

## Industrial Cleaning Machine

Used Industrial Cleaning Machine Tempe - Modern commercial floor scrubbers save time and are a cost efficient method of cleaning and maintaining large floor surfaces. Surveys reveal that labor expenses account for approximately 90% of the overall expense to maintain large floors surfaces. Large areas can be cleaned thoroughly and with less staff when commercial floor scrubbers are utilized. There are a variety of automated commercial floor scrubbing models available on the market. 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. In addition, automatic floor scrubbers include a vacuum system and are usually fitted with a squeegee attachment located at the back of the machine, behind the vacuum's suction nozzle. There are separate recovery and collection tanks situated on the machine. The cleaning mixture is held in the dispersing tank while the collection tank is home to the material gathered by the vacuum and the liquids accumulated there. Having separation between dirty water and clean water creates a more sanitary cleaning option. First, the automatic scrubber dispenses the cleaning solution and the scrubbing system is activated to loosen stains and dirt which are next suctioned into the collection tank of the machine when it passes over a location.

### Automatic Floor Scrubber Head Types

There are three basic types of floor scrubber heads, square oscillating, cylindrical and rotary which are often called "discs".

#### Rotary or Disk Floor Scrubber Head

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

#### Cylindrical Floor Scrubber Head

A cylindrical floor scrubber model relies on counter-rotating tube brushes which rotate at a ninety-degree to the floor. These allow for better cleaning of uneven or irregular surfaces. Machines utilizing a cylindrical scrubber head commonly have a collection tray located behind the scrubber head that allow for collection of larger objects such as nails and stones, eliminating the need to pick up smaller objects before cleaning. It is possible to clean numerous types of flooring thanks to the variety of brush types available. Different brush styles make cleaning easier. Rubber, synthetic floors and textured tile surfaces respond well to soft bristles and concrete or grouted tile surfaces rely on harder brushes.

#### Square Oscillating Floor Scrubber Head

The square oscillating floor scrubber features a flat pad that scrubs the floor at high speed. The square design makes is easier to clean close to walls and in corners. When used with a special stripping pad, square scrubber heads are able to strip floor finish from a floor. Vinyl tile flooring can also benefit from being cleaned with square oscillating pads. 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

There are four categories of floor scrubbers: Robotic, Rider, Stand-on and Walk-behind.

#### Walk-Behind Floor Scrubbers

Walk behind floor scrubbers are equipped with a forward assist mechanism that gently propels the machine forward when the feature is enabled by the operator. 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 scrubbing models showcase more efficiency for cleaning larger locations in comparison to walk-behind units. These machines are more affordable than rider floor scrubber models. These machines are also typically smaller than a rider machine so can fit into areas a rider floor scrubber could not and have increased maneuverability. Stand-on units provide the operator with a better view compared to rider models and walk-behind machines.

#### Rider Floor Scrubbers

Rider floor scrubber models enable the operator to sit down while operating the equipment. They work in much the same way as the stand-on floor scrubbers but require even less effort because of the ability to sit comfortably, reducing fatigue. These models are more efficient compared to the walk-behind units, offering 65% more efficiency, enabling larger areas of the floor to be cleaned with ease.

#### Robotic Floor Scrubbers

Advancements in technologies in the autonomous robotics field have produced a new niche of floor-scrubbing robots. Robotic floor scrubbing models were created by

combining robotic self-control options with automatic floor scrubbing technology. Commercial floor scrubbers are commonly found in manufacturing facilities, healthcare, retail and education centers. Some commercial robotic floor scrubbing machines are able to clean up to a 10,000-square-foot area in one hour. With continuous development in robotic technology, the advancement of robotic floor scrubbers will intensify over the years. Increased development projections include advanced sensors and computing mechanisms. The latest advancements in mobile robotic sensors enable these floor scrubbing units to detect a wider range around walls and objects. 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. Updated models of commercial floor scrubbing units can complete their jobs much more accurately. Newer floor scrubbing models operate in a predictable pattern to cover the floor as efficiently as possible. Floor scrubber units clean more effectively than ever before thanks to their advanced technology. 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

It is difficult for floor scrubbing machines to reach certain corners, edges or around water fountains or similar fixtures. 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

Newer floor scrubbers usually include an option that allows for a pre-sweep prior to the wet scrub. This allows the machine to remove debris prior to scrubbing without having to employ a traditional dry mop or broom. The collection chamber is situated in front of the vacuum system to catch loose debris and dust before these items can damage the unit. This helps to avoid a blockage in the vacuum hose or motor. It was previously necessary to sweep with a broom or dry mop to dispose of debris and dust that might clog the vacuum hose or accumulate in the vacuum motor and negatively affect performance. If blockages in the vacuum system do occur, the vacuum hose might need to be removed to clear the blockage. The vacuum motor may need to be blown out with compressed air to dislodge the blockage.

##### Environmental Options

Environmentally friendly options are also available on some floor scrubbers. 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. However, they can still be vacuumed up by the machine without damage. It is recommended maintenance to use a vinegar and water mixture to periodically flush out the solution system to remove any soap or calcium deposits.