



**How healthy  
is your  
building's air?**



# A sick building can lead to an unhealthy business.

Clean air is healthy air. Providing clean, healthy Indoor air quality (IAQ) is essential for a productive business. While dirty ducts don't necessarily mean unhealthy air in your offices, school rooms, warehouses or retail stores, they may be contributing to larger health issues or harboring contaminants that could cause serious problems for people with respiratory health conditions, autoimmune disorders or some environmental allergies.

According to NEMI (National Energy Management Institute):

*"Benefits of improved IAQ (indoor air quality) are so large that this opportunity cannot be ignored...these include productivity, increased profits, greater employee/customer/visitor health, and reduced health costs."*

Indoor air quality has been an environmental issue since 1990. It is a major concern to businesses, schools, building managers, tenants, and workers because of the impact to health, comfort, well-being, and productivity of the building's occupants. OSHA has recognized that poor IAQ can be hazardous to workers' health, highly recommending that it is in the best interest of everyone for building owners, managers, and employers take a proactive approach to address IAQ concerns.

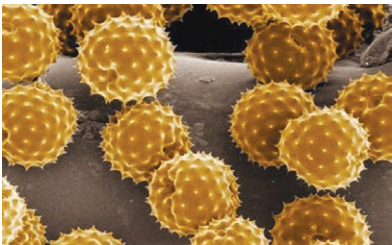
Many U.S. courts have and are still ruling that building owners have a non-deferrable legal obligation to provide building tenants/occupants with a safe and healthful environment.

The consequences a building owner/landlord or an employer faces by failing to provide clean indoor air can be costly. . . higher absenteeism, health problems, reduced productivity, higher premiums for workman's comp and health insurance, and loss of tenants. The USEPA has studied poor indoor air quality and has ranked it as one of the higher risks to human health among all types of environmental problems.

Some examples of common foreign bodies that could be found in duct and ventilation system:

- Dust mites
- Fungus
- Bacteria
- Dander
- Hair and fibers
- Rodents
- Feces
- Odors and Vapors
- Mold spores
- Chemical fumes
- Pollen

Any type of build up, debris particles or residue that can accumulate near your grates or vents can also end up in the duct system and air you breathe.



42,000 dust mites can be found in one ounce of dust



The EPA states that indoor air pollution affects as much as 30 percent of all commercial buildings.

# The solution: clean air ducts for cleaner air.

## What you can't see can be harmful to you.

The air duct system in buildings acts as its respiratory system. The dirt, dust, debris and microbial growth that can accumulate inside the ductwork, hidden from view, congests the system. This congestion makes it more difficult for the building to breathe and function properly, effecting the overall efficiency of the system.

Independent studies concluded the a well maintained, clean system can reduce average operating costs by 10 to 25%. It was also determined that up to 70% of all IAQ problems involved the HVAC system. Dirty air ducts are the perfect breeding grounds for mold spores, mildew, bacteria and other microbial growths that are health threatening. Dirty ducts can also be responsible for reduced air supply in a building, higher utility costs and premature failure of expensive HVAC components.

99.97% of the removal contaminants down to .03 microns in size are captured by the HEPA-AIRE® portable power vac's high efficiency filtration system. Air exhausted back into the facility is clean enough to meet surgical standards.



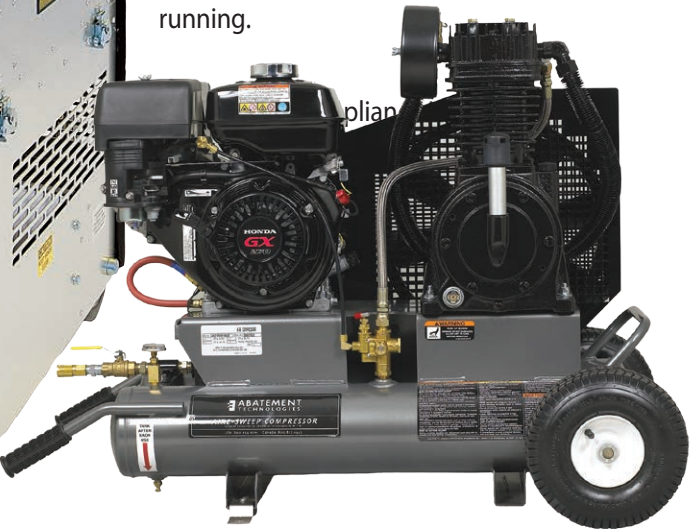
Through normal occupation, a great deal of contaminants and air pollutants are generated, such as dander, dust, dirt, pollen and chemicals. These contaminants are pulled into the HVAC system and re-circulated. Over time, this re-circulation causes a build-up of contaminants in the duct work.

The removal of contaminants from the entire HVAC system is recognized by industry experts as the most effective way to eliminate air duct pollutants. This is referred to as the "source removal" method of duct cleaning. In addition to the obvious health benefits, duct cleaning can help you maintain a cleaner home. It also helps restore HVAC system capacity and lessen running time, resulting in lower heating and cooling bills.

At the end of the day, what matters is how everyone feels. Breathe easier after your ducts have been cleaned by our NADCA certified technicians! The HEPA-AIRE method used by Sturm assures you that your ducts are being cleaned with the most advanced source removal equipment available. This high tech, state-of-the-art system is used by leading professional duct cleaners throughout North America, and is widely recognized as the most significant breakthrough in duct cleaning equipment technology in the past 30 years.

The key components of this system are the patented HEPA-AIRE portable power vacuum and the AIRE-SWEEP® compressor. This system enables our technicians to reach and thoroughly clean your entire duct system with minimal noise and disruption.

First, the HEPA-AIRE power vacuum is connected to the duct system near the furnace. ~ Next, 1 inch access holes are drilled into the air ducts. ~ Long lengths of air hose with special 360° high velocity nozzles are connected to the compressor and 'snaked' through the entire duct system, dislodging debris that has accumulated on inner duct surfaces. ~ The HEPA-AIRE unit creates a powerful vacuum, pulling dislodged contaminants into its filtration system. This filtration system is so efficient that it captures contaminants 1/300th the diameter of a human hair and returns filtered "hospital grade" air to your home. And, it's so quiet you'll hardly know it's running.





# Duct cleaning could be the healthiest investment you will ever make.

Improved IAQ has a whole host of benefits, ranging from better overall health, fewer costs to the economy, boosted productivity at work and better student performance in schools.

## Worker Productivity

NEMI reports significant gains when after implementing IAQ improvements.

## Health Risks

It has been estimated that over 21,000,000 Americans suffer needlessly from the toxic effects of poor indoor air quality.

## Employee Absenteeism

When a building is sick, higher rates of absenteeism have been linked. Studies have shown that the overall cost to the U.S. economy of poor IAQ is \$168 billion per year.

## Worker Productivity

Poor or polluted indoor air can drive away tenants, allowing them to successfully break leases.

## Government Regulations

Proposed regulations from OSHA include fines, penalties and additional compliance requirements.

## Worker's Comp Complaints/Lawsuits

Judgments and claims paid to injured/affected employees and or tenants may only be the beginning.

## Early Equipment Failure

A dirty HVAC system can lead to premature failure of mechanical components.

## Increased Utility Costs

Dirty, restricted HVAC systems have to work harder, potentially doubling utility costs and causing air flow losses of up to 500%.

## In Sum

Poor IAQ is a substantial problem that affects us all, yet doesn't get the attention it deserves as a public health threat. It's an issue that's been around for a while and is getting worse, especially as we construct increasingly airtight buildings. Contaminated indoor air negatively impacts our health, businesses and schools.

A proactive solution to improving poor IAQ problems in facilities includes the use of advanced HEPA-AIRE® duct cleaning equipment.

Sturm's Abatement HEPA-AIRE® duct cleaning system performs state-of-the-art source removal duct cleaning.



Cleaning is performed in accordance with the National Air Duct Cleaners Association (NADCA) Standards and Guidelines by a certified Air Systems Cleaning Specialist (ASCS) and Ventilation Maintenance Technician (VMT).



## Heating & Air Conditioning

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