

VITAL OXIDE® Supplemental Bulletin for ULV Mist Application
with the
Zimek Micro-Mist® Application System
(Micro-Mist® Generator, Z-vac® Micro-Particle Evacuator, Applicators, and Sealing Devices)

Use Vital Oxide® with the Zimek Micro-Mist® Generator¹ to distribute an Ultra-Low Volume Mist to disinfect hard non-porous surfaces in enclosed spaces up to 3,400 ft³. Multiple units operating concurrently may be used to treat larger areas. The Micro-Mist® Generator will create liquid droplet aerosols at the generator exhaust with a mass median aerodynamic diameter between 4 and 5 µm that readily disperse within the enclosed space to create concentrations of 250 mg/m³ or higher in less than 30 minutes of operation.

Vital Oxide® delivered by a Zimek Micro-Mist® Generator will disinfect precleaned hard non-porous surfaces that are exposed to free air flow of the mist to a height of 8 ft. For hard to reach areas that do not see free air flow (including areas above 8 ft), ULV misting serves only as an adjunct to manual cleaning and disinfection.

Refer to the Zimek Operations Manual for Operators (Volume V2.92-US-Z4060-ROC-20100830) for additional guidance on operation of the Micro-Mist® Generator and related equipment.

Step 1: Site Preparation

Conduct routine cleaning of the room, vehicle or other target space that is capable of being sealed. Manually disinfect the surfaces of HVAC vents and smoke detectors and other hard non-porous features of the space to be treated. Install Zimek sealing devices to seal off HVAC vents, smoke detectors and other openings (tape or other sealing material may be used around doors) to ensure containment of the Micro-Mist® treatment.

Step 2: Misting and Dwell Cycles

Position the Zimek Micro-Mist® Generator reasonably close to the center of the space that has been sealed. Multiple units in larger spaces should be evenly spaced. Add Vital Oxide® full strength to the reservoir. Using the operator interface for the Zimek Micro-Mist® Generator, program room size and (for documentation purposes) treatment location. Activate the Zimek Micro-Mist® Generator, leave the space to be treated (during the 40 second countdown) and seal the egress point. Input to the operator interface determines the length of the mist cycle for different room sizes and then maintains a surface wetting concentration for a 10 minute dwell cycle.

Step 3: Z-VAC® Cycle/Ventilation/Re-entry

Surfaces should be completely dry before re-entering the space. A unique feature of the Zimek system is the Z-VAC® machine (specifically the Z-vac model Z23002 pictured in the Operations Manual for Operators referenced above for purposes of this Bulletin, a photograph of which appears below). This Z-VAC® filter unit automatically removes airborne disinfectant droplets at the end of the Dwell cycle and accelerates drying of surfaces, thereby facilitating rapid reentry so that the space can be returned to service. When connected to the Micro-Mist® Generator, the Z-VAC cycle will initiate automatically and signal when it is safe to re-enter the area. Follow the operators instructions if manually controlling the Z-VAC referenced herein.

Z-vac®
Micro-Particle Evacuator



Z-vac Model: Z23002

¹ The Zimek Micro-Mist® Generator is covered by the following U.S. patents: 7,524,454; 7,780,909; 7,959,859 B2; and 8,062,588.