

Caution: You Might Want To Read This If You Are Considering a Rotary Brush-Type System

Thinking about adding duct cleaning to the services your business offers, or starting a new business? Confused by the types of equipment and methods available?

Source removal duct cleaning is the only method recognized nationally as a duct-cleaning standard, and the generally accepted industry practice for more than 50 years. On residential and small commercial jobs, this means placing an entire supply network or return network of the air conveyance system under negative pressure.

The relatively small number of duct cleaning companies in business between the 1950s until about 1990 mostly used truck-mounted vacuums & compressors for source removal cleaning to place the ductwork under negative pressure and operate high-velocity compressed air tools. Portable technology has dominated the industry since 1990 when Abatement Technologies first introduced this effective and more economical alternative to truck mounts. Several of the Abatement equipment packages include a rotary brush system or a Power Whip system that can be connected to the portable compressor for agitation of caked-on surface debris.

Another option available for residential duct cleaning companies is smaller-capacity vacuums, which look similar to a large, upright shop-type vacuum. Instead of power vacuums and compressors, these units use a 4-inch to 6-inch diameter rotary brush attached to the end of the hose to break contaminants loose. The brushes resemble those used on little shoe-shining machines seen in catalogues or in men's rooms.

Unlike HEPA-AIRE equipment or truck mounts, rotary brush/shop vacuum systems do not have the ability to place the duct system under negative pressure, as required by nationally recognized standard-setting organizations. According to a substantial number of knowledgeable duct cleaners, (including many that have tried the rotary brush method and later purchased Abatement products), this technology is simply not suitable for efficient and thorough cleaning of air duct systems. Some of the potential problems are shown in the comparison chart below.

| Feature | Rotary Brush & Vacuum Method | HEPA-AIRE Push/Pull Method | Benefits Of HEPA-AIRE Method |
|--|--|---|--|
| A vacuum powerful enough to place substantial sections of the ductwork under negative pressure per national standards & generally accepted industry practices. | No. Typical airflow is 150 to 300 cfm or less. | Yes. Vacuum output ranges from about 2,000 cfm to 4,000 cfm – up to 27 times higher. | Ability to pull dirt & debris out of the ducts & into the vacuum's patented filtration system. Meet specifications commonly written for commercial jobs. |
| Amount of time required to setup & move the equipment within the home. | On most jobs the vacuum & dirty vacuum hose must be moved from room to room to access the various duct branch runs. | Two vacuum hookups near the air handler per HVAC system, one for the supply side & one for the return. Very little equipment repositioning required. | Fewer setups & less movement of equipment from room to room reduce the chance of damaging the home or household items or soiling carpets. |
| The ability to remove larger size debris often found inside of dirty ductwork. | No. Remember, the limiting factor is not the size of the hose; it's the size of the small air nozzle openings. Agglomerated dirt particles or dust balls also tend to plug up the nozzle openings. | Yes. Customers report removing dead birds, rodents, squirrels, wood remnants, toys, etc. | Allows users to remove a wide range of contaminants, not just the small stuff. |
| Ability to clean coils, heat exchangers, fans & blowers. | Very limited, if any. | Yes. | Thorough duct cleaning should include cleaning HVAC components to prevent recontamination of clean ducts & maintain HVAC performance. |
| Ability to clean duct systems with air dampers. | Limited, as brushes & hoses typically cannot get through the dampers. | Very few, if any problems. | Better able to clean the entire system. |
| Ability to access & clean residential HVAC systems with small "boot" areas at the registers or sharp turns near the access register. | No. The vacuum hose with metal end fittings & brushes are often unable to pass through small openings or sharp bends at the boot. | This is not a problem for the small Aire-Sweep compressed air hose, whether accessing the duct system from the main duct (typically) or the register. | More available jobs, plus your crews won't waste time & money going to a job that their equipment can't handle. |
| Navigates ductwork with multiple bends. | Sometimes not well, as flexible hoses can have a tendency to hang up, or double back toward the operator. | Yes. The Aire-Sweep hose is small & flexible enough to even negotiate the turns. | Better access means more thorough cleaning. |
| Ability to clean panned-in HVAC return ducts. | Common obstacles such as cross braces, electrical wires, pipes, etc. can prevent or limit vacuum access. | No problem in the vast majority of situations. | Limited access affects job quality & thoroughness, & reduces efficiency & profitability. |
| Meets national standards & recommended industry practices for residential & commercial duct cleaning. | No. | Yes. | Negative pressure is the state of the art residential method & often required under commercial job specifications. |