COVID-19/Coronavirus And HVAC SYSTEMS

The first step is to complete a National Air Duct Cleaning Association (NADCA) inspection by a NADCA Certified Ventilation Inspector. https://nadca.com

Now may be the best time to start to be Proactive and not Reactive to your HVAC systems maintenance. Cleaning of ventilation systems (NADCA Standard), including standard source removal methods and other methods deemed necessary to render the ventilation system visibly clean. Includes all the Supply, Return, Exhaust, Recirculation, Fans, Ducts, Cooling Coils, Pre-heat and Re-heat Coils, Fan Coil Units, Fan Coil Assemblies, Grills, Registers, Diffusers and Filters. The systems shall be cleaned in their entirety from the points where the air enters the system, to the point where the air is discharged from the system.

Cleaning the HVAC system will increase efficiency, reduce energy consumption, extend equipment service life, improve thermal comfort, increased safety, reduce fire hazards, compliance and reduced costs. During normal conditions, all the ventilation supply, exhaust, and recirculating systems need to be clean to maintain acceptable living and working conditions.

Considerable accumulation of dirt may be expected in ventilation ducts unless a systematic schedule of cleaning is observed. Dirt and debris in ventilation ducts constitute a fire hazard, excess energy consumption and poor indoor air quality. Dirt also interferes with the operation of dampers and will restrict the free flow of air. It is important that the condition of the ducts be frequently checked (CVI) and cleaned when found dirty.

Why make things harder than they have to be? Improve efficiency, reduce downtime and overtime, increase comfort, lower costs – all by keeping your equipment clean. Simplify your maintenance and “Keep it Clean.”
Clean Coils: Clean your coils, and as a result your chillers and boilers will reward you with efficient performance. That great performance means less system downtime and less equipment emergencies. Clean coils also help keep building temperatures steady while minimizing energy.

*A dirty evaporator coil can increase compressor energy consumption by 30 percent*

Clean & Seal Ducts: The cleaner they are the better. Improving Indoor Air Quality is extremely important because we spend approximately 90% of our time breathing "indoor air". Unlike outdoor air, indoor air is recycled over and over causing it to trap and build up pollutants. Poor indoor air quality contributes to both short and long term health issues which can lead to decreased productivity.

*Leaking air reduces the cooling capacity and wastes energy from the loss of the cooled air. Energy benefits from cabinet integrity and duct sealing are estimated to be about 20 percent of the annual cooling consumption.*

Exhaust Air Ventilation: needs to be kept cleaned. The exhaust systems removes bad air from the building and needs to work at its best all the time. It is also the ventilation that will accumulate the most debris during use.

HVAC Filters and Energy Conservation: HVAC filters play a significant role in the energy used to operate an HVAC system; the lower the filter’s resistance to air passing through it, the lower the energy consumption. The filter needs to be replaced on a regular basis. The filter rack needs to be inspected to make sure there is no air bypass. This is gaps in the around the filters that allows dirty air to bypass the filters and impact the evaporator coil and allow dirt, debris and contaminates to enter the supply air stream.

Every so often it’s helpful to step back from the daily routine and look at operations and maintenance from a fresh perspective. Nearly any building can benefit from increased efficiency, whether you already run a pretty tight ship. Sometimes there is an up-front cost for needed equipment or programs. Fortunately, the savings are practically immediate. Two programs sponsored by the Department of Energy found that a well-chosen operations & maintenance (O&M) projects could achieve payback in 1-3 months.

Want increase energy efficiency of the equipment you have now without the downtime needed to install or upgrade with proven or unproven technologies? Ours is simple, proven and can be implemented for any ventilation system.

**Coronavirus And HVAC: ASHRAE Releases Guidance Material**


Standard 180 was created in a collaborative effort between ASHRAE and Air Conditioning Contractors of America (ACCA). Its intent is to address the often inconsistent practices for inspecting and maintaining HVAC systems in commercial, institutional, and other buildings where the public may be exposed to the indoor environment. Current practices in such buildings vary widely. Many facilities choose to follow rigorous policies that maintain the system in new or nearly new condition. Others either lack policy in this area or have adopted a run-to-failure approach, where the system or components of the system are only attended to when there is a failure.

Benefits of Indoor Air Quality

Indoor Air Quality (IAQ) is extremely important because we spend approximately 90% of our time breathing "indoor air". Unlike outdoor air, indoor air is recycled over and over, causing it to trap and build up pollutants. Poor indoor air quality contributes to both short and long term health issues. Maintaining proper IAQ will also extend the service life of equipment and has been proven to reduce energy consumption by following a proactive maintenance schedule.

The impact that IAQ has on occupant productivity is positive and can be measured. Maintaining proper IAQ will Reduce Sick Time, Improve Personnel Concentration, Reduce Respiratory Illness, Improve Productivity and Performance. There is a very positive rate of return on an investment in IAQ.

Is Ventilation System Cleaning Necessary

Not always but not never either. Inspections are always needed and should be completed on a recommended schedule per the NADCA ACR 2013, NADCA Energy Research Project and the ANSI ASHRAE ACCA 180 standard. Considerable accumulation of dirt may be expected in ventilation ducts unless a proactive maintenance schedule is observed. As dirt in ventilation ducts constitutes many hazards, it is important that the condition of the ventilation system be frequently checked.

Benefits of HVAC Cleaning

NADCA’s rule of thumb for consumers is that “if your air ducts look dirty, they probably are,” and that dirty HVAC systems should be inspected by a reputable, certified HVAC professional. Below are some other reasons homeowners choose to have their air ducts cleaned.
Indoor Air Quality

Indoor air quality is one concern that homeowners and facility managers have when they decide to investigate ventilation systems. Your heating and cooling system is the lungs of your home or building. The system takes air in and breathes air out.

Through normal occupation in a home and buildings, we generate a great deal of contaminants and air pollutants, such as dander, dust, and chemicals. These contaminants are pulled into the HVAC system and re-circulated 5 to 7 times per day, on average. Over time, this re-circulation causes a build-up of contaminants in the duct work.

While dirty ducts don’t necessarily mean unhealthy air in your home or building, school or workplace, 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.

Energy Savings

According to the U.S. Department of Energy, 25 to 40 percent of the energy used for heating or cooling a home is wasted. Contaminants in the heating and cooling system cause it to work harder and shorten the life of your system. Although filters are used, the heating and cooling system still gets dirty through normal use. When an HVAC system is clean, it doesn’t have to work as hard to maintain the temperature you desire. As a result, less energy is used, leading to improved cost-effectiveness.

Sincerely,

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