to welcome you to the newest edition of ClearWater Tech's product catalog. When I decided to go into the ozone business twenty years ago, I had no idea that the company would grow so quickly or become so successful. I sometimes miss the simplicity of those days, but the opportunity to work with my employees as we continue to create exciting, innovative products that are beneficial to both consumers and the environment is one I wouldn't trade for anything.

ClearWater Tech has firmly established its position as the global leader in mid-size ozone manufacturing. Unlike other companies that simply bolt OEM components together, CWT designs, engineers and manufactures its systems from the ground up using technologies that have proven themselves time and time again where it really counts: in the field. Our success rests squarely on the ability of our equipment to do what we say it's going to do, and we take that responsibility seriously. We maintain professional sales, service, engineering, and field technical departments that are available to assist our customers with any ozone application anywhere in the world. In fact, CWT is the only ozone manufacturer with full-time employees in the field.

I'm extremely pleased to introduce you to several new products in our line this year, including both the SC27P and Ae Series. In addition to these new systems, we continue to maintain and renew our existing product lines. The depth and scope encompassed by ClearWater Tech's family of ozone generators is something I'm very proud of, and knowing that others have tried to copy us only serves to reinforce the knowledge that we're doing something right.

To our longtime customers and friends, thanks for making the journey terrific. And whether you've been a ClearWater customer for years or are just considering us for the first time, I hope you'll find what you're looking for in the pages of this catalog. If you have any questions about our products or services, please don't hesitate to contact us.

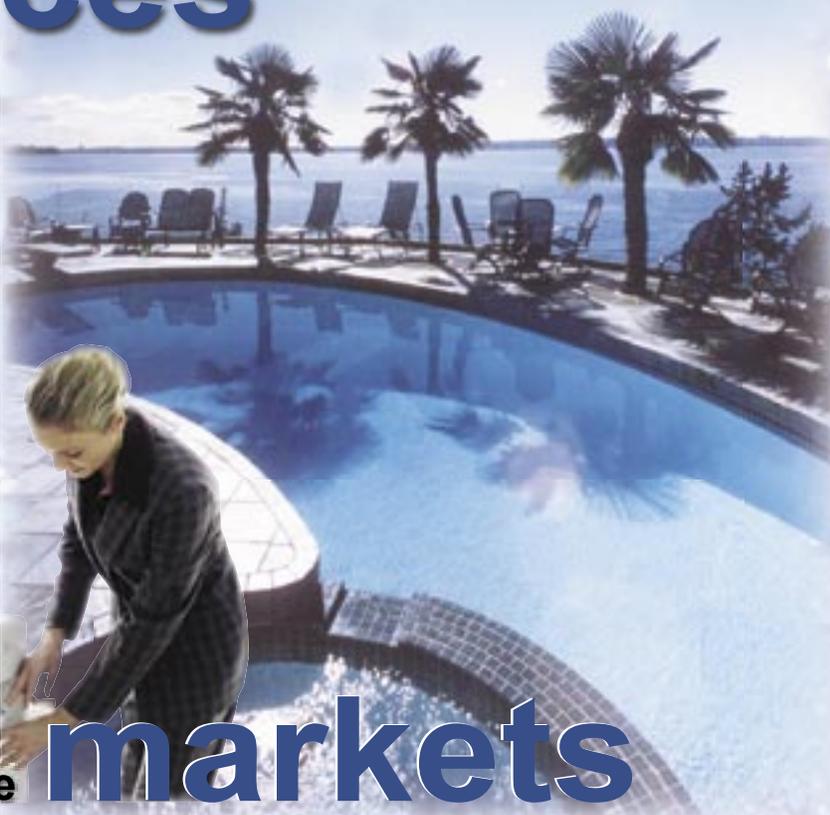
Sincerely,

Cameron Tapp
President
ClearWater Tech, LLC.

ClearWater Tech, LLC. is a true partner in meeting the ozone application needs of our customers

Offering these **services**

- Application Design Support
- In-Field Support
- Lease Financing
- Ozone Education
- Pilot Projects
- Project Commissioning & Start-up
- Service & Application Seminars
- Service Contracts
- Strong Marketing Support
- Trained Factory Representation
- Turn-Key Systems



In these **markets**

- Aquariums & Zoos
- Bottled Water
- Breweries & Wineries
- Cooling Towers
- Dairies
- Food Processing
- Laundries
- Waste Water
- Lakes, Ponds & Fountains
- Odor Control
- Small Community Drinking Water
- Aquaculture
- Point-of-Entry Drinking Water
- Commercial Swimming Pools & Spas
- Residential Swimming Pools & Spas



ClearWater Tech maintains a professional sales and technical staff to assist you Monday-Friday, 8am to 5pm, PST.
Call us toll free at 800.262.0203 or visit our website at www.cwtozone.com.

Micro Series

Corona Discharge



ClearWater Tech's Micro Series uses corona discharge (CD) technology to provide superior ozone performance in a compact size. With features such as fully adjustable output and low energy requirements, the uses for these versatile ozone generators are unlimited.

"ClearWater Tech has been manufacturing superior ozone generators since 1986. Each year their ozone generators' quality, reliability and affordability are improved. These characteristics provide my company with the means to be successful in the ozone industry today."

*Robert Moncrief, H₂O Engineering
San Luis Obispo, CA*

TYPICAL APPLICATIONS

- Laundry Facilities
- Residential Spas
- Ornamental Water Features
- Small Aquariums
- Water Vending Machines
- Water Store Recirculation Systems



Microzone 100

DESCRIPTION - Compact CD ozone generator with low power requirements.

DIMENSIONS - 3.1" h x 3.1" w x 1.54" d, 0.5 lbs

ELECTRICAL - 0.25A, 12V DC, 3 watts

OZONE OUTPUT - 100 mg/hr @ 3 SCFH

Microzone 300

DESCRIPTION - CD ozone generator with fully adjustable output. Operates efficiently using ambient air as the feed gas. Use with an OAS-7 or PRO10 for either pressure or vacuum applications.

DIMENSIONS - 5.875" h x 5.325" w x 2" d, 2.0 lbs

ELECTRICAL - 120V/60Hz, 0.25 amps, 30 watts

OZONE OUTPUT - 300 mg/hr @ 5 SCFH
0-100% variable output



Microzone 300P

DESCRIPTION - CD ozone generator with built-in air pump and timer. Designed to deliver ozone under pressure. Water depth must not exceed 13".

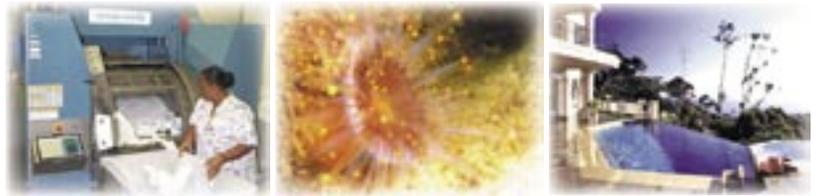
DIMENSIONS - 9.75" h x 5.25" w x 3.5" d, 2.25 lbs

ELECTRICAL - 120V/60Hz, 0.25 amps, 30 watts

OZONE OUTPUT - 300 mg/hr @ 6.5 SCFH



Mini Series Corona Discharge



The Mini-Series from ClearWater Tech produce more ozone using less energy than any other ozone generator available. With an ozone output range of 1.3 to 8 grams per hour, this versatile trio is like nothing else on the market today.

Features include compact size, fully-adjustable ozone output, convenient electrical interface plug, and new 4-20mA control circuitry.



- 4-20mA control.
- Universal input power supply allows for input voltages from 90-260 volts, 47-63 Hz.
- All units are air cooled for ease of installation.
- All solid state electronic components for maximum longevity.
- Lowest watts-per-gram ratio of any ozone generator available.
- Convenient LED displays show variable ozone output and air dryer status.

TYPICAL APPLICATIONS

- Residential Swimming Pools
- Commercial Spas
- Residential Well Water
- Bottled Water
- Waste Water
- Commercial Laundry
- Water Features
- Aquaculture

CD10/AD DESCRIPTION

CD ozone generator with single reaction chamber, fully adjustable output and built-in air dryer.

DIMENSIONS

19.5" h x 11.5" w x 5" d, 14.5 lbs

ELECTRICAL

Universal 90/260V, 47-63 Hz, 2.2 - 0.8 amps, 200 watts

OZONE OUTPUT

1.3 grams/hr @ 4 SCFH (dry air)
1% concentration by weight



CD10 DESCRIPTION

Single reaction chamber CD ozone generator with fully adjustable output. Can be used with dry air (AD-40), LPSA-20 or Workhorse 8C air preparation systems.

DIMENSIONS

19" h x 9" w x 5" d, 9.5 lbs

ELECTRICAL

Universal 90/260V, 47-63 Hz, 1.1 - 0.4 amps, 100 watts

OZONE OUTPUT

1.3 grams/hr @ 4 SCFH (dry air)
1% concentration by weight
4 grams/hr @ 4 SCFH (PSA oxygen)
3% concentration by weight



CD12 DESCRIPTION

Dual reaction chamber CD ozone generator with fully adjustable output. Use with dry air (AD-40), LPSA-20, Workhorse 8C air preparation systems.

DIMENSIONS

21.5" h x 11.5" w x 5" d, 14.5 lbs

ELECTRICAL

Universal 90/260V, 47-63 Hz, 1.5 - 0.6 amps, 150 watts

OZONE OUTPUT

3 grams/hr @ 8 SCFH (dry air)
1% concentration by weight
8 grams/hr @ 8 SCFH (PSA oxygen)
3% concentration by weight



Wall-Mount Corona Discharge



The Wall-Mount ozone generators from ClearWater Tech offer corona discharge technology. This series has seven models to choose from. With an output range of 2.8 to 27 grams per hour, these units are equipped with universal input power supply or solid state current limit circuitry. Options include a built-in air preparation system, fully-adjustable 0-100% ozone output and 4-20 mA control.

"I'd tried several ozone manufacturers before I found ClearWater Tech. ClearWater's ozonators do what their technicians say they are going to do. I install a lot of systems for Hollywood people, and their water has to be 100% right. With ClearWater, they're happy, they love their water, and that makes me happy!"

Tito Ignacio, President of Wailani Natural Pure Water Systems - Burbank, CA



M-15/AD

DESCRIPTION

Self contained, single reaction chamber CD ozone generator with built-in air dryer.

DIMENSIONS

19.5" h x 15.25" w x 7.5" d, 34 lbs

OZONE OUTPUT

2.8 grams/hr @ 7 SCFH (dry air)

M-1500 & CD1500

DESCRIPTION

High output, single reaction chamber CD ozone generators. Suitable for use with dry air or oxygen air preparation options.

DIMENSIONS

27" h x 9.25" w x 5.5" d, 32 lbs

OZONE OUTPUT

M-1500 - 2.8 grams/hr @ 7 SCFH (dry air)
7.6 grams/hr @ 7 SCFH (PSA oxygen)
CD1500 - 4.5 grams/hr @ 10 SCFH (dry air)
10 grams/hr @ 7 SCFH (PSA oxygen)



CD1500P

DESCRIPTION

High output, pressurized, single reaction chamber CD ozone generator. Designed to operate at 10 psi cell pressure. Built-in pressure gauge and flow meter.

DIMENSIONS

27" h x 9.25" w x 5.5" d, 32 lbs

OZONE OUTPUT

15 grams/hr @ 6 SCFH
(PSA oxygen) @ 10 psi

Wall-Mount Corona Discharge



P-2000 & CD2000

DESCRIPTION

High output, dual reaction chamber CD ozone generators. The most compact, versatile systems in the industry.

DIMENSIONS

23" h x 20.25" w x 5.5" d, 49 lbs

OZONE OUTPUT

P-2000 - 5.6 grams/hr @ 14 SCFH (dry air)
14 grams/hr @ 14 SCFH (PSA oxygen)
CD2000 - 9 grams/hr @ 20 SCFH (dry air)
20 grams/hr @ 14 SCFH (PSA oxygen)



TYPICAL APPLICATIONS

- Waste Water
- Commercial Spas
- Residential Swimming Pools
- Residential Problem Water
- Bottled Water Fill Lines
- Aquariums
- Water Features
- Larger Volume Water Stores



CD2000P

DESCRIPTION

High output, pressurized, dual reaction chamber CD ozone generator. Designed to operate at 10 psi. Built-in pressure gauge and flow meter.

DIMENSIONS

23" h x 20.25" w x 5.5" d, 49 lbs

OZONE OUTPUT

27 grams/hr @ 12 SCFH
(PSA oxygen) @ 10 psi

Wall-Mount CD Specifications Chart

	M-15/AD	M-1500	CD-1500	CD1500P	P2000	CD2000	CD2000P
Power consumption	312 watts	192 watts	192 watts	192 watts	336 watts	336 watts	336 watts
Amps @ 120V/60Hz	2.6 amps	1.6 amps	1.6 amps	1.6 amps	2.8 amps	2.8 amps	2.8 amps
Amps @ 240V/60Hz	1.3 amps	0.8 amps	0.8 amps	0.8 amps	1.4 amps	1.4 amps	1.4 amps
g/h @ SCFH dry air	2.8 @ 7	2.8 @ 7	4.5 @ 10	N/A	5.6 @ 14	9 @ 20	N/A
Percent by weight with dry air	1%	1%	1%	N/A	1%	1%	N/A
g/h @ SCFH PSA oxygen	N/A	7.6 @ 7	10 @ 7	15 @ 6	14 @ 14	20 @ 14	27 @ 12
Percent by weight with oxygen	N/A	3%	4%	6%	3%	4%	6%
High temperature limit	Yes						
Dry contact control	Yes	No	Yes	Yes	No	Yes	Yes
4-20 mA control	No	No	Yes	Yes	No	Yes	Yes
Manual variable ozone output	No	No	Yes	Yes	No	Yes	Yes
Input voltage selectable	Yes	No	Yes	Universal	No	Yes	Universal
Pressurized	No	No	No	Yes-10 psi	No	No	Yes-10 psi
Vacuum	Yes 3-8 in. Hg.						

Self-Contained Corona Discharge



Self-Contained

ClearWater Tech introduces its new turnkey, integrated ozone system. This reliable, oxygen fed system is designed to operate in a wide range of environments. High-concentration ozone output (6% by weight) tackles tough water treatment and sanitation applications.

The SC27 ozone generator produces 27 grams per hour @ 6% and has equal or greater sanitation power than 54 grams per hour @ 3% or 162 grams per hour @ 1%.

TYPICAL APPLICATIONS

- Potable Water
- Large Residential Swimming Pools
- Commercial Swimming Pools
- Food Sanitation
- Surface Sanitation
- Laundries
- Breweries
- Wineries

SC27P

DESCRIPTION

Self-contained corona discharge ozone generator with dual pressurized reaction chambers, integral vacuum break and built in oxygen concentrator. Simple, compact wall-mounted system.

Equipped with 0-100% variable ozone output and 4-20mA control circuitry.

DIMENSIONS

29" w x 13" d x 34" h, 139 lbs

ELECTRICAL

120V/60Hz, 9 amps, 1080 watts

240V/60Hz, 4.5 amps, 540 watts

OZONE OUTPUT

27 grams/hr @ 12 SCFH (PSA oxygen)

6% concentration by weight



"My customers are primary seafood processors and packers that supply the country's leading club stores, supermarkets, retailers and restaurants. They insist upon the higher quality product and longer shelf-life that ozone water treatment affords, as well as the dramatic deduction in bacteria that ozone provides. These seafood packers who are located from Canada, U.S.A to South America appreciate their partnership with Pressure Techniques and ClearWater Tech to furnish them with the latest, state of the art ozone generating equipment with on-going tech support and instruction."

*Peter Rubenstein, Pressure Techniques International
Haverhill, Massachusetts*



HD03 Dissolved Corona Discharge



TYPICAL APPLICATIONS

- Laundry
- Hard Surface Cleaning
- Clean-In-Place (CIP) Systems
- Fruit & Vegetable Rinse Systems
- Bottled Water Plants
- Larger Volume Water Stores

OPTIONAL EQUIPMENT

- Pressure reducer
- Ambient ozone monitor and alarm
- Catalytic ozone off-gas destruct

HDO₃ DESCRIPTION

The HDO₃ (high dissolved ozone) systems are designed for efficient mass-transfer of ozone gas into solution. The systems are capable of achieving up to seven parts per million (ppm) of dissolved ozone and flow rates up to 150 gallons per minute (gpm). With three models to choose from, the HDO₃ systems can meet the challenge of many water treatment needs.

ALL HDO₃ SYSTEMS FEATURE:

- Turn-key & pre plumbed
- Stainless steel or powder coated steel construction
- Integrated dissolved ozone monitor
- Easy-to-read, panel-mounted instrumentation
- Adjustable ozone output to meet any demand
- Air-cooled stainless steel ozone reaction chambers



Shown: HDO₃ II



"What's different about this ozone system is not only its simplicity, but also the fact that ClearWater Tech stands behind it 500%."

Thomas Shumsky, Dal Equipment, Inc., Philmont, N.Y.

HDO₃ Specifications Chart

	HDO ₃ I	HDO ₃ II	HDO ₃ III
GPM @ 1 ppm dissolved ozone*	24.5 gpm (92.7 lpm)	59 gpm (223 lpm)	150 gpm (568 lpm)
GPM @ 3.5 ppm dissolved ozone*	7 gpm (26 lpm)	16 gpm (60 lpm)	50 gpm (189 lpm)
GPM @ 4.5 ppm dissolved ozone*	N/A	13 gpm (49 lpm)	30 gpm * (113 lpm)
Max flow rate through HDO ₃	8 gpm (30 lpm)	13 gpm (49 lpm)	13 gpm (49 lpm)
Electrical	120 V/60 Hz, 20 amps 240 V/60 Hz, 10 amps	120 V/60 Hz, 20 amps 240 V/60 Hz, 10 amps	120 V/60 Hz, 20 amps 240 V/60 Hz, 10 amps
Water inlet connection	1 1/4" mpt	1 1/4" mpt	1 1/4" mpt
Water outlet connection	1" fpt	1" fpt	1" fpt
Height	66"	66"	66"
Width	20"	20"	20"
Depth	29"	29"	29"
Weight	280 lbs	300 lbs.	300 lbs.

*Anticipated results obtained at 7.5 pH, 70 °F municipal water. Maximum inlet water pressure 20 lb. per square inch (psi).

Skid-Mounted Corona Discharge



San Diego Zoo

ClearWater Tech's fully-integrated skids combine Mini Series or Wall-Mount ozone technology with the same air preparation and system control options offered on our larger units. Mounted on a powder coated steel skid, for installation and operating convenience all of these systems are pre-wired, pre-plumbed and come with pneumatic connections.

Enhanced with highly efficient electronics, the six units in our skid-mounted series provide an ozone output range of 1.3 to 20 grams per hour. All are built with the same quality materials and long list of safety features for which ClearWater Tech is known.

TYPICAL APPLICATIONS

- Large Residential Pools
- Residential Well Water
- Commercial Pools
- Bottled Water
- Small Community Drinking Water
- Agriculture
- Commercial Aquariums
- Cooling Towers

M-15/02 & CD15/02

DESCRIPTION

Self-contained, single reaction chamber, skid-mounted CD ozone systems.

DIMENSIONS

72" h x 26" w x 29" d, 210 lbs

OZONE OUTPUT

M-15/02 - 7.6 grams/hr @ 7 SCFH (PSA oxygen)

CD15/02 - 10 grams/hr @ 7 SCFH (PSA oxygen)

Shown: CD15/02 with optional booster pump



P-20/02 & CD20/02

DESCRIPTION

Self-contained, dual reaction chamber, skid-mounted CD ozone systems.

DIMENSIONS

72" h x 26" w x 29" d, 225 lbs

OZONE OUTPUT

P-20/02 - 14 grams/hr @ 14 SCFH (PSA oxygen)

CD20/02 - 20 grams/hr @ 14 SCFH (PSA oxygen)

Shown: CD20/02 with optional booster pump



Skid-Mounted Corona Discharge

The POE10 and POE15 from ClearWater Tech are self-contained ozone systems built from high quality, durable components. The "plug and play" design allows for ease of installation and ability to accommodate a wide variety of applications, including residential wells, water stores and wastewater recycling systems.



ALL POE SYSTEMS INCLUDE:

- Ozone generator with air dryer
- Stainless steel pump
- Contact vessel
- Injector manifold
- Delay timer
- Backflow prevention
- Recirculation loop
- Off-gas vent
- SCFH flow meter

TYPICAL APPLICATIONS

- Residential Wells
- Water Stores
- Small Water Bottling Lines
- Waste Water Recycling Systems



POE10 & POE15

DESCRIPTION

Self-contained, single reaction chamber, skid-mounted CD ozone systems. Includes an ozone generator with air dryer, injector, booster pump, vacuum break, contact vessel and off-gas vent. Also includes a time delay control that allows for adjustable ozone dosage control.

DIMENSIONS

68" h x 29" w x 29" d, 200 lbs

OZONE OUTPUT

POE 10 - 1.3 grams/hr @ 4 SCFH (dry air)
POE 15 - 2.8 grams/hr @ 7 SCFH (dry air)

Shown: POE10

Skid-Mounted Specifications Chart

	M-15/02	CD15/02	P-20/02	CD20/02	POE10	POE15
Amp. draw @ 120V/60Hz	N/A	N/A	N/A	N/A	8.6 amps	14.2 amps
Amp. draw @ 240V/60Hz	4.8 amps	4.8 amps	5.4 amps	5.4 amps	N/A	N/A
Air preparation	PSA Oxygen	PSA Oxygen	PSA Oxygen	PSA Oxygen	Dry Air	Dry Air
g/h @ SCFH	7.6 @ 7	10 @ 7	14 @ 14	20 @ 14	1.3 @ 4	2.8 @ 7
Percent by weight	3%	4%	3%	4%	1%	1%
High temperature limit	Yes	Yes	Yes	Yes	Yes	Yes
Vacuum switch protected	Yes	Yes	Yes	Yes	No	No
Dry contact control	No	Yes	No	Yes	Yes	Yes
ORP control	Yes	Yes	Yes	Yes	No	No
4-20 mA control	No	Yes	No	Yes	Yes	No
Manual variable ozone output	No	Yes	No	Yes	Yes	No
Water inlet connection	N/A	N/A	N/A	N/A	1" fpt	1" fpt
Water outlet connection	N/A	N/A	N/A	N/A	1" fpt	1" fpt

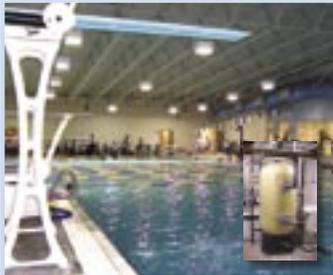
the ClearWater Tech ADVANTAGE

Based in San Luis Obispo, California, ClearWater Tech designs and manufactures state-of-the-art ozone generators for water and air purification throughout the world.



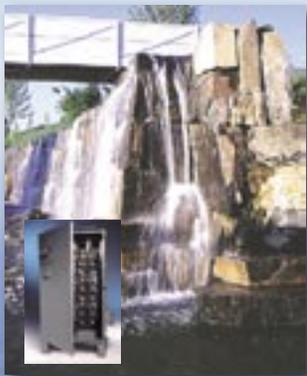
True Partnerships

ClearWater Tech, LLC. is a true partner in meeting the ozone application needs of its customers. CWT's ozone experience is there from initial system specification and design through to installation and maintenance. Unlike other ozone generator companies that bolt OEM components together, ClearWater designs, engineers and manufactures its time-tested and field-proven ozone generators from the ground up. CWT was founded in 1986 and every bit of our experience is reflected in continuous improvement and innovation in CWT's products.



Systems Expertise

ClearWater Tech knows that real ozone applications demand complete systems, not just boxes. CWT designs and manufactures complete ozone systems that help assure proper operation and results in a number of applications. ClearWater Tech understands ozone applications because we sell and support completely integrated systems (Apex, SC27P, HDO3, POE) that are ready to serve your applications quickly and cost effectively right out of the box.



Proven Innovations

CWT's experience and expertise is reflected in its core technology:

- Highly efficient and reliable air-cooled corona discharge ozone generators. CWT systems save space and power, and ease installation and maintenance.
- All CWT ozone generators have the highest energy efficiency (lowest watts used per gram of ozone produced) on the market.
- All integrated systems feature highly efficient mass-transfer systems that achieve the highest concentrations of dissolved ozone.
- At CWT our products are made with high-grade materials for longevity and durability.
- When you buy a ClearWater Tech ozone generator, you don't have to worry about finding the necessary peripheral components such as injectors, tanks, pumps, and monitoring and control equipment. CWT offers a full line of peripheral components to help configure complete, compatible systems.



The Power of Concentration

CWT knows that there's a lot more to ozone than grams per hour. We have optimized our ozone generation technology for use with oxygen as the feed-gas. Our systems routinely provide ozone concentrations from 3% to 6% or more in the output gas. Compare this to the typical concentration achieved by other ozone generators using traditional dry-air feed at about 1%. Concentration is the key to ozone solubility in water. If you want real results, you must strive for the highest possible dissolved ozone concentrations. CWT's efficient oxygen fed concentrators can achieve comparable to superior results compared to traditional dry-air fed systems, offering up to six times the ozone output in grams per hour. CWT's superior performance saves its customers space, power and money.



People Make the Difference

At ClearWater Tech, we don't just manufacture the product, we support it. We maintain a professional sales engineering, service, and field professional staff that can assist customers in the field anywhere in the world. We also offer service seminars so that our partners will be knowledgeable in handling applications and in servicing and maintaining CWT systems.

For more information visit our web site at www.cwtozone.com or contact our Sales Executives today at 1.800.262.0203.



Apex Pool Builders Systems

Corona Discharge



The popular Apex Series from ClearWater Tech is perfect for residential or any water treatment application with a flow rate of 15 to 80 gpm. All Apex systems are complete integrated ozone systems that are simple to install.

All systems are available with a low flow #978 Mazzei injector (15-40 GPM max) or a high flow #1583 Mazzei injector manifold (30-80 GPM max)

TYPICAL APPLICATIONS

- Residential & Semi-Commercial Swimming Pools
- Water Features
- Commercial Spas



CD10/AD (Apex Series II)



M-15/AD (Apex Series III)



P-2000 (Apex Series V)



APX400 (Apex Series IV)



CD12 (Apex Series VI)

Apex Specifications Chart

System	Electrical	Ozone Output	Rating
Series II includes: CD10/AD ozone generator with built in air dryer, SCFH (flow meter), injector manifold with pressure switch, check valve assembly, tubing & fittings	Universal 90-260V, 47-63 Hz, 2.2-08 amps 200 watts	1.3 grams/hr @ 4 SCFH (dry air) 1% concentration by weight	Residential pools up to 25,000 gallons with residual sanitizer
Series III includes: M-15/AD ozone generator with built in air dryer, injector manifold with pressure switch, check valve assembly, vacuum break, SCFH gauges, tubing & fittings	120V/60 Hz, 2.6 amps 240V/60 Hz, 1.3 amps 220V/50 Hz, 1.5 amps 312 watts	2.8 grams/hr @ 7 SCFH (dry air) 1% concentration by weight	Residential pools to 40,000 gallons with residual pressure
Series IV includes: CD10 ozone generator, workhorse 8C oxygen concentrator, AIF10 interface box, injector manifold, check valve with residual sanitizer assembly, SCFH vacuum gauge with vacuum switch, tubing and fittings	Universal 90-260V, 47-63 Hz, 1.1-0.4 amps 100 watts*	4.0 grams/hr @ 4 SCFH (PSA oxygen) 3% concentration by weight	Commercial spas up to 5,000 gallons, residential pools up to 55,000 gallons
Series V includes: P-2000 ozone generator, AD22 air dryer with SCFH gauge, injector manifold, check valve assembly, vacuum break, tubing and fittings	20V/60 Hz, 2.8 amps** 240V/60 Hz, 1.4 amps** 220V/50 Hz, 2.0 amps**	5.6 grams/hr @ 14 SCFH (dry air) 1% concentration by weight	Residential & semi-commercial pools up to 65,000 gallons with residual sanitizer
Series VI includes: CD12 ozone generator, workhorse 8C oxygen concentrator, AIF10 interface box, injector manifold, check valve assembly, SCFH vacuum gauge with vacuum switch, vacuum break, tubing and fittings	Universal 90-260V 47-63 Hz, 1.5-0.6 amps* 130 watts	8.0 grams/hr @ 8 SCFH (PSA oxygen) 3% concentration by weight	Residential & semi-commercial pools up to 80,000 gallons with residual sanitizer

* Ozone generator only. Add 660 watts, 5.5 amps @ 120V/60Hz or 2.75 amps @ 240V/60Hz, for air preparation system.

** Ozone generator only. Add 120 watts, 1.0 amps @ 120V/60Hz or 0.5 amps @ 240V/60Hz, for air dryer.

Apex Ae-Series Integrated Ozone Generators



The new e-Series (e is for “environmental”) is truly plug-and-play. All e-Series units are fully integrated, weather-shielded ozone systems that combine lasting value with high performance. Each package includes ozone generator, oxygen concentrator, instrumentation, automation and integral vacuum break, all pre-assembled in an attractive and durable housing designed to provide protection from the environment.



CWT's O₃RP™ Rating

All Apex e-Series models come with ClearWater Tech's unique O₃RP™ Rating. O₃RP™ is an ORP measurement of your pool water using ozone as the only sanitizer. The O₃RP™ rating is a measurement of how many gallons a particular ozone system can maintain at drinking water sanitation standard without swimmers present (zero bather load) and how long it will take the system to restore the water to that level after the swimmers leave the pool.

TYPICAL APPLICATIONS

- Commercial Spas & Pools
- Residential Swimming Pools
- Aquariums
- Water Features



APEX A4e

DESCRIPTION

The Apex 4e-Series includes the CD10 corona discharge ozone generator.

DIMENSIONS

28" w x 22" d x 32.5" h
Each foot is individually adjustable to +1, -1/2

OZONE OUTPUT

4 grams/hr @ 4 SCFH (PSA oxygen)
3% concentration by weight

APEX A8e

DESCRIPTION

The Apex 8e-Series includes the CD12 corona discharge ozone generator.

DIMENSIONS

28" w x 22" d x 32.5" h
Each foot is individually adjustable to +1, -1/2

OZONE OUTPUT

8 grams/hr @ 8 SCFH (PSA oxygen)
3% concentration by weight



APEX A15e

DESCRIPTION

The Apex 15e-Series includes the CD1500P corona discharge ozone generator.

DIMENSIONS

28" w x 22" d x 32.5" h
Each foot is individually adjustable to +1, -1/2

OZONE OUTPUT

15 grams/hr @ 15 CFH (PSA oxygen)
6% concentration by weight

Apex e-Series Specifications Chart

System	CWT O ₃ RP™ Rating	Ozone Generator	Air Preparation	Variable Controls	ORP Controller
A4e	O ₃ RP™ - up to 20,000 gallons With a secondary sanitizer up to 55,000 gallons	CD10, 4 g/hr @ 3% concentration by weight	On board oxygen concentrator providing 93% pure oxygen feed gas to ozone generator	Feed gas control Internal & external (4-20mA) ozone output control	Optional
A8e	O ₃ RP™ - up to 40,000 gallons With a secondary sanitizer up to 80,000 gallons	CD12, 8 g/hr @ 3% concentration by weight	On board oxygen concentrator providing 93% pure oxygen feed gas to ozone generator	Feed gas control Internal & external (4-20mA) ozone output control	Optional
A15e	O ₃ RP™ - up to 80,000 gallons With a secondary sanitizer up to 125,000 gallons	CD1500P, 15 g/hr @ 6% concentration by weight	On board oxygen concentrator providing 93% pure oxygen feed gas to ozone generator	Feed gas control Internal & external (4-20mA) ozone output control	Optional

Commercial Cabinets

Corona Discharge



ClearWater Tech commercial cabinet systems are big on ozone output and light on maintenance. These industrial strength ozone generators provide an output range from 28 to 170 grams per hour to meet the demands of a variety of commercial ozone applications. The modular, multiple reaction chamber design keeps them working even in the most demanding conditions.

At the heart of the CD-4000 through CD-12000 systems are our time-tested linear power supply and concentric tube reaction chamber. These electrically efficient, low maintenance components have been loyally serving our customers since 1991.

The newest members of CWT's cabinet systems feature pressurized reaction chambers. These pressurized systems deliver tremendous value, performance and space efficiency at high concentrations of ozone.



CD-4000, CD4000HO, CD4000P

DESCRIPTION

CD ozone generator with four individually-fused reaction chambers.

DIMENSIONS

42" h x 28.5" w x 14" d, 149 lbs

OZONE OUTPUT

CD-4000 - 28 grams/hr @ 28 SCFH (PSA oxygen)
 CD4000HO - 40 grams/hr @ 28 SCFH (PSA oxygen)
 CD4000P - 56 grams/hr @ 24 SCFH (PSA oxygen)

Shown: CD-4000

CD-6000, CD6000HO, CD6000P

DESCRIPTION

CD ozone generator with six individually-fused reaction chambers.

DIMENSIONS

52" h x 40.5" w x 18" d, 264 lbs

OZONE OUTPUT

CD-6000 - 37 grams/hr @ 42 SCFH (PSA oxygen)
 CD6000HO - 60 grams/hr @ 42 SCFH (PSA oxygen)
 CD6000P - 85 grams/hr @ 36 SCFH (PSA oxygen)

Shown: CD-6000



Commercial Cabinets Specifications Chart

	CD-4000	CD4000HO	CD4000P	CD-6000	CD6000HO	CD6000P
Amp. draw @ 240V/60 Hz*	3.0 amps	3.5 amps	3.5 amps	4.0 amps	4.6 amps	6 amps
g/h @ SCFH PSA oxygen	28 @ 28	40 @ 28	56 @ 24	37 @ 42	60 @ 42	85 @ 36
Percent by weight	3%	4%	6%	3%	4%	6%
High temp. limit	Yes	Yes	Yes	Yes	Yes	Yes
Vacuum switch protected	Yes	Yes	No	Yes	Yes	No
Pressure switch protected	Yes	No	Yes	No	No	Yes
ORP control	Yes	No	No	Yes	No	No
4-20 mA control	No	Yes	Yes	No	Yes	Yes
Manual variable ozone output	No	Yes	Yes	No	Yes	Yes

*Amp ratings do not include peripheral equipment such as air preparation or booster pumps.

Commercial Cabinets

Corona Discharge



The Pentagon

The CD4000HO through CD12000P models feature a regulated switching power supply that delivers clean, uniform power to the drive module regardless of line voltage quality. The drive module in turn gives our standard reaction chamber even greater ozone output capability. The drives are self-tuning and automatically adjust to reaction chamber capacitance changes. Using this exclusive technology, ClearWater Tech HO cabinets have 0-100% output adjustability and a 4-20mA control circuit for on-demand output control.

The CD4000P through CD12000P systems feature pressurized reaction chambers designed to operate at 10 psi and deliver a high concentration of ozone.



CD-8000, CD8000HO, CD8000P

DESCRIPTION

CD ozone generator with eight individually-fused reaction chambers.

DIMENSIONS

52" h x 40.5" w x 18" d, 314 lbs

OZONE OUTPUT

CD-8000 - 52 grams/hr @ 56 SCFH (PSA oxygen)
 CD8000HO - 80 grams/hr @ 56 SCFH (PSA oxygen)
 CD8000P - 115 grams/hr @ 48 SCFH (PSA oxygen)

Shown: CD-8000

CD-12000, CD12000HO, CD12000P

DESCRIPTION

CD ozone generator designed for larger commercial applications with twelve concentric tube reaction chambers.

DIMENSIONS

70" h x 40.5" w x 18" d, 421 lbs

OZONE OUTPUT

CD-12000 - 81 grams/hr @ 84 SCFH (PSA oxygen)
 CD12000HO - 120 grams/hr @ 84 SCFH (PSA oxygen)
 CD12000P - 170 grams/hr @ 72 SCFH (PSA oxygen)

Shown: CD12000P



TYPICAL APPLICATIONS

- Commercial Swimming Pools • Small Community Potable Water Systems • Waste Water
- Aquatic Life Support • Bottling Plants • Food Processing • Beverage Processing

Commercial Cabinets Specifications Chart

	CD-8000	CD8000HO	CD8000P	CD-12000	CD12000HO	CD12000P
Amp. draw @ 240V/60 Hz	4.5 amps	5.3 amps	5.3 amps	6.0 amps	7.2 amps	7.2 amps
g/h @ SCFH PSA oxygen	52 @ 56	80 @ 56	112 @ 48	81 @ 84	120 @ 84	170 @ 72
Percent by weight	3%	4%	6%	3%	4%	6%
High temp. limit	Yes	Yes	Yes	Yes	Yes	Yes
Vacuum switch protected	Yes	Yes	No	Yes	Yes	No
Pressure Switch Protected	No	No	Yes	No	No	Yes
ORP control	Yes	No	No	Yes	No	No
4-20 mA control	No	Yes	Yes	No	Yes	Yes
Manual variable ozone output	No	Yes	Yes	No	Yes	Yes

*Amp ratings do not include peripheral equipment such as air preparation or booster pumps.

Air Preparation Systems

PSA Oxygen



ClearWater Tech's CD ozone generators require either dry air or oxygen feed gas for full performance and reliable operation. For the Mini-Series and Wall-Mount CD systems, available options are heat regenerative air dryers, LPSA air dryers or PSA oxygen concentrators. Heat regenerative air dryers are suitable for moderate environments (relative humidity not exceeding 75%) and moderate duty cycles (not exceeding 10 hours of operation in a 24-hour period).

For Skid-Mounted and Cabinet ozone systems, CWT recommends PSA oxygen concentrators which provide up to 93% pure oxygen to the ozone generator. PSA oxygen can triple the effective performance of your ozone system by raising the ozone concentration by weight (in gas) from 1% to 6%. PSA oxygen concentrators are rated for 100% duty cycle.

TYPICAL APPLICATIONS

- Commercial Aquariums
- Commercial Swimming Pools
- Food Processing
- Bottled Water
- Wineries/Breweries
- Waste Water
- Small Community Drinking Water
- Aquaculture

RMS 24, 30, 36, 45, 48, 60, 72, 90

DESCRIPTION

Multiple air preparation modules, rack mounted to simplify installation. Available in eight flow rate configurations, 24-90 SCFH. Designed specifically for use with the commercial cabinet ozone generators.

ELECTRICAL

RMS 24 & 30:

7 amps @ 220V/50 Hz
11 amps @ 120V/60 Hz

RMS 36, 45, 48 & 60:

12.5 amps @ 220V/50 Hz
11 amps @ 240V/60 Hz

RMS 72 & 90:

18 amps @ 220V/50 Hz
16 amps @ 240V/60 Hz



Shown: RMS60

Workhorse 8C, 12C

DESCRIPTION

Self contained compressors and air preparation modules. Up to 8 SCFH and 12 SCFH @ 93% oxygen purity.

ELECTRICAL for 8C

3.8 amps @ 120V/60 Hz
2.0 amps @ 220V/50 Hz

ELECTRICAL for 12C

5.5 amps @ 120V/60 Hz
3.5 amps @ 220V/50 Hz
2.8 amps @ 240V/60 Hz



Shown: Workhorse 8C

Workhorse 15C

DESCRIPTION

Self contained compressor and air preparation module. Up to 15 SCFH @ 93% oxygen purity.

ELECTRICAL

5.5 amps @ 120V/60 Hz
2.75 amps @ 240V/60 Hz
3.22 amps @ 240/60 Hz



Air Preparation Systems

Dry Air



The AD-40 is an automatic, heat regenerative desiccant air dryer. Capable of producing -10°F dew point air at up to 20 SCFH of air flow, the AD-40 features an external cartridge that provides a visual indication of proper air dryer operation. The solid state cycle timer allows for efficient operation in a variety of ambient conditions.

For more consistently humid environments, the LPSA (Low Pressure Swing Adsorption) air dryers from ClearWater Tech are the perfect choice. Combining proven PSA technology with low operating pressures, they deliver clean, low dew point air (-60°F to -90°F) even in the most humid equipment areas. The twelve-chamber design puts less stress on the compressor so the units last longer and require less maintenance.

AD-40 DESCRIPTION

Automatic, heat regenerative desiccant air dryer. Produces -10°F dew point air at up to 20 SCFH of air flow. Note: The AD40 is rated for use in environments with 75% or less relative humidity, and should be operated no more than 10 hours in a 24 hour period.

ELECTRICAL

1.0 amps @ 120V/60 Hz
0.5 amps @ 240V/60 Hz
0.6 amps @ 220V/50 Hz



LPSA 20 & 60 DESCRIPTION

Twelve chamber PSA air dryer producing high quality dry air.

ELECTRICAL

LPSA-20: 4.25 amps @ 120V/60 Hz
2.3 amps @ 220V/50 Hz
LPSA-60: 4.5 amps @ 120V/60 Hz
2.5 amps @ 220V/50 Hz



Air Preparation Systems Specifications Chart

Model	Output Performance			Amperage Draw	Dimensions (h" x w" x d")	Weight (lbs)	Matching Ozone Systems	Duty Cycle
	Dewpoint	SCFH (MAX)	Pressure					
AD-40	-20°F - 10°F	20	N/A	1.0 @ 120V/60 Hz 0.5 @ 240/60 Hz	25" x 12.5" x 4.25"	12	CD12, M-1500, CD1500, P-2000, CD2000	10H/24H
Workhorse 8C	-100°F	8	5 PSI	3.8 @ 120V/60 Hz	15.5" x 17" x 16"	45	CD10, CD12, M-1500, CD1500	Continuous
Workhorse 12C	-100°F	12	12 PSI	5.5 @ 120V/60Hz 3.5 @ 220V/50Hz	15.5" x 17" x 16"	45	CD1500P, CD2000P	Continuous
Workhorse 15C	-100°F	15	5 PSI	5.5 @ 120V/60 Hz 2.75 @ 240/60 Hz	21.5" x 17" x 14"	52	P-2000, CD2000	Continuous
LPSA-20	-60° to -90°F	20	5 PSI	4.25 @ 120V/60 Hz 2.3 @ 220V/50 Hz	14" x 17" x 14"	45	CD10, CD12, M-1500, CD1500, P-2000, CD2000	Continuous
LPSA-60	-60°F to -90°F	60	5 PSI	4.5 @ 120V/60 Hz 2.5 @ 220V/50 Hz	21.5" x 17" x 14"	52	Mini-series & Wall-Mount CD series	Continuous
RMS 24	-100°F	24	12 PSI	11 @ 120V/60Hz	46" x 19" x 23"	130	CD4000P	Continuous
RMS 30	-100°F	30	5 PSI	7 @ 220V/50Hz	49" x 19" x 23"	150	CD4000, CD4000HO	Continuous
RMS 36	-100°F	36	12 PSI	12.5 @ 220V/50 Hz	60" x 42" x 19"	215	CD-6000P	Continuous
RMS 45	-100°F	45	5 PSI	11 @ 240V/60 Hz	60" x 42" x 19"	215	CD-6000, CD6000HO	Continuous
RMS 48	-100°F	48	12 PSI	12.5 @ 220V/50Hz	60" x 42" x 19"	250	CD-8000P	Continuous
RMS 60	-100°F	60	5 PSI	11 @ 240V/60 Hz	60" x 62" x 19"	275	CD-8000, CD8000HO	Continuous
RMS 72	-100°F	72	12 PSI	18 @ 220V/50 Hz	75.5" x 42" x 19"	360	CD-12000P	Continuous
RMS 90	-100°F	90	5 PSI	16 @ 240V/60 Hz	81.5" x 42" x 19"	400	CD-12000, CD12000HO	Continuous

Control & Delivery Accessories



Grand Wailea Resort, Hawaii

ClearWater Tech manufactures a variety of control and delivery accessories designed to enhance the performance and adaptability of our ozone generation equipment. Each is built with the most durable and reliable components.

Pro-Series 10, 12, 14

DESCRIPTION

The Pro Series combines a magnetic drive pump, 24-hour timer and a Mazzei 784 injector to give you a compact and reliable water recirculation system. Perfect for treating water storage tanks up to 1,500 gallons the Pro Series delivers 5 GPM.

DIMENSIONS

12.5" h x 12.75" w x 6" d, 7.25 lbs

ELECTRICAL

(PRO-10) 1.0 amps @ 120V/60 Hz
(PRO-12) .59 amps @ 220V/50 Hz,
(PRO-14) .5 amps @ 240V/60 Hz

OTHER FEATURES

Timer controlled relay (dry contact) output,
timer controlled auxiliary AC power outlet.



Interlock Box

DESCRIPTION

Centralized monitoring and control module that provides multiple safety and convenience features. Equipped with a built in air flow meter vacuum gauge, indicator lights and stainless steel solenoid valve. All of this plus a convenient power outlet for other system components to interface.

DIMENSIONS

15.5" h x 11.5" w x 6" d, 8 lbs

ELECTRICAL

120-208/240, 1 HP maximum pump load

OTHER FEATURES

Vacuum switch protected, motor control interlock (MCI).



Shown: Pro14



Vacuum Break

DESCRIPTION

Developed for use with ClearWater Tech's CD ozone generators. The vacuum break, also called the j-break, provides a positive atmospheric "break" between the ozone manifold and the ozone generator. It prevents water from flowing back into the ozone generator.



Control & Delivery



"I've had more compliments on my koi pond since I've been using ozone systems from ClearWater Tech. I have less algae, healthier fish and cleaner water which gives me so much peace of mind."

Doreen Lew, Waterform Designs, Escondido, CA



Contact Column

DESCRIPTION

The ClearWater Tech contact column features an efficient counter-current flow design for maximum ozone contact. 6" diameter clear PVC column with heavy duty schedule 80 base and cap. 2" inlet and outlet with unions. 65-100 gpm flow through rate.

DIMENSIONS

75" h x 22.5" w x 11" d, 110 lbs



Injectors & Check Valves

DESCRIPTION

ClearWater Tech manufactures a full line of injector manifolds and check valve assemblies. Each is built with quality materials such as Teflon®, Kynar® and stainless steel. Check with your ClearWater Tech Account Executive for correct application and sizing.



Contact Vessels

DESCRIPTION

Choose from a complete line of fiberglass contact vessels from 30 gallons to 850 gallons. All tanks are approved by NSF International (Public Health & Safety Organization) and have an ozone-resistant lining. Designed with a counter-current flow design and an atomizing nozzle that allow for maximum ozone contact efficiency. Stainless steel contact tanks are also available in 304 and 316 grades, at pressure ratings up to 300 psi.

Control & Delivery



The Venetian, Las Vegas

“ClearWater Tech builds a quality line of ozone generators and has packaged them very well for the pool and spa market. I also like the way they are constantly looking for ways to improve their products.”

Greg Yannazzo, owner of Greg's Pool Perfection
Redwood City, CA

OCD-12 Ozone Destruct Unit

DESCRIPTION

A two-stage ozone off-gas destruct system consisting of the destruct unit (a heated chamber filled with manganese dioxide and copper oxide) and a watertrap. Used with a ClearWater Tech off-gas vent, the system vents the contact vessel for indoor applications.

DIMENSIONS

21" h x 11.5" w x 4.25" d, 12 lbs



Ambient Ozone Monitors & Controllers

DESCRIPTION

Ozone levels can be measured with high accuracy and functionality with ozone monitors and controllers from Aeroqual. Featuring the 100, 300 and 500 series of monitors and the 130, 320, 520 and 930 series of controllers.

Shown: Series 500



Dissolved Ozone Analyzer

DESCRIPTION

The Rosemount analytical controller measures dissolved ozone in solution up to 10 parts per million (ppm). This panel or wall mount controller is equipped with easy to read L.C.D display of ozone PPM, water temperature and 4-20mA output range.

DIMENSIONS

6" h x 6" w x 3.70" d, 5 lbs



OAS-7 & OAS-20

DESCRIPTION

Designed to enhance the performance of CWT's ozone generators, the OAS-7 and OAS-20 provide a reliable air source for applications in which ozone diffusion is used. These air compressors feature durable components, a built-in timer and continuous duty rated air-compressor.

DIMENSIONS

6" h x 7.75" w x 7.75" d, 5.75 lbs

FLOW SPECIFICATIONS

OAS-7: 7 CFH @ 2.5 psi (max) **OAS-20:** 20 CFM @ 3.5 psi (max) continuous

ELECTRICAL

120V/60 Hz, 2.0 amps

OTHER FEATURES

Timer controlled relay (dry contact) outlet

Timer controlled auxiliary AC outlet

Shown: OAS-20

Air Treatment Systems

AirWaves

Natural Whole Home Air Purification System

Leaders in ozone water treatment, ClearWater Tech also offers solutions for air treatment with our AirWaves. Time-tested performance is the result of our commitment to innovative designs and carefully selected components. The AirWaves Zephyr is ready to install in any main heating, ventilation and air conditioning (HVAC) duct, whether residential or commercial.

Using two UV lamps, AirWaves produces low levels of UV energy and ozone, silently and invisibly removing odors and sanitizing the air flowing through the ventilation system.



Zephyr

DESCRIPTION

Ozone/UV air purifier. For heavy contamination demands including odor control. Automatic air flow sensor allows for operation only when air is flowing.

DIMENSIONS

15.5" h x 4" w x 9" d, 2.6 lbs

ELECTRICAL

120V/60 Hz, 1.0 amps

OZONE OUTPUT

Adjustable 25 -100 mg/hr

Better air for your whole home!



1

Professional installation
in your main air duct



2

Safely operated on low
voltage AC power



AirWaves Benefits & Features

- Removes common household odors (including smoke, pet, mildew and cooking odors)
- Reduces stale air
- Reduces airborne contaminants
- Treats entire house
- Includes selectable ozone output
- Operates automatically
- Invisible and silent protection
- Safe and energy efficient
- 2 years between simple maintenance

Ozone Systems

from **ClearWater Tech, LLC.**



Opolo Winery, Paso Robles, CA

Potable and washdown water

Environmental Protection Agency

Disease control lab tests on seawater

(CDC) Centers for Disease Control and Protection

Waste water

The Pentagon, Washington, D.C.

Recreational pool and spa

Magnolia Manor, Americus, GA

Laundry facility (water reclamation)

Air Force Academy, Colorado Springs, CO

Training pool

Harbor Branch Oceanographic Institution, Fort Pierce, FL

Marine mammal rehabilitation pools

Georgia Tech, 1996 Summer Olympics

1.5 million gallon competition pool

Venetian Hotel, Las Vegas, NV

World's largest indoor canal

Bassi Ranch, Avila Valley, CA

Small community water system

Louisiana State University

Tiger Stadium Recreational Facility - 21,000 gallon therapy pool with 3,400 gallon whirlpool and three 1500 gallon whirlpools

Belize, South America

250,000 gallon shrimp farming lagoon



United States Forest Service

Potable Water

Marriott Hotel, Kauai, HI

750,000 gallon hotel pool

United Nations Headquarters, NY

Memorial fountain

San Diego Zoo, San Diego, CA

Holding pools

Seaworld, Orlando, FL

Marine recovery and quarantine pools

The Palace Casino, Lemoore, CA

Pool, spas and water features

Nike World Campus, Redmond, OR

320,000 gallon main pool and 8,500 gallon children's pool

Quality Fruit Packers, Vero Beach, FL

Citrus washing

Smithtown Healthcare Facility, Smithtown, NY

Laundry facility (water reclamation)

Ritz Carlton, Maui, HI

Hotel water feature

Dubois Farms, Boynton Beach, FL

Vegetable washing

Sierra Nevada Brewing Company, Chico, CA

System whole facility CIP

Sterling Vineyards, CA

Potable and washdown water

Lehi Legacy Aquatic Center, Lehi, UT

Outdoor pools and spas

Cabelas Sporting Goods

In-store fish displays

ClearWater Tech, LLC.

Ozone Generators