

## Industrial Cleaning Machine

Used Industrial Cleaning Machine Gresham - 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. More recently, advancements in technology have brought about robotic versions of commercial floor scrubbers. Floor scrubbers are equipped with an automated system which dispenses a cleaning compound. Behind the suction nozzle on the vacuum, a squeegee attachment can be located on automatic floor scrubbers to add to their cleaning capacity. These machines feature separate recovery or collection tanks. There are two tanks on the machine; the cleaning mixture is situated in the dispensing tank and the collection tank is where the materials collected by the vacuum accumulate. 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 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** 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 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** A cylindrical floor scrubber model relies on counter-rotating tube brushes which rotate at a ninety-degree to the floor. This type of design allows for better cleaning of irregular or uneven locations. 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** 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. 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. They do very well when cleaning grouted tile.

**Floor Scrubber Categories** Four main categories comprise the floor scrubber family including Stand-on, Walk-behind, Robotic and Rider models.

**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** 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 are usually more compact than a rider machine, enabling it to fit into locations that a rider unit would have a difficult time accessing. 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. 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. These units were born by joining self-control robotic

features with automatic floor scrubbing options. Commercial models are suitable for education, retail, healthcare and manufacturing facilities. Some commercial robotic floor scrubbing machines are able to clean up to a 10,000-square-foot area in one hour. As exciting new developments in robotic continue to develop, it is expected that the capability of robotic floor scrubbers will increase over time. Increased development projections include advanced sensors and computing mechanisms. 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. Early models of residential cleaning robots followed a random pattern when cleaning. 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. 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. 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

Pre-sweeping features and vacuum systems enable newer models to complete a dry cleaning before the wet scrub option. 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 design helps to avoid any blockages occurring in the motor or vacuum hose. 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

Certain floor scrubbing models have environmentally friendly options. 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

Damage can occur to the solution dispensing system if stripping solutions are added to traditional floor scrubbers. Stripping solutions can be safely vacuumed up by the machine without causing 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.