

## DECONTAMINATING N95 MASKS USING RAPIDHEAT TECHNOLOGY

CPAC Equipment, Inc. (CPAC) is an FDA registered New York manufacturing company ([www.cpac.com](http://www.cpac.com)) that has recently responded to the COVID-19 Public Health Emergency and the emerging reuse of N95 Respirator Masks by repurposing their FDA-Cleared tabletop sterilizers to decontaminate certain identified used N95 Respirator Masks.

Under the Emergency Use Authorization (EUA) granted to manufacturers by the FDA, CPAC has modified the functionality of its RapidHeat RH-Pro11 sterilizer to decontaminate used N95 masks. Research of peer reviewed studies from the last SARS -coronavirus (2002-2003) confirmed that CPAC 's RapidHeat High-Velocity Hot Air (HVHA) technology would be the ideal vehicle for decontaminating identified used N95 Respirator Masks through a modification of its software and time/temperature profile.

- CPAC's FDA-Cleared RH-Pro11 Sterilizer has been repurposed to decontaminate N95 Masks.
- FDA's "Emergency Authorized Use" allows FDA-Cleared Devices to Modify Functionality.
- The RH-N95 System was engineered to Decontaminate (kill) Viruses and Bacteria (not spores).
- CPAC has successfully researched and tested a number of popular quality N95 Respiratory Masks.
- Research has proven that repeated thermal cycles do not damage "N95 Fit and Filtration".
- N95 Masks made of Polypropylene Thermoplastic Fabric are proven to withstand over 300° F.
- CPAC's RH-N95 System temperature uses heating technology that is stable and uniform.
- RH-N95 System uses State-of-the-art Software to Control time and temperature.
- RH-N95 Cycles are calibrated to maintain a time/temperature profile of 68° C. for 30 minutes.
- Peer-reviewed studies have provided the criteria for achieving mask decontamination.
- RH-N95 RapidHeat Technology protocol allows Masks to be returned to the original user.
- The RH-N95 DOES NOT Sterilize – It "inactivates" vegetative microorganisms to a level of  $\geq 6$ Logs.

CPAC's decontamination chamber is a closed system; air going in with door open is air from ambient environment. Ambient environmental air in hospitals is required to be 40-60% relative humidity. Therefore, air in the chamber is an average 50% humidity which is favorable for viral kill under the RH-N95 time and temperature parameters of 68 degrees C for 30 minutes. The mass of air and moisture content entering the chamber before the door is closed remains the same mass during the decontamination process.

**IMPORTANT:** Healthcare Practitioners should contact CPAC to determine if their N95 Masks have been tested for maintaining their integrity and functionality using the RH-N95 Decontamination System. There are low-quality masks manufactured by some companies using inexpensive non-durable construction that may not survive under the reprocessing temperatures of the RH-N95.