

## Industrial Cleaning Machine

Used Industrial Cleaning Machine Moreno Valley - Save hours of time by relying on commercial floor scrubbers to provide an efficient method for cleaning and maintaining floors in an efficient manner. Surveys reveal that labor expenses account for approximately 90% of the overall expense to maintain large floors surfaces. It is possible to save time, money and labor when you switch to commercial floor scrubbers. 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. 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. This design keeps dirty and clean water away from each other to create a more hygienic option compared to traditional mop and bucket methods. The automatic scrubber initially dispenses the cleaning compound via the dispersing 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 disk or rotary model of floor scrubber head is the most popular kind. 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** The cylindrical floor scrubber head uses counter rotating tube style brushes that rotate at a 90 degree angle 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** There is a flat pad on square oscillating floor scrubbing models that vibrate at high speed to clean the floor. 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. 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. 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. 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 offer increased maneuvering capacity and are smaller than rider models, making them capable of accessing more locations. Since the operator is standing, these units provide better line-of-sight compared to walk-behind and rider models.

**Rider Floor Scrubbers** The rider units allow the operator to be seated while the machine is in operation. The rider models allow the operator to sit during the entire cleaning process, thus helping to reduce fatigue as they clean the floors. 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. 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 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. 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** Floor scrubbing machines can find it hard to navigate around fixtures such as water fountains or corners and edges. 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** Newer floor scrubbers usually include an option that allows for a pre-sweep prior to the wet scrub. This feature allows for removal of debris before scrubbing without the need for a traditional broom or dry mop. 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 design helps to avoid any blockages occurring in the motor or vacuum hose. 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. In the event a blockage occurs, the vacuum hose may need to be removed and cleaned. Occasionally, the vacuum motor may need to be blown out with compressed air to clear away any debris.

**Environmental Options** Some models of floor scrubbers have been designed with environmentally friendly options in mind. 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. 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.