T500 | WALK-BEHIND SCRUBBER

SALIENT CHARACTERISTICS

Disk: 26, 28 or 32 in / 650 mm, 700 mm or 800 mm
Cylindrical: 28 in / 700 mm
Orbital: 28 in / 700 mm

Version or an Approved Equivalent

Scrubbing System	
Cleaning Path	The machine shall be either a 26, 28, or 32 in / 650, 700, or 800 mm scrubbing path disk scrub head. The 26 in / 650 mm head will consist of (2) 13 in / 330 mm disks; the 28 in / 700 mm head will consist of (2) 14 in / 355 mm disks; the 32 in / 800 mm head will consist of (2) 16 in / 405 mm heads . There shall also be a 28 in / 700 mm dual cylindrical head and a 28 in / 700 mm orbital head scrubber.
Solution Tank Capacity & Filling	The machine shall have a minimum solution tank capacity of 22.5 gal / 85 liters. The machine shall come standard with a front solution tank fill port. The front fill port shall easily accept water from a hose or bucket. The front fill port will also have a cover preventing solution from spilling from the port during machine operations.
Pad Driver/Brush Attachment and removal - Disk	The machine shall come standard with gimbal mount head that follows the contour of the floor surface, and be compatible with Insta-Fit™ pad drivers or brushes. Yellow, foot activated plungers, will remove pad drivers or brushes from the machine.
Cylindrical Debris Tray	Cylindrical machines shall be equipped with a yellow debris tray that can be removed for cleaning without requiring tools, from both sides.
Orbital Isolators	The Orbital machines will come standard with two levels of vibration isolation and a total of (10) 1 ¾ in / 44 mm diameter isolators.
Orbital Warranty	The orbital machine will come with a 3 yr / 2000 hour warranty on the isolators
Scrub Head Engagement	The scrub head shall be an actuated head that only requires the push of a button to lower and raise the head
Conventional Scrubbing Solution Flow Control	The solution flow and brush rotation shall be automatically turned on / off with the handle activation bail. Minimum conventional water flow is 0.30 gpm / 1.14 lpm Maximum conventional water flow is 0.50 gpm / 1.89 lpm
Scrub Brush Motors	The 26, 28, or 32 in / 650, 700, or 800 mm disk machines shall be equipped with two heavy-duty 0.75 hp (0.55 kW) brush motors that turns at 220 rpm The 28 in / 700 mm orbital machine shall be equipped with one 0.75 hp (0.55 kW) brush motor capable of 2,200 rpm. The 28 in / 700 mm dual cylindrical machine shall be equipped with two heavy-duty 0.63 hp (0.47 kW) brush motors that turns the brushes at 1,500 rpm.

Down Pressure – all standard settings	The machine shall have three independently selectable down pressure settings 26 in / 650 mm Dual Disk – 40, 80, 120 lbs / 18, 36, 54.5 kg 28 in / 700 mm Dual Disk – 40, 80, 120 lbs / 18, 36, 54.5 kg 32 in / 800 mm Dual Disk – 40, 80, 120 lbs / 18, 36, 54.5 kg 28 in / 700 mm Dual Cylindrical – 40, 80, 120 lbs / 18, 36, 54.5 kg 28 in / 700 mm Orbital – 110, 140, 170 lbs / 50, 63.5, 77 kg
Brush Skirt	The machine shall be equipped with a non-marking brush skirt that follows the contours of the floor and helps contain the water spinning from high RPM brushes. The brush skirt shall not require operator adjustment due to wear.
Reach Under & Edge Cleaning	The disk machine scrub heads shall be designed to clean under “toe kicks” of approximately 3.9 in / 99 mm and when moving parallel to a wall or structure, within: 26 in / 650 mm Dual Disk – 1.7 in / 44 mm 28 in / 700 mm Dual Disk – 2.7 in / 69 mm 32 in / 800 mm Dual Disk – 3.7 in / 93 mm The 28 in / 700 mm orbital machine scrub head shall be designed to clean under “toe kicks” of approximately 4.3 in / 109 mm and when moving parallel to a wall or structure, within 2.0 in / 51 mm.
Recovery System	
Recovery Tank Capacity	The machine shall have a minimum recovery tank capacity of 27 gal / 102 liters.
Recovery Tank Sanitization	The machine recovery tank shall have a recovery tank lid that allows for 100% visual inspection and complete spray and wipe-down cleaning of all internal tank surfaces. The machine shall be equipped with a yellow recovery tank debris tray at the vacuum hose outlet.
Vacuum Fan	The machine shall be equipped with a heavy-duty 0.6 hp (0.47 kW), 2-stage vacuum fan. The vacuum fan shall create water lift of 46 in / 1170 mm.
Water Recovery & Squeegee Assembly	The squeegee shall be designed to capture water under “toe kicks” of approximately 3.5 in / 89 mm. The squeegee assembly shall have “no tool” squeegee exchange with 4 usable blade edges, per blade. The machine shall be equipped with a parabolic squeegee that maintains even suction pressure across the entire width. The machine’s squeegee assembly shall be set at the optimum blade angle from the factory and require no adjustment prior use. In the case of adjustment, there will be adjustable rear squeegee caster wheels. The squeegee assembly shall be designed to have a “break-away” feature to alleviate damage to the facility or the machine. The squeegee will have an integrated P-trap to retain water when the machine is turned off. The P-trap will be such that it can be opened (without tools) to remove debris. The vacuum motor shall continue to run for up-to 4 seconds after the squeegee is lifted off the floor to collect water remaining in the vacuum hose. The squeegee will be foot activated when lowering or raising.
Operator Controls / Maintenance	

Power On/Off	The machine shall be equipped with a removable key in order to turn the power on/off.
Side Rails	The machine will be equipped with two side rails that allow for holding keys, or hanging bags or spray bottles.
Icons/Gauges/Buttons	The standard machine shall be equipped with the following icons: Service indicator Tank-rinse out – pump activated indicator Battery discharge indicator ec-H20 NanoClean® on/off (if applicable) Smart-Fill™ distilled water tank refill indicator The machine shall come standard with an hour meter. The machine hours shall be displayed at all time, with hours accruing during the scrubbing process only. There shall be an Emergency Stop Switch on the instrument panel for all propelled machines. All daily maintenance items will be colored bright yellow to assist the operator with service/maintenance touch points.
On-board Diagnostics	The machine shall be equipped to provide at least 35 operator diagnostic signals/fault guides for troubleshooting.
Activation Bail	The machine shall have a single activation bail than can be activated at any point along the multi-position, ergonomic handle. The machine trigger shall automatically activate and deactivate the primary scrubbing functions of machine propel, solution flow and brush motors.
Height Adjustment	The machine handle shall be able to be gripped in multiple locations at various heights for operator ergonomics.
Speed Control	The machine shall be equipped with a speed control knob within easy reach of the handle, not requiring operators to completely remove their hand to adjust
Forward/Reverse Function	The machine shall include a toggle switch to indicate activation in a forward or reverse motion, within easy reach of the handle, not requiring operators to completely remove their hand to adjust
Vacuum Fan On / Off	The machine vacuum fan shall automatically turn on when the squeegee is lowered into working position. The vacuum motor shall continue to run for up-to 4 seconds once the squeegee is lifted off the floor to continuing pulling water from the hose into the recovery tank. The machine shall also be equipped with an integrated P-trap located in the squeegee assembly to collect water once the squeegee is raised off the floor.
Low Voltage Cut-off	The machine shall shut down all functions except self-propel when the battery voltage is discharged to 20% of its total capacity.
Machine Construction & Safety	
Head Construction	Dual disk and dual cylindrical models will be constructed of cast aluminum. Orbital heads will be constructed of 11 gauge steel.
Squeegee Frame	The machine squeegee frame shall be made of cast aluminum for corrosion-resistance and durability.

Tank Construction	The machine tanks shall be made of rotationally-molded polyethylene to retain shape during impacts and vacuum cycles, and have a 10-year warranty
Machine Frame & Transaxle	The machine frame shall be a steel weldment that is powder coated. The machine shall come standard with a sealed transaxle drive system.
Power Source	The machine shall have a 24-volt electrical system. The machine shall come standard with (4) 6-volt batteries: 225 AH wet lead acid battery package – standard 260 AH wet lead acid battery package – option 220 AH sealed AGM battery package - option Maximum run time achieved with 260 AH lead acid batteries The machine shall come standard with an on-board, water-resistant charger and 15 ft / 4.6 meter) power cord.
Battery Up-to Run Time	Up to run-times are based on continuous scrubbing run-times, 260AH batteries, Quiet-Mode setting, low down pressure, ec-H2O off. 26 in / 650 mm Dual Disk – up to 5.9 hours 28 in / 700 mm Dual Disk – up to 5.9 hours 32 in / 800 mm Dual Disk – up to 5.4 hours 28 in / 700 mm Dual Cylindrical – up to 5.4 hours 28 in / 700 mm Orbital – up to 4.9 Hours
Sound level reduction (Quiet-Mode™)	The machine shall come standard with the ability to lower the sound level of the machine to < 62 dBA, on the fly, for noise sensitive environments. The machine can be returned to normal sound levels with the touch of a button.
Sound Levels	Standard vacuum fan setting: 26 in / 650 mm Dual Disk – 66.5 dBA 28 in / 700 mm Dual Disk – 66.5 dBA 32 in / 800 mm Dual Disk – 66.5 dBA 28 in / 700 mm Dual Cylindrical – 66.4 dBA 28 in / 700 mm Orbital – 67.0 dBA Quiet-Mode™ vacuum fan setting: 26 in / 650 mm Dual Disk – 61.7 dBA 28 in / 700 mm Dual Disk – 61.7 dBA 32 in / 800 mm Dual Disk – 61.7 dBA 28 in / 700 mm Dual Cylindrical – 61.8 dBA 28 in / 700 mm Orbital – 60.6 dBA The machine sound level based on the ISO11201 sound pressure test standard as recommended by the American Association of Cleaning Equipment Manufacturers (AACEM) and OSHA.
Electrical Wiring	The machine shall have color-coded and numbered wiring.
Wall Rollers	The machine shall be equipped with rubber wall rollers on the head and squeegee assembly.
Standard Safety Features	The machine shall come standard with the following safety features: • The machine shall come equipped with a dynamic braking transaxle that when on flat ground, stops the machine within 5 feet when the bail is released.

Tie Downs and Jack Points	The machine is equipped with features suitable for tying down the machine for shipping and transport. The machine is suitable for using a standard, 2-ton floor jack
Machine Warranty & Support	
Warranty	The machine shall carry a 10 year warranty on rotationally-molded polyethylene tanks. The machine shall carry a 2-year labor warranty. The machine shall carry a 6-month travel warranty. The machine shall carry a 3-year or 2000 hour parts warranty, including covering orbital isolators
Installation	A factory representative shall install the machine on-site.
Manuals / Quick-Reference Guides	The machine shall come standard with full operator manual at no charge. The machine shall come standard with a full color, quick-reference operation & maintenance wall chart guide that can be posted in the worker area.
Optional Accessories & Configurations	
ec-H20 NanoClean® Technology	The machine shall have a switch near the operator console that allows the operator to instantly change between electrically converted water scrubbing technology and conventional scrubbing modes. The scrubber should be equipped to electrically activate water on board and on demand. The water flow shall be adjustable on the console or underneath tank on the e-cell, to accommodate for varying hydration needs. No tools will be necessary to make the change to water flow. An icon shall be located on the console to indicate when ec-H20 NanoClean® is operating. The scrubber and converted water technology should be certified by the National Floor Safety Institute for high traction. The machine shall self monitor its electrically-converted water technology and notify the operator, through visual means, that the system needs maintenance. The machine's electrically-converted water technology shall adjust the power input based on water flow and the conductivity of the input water; resulting in a consistent output and cleaning capability. 26 in / 700 mm dual disk Minimum water flow is 0.15 gpm / 0.45 lpm Medium water flow is 0.22 gpm / 0.84 lpm Maximum water flow is 0.30 gpm / 1.14 lpm All other size dual disks, 28 in / 700mm orbital and cylindrical Minimum water flow is 0.22 gpm / 0.84 lpm Medium water flow is 0.33 gpm / 1.25 lpm Maximum water flow is 0.44 gpm / 1.67 lpm

Severe Environment™ (SE) Switch (Only available on T500 machines equipped with ec-H20 NanoClean®™)	The machine shall be capable of injecting a metered amount of detergent into the cleaning solution line (downstream and separate of the ec-H20 module). The SE Switch will allow the operator to use it in two modes – either for a temporary 30 second timed period or to be used continuously until the operator choses to turn the function off. The SE Switch will allow for virtually any concentrated chemical brand to be used in the on-board 0.66 g / 2.5 liter tank. The dispensing of the detergent shall have a dilution ratio ranging between 1:640 to 1:32 by accessing the knob on the detergent dispensing module under the recovery tank. A blinking SE icon indicates when detergent tank is too low to operate correctly. When refilled, the indicator light will clear.
Pro-Panel™ LCD Touch Screen	An optional LCD touch screen will be available and will provide the following information: Help Screen Green 1-step start scrub button Battery Charge Status Quiet-Mode™ sound reduction Severe Environment™ Switch (if applicable) Tank-Rinse Out – pump activated indicator (if applicable) Service Warning Light Water Flow Indicators 4 Zone Settings™ with customizable labels Maintenance and training Videos Down Pressure Settings Maximum scrub speed indicator ec-H2O NanoClean® on/off indicator Fault code displays with on-screen alert/code The LCD screen will be able to withstand an ambient operating temperature range of 36 - 110º F / 2-43º C. Storage temperature range is -20– 150º F / -29 – 66º C. The LCD assembly can withstand over 60 lbs./27 kg of force. The LCD assembly has an ingress protection rating of IPX3.
Smart-Fill™ Automatic Battery Watering System	The machine offers a patent-pending exclusive on-board automatic battery watering system option. System is smart-enough to monitor the best time in the charging cycle to accurately water batteries on its own. System will have an on-board distilled water tank that is tied to a control panel indicator, alerting operators when the tank is low. When the distilled water tank remains low/empty for >10 operating hours, the system will prevent operators from using cleaning functions on dry batteries, preventing further damage to batteries. System will allow cleaning functions to operate once the distilled water tank is filled. The system is compatible with both Trojan® battery sets offered with this machine.
Solution Tank Auto-Fill	Machine shall be equipped with a lockable, tool-less Gardena hose coupling, that connects to the machine for automatic solution tank filling. System will automatically shut-off when it's reached full capacity.
Tank Rinse-Out – Spray Nozzle with Hose	The machine offers a tank-rinse out feature, to have remote water access that is comprised of a spray-nozzle and hose, with water supplied by an on-board pump, pulling from the fresh water solution tank. Spray-nozzle is capable of varying the

	stream strength with 53 PSI. A 10 ft / 3m hose is able to reach all areas of the machine, including rinsing out the recovery tank. An indicator light on the control panel will alert the operator when the pump is activated. The machine shall have a safety feature preventing the machine from inadvertently propelling when the tank rinse-out pump is activated.
Hoses & Flow Control	Optional polyurethane hoses are oil resistant and feature a flow control valve on the recovery tank drain hose to direct dirty water easily without chance for added mess.
Charger	An optional off-board charger will be available at no-cost
Parking Brake	An optional parking brake is available on all machines.
Accessory Clips	A variety of accessory clips will be available to accommodate such items as hanging wet floor signs, rubbish bags, chemical bottles, etc.