

## Industrial Cleaning Machine

Used Industrial Cleaning Machine Oklahoma - Save hours of time by relying on commercial floor scrubbers to provide an efficient method for cleaning and maintaining floors in an efficient manner. Labor expenses make up about 90% of total expenses when it comes to maintaining floors. Commercial floor scrubbers provide a way to clean large areas quicker and with fewer workers. 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. 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. There are two tanks on the machine; the cleaning mixture is situated in the dispersing tank and the collection tank is where the materials collected by the vacuum accumulate. Having separation between dirty water and clean water creates a more sanitary cleaning option. The automatic scrubber initially dispenses the cleaning compound via the dispensing tank. Next, the scrubbing system pushes this solution into the floor to loosen marks, stains and dirt which become suctioned back into the collection tank as the machine makes a pass.

### 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. 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. This style of brushes facilitates better cleaning for irregular or uneven surfaces. Scrubbers relying on a cylindrical head typically have a collection unit found behind the scrubber head that allows for bigger items including stones and nails to be collected to eliminate having to sweep the floor before cleaning. 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

Square oscillating floor scrubbers have a flat pad which vibrates at high speed to scrub the floor. The square design makes it easier to clean close to walls and in corners. These machines can remove the floor finish when the square scrubbing heads are used in conjunction with special stripping pads. 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. 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

The walk-behind floor scrubber units have a forward assist feature that softly propels the machine forward when the operator enables this item. The forward assist mechanism can help eliminate operator fatigue by enabling the operator to work longer in comparison to manual and traditional methods.

#### 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 have greater maneuverability and are usually more compact than a rider machine, enabling it to fit into locations that a rider unit would have a difficult time accessing. Since the operator is standing, these units provide better line-of-sight compared to walk-behind and rider models.

#### Rider Floor Scrubbers

Rider floor scrubber models enable the operator to sit down while operating the equipment. 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 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. Improved computing technology and better sensors are some of the noted areas expected to become even more efficient. The latest advancements in mobile robotic sensors enable these floor scrubbing units to detect a wider range around walls and objects. This will enable the unit to be precise when determining its particular location in large locations including airports, convention centers and shopping malls. A random cleaning pattern was first established with the initial floor scrubbing models. Updated models of commercial floor scrubbing units can complete their jobs much more accurately. These machines travel in a consistent and predictable manner every time they are in operation. 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. There are oscillating brush decks available for certain floor scrubbing models to help them deal with hard-to-reach areas.

**Pre-Sweeping and Vacuum System Maintenance** Advanced models feature a pre-sweep option and vacuum system to be used before the wet scrub. This allows the machine to remove debris prior to scrubbing without having to employ a traditional dry mop or broom. 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. 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. In some cases, the vacuum motor might need to be blown out using compressed air.

**Environmental Options** Certain floor scrubbing models have environmentally friendly options. Safe soaps and water-saving systems work to save on both the number of chemicals used as well as the amount of greywater produced. Certain floor scrubbers are available to clean without any water or chemicals.

**Solution Dispensing System Maintenance and Considerations** Stripping solutions cannot be used with most floor scrubbing models as they can damage the solution dispensing system. These solutions can be vacuumed up safely without causing damage to the machine. 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.