

## Industrial Cleaning Machine

Used Industrial Cleaning Machine Mexico - Commercial floor scrubbers provide an efficient, cost-effective and fast way to clean floor surfaces and are used for regular maintenance. Surveys reveal that labor expenses account for approximately 90% of the overall expense to maintain large floors surfaces. Commercial floor scrubbers provide a way to clean large areas quicker and with fewer workers. There are a variety of automated commercial floor scrubbing models available on the market. 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. 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** There are three basic types of floor scrubber heads, square oscillating, cylindrical and rotary which are often called "discs".

**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** Rotating at a 90-degree angle to the floor, the cylindrical floor scrubber model features counter-rotating tube designed brushes to facilitate cleaning. This type of design allows for better cleaning of irregular or uneven locations. 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. Different brush styles make cleaning easier. Rubber, synthetic floors and textured tile surfaces respond well to soft bristles and concrete or grouted tile surfaces rely on harder brushes.

**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. This square design enables faster and easier cleaning for corners and walls. Square scrubbing heads can be used with a specific stripping pad to take the floor finish away. 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. Cleaning grouted tile is much easier when these oscillating pads are utilized.

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

**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 mechanism can help eliminate operator fatigue by enabling the operator to work longer in comparison to manual and traditional methods.

**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 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. Stand-on units provide the operator with a better view compared to rider models and walk-behind machines.

**Rider Floor Scrubbers** Rider floor scrubber models enable the operator to sit down while operating the equipment. 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 the field of autonomous robotics have created a new group of floor-scrubbing machines. 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 models of commercial floor scrubbers can efficiently clean up to 10,000 square-feet in sixty minutes. 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. 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. 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. 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. 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 would normally necessitate mopping in these areas too small to fit an automatic floor scrubber. Some floor scrubbing manufacturers have created oscillating brushes that enable the machine to access tricky locations.

**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 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 vacuums 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. In the event a blockage occurs, the vacuum hose may need to be removed and cleaned. 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. 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. 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.