

# Air Purification & Surface Sanitization for A Cleaner and Safer Workplace

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**A G R I F Y**



**BLUEzone<sup>®</sup>**

# Agenda



**Why Purification Matters**



**Enozo Overview**



**Bluezone Overview**



**Bluezone in the Market**



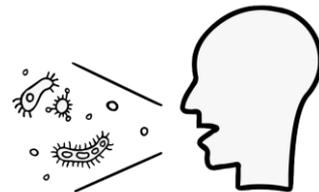
**Bluezone Technology Deep Dive**



## Why Purification Matters

**Bluezone can help mitigate the chance of virus transmission from person to person by killing the virus in infectious aerosols.**

- Infectious viral aerosols can remain in the air for long periods of time: Studies suggest SARS-CoV-2 can remain in the air for up to 16 hours.
- In indoor spaces such as common areas, bathrooms, or office spaces an infected person walking through will release infectious aerosols by breathing, talking, coughing or sneezing.
- Without continuous effective air cleaning such as Bluezone, another person could potentially become infected by walking through the same space and inhaling the infectious aerosols that were released up to 16 hours ago.





## Enozo Overview

### Enozo is an aqueous ozone (AO) water spray bottle



- A water-based alternative to traditional cleaners, deodorizers and sanitizers.
- Using revolutionary technology, EnozoPRO kills 99.9% of bacteria in only 30 seconds.
- Inside the spray bottle is a state- of-the-art electrolytic cell that turns normal tap water into aqueous ozone (AO) – nature’s most powerful sanitizer.



# Enozo Overview

## Specifications

- Weight: 2lb (0.9 kg)
- Dimensions: (w x d x h) 4" x 4" x 10" (10 cm x 10 cm x 25 cm)
- Water Reservoir Capacity: 14 oz (400 ml)
- Water Temperature: 40°F (4°C) -104°F (40°C)
- Bottle Battery: Lithium Ion 7.4V 1.8 Amp-hr
- Charger Battery: 100-240 AC 50/60 Hz
- Warranty: 2-year replacement
- Certifications & Standards: UL / CSA; FCC; EPA Establishment
- Green Seal® Certified GS-37, GS-53; ROHS
- Ozone exposure levels below OSHA PEL and STEL when used as directed
- Meets FDA requirements for hard, non-porous surface cleaning and sanitizing (2017 FDA Code 7-204.11)





## Enozo Overview

**Image shows visible mold on plant  
Day 1 prior to Enozo Application**



**Two days after Enozo application  
Image shows little to no signs of mold**





# Enozo Overview

## Easy to Use

- LED indicator to notify when bottle is producing aqueous ozone, and when bottle is low-battery
- Aqueous ozone produced on-demand with the pull of a trigger
- Trigger activates micro-pump to draw water through the electrolytic diamond to create aqueous ozone
- Able to dispense at least one gallon of sanitizing solution per charge; 5000 refills per battery life

## Benefits

- Cleans, deodorizes and sanitizes
- No harsh synthetic chemicals or fragrances added
- Leaves no residue
- Removes odors
- Sanitizes in just 30 seconds
- Kills 99.9% of bacteria including E. coli and Salmonella
- Kills 99.999% E. coli and Staph A. per AOAC 960.09 modified protocol



## Bluezone Overview

Bluezone was developed for the US Military by leaders in product innovation, and it is an established technology used by several major industry players.



Bluezone was developed in 2006 for extending the shelf life of FF&V for the US Military and is currently installed on all US aircraft carriers.



Bluezone was created by Karen Benedek and Phil Carbone, cofounders of Bluezone who have a combined 50 years experience in product innovation and manufacturing.





# Bluezone Overview

Bluezone is a revolutionary air purification technology designed to eliminate airborne contaminants.



## Model 420

*Designed for fungi, bacteria and virus mitigation*



## Model 2400

*Designed for cold storage*



## Model 300 and Reach-in Refrigeration

*Designed for walk-in and reach-in refrigeration*





## Bluezone Model 420 Overview

It is an easily installed, plug and play solution.

- Air circulates through the Bluezone reaction chamber and returns to the environment clean and fresh.
- To achieve maximum kill-rate, **O<sub>3</sub>** and **UV** work in tandem to oxidize and irradiate contaminants
- Because oxidation and ultraviolet irradiation happen inside the reaction chamber, Bluezone is safe **AND** effective.





# Bluezone Overview

Extensive testing shows Bluezone's effectiveness: >99% of fungi and >99% of bacteria are eliminated after one hour of operation.

Testing performed by Primaira, LLC

## Microbial Sampling

Without Bluezone



With Bluezone



Testing performed by Intertek

intertek

Total Quality. Assured.

Bluezone Product Inc.  
Intertek Report: No: 104008979COL-003

### MICROBIOLOGICAL PERFORMANCE TEST REPORT

Summary of Results:

	Test Parameter	
	Bacteria	Fungus
	<i>Bacillus atrophaeus</i> (ATCC 9372)	<i>Penicillium citrinum</i> (ATCC 9849)
Percent Reduction	99.9%	99.9%

Test Performed by:

  
Nicholas Unger  
Project Engineer  
Columbus Office

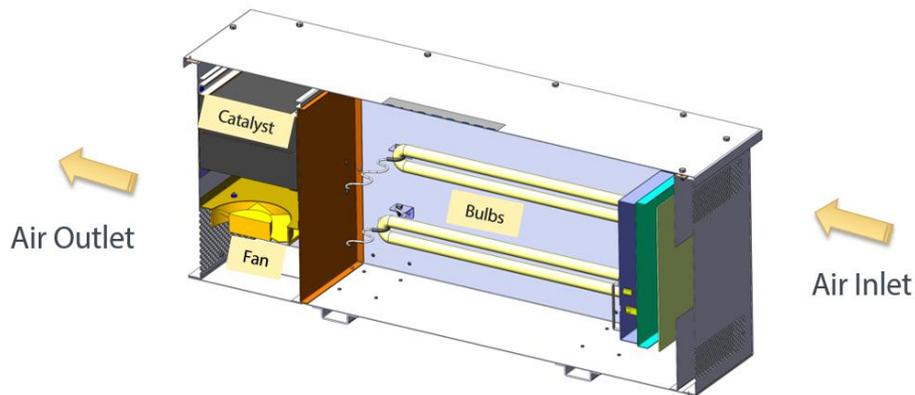
Report Approved by:

  
Lee Moomaw  
Engineering Team Lead  
Columbus Office



## Bluezone Technology Deep Dive

A fan draws air into the Bluezone reaction chamber through a baffled intake, across UV lamps, and out through a catalyst.





## Bluezone Technology Deep Dive

**The reaction chamber uses both UV and O<sub>3</sub> because ultraviolet irradiation speeds up the oxidation process.**

- Bluezone uses lamps that emit energy at germicidal UV-C wavelengths and the higher energy, vacuum UV (VUV) wavelengths to achieve the highest level of microbial kill.
- UV scrambles the DNA of bacteria and mold so that it can't reproduce, stopping infections before they start.
- Ozone breaks down the cell walls of bacteria and mold, killing some cells and weakening others for UV.



# Bluezone Technology Deep Dive

The Bluezone Model 420 is 25lbs and treats 15,000 cubic feet of air volume every 4 hours.

## Specification Category

## Model 420

Application	Occupied spaces for virus mitigation
Size	31" X 14" X 13.5"; 79 cm X 36 cm X 34 cm
Product Weight	25 lbs; 11 kg
Shipping Size	36" X 20" X 20"; 91 cm X 51 cm X 51 cm
Shipping Weight	28 lbs; 13 kg
Operating Environment	34°F – 104°F; 1C – 40C; up to 85% RH
Storage Environment	-4°F – 150°F; -20C – 65C; up to 90% RH
Treatment volume	15,000 cu.ft., 212 m <sup>3</sup> per Bluezone
Input Voltage	120 VAC 1 Phase
Current	3 amps (at 120VAC)
Power	Maximum 250 Watts
Electrical Connection	IEC 320-C13 120 VAC power cord
Mounting Options	Hung from ceiling, placed on shelf/rack, or mounted to wall





# Environmental Threat Mitigation Plan

**Next Steps...**