THE SAFE AIR ZONE

Safe Air Zone Plan

Even life after COVID...

...air pollution is one of the leading causes of death worldwide

Cardiovascular Disease

Cancer

Asthma

-**43%** of Global Deaths, **75%** of Deaths Over **60**
-Air pollution **exceeds** malaria by a factor of **19**

2018 study in the International Journal of Environmental Research and Public Health

Summary of Today's Presentation

- Introduction
- Indoor Air Quality
- Safe Air
- CDC / Department of Labor Guidance on Preparing Workplaces for Reopening
- HEPA Filtration
- AIRBOX
- AM Technical Solutions
- APEX Unit 880 CFM
- Peak Unit 425 CFM
- Custom Solutions
- Safe Air Plan

Relationship of Each Company

The Safe Air Zone

- Local
- Inventory
- Service
- Marketing / Sales
- Field Engineering

AIRBOX

- Manufacturer Commercial Air Purification

AM Tech Solutions

- Parent Company of AIRBOX
- Industry Experts in Air Filtration
- Custom Solutions for HEPA Filtration
- Engineering
- Design
- Fabrication

Importance of Indoor Air Quality (IAQ)

EPA United States Environmental Protection Agency

Mold, dust mites, pet dander and pest droppings or body parts can trigger asthma. Biological contaminants, including molds and pollens can cause allergic reactions for a significant portion of the population. Tuberculosis, measles, staphylococcus infections, Legionella, influenza *and* ***COVID-19 are known to be transmitted by air.***

"Indoor Air Quality (IAQ) refers to the air quality within and around buildings and structures, especially as it relates to the health and comfort of building occupants. Understanding and controlling common pollutants indoors can help reduce your risk of indoor health concerns. Health effects from indoor air pollutants may be experienced soon after exposure or, possibly, years later."

Scientific Brief: SARS-CoV-2 and Potential Airborne Transmission

Updated Oct. 5, 2020 Languages Print

The principal mode by which people are infected with SARS-CoV-2 (the virus that causes COVID-19) is through exposure to respiratory droplets carrying infectious virus.

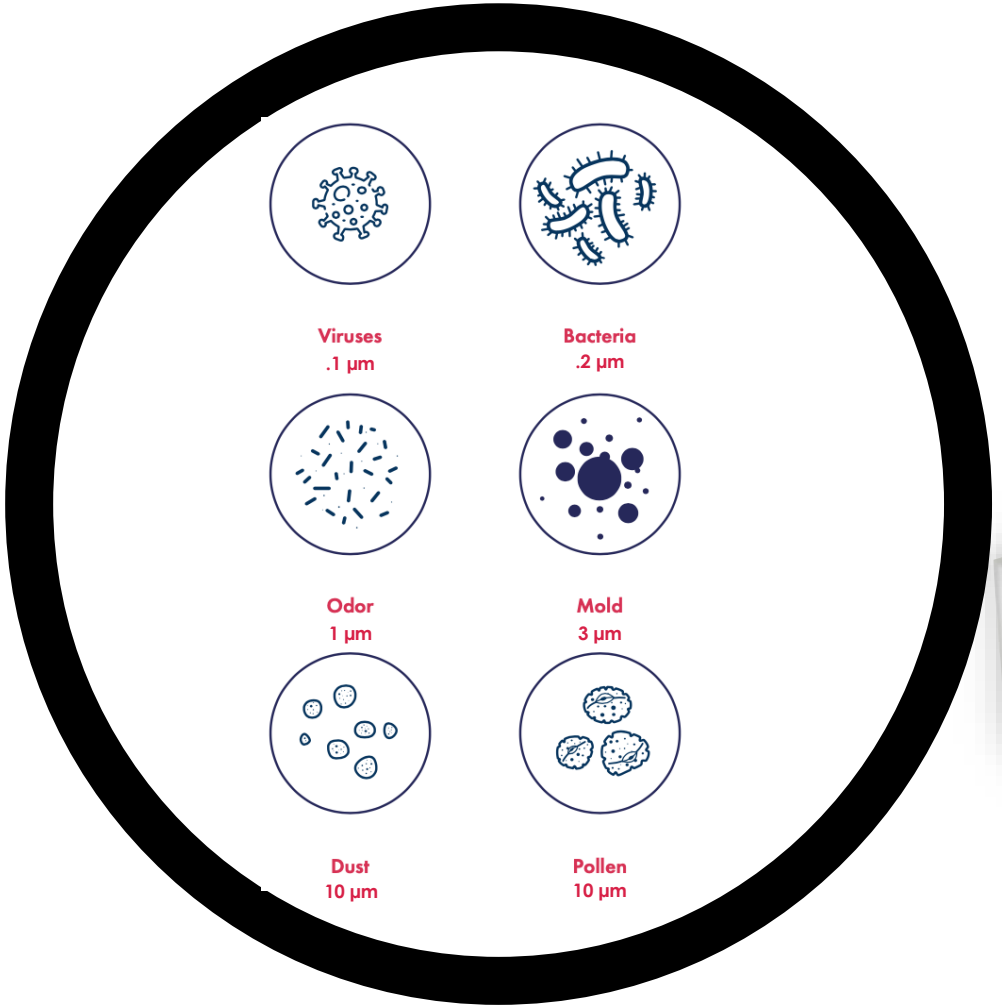
Respiratory droplets are produced during exhalation (e.g., breathing, speaking, singing, coughing, sneezing) and span a wide spectrum of sizes that may be divided into two basic categories based on how long they can remain suspended in the air:

- **Larger droplets** some of which are visible and that fall out of the air rapidly within seconds to minutes while close to the source.

- **Smaller droplets and particles** (formed when small droplets dry very quickly in the airstream) that can remain suspended for many minutes to hours and travel far from the source on air currents.

Once respiratory droplets are exhaled and as they move outward from the source, their concentration decreases through fallout from the air (largest droplets first, smaller later) combined with dilution of the remaining smaller droplets and particles into the growing volume of air they encounter.

https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-sars-cov-2.html



CERTIFIED HEPA Filter

Filters **99.99%** of **all particle** sizes
Including **Sars-Cov-2**

EPA
Registered Facility

FDA
Log 4 Purification

CDC
Individually Tested

Safe Air is Free of

Bacteria

(airborne bacterial diseases)

- Whooping cough-
- Tuberculosis
- Meningitis
- Diphtheria
- Pneumonia
- Pulmonary anthrax-
- Staphylococcus respiratory infection, sepsis, other cutaneous infections- about 30% of people carry this in their nose
- Streptococcus respiratory infection-

Viruses

(airborne viral diseases)

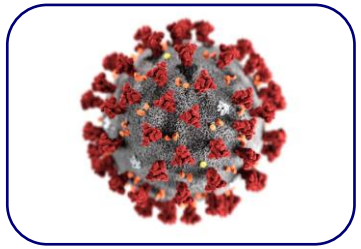
- Chickenpox-
- Flu/influenza-
- Measles-
- Rubella/German measles-
- Mumps-
- Smallpox-
- Hantavirus pulmonary syndrome-
- Pleurodynia-
- Common cold
- Severe Acute Respiratory Syndrome (SARS)- 2003
- COVID 19 -2020

3rd party testing of the AIRBOX unit with Sars-Cov-2 (COVID-19)

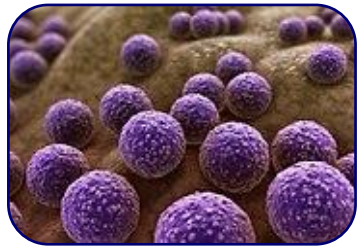
Scientific Lab Testing Results

- ☑ Tested at full scale in a 1000 cubic foot room
- ☑ Removed 99.99% in 25 minutes
- ☑ Removed 99.57% of the virus in 10 minutes
- ☑ Removed 99.9999% in 40 minutes

Eliminates 99.99% of all particle sizes

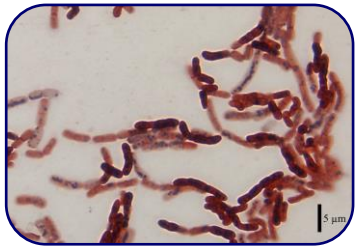


SARS-CoV-2
COVID-19



Staphylococcus
Aureus

E. Coli



B. Subtilis

The Certification

CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board
11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

Microchem Laboratory, LLC
1304 W. Industrial Blvd.
Round Rock, TX 78681

has been assessed by ANAB and meets the requirements of international standard

ISO/IEC 17025:2017

while demonstrating technical competence in the field of

TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

L2450
Certificate Number

ANAB Approval

Certificate Valid Through: 04/20/2021
Version No. 003 Issued: 03/25/2019

MICROCHEM LABORATORY

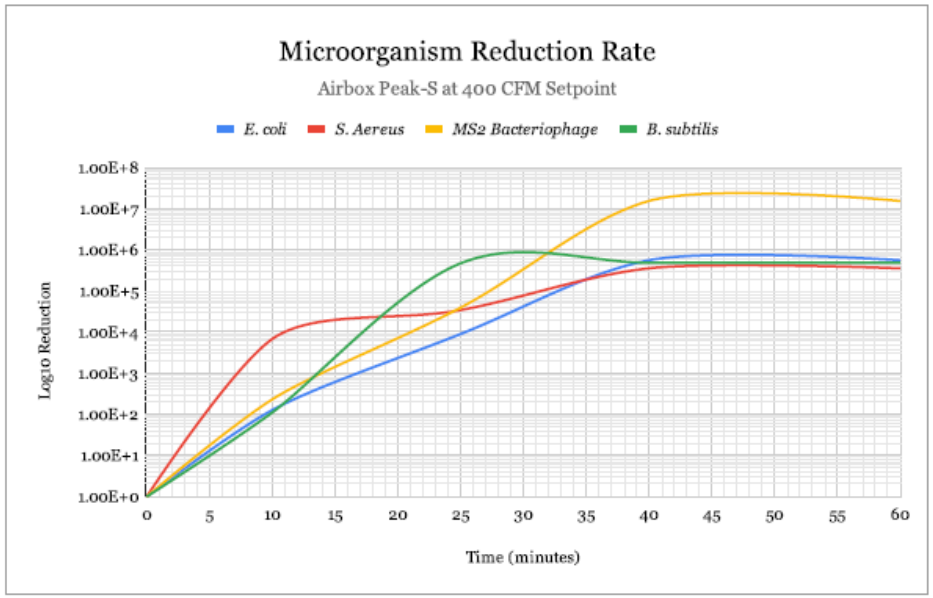
Study Update

Sponsor: Meredith Teague, Airbox Study ID: NG 16435

Date: 04 NOV 2020

Dimensions

The Tests



Microorganism	Initial Concentration (CFU/cu m.)
E. coli	4.84E+07
S. Aereus	3.08E+07
MS2 Bacteriophage	1.34E+09
B. subtilis	4.22E+07

Test Microorganism	Test Device	Treatment Time Point	Replicate	CFU/ml	Average CFU/ml	Volume Recovered from Biosamplers (ml)	CFU/m³	Average CFU/m³	Percent Reduction Compared to Time Zero	Log_{10} Reduction Compared to Time Zero[1]
E. coli ATCC 11775	Airbox Peak-S	N/A	Inoculum 1	2.40E+08	2.40E+08	N/A	N/A	N/A	N/A	N/A
		Time Zero	Replicate 1	2.75E+05	2.75E+05	22	4.84E+07	4.84E+07		
		10 Minute	Replicate 1	2.10E+03	2.10E+03	22.6	3.80E+05	3.80E+05	99.22%	2.11
		25 Minute	Replicate 1	3.00E+01	3.00E+01	22.4	5.38E+03	5.38E+03	99.99%	3.95
		40 Minute	Replicate 1	5.00E-01	5.00E-01	21.6	8.64E+01	8.64E+01	99.9998%	5.75
		60 Minute	Replicate 1	5.00E-01	5.00E-01	21.6	8.64E+01	8.64E+01	99.9998%	5.75

[1] *The Log reductions for the Test Runs are adjusted to account for natural die-off and gravitational settling observed in the Control Run.*

Test Microorganism	Test Device	Treatment Time Point	Replicate	CFU/ml	Average CFU/ml	Volume Recovered from Biosamplers (ml)	CFU/m³	Average CFU/m³	Percent Reduction Compared to Time Zero	Log_{10} Reduction Compared to Time Zero[1]
S. Aereus ATCC 6538	Airbox Peak-S	N/A	Inoculum 1	2.15E+07	2.15E+07	N/A	N/A	N/A	N/A	N/A
		Time Zero	Replicate 1	1.75E+05	1.75E+05	22	3.08E+07	3.08E+07		
		10 Minute	Replicate 1	2.50E+01	2.50E+01	22.6	4.52E+03	4.52E+03	99.985%	3.83
		25 Minute	Replicate 1	5.00E+00	5.00E+00	22.4	8.96E+02	8.96E+02	99.997%	4.54
		40 Minute	Replicate 1	5.00E-01	5.00E-01	21.6	8.64E+01	8.64E+01	99.9997%	5.55
		60 Minute	Replicate 1	5.00E-01	5.00E-01	21.6	8.64E+01	8.64E+01	99.9997%	5.55

[1] *The Log reductions for the Test Runs are adjusted to account for natural die-off and gravitational settling observed in the Control Run.*

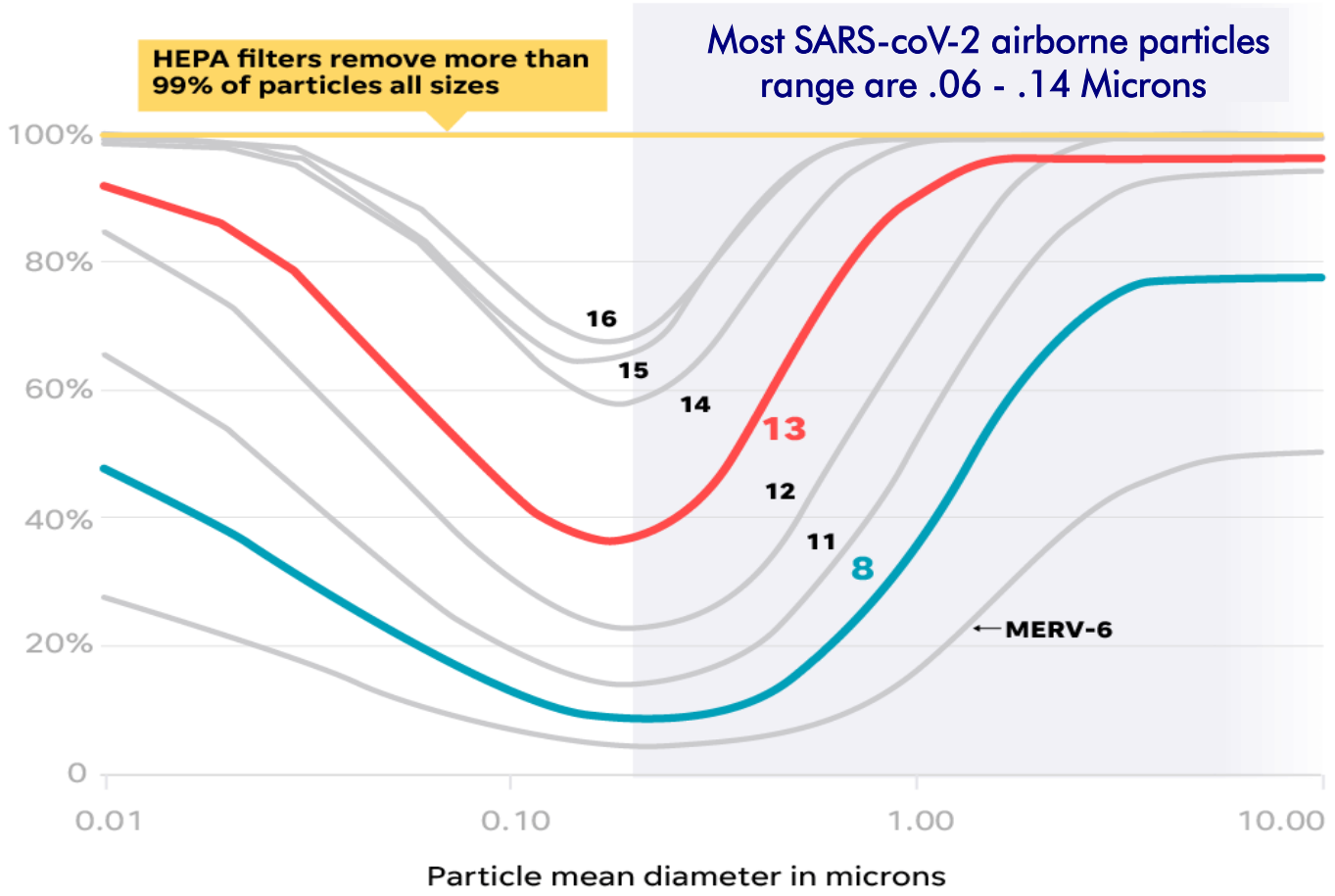
Test Microorganism	Test Device	Treatment Time Point	Replicate	CFU/ml	Average CFU/ml	Volume Recovered from Biosamplers (ml)	CFU/m³	Average CFU/m³	Percent Reduction Compared to Time Zero	Log_{10} Reduction Compared to Time Zero[1]
B. subtilis ATCC 19659	Airbox Peak-S	N/A	Inoculum 1	5.00E+08	5.00E+08	N/A	N/A	N/A	N/A	N/A
		Time Zero	Replicate 1	2.40E+05	2.40E+05	22	4.22E+07	4.22E+07		
		10 Minute	Replicate 1	2.10E+03	2.10E+03	22.6	3.80E+05	3.80E+05	99.10%	2.05
		25 Minute	Replicate 1	5.00E-01	5.00E-01	22.4	8.96E+01	8.96E+01	99.9998%	5.67
		40 Minute	Replicate 1	5.00E-01	5.00E-01	21.6	8.64E+01	8.64E+01	99.9998%	5.69
		60 Minute	Replicate 1	5.00E-01	5.00E-01	21.6	8.64E+01	8.64E+01	99.9998%	5.69

[1] *The Log reductions for the Test Runs are adjusted to account for natural die-off and gravitational settling observed in the Control Run.*

Test Microorganism	Test Device	Treatment Time Point	Replicate	CFU/ml	Average CFU/ml	Volume Recovered from Biosamplers (ml)	CFU/m³	Average CFU/m³	Percent Reduction Compared to Time Zero	Log_{10} Reduction Compared to Time Zero[1]
MS2 Bacteriophage ATCC 15597-B1	Airbox Peak-S	N/A	Inoculum 1	6.90E+09	6.90E+09	N/A	N/A	N/A	N/A	N/A
		Time Zero	Replicate 1	7.60E+06	7.60E+06	22	1.34E+09	1.34E+09		
		10 Minute	Replicate 1	3.20E+04	3.20E+04	22.6	5.79E+06	5.79E+06	99.57%	2.36
		25 Minute	Replicate 1	1.90E+02	1.90E+02	22.4	3.40E+04	3.40E+04	99.997%	4.59
		40 Minute	Replicate 1	5.00E-01	5.00E-01	21.6	8.64E+01	8.64E+01	99.999994%	7.19
		60 Minute	Replicate 1	5.00E-01	5.00E-01	21.6	8.64E+01	8.64E+01	99.999994%	7.19

[1] *The Log reductions for the Test Runs are adjusted to account for natural die-off and gravitational settling observed in the Control Run.*

CERTIFIED HEPA filters out 99.99% particles of ALL SIZES



Importance of Indoor Air Quality

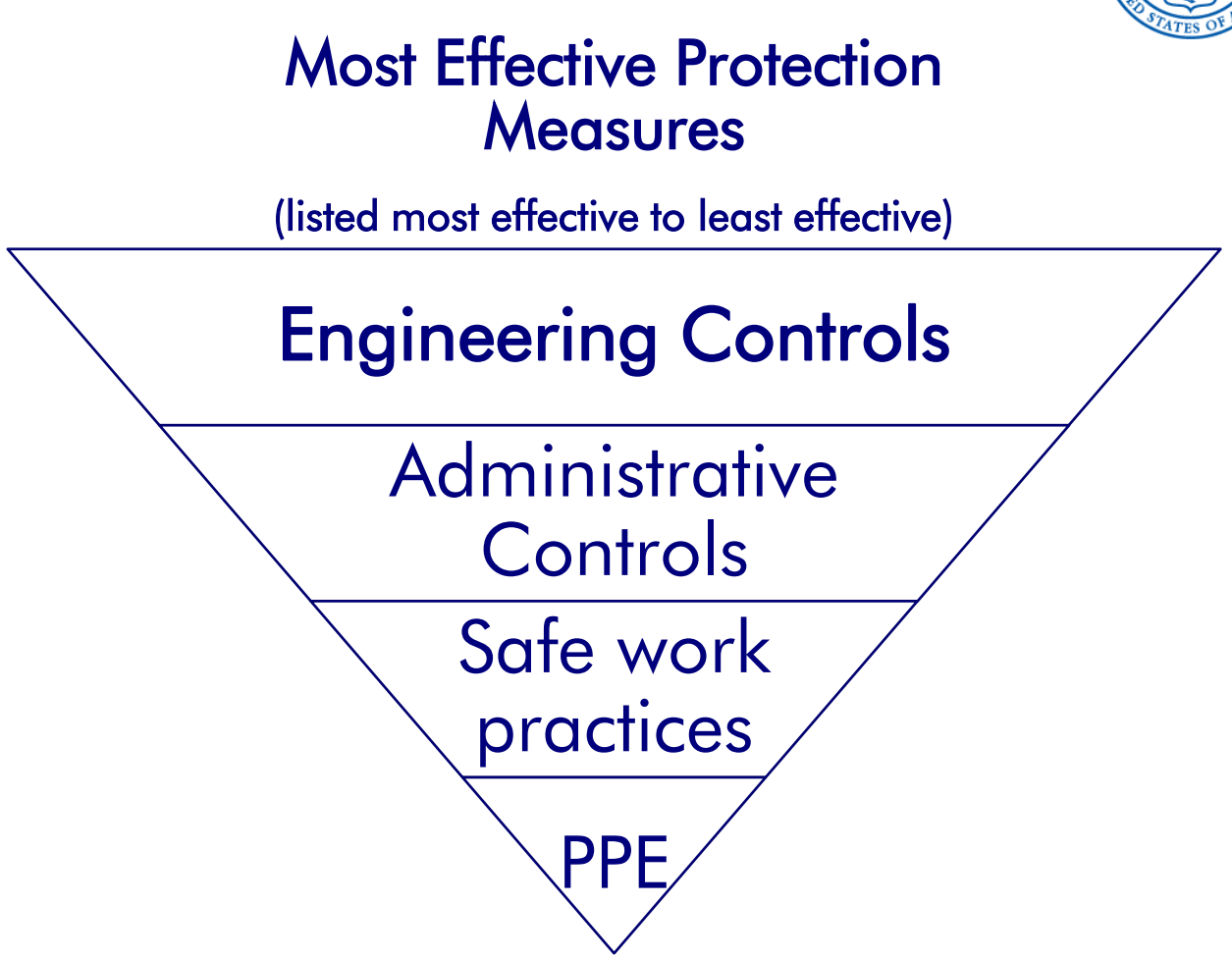
- Americans spend ~ 90% of their time indoors
  - *People who are often most susceptible to the adverse effects of pollution (e.g., the very young, older adults, people with cardiovascular or respiratory disease) tend to spend even more time indoors*
- Pollutants can be 2 to 5 times more concentrated indoors than outdoors
- Indoor concentrations of some pollutants have increased in recent decades due to such factors as energy-efficient building construction (when it lacks sufficient mechanical ventilation to ensure adequate air exchange) and increased use of synthetic building materials, furnishings, personal care products, pesticides, and household cleaners

Guidance on Preparing Workplaces for COVID-19

Guidance on Preparing Workplaces for COVID-19

- During a COVID-19 outbreak, when it may not be possible to eliminate the hazard, the most effective protection measures are as follows.

- In most cases, a combination of control measures will be necessary to protect workers from exposure to SARS-CoV-2.



DOL and CDC has *recommended* engineered controls for assist with the reopening and reduce transmission

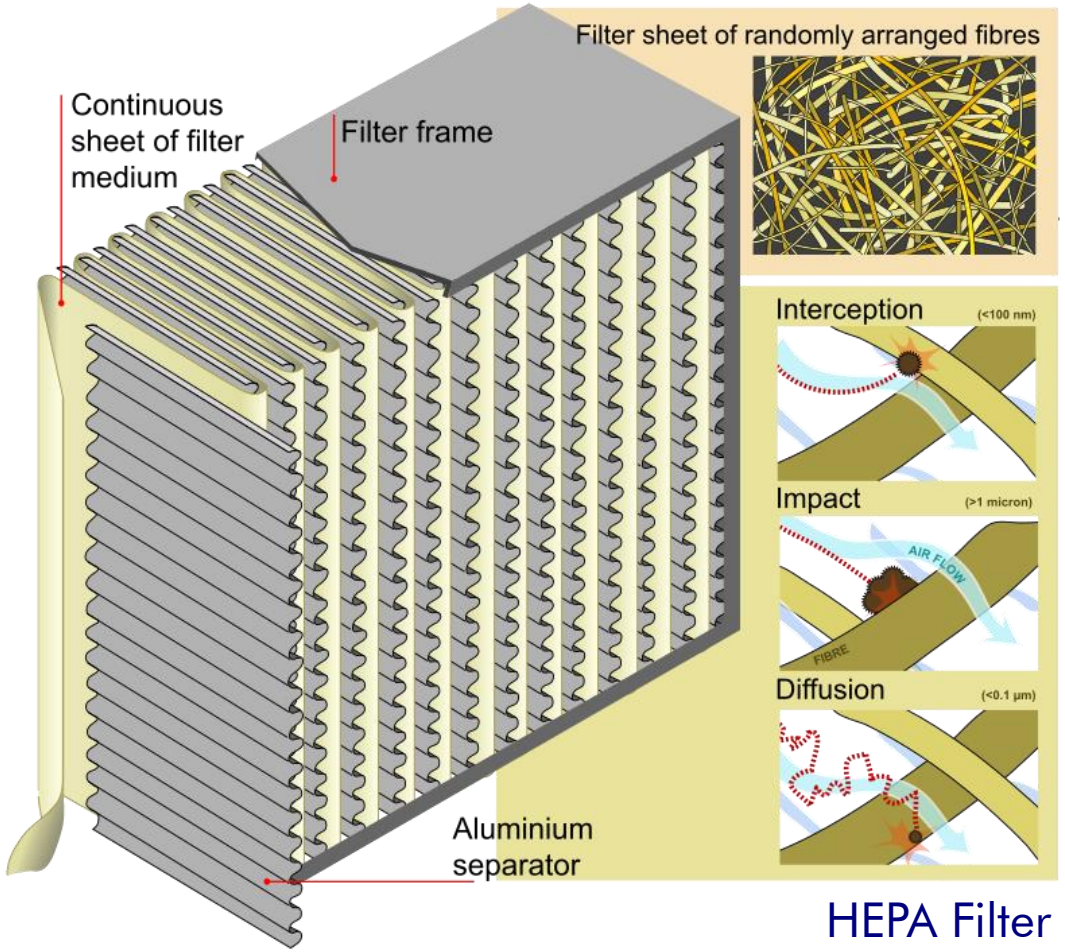
- Engineering controls involve isolating employees from work-related hazards. In workplaces where they are appropriate, these types of controls reduce exposure to hazards without relying on worker behavior and can be the most cost-effective solution to implement.

Engineering Controls for SARS-CoV-2

- Installing high-efficiency air filters with Certified HEPA to remove 99.99% of all particles
- Increasing ventilation rates in the work environment
- Installing physical barriers, such as clear plastic sneeze guards
- Installing a drive-through window for customers
- Specialized negative pressure ventilation in some settings, such as for aerosol generating procedures

What is HEPA Filtration?

- High-efficiency particulate air (HEPA) is an efficiency standard of air filters developed by the U.S. Department of Energy
- HEPA air filter must remove—from the air that passes through—at least 99.99% of particles whose diameter is equal to 0.3 µm; with the filtration efficiency increasing for particle diameters both less than and greater than 0.3 µm



HEPA Filter

LIES and CORRUPTION **in the air purifier industry**

Most portable room air purifiers do not use Certified HEPA and do not remove COVID-19 from the air

Most portable room air purifiers do not test upon manufacturing of their filters for CDC guidelines

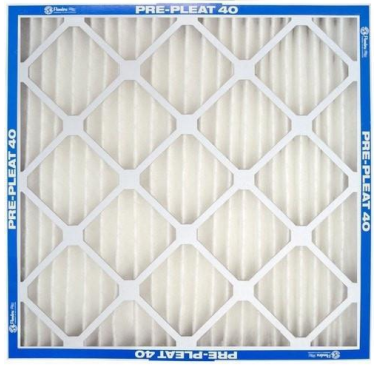
Most portable room air purifiers do not hold up to their company's marketing statements on air purification

Potentially just mixing room air making the situation more dangerous

Certified HEPA vs HEPA type

Certified HEPA filters have a minimum 99.99% efficiency rate at the worst-case most penetrating particle size (MPPS) of 0.3 microns. Larger or smaller particles are trapped with even higher efficiency. Certified HEPA is typically used in hospital and manufacturing settings and have been tested to guarantee performance.

VS



HEPA Type filters are often paired with off-the-shelf compact air purifier and limited to 99% of particles 2.0 microns or larger such as dust and dander. Although HEPA is used in the marketing campaign, they do not meet the standard set by the U.S. Dept. of Energy.

Certified HEPA filters have been approved by the CDC and EPA for capturing mold, pollen, bacteria, and viruses.

Where is Certified HEPA Filtration used?

- Semiconductor Manufacturing
- Pharmaceutical Manufacturing
- Laboratories
- Hospital Operating Rooms
- Infectious Disease Isolation Rooms
- Areas where indoor air quality is a concern
- Areas where exposure to virus and bacteria is a concern

AIRBOX : The Solution for Today's Challenges

- Designed by cleanroom industry experts
- Promotes Safe Air Zone™ for employees, and Patrons
- Utilizes certified HEPA filters
- Only Purifier Manufacturer using proven Microban® Antimicrobial Technology
- EPA Registered #97081

EPA United States Environmental Protection Agency

PROTECTION THAT LIVES ON MICROBAN

ASHRAE

CERTIFIED HEPA

CDC

Invented by Tim Self - Owner and founder of AM Technical Solutions

- Founded in 1994
- licensed architect, engineering, and construction firm
- Deliver the entire scope of work for high-tech construction projects
- On schedule, on budget, and at the level of quality required by customers.
- Platinum Safety Award Winner 10 consecutive years
- Industry Experts in Air Purification

AM Technical Solutions®
Constructing an Intelligent Tomorrow

MADE IN THE USA
USING A MAJORITY OF U.S. COMPONENTS

AIRBOX™
CLEAN AIR. PURE & SIMPLE.

25+	$20B+	24	5	6M+	95%
Years	Global Capital Projects	Countries	Continents	Sq. Ft. of Cleanroom Design and Installation	Customer Retention

PORTFOLIO

AM has executed on Award Winning Projects in the high-tech space and is considered one of the premiere high tech architecture, engineering, and construction firms in the world. AM can be seen globally in most of the Tier 1 sites.

AWARD WINNING PROJECTS

SERVICES

AM Technical Solutions (AM) delivers first time right for our customers through an end-to-end solution for high-tech construction projects.

MARKETS WE SERVE


Data Centers


Healthcare


Higher Education


Life Science


Micro Electronics


Solar

AIRBOX: Certified HEPA Filtration

- Airbox utilizes DOE recognized HEPA filters: the same technology utilized for infectious control in hospitals

- Other products that are marketed to be "HEPA-type," "HEPA-like," "HEPA-style" or "99% HEPA" do not satisfy the HEPA standard

AIRBOX: The Engineered Advantage

- Airbox consults with each client to properly select and locate each unit based on CDC and ASHRAE recommendations.

- AIRBOX not only offers categorically the best room air purifier available; we offer an engineered solution based on established building ventilation standards.

Occupancy → Use of Space → Maximum protection → Maximum efficiency

Why AIRBOX

- Built by American Craftsmen (100% made in the U.S.A)
- Certified HEPA Filtration (see next page)
- Ease of use and simple to install, Plugs into any 120v outlet
- Removed 99.99% of particles of all sizes
- Same technology placed in laboratories, infectious disease control rooms and manufacturing of pharmaceuticals
- Energy efficient fan motors
- Every Certified HEPA filter is individually tested in accordance to CDC and OSHA (see next page)
- Meets the CDC and OSHA guidelines for engineered controls
- Utilizes MICROBAN technology in the materials of AIRBOX. Creating an antimicrobial environment

WHAT'S IN THE AIR AFTER FILTRATION?

Pure Air, Clean & Simple

WHAT'S IN THE AIR BEFORE FILTRATION?

Viruses
Bacteria
Mold
Odors
VOC's
Dust
Fungi
Pet Dander
Chemicals

PURIFYING HEPA

CERTIFIED HEPA FILTER

High Efficiency Particulate Air (HEPA) filters are the World Standard for the provision of "Clean Air". The Peak Series' HEPA filter is 99.97% effective in removing particulate size of 0.3 micron and even more effective in capturing smaller particles. Unique to these filters are the Controlled Media Spacing which enables the unit's high-flow capacity.

GERM PROTECTION

ANTIMICROBIAL FILTER

The Peak Series' Antimicrobial Filter is greater than 99% effective at capturing and inhibiting the growth of airborne microbes. A microbe is a living thing that is too small to be seen with the naked eye. Many of these airborne microbes can be harmful (in some cases deadly) to humans, including: Bacteria, Protists, Fungi, Viruses, and Microscopic Plants & Animals.

ODOR SHIELD

ACTIVATED CARBON FILTER

When passing through the Activated Carbon Filter the air is cleansed of Chemicals, Volatile Organic Compounds (VOC's), Bioeffluents, and Unpleasant Odors. Unique to our activated carbon filter, the carbon particles are prevented from releasing downstream into the other filters, dramatically increasing the Peak Series effective life cycle.

Filtration
HEPA Filter (Final Filter Stage)
Certified 99.97%
3.54" Pleated Glass Media
Aluminum Extrusion Frame

Antimicrobial Filter(Second Filter Stage)
Merv 8 4" Radial Pleated Polyester
Treated with Microban Aegis Microbe Shield

Odor FIlter (First Filter Stage)
Merv 8 4" Pleated Activated Carbon
Synthetic Containment Membrane
OZ 3>30% Ozone removal Efficiency

AIRBOX™ Apex


AIRBOX™
CLEAN AIR. PURE AND SIMPLE.
AIRBOX
CLEAN AIR. PURE AND SIMPLE.

Apex Series-S

Dimensions

- **Height:** 47 Inches
- **Length:** 23 Inches
- **Width:** 18 Inches
- **Weight:** 70 Pounds
- **CFM:** 880
- **Noise Levels:** 54-59 Decibels
- **Sq Footage Filtration:** 3000 Square Feet
- **Plugs into any 120v outlet**

APEX Antimicrobial
$75

APEX Odor/Carbon
$74

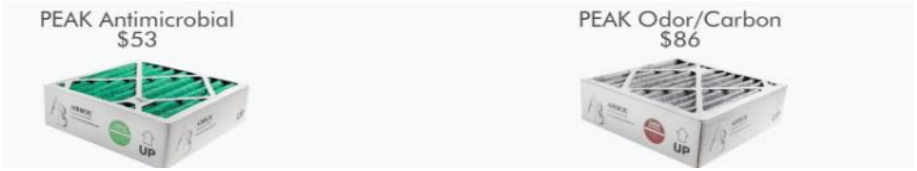
Note about APEX
With proper maintenance and replacement of pre filters (every 4-6 months based on environment), HEPA filter can last the lifetime of the unit (in excess 5 years)

AIRBOX Peak Series S

Peak Series-S

Dimensions

- **Height:** 27 Inches
- **Length:** 13 Inches
- **Width:** 13 Inches
- **Weight:** 44 Pounds
- **CFM:** 425
- **Noise Levels:** 34-72 Decibels
- **Sq Footage Filtration:** 1000 Square Feet
- **Plugs into any 120v outlet**




AIRBOX
AIRBOX
APEX
Purifier
PEAK
Series-S
Purifier

Ideal Locations to Purify

Restaurants &
Commercial Kitchens

Gyms &
Fitness Centers

Daycares

Medical Centers &
Facilities

Hotels, Casinos &
Resorts

Salons &
Retail

Offices

Schools

Dealerships

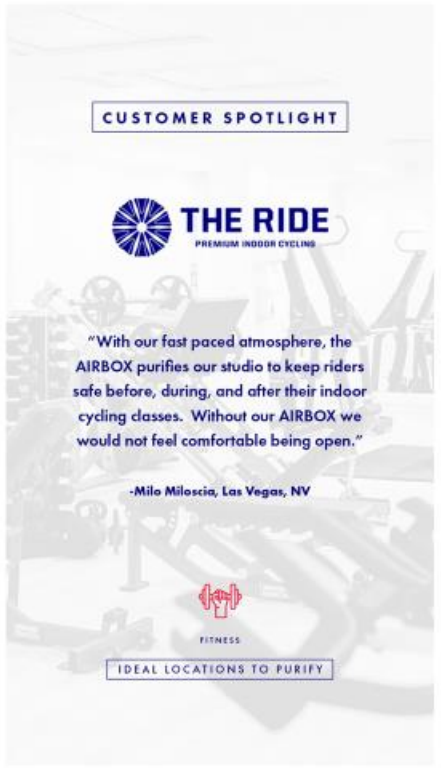
Sports Team's
Locker Rooms

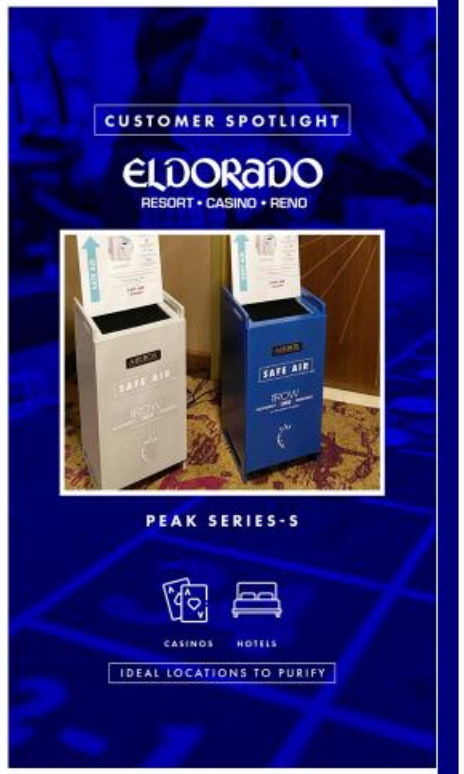
Banks

Spas

Customize Options for Branding & Appearance

Testimonials





AIRBOX in REAL Classroom Setting

PHILLIPS EXETER ACADEMY · NH University of New Hampshire · MVSD Mountain View School District · RUTGERS The State University of New Jersey · LYNDHURST · POLY PREP · OCEANSIDE · NEW HAMPTON SCHOOL

- ✓ Rutgers University
- ✓ Lyndhurst in NJ
- ✓ University of New Hampshire
- ✓ Poly Prep in Brooklyn
- ✓ Ocean Side Academy in SC
- ✓ New Hampton school in New Hampton NH
- ✓ Mountain View School in CA
- ✓ Philip's Exeter in Exeter NH

CERTIFIED HEPA TECHNOLOGY

THE SAFE AIR ZONE

CUSTOMIZE OPTIONS FOR BRANDING & APPEARANCE

26+ years of clean room technology experience based in the United States

PEAK 5 years fan/motor and lifetime materials and craftsmanship, APEX 5 years all inclusive

www.thesafeairzone.com