

## Industrial Cleaning Machine

Used Industrial Cleaning Machine Hawaii - 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. It is possible to save time, money and labor when you switch to commercial floor scrubbers. There are a variety of automated commercial floor scrubbing models available on the market. Many technological advancements feature robotic upgrades to make commercial floor scrubbers more user-friendly. Floor scrubbers are equipped with an automated system which dispenses a cleaning compound. Some automatic floor scrubbing models within a vacuum system may be fitted at the rear of the machine with a squeegee attachment behind the suction nozzle. These machines feature separate recovery or collection tanks. 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 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** 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 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. 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. The multiple brush types available make cleaning various types of flooring possible. 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** 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. 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. The square pads oscillate at high speeds, producing higher agitation, resulting in extra cleaning power. Cleaning grouted tile is much easier when these oscillating pads are utilized.

**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. The forward assist helps curb fatigue of the operator which allows the operator to continue for a longer period of time, reducing fatigue and greatly increasing efficiency when compared to traditional manual methods.

**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. 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** The rider units allow the operator to be seated while the machine is in operation. 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. This translates to an greater ability to cover very large areas quickly, offering approximately 65 percent greater efficiency than a walk-behind floor scrubber.

**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. 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. Improved computing technology and better sensors are some of the noted areas expected to become even more efficient. The latest generation of mobile robotics sensors allow a robotic floor scrubber a longer range of detection of surrounding walls and objects. This technology will help the machine note its location in expansive environments including shopping malls, airports and convention centers. 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. 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. Special sensors help the robotic floor scrubbers navigate around obstacles and people when they encounter any while operating autonomously.

**Additional Floor Scrubber Options and Considerations**

**Hard to Reach Areas**

Many floor scrubbers are unable to reach edges, corners or under or around fixtures such as water fountains. 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. This feature allows for removal of debris before scrubbing without the need for a traditional broom or dry mop. The pre-sweep brush head and collection chamber is placed in front of the vacuum system to collect dust and loose debris before it is able to reach the the vacuum system. 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. In some cases, the vacuum motor might need to be blown out using compressed air.

**Environmental Options**

Environmentally friendly options are also available on some floor scrubbers. Features including water-saving systems, greywater reduction and safer soaps with fewer chemicals are available on some models. There are some floor scrubbers on the market with the capacity to clean with zero chemicals or water.

**Solution Dispensing System Maintenance and Considerations**

Stripping solutions cannot be used with most floor scrubbing models as they can damage the solution dispensing system. However, they can still be vacuumed up by the machine without damage. 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.