

# OZONE DISINFECTION SOLUTIONS

for WINERIES, BREWERIES, and CIDERIES



**ClearWater Tech**  
Ozone Systems for Water & Air Purification



# Ozone Disinfection Solutions

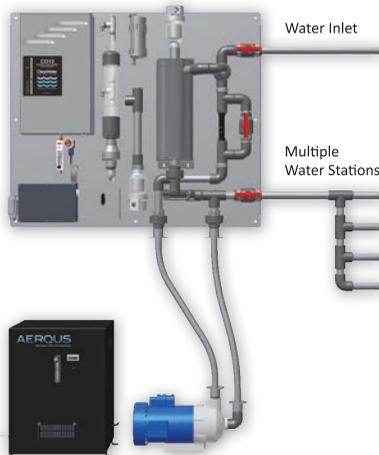
for the **WINE, BEER, AND CIDER INDUSTRY** .....



Fermentation professionals understand the benefits of ozone as a disinfection tool and safe organic solution that can replace traditional or harsh disinfection products. Ozone is an organic disinfectant used in the winery, brewery, and cidery that produces a more desirable product through the control of bacteria, molds, and other microbes. Wash down walls, floors, processing equipment, transfer lines, fermentation tanks,

rinse barrels, bottles, and use for well-water treatment with just the push of a button, and be assured that you'll receive the ozone you need to get the job done.

**“ClearWater Tech offers a unique family of stationary and mobile ozone systems that provide disinfection from the start-up, to the largest commercial facility”**



CIP600PM Panel-Mount System

## Clean-in-Place (CIP) Ozone Systems

The CIP and CIP-Panel Mount (PM) ozone systems provide ozone-enriched water for clean-in-place surface disinfection applications within the winery, brewery, or cidery. The CIP-Series of systems provide wall-mountable components required for ozone production. Whereas the CIP-PM Series of systems are designed for ease and simplicity of installation by providing a pre-assembled panel equipped for turnkey ozone production, injection, degas and destruction of residual ozone, and a circulation loop with booster pump to maintain constant pressure and flow to multiple drops throughout the facility.

### CIP Features:

- Ozone generator
- Oxygen concentrator
- Back flow prevention
- Ozone injection system
- Electrical controls

### CIP-PM Features:

- Ozone generator
- Oxygen concentrator
- Back flow prevention
- Ozone injection system
- Electrical controls
- Stainless steel degas vessel
- Degas vent
- Water trap and ozone destruct
- Circulation loop
- Booster pump

## C-Series Mobile Disinfection System

The C-Series Mobile Disinfection Systems deliver ozone-enriched cold water for winery, brewery, and cidery applications. Powerful, effective, well-designed, reliable, plug-and-play operation, and easy to maneuver, the system replaces traditional hot water and harsh chemicals with superior cold water disinfection.

### C-Series Features:

- Easy to use push button controls
- Microprocessor controlled ozone system with diagnostics and status indicators
- Rotary vane booster pump to maintain constant flow and pressure
- Ozone production of 18 grams-per-hour
- Typical ozone dosage rate is 8.0 ppm at 10 gpm (higher flow with optional bypass manifold)
- User programmable ozone and oxygen gassing feature
- Built-in oxygen concentrator delivering 93% oxygen at 15 SCFH
- Welded stainless steel tubular frame and exterior
- Built-in tool and accessory bin
- Designed for easy service access and maintenance
- Designed with low center of gravity, well-balanced and small footprint



C-Series Mobile System  
NOTE: Hose and spray gun optional

### Applications: Surface disinfection rinse and other applications

- Barrels
- Tanks
- Bottling equipment
- Walls/floors
- Transfer lines
- Drains/pumps
- Apple washing
- Processing equipment
- Barrel, tank gassing, and preservation
- Micro-oxy source (replacement of oxygen tank)
- Environmental disinfection with ozone gassing to control airborne contaminants



BOTTLING EQUIPMENT



PROCESSING EQUIPMENT



TANK WASHING



BARREL WASHING



ALL SURFACE CLEANING

### CIP, CIP-PM, C-SERIES SPECIFICATIONS

System	Ozone Output (GH)	Feed Gas	Water Inlet/Outlet (inches)	O3/O2 Gassing	Water Flow Range		DO3 PPM @ Max Flow Rate	Inlet Pressure (PSI)	Amperage Draw	
					GPM	LPM			120VAC 60HZ	240VAC 60HZ
<b>WALL-MOUNT</b>										
CIP20	0.325	Ambient	0.75" MPT	NA	1.3 - 5	3.7 - 19	0.23	20 - 100	0.50	0.25
CIP260	2.6	Dry Air	1.0" SLP	NA	5.0 - 15	19 - 57	0.76	60	2.60	1.52
CIP260PM			1.0" SLP		1.0 - 20	3.7 - 75	0.57		9.70	4.80
CIP800	8.0	Oxygen	1.0" SLP	NA	5.0 - 15	19 - 57	1.90	60	5.40	3.00
CIP800PM			1.0" SLP	Optional	1.0 - 20	3.7 - 75	1.75		12.0	6.00
CIP1500	15.0	Oxygen	1.5" SLP	NA	15 - 40	57 - 150	0.82	60	4.20	2.25
CIP1500PM			1.0" SLP	Optional	1.0 - 20	3.7 - 75	3.30		12.0	6.00
CIP3000	30.0	Oxygen	2.0" SLP	NA	30 - 80	58 - 300	1.64	60	7.50	3.30
CIP3000PM			1.0" SLP	Optional	1.0 - 20	3.7 - 75	6.50		16.0	8.00
<b>MOBILE</b>										
C-Series	18.0	Oxygen	1.5" Tri-Clamp	Included	5.0 - 10	19 - 38	8.00	40-80	12.00	6.00

**NOTE:** Higher flow rates may be obtained with the CIP-PM system with the addition of a user installed bypass manifold. Contact ClearWater Tech for more information and specific dissolved ozone levels at 800.262.0203 or 805.549.9724.

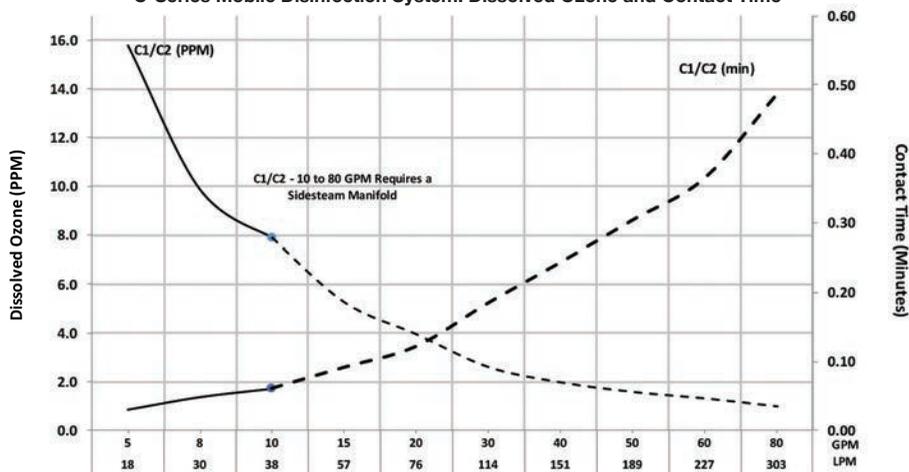


CIP20 Wall-Mount

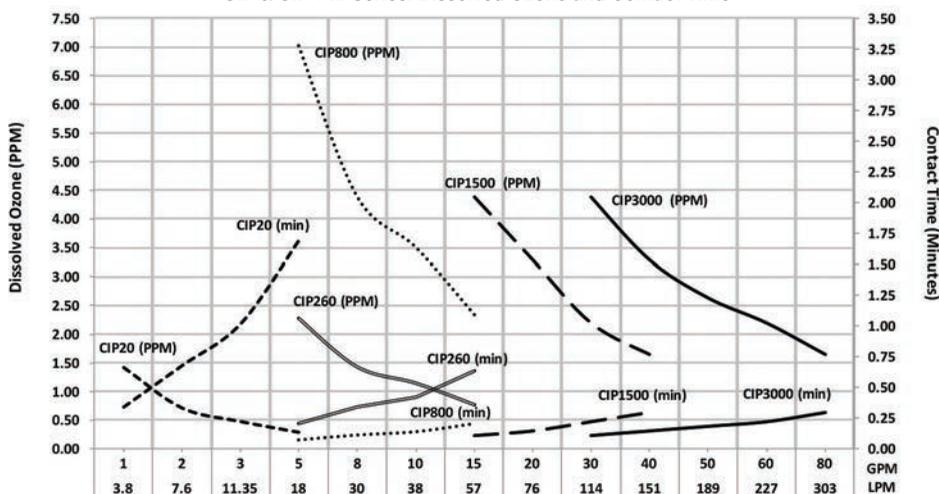


CIP260 Wall-Mount

#### C-Series Mobile Disinfection System: Dissolved Ozone and Contact Time



#### CIP & CIP-PM Series: Dissolved Ozone and Contact Time



**NOTES:** A Ct-Value of 0.48 (at 25°C water temperature) can provide a 99.9% reduction of *Giardia* Cysts and 99.99% reduction of enteric viruses, which also provides destruction of *Legionella*, *E. Coli*, and other bacteria. Ct is based on concentration (C) of dissolved ozone multiplied by contact time (t) in minutes. (Water Quality Association, 2007).

Anticipated results can be obtained at 7.5 pH, 70°F municipal water. Dissolved ozone levels are stated at 100% mass-transfer.

## Winery, Brewery, and Cidery Production Facility



### Just a Few Notable Installations

- **Tart Cider**, Olympia, WA
- **Outer Banks Brewing Station**, Corolla, NC
- **Lefondusac**, Paso Robles, CA
- **Elysian Brewing**, Seattle, WA
- **Chapin Family Vineyards**, Temecula, CA
- **Dominick Chirichillo Wines**, Half Moon Bay, CA
- **Bonobo Winery**, Traverse City, MI
- **Barrel 27 Wine Company**, Paso Robles, CA
- **Ponte Family Estates**, Temecula, CA
- **Sinor-Lavallee Wines**, Avila Beach, CA
- **Nunno Wine Storage**, Paso Robles, CA
- **S&G Estate**, Paso Robles, CA
- **Upstream Wines**, Lodi, CA
- **Brian Arden Wines**, Calistoga, CA
- **Occasio Winery**, Livermore, CA
- **Speakeasy Spirits**, Nashville, TN
- **O'Possum's Pub**, Murfreesboro, TN
- **Refugio Ranch Vineyards**, Los Olivos, CA
- **Aleksander Winery**, Paso Robles, CA
- **Jada Winery**, Paso Robles, CA
- **Deovlet Wines**, Templeton, CA
- **Dark Star Cellars**, Paso Robles, CA
- **Terravant Custom Winery**, Buellton, CA
- **Opolo Winery**, Paso Robles, CA
- **Tobin James Cellars**, Paso Robles, CA
- **Kynsi Winery**, Arroyo Grande, CA
- **Sterling Vineyards**, Napa Valley, CA
- **Insignia Vineyards**, Sonoma County, CA
- **J-Lohr**, Paso Robles, CA
- **Mumm**, Napa Valley, CA
- **Joseph Phelps Vineyards**, Napa Valley, CA
- **Cuthills Vineyards**, Pierce, NE
- **Eagle & Rose Estate**, Pope Valley, CA
- **Beaulieu Vineyards**, Rutherford, CA
- **Cain Vineyards & Winery**, Napa Valley, CA

"The C1 Cart is making our beers taste better, and 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, Buellton, CA*

"The C1 Cart was a great investment for my facility. Fantastic and easy to use for disinfecting tanks, barrels, floors, and drains".

*Ryan Deovlet, Winemaker/Owner Deovlet Winery, Templeton, CA*

