



**AIR KNIGHT®  
TECHNOLOGY**

**Dust Free® tested its PCO and Ionization technology against SARS-COV-2 (Covid-19), MS-2 Bacteriophage, and Staphylococcus Epidermidis in three different lab settings and test results have shown the ability to successfully reduce all three pathogens.**

Dust Free®'s ASHRAE 52.2 tunnel/chamber test utilized in the MS-2 Phage and Staph is a rigorous test protocol. Unlike the Dust Free® test protocol, the majority of duct mounted purifiers sold through the HVAC distribution channel are tested in a more controlled lab setting, in a small box, with little to no air movement other than a fan positioned to blow on the device being tested. The pathogen is put on a stainless steel coupon and the test is run for 24 hours. This protocol does not accurately reflect how the device will perform in a typical ducted HVAC system. For this reason, most manufacturers do not disclose their test protocol.

Dust Free®'s test protocol is much more reflective of what can be expected in a typical ducted system. To our knowledge Dust Free® is the only manufacturer of duct mounted air purifiers that has tested to this rigorous protocol.



SARS-COV-2 (Covid-19) testing was conducted by MicroLife Labs in Milan, Italy in a hospital setting. Masks worn by Covid-19 patients were put in a room for 2 hours with Dust Free®'s air purification technology and successfully removed the pathogen from the masks while masks in an untreated room showed no improvement in the same time span.

MS-2 Bacteriophage (MS-2 Phage) testing was conducted at LMS Labs in Minneapolis, Minnesota. MS-2 Phage has been found to be 8-10 times more difficult to kill than Covid-19 by the National Center for Biotechnology Information. The pathogen was aerosolized into a 2000 cubic foot chamber connected to an ASHRAE 52.2 tunnel with the Dust Free® technology installed in the duct outside the chamber. The Dust Free® air purification technology showed a 15% reduction of the airborne pathogen every half hour.



Staphylococcus Epidermidis testing was conducted at Airmid Labs in Dublin, Ireland. Staphylococcus Epidermidis has been identified as one of the most difficult bacteria to kill by National Center for Biotechnology Information. The pathogen was aerosolized into a 2000 cubic foot chamber connected to an ASHRAE 52.2 tunnel with the Dust Free® technology installed in the duct outside the chamber. The Dust Free® air purification technology showed a 15% reduction of the airborne pathogen every half hour.