

The Broader Benefits of Improving Indoor Air Quality

Clean air has never been more important, whether delivered via ventilation or air purification. As the world emerges from the pandemic and people start to gather again in indoor spaces, the threat of airborne transmission escalates.

There is evidence to suggest that, after a protracted period of social distancing and mask wearing, people have weaker immune systems to defend themselves against the onslaught of respiratory viruses like flu and the common cold, as well as Covid-19 and its variants.

In the USA, poor air quality results in \$150 billion of illness-related costs per year. Of that, \$93 billion represents lost productivity from headaches, fatigue, and irritation associated with sick building syndromes. However, many buildings struggle to achieve the CDC's guidance of 4-6 air changes each hour.

That's where air purification comes in, either working in isolation (single or multiple units) or to supplement an in-built Heating, Ventilation and Air Conditioning (HVAC) system. Businesses are rightly concerned about protecting their employees, customers and other stakeholders. As a by-product of that protection, they also want to reduce absenteeism and increase productivity, two further advantages of good indoor air quality.

\$150 BILLION
ILLNESS-RELATED COSTS PER YEAR

\$93 BILLION
IN LOST PRODUCTIVITY DUE TO SICK BUILDING SYNDROME

\$225 BILLION
IN LOST PRODUCTIVITY DUE TO WORKER SICK DAYS

HEALTH BENEFITS:

- Helps remove certain viruses, such as COVID-19, from the air
- Despite flu shots and hand sanitization, Americans still catch about one billion colds and 60 million flu cases annually. - CDC
- Helps reduce Asthma Symptoms: Asthma impacts 1 out of every 10 children - AAFA
- Helps reduce Allergic Reactions: Approximately 20% of all people are impacted with allergies - AAFA
- Can prevent mold and mildew
- Reduces common complaints such as odors; Odors from bathrooms, lunchrooms, stale air and more are primary complaint drivers for building managers

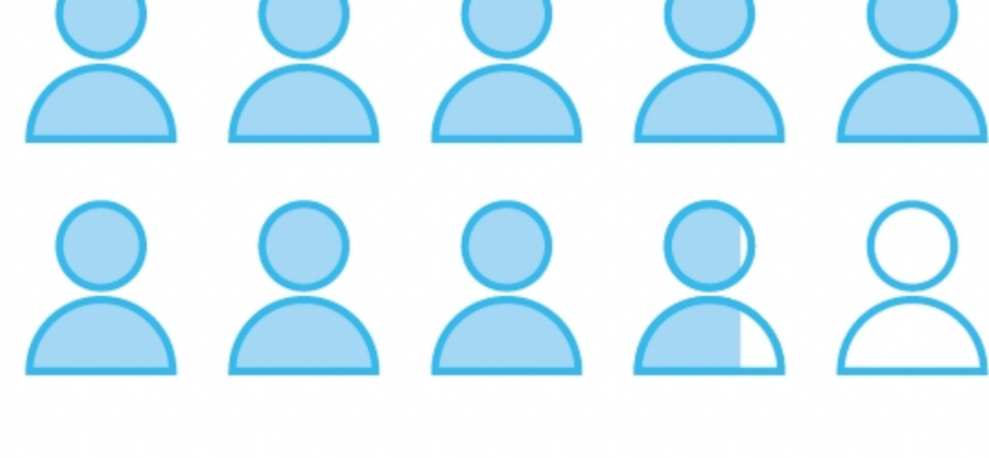
BUSINESS BENEFITS:

- Improves Productivity
- Workers scored up to 61% higher in cognitive assessments in places with cleaner indoor air quality.
- Reduces Absenteeism and Presenteeism
- The U.S. economy loses \$225.8 billion in productivity due to worker sick days. - CDC
- Average company cost of one sick day is \$1,685¹ - CDC
- Improves facility perceptions: 64% of Americans will think twice about patronizing a business based on their restroom experience. - Bradley Survey
- Creates a more positive, health focused environment

Future-Proofing Facilities

The pandemic has highlighted a greater need for infection control and educated us around airborne contaminants. We've seen the impacts of air quality on health and safety firsthand.

88% of people believe "Clean indoor air should be a right for all employees."



When planning, it's best to consider for your facilities and employee's future needs. The health and wellness of employee's can be continuously improved with cleaner air. In addition, a facility filled with clean air is more efficient and sustainable.

Future Outbreaks

When the next virus mutation causes widespread disruption, will your facilities be ready?

Bacteria, Mold & Viruses

Despite flu shots and hand sanitization, Americans still catch about one billion colds and 60 million flu cases annually. - CDC

Allergens and Asthma Triggers

Approximately 20% of all people are impacted with allergies. We spend 90% of our time indoors where air quality can trigger asthma and allergies. - AAFA

Odors and Gases

The presence of odors can reflect negatively on your facility. Odors from bathrooms, lunchrooms, stale air, and more are primary complaint drivers for building managers.

Pollution, Smoke, and Volatile Organic Compounds

Paints, cleaning supplies, office equipment and more can contain VOCs. These VOCs can potentially trigger headaches, asthma, and allergy attacks.

5 Questions to ask when selecting an Air Purification System

- ### Does the system you're considering offer H13 True HEPA filtration that's been proven to capture COVID-19?

While True HEPA filtration removes up to 99.97% of airborne particles down to 0.3 microns, H13 is within the highest tier of HEPA filtration removing 99.95% of airborne particles down to 0.1 microns, including allergens, such as pollen, dust, pet dander, and smoke.
- ### Does the system automatically react and adjust to external conditions to provide healthier air?

Many air purifiers require the user to make continuous manual adjustments to the system in order to achieve peak performance. This can result in air purifiers not operating at their optimal fan speed for room conditions and not truly boosting the air quality when needed. Fellowes AeraMax Pro Air Purifiers feature **EnviroSmart™**, our patented and proprietary technology that continuously monitors contaminants, room occupancy and noise levels. As people enter, AeraMax Pro immediately works to increase the airflow rate to quickly purify the air.

AeraMax Pro is the only commercial-grade air purifier that responds directly to detected occupancy in your space and air conditions – being truly proactive.
- ### Is the system commercial grade to ensure its reliable, durable, tamper-proof, and backed by a strong warranty?

Not all purifiers are designed for shared spaces with people moving in and out of rooms or to run for longer periods of time. For that type of reliability, you need a commercial grade air purifier.

With a thick casing and a double-latching system that provides durability, Fellowes AeraMax Pro truly is built to last. It is also comprised of a high-efficiency motor that works together with sensors to control fan speeds. The precision fan allows for quiet yet powerful air purification.

What's more, the touch control panel is only accessible to authorized users to change settings. Also, the thick walls and vandal-proof lock prevents anyone from tampering with settings and protects air filters from being removed.

Fellowes Air Purifiers are [designed and engineered for long term](#) 24/7 use. Our AeraMax Pro 3 and 4 units are backed with a 5-year warranty.
- ### Is the system easy to set-up and maintain?

When you look at air purification, you need to consider more than just the cost of each purifier. You need to consider the cost and effort of setting up and installing the units and the effort required to operate the machines and change filters.

Fellowes AeraMax Pro was designed to seamlessly integrate anywhere into your space. The stand option offers true flexibility where you need it most, simply plug it in and go. Install closer to source concerns by wall mounting, creating even more whole-room circulation.

AeraMax Pro air purifiers also feature **PureView™** patented sensor technology and display that makes the invisible visible with real time status updates and alerts when it's time to replace the filter. Plus, filter changes are fast and easy with no tools required.

Other air purifiers determine when to change a filter based on time, but AeraMax Pro takes it one step further: It measures by time, run rate and how much air is being pulled into the machine. Because Fellowes Air Purifiers use a more effective measurement technique to determine when filters need to be changed, filter life is extended, and operational costs are lowered.
- ### Does the system automatically optimize performance to save time and money?

Not only is there an issue with some air purifiers operating at lower fan levels than needed for the room conditions, but some air purifiers might work harder than they have to. This in turn, wastes energy and shortens filter life someone needs to manually make an adjustment.

Utilizing its EnviroSmart Technology, Fellowes Air Purifiers work harder when they need to and save energy when they can. As people enter the space, AeraMax Pro immediately increases the airflow rate to quickly purify the air. As people leave, it shifts to standby mode, conserving energy, extending filter life, and reducing operating costs.

Conclusion

Given the importance of protecting health, due diligence is advisable when selecting air purifiers. The CDC encourages buyers to exercise caution and do their homework.

The key pointers when specifying air purifiers are to opt for proven technology that is supported with robust air circulation and evidence of independent tests. For a relatively small investment, and low ongoing costs, your business can achieve a high standard of indoor air quality. Choose wisely and the right air purifier can serve as a 24x7 bodyguard to protect and enhance the lives of employees, customers, patients, students and visitors alike.



Checklist Of Specifications To Consider Before Selecting An Air Purifier

There are many air purifiers available in the market today and not all of them are created equal. When choosing an air purifier for your facility, there are a few key factors to keep in mind.



Specification	Why It's Important
<input type="checkbox"/> Size of Space	It is important to choose an air purifier that will be able to filter all the air inside the room and will have a high enough Air Changes per Hour (ACH) to make a difference.
<input type="checkbox"/> Desired ACH	The ACH measures how many times the air is cycled through the air purifier in an hour. The higher the ACH, the more contaminants are being filtered out of the air. According to the Harvard T.H. Chan School of Public Health, "For improving indoor air quality, we recommend prioritizing control strategies – ventilation, filtration, supplemental air cleaning – and targeting a combined 4-6 air changes per hour (ACH) through any combination of these approaches." Healthy Buildings – Schools For Health
<input type="checkbox"/> Noise Level	It is important to check the decibel level of an air purifier to make sure the air purifier does not disrupt workflow or classroom learning. The best commercial grade air purifiers succeed in balancing high air circulation with relatively low noise levels. The lowest setting is typically 45dBA, an even white noise equivalent to the recommended white noise level limit for an infant sleep machine.
<input type="checkbox"/> Installation: Wall mounted or floor stand	Will the unit be a permanent fixture in the space or is portability important? Benefits of wall mounting: <ul style="list-style-type: none"> Unit can be installed closer to the source of concern Creates whole-room circulation and increases clean air distribution (less obstacles in air path) Contaminated air is pulled away closer to head height (breathing level) and not from the floor Improves efficiency of ACH performance Floor stand benefits include: <ul style="list-style-type: none"> Quick one-step integration into existing spaces Can easily be moved from one area to another Creates whole-room circulation and increases clean air distribution
<input type="checkbox"/> Filter Type	Air purifiers come with a variety of different filters. Make sure the air purifier you choose can filter out the intended particles/pollutants. Some common filter types include HEPA, Carbon, Pre-Filters, and Ionizer. The CDC recommends that you HEPA filter meets H13 requirements.
<input type="checkbox"/> Filter Life	Air purifiers don't often require maintenance. However, you do have to replace the filters. HEPA filters need replacement about once a year, depending on how heavily you use them. Your air purifier needs to have a filter replacement light that tells you when it's time to replace them.
<input type="checkbox"/> Warranty	The warranty protects products to make sure they work properly. Opt for a unit that is designed and engineered for long term use and backed by a no-hassle multi-year warranty.
<input type="checkbox"/> Reputation and Virus Testing	Marketing claims can be exaggerated and unsubstantiated, making it a challenge to discern fact from fiction. The key is to look for independent scientific testing that's completed in real life settings (not in chambers smaller than 20m3) from respected laboratories & institutions to validate any claims.
<input type="checkbox"/> Grade: Commercial vs. Residential	If you're purchasing a product for a commercial application, you want to make sure it was built for that space and isn't simply a residential unit being used in commercial spaces. Commercial-grade air purifiers are built to last, with high-quality components ensuring your unit is reliable, durable, and tamper-proof.