

## Industrial Cleaning Machine

Used Industrial Cleaning Machine PEI - 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. It is possible to save time, money and labor when you switch to commercial floor scrubbers. There are a variety of automated commercial floor scrubbing models available on the market. Many technological advancements feature robotic upgrades to make commercial floor scrubbers more user-friendly. Floor scrubbers are equipped with an automated system which dispenses a cleaning compound. 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. There are separate recovery and collection tanks situated on the machine. The dispensing tank holds the cleaning mixture and the collection tank holds the liquids and material gathered by the vacuum system. 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. 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

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 disk or rotary model of floor scrubber head is the most popular kind. These models operate in a circular movement and some of their brushes or pads spin a cleaning compound into the floor prior to suction.

#### 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. These allow for better cleaning of uneven or irregular 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. 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. This square design enables faster and easier cleaning for corners and walls. 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. Due to the high-speed oscillation, the square pads deliver more agitation and floor cleaning power. Cleaning grouted tile is much easier when these oscillating pads are utilized.

### Floor Scrubber Categories

#### Floor Scrubber Categories 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

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. These machines are also typically smaller than a rider machine so can fit into areas a rider floor scrubber could not and have increased maneuverability. 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. 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 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. Robotic floor scrubbing models were created by combining robotic self-control options with automatic floor scrubbing technology. Popular locations where commercial floor scrubbers are employed include retail, healthcare, education centers and in manufacturing locations. 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. 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. Early models of residential cleaning robots followed a random pattern when cleaning. Nowadays, commercial robotic floor scrubbers can execute an accurate map 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. Robotic floor scrubbers are also designed to navigate around people and obstacles that they encounter during autonomous operation.

**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** Advanced models feature a pre-sweep option and vacuum system to be used before the wet scrub. These upgrades increase efficiency and cleanliness by allowing the operator to do everything with the machine. 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 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. In the event a blockage occurs, the vacuum hose may need to be removed and cleaned. The vacuum motor may need to be blown out with compressed air to dislodge the blockage.

**Environmental Options** Certain floor scrubbing models have environmentally friendly options. Features including water-saving systems, greywater reduction and safer soaps with fewer chemicals are available on some models. 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.