

Eight tips for choosing the right vacuum

By Bob Abrams
Commercial Product Manager
Advance

Vacuums are essential tools for daily cleaning in nearly every type of building. With so many commercial vacuums to choose from, it can be difficult to know which vacuum(s) will work best for your cleaning program. In-house cleaners and building service contractors (BSCs) need to consider several factors when selecting a vacuum.

Before getting started, it's important to be aware of the different types of commercial vacuums.

- Upright vacuums closely resemble vacuums used for home cleaning and are operated in the same manner.
- Wide-area vacuums are upright vacuums with a wider base to accommodate large, open spaces.
- Canister vacuums feature a compact body with an attached hose and cleaning wand.
- Backpack vacuums also have an attached hose and wand, but the body of the vacuum is worn on the operator's back.
- Rider vacuums allow operators to drive the unit from a seated position and offer more productivity in large spaces.

Each vacuum has its benefits, and considering the following eight factors will help you find the best type of vacuum for your facility, cleaning staff and budget.

1. FAMILIARITY WITH THE FACILITY IS THE FIRST STEP.

Familiarity with the layout, floor surfaces and design of your building is crucial to vacuum selection. Backpack vacuums let operators clean in tight, confined spaces and grant access to hard-to-reach surfaces. Canister and upright vacuums are ideal for moderately sized areas, while wide-area and rider vacuums cover large, open spaces.

In multi-level buildings, the operator must be able to transport the vacuum from floor to floor. Lightweight vacuums such as backpacks easily travel up and down stairs, while canisters and uprights can be stored on a cleaning cart. Riders should meet the same



size requirements as those that govern wheelchair access in the Americans with Disabilities Act and should fit in a standard elevator.

Limited electrical outlet access might warrant the use of a battery-powered vacuum or longer power cords. Although cordless vacuums can be less cumbersome, batteries need to be charged regularly to maximize runtime.

Quiet vacuums are required for day cleaning or 24-hour facilities. The Leadership in Energy and Environmental Design (LEED) guidelines state that the upper sound level for vacuums is 70 dB A. A typical office area produces 64 to 68 decibels of sound; consequently, a vacuum used for day cleaning within or below that range is recommended. Noise should be minimized in 24-hour facilities such as hotels or hospitals to avoid disturbing guests or patients.

Visitors to facilities in colder climates often track in snow, sand or mud, so flooring near building entrances needs to be cleaned on a daily basis. Soil on grated or textured entrance mats can be easily removed with backpacks or canisters.

Limited electrical outlet access may warrant the use of battery-powered vacuums.



2. FLOORING AND FOOT TRAFFIC WILL AFFECT CLEANING FREQUENCY.

Many buildings – especially hotels, schools and office buildings – have carpeted surfaces. The amount of foot traffic will influence how often you should clean specific areas.

- Heavy-traffic areas, such as entryways, hallways and stairways, necessitate daily cleaning.
- Moderate-traffic zones, such as conference rooms, should be cleaned roughly two or three days a week.
- Low-traffic areas like offices, storage rooms and cubicles, which typically experience light traffic, require cleaning once or twice a week.

Vacuums with adjustable brush agitation can penetrate high-pile carpet and berber to effectively remove embedded debris, but

brushes that are too forceful can wear down the carpet. Low-pile carpet can be cleaned with virtually any type of vacuum. It is critical to frequently remove soil from all types of carpet to prevent it from sinking in.

To prevent scratches on hard surfaces from debris such as sand and grit, wands on backpacks and canisters are particularly effective. Wands also pick up dirt in grout lines and ridges on stone and ceramic floors.

3. FOUR FACTORS MATTER IN DIRT REMOVAL.

Dirt removal is one of the more obvious goals in vacuuming. Achieving optimal dirt removal, however, is less obvious. There is no single rule of thumb in determining how well a vacuum will remove dirt from a surface. Suction, the type of vacuum system, soil agitation and airflow are all factors to consider. They are also interdependent, and the importance of each one of these factors depends on the vacuum type and the surface that is being cleaned.

- **Suction.** The power of the vacuum motor plays a significant role in creating suction for dirt removal. Measured in wattage, vacuum motors range from 400 W to 1,300 W. Higher wattage does not always guarantee better suction, however. How the power is actually utilized by the vacuum depends on the vacuum system, soil agitation and airflow factors listed below. Actual suction is measured in the number of inches that water can be lifted up the vacuum hose from the surface (often referred to as “waterlift”), which must be balanced with an appropriate amount of airflow for the vacuum system.
- **Vacuum System.** There are two types of vacuum systems: direct vacuum systems and bypass vacuum systems. Direct vacuum systems utilize the power of the vacuum’s motor more efficiently, but the motor placement in the front of the machine filters dirt and dust less effectively, increases the sound level and exposes the motor to more dirt than bypass systems, thereby decreasing the life of the vacuum. Bypass vacuum

Stairways can be safely cleaned with battery backpack vacuums.



Rider vacuums are the most productive type of vacuum for large expanses of carpet.



systems – with motor placement in the back of the machine – require a more powerful vacuum motor to achieve the same results, but offer better filtration, operate at a lower sound level and typically last longer.

- **Soil Agitation.** Upright, wide-area and rider vacuums utilize a rotating brush that loosens dirt from carpet fibers, which makes it easier to remove dirt particles. Canister and backpack vacuums do not provide soil agitation, so these vacuum types require greater suction power to achieve the same results and are generally better suited for low-pile carpets or hard surfaces with loose soil and debris.
- **Airflow.** Vacuums that permit a higher volume of air to flow throughout the unit are better equipped to lift particles from the surface to the filtration system. A larger vacuum shoe opening requires a higher volume of airflow to create ample suction. A tight seal between the vacuum shoe and the floor surface, which can be achieved with accessories like rubber cushions around the vacuum shoe, will help optimize the balance between suction and airflow.

The type of vacuum system, suction, soil agitation and airflow are essentially useless if the vacuum does not contain dust properly. Dust emitted back into the air through a poor filtration and exhaust system can settle back on surfaces and require more frequent cleaning. Likewise, discharged dust can hang in the air for several hours, posing a potential health risk to operators and people in the facility.

4. CLEANING FOR IAQ PROMOTES HEALTHY INDOOR ENVIRONMENTS.

Well-designed filtration systems will increase indoor air quality (IAQ), which is necessary to protect facility occupants from airborne contaminants. This is especially important in schools and hospitals, but it also plays a role in improving the health of building occupants in all types of facilities. Certified high-efficiency particulate air (H.E.P.A.) filters effectively remove 99.97 percent of

contaminants and allergens as small as 0.3 microns, improving IAQ and preventing particles from entering the air through the exhaust system. H.E.P.A. filters typically make up multiple levels of filtration within the vacuum system to help decrease the need for dusting.

Hypoallergenic bags can also help keep dust, pollen, mold and bacteria out of the air. Larger bags increase airflow and suction, and do not need to be changed as often. Bags that are easily replaced reduce the chances that the operator will be exposed to airborne dust and dirt from within the vacuum.



A vacuum with CRI Seal of Approval has passed tests for adequate soil removal and dust containment.



5. LOOK FOR REPUTABLE CERTIFICATIONS WHEN ASSESSING GREEN VACUUMS.

The Carpet & Rug Institute's (CRI) Seal of Approval is a well-recognized standard for green vacuums. A vacuum that receives a CRI Seal of Approval has passed tests for adequate soil removal and dust containment. A quality vacuum reduces landfill waste by diminishing the need for replacement parts, vacuums and carpet.

Certain buildings and industries have additional standards for green cleaning. Recently, for example, many states have begun to enact legislation requiring schools to adopt green cleaning practices. It is important to pay attention to government regulations and company policies, as they may require that the vacuum you use meet specific standards for green cleaning.

6. DON'T FORGET TO CONSIDER DURABILITY AND PERFORMANCE WHEN BUYING ON A BUDGET.

Vacuums with a long useful life will help you cut down on costs of repair and replacement and get the most out of your investment. Look for a vacuum that comes with at least a one-year warranty as a sign of confidence in the vacuum's performance. Parts can be expensive and slow to ship, so using a local supplier or dealer will reduce downtime and repair fees. Streamlining your equipment by using one brand or model can also boost your bottom line.

Backpack vacuums should fit the operator comfortably, with an adjustable harness.



Vacuums must be durable, and you should calculate your annual budget and the cost of maintaining the vacuum for the period of time for which you need it. The vacuum will likely be used daily and should withstand rough use (e.g., bumping into doors or walls) and sucking up large pieces of debris.

A quality vacuum increases productivity by reducing cleaning time. Rider and wide-area vacuums may decrease the number of employees needed to clean large spaces and allow the staff to be reassigned to other areas in the facility. High-performance vacuums can also reduce the frequency of cleaning and will extend carpet and floor life.

7. FINDING THE RIGHT EQUIPMENT FOR STAFF DEPENDS ON THE NUMBER OF EMPLOYEES, SKILLS.

A vacuum designed with ergonomics in mind maximizes productivity by reducing operator fatigue and injury. Handles that feature finger grooves, an angled position and soft material like foam or rubber decrease stress on the hands. Upright vacuums with an adjustable handle promote a more natural posture to ease strain on muscles and joints. Wide-area and rider vacuums eliminate back-and-forth motion, requiring less energy from the operator.

Lighter vacuums also prevent operator discomfort and exhaustion. Operators should be able to maneuver, push and lift upright and canister vacuums up and down stairs and off of cleaning carts. Backpack vacuums should evenly distribute the weight of the unit and allow operators to adjust the harness as needed.

User-friendly and accessible vacuum controls make it easier to train employees to use the machine. Displays that indicate the need to replace a filter or bag can save time. Removable parts allow operators to fix any additional minor equipment issues on the spot.

About Advance vacuums

Advance offers vacuums with high performance and durability for budget-minded cleaning programs. With a wide range of vacuum offerings – including the VacRide™ rider, the Spectrum™ upright and the Adgility™ line of backpacks – Advance vacuums can be matched to facilities of any size and help improve cleaning productivity, indoor air quality and carpet life. For more information on Advance vacuums, visit www.advance-us.com/vacs.



8. ACCESSORIES CAN HELP TURN VACUUMS INTO MULTI-TASKING CLEANING MACHINES.

Accessories increase the capabilities and versatility of a vacuum. Extra brushes, beater bars and upholstery tools can be used with the vacuum to clean various types of surfaces. Telescopic wands permit vacuums to reach air vents or blinds. Retractable cords and cord loops reduce the danger of tripping over a long cord. Magnets can help catch debris like paper clips. No matter which accessories you choose, make sure the add-ons are within your budget.

And remember, take time to explore your options.

Before you purchase a commercial vacuum, give yourself plenty of time to consider your options. Several important factors play a role in your selection, and you want to evaluate each and every one of them. Choosing a reputable brand with a wide range of vacuum offerings will help you make the most of your investment.

14600 21st Avenue North
Plymouth, MN 55447-3408
www.advance-us.com
Phone 900-850-5559
Fax 800-989-6566

240 Superior Boulevard
Mississauga, Ontario, Canada L5T 2L2
www.nilfisk.ca
Phone 905-564-1149 or 800-668-8400
Fax 905-564-1030 or 800-263-5111