

# ductFIT

## Brochure / Product Data Sheet



## The only NASA Certified Space Technology for Air & Surface purification

- Remove smell, gases, smoke
- Remove formaldehyde, benzene and VOCs
- Eliminate virus, bacteria and mold
- Concealed installation, no noise
- No ozone



## NASA Certified Space Technology



## ductFIT

The ECO enhanced catalytic oxidation technology that ductFIT uses is based on the PCO technology originally developed in the 1970s by NASA, especially designed for purifying the inside air of the Space Station. Most of the competitors adopted and are still using this outdated technology which is able to create ions that last a few milliseconds.

After continuous research and development, ECO technology has greatly enhanced the original PCO technology and is able to reproduce the same ions as naturally generated by the sun in outdoor environments, and it is the only catalytic ionization technology that can create ions with a lifetime of several minutes. Ions generated by ECO not only can break down the various pollutants in the air, but also can break down the pollutants on the surfaces.

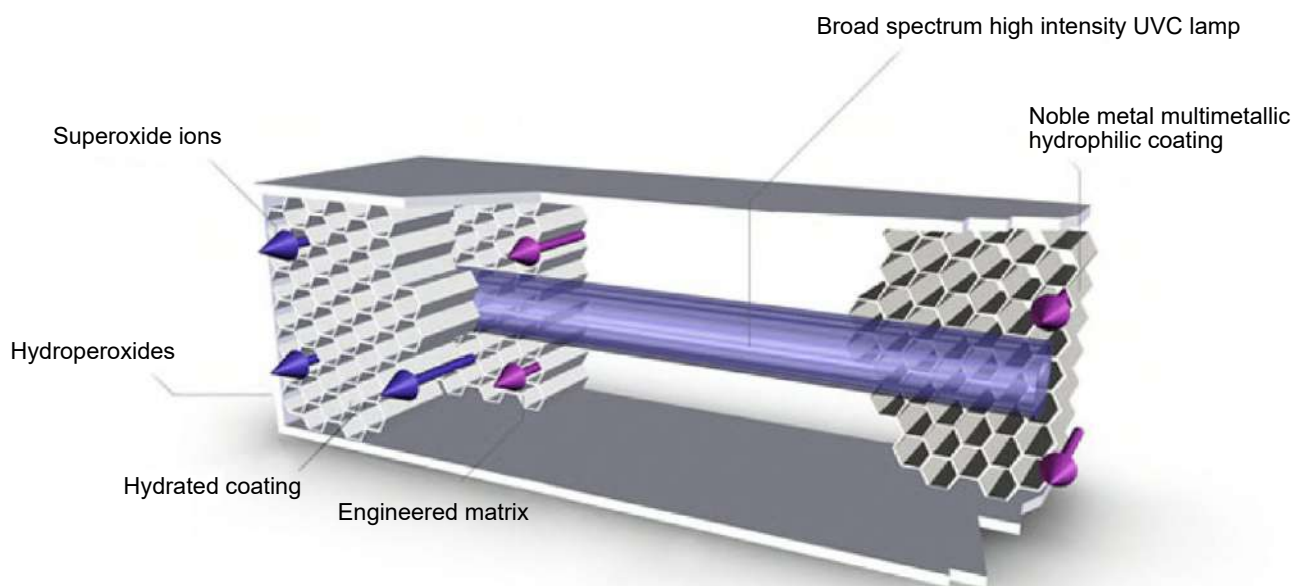


The ductFIT removes smell, gases, smoke, formaldehyde, benzene and VOCs; virus, bacteria and mold etc. By using 100% safe ECO technology.

The ductFIT made in USA and Space Certified by NASA technology. Active purification without filter, concealed installation, no noise, no ozone.



## Technology

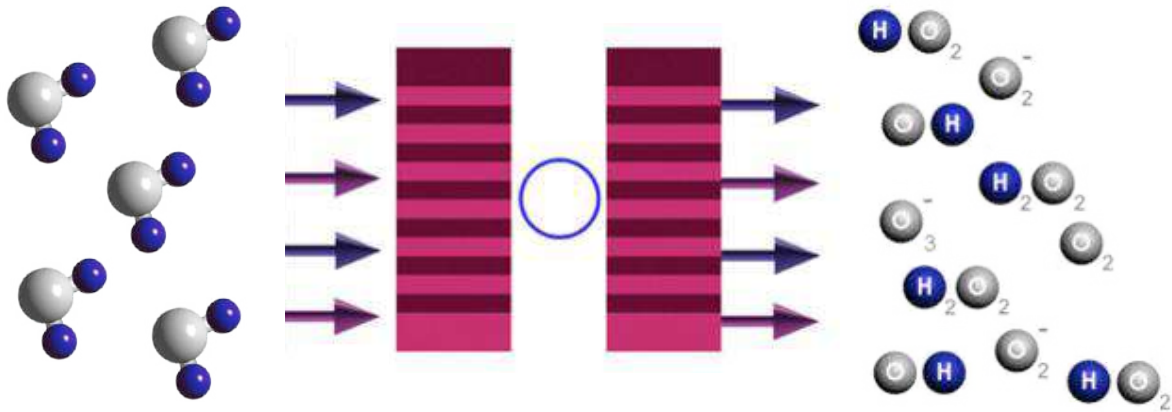


### ECO Cell

- Creates the same oxidation and ionization as naturally occurring sunlight, using germicidal UV light.
- Combines these ionizing properties with photocatalytic reactions of specific rare and noble metals.
- Proactively sends out friendly oxidants to decontaminate all air & surfaces in a room.



The special broad wavelength UV lamp inside ductFIT uses diverse frequencies to stimulate the rare metal coating reacting with the water vapor to generate the purification components, decompose the harmful chemicals in air and surfaces.



ECO technology replicates natural processes to convert part of the water molecule to strong oxidative purification ions:

HO<sub>2</sub> — Hidroperoxyls Radicals

O<sub>2</sub><sup>-</sup> — Superoxides Ions

H<sub>2</sub>O<sub>2</sub> — Hidroperoxides

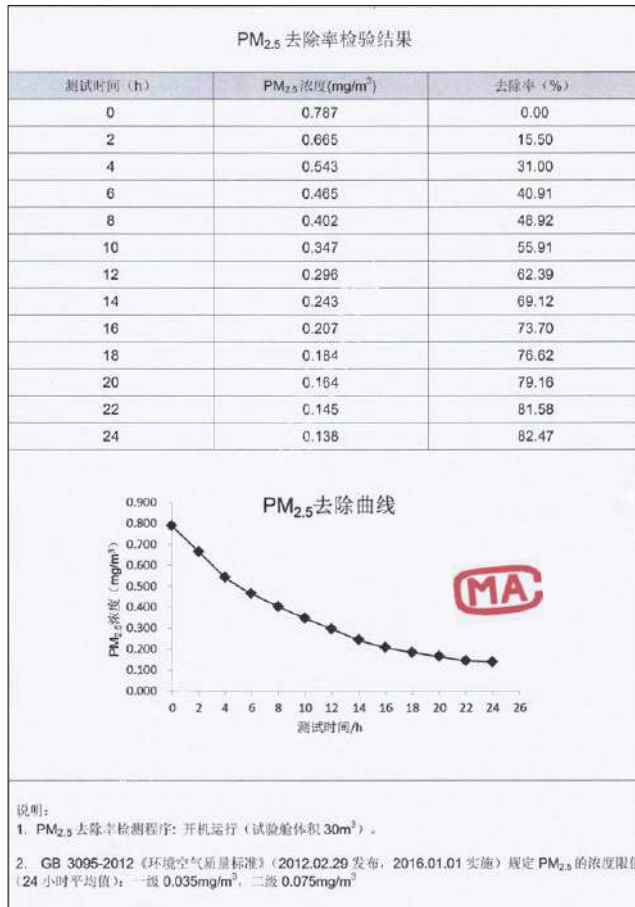
HO<sup>-</sup> — Hidroxyl Radicals



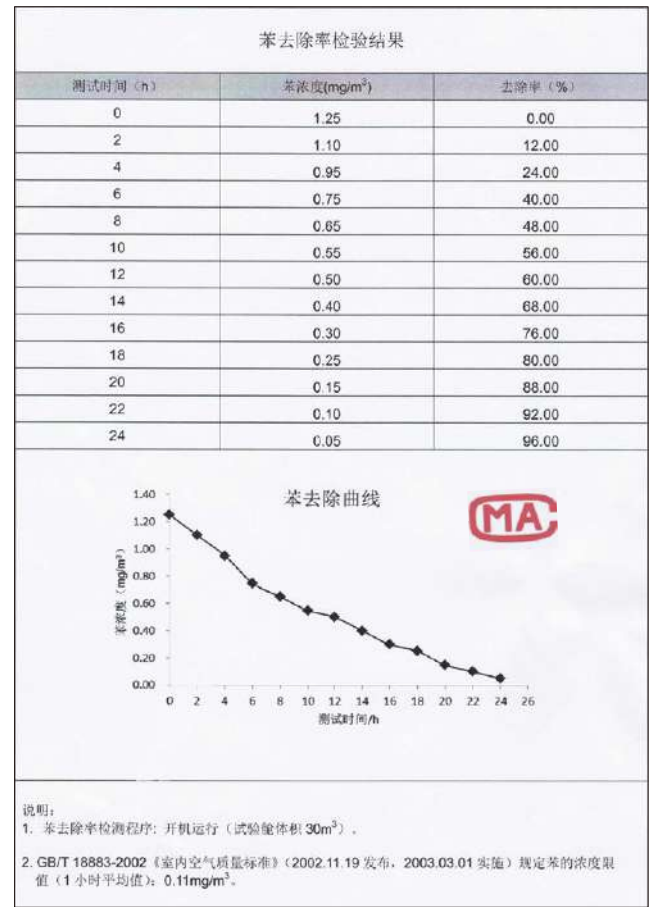
## How to kill bacteria?



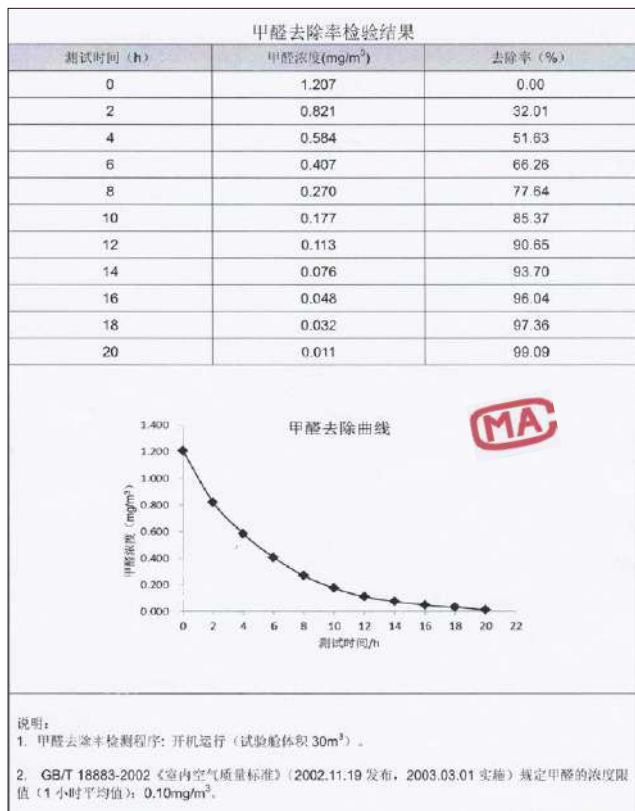
# China Testing and Inspection Institute for Household Electrical Appliances - ductFIT



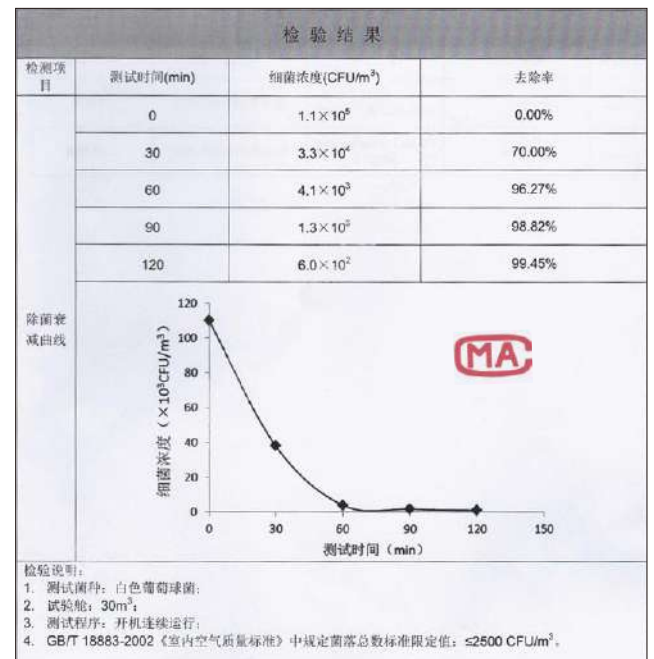
**PM2.5 reducing within 24hrs**



**Benzene reducing within 24hrs**



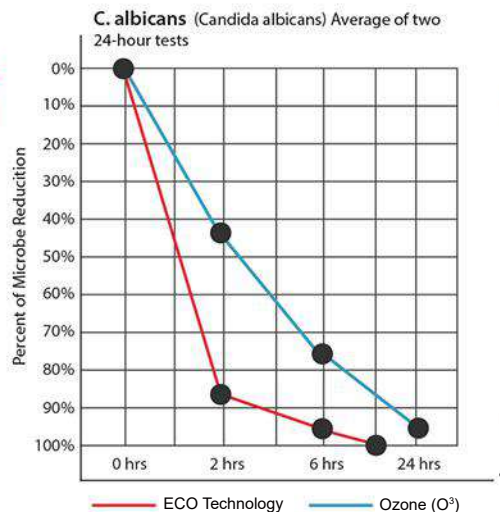
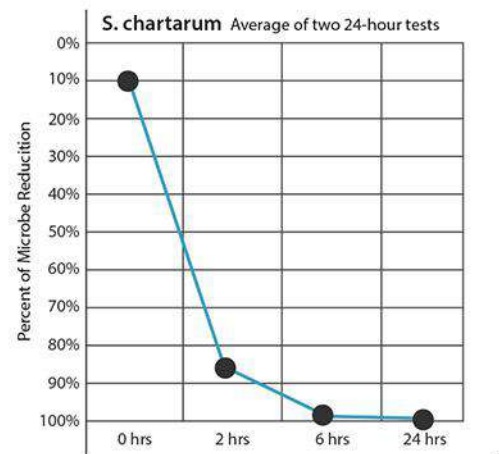
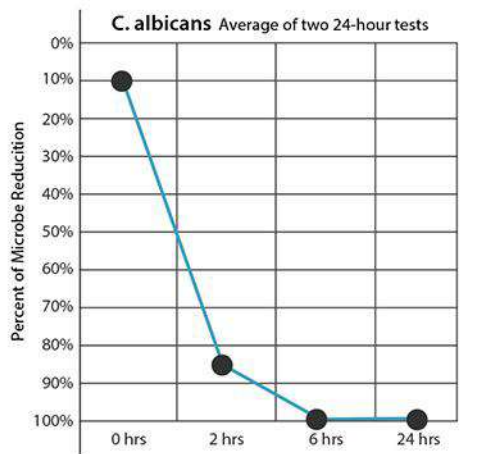
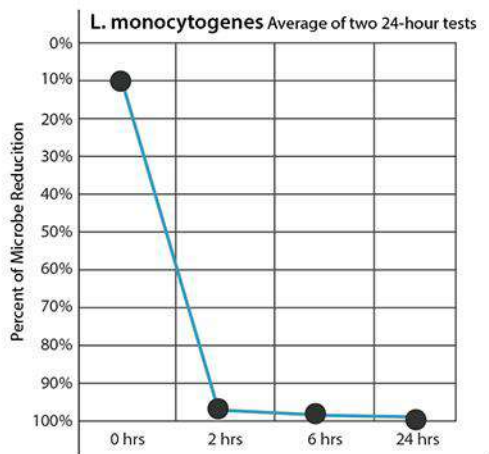
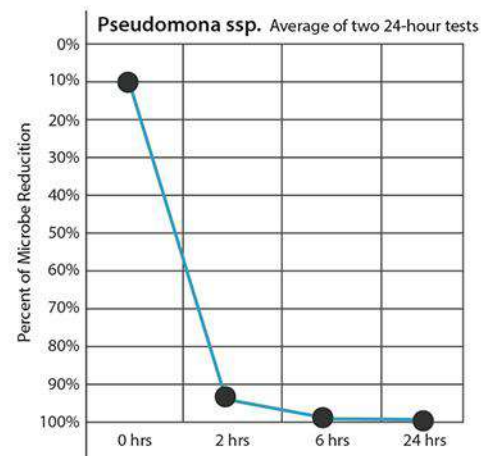
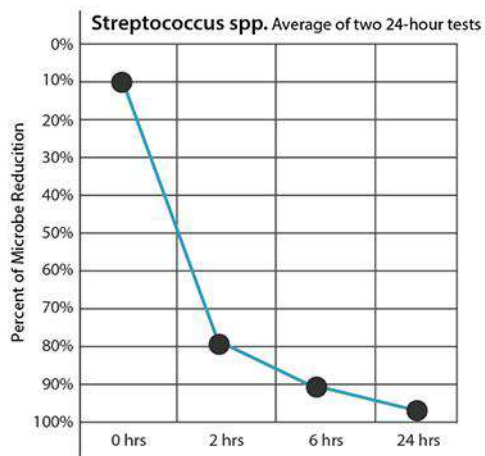
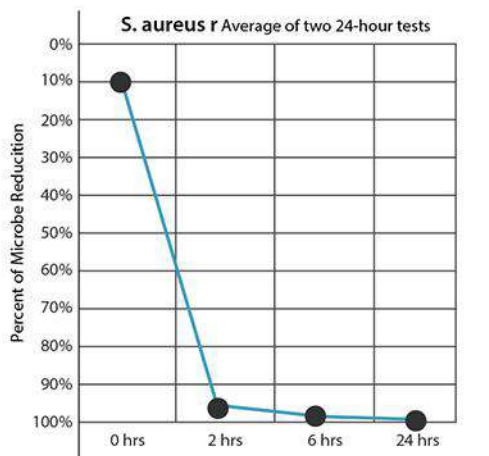
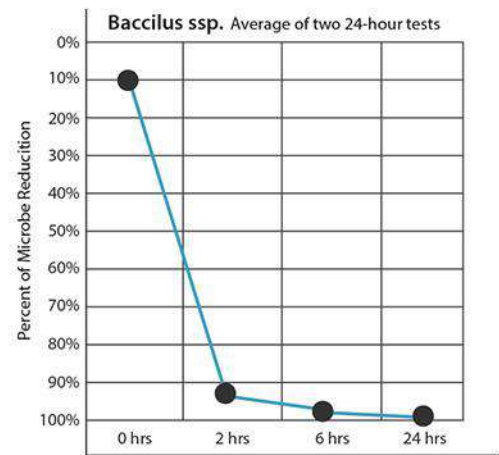
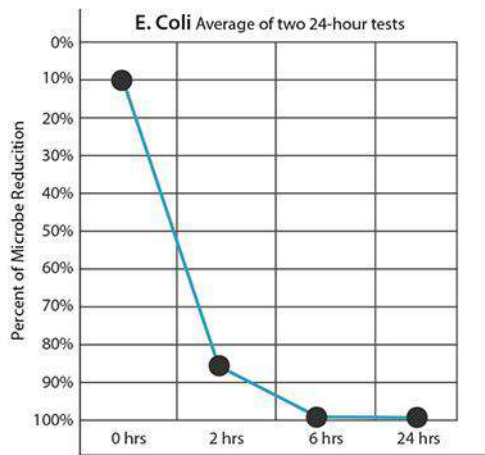
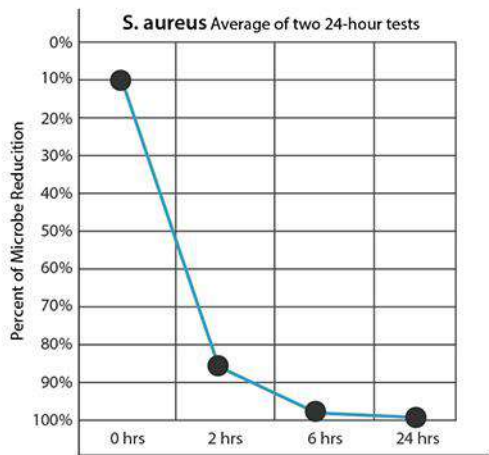
**Formaldehyde reducing within 24hrs**



**Bacteria reducing within 2hrs**

# Effects of ECO Technology

on reducing common bacteria and fungi on surfaces in 24-hour testing.



## Summary of Test Results - Biological Reductions using ECO (Ozone at .02 ppm)

- Staphylococcus aureus: .....98.5% reduction
- MRSA - Staphylococcus aureus (Methicillin Resistant): .....99.8% reduction
- Escherichia coll: .....98.1% reduction
- Bacillus spp.: .....99.38% reduction
- Streptococcus spp.: .....96.4% reduction
- Pseudomona aeruginosa: .....99.0% reduction
- Listeria monocytogenes: .....99.75% reduction
- Candida albicans: .....99.92% reduction
- Stachybotrys chartarum: .....99.93% reduction

## Comparing The Effects of ECO Technology and Ozone Technology

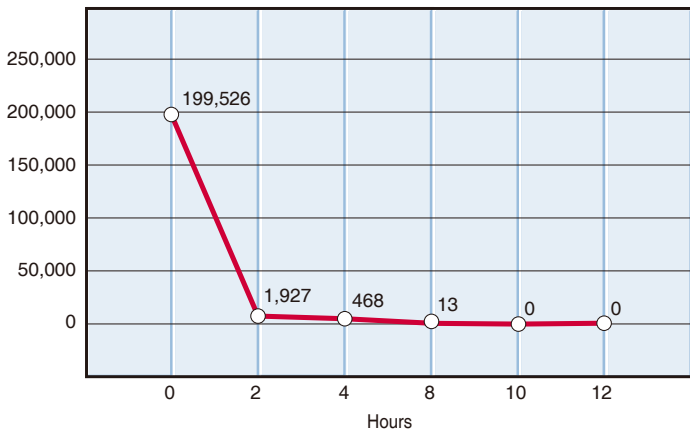
on reducing common bacteria and fungi on surfaces in 24-hour testing.

Testing by Kansas State University. Field results may vary based on environmental conditions.

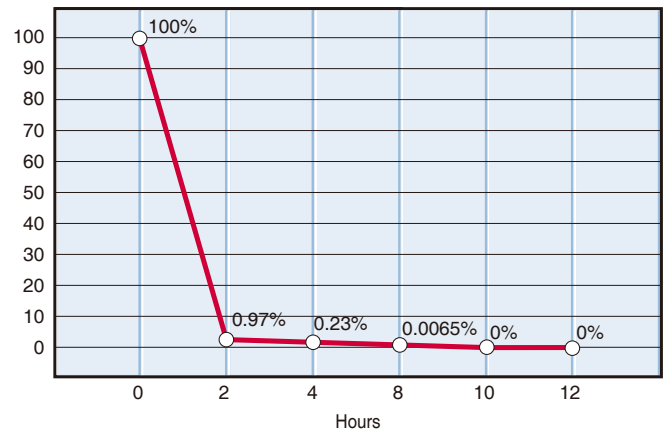
# Effects of ECO Technology

on reducing Avian Influenza A (HSN1) on surfaces in 12-hour testing.

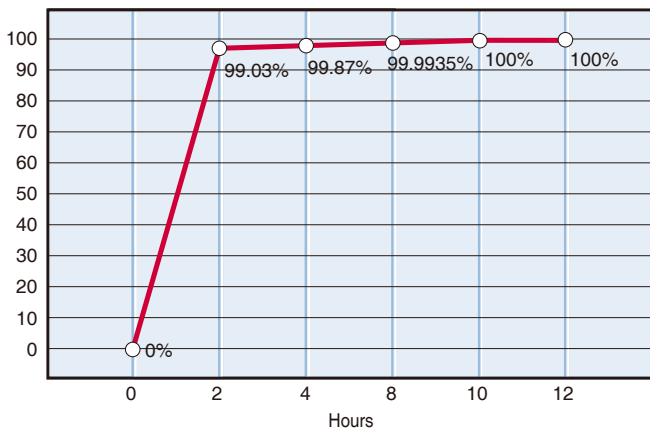
Avian Influenza A (HSN1) Inactivation with ECO  
Infectious Cells vs Time



Avian Influenza A (HSN1) Inactivation with ECO  
Percent of Infectious Cells Remaining vs Time



Avian Influenza A (HSN1) Inactivation with ECO  
Percent of Infectious Cells Reduced vs Time



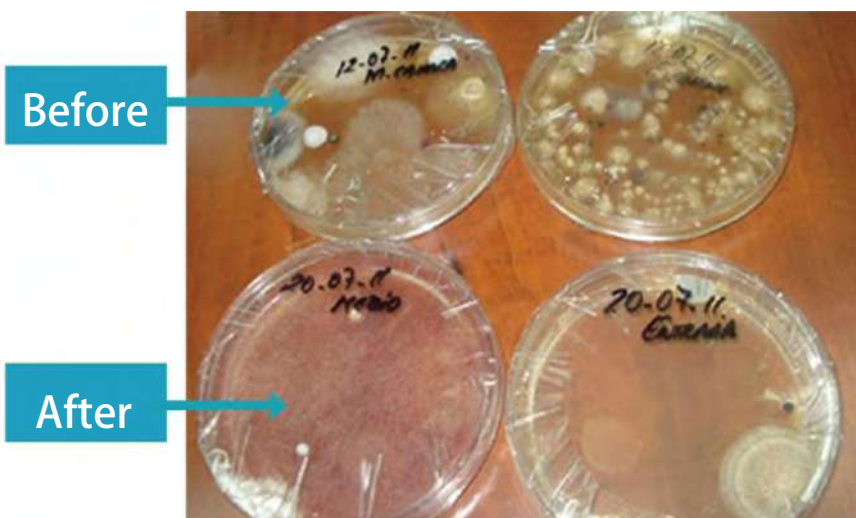
**99% reduction  
HSN1 within 2 hours, to  
100% within 10 hours.**

Testing by Kansas State University.

Scientific tests have demonstrated the ECO technology substantially reduce microbial populations on surfaces. These products are not intended to diagnose, treat, cure, or prevent any disease.

## Visual Bacteria & Mold Growth Test

ECO technology effectiveness is easy to see with the naked eye in frequent independent and client based studies.



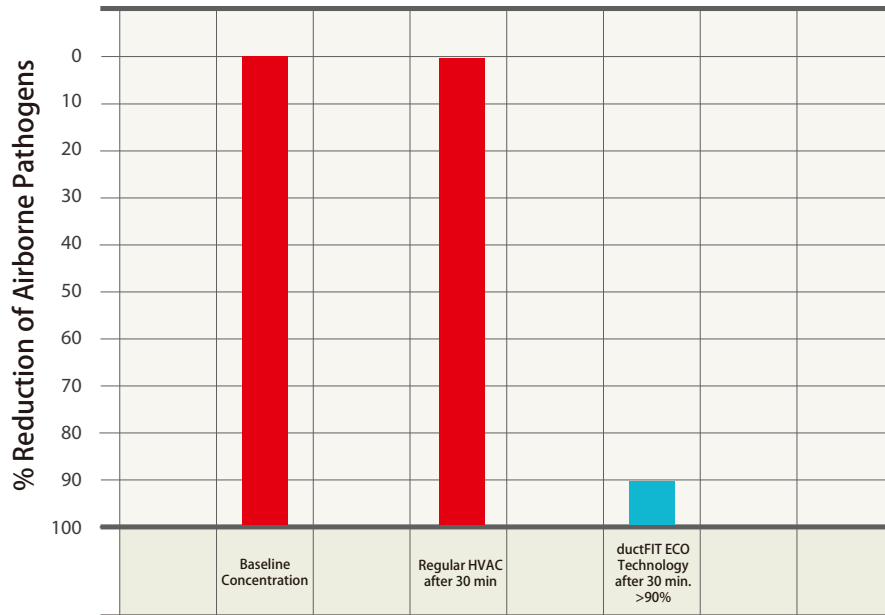
In this example, airborne samples were taken with petri dishes before and after the installation of ductFIT inside ducting.

The significant reduction in bacteria (white dots) and mold (gray dots) is clear.



# Reduction of Airborne Contaminants

Testing by Cincinnati Study. Field results may vary based on environmental conditions.



ductFIT can reduce Pathogens in the air efficiently

- No reduction of pathogens with HVAC turned off
- 1% reduction of pathogens with HVAC turned on
- 90% reduction of pathogens after turning on ductFIT for 30 minutes

## Elimination of ethylene (<0.3um)

ECO cells are effective across fine particle VOCs that even high-quality HEPA filters do not remove.



Scientific test carried out at two independent client fruit growers in Spain. Readings taken before and after the standard installation of an ECO Ductstation.

## Ethylene (<0.3 um) VOC Reduction



Results:  
Up to 85% reduction in ethylene (under 0.3um) concentrations.