

What to Look for When Choosing a Floor Machine

Floor maintenance is both an art and a science. The same can be said for buying a floor maintenance machine. The many nuances include: choosing a low speed floor machine or high-speed burnisher; knowing which machine will do what; and determining compatibility, size, power and price.

The two principal types of floor machines are the "traditional" low-speed buffer, and the high-speed burnisher. Each type of machine has its pros and cons, which are very important considerations.

Different Types of Floor Machines

There are three basic categories of floor machines - standard speed floor machines (150 to 175 RPM) high speed floor machines (200 to 400 RPM) and high speed burnishers (1,000 to 2500 RPM).

The Traditional Floor Machine

Standard speed floor machines (175 RPM) are used for stripping, scrubbing, and polishing all types of hard surface flooring, concrete and carpet maintenance. They range in size from 13" to 20" in diameter. Generally, smaller diameter machines (13 -15") are used for scrubbing, stripping and polishing floors in confined places or space with many obstacles, often used in areas of less than 2,000 square feet. Larger diameter floor machines (17 - 20") are used for scrubbing, stripping, screening wood floors and polishing floors in a more open place, classrooms, gymnasium floor, cafeterias and open corridors.



High Speed Floor Machines (Dual Speed)

High speed floor machines (250 – 350 RPM) are used for scrubbing and polishing of hard floors. The higher speeds achieved with these units make them better suited to spray buffing than standard speed floor machines. Also, the higher speed often makes floor stripping operations much faster. The standard size of most dual speed floor machines is 20 inch.



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Oscillating Floor Machines

The latest innovation in floor machine technology is the Square/ Rectangular oscillating floor machines. The Square Strip The Square Strip Oscillating / Orbital floor machine is ideal for Chemical Free scrubbing / stripping of most floor finishes.

The Square Strip floor surface preparation machine gives operators the ability to remove multiple layers of finish, without using chemicals.

The Square Strip incorporates a Heavy Duty 1.5 hp motors runs that operates at 1750 rpm and creates 2,400 oscillations per minute.

Square corners allow it to work into corners that are missed by traditional "round" floor pads.

Easy To Use: The oscillating machines are very easy to use and quick to learn. A new operator of the machine can become proficient within minutes instead of the hours a conventional rotary floor machine would take to become acquainted with.

It's Dry: The Square machines utilize a dry chemical free process to prepare tile flooring to be re-finished. The Dry Strip Process uses the specially engineered Surface Preparation Pads and easily removes surface finish in preparation for recoating.



When purchasing a floor machine, look for machines with a heavy-duty metal frame and a base that is 17 to 20 inches in size. The 20-inch floor machine has become the norm in the commercial industry over the past 10 years, though you can find larger and smaller machines. The larger the machine, the more area it will cover and the faster it will complete your work. However, too large a machine may make it difficult to work in smaller areas; too small a machine will add to your workload in a larger area.

The floor machine should have a wrap-around bumper to protect walls and furniture, a safety lock-out switch so the machine can stop immediately and a 50-foot power cord.

Floor machines should be seen as an investment, not an expense. They often last 10-20 years and most are virtually maintenance free. The majority of 17-20 inch floor machines incorporate a 1.5 horsepower motor and a triple-planetary gear unit. This is the transmission that reduces motor rpm to acceptable pad speed i.e. 1,750 rpm motor speed is reduced to 175 rpm pad speed.

- A new floor machine will set you back between \$600 to \$800 for a single speed and \$800 to \$1,200 for a dual speed. The oscillating machines cost in the neighborhood of \$1,500 to \$2,400 depending on size.



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High Speed Burnishers

Ultra High-Speed floor machines, also known as burnishers, rotate at more than 9 times the speed of a conventional floor machine, usually between 1,500 and 2,500 RPM.

Normally 20-inch in diameter, these machines generate friction which smoothes floor finishes (evening out the highs and lows of the floor finish). They are particularly suited to burnishing (spray buffing up to 1,200 RPM) and are capable of producing the "wet look" that is often desirable. The finish produced by burnishers is smoother and easily maintained with regular buffing. Burnishers have fixed rear wheels that remain in contact with the floor while in use. The normal mode of operation is in a straight line pass with overlapping of 10 percent.



Burnishers rotate faster than standard speed floor machines, but they also are much lighter in weight, which often makes them easier to operate.

They are also slightly more complicated, requiring more maintenance than a standard speed floor machine. General maintenance may be limited to a drive belt or carbon motor brush replacement. Not to worry though, most maintenance intervals are between 1500-2000 hours of use.

When deciding what type of burnisher to buy, consider the power source. Some burnishers are electric-cord powered; others are battery powered; and others run on propane.

The cord electric burnisher is the least expensive, the lightest and the easiest to maintain. Because it is lighter, it is best used for smaller spaces such as individual offices and small office buildings.

Cord electric burnishers usually include a 50 or 75 foot, 14-gauge power cord. To add an extension cord of no more than 50 feet. Use a 12-gauge extension cord (the lower the gauge number, the more current a cord can handle.)



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Dust Control Burnishers

A growing trend in ALL models of high speed burnishers is the integrated dust control system. These devices capture more than 90 percent of airborne particulate and virtually eliminate the need for dust mopping after the floor is burnished. They incorporate a wrap-around skirt that re-directs the airflow from the pad and passes it through a filter. The filter media is usually paper, cloth or washable foam.

- A new cord electric burnisher will cost between \$800 to \$1,200 for a 20-inch model and \$1,200 to \$1,600.00 for a burnisher with dust control.



Propane Burnishers

The propane burnisher is the "big daddy" of the floor machines. If your client list includes large retail stores, you will have little choice but to use a propane burnisher to maintain these massive locations.

Propane burnishers today often are walk-behind units with a 20 to 27-inch rotating pad. They can reach speeds up to 2500 RPM with an average pad pressure ranging from 38-45 pounds of pressure. Their heavy weight 270 to 320 pounds helps produce the highest gloss possible.



While standard floor machines have just a few parts, propane burnishers have a larger variety as well as much more complex engines. They are more like a small car and need to be maintained as such. The oil itself should be checked and changed on a regular basis. They also have catalytic converters that need maintenance and attention from time to time as well.

Repairs for a propane burnisher can get expensive, especially if the machines are not maintained well or have been abused. They have an average life expectancy of 800 to 1200 hours, but that can extend with proper maintenance.

Purchasing a propane burnisher is a more costly proposition than a traditional floor machine. These machines range in cost from \$2,800 to \$3,900. The price of the machine is dictated by the overall size of the frame, the engine you choose plus optional accessories.



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Riding a New Machine

The first time you use a floor machine is like the first time riding a wild steer; it can get a bit crazy. They seem to have a life and direction all their own, going just about every-which-way. But after a few times out, you will learn how to control one.

Operating a standard speed floor machine

Standard speed and High speed floor machines use the rotation of the brush or pad to help propel them across the floor.

Balance is the key

To control the machine, the object is to place even pressure on the center of the pad or brush. However, the handle and power cord are placed at the rear of the machine. This will automatically force the machine to the "left". Before you begin to operate the machine raise the handle slightly, this will eliminate the tendency for the machine to swing to the left.

We utilize the phrase "Raise Right - Lower Left". By raising the handle up (typically less than 3/4") the machine will move to the right and by lowering the handle (here again 3/4") the machine will move to the left.

Generally, the machine is swung from side to side, covering an arc of 4–5 feet across, almost emulating the arc of a pendulum.

Operating a Burnisher

Burnishers also rely on the rotation of the pad to move the machine but in a different way. As mentioned earlier, burnishers have rear wheels which remain in contact with the floor at all times, preventing the operator from swinging the machine from side to side.

Instead, the pad on a burnisher is slightly canted forward causing its rotation to pull the machine forward. The operator guides the machine forward and back with a slight overlap pattern. Similar to the same way push lawn mower operates.

Which machine is for you?

A question we receive almost daily and the answer is; it depends.

If what you seek is the "Wet Look" for your floors the answer is a "High Speed Burnisher"

If high speed burnishing is your primary application (normally used 2-8 times per month) the necessity of using a standard speed floor machine begins to diminish. Under normal conditions the average facility would strip and recoat floors once annually or longer, making a high speed burnisher more applicable.

Keep in mind, a burnisher can **NOT** be used for stripping and or scrubbing floors due the lack of pad pressure and the speed of the floor pad.

If versatility is more important, the standard speed floor machine may prove to be beneficial. You have the capability of polishing, scrubbing and stripping floors, wet polishing marble floors, spray buffing and alike.



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