

The quality of the air we breathe both indoors and out has a great impact on lung health. Fragile lung tissue is easily damaged by pollutants in the air, resulting in increased risk of asthma and allergies, chronic bronchitis, lung cancer and other respiratory diseases.

AHU systems and ducting have been shown to act as a collection source for a variety of contaminants that have the potential to affect health, such as mold, fungi, bacteria, and very small particles of dust. The removal of such contaminants from the AHU system and ducting should be considered as one component in an overall plan to improve indoor air quality



WHAT ARE SANITIZERS, AND WHY WOULD THEY NEED TO BE USED?

Sanitizers are anti-microbial chemicals applied to the interior surface of the air ducts, designed to control microbial contamination. Before any sanitizers are used, the system should be thoroughly cleaned. It is critical that any anti-microbial treatment used in your system be EPA registered for the intended use in AHU systems and Ducting.

"AIR DUCT CLEANING METHODOLOGY"

1. LOCATE ACCESS OPENINGS

HORIZONTAL DUCTS

Set up scaffolding (Or other means) to Locate the existing access openings on the ceiling to access to the main ducts for the areas to be cleaned

Locate and Identify access openings on the main duct and branch ducts that is accessible by our equipment

VERTICAL RISER DUCTS (If Available)

Locate the pre-determined access openings on the risers for each floor

2. CONDUCT PRE-CLEANING VIDEO TAPE RECORDING

Conduct video tape recording of the pre-cleaning internal condition of the main horizontal ducts and vertical riser ducts(if available) using a robotic vehicle mounted with a CCTV camera and a hand-held video camera respectively

3. ISOLATE DUCT SECTIONS TO BE CLEANED

Shut dampers (where necessary) to maximise negative pressure and airflow during operation of the *Portable Power Vacuum* system

Seal access openings (where necessary) with temporary durable plastic sheets to maximise negative pressure and airflow during operation of the *Portable Power Vacuum* system

4. PORTABLE POWER VACUUM SYSTEM HOOKUP

HORIZONTAL DUCTS

Attach the vacuum hose to access opening downstream of the AHU

VERTICAL RISER DUCTS

Attach the vacuum hose to access opening at the bottom of the riser

5. MECHANICAL CLEANING OF DUCTWORK

ORDER OF CLEANING

Main ducts
Branch ducts
All Diffusers

DIRECTION OF CLEANING

Horizontal Ducts

Cleaning to commence from the upstream of the AHU and ending at the downstream of the AHU

Vertical Riser Ducts

Cleaning to commence from the top of the vertical riser duct and ending at the bottom of the vertical riser duct

CLEANING METHOD

Horizontal Main Ducts

Direct Contact Brushing using Rotary Brushes mounted on a Robotic Tracked Vehicle and/or Automatic Rotary Brush in conjunction with Power Vacuuming using a Portable Power Vacuum System

Horizontal Branch Ducts

Air Washing and Sweeping using compressed air generated by a Portable Air Compressor and delivered through a Duct Whip System and/or Direct Contact Vacuuming using an Industrial Vacuum Cleaner

Vertical Riser Ducts

Direct Contact Brushing using an Automatic Rotary Brush and/or Air Washing and Sweeping using compressed air generated by a Portable Air Compressor and delivered through a Duct Whip System in conjunction with Power Vacuuming using a Portable Power Vacuum System

Diffusers Cleaning

Direct contact brushing and wiping with dry cloth and with portable vacuum to reduce migration of dust particles

6. **CONDUCT POST-CLEANING VERIFICATION OF CLEANLINESS AND VIDEO TAPE RECORDING**

Conduct video tape recording of the post-cleaning internal condition of the main horizontal ducts and vertical riser ducts using a robotic vehicle mounted with a CCTV camera and a hand-held video camera respectively after cleaning

Conduct a joint post-cleaning visual inspection of the internal condition of the horizontal main ducts and vertical riser ducts

7. **RESTORATION OF SITE**

Purge system several times to dislodge loose dust that may remain in the duct to reduce possible dust fallout during actual operation

Conduct housekeeping works to restore site to its original condition

Final inspection by Operation Manager before leaving site

**Please contact us for a
FREE estimate.**

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