eSwingo 200+

Sweeper

The eSwingo 200+ is the first fully electric compact sweeper from Schmidt. It is ideal for daily cleaning and sweeping duties in neighborhoods and city areas plus industrial locations and parking lots. The eSwingo 200+ is not only one of the cleanest compact sweepers on the market, but it also pays for itself in the overall whole life cost calculation. With the eSwingo 200+, up to 85% of energy costs and up to 70% of maintenance costs can be saved compared to a model with a diesel engine.

Highlights

- 100% electric, 0% carbon dioxide emissions
- Working up to 10 hours without recharging
- Recharge in 8 hours
- Low noise emission
- Sustainable and responsible technology

Your benefits

- Performance: High performance and driving performance even on demanding sweeping jobs - no compromises compared to the model with diesel engine.
- Battery Life Cycle Management: Battery service and diagnosis are carried out by Aebi Schmidt, as well as free take-back and recycling.
- Extremely quiet driving and working: The machine can also be used for work assignments at night or in the early morning hours.
- Excellent sweeping performance: A 2- or 3-broom system is available with a pulled suction shaft. Thanks to modular equipment and a wide range of optional expansion options, the sweeper can be adapted to customer-specific requirements.
- Unsurpassed comfort: A spacious cab, excellent visibility, ergonomic controls, an adjustable steering column and a sprung driver's seat with individual adjustment options. AGR (Campaign for Healthier Backs) tested and recommended.

Performance features

Environmentally friendly electric drive

The eSwingo 200⁺ is characterized by a fully electric drive. The heart of the drive is a high voltage, 75 kWh battery which consists of two individual battery packs. High-quality components guarantee durability (at least 5000 charging cycles) and safety, thanks to non-flammable and explosion-proof battery cells. The battery is equipped with a battery management system (BMS), which monitors and controls the battery, the charging and discharging processes and the temperature. The powerful batteries allow operating times of up to 10 hours without recharging.

The drives of all main functions - traction drive, blower drive, hydraulic pump drive and air conditioning of the driver's cab - have been electrified. The electric drive offers higher efficiency, optimum power characteristics and high performance with low maintenance requirements.

Only an electric motor, which is directly connected to the rear axle, is used for the drive and provides speeds up to 25 mph (40 km/h), while the noise level is many times lower than that of a diesel vehicle. An electric parking brake system with hill start assistance guarantees safe and comfortable driving.

Sweeping technology

The eSwingo 200⁺ is available with two independent sweeping systems. A pushed 2-broom system with a brush diameter of 33-1/2 inches (850 mm) or a pulled 3-broom system with a brush diameter of 31-1/2 inches (800 mm). Both systems are available with either dependent or independent disc brush control using convenient controls on the driver's door. The brush speed and pressure can be infinitely adjusted. The brooms are available in plastic, steel or mixed bristles, and the suction nozzle between rollers or runners.

The 2-broom system with independently controllable circular brushes guarantees absolute mobility in every sweeping situation. Two stable broom arms with integrated buffers allow sweeping widths of up to 114–1/8 inches (2,900 mm). Independent broom control is available as an option, offering separately controllable brooms, up/down, left/right, and contact pressure control, guaranteeing clean sweeping results with minimum wear and tear. The broom always returns to its basic position, regardless of road conditions. A version for heavy weed use is also available with additional hydraulic tilting functions for the broom.

The 3-broom system with freely movable front broom arm offers a wide range of options and a sweeping width of up to 102–3/8 inches (2,600 mm). Left-right alignment of the front broom is available, along with sweeping on two levels or heavy weed broom use. All functions of the front broom are hydraulically controlled, including the broom support pressure. The broom unit under the cabin ensures optimum feed of the sweeping material to the suction shaft. As an option, the side brushes can also be extended hydraulically and their angle can be adjusted so that they are ideally positioned in relation to the ground conditions in sweeping operations.

Suction and water systems

For the 2-broom system, there is a choice of a basic suction shaft with hydraulically operated coarse dirt flap or an HS suction shaft, which combines the advantages of an integrated coarse dirt flap with optimum air flow. The HS suction shaft guarantees maximum suction power even at low fan speeds.

There is an air-flow-optimized suction shaft for the 3-broom system, which does not require a separate coarse dirt flap. Coarse debris can be easily collected by tilting the suction chute.

With the unique Koanda air circulation system in combination with the pressurized circulating water system, the emission of fine, harmful dust is reduced by up to 70%. A large part of the dust-laden air sucked in remains in the suction system and is returned to the suction mouth in a circuit. The small amount of residual air remaining is cleaned by a fine-pored filter. In addition, the Koanda system gives reduced noise emission, low water consumption and allows sweeping at slightly below freezing temperatures.

The proven pressure circulation water system returns large quantities of circulating water to the circuit by means of a waste water pump for reuse. The water recovery system, with a screen surface of 33-1/2 ft² (3.3m²) in the container, not only saves fresh water, but also makes optimum use of the container capacity. By adding water into the hopper, up to 66 gallons (250 litres), the operating range can be increased by up to 50%. The collected swept material is both moistened and compacted. The electric fresh water pump supplies the spray nozzles on the circular brooms. The water quantity for the brooms can be conveniently controlled from the cab.

Sweeping material hopper

The hopper, which has a system volume of 2.6 yd³ (2m³), enables maximum sweeping capacity and a large radius of action. The hopper is made of corrosion and saltwater resistant aluminium. A large dumping height of 55-1/8 inches (1400 mm) enables emptying into all common dirt containers. The suction pipe in the hopper is optionally available in wear-resistant stainless steel.

Ergonomics and comfort

The spacious cabin is equipped with high-quality noise and vibration insulation. The front windscreen, which extends down to the floor, and the viewing window in the cab floor, provide an optimum view of the sweeping unit and suction nozzle. The excellent all-round visibility contributes to a pleasant working environment and supports safe operation in road traffic.

The standard and powerful air conditioning system creates a pleasant and cool working climate even at high outside temperatures. Fresh air is sucked in and filtered at the rear of the cab, while the cab air filter is also designed as a pollen filter. The sweeping unit is controlled via the door control panel with joysticks and push buttons. With the Auto-Drive option, all sweeping functions and driving commands in sweeping mode can be conveniently operated via the ergonomically shaped multi-functional control lever. Driving and sweeping from a single source also means greater safety and less stress.

The most important information is visible at a glance on the color display in the roof console. With the help of the on-board diagnosis system, any faults can be localized quickly and efficiently, while a mechanic can make machine-specific settings on the display.

Modern vehicle technology

The hot-dip galvanization of the entire vehicle frame, the suction mouth and important steel components, including the dirt container, provide high-quality corrosion protection.

The hydro pneumatically suspended chassis with hydrostatic drive and large 15 inch wheels offers the highest level of driving comfort in this machine class. At the same time, high load capacity and large wheel contact areas ensure increased safety with low ground pressure, regardless of road and weather conditions. Optional 17-1/2 inch tires are available to increase the permissible total weight to 11,023 lbs. (5,000 kg).

The suspension package, which also includes a mechanical option, is perfectly matched to the machine, and ensures safe and comfortable, car-like driving. Good driving comfort, robustness and freedom from maintenance are all optimally combined.

The switchable all-wheel steering makes extremely tight turning possible, and is monitored by steering angle sensors, which enable automatic centering - so it is user-friendly and safe. A hydraulic dual-circuit brake system with disc brakes on the front and rear axle is fitted as standard.

Wide range of options

- Koanda air circulation system
- Rear view camera and suction shaft camera
- Weed broom
- Hand suction hose
- Pressure washer
- Automatic central lubrication system
- Auto-Drive (drive lever operation)

Technical data

	eSwingo 200⁺ | 2-Brush	eSwingo 200⁺ | 3-Brush
Hopper		
Tank volume	2.6 yd³ (2 m³)	2.6 yd³ (2 m³)
Tilt angle	102°	102°
Dumping height tilt discharge	55 in. (1,400 mm)	55 in. (1,400 mm)
Sweeping unit		
Disc brush diameter	33.5 in. (850 mm)	33.5 in. (850 mm)
Disc brush speed	120 rpm	100 rpm
Brush material	steel / plastic / mixed	steel / plastic / mixed
Sweeping width	55 - 114 in. (1,400 - 2,900 mm)	70.9 - 78.7 in. (1,800 - 2,000 mm)
Sweeping width with 3rd brush	–	102.4 in. (2,600 mm)
Suction fan		
Speed	3 rpm	3 rpm
Water system		
Total water volume	105.7 gal. (400 l)	105.7 gal. (400 l)
Fresh water volume	52.8 gal. (200 l)	52.8 gal. (200 l)
Service water volume	52.8 gal. (200 l)	52.8 gal. (200 l)
Fresh water pump	43.5 psi / 2.9 gal./min (3 bar / 11 l/min)	43.5 psi / 2.9 gal./min (3 bar / 11 l/min)
Battery		
Total capacity	75 kWh / 400 V	75 kWh / 400 V
Safety	Non-flammable / 100% explosion proof	Non-flammable / 100% explosion proof
Operating time without re-charging	Up to 10 h	Up to 10 h
Charging time	8 h	8 h
Guaranteed charging cycles	5,000	5,000
Electric motors		
Power traction drive (rear axle)	51 - 121 hp (38 - 90 kW)	51 - 121 hp (38 - 90 kW)
Power fan drive	11.4 - 15.4 hp (8.5 - 11.5 kW)	11.4 - 15.4 hp (8.5 - 11.5 kW)
Steering		
Steering angle front axle	48°	48°
Steering angle rear axle	24°	24°
Turning circle diameter wall to wall (2-wheel steering)	28.2 ft. (8,600 mm)	27.9 ft. (8,500 mm)
Turning circle diameter curb to curb (2-wheel steering)	21.5 ft. (6,550 mm)	21.5 ft. (6,550 mm)
Turning circle diameter wall to wall (4-wheel steering)	24 ft. (7,300 mm)	23 ft. (7,000 mm)
Turning circle diameter curb to curb (4-wheel steering)	16.2 ft. (4,950 mm)	16.2 ft. (4,950 mm)
Speed		
Transport speed	25 mph (40 km/h)	25 mph (40 km/h)
Sweeping speed	7.5 mph (12 km/h)	7.5 mph (12 km/h)
Dimensions		
Length without 3rd brush	–	163 in. (4,140 mm)
Length with brush	184.6 in. (4,690 mm)	–
Length with 3rd brush	–	202.4 in. (5,140 mm)
Width without brush	51.2 in. (1,300 mm)	51.2 in. (1,300 mm)
Height (without beacon)	78.3 in. (1,990 mm)	78.3 in. (1,990 mm)
Height with beacon	91.9 in. (2,335 mm)	91.9 in. (2,335 mm)
Wheelbase	74.8 in. (1900 mm)	74.8 in. (1900 mm)
Track width front	42.2 in. (1,073 mm)	42.2 in. (1,073 mm)
Track width rear	42.2 in. (1,073 mm)	42.2 in. (1,073 mm)
Weights		
Empty weight of the basic unit approx.	7,275 lb (3,300 kg)	7,496 lb (3,400 kg)
Permitted total weight	9,921 lb / 11,023 lb (4,500 kg / 5,000 kg)	9,921 lb / 11,023 lb (4,500 kg / 5,000 kg)

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