

Section Seven Ozone Equipment



Applications:

- Aquaculture
- Aquarium/Exhibits
- Mammal/Reptile/Avian Bathing Pools
- Water Features

Function:

- Freshwater Foam Fractionation Enhancement
- Filtration Enhancement



DEL Ozone Corona Discharge Ozone Generators

DEL Ozone CD Series ozone generators feature *20 kHz frequency* and *ceramic tube dielectric ozone generator cells* that deliver consistent, reliable ozone production. DEL Ozone models CD-2 through CD-45 feature configurable feed gas options, multiple safety features, and sturdy, reliable construction. DEL Ozone CD models are designed to create ozone for aqueous and gaseous applications. Accessories include ORP meter, dissolved ozone and ambient monitor/controllers.

Emperor Aquatics, Inc. has selected the DEL Ozone CD model line due to their unique “integrated oxygen concentrator” arrangement and we encourage our customers to consider this critical feature when purchasing this equipment. Supplying an ozone generator *oxygen* rather than *ambient air* greatly reduces the buildup of nitrogen by-products inside the ozone generator cells. The result is optimal ozone output performance combined with reliable operation.

Ozone Benefits

Ozone is the most powerful oxidizer and disinfectant that can safely be used in multiple commercial applications such as *freshwater exhibits*, *water features* and *grow-out recirculating systems*. Other benefits include: relative sanitizing strength (2 PPM soluble ozone is equal to 400 PPM chlorine), non-corrosive sanitation solution, and **FLA, USDA and NSF approved anti-microbial agent**.

Advantages:

- Integrated DEL Ozone Safety Management System.
- High frequency 20 kHz. proprietary ceramic/helical cell.
- Flow meter indicating oxygen flow through system.
- Fault protection from:
 - Door open - **door switch**.
 - Feed gas pressure failure - **pressure switch**.
 - Vacuum loss - **low vacuum switch**.
 - Cell over heating - **temperature switch**.
 - Water backflow prevention - **switch, solenoid valve(s), check valve**.
 - Current overdraw - circuit breaker, fuse(s).
- Complete ozone isolation during shut-down.
- Self-regulating high voltage, high frequency ozone power supply.
- Auto feed-gas flow control to maintain proper operational set points.
- NEMA-3R, white powder coated steel enclosure.

Components and Accessories

DEL Ozone equipment components and accessories include:

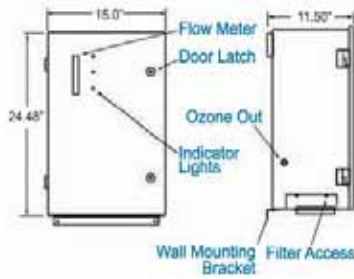
- ORP meter.
- Ambient ozone monitor/controller.
- Dissolved ozone monitor/controller.
- Mixing/Degassing tower.
- Contact/Degas tanks.
- Degas valves.
- Catalytic ozone destruct units.
- Patented Dry-Tap sensor port.
- Injectors & injector assemblies.
- Ozone flow splitters/controllers.
- Flow switches.
- Booster Pumps.





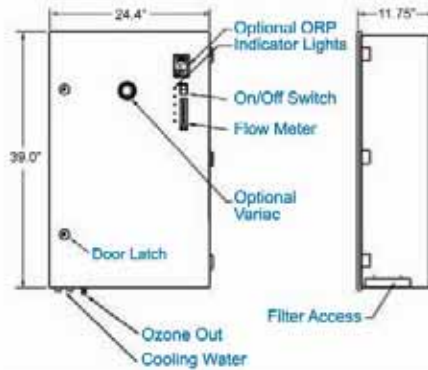
CD-2/5/7

Weight: 50 lbs. (CD-2)
52 lbs. (CD-5)
52 lbs. (CD-7)



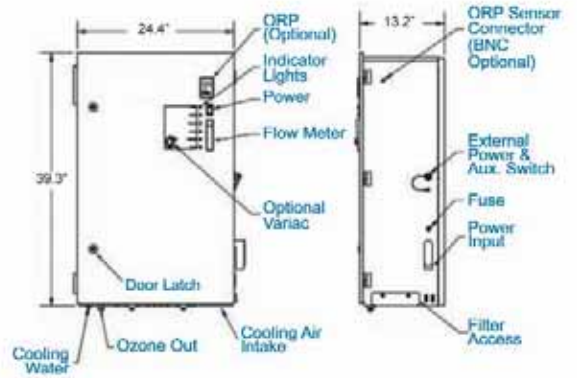
CD-15/25

Weight: 150 lbs. (CD-15)
150 lbs. (CD-25)



CD-45

Weight: 175 lbs. (CD-45)



Model No.	Ozone Output	Ozone Concentration	Voltage Required	Power Required	Ambient Operating Temp.	Oxygen Feed Flow	Cooling Water	Inlet Temp.	Inlet Pressure	Enclosure Material	Enclosure Finish
CD - 2	2 g/hr	2.5% by wt.	115V - 50/60Hz	3.5 A	40 - 100° F	2.5 SCFH	N/A (air)	N/A	N/A	Steel, 14 gauge	White
CD - 5	5 g/hr	2.0% by wt.	115V - 50/60Hz	4.5 A	40 - 100° F	6 SCFH	N/A (air)	N/A	N/A	Steel, 14 gauge	White
CD - 7	7g/hr	2.5 - 3.0% by wt.	115V - 50/60Hz	5.5 A	40 - 100° F	7 SCFH	N/A (air)	N/A	N/A	Steel, 14 gauge	White
CD - 15	15g/hr	3.5% by wt.	115V - 50/60Hz	7.0 A	40 - 100° F	13 SCFH	0.10 GPM	50 - 90° F	15 - 40 PSI	Steel, 14 gauge	White
CD - 25	25g/hr	3.5 - 4.0% by wt.	115V - 50/60Hz	7.5 A	40 - 100° F	18 SCFH	0.40 GPM	50 - 90° F	15 - 40 PSI	Steel, 14 gauge	White
CD - 45	45g/hr	4.0% by wt.	115V - 50/60Hz	18.0 A	40 - 100° F	30 SCFH	0.20 GPM	50 - 90° F	15 - 40 PSI	Steel, 14 gauge	White

Ozone-Related Equipment of Interest:

Atomizer Oxygen/Ozone Contactors



Advantages:

- Exceptional ozone gas transfer. Tested on freshwater at a temperature of 55°F yielding an ozone solubility level of 8 ppm.
- Adjustable inlet/pressure capability.
- Durable Construction.
- Requires less operating space than conventional reactors.
- Easy to assemble and maintain.

Specifications Chart

Model No.	Description	Flow Rate	Dimensions Diam. x Height	Inlet/Outlet Port	Maximum Pressure
COM0300	Atomizer I	10 GPM	10" x 72"	1.5" / 1.5"	20 PSI
COM0301	Atomizer II	30 GPM	10" x 72"	1.5" / 1.5"	20 PSI
COM0302	Atomizer III	50 GPM	10" x 72"	1.5" / 1.5"	20 PSI

Note: Larger Models Available.



Pressure Gauge Assembly



Air/Ozone Injector Valve Assembly