

S16 – Product Applications and Solutions Guide



The Tennant S16 delivers big productivity and versatility in a compact, battery-powered ride-on sweeper.





PRODUCT DESIGN PRIORITIES

- Broaden Target Markets with High Dump and Low Dump Configurations
- Improve Productivity & Capacities
- Improve Sweeping Performance and Dust Control
- Extended Run-Time and Increased Charger Options
- Indoor/Outdoor Flexibility
- Improve Ergonomics and Comfort
- Ease of Operation
- Rugged Design



S16 PRIMARY MESSAGES

Providing big productivity and versatility in a battery-powered compact ride-on sweeper, the S16 delivers exceptional sweeping performance across a variety of surfaces and debris types. Achieve impressive dust control with a multi-stage filtration system and maintain air quality with fume-free operation.

	KEY BENEFITS	Message
	Reduce Cost to Clean	The combination of innovative features, durable construction and top-tier sweeping performance help maximize productivity and result in lower cost of ownership.
	Maintains Health and Safety	Maintain employee and operator health and safety with improved air quality and ergonomic design.
	Enhances the Facility Image	High-performance design and innovative features deliver consistent cleaning result in even the toughest environments
	Deliver Easy Operation and Maintenance	Engineered to be easy-to-operate and maintain, the S16 provides worry-free operation

TARGET MARKETS

- Manufacturing (heavy and light)
- Warehouse & Logistics Facilities
- Transportation, Communications, Utilities Companies
- Municipalities, & Education
- Building Service Contractors
- Retail Trade (Distribution, Warehouse, & Parking)
- Construction & Mining
- Silica Dust Applications
- Parking & Outdoor Space

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SWEEPING APPLICATIONS

- **Litter sweeping:** Bottles, papers, leaves, cups, etc.
- **Patrol sweeping:** Rapidly sweep an area and remove unsightly litter.
- **Sand sweeping:** Traditional sand, dust, etc.
- **Military Spec sweeping:** Pallet chips, pebbles/gravel, nuts, bolts, glass, etc.
- **Compacted dirt/debris sweeping:** Dirt and debris that has been compacted to the ground by heavy machinery, for example.
- **Dual-speed sweeping:** The ability to do a complete clean by removing compacted dirt, sand, and other debris, plus the ability to patrol sweep or remove just the unsightly litter.



GENERAL MACHINE SPECIFICATIONS

SWEEPING SYSTEM

Type	Over throw
Cleaning path-single side brush	46-inch 1,170 mm
Cleaning path-dual side brush	60-inch 1,520 mm
Coverage rate per hour-single side brush	
Average (3 mph / 4.8 km/h, 3-inch / 76 mm overlap)	56,760 ft ² 5,270 m ²
Maximum (full speed, no overlap)	111,320 ft ² 10,340 m ²
Coverage rate per hour-dual side brush	
Average (3 mph / 4.8 km/h, 3-inch / 76 mm overlap)	75,240 ft ² 6,990 m ²
Maximum (full speed, no overlap)	145,200 ft ² 13,490 m ²
Main brush length (tubular)	32-inch 810 mm
Main brush lift	Electric, MaxPro™
Main brush change	No-tool
Side broom diameter (disk)	20-inch 510 mm
Hopper volume capacity	5.3 ft ³ 150 L
Hopper weight capacity (high-dump)	350 lbs 159 kgs
Hopper weight capacity (low-dump)	200 lbs 91 kgs
Maximum hopper dump height (high-dump)	61.8-inch 1,570 mm
Hopper dump reach	29.1-inch 740 mm

PROPELLING SYSTEM

Power source	Battery, 36 volts
Propel motor	Electric, AC drive, 1.2kW, 1.6 HP
Propel speed forward (variable to)	5.5 mph 8.8 km/h
Propel speed reverse (variable to)	3.0 mph 4.8 km/h
Gradeability full hopper	10.0 deg 17.6%
Gradeability empty hopper	12.0 deg 21.3%
Ground clearance (high-dump)	2.5-inch 64 mm
Ground clearance (low-dump)	3.0-inch 76 mm
Tires front (1), solid non-marking	4x12-inch 102x300 mm
Tire rear (2), solid	4x12-inch 102x300 mm

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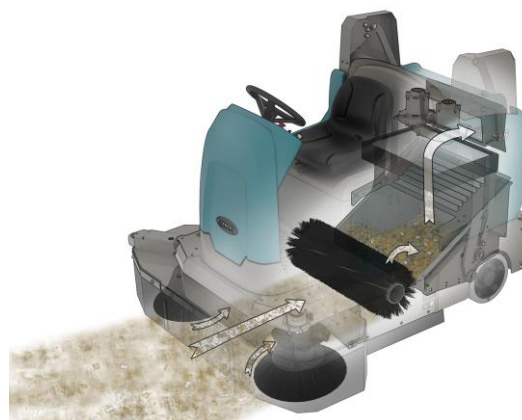
GENERAL MACHINE SPECIFICATIONS (CONTINUED)

DUST CONTROL SYSTEM

Filter system (multi-stage)	
Stage 1	Perma-Filter™
Stage 2	Panel Filter
Stage 3 (optional)	HEPA Filter
Panel Filter area	97.0 ft² 9.0 m²
Panel Filter Dust filtration (to)	1 Micron @ 97.7% efficiency
Optional HEPA Filter area	50.0 ft² 4.6 m²
Optional HEPA Filter Dust filtration (to)	0.3 Microns @ 99.97% efficiency
Shaker mechanism	Timed, shaker plate
Vacuum fan	0.6kW
Vacuum fan diameter	4.9-inch 124
Vacuum fan speed	
Normal sweeping mode	12,000 rpm
Eco-Mode™	10,000 rpm

MACHINE DIMENSIONS

Length	71-inch 1,815 mm
Width	45-inch 1,165 mm
Height without overhead guard	58-inch 1,500 mm
Height with overhead guard	82.5-inch 2,095 mm
Weight	
Net (high-dump, base batteries)	2,150 lbs 975 kgs
Net (low-dump, base batteries)	1,940 lbs 880 kgs
Minimum Aisle Turn	84-inch 2,130 mm



KEY ENHANCEMENTS VS 6200

- **Increased versatility:** Available in both high dump and all new low dump configurations, MaxPro™ sweeping technology allows for effective sweeping across a broader surface type and debris set. Additionally, S16 is available with either onboard or offboard battery chargers and can be configured with lithium ion batteries in select markets.
- **Improved productivity:** a 9% wider sweep path than 6200 and 20% larger hopper means the S16 is able clean more area quicker with fewer dumps. Eco-Mode™ allows up to 20% additional runtime vs standard cleaning mode which leads to more time cleaning between charges.
- **Improved sweeping performance:** S16 features the MaxPro™ sweeping system that automatically maintains the correct brush pattern to maximize sweeping performance. S16 also features 33% longer bristled on the main brush that contributes to better sweeping performance vs 6200, especially as the main brush wears.
- **Increased gradeability:** S16 climbs grades up to 12 degrees, which is 2 degrees more than the S16. This enables operators to more effectively clean in parking and loading dock areas.
- **Enhanced filtering system:** A multi-stage filtration system with a powerful filter shaker system maintains air quality by effectively containing dust during the sweeping process. The S16 has 95% more filter area than the 6200 and an extremely effective timed, shaker system that features a shaker plate design. Additionally, S16 is has optional HEPA filtration available to address the needs of customers wanting to further filter the airflow exhausted from the machine.

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FULL RANGE SWEEPER OFFERING

						
	S10	6100	S16	S20	S30	800
Dimensions (LxWxH)	63 x 37 x 42 1600 x 925 x 1070 mm	60 x 32 x 46 1520 x 810 x 1180 mm	71 x 45 x 58 in 1815 x 1165 x 1500 mm	82 x 49 x 50 in 2090 x 1230 x 1260 mm	93 x 63 x 58 in 2360 x 1590 x 1475 mm	120 x 70 x 53 3048 x 1778 x 1335 mm
Cleaning Path (Up to)	34 in 860 mm	38 in 970 mm	60 in 1520 mm	62 in 1575 mm	80 in 2032 mm	82 in 2080 mm
Hopper Volume	2.8 ft³ 79L	3.0 ft³ 85L	5.3 ft³ 150 L	11.0 ft³ 310 L	14.0 ft³ 395 L	30.0 ft³ 800 L

REDUCE COST TO CLEAN

- **AC Brushless Propel Motor:** Extend component life and reduce maintenance cost with a brushless 1.6 HP / 1.2kW AC motor in the propelling system. AC brushless motors provide virtually trouble-free operation through their service life.
- **Main Brushes:** Reduce brush expense with 33% longer main brush bristle length vs predecessor; leading to longer brush life and improved sweeping performance throughout the life of the brush.
- **Fully Retracting Side Brushes:** Reduce damage to equipment and facilities with side brushes that can fully retract within the machine frame.
- **Effective, Timed Filter Shaker System:** Improved filter shake-back resulting in improved sweeping performance throughout the life of the filter.
- **Robust, Industrial-Strength Design:** Featuring a fully coated metal frame ensures machine durability and reduces the cost of ownership.
- **Available Left-hand (dual) Side Brush:** Maximizes sweep path and productivity meaning less time spent cleaning.
- **Durable Hopper Materials:** Hoppers that are constructed of stainless steel for high dump machines and of duramer on low dump configurations.

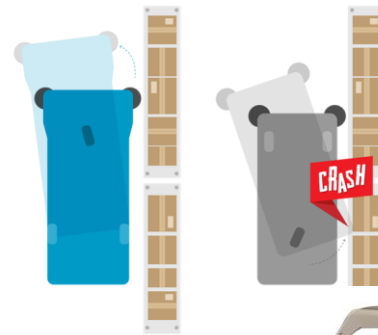


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MAINTAIN HEALTH AND SAFETY

- **Front wheel steer:** Allows the operator when driving along a wall, rack or equipment, to pull away from the wall. Rear steer units pull into the wall, rack or equipment instead of away.
- **FOPS certified OHG:** The falling object protective structure overhead guard is tested by an outside party and is done to certify to EN IEC 60335-2-72. The testing consists of dropping a 12 in / 30 cm cube shaped 44 lbs / 20 kg weight on the OHG for 5 impacts.
- **Full front protection:** Full operator protection from the front, unlike competitive machines which can expose the operator legs to impact with objects sticking out from walls or racking.
- **Quiet operation:** Expand cleaning times with quiet operation that enables anytime cleaning. Clean in noise sensitive areas with noise emission as low as 67 dBA.
- **Eco-Mode™:** Designed to conserve energy and resources, this mode runs quieter and extends runtime up to 20% vs standard cleaning mode.
- **VarioHeight™ low dump handle:** Adjustable low dump handle height allows operators of differing heights to customize the hopper to facility safe emptying.
- **UL approved – type E, optional type ES:** Independently tested and certified by Underwriters Laboratories (UL) to UL Type E and UL Type ES (optional).



ENHANCE FACILITY IMAGE

- **Multi-Stage Dust Control System:** Protect facility assets from getting dirty or damaged and effectively capture dust & debris with the multi-stage dust control system. Featuring a first stage Perma-Filter™ designed to keep bulky items from the second stage panel filter. Optional HEPA filtration adds another stage to further filter machine airflow.
- **MaxPro™ Sweeping System:** Effectively sweep over multiple surface types and debris levels with the same machine with MaxPro™ sweeping technology. MaxPro™ technology monitors the load on the sweep motor and automatically maintains the correct main brush height to maximize effectiveness and performance across applications.
- **Carpet Sweeping Package:** Productively clean large carpeted spaces with the S16 Carpet Kit which features a natural fiber main brush, an all-new FiberShield™ lint screen to prevent lint fibers from being embedded in the panel filter, non-marking skirts, and a slotted flap and trap flap that allows bulky items to easily pass into the main brush chamber while maintaining effective dust control.



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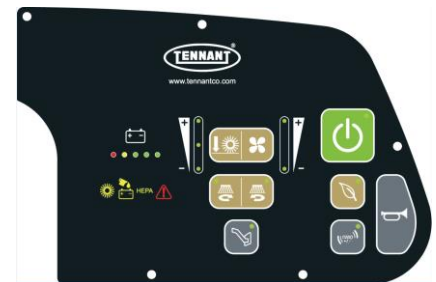


ENHANCE FACILITY IMAGE (CONTINUED)

- **Flap-and-trap Pedal:** Easily sweep larger debris to leave a clean surface with the flap-and-trap pedal. The flap-and-trap pedal is controlled by the operators left heel, eliminating the need to remove a hand from the steering wheel during operation. The flap-and-trap pedal controls the flap in front of the main brush chamber. When the operator presses the pedal, the flap opens to allow larger debris to easily enter the main brush chamber. Once the pedal is released the flap closes to maximize dust containment.

DELIVER EASY OPERATION AND MAINTENANCE

- **Worn Brush Indicator Light:** Operators are notified on the control panel when a main brush needs to be replaced. This helps maximize cleaning performance.
- **Yellow Touch Points:** Save time in routine maintenance activity with easy-to-identify, yellow maintenance touch points.
- **Tool-free access to maintenance items:** Easily replace many maintenance items like brushes and filters without the need for tools.
- **Ergonomic Design:** Operator-focused design enhances user experience by providing: intuitive controls, excellent visibility and enhanced ergonomics.
- **On-Board Storage:** Enhance operator experience with on-board storage to hang bags and cup holder for drinks.



- **On-Board Battery Charger Configurations:** Select configurations are equipped with an on-board battery charger. This ensures that the charger will not be lost and is always with the machine. The operator is able to simply position the machine next to a power supply and charge conveniently.

STANDARD CONFIGURATIONS (AVAILABILITY & CONFIGURATION CAN VARY BY REGION)

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- **1000 vs 2000 vs 3000:** We are classifying our Standard Configurations into three categories. In general, they are intended to basically build off one another and to provide a means to separate customer types in to Standard Configuration series. NOTE: WE ARE NOT MARKING MACHINES OR MARKETING THE DESIGNATIONS.
- **1000 Designation:** Basic Version targeted for that customers wanting a basic Tennant machine at a good price such as BSC's or price sensitive customers.
- **2000 Designation:** Targeted at the core of our customer base and is equipped with the most commonly sold features in that given offering.
- **3000 Designation:** Premium Version is targeted for the customer who wants additional productivity and convenience features.
- **See local price pages for actual configurations**

OPTION BUNDLES (AVAILABILITY & CONFIGURATION CAN VARY BY REGION)

- **HEPA Dust Filter Package - Right Hand Side Brush:** Dry Dust Control (RH), HEPA Filter System
- **HEPA Dust Filter Package - Dual Side Brush:** Dry Dust Control (dual), HEPA Filter System, NOTE: LH side brush not included as part of the package but is required.
- **Productivity Package:** Dual Side Brush & Vac Wand
- **Carpet Care Package:** Natural Fiber Main Brush, Non-marking skirts, FiberShield™ Lint Trap, Slotted Front Main Brush Skirt
- **Safety Light Package:** LED Headlights, LED Tail Lights, LED Reverse Light, AV BU Alarm w/ LED Strobe Light, Blue Lights

OPTION ADD-ONS (AVAILABILITY CAN VARY BY REGION)

- Lithium Ion batteries (4.1 kWh, 8.2 kWh, 12.2 kWh)
- Overhead Guard (OHG) FOPs
- Left Hand or "Dual" Side Brush
- Fire Extinguisher
- SmartFill™ Automatic Battery Watering
- Manual battery watering
- Deluxe Seat with Armrests (Includes Seat Belt)
- AV BU Alarm w/ LED Strobe Light (Amber)
- LED Headlights, LED Tail Light, LED Reverse Light
- Blue Light (front & rear projection)
- Vacuum Wand
- UL Type ES
- IRIS Telemetry
- Main Brush Options
- Removeable Hopper Bins (Low Dump)