

## Industrial Cleaning Machine

Used Industrial Cleaning Machine Manitoba - 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. Commercial floor scrubbers provide a way to clean large areas quicker and with fewer workers. Commercial floor scrubbers are available in several automated types. Technology has advanced and commercial floor scrubbers have robotic upgrades to simplify their design. These machines offer an automated system for evenly dispersing the cleaning compound at regular intervals. 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**

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 style floor scrubber head is the most common type of scrubber head. 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 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. It is possible to clean numerous types of flooring thanks to the variety of brush types available. 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** Square oscillating floor scrubbers have a flat pad which vibrates at high speed to scrub 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. 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. These square pads are useful for 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** 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 scrubber models enable the operator to sit down while operating the equipment. These machines clean in a similar manner and reduce operator fatigue due to their comfortable seating. These models are more efficient compared to the walk-behind units, offering 65% more efficiency, enabling larger areas of the floor to be cleaned with ease.

**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 models are suitable for education, retail, healthcare and manufacturing facilities. Certain robotic commercial units are capable of cleaning an area up to ten thousand square feet in one hour. New technology is developing all the time and the capacity for robotic floor scrubbers will only increase. 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 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. This allows these robots to cover the entire floor in a predictable and consistent pattern each time they operate. 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. 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

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. This design helps to avoid any blockages occurring in the motor or vacuum hose. It used to be commonplace to have the entire area first cleaned with a dry mop or broom to collect any debris or dust that might damage the unit or become lodged in the vacuum hose. 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. There are more environmental features incorporated into certain designs including safer soaps and water-saving systems to reduce the greywater and the chemicals. There are some floor scrubbers on the market with the capacity to clean with zero chemicals or water.

#### 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.