

**SUGGESTIONS FOR WRITING BID SPECIFICATIONS FOR  
ADVANCE SC1500™ STAND-ON SCRUBBER  
SC1500™ X20D (DISC) AND SC1500™ X20R (REV)**

<b>GENERAL</b>	Machine shall be a 20 inch (51 cm) three wheel battery-powered stand-on automatic scrubber with the ability to scrub and vacuum in one pass.
<b>CLEANING PATHS</b>	<p>The machine shall be available in the following configurations:</p> <ul style="list-style-type: none"><li>• 20 inch (51 cm) disc, onboard detergent dispensing system, onboard battery charger with a removable pad holder.</li><li>• 20 inch (51 cm) REV™ (dual random orbital scrubbing technology), onboard detergent dispensing system, onboard battery charger with a fixed pad holder.</li></ul>
<b>SOUND LEVEL</b>	Sound pressure level shall not exceed 63 dB A when measured in accordance with IEC 60704-1/ISO 11201 for operator safety, comfort and daytime cleaning of occupied spaces. The machine shall also have a quiet mode that further reduces the sound level to 60 dB A for cleaning in noise sensitive environments.
<b>DETERGENT CONSERVATION SYSTEM</b>	<p>Machine shall have as standard an onboard detergent dispensing system (EcoFlex™ onboard detergent dispensing system) utilizing a 1.3 gallon (5 L) refillable cartridge that allows the use of any manufacturers' detergent, operates at all available flow rates, and allows the quick interchange of multiple detergent cartridges for varied cleaning applications.</p> <p>The system must be able to clean in four distinct modes to minimize costs, reduce labor and ensure environmental sustainability.</p> <ul style="list-style-type: none"><li>• Chemical-free cleaning (zero detergent)</li><li>• Ultra low detergent strength (weak detergent)</li><li>• Full detergent strength (strong detergent)</li><li>• Burst of Power (60 second increase in detergent strength, brush pressure and solution flow)</li></ul> <p>The onboard detergent system shall be capable of accurately diluting detergents at the following ratios at any flow rate.</p> <ul style="list-style-type: none"><li>• 400:1, ¼ oz/gal, 0.25%</li><li>• 300:1, - oz/gal, 0.3%</li><li>• 256:1, ½ oz/gal, 0.4%</li><li>• 200:1, - oz/gal, 0.5%</li><li>• 150:1, - oz/gal, 0.66%</li><li>• 128:1, 1 oz/gal, 0.8%</li><li>• 100:1, - oz/gal, 1%</li><li>• 64:1, 2 oz/gal, 1.5</li><li>• 50:1, 2.5 oz/gal, 2%</li><li>• 32:1, 4 oz/gal, 3%</li></ul>

## **WATER CONSERVATION SYSTEM**

Disc and REV machines shall come standard with a calibrated low solution flow rate setting (Smart Solutions™) that consistently and repeatably sets a low solution flow rate to increase the per tank run time or productivity per tankfull thereby lowering detergent costs, labor cost and reducing environmental impact.

Disc machines:

- Low flow rate: 0.16 GPM, 75 minutes of scrubbing
- Medium flow rate: 0.35 GPM, 34 minutes of scrubbing
- High flow rate: 0.50 GPM, 24 minutes of scrubbing

REV machines:

- Low flow rate: 0.11 GPM, 109 minutes of scrubbing
- Medium flow rate: 0.16 GPM, 75 minutes of scrubbing
- High flow rate: 0.23 GPM, 52 minutes of scrubbing

## **OPERATING SYSTEM**

Graphical Display: The user interface panel shall have a LCD graphical display with two information screens, one that displays transport information and one that displays scrubbing information. This provides an increased level of safety for the operator by conveying important information at a quick glance.

Speed Control: The speed control for the machine shall be located on the user interface panel so that adjusting the speed of the machine, including a redundant safety stop feature, shall be within easy reach of the operator for greater safety and ergonomics.

Extra Pressure: An extra scrub pressure switch shall be on the user interface panel that increases the scrub pressure from a standard 51 lb (23 kg) to 88 lb (40 kg) on disc machines and 64 lb (29 kg) to 88 lb (40 kg) on REV machines for maximum cleaning performance and productive one pass cleaning in dirtier areas.

Sound Level Control: The user interface panel shall have a vacuum mode switch to control the sound level of the machine (standard sound mode and quiet mode) to reduce operator fatigue and allow for daytime cleaning of occupied facilities.

Detergent Control: The machine shall have an onboard detergent system that provides cost savings, increased cleaning performance, and environmental flexibility with the ability to control the detergent strength with a single switch. The user shall be able to switch into one of three cleaning modes:

A chemical-free cleaning mode that provides virtually free cleaning with almost zero environmental impact.

A weak detergent strength mode for light cleaning which reduces detergent costs and increases sustainability.

A strong detergent strength mode for powerful one pass cleaning performance where needed.

Burst of Power: The machine shall have a burst of power switch that instantly increases cleaning performance and aids in controlling both the overall cost to clean as well as environmental sustainability. Engaging the burst of power shall for 60 seconds, increase brush pressure to the maximum level, increase the solution flow rate to the next available level, increase detergent strength to the strong setting and increase the vacuum power to maximum. When the 60 seconds expires, the machine shall revert back to the previous cost effective and environmentally sustainable mode of operation.

Other Controls: Other controls include travel direction switches, solution control switch, key switch, emergency stop switch and an information switch.

## **SCRUB SYSTEM**

The machine shall be available with either a 20 inch (51 cm) traditional disc scrub system or a 20 inch (53 cm) REV technology scrub system.

Disc machines shall be powered by a 0.51 hp motor with two brush pressure settings, 50 lb (23 kg) and 88 lb (40 kg) for application flexibility and increased cleaning performance. The disc speed shall be 140 RPMs.

REV machines shall be powered by a 0.75 hp motor with two brush pressure settings, 64 lb (29 kg) and 88 lb (40 kg) for both daily cleaning and chemical-free floor finish removal. The motor shall rotate the cleaning head in a dual random orbital cleaning pattern. The macro orbit speed shall be between 0-30 RPMs and a simultaneous micro orbit speed of 2,250 RPMs. Orbital scrubbing provides the ability to remove floor finish without the cost, environmental impact, labor time, and training and safety risks associated with conventional stripping.

## **SOLUTION TANK SYSTEM**

The machine shall have a rotomolded solution tank with a minimum capacity of 12 gallons (45 L) to provide the required level of productivity. The tank shall have both a front and rear fill port to increase productivity when filling. The solution tank output shall be filtered by an externally mounted filter that can be cleaned without reaching into a full solution tank with chemicals or dumping fresh chemicals into the wastewater stream.

## **RECOVERY TANK SYSTEM**

The machine shall have an injection molded recovery tank with a minimum capacity of 12.5 gallons (47 L) to provide the required level of productivity. The machine shall come standard with a debris catch cage that filters out larger debris picked up while scrubbing and prevents this debris from being sent down the drain thereby preventing clogged drains and expensive plumbing repair costs. The recovery tank shall be removable from the machine without the use of tools so it can be thoroughly cleaned for increased health.

<b>VACUUM MOTOR</b>	The machine shall have a 0.66 hp 3-stage vacuum motor that provides increased safety by picking up 100% of the slippery, dirty water. The vacuum shall have a user interface controlled sound level switch that reduces the sound level from a standard 63 decibels to a quiet mode of only 60 decibels which makes daytime cleaning of occupied facilities possible while reducing employee exposure to high fatiguing sound levels.
<b>SQUEEGEE SYSTEM</b>	The squeegee shall have tool free front and rear blade replacement with no loose fasteners than can become lost, requiring replacement. The rear blade shall be held on with a simple stainless steel strap and clamp that releases the blade so it can be changed quickly and easily while working to ensure a safe and dry floor. The squeegee shall have as standard, premium abrasion and petroleum resistant polyurethane blades for long life and lower operating costs. The squeegee system shall have an integrated kickstand that elevates the rear squeegee for double scrubbing applications.
<b>ELECTRICAL SYSTEM</b>	The machine shall be powered by a 24 V dc battery pack that provides a lower battery replacement cost. Both wet and AGM batteries shall be available. An integrated onboard charger shall be standard, which increases charging flexibility and reduces the operating cost of the machine. The machine shall have onboard diagnostic system and reporting to quickly and easily identify and troubleshoot any issues that should occur.
<b>DRIVE SYSTEM</b>	The machine shall have a non-marking gray 3 inch (7.6 cm) wide by 8 inch (20 cm) diameter polyurethane drive tire powered by a 0.375 hp motor for high traction and safety along with superior ramp cleaning capability. The rear tires shall be non-marking gray 9.75 inches (25 cm) wide by 2 inches (5 cm) in diameter, and made of polyurethane compound for increased traction and safety for the operator.
<b>GRADEABILITY</b>	Shall be a minimum of 14.5% (8.2°) for transport mode and 8% (4.5°) in cleaning mode.
<b>SAFETY APPROVALS</b>	Shall be ETL listed for USA and Canada

## KEY SPECIFICATIONS

Brand	Advance	Advance
Model	SC1500™ R	SC1500™ D
Scrub Type	REV™	Disc
Onboard Detergent System	EcoFlex™ System	EcoFlex™ System
Scrub Path	20 in (51 cm)	20 in (51 cm)
Maximum Speed	3 mph (4.8 kph)	3 mph (4.8 kph)
Maximum Coverage	26,400 ft² (2,453 m²)	26,400 ft² (2,453 m²)
Solution Tank	12 gal (45 L)	12 gal (45 L)
Recovery Tank	12.5 gal (47 L)	12.5 gal (47 L)
Published Flow Rate(s)	0.11/0.16/0.23 gpm (0.4/0.6/0.9 Lpm)	0.16/0.35/0.5 gpm (0.6/1.3/1.9 Lpm)
Productivity Per Tank	109/75/52 minutes	75/34/24 minutes
Brush Motor	0.75 hp	0.51 hp
Brush Pressure	64/88 lb (29/40 kg)	51/88 lb (23/40 kg)
Brush Speed	2,250 rpm	140 rpm
Vacuum Motor	0.66 hp 3-stage	0.66 hp 3-stage
Waterlift	57 in (145 cm)	57 in (145 cm)
Air Flow	55 cfm (26.1 L/sec)	55 cfm (26.1 L/sec)
Sound Level	63 dB A or 60 dB A	63 dB A or 60 dB A
Drive Motor	0.375 hp	0.375 hp
Gradeability – Transport	14.5%, 8.2°	14.5%, 8.2°
Gradeability – Scrubbing	8%, 4.5°	8%, 4.5°
Batteries	208 Ah wet/140 Ah AGM	208 Ah wet/140 Ah AGM
Voltage	24 V	24 V
Battery Charger	onboard	onboard
Turning Radius	59.5 in (151 cm)	59.5 in (151 cm)
Length	48.5 in (123.2 cm)	48.5 in (123.2 cm)
Height	52.5 in (133.4 cm)	52.5 in (133.4 cm)
Width	24 in (61 cm)	24 in (61 cm)
Squeegee Width	26.5 in (67.3 cm)	26.5 in (67.3 cm)
Safety Approvals	ETL, CSA	ETL, CSA

**MACHINE SHALL BE AN ADVANCE SC1500™**