

HLDC-1 Series

A Multi-Purpose High Level Disinfection Cabinet



The HLDC-1™ series is an advanced multi-purpose High-Level Disinfection Cabinet, using Altapure's enhanced ultrasonic sub-micron aerosol technology, delivering a consistent 100% kill of pathogens such as: C. difficile spores, VRE, CRE, MRSA, C. auris, & viruses such as HPV.

The inner space of cabinet can be custom designed, with suitable hooks, shelves to handle the cleaning of couple sets of protective clothing, boots, gloves, probes, cables, keyboard, medical monitor equipment, blood pressure cuffs, stethoscopes, N-95 masks and much more in the field of CBRN forces, fire station, hospital, Lab., clean room, pharmacy factory, transportation facilities etc.,

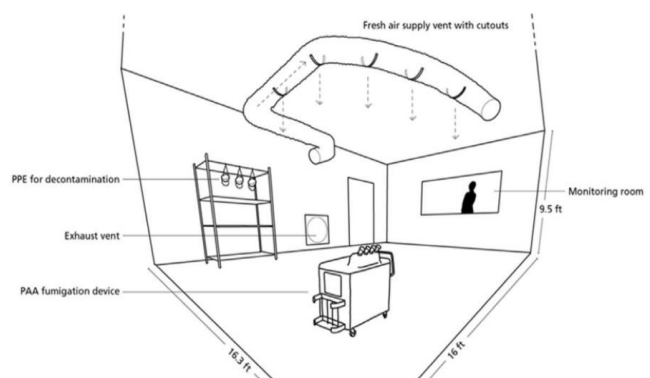
The mobile PC-RED unit can connect to a sealed, independent cabinet or a tent for 24 hours' sterilization service at any place.

AP-4 unit suits for a room-by-room based disinfection service. If needed, the function module of PC-RED can easily fit into a specified cabinet for space saving.

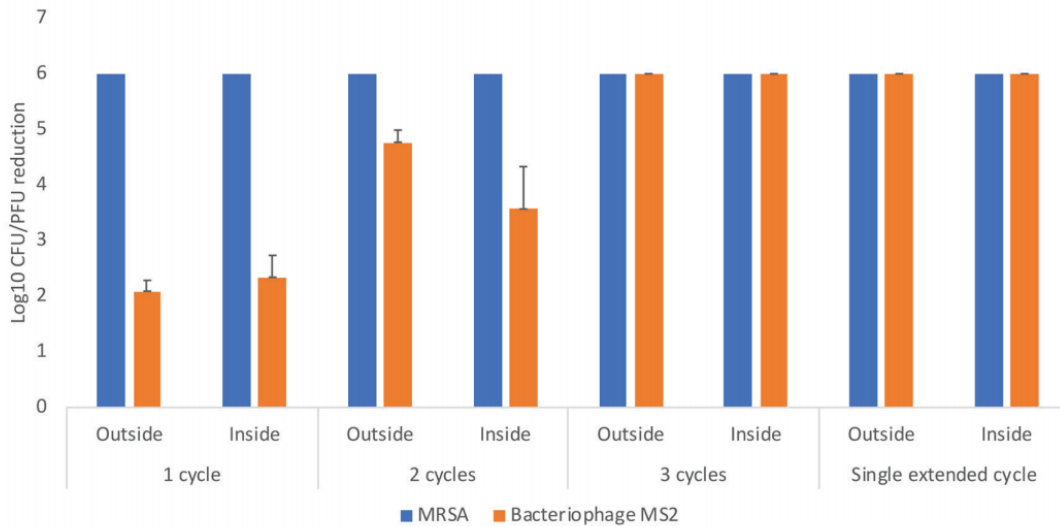
FEATURES:

- **Rapid Process:** less than a 20 minute cycle time.
- **Economical:** less than \$0.20 per cycle.
- **Efficacious:** delivers a 100% kill of C. diff spores, MRSA, VRE, CRE, HPV, and C. auris.
- **Gentle On Equipment:** very low concentration of PAA+H₂O₂, low temperature / cool process.
- **Easy To Use:** manual, computer controlled.
- **Data:** Wireless data reporting.
- **Specifications:** average droplet size 0.69 micron.
- **Electrical:** 120VAC 50/60Hz 15A. All global standard input options are available.
- **Cabinet/dimensions:** 72X36X24 inch (option)
- **Construction:** food grade materials.

Disinfection performance pass 6 Log required by EPA



Efficacy of a multi-purpose HLDC (high-level disinfection cabinet) for decontamination of PPE or N95 respirators



Above figure shows the efficacy of a HLDC (high-level disinfection cabinet) for decontamination of Moldex 1517 respirators inoculated with MRSA and bacteriophage MS2. With 1, 2, and 3 treatment cycles of 21 minutes and with an extended 31-minute cycle, reductions of >2.1, >3.6, and >6 log₁₀ PFU or CFU were achieved for all the test sites. Additional testing with the other 2 respirator types demonstrated similar results for the 3 consecutive 21-minute cycles and for the single extended 31-minute cycle.

The 3-cycle treatment was effective in achieving >6-log₁₀ PFU or CFU reductions on the Moldex 1517 respirator when the suspension containing 10⁶ PFU of MS2 and 10⁶ CFU of MRSA was sprayed onto the entire inner and outer surface of the Moldex 1517 respirator.

No visible changes were observed in any of the respirators after 3 or more cycles of decontamination

SUGGESTED CITATION

Cadnum JL, Li D, Redmond SN, John AR, Pearlmutter B, Donskey C. Effectiveness of Ultraviolet-C Light and a High-Level Disinfection Cabinet for Decontamination of N95 Respirators. *Pathogens and Immunity*. 2020;5(1):52-67. Doi 10. 20411 / pai.v5i1.372

