

## Industrial Cleaning Machine

Used Industrial Cleaning Machine Washington - 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. More recently, advancements in technology have brought about robotic versions of commercial floor scrubbers. 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. 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. This design keeps dirty and clean water away from each other to create a more hygienic option compared to traditional mop and bucket methods. First, the automatic scrubber dispenses the cleaning solution and the scrubbing system is activated to loosen stains and dirt which are next suctioned into the collection tank of the machine when it passes over a location.

**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 style floor scrubber head is the most common type of scrubber head. 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 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. Different brush styles make it easy to clean a wide variety of floor surfaces. 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. 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. They also work well for cleaning vinyl tile floors. 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** There are four categories of floor scrubbers: Robotic, Rider, Stand-on and Walk-behind.

**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. 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. Since the operator is standing, these units provide better line-of-sight compared to walk-behind and rider models.

**Rider Floor Scrubbers** Rider floor scrubbers allow for the operator to be seated on the machine while operating. 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 Technological design advancements within the field of autonomous robotics have helped to create a new army of floor-scrubbing machines. 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. 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. 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. 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. These machines are capable of safely navigating around obstacles or people while they operate 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. 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** 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 vacuum system. 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. If blockages in the vacuum system do occur, the vacuum hose might need to be removed to clear the blockage. 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. 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. However, they can still be vacuumed up by the machine without damage. It is wise to flush the solution system periodically with a mix of vinegar and water to remove any calcium and soap deposits that may accumulate over time.