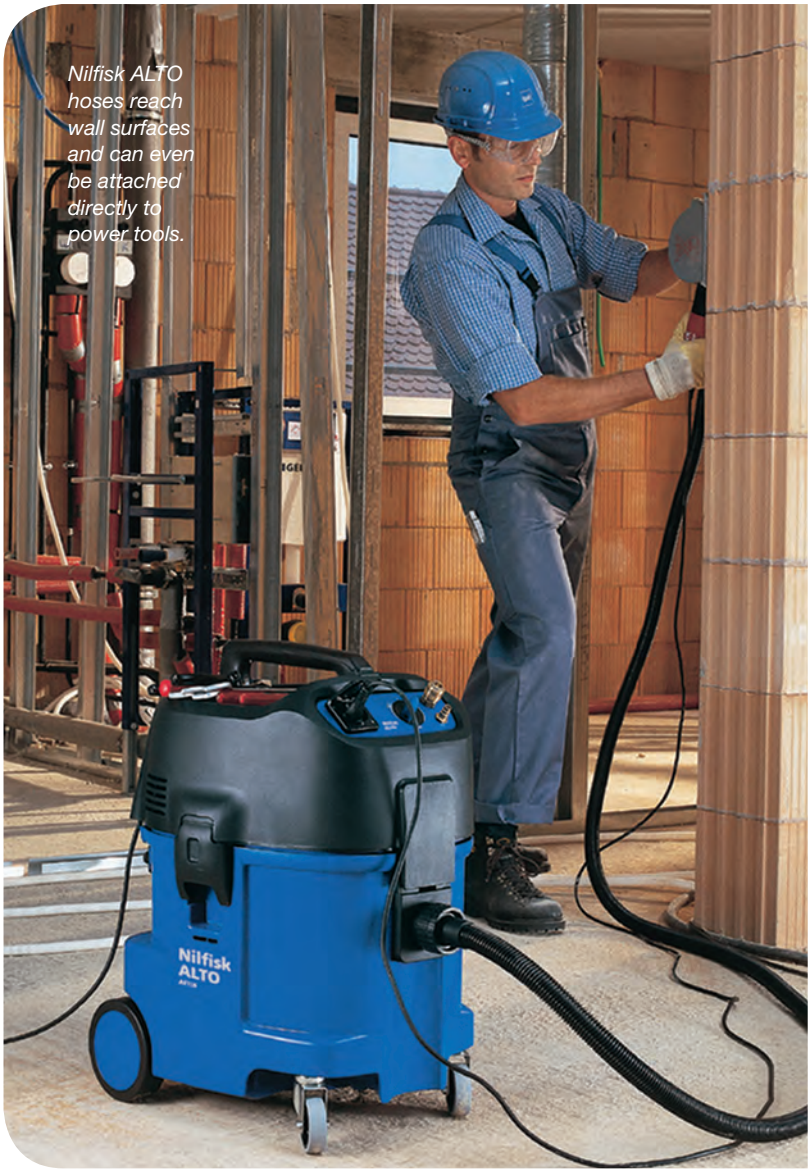
# ONE SIZE DOES NOT FIT ALL

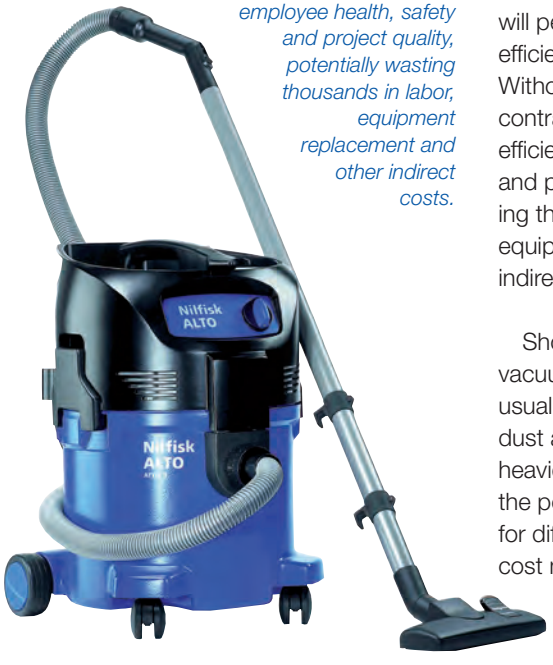
## HELPING YOUR CUSTOMERS CHOOSE THE RIGHT VACUUM FOR THE JOB SITE

by Daniel **Peterson**




*Nilfisk ALTO hoses reach wall surfaces and can even be attached directly to power tools.*

It used to be that housekeeping at the job site was something tackled at the end of the day or project. You plugged in a shop-style vacuum and went to work. Times have changed. State and federal regulations, local ordinances and 'neighbor' interaction now often dictate how and when cleanup should be done.




*Without the right cleaning tools, contractors can compromise efficiency, employee health, safety and project quality, potentially wasting thousands in labor, equipment replacement and other indirect costs.*

Meeting these increasing demands requires thoughtful planning and understanding which cleaning tools will perform most effectively and efficiently in various situations. Without the right cleaning tools, contractors can compromise efficiency, employee health, safety, and project quality, potentially wasting thousands of dollars in labor, equipment replacement and other indirect costs.

Shop-style or off-the-shelf vacuums have their place, but they usually don't handle the range of dust and debris at job sites. Only heavier-duty, wet/dry vacuums offer the power and durability needed for difficult jobs. These vacuums cost more up front, but contractors recoup that investment very quickly in future equipment savings, worker health, safety and quicker cleanup.

There are several factors to consider when selecting a vacuum, and often the nature of the job dictates which features are most important. For instance, stick-built housing generates considerable fine-particle sawdust. A shop-style vacuum can recirculate that dust back into the air, endangering employee respiratory health and creating more debris to collect and eliminate in the end.

Or consider the job of renovating a structure built before 1978 with potential exposure to lead dust, or a construction site with silica dust where workers run the risk of

PHOTOS: NILFISK

developing silicosis – a serious and sometimes fatal disease of the lungs.

The EPA and OSHA both have regulations governing cleanup in these conditions. All three job sites require high-efficiency filtration systems not available on standard shop-style vacuums, and each site requires specific airflow and power to produce the necessary suction for efficient cleanup.

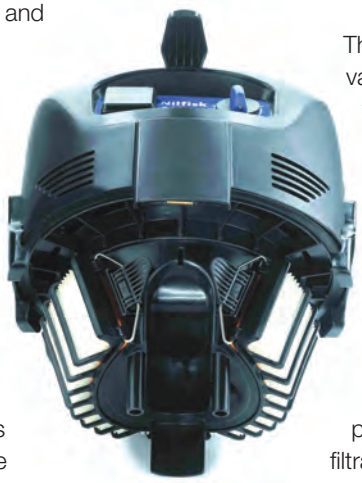
Several vacuum features greatly impact cleanup results.

## FILTRATION

Superstorm Sandy and the many tornadoes devastating towns in the Mid-West and the South have required major disaster recovery projects, remediation and abatement. Many of these sites are fraught with hazardous materials such as lead paint, lead dust, asbestos or silica and heavy mold infiltration. All pose significant health risks to workers, as dust particles are released into the air. Many construction and refurbishment sites deal with these same issues.

Traditional vacuums are not equipped to prevent dust from escaping the exhaust and pushing hazardous materials back into the air. According to EPA's bulletin 3362 on silica exposure: "Vacuum cleaners with inadequate or damaged filters can increase employee silica dust exposures due to the agitating action of the vacuum and incomplete filtration of fine dust particles (Heckel et al., 2000). Employers must choose vacuum filter media carefully." High-efficiency filter systems provide the greatest operational efficiency and material containment when the job calls for very fine dust control, filter cleaning options and high efficiency.

A vacuum cleaner's performance and durability increase as a direct result of a high-quality filtration system because catching the dust before it ever reaches the motor means less wear and tear on the motor.



*The Nilfisk XtremeClean filter system automatically and continually cleans the filter using powerful air pulses.*

The ideal choice is a vacuum cleaner brand that is designed for heavy-duty cleanup of hazardous materials and the debris resulting from sanding or grinding. For example, Nilfisk-ALTO wet/dry vacuums provide multi-stage filtration with synthetic dust bags. Multi-stage filtration captures large debris before it passes through the motor and onto the exhaust filter, easing wear and tear on the motor and extending the life of the vacuum cleaner.

Synthetic bags have higher air permeability than traditional paper bags, reducing performance loss and providing higher resistance to tears. When used with a HEPA exhaust filter, they capture 99.97 percent of particles down to 0.3 microns, protecting employees from inhaling hazardous materials on the job site.

Features such as Push&Clean and XtremeClean allow users to easily clean the filter during use. Instead of having to open the vacuum and manually clean the filters, powerful air pulses blast off the dirt and debris, returning the vacuum to high suction performance. These features reduce downtime, extend the life of the filter and prevent exposure to collected toxic dust and debris.

## AT-THE-SOURCE DUST CAPTURE

When selecting a vacuum, contractors need to consider what source-capture accessories are available that can improve performance and productivity. For instance, vacuums that have the auto-tool feature allow power tools to be plugged directly into the vacuum to automatically collect dust while using the tools. Dust and debris are captured even before becoming airborne, protecting fresh paint, newly finished hardwood floors and employee health.

An auto start/stop feature allows power tools to control the vacuum, turning the vacuum on only when needed. This saves on energy costs as well as unnecessary pull on the vacuum motor. Pairing a power regulator with a start/stop feature allows workers to control speed and adjust suction performance so the power tool does not stick to the work surface and impede work flow.

## MOTOR QUALITY

Vacuums with high-quality motors can better withstand the daily abuse of construction jobs, and high quality means more than just power level. Getting the right motor will eliminate

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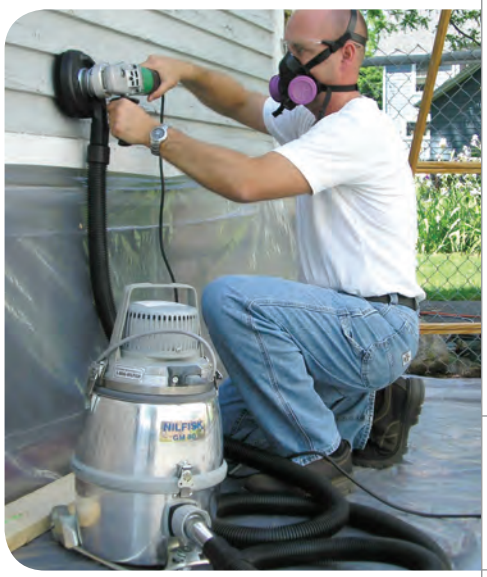

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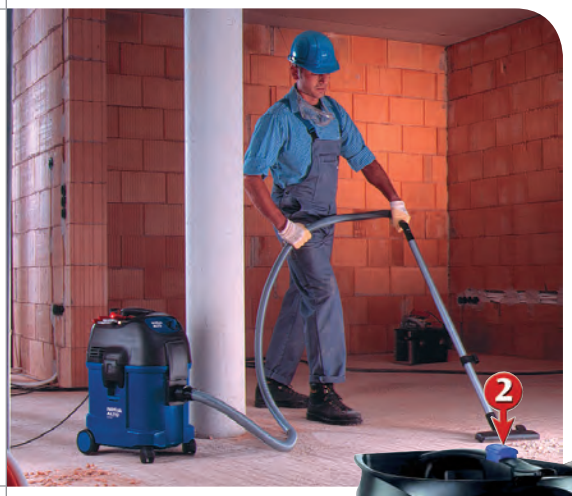

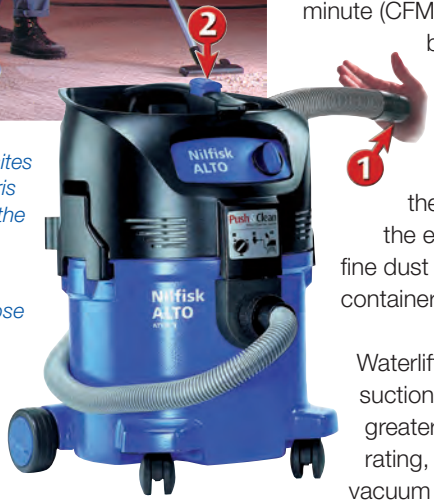


*Above: Keeping job sites clean of building debris is fast and easy with the Nilfisk ALTO Wet and Dry Vacuums*

*Right: 1: Block the hose inlet and 2: push and release the button to quickly blast off dirt and restore high suction using the Nilfisk Push&Clean feature.*

constant motor burn-out and constantly replacing vacuums, which slows cleanup and wastes money on replacements parts and repair.

Contractors should first consider how long the vacuum will be in use each day. If it is needed to clean up heavy or messy debris for more than a continuous hour each day, a continuous-duty, three-phase power motor is best. If the vacuum will be primarily used for general cleanup of a construction job site — nails, dust, etc. — for about an hour or less each day on and off throughout the day, then an intermittent-duty, single-phase model fits the bill.

Features like Nilfisk's Softstart system will further extend the life of your vacuum by keeping the current low and preventing a surge during startup. This reduces the mechanical stress on the motor and driveshaft.

## POWER

With power tools, horsepower dictates the level of power. But with vacuums, power and performance are dictated by the vacuum's airflow and waterlift. Airflow is the force of the air moving across a surface available to move the material being vacuumed. It is measured in cubic feet per minute (CFM) and reflects both the power of the motor and the resistance of the filter. The greater the airflow capacity, the easier it is to move fine dust into the vacuum container.

Waterlift is a vacuum's suction capability. The greater the waterlift rating, the easier to vacuum heavy construction debris such as concrete chunks, wet drywall, and large piles of assorted materials.

Select high-quality vacuum cleaner accessories that do not impede airflow and suction such as hoses that won't tangle or kink. Remember that hose diameter and length will impact suction. Wider-diameter, longer hoses require a higher waterlift rating to operate at peak efficiency.

## CAPACITY

A vacuum's capacity is important when large volumes of material need to be removed from a job site such as recovery after a flood. Greater capacity means that workers can remove water from the site faster as less time is required for emptying. Look for machines that come in at least 8-, 12- and 19-gallon container models.

For large, wet collection sites, look for vacuums that have a "tilt and pour" option that allow the contents to be dumped by tilting the container in its frame, versus lifting and dumping. This feature makes cleanup faster and easier, and prevents possible back injuries. When working on wet collection sites, consider a stainless steel container to avoid rust issues.

## NOISE CONTROL

Vacuum noise control is important for worker safety. Vacuums with a high decibel level can damage eardrums of operators and others at the job site, and becomes even more damaging when the vacuum is used continuously.

Noise can also be a nuisance and affect customer satisfaction if the job site is at or near an operating business or home. Look for vacuums with low noise levels – some models are as low as 57 decibels, which allows operators to hold a normal conversation while vacuuming.

## FLEXIBILITY IS KEY

Having the right vacuum available, from shop-style to heavy-duty, is important to properly handle various needs. Wet and dry vacuums offer operational features and capacities that give you peak operational efficiency year after year, offering cost-effective solutions not found in lesser models.

Small-capacity models allow easy transport from job site to job site, and large-capacity models can work better for longer-term, large-volume projects. Choose filtration systems, airflow and waterlift capacity that best meet your project requirements. CS


*Daniel Peterson is a product manager for Nilfisk-ALTO, which manufactures industrial grade wet/dry vacuum systems and pressure washing systems for professional use. Nilfisk-ALTO is a division of the Nilfisk-Advance group. Reach them at the website www.nilfisk-alto.us.*

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