

## Industrial Cleaning Machine

Used Industrial Cleaning Machine Murrieta - Modern commercial floor scrubbers save time and are a cost efficient method of cleaning and maintaining large floor surfaces. 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. Floor scrubbers are equipped with an automated system which dispenses a cleaning compound. 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 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. 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

Automatic floor scrubbers are available in three common types of floor scrubber heads: 1. Rotary, sometimes referred to as disk; 2. Cylindrical; and 3. Square oscillating.

#### Rotary or Disk Floor Scrubber Head

The rotary or disk model of floor scrubber head is the most common type. These models operate in a circular movement and some of their brushes or pads spin a cleaning compound into the floor prior to suction.

#### Cylindrical Floor Scrubber Head

A cylindrical floor scrubber model relies on counter-rotating tube brushes which rotate at a ninety-degree to the floor. This style of brushes facilitates better cleaning for irregular or uneven 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. Different brush styles make it easy to clean a wide variety of floor surfaces. A softer brush can be used to clean rubber, textured tile and synthetic floors while a stiffer brush can be used for rough surfaces such as concrete and grouted tile.

#### Square Oscillating Floor Scrubber Head

The square oscillating floor scrubber features a flat pad that scrubs the floor at high speed. Corners and walls can be cleaned more efficiently thanks to the square head design. When used with a special stripping pad, square scrubber heads are able to strip floor finish from a floor. They also work well for cleaning vinyl tile floors. Due to the high-speed oscillation, the square pads deliver more agitation and floor cleaning power. Cleaning grouted tile is much easier when these oscillating pads are utilized.

### Floor Scrubber Categories

#### Walk-Behind Floor Scrubbers

The walk-behind floor scrubber units have a forward assist feature that softly propels the machine forward when the operator enables this item. 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

The stand-on floor scrubber models provide better efficiency for larger spaces compared to walk-behind models and these units are more cost-efficient compared to 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. Because the operator is in a standing position, stand-on floor scrubbers also offer a better line-of-sight than both rider machines and walk-behind machines.

#### Rider Floor Scrubbers

Rider floor scrubber models enable the operator to sit down while operating the equipment. The rider models allow the operator to sit during the entire cleaning process, thus helping to reduce fatigue as they clean the floors. 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

Technological design advancements within the field of autonomous robotics have helped to create a new army of floor-scrubbing machines. Robotic floor scrubbing models were created by

combining robotic self-control options with automatic floor scrubbing technology. Popular locations where commercial floor scrubbers are employed include retail, healthcare, education centers and in manufacturing locations. Some models of commercial floor scrubbers can efficiently clean up to 10,000 square-feet in sixty minutes. 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 technology will help the machine note its location in expansive environments including shopping malls, airports and convention centers. A random cleaning pattern was first established with the initial floor scrubbing models. Nowadays, commercial robotic floor scrubbers can execute an accurate map for cleaning. This allows these robots to cover the entire floor in a predictable and consistent pattern each time they operate. Very few locations (if any) on the floor are missed due to this advanced technology that communicates exactly where the machine has already cleaned and which areas are still outstanding. These machines are capable of safely navigating around obstacles or people while they operate autonomously.

#### 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. This normally translates to certain locations requiring to be cleaned in traditional methods. However, some manufacturers now produce floor scrubbers with oscillating brush decks which allow the scrubber to reach these difficult areas.

#### 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. This feature allows for removal of debris before scrubbing without the need for a traditional broom or dry mop. Loose items and dust are collected by the pre-sweep brush head and placed into the collection chamber located in front of the vacuum system. 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. 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

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. Certain floor scrubbers are available to clean without any water or chemicals.

#### 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. It is wise to flush the solution system periodically with a mix of vinegar and water to remove any calcium and soap deposits that may accumulate over time.