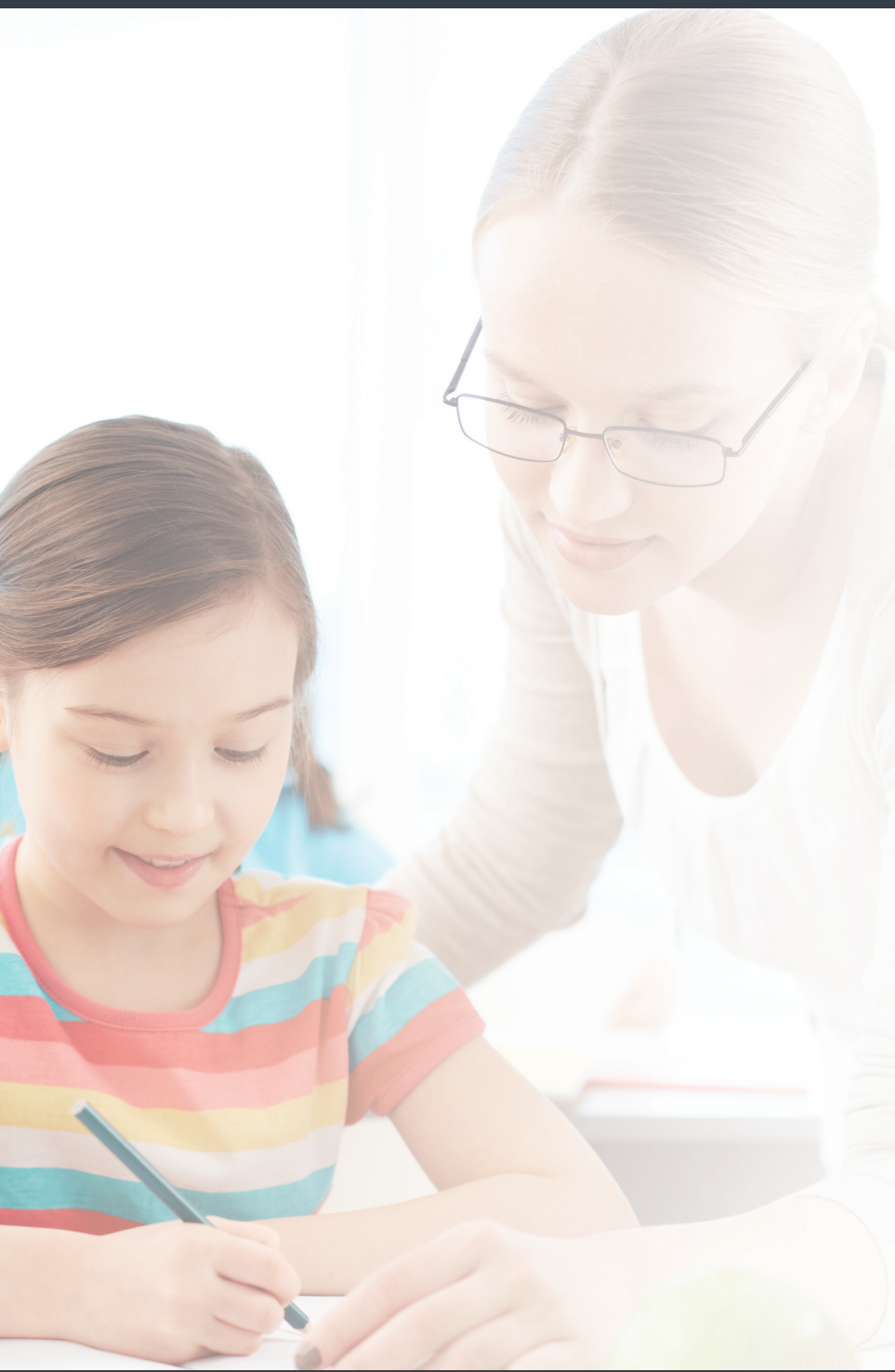
ADDISON
DEDICATED OUTDOOR AIR SPECIALISTS

Fresh, Conditioned Outdoor Air for K-12 Schools

SAFER | HEALTHIER | MORE PRODUCTIVE



Tough Times Require Fresh Ideas...

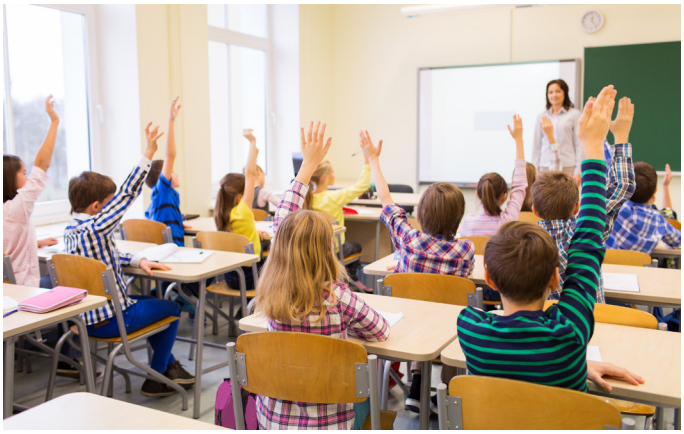
If recent events have taught us anything, it's that the importance of providing clean, fresh, conditioned air into classrooms is critical.

Adding increased levels of fresh air not only benefits the children working on their education, but provides a safer, healthier, and more productive indoor environment for teachers and staff.

Infection control was likely not considered a priority when the HVAC systems in most schools were designed. However, when properly configured with the correct amount of outdoor air, it can lead to significant reductions in the spread of airborne pathogens.

Air Hygiene Plays A Role In Protecting Students And Faculty

By introducing increased levels of fresh outdoor air into the school stale, potentially pathogen-laden air is exhausted out. By continually changing the air withing the school, the Addison DOAS system can dramatically reduce the number of pathogens in the air.



Leading Organizations Agree...

Leading agencies such as ASHRAE (American Society of Heating Refrigeration and Air Conditioning Engineers), the WHO (World Health Organization), and REHVA (The Federation of European Heating, Ventilation and Air Conditioning Associations) have all recommended increased fresh air ventilation to increase the indoor air quality of building spaces.

ASHRAE: "provide indoor air quality that will be acceptable to human occupants and is intended to minimize the potential for adverse health effects" *(ASHRAE 62.1)*

WHO: "whenever possible to make sure the venue is well ventilated" *(Getting your workplace ready for COVID-19)*

REHVA: "The general advice is to supply as much outside air as reasonably possible. The key aspect is the amount of fresh air supplied per person." *(REHVA COVID-19 Guidance Document, March 2020)*

Increased Conditioned Fresh Air:

- Avoid airborne contaminant recirculation
- Maintain proper humidity levels to prohibit virus, bacteria and mold reproduction and function
- Dilute VOC's, CO2 and other furniture and building material off-gas
- Provide make-up air for exhaust from kitchens, bathrooms, and other operations within the school

Humidity Control

Humidity has a tremendous impact on indoor comfort. In high-humidity climates, typical unitary systems struggle to maintain proper levels. Poor humidity control can negatively affect the indoor air quality within the space. Addison units effectively control humidity in the complex school environments.

The Addison Family of Products

AK Series
Compact Packaged
Rooftop DOAS
Capacity: 10 - 90 Tons

PR Series
Highly Configurable
Rooftop DOAS
Capacity: 3 - 100 Tons

M Series
Split DOAS or
Recirculating
Capacity: 3 - 180 Tons

Filtration Group Has Additional Solutions for Your Application

STEP 1: Inspect your current HVAC Filtration System

- ☐ Have my filters been maintained? Do I need to change them more regularly?
- ☐ Do my filters seal into their holding frames or tracks? A filter only works when it is sealed properly eliminating bypass
- ☐ Determine your current filter efficiency. This is typically listed as a MERV rating

STEP 2: Upgrade to the OPTIMAL filter for your application

- ☐ Upgrade efficiency to MERV 13 or higher which will capture more pathogens
- ☐ Upgrade to low resistance filters which will allow more airflow and dilute pathogens in the building

Examples of Common Upgrade Solutions:

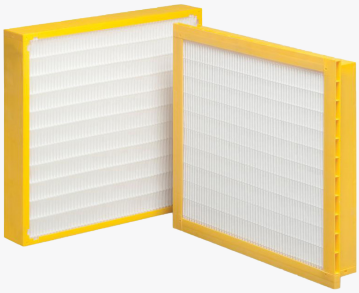
STANDARD

GreenPleat

- MERV 13
- Available in 1", 2", and 4"depths

SUPERIOR

GeoPleat



- MERV 15
- Exceeds LEED MERV 13 requirement for Green Building initiative

PREMIUM

FP Mini Pleat

- MERV 16
- Lowest initial resistance

STEP 3: Localized air purifiers are recommended in high traffic areas and commonly occupied areas to contain and prevent the spread of bacteria and viruses.

- ☐ Lobbies, break rooms, restrooms
- ☐ Executive offices and other priority areas

Filtration Group and Partners Offer Stand Alone Solutions in Addition to HVAC

PHOENIX GUARDIAN HEPA SYSTEM

- True 1400 CFM Scrubber
- 99.97% HEPA Filtration
- Odor Control filters optional

PURASHIELD 1000

- Patented PuraWard technology
- Removes particles via HEPA Filtration
- 50 lbs of patented antimicrobial media

STEP 4: Implement best practices for changing out potentially contaminated filters

- ☐ Ensure maintenance staff are wearing the appropriate PPE when changing filters
- ☐ Dispose of dirty filters in sealed bags and avoid compacting if possible

How Filters Help Stop The Spread of Infectious Diseases

Pathogens such as the coronavirus are transmitted through the air on carriers such as water droplets or dust particles. When someone who is infected coughs, sneezes, or even breaths, there are moisture droplets which become airborne and become the carrier of the virus. Small 0.3-1.0 micron particles are light enough to remain airborne for significant amounts of time and can contribute to the spread of the disease to others at a much greater distance.

All HVAC filters remove a range of particles and different filters have different ratings for this purpose. This is referred to as the MERV rating which stands for Minimum Efficiency Reporting Value. This is a scale from 1 to 16 with filters rated as MERV 1 capturing the least number of particles and MERV 16 filters capturing close to all the particles in the air. Choosing a filter with the correct MERV rating can have a dramatic impact on reducing the number of viral particles in the air, and therefore the chances of spreading airborne infectious diseases within your facility.

[1] *Source: HVAC filtration for controlling infectious airborne disease transmission in indoor environments: Predicting risk reductions and operational costs by Parham Azimi and Brent Stephens, 2013 - ASHRAE Position Document on Infectious Aerosols April 14, 2020*

PLEASE CONTACT ONE OF OUR VALUED DISTRIBUTORS TO HELP YOU TO IMPROVE YOUR INDOOR AIR HYGIENE

www.hvac.filtrationgroup.com

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