

Automating outdoor cleaning increases efficiency and effectiveness.

The benefits are improved aesthetics, reduced labor costs and faster results.

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To maintain the public's perception of a clean, safe and appealing outdoor space, cleaning managers are turning to new ways to clean litter and debris from paved pedestrian surfaces. At the same time, facilities need to control operating costs including the labor associated with outdoor cleaning. This paper reviews the range of outdoor paved surface cleaning methods available today — including the newest automated cleaning equipment — and provides a comparison of costs and effectiveness to help you make the best choice for your outdoor cleaning needs.

Why clean outdoors

Once litter is allowed to collect, it actually becomes the cause of more litter. Getting rid of litter not only helps prevent additional litter, but it can make your outdoor space safer, more attractive and inviting and lead to a positive perception of your facility. The more popular and highly frequented your campus, park, retail area or other outdoor setting, the greater your need to clean outdoors to eliminate the litter left by your guests and to keep surfaces free of debris such as sand and leaves. Your facility's image depends on effective outdoor cleaning.

Manual cleaning methods were the beginning

For years, manual cleaning tools such as brooms, litter pickers and blowers were the only choice for cleaning outdoor paved pedestrian surfaces. Workers often had to use more than one tool and go over the same surface more than once — first to patrol the large litter and debris, and then to completely clean and sweep the area. Plus, sweeping and blowing can also actually “stir up” dust and dirt, exposing workers and visitors alike to unpleasant and potentially unhealthy contaminants.

Manual cleaning methods have since been augmented by walk-behind vacuum sweepers, rear-rider vacuums, and golf-cart style vacuums. These methods have improved productivity, but they all require the manual lugging and emptying of debris, a task that leads to worker fatigue and possible injury. The approach also allows workers to come into contact with potentially dangerous debris or become engulfed in a “dust cloud.”

The newest approach to cleaning outdoor pedestrian surfaces is the use of ride-on vacuum sweepers. The equipment is an all-in-one answer for sweeping and litter control. Vacuum sweepers offer simple controls and outstanding maneuverability to handle a wide range of demanding outdoor cleaning applications. Ride-on machines also reduce operator contact with dirt and debris, and eliminate the physical demands associated with debris disposal.

A review of outdoor surface cleaning equipment alternatives

Common sense will tell you that brooms and litter pickers cost significantly less to buy than more automated vacuum equipment, and also that the new category of ride-on vacuum sweepers is likely to come with the highest purchase price of the outdoor cleaning equipment alternatives. However, initial purchase price does not provide the whole picture associated with the cost of your cleaning method.

You will also want to consider your outdoor cleaning costs in these terms:

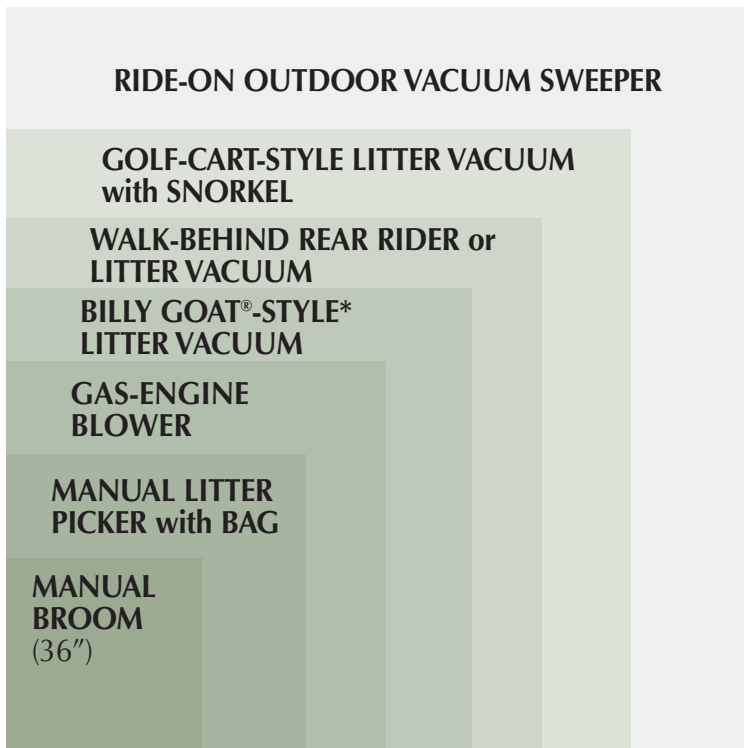
- *Productivity* – How large an area can the equipment effectively clean in an hour? How often can you use your cleaning method to clean your outdoor surfaces without buying new equipment or performing maintenance?
- *Performance* – Will the equipment perform up to the cleaning standards of your facility — and to the expectations of your visitors, customers or other users?
- *Safety* – Does the equipment aid productivity and keep operators as well as pedestrians safe?

A comparison

Following is a comparison of various equipment alternatives for cleaning and maintaining outdoor paved pedestrian areas. The square feet-per-hour cleaning rate information was obtained from data published by the International Sanitary Supply Association (ISSA) and from cleaning industry experts. Equipment costs are approximate, based on current prices advertised by manufacturers or distributors/dealers.

Manual broom (36") – Cleans a 36"-wide path at a rate of 5,600 sq. ft. per hour. This manual method moves debris but disperses dust into the air. Operators need to manually pick up the collected debris. Approximate equipment cost is \$45.

Manual litter picker with bag – Cleans a 60"-wide path at the rate of 15,000 sq. ft. per hour, but actual productivity is heavily dependent on debris concentrations and operator motivation. This method is suitable for capturing only larger debris, leaving behind smaller objects such as sand. Approximate equipment costs are \$85 for the picker and \$20 for the shoulder bag.



Relative Square-feet-per-hour Cleaned by Various Equipment

*Billy Goat is a registered trademark of Clarke.

Gas-engine blower – Cleans a 72"-wide debris path at the rate of 31,000 sq. ft. per hour. Rather than capture debris, this method moves debris around and creates airborne dust. It also requires a secondary system to remove the debris that has been gathered. Approximate equipment cost is \$400 - \$800 for a blower, plus the cost of debris removal equipment.

Billy Goat®-style litter vacuum – Cleans a 30"-wide path at the rate of 26,000 sq. ft. per hour but can also be used for simple litter patrolling for higher productivity of up to 75,000 sq. ft. per hour. This method captures debris and some fine particles but kicks a lot of dust into the air. Approximate equipment cost is \$1,500 - \$3,500.

Walk-behind rear rider or litter vacuum – Cleans a 48"-wide path at the rate of 42,000 sq. ft. per hour. It can also be used for simple litter patrolling for higher productivity, up to 100,000 sq. ft. per hour. This method captures debris and fine particles and does a reasonable job of controlling dust but can be noisy. Approximate equipment cost is \$21,000 - \$30,000.

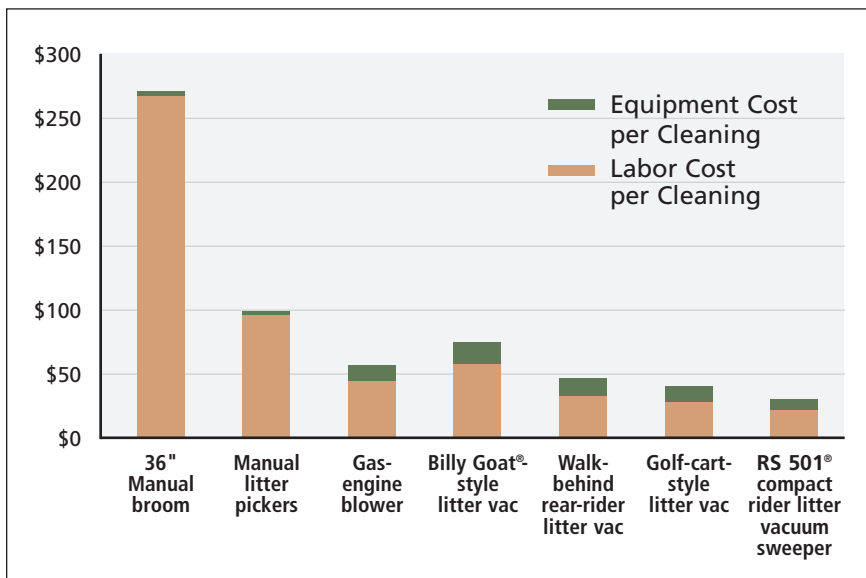
Golf-cart-style litter vacuum with snorkel – Cleans a 48"-wide path at a rate of 53,000 sq. ft. per hour but can also be used for simple litter patrolling for potentially higher productivity. Snorkel-style equipment captures only the debris that is targeted, leaving behind dust, dirt and small debris. Approximate equipment cost is \$25,000 - \$35,000.

Ride-on outdoor vacuum sweeper – Cleans a 63"-wide path at the rate of 83,160 sq. ft. per hour. Effectively captures fine particles as well as litter and debris from soda cans and newspaper to glass bottles and heavy rocks, all in one pass. Dust control systems nearly eliminate dust exposure for operators and pedestrians. Approximate equipment cost is \$50,000 - \$95,000.

Adding in the labor factor

The cleaning equipment alternatives reviewed above require differing amounts of operator time in order to clean the same size area. And opera-

tor time relates directly to labor cost, which is agreed to be the most significant factor in any cleaning program's costs. The chart to the left compares the labor and associated cost required to clean a 100,000-square-foot outdoor area using each of the various outdoor cleaning alternatives discussed.



Cost of Labor vs. Cost to Run Equipment

Costs based on cleaning 100,000 square feet.



Advance Cleaning Solutions for Outdoor Applications

The RS line of Advance rider vacuum sweepers is part of a complete offering of specialized outdoor cleaning equipment available from Advance. From vacuum sweepers to tractor scrubbers to pressure washers, Advance delivers efficient, easy-to-use equipment that provides superior cleaning, increased productivity and operator safety — all designed to create attractive and inviting outdoor environments. Advance outdoor cleaning equipment is backed by professional, local maintenance and service support. Our cleaning experts are ready to analyze your needs and recommend the best outdoor cleaning solution for you. To learn more about Advance outdoor cleaning equipment or to find a dealer near you, visit www.advance-us.com/outdoor or call 1-866-429-8175.



Automation is the key to reducing labor costs

It is obvious from the data above that the cost of outdoor cleaning labor goes down when you use automated equipment. Especially when the automated equipment you choose effectively meets all of your facility's cleaning demands — from dust and dirt to unsightly litter — without the need for additional equipment or more than one pass over an area.

A high-performance alternative for outdoor cleaning demands

All-purpose rider vacuum sweepers provide a welcome and productive alternative to manual litter pick-up, walk-behinds and golf-cart style litter vacuums. Using European technology proven in applications for over a decade, the RS line of compact outdoor vacuum sweepers from Advance (see sidebar) safely removes large and small debris from public pedestrian areas such as curbs, streets, sidewalks, alleyways and parking lots. Compared to other outdoor cleaning methods, the vacuum sweepers provide a total cleaning solution because of their optional features and their ability to capture fine particles, as well as the widest range of debris: heavy rocks, bulky debris, large glass wine and beer bottles, wet leaves and sand, cigarette butts, beverage cans and more.

With optional features such as a vacuum hose and pressure washer, cleaning with a vacuum sweeper truly becomes a one-person cleaning team. The optional feature of a pressure washer allows the user to not only clean dirt, dust and debris with the vacuum sweeper, but it also allows them to take care of stained or soiled pavement. The vacuum hose option allows the user to reach into debris-filled corners that were only previously reachable with a broom or rake.

Choosing the right outdoor surface cleaning equipment for your needs

The outdoor image your facility wants to project, the size of area to be cleaned and abilities of your staff, plus your available budget are important factors in your decisions regarding your facility's outdoor cleaning program and the best equipment for your needs. You will want to test any automated equipment you are considering because a hands-on demonstration can tell you more about a machine's performance than brochures or salespeople. You'll also want to ask about the availability of after-sale support: Is there a dealer or other representative nearby who can meet your current and future needs for training, parts and service? The best choice for your facility's outdoor cleaning is the one you make by considering today's equipment alternatives, your facility's specific needs and goals and the cost-saving, image-enhancing benefits of automating your outdoor cleaning.

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