

## Industrial Cleaning Machine

Used Industrial Cleaning Machine Gilbert - Commercial floor scrubbers provide an efficient, cost-effective and fast way to clean floor surfaces and are used for regular maintenance. Labor expenses make up about 90% of total expenses when it comes to maintaining floors. Large areas can be cleaned thoroughly and with less staff when commercial floor scrubbers are utilized. Commercial floor scrubbers are available in several automated types. Technology has advanced and commercial floor scrubbers have robotic upgrades to simplify their design. These machines offer an automated system for evenly dispersing the cleaning compound at regular intervals. Behind the suction nozzle on the vacuum, a squeegee attachment can be located on automatic floor scrubbers to add to their cleaning capacity. There are separate recovery and collection tanks situated on the machine. The dispensing tank holds the cleaning mixture and the collection tank holds the liquids and material gathered by the vacuum system. This ensures that the clean water and dirty water are kept separate which makes floor scrubbers a more hygienic alternative to traditional cleaning methods such as a mop and bucket. The automatic scrubber operates by first dispensing the cleaning compound from the dispensing tank, then using the scrubbing system, to push the cleaning compound into the floor surface and loosen dirt, stains and marks which are then quickly suctioned into the machine's collection tank as the unit makes its pass over an area.

### Automatic Floor Scrubber Head Types

There are three main types of floor scrubber heads including cylindrical, rotary (also known as disk), and square oscillating.

#### Rotary or Disk Floor Scrubber Head

The rotary or disk style floor scrubber head is the most common type of scrubber head. They use a circular motion with one or two round pads or brushes to push a cleaning compound into the floor.

#### Cylindrical Floor Scrubber Head

Rotating at a 90-degree angle to the floor, the cylindrical floor scrubber model features counter-rotating tube designed brushes to facilitate cleaning. These allow for better cleaning of uneven or irregular surfaces. The cylindrical floor scrubbing machines often have a collection tray found behind the scrubber head to enable easier pickup of small items such as pebbles or nails. The multiple brush types available make cleaning various types of flooring possible. Soft brushes can be utilized to clean synthetic floors, textured tile and rubber and harder bristles can be used for cleaning grouted tile, concrete and other harder surfaces.

#### Square Oscillating Floor Scrubber Head

There is a flat pad on square oscillating floor scrubbing models that vibrate at high speed to clean the floor. The square design makes it easier to clean close to walls and in corners. Square scrubbing heads can be used with a specific stripping pad to take the floor finish away. This combination additionally is helpful for cleaning vinyl tile flooring. Because the square pad oscillates at very high speed, they apply more agitation to the floor resulting in more cleaning power. These square pads are useful for cleaning grouted tile.

### Floor Scrubber Categories

#### Floor Scrubber Categories Walk-Behind Floor Scrubbers

There is a forward assist feature on walk-behind floor scrubbing models that helps to propel the unit forward when the operator enables this mechanism. This forward assist feature helps the operator continue working for extended periods of time, helping to prevent fatigue by increasing efficiency compared to manual models.

#### Stand-On Floor Scrubbers

Stand-on floor scrubbers offer an increased efficiency for greater areas than a walk-behind machine, while being more affordable than a rider floor scrubber. Stand-on floor scrubbers offer increased maneuvering capacity and are smaller than rider models, making them capable of accessing more locations. Stand-on units provide the operator with a better view compared to rider models and walk-behind machines.

#### Rider Floor Scrubbers

The rider units allow the operator to be seated while the machine is in operation. These machines clean in a similar manner and reduce operator fatigue due to their comfortable seating. This design facilitates up to sixty-five percent more efficiency in comparison to the walk-behind models and allows large areas of the floor to be covered more efficiently.

#### Robotic Floor Scrubbers

Advancements in the field of autonomous robotics have created a new group of floor-scrubbing machines. These robotic floor scrubbers were generated by merging the features of automatic floor scrubbers with robotic features of self-

control operations without an operator. Commercial floor scrubbers are commonly found in manufacturing facilities, healthcare, retail and education centers. Certain robotic commercial units are capable of cleaning an area up to ten thousand square feet in one hour. With continuous development in robotic technology, the advancement of robotic floor scrubbers will intensify over the years. Areas of increased development are expected specifically with improved sensors and computing components. Mobile robotic sensors enable today's floor scrubbers to complete a wider detection range around objects and walls. This will allow the machine to determine its exact location in larger environments, such as shopping malls, convention centers and airports. The first models of residential cleaning machines operated in a random cleaning pattern. However, commercial robotic floor scrubbers are now able to create an accurate plan for cleaning. Newer floor scrubbing models operate in a predictable pattern to cover the floor as efficiently as possible. Because of these advancing capabilities which allow these robotic floor scrubbers to know precisely where they have already cleaned and what areas they must still clean, they miss very few, if any, areas of the floor. Robotic floor scrubbers are also designed to navigate around people and obstacles that they encounter during autonomous operation.

**Additional Floor Scrubber Options and Considerations**

**Hard to Reach Areas** Floor scrubbing machines can find it hard to navigate around fixtures such as water fountains or corners and edges. Typically, these locations would need to be cleaned with a mop and bucket if they could not accommodate the machine. Some floor scrubbing manufacturers have created oscillating brushes that enable the machine to access tricky locations.

**Pre-Sweeping and Vacuum System Maintenance** Pre-sweeping features and vacuum systems enable newer models to complete a dry cleaning before the wet scrub option. These upgrades increase efficiency and cleanliness by allowing the operator to do everything with the machine. The collection chamber is situated in front of the vacuum system to catch loose debris and dust before these items can damage the unit. Blockages to the vacuum hose or motor are avoided with this pre-sweep brush head and collection design. Previously, the cleaning crew was required to dry mop or sweep the location before employing the floor scrubber to collect any dust and debris that might harm the machine. Similar to residential vacuum systems, if a blockage happens, the vacuum hose may need to be removed to clear the area. Occasionally, the vacuum motor may need to be blown out with compressed air to clear away any debris.

**Environmental Options** Some models of floor scrubbers have been designed with environmentally friendly options in mind. There are more environmental features incorporated into certain designs including safer soaps and water-saving systems to reduce the greywater and the chemicals. Some floor scrubbers are even able to clean without water and chemicals at all.

**Solution Dispensing System Maintenance and Considerations** Stripping solutions are not compatible with most floor scrubbers as they can cause damage to the solution dispensing system. These solutions can be vacuumed up safely without causing damage to the machine. The solution system should be periodically flushed with a water and vinegar mixture to clean the system of any soap and calcium deposits that can accumulate in the solution system.