

# How to Select Industrial Floor-care Equipment for Increased Productivity and Performance

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A clean working environment helps promote worker safety, productivity and product quality. That's why the floor-cleaning equipment you select for your plant is nearly as important as the manufacturing equipment you select. In addition, the cleanliness of your plant, warehouse or machine shop conveys a quality image that carries over into higher employee morale and positive reactions from visiting customers and vendors. In short, keeping the workplace clean adds real value to virtually any enterprise.

Just about every facility will require a combination of floor-care equipment from brooms to vacuum cleaners to walk-behind scrubbers or rider sweepers. Getting the right mix of equipment is a matter of assessing your specific cleaning needs. Some of the factors that affect this decision include:

- *The size of dirt and debris particles generated*
- *The amount of dirt and debris generated*
- *The character of the dirt (fibrous, oily, dusty, wet)*
- *The type of surface (tile, bare concrete, coated concrete, outdoor, etc.)*
- *The number of personnel involved in cleaning activities*
- *A definition of what constitutes "clean" for your facility*

On this last point, "clean" can mean anything from getting rid of chunks of dirt on the floor to creating a shiny, scuff-free surface. Your facility's cleanliness goal will be a factor in your equipment choice. For example, if "clean" means getting rid of forklift tire marks and other stains in addition to dust and debris, then your cleaning process will have to include scrubbing as well as sweeping.

## ***Sweep or Scrub?***

After assessing the size and amount of dirt and debris to be removed, the primary decision to be made is "sweep vs. scrub." This decision is not always straightforward. For example, if the material to be cleaned is mostly fine dust, it would seem that a sweeper would be the ideal tool to remove it. But the best way to handle dust is to "add water," which eliminates your dust problem; this means a scrubber may actually be the better equipment choice.

Sweepers are ideal for bulky debris such as wood chips, metal shavings (swarf), paper and fibrous materials. Scrubbers are suitable for light, dusty debris on all types of hard floors – especially dirty or oily surfaces. In many



Smaller rider scrubbers are ideal for cleaning confined areas where their maneuverability reduces the amount of hand labor.



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Walk-behind scrubbers are well suited to smaller facilities with a need for scrubbing and light debris pickup.

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instances, you may need to sweep first and then scrub. This requires either two separate machines or one combination machine. In smaller facilities where only one person is doing the cleaning, a combination sweeper/scrubber is often a good choice because with two machines, one of them would sit idle a good share of the time. However, combination sweeper/scrubbers, due to their dual function, sometimes have limited hopper and tank capacities, which can reduce productivity in the long run. More time spent dumping hoppers and refilling solution tanks on combination machines can mean less active cleaning time.

#### **Walk or Ride?**

When you consider that 90 percent of the cost of cleaning is labor, the additional cost of a ride-on machine can likely be recouped from labor savings in about three months. This is because ride-on sweepers and scrubbers offer productivity gains as much as 64 percent over walk-behind machines. In addition, ride-on equipment is easier on your personnel, allowing them to do more with less fatigue. Today’s ride-on machines are compact enough to get into narrow spaces, and many are nimble enough to turn within their own length. By making more passes in a given time and significantly reducing worker fatigue, ride-ons provide a big productivity boost for a modest investment.

#### **Equipment Sizing**

As a general rule of thumb, you should purchase the smallest walk-behind or ride-on equipment that will allow you to complete your active sweeping or scrubbing in no more than two to three hours (exclusive of dump and refill cycles). For most companies, the person doing the cleaning is also responsible for other jobs in the plant, and it’s generally not economical to have him spending more than half a day on cleaning. Look for machines with larger capacity hoppers or solution tanks in order to minimize unproductive dump and refill activities.

If you need to scrub a 9-foot-wide aisle, a 48-inch-wide machine will accomplish that task in a minimum of three passes. While you might think that a 50-inch-wide machine would get the job done more quickly, it doesn’t. It will still require three passes to complete the cleaning. This is a case in which a larger and more expensive machine offers no gain in productivity. By matching the size of the machine to your exact needs, you minimize your capital investment while maximizing productivity.

In many instances, you may need a ride-on sweeper or scrubber for large open areas and a smaller walk-behind sweeper or scrubber for narrow aisles or to get in around and between individual workstations. Again, each machine you choose should be the smallest practical size for the job in order to minimize your investment.



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For facilities that require both sweeping and scrubbing, sweeper-scrubbers combine two cleaning functions into one machine.

*“It’s important to assign responsibility for maintenance and upkeep to one person.”*

### **Type of Floor Surface**

Most sweepers and scrubbers are intended to work on any hard floor surface, but for best results, the style of brushes, brooms or squeegees you select should be matched to your specific surface and the dirt or debris to be removed. For example, some brooms are designed to sweep up fine dust from smooth floors. Wire-reinforced brooms do a more aggressive job of cleaning and are ideal for bulkier debris on unsealed concrete floors. There are even grit-impregnated brooms and brushes for heavy-duty cleaning on rough surfaces.

Scrubbers used on smooth, sealed surfaces are usually equipped with soft gum rubber squeegees that do an excellent job of getting up the excess water so the floor can dry quickly. However, used on rough floors, a gum rubber squeegee will wear too quickly, so synthetic squeegee blades should be specified. The synthetic blades are not as flexible as gum rubber, but they last longer and also resist degradation in greasy and oily environments.

### **Other features to look for:**

- 1. Ease of Use** – A key feature to look for in floor-cleaning equipment is ease of use – especially if the equipment is going to be used by more than one operator. Are the controls easy to understand? Can the equipment be used with minimal training? Is the equipment designed to enable operators to handle minor equipment problems? For instance, a sweeper with a main broom that can be easily removed without tools will allow operators to disentangle the tape, cords, packing material, etc., that can get wrapped around the broom and reduce its sweeping ability. Unless these materials can be easily and quickly removed, cleaning productivity will suffer.
- 2. Water Usage/Tank Capacity** – Choose scrubbers that offer reduced water/detergent use and large solution tank capacities in proportion to their size. These features will not only lower operating costs and help the environment by reducing the volume of your waste stream, they will also improve your cleaning productivity. Be sure to choose equipment that will not only save water and detergent, but also provide enough cleaning power to get your floors clean.
- 3. Operator Visibility** – Another consideration is whether the equipment gives the operator a clear view of the area to be cleaned – for both safety and cleaning performance reasons. While many sweepers have hoppers that can be raised 60 inches to dump directly into a dumpster, it is important to have a sweeper that allows the operator a clear view of the dumping without having to lean their head outside of the machine. Whenever the operator has to lean outside of the machine, there is a danger of striking their head on a nearby rack or piece of equipment. Choose units with offset hoppers that allow the operator to sit straight and look forward during both dumping and sweeping operations.



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### ***Maintaining Your Equipment***

When there are multiple users of a piece of equipment, it's important to assign responsibility for maintenance and upkeep to one person. If no one takes ownership of the unit, maintenance will often be neglected and lead to machine failures. Look for manufacturers that offer preventive maintenance programs for your floor-care equipment as a way to ensure high machine availability.

### ***Conclusion***

Because 90 percent of the cost of cleaning is labor, you will want to select floor-cleaning equipment that provides the highest productivity as well as the best cleaning performance. A reputable local equipment dealer will be able to help you choose the floor-cleaning equipment that is right for your application. Your dealer will also make sure the equipment is right for your operators by providing an in-plant trial of your selected machine. Working with your dealer, you can make sure your operators are trained and preventive maintenance programs are put in place to protect your investment for years to come.



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