

SUGGESTIONS FOR WRITING BID SPECIFICATIONS FOR Clarke SA40™ 20D

GENERAL	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.
SOUND LEVEL	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 dBs for cleaning in noise sensitive environments.
WATER CONSERVATION SYSTEM	<p>The machine shall come standard with a calibrated low solution flow rate setting that consistently sets a low solution flow rate to increase the per tank run time or productivity per tankfull thereby lowering detergent cost, labor cost and reducing environmental impact.</p> <ul style="list-style-type: none">• 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
OPERATING SYSTEM	<p>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.</p> <p>Speed Control: The speed control for the machine shall be located on the user interface panel, so the speed of the machine; including a redundant safety stop feature, shall be within easy reach of the operator for greater safety and ergonomics.</p> <p>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 for maximum cleaning performance and productive one pass cleaning in dirtier areas.</p> <p>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.</p> <p>Other Controls: Other controls include travel direction switches, solution control switch, key switch, emergency stop switch and an information switch.</p>
SCRUB SYSTEM	The machine 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 brush RPMs shall be 140 RPMs.

SOLUTION TANK SYSTEM	The machine shall have 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 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.
VACUUM MOTOR	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 at only 60 decibels which makes daytime cleaning of occupied facilities possible while reducing employee exposure to high fatiguing sound levels.
SQUEEGEE SYSTEM	The squeegee shall have tool free front and rear blade replacement with no loose fasteners that 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 fast and easily while working to ensure a safe and dry floor. The squeegee shall have as standard, premium Linatex 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.
ELECTRICAL SYSTEM	The machine shall be powered by a 24 Volt 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 an onboard diagnostic system and reporting to quickly and easily identify and troubleshoot any issues that should occur.
DRIVE SYSTEM	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 inch (25 cm) wide by 2 inch (5 cm) diameter polyurethane compound for increased traction and safety for the operator.
GRADEABILITY	Shall be a minimum of 14.5% (8.2°) for transport mode and 8% (4.5°) in cleaning mode.
SAFETY APPROVALS	Shall be ETL listed for USA and Canada

**KEY
SPECIFICATIONS**

Brand	Clarke
Model	SA40
Scrub Type	Disc
Onboard Detergent System	Not available
Scrub Path	20 in (51 cm)
Maximum Speed	3 mph (4.8 kph)
Maximum Coverage	26,400 sq. ft. (2,453 sq. m)
Solution Tank	12 gal (45 L)
Published Flow Rate(s)	0.16/0.35/0.5 gpm (0.6/1.3/1.9 Lpm)
Productivity Per Tank	75/34/24 minutes
Brush Motor	0.51 hp
Brush Pressure	50/88 lb (23/40 kg)
Brush Speed	140 rpm
Vacuum Motor	0.66 hp 3-stage
Waterlift	57 in (145 cm)
Air Flow	55 cfm (26.1 L/sec)
Sound Level	63 dB A or 60 dB A
Drive Motor	0.375 hp
Gradeability, Transport	14.5% 8.2 degrees
Gradeability, Scrubbing	8.0%, 4.5 degrees
Batteries	208 Ah wet/140 Ah AGM
Voltage	24 V
Battery Charger	Onboard
Turning Radius	59.5 in (151 cm)
Length	48.5 in (123.2 cm)
Height	52.5 in (133.4 cm)
Width	24 in (61 cm)
Squeegee Width	26.5 in (67.3 cm)
Safety Approvals	ETL US/CSA

MACHINE SHALL BE A CLARKE SA40™ 20D