

**GENERAL BID SPECIFICATIONS
BATTERY POWERED 40/45/48 INCH (102/114/122 CM)
RIDER SCRUBBER**

SCRUBBING SYSTEM:

- Offset scrub deck for edge cleaning
- Brushes automatically turn on when scrub deck is lowered and machine is propelled in forward or reverse
- Brushes and solution flow turn off when machine is not moving, for floor protection and simplified usage
- Scrub brush pressure is precisely controlled via electronic current sensing offering three different levels of scrubbing power up to the rated maximum power of the scrub motors without risk of overload
- Scrub deck and side skirts are protected by low height frame mounted rollers to reduce risk of impact damage

Disc Decks

- 40 inch (102 cm) disc scrub path deck with one 3 hp motor turning two 20 inch (50.8 cm) disc brushes rotating at a minimum 240 rpm
- 45 inch (114 cm) disc scrub path deck with three 1.5 hp motors turning three 16 inch (40.6 cm) disc brushes rotating at a minimum 225 rpm
- 48 inch (122 cm) disc scrub path deck with three 1.5 hp motors turning three 17 inch (43.2 cm) disc brushes rotating at a minimum 225 rpm

Cylindrical Decks

- 40 inch (102 cm), 45 inch (114 cm), or 48 inch (122 cm) cylindrical scrub path deck with two 1.5 hp brush drive motors turning two counter-rotating cylindrical brushes at a minimum of 630 RPM
- Cylindrical decks shall be interchangeable
- Removable debris hopper

SWEEPING (CYLINDRICAL MODELS):

- Standard dual side brooms for all cylindrical models provide edge cleaning and anti-fouling protection for side skirts and rear squeegee
- 57 inch (147 cm) total cleaning path with dual side brooms 20 inches (51 cm) each
- Brooms automatically raised and lowered with scrub system activation/deactivation and may be deactivated separately via user interface
- 0.22 hp (162 W) motor per side broom (direct drive)
- Debris hopper constructed of durable, light weight, corrosion proof polyethylene
- Debris hopper removable from left and right sides of machine
- Debris hopper 0.40 ft³ (11 L) capacity for 40 inch (102 cm) scrub deck
- Debris hopper 0.44 ft³ (12.5 L) capacity 45 inch (114 cm) scrub deck
- Debris hopper 0.50 ft³ (14 L) capacity 48 inch (122 cm) scrub deck

VACUUM RECOVERY SYSTEM:

- Standard single vac motor 0.8 hp (0.6 kW) providing up to 64 inches (163 cm) water-lift
- Optional dual vac motors 0.8 hp (0.6 kW) each providing up to 67 inches (170 cm) water-lift
- Ball float vac motor inlet protection with automatic electric shut down
- Vacuum motors shall continue to operate for 10 seconds after squeegee is lifted to clear the vac hose of excess dirty water
- Drip loop in recovery hose to minimize dripping of water on the floor after shut-down

SQUEEGEE DESIGN:

- Minimum 49 inch (124 cm) long parabolic squeegee
- Roller wheels at squeegee tips to prevent snagging or damage
- Break away protection to prevent squeegee tool damage
- Squeegee automatically raises in reverse
- Standard squeegee blades constructed of Linatex™ rubber material

POWER SYSTEM:

- 36 Volt power system
- Powered by six 6 Volt 420 Ah C20 wet lead acid batteries
- Powered by one self-contained, 36 Volt 450 Ah C6 battery pack w/battery rollout for battery exchange from side of machine
- Equipped with a low voltage shutdown system to protect batteries
- Brushes automatically shut-off and battery gauge to notify operator that recharge is required once batteries reach maximum allowable state of discharge

PROPULSION SYSTEM:

- AC brushless drive motor system for low maintenance and high reliability and efficiency
- 3.0 hp (2.25 kW) minimum peak power output
- Variable operating speed up to 6 mph (9.5 km/hr.)
- Transport gradeability at operating weight up to 16% (9°)
- Single-button wheel-slip reduction control reduces drive wheel torque and minimizes slip in lower traction conditions

BRAKING SYSTEM:

- Mechanically applied dual rear wheel disc brakes with locking mechanism to act as a parking brake that may also be used as a service brake in emergency situations
- Combined action of propulsion drive inherent braking and mechanical braking system must stop machine within its own length, and is required for safety of operator and pedestrians
- Machine must be capable of holding the braking position without the attention of an operator on a 6° incline

SOLUTION/RECOVERY TANKS:

- Constructed of durable, light weight, corrosion-proof roto-molded polyethylene
- 70 gallon (266 L) minimum capacity, capable of handling solution up to 150° Fahrenheit,
- Recovery tank must be capable of tilting for ease of clean out and be removed without tools for machine maintenance
- Recovery tank drain hose with a flexible end allowing an operator to meter water flow by means of pinching hose without the need for a separate valve that can plug
- Recovery tank full monitoring and indication on operators interface

SOLUTION SYSTEM:

- Flow rate up to 2.5 gallons per minute (9.5 L per minute) for high speed scrubbing or rough floor applications
- Integrated brush pressure and solution flow rate settings w/override capability
- Flood mode provides the ability to dispense water at maximum achievable rate for optimal double-scrubbing efficiency
- Electric solenoid valve for precise on/off control and proportional metering
- Automatic solution shut-off when stationary
- Externally removable in-line filter screen plus manual shut-off valve for solution tank allowing cleaning while tank is full, protecting the solution solenoid valve from contamination

USER INTERFACE:

- Adjustable tilt column with 12 inch (30 cm) maximum profile for forward visibility
- Membrane control panel for machine control with LCD display and IPX3 environmental rating
- Key switch turns machine on/off
- Horn
- Hour meter
- Battery state of charge indicator
- Brush pressure setting indicator
- Solution flow rate setting indicator
- Recovery tank full indicator
- One-Touch™ scrub on/off buttons w/integrated detergent dilution ratio (EcoFlex™ models)
- Integral fault detection and diagnostic codes for simplified service

DETERGENT DISPENSING SYSTEM (Optional EcoFlex™):

- A 2.5 gal (9.5 L) refillable cartridge that allows the use of any manufacturer's detergent and allows quick interchange of multiple detergent cartridges for varied cleaning applications using an air-break type connection to prevent spillage
- Detergent dispensing operates at all available solution flow rates
- Detergent dispensing may be turned off to use only plain water
- Minimum and maximum detergent concentration settings can be programmed for normal cleaning at any flow rate or brush pressure selected by the operator

- Operator may temporarily engage a more aggressive cleaning mode using a single button that provides increased detergent concentration, solution flow rate, and brush pressure. Aggressive cleaning mode will remain active 60 seconds unless disengaged by the operator beforehand after which point it will revert back to the prior mode of cleaning minimizing wasted water and detergent, brush wear, and energy consumption
- Onboard detergent system shall be capable of accurately diluting detergents at the following ratios at any flow rate
 - 400:1, ¼ oz/gal, 0.25%
 - 300:1, - oz/gal, 0.3%
 - 256:1, ½ oz/gal, 0.4%
 - 200:1, - oz/gal, 0.5%
 - 150:1, - oz/gal, 0.7%
 - 128:1, 1 oz/gal, 0.8%
 - 100:1, - oz/gal, 1.0%
 - 64:1, 2 oz/gal, 1.5
 - 50:1, 2.5 oz/gal, 2%
 - 32:1, 4 oz/gal, 3%

MACHINE CONSTRUCTION:

- Welded tubular steel frame with powder coated finish
- Exterior body panels using roto-molded polyethylene
- Corrosion resistant fasteners

WHEELS:

- Solid or equivalent, non-marking polyurethane wheels to protect floor surfaces
- Minimum 14 inch (35.56 cm) diameter for negotiating unimproved surfaces
- Maximum static wheel loading not to exceed 116 psi (8.15 kg/cm²)

DIMENSIONS & OPERATING CHARACTERISTICS:

- Minimum aisle turn not to exceed 84 inches (213.3 cm)
- Front wheel steer/drive configuration

Model	40 Cyl	45 Cyl	48 Cyl	40 Disc	45 Disc	48 Disc
Length	74 in (187 cm)					
Width	48 in (121 cm)	54 in (136 cm)	56 in (141 cm)	43 in (108 cm)	52 in (131 cm)	53 in (133 cm)
Height	50 in (149 cm)					

SOUND:

- 70 dB A (ISO 11201, ISO 4871, EN 60335-2-72) (LpA)

WARRANTY: 2 years labor, 6 months travel, 3 years/2,000 hours parts, 8 years roto molded parts

APPROVALS: Certified to UL553 standard, marked and approved by a recognized independent certifying body such as ETL or equivalent