

# Swingo 200<sup>+</sup>



### Schmidt Swingo - Cutting-edge technology as a matter of principle

#### **Expertise**

Aebi Schmidt Deutschland GmbH is among the trailblazers in municipal technology. Almost 100 years ago, the foundation was laid for a company that today ensures safety in all traffic areas in any weather all over the world. People throughout the globe rely on Schmidt's machines and know-how.

Being part of the Aebi Schmidt Group since 2007, Schmidt regards itself today as a leading system provider of innovative solutions for the cleaning, clearing and maintenance of traffic areas. Our product range comprises attachable and de-mountable equipment, special-purpose vehicles and all associated services as well as logistic and planning support.

We are there for our customers, which we guarantee by a dense network of service partners as well as advanced logistics to be able to deliver spare parts exactly when and where they are needed.

#### **Made in Germany**

Our sweepers bear the "Made in Germany" quality label. All machines of the Swingo series are manufactured at the parent factory in St. Blasien. Schmidt is committed to its German location and has been continuously investing in the modernisation and expansion of its factories during the past years – and thus also in the quality of its products.

Our employees are behind us. They know that trust can only be created and maintained through performance and quality in all areas of a company, which they prove every day in our name.

#### Schmidt - Cutting-edge technology as a matter of principle

- Compact, manoeuvrable design with high payload
   High hopper capacity for extended operations and fewer trips to the landfill
- Eco-friendly technology
   Clean engine technology (Euro 6), PM10 certificate
- . Maximum comfort for the driver for long working days

The modular system enables you to customise the Swingo according to your individual wishes.

#### Worldwide recognition

The striking blue-coloured logo with the Schmidt lettering is at home all around the world. Machines manufactured using German engineering expertise do just as great a job in Europe as they do in Asia, South America or the Near East. On the one hand, this worldwide presence is a sign of trust; on the other, it involves the duty of consistent optimisation: Because the future, holding new tasks in store, is never far away.



# Schmidt Swingo - Reliably Technology

Safety, reliability and comfort are three important pillars for highest quality requirements. To guarantee them, exclusively high-quality components of selected brand manufacturers are integrated in the Swingo series.

We attach great importance to effective corrosion protection to ensure long-term use in any weather.

- Premium corrosion protection
- Selected branded components
- High level of reliability
- Safe and comfortable driving
- Large radius of action thanks to the efficient pressurised water recirculation system and a total permissible weight of up to 5 t

For example, the entire vehicle frame, the suction nozzle and all important steel components are hot-galvanised.

In addition, the hopper and the suction fan are made of seawater-resistant aluminium.

The hydraulic and diesel tank as well as the laterally arranged water tanks are made of solid and impact-proof PE.

The hot-galvanised, torsionally stiff structural steel frame is the basis of our Swingo 200<sup>+</sup>. For safe operation, every day and in any weather.

Thanks to the modular design, the Swingo series is also perfectly prepared for future enhancements and adaptations.



# Schmidt Swingo - Reliably Technology

# Two alternative suspension variants are available for the Swingo 200\*.

The hydro-pneumatic chassis suspension offers maximum driving comfort – which is unique in this machine class. The suspension package is perfectly adapted to the machine, guaranteeing safe and comfortable driving that is absolutely comparable to the driving comfort of a passenger car.

A mechanical chassis, which optimally combines outstanding driving comfort with sturdiness and requires no maintenance, is available as an alternative.

The selectable all-wheel steering imparts the Swingo 200+ with remarkable steerability and an extremely small turning circle. The excellent manoeuvrability achieved thereby brings clear benefits during daily sweeping operations in urban areas.

The all-wheel steering is monitored by means of steering angle sensors, which allows for automatic centring – enhancing user-friend-liness and safety.



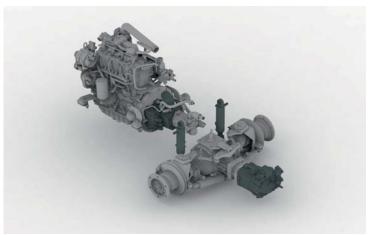
Another highlight of our Swingo 200<sup>+</sup> is the optionally lowerable chassis, a reliable module, which facilitates driving into multistorey car parks and through low entrances – the chassis can be lowered by approx. 70 mm at the push of a button. In addition, the system levels itself automatically.

The Swingo features a **hydraulic dual-circuit brake system** with disc brakes at the front. The cutting-edge system gives the driver excellent control over the vehicle.

The large 14" wheels with a high load capacity ensure increased safety even when driving in poor road and weather conditions.

In addition, 17.5" tyres are available as an option. As a result, the total permissible weight is increased to 5 tonnes, which yields a 500-kg higher payload and consequently a greater radius of action and a higher level of safety even with heavy debris.

The **Euro6 diesel engine** with a high torque ensures constant performance in any transport and sweeping situation.



# Schmidt Swingo - Ergonomics & Comfort

While designing the driver's cab, the focus was placed on **operational comfort and ergonomics** to allow relaxed working. The driver's cab is correspondingly spacious and is equipped with premium sound-proofing and vibration damping. With only 72 dB(A) in his ears, the driver can better focus on the quick and safe performance of his job.

#### Outstanding visibility increases safety

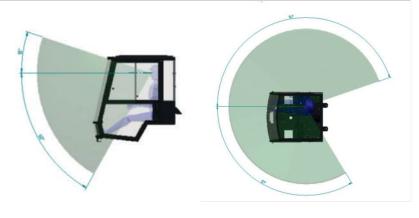
- The windscreen extends up to the cab floor.
- An observation window integrated in the cab floor allows an unobstructed view of the suction nozzle and the disc brushes.
- The new Schmidt steering column with maximum ergonomics and one-of-a-kind adjustment options offers unprecedented ease of operation and permits quick and convenient entry and exit.
- The slim steering column equipped with a minimum of operating elements as well as the large wing mirrors give the driver a perfect view of the working area and the surroundings.

# Heating and air conditioning system ensure excellent indoor climate during work.

Optimum ventilation: Fresh air is drawn in at the back of the driver's cab and filtered. The cab air filter is designed as a pollen filter. As a result, clean, low-dust air inside the driver's cab is ensured at all times irrespective of the weather. The high-performance air-conditioning system fitted as a standard creates a pleasant and cool working atmosphere even at high outdoor temperatures.

All operating and control elements are arranged ergonomically around the driver. The steering column is fitted with all traffic-related and safety-relevant functions.

The ergonomically designed link between the gas and the brake pedal, the cruise control and the multiply adjustable steering column (in height and tilt) facilitate the driver's work.







# Schmidt Swingo - Ergonomics & Comfort

The sweeping unit is operated via the **door control panel featuring joysticks and push buttons**. The most important information is instantly visible on the display in the overhead console, showing parameters such as driving speed, filling level, temperature, engine speed and operating status.

A brand-new option is the Auto-Drive. The ergonomically designed multi-function control lever allows for all sweeping functions as well as the driving commands in sweeping mode to be operated conveniently. Single-handed driving and sweeping – an addition to safety, ergonomics and relaxed working – a unique feature in compact sweepers.

A mechanic can make machine-specific settings via the display.

Any malfunction can be localised quickly and efficiently with the help of the on-board diagnostic system.

- All operating and control elements within optimum reach
- Spacious driver's cab with a pleasant indoor climate and full-size passenger's seat
- Ergonomic, comfortable and suspended driver's seat adjustable according to individual needs
- Perfect view of the working area and the environment
- Cruise control
- Height- and tilt-adjustable steering column







# Schmidt Swingo – Sweeping Technology

The Schmidt Swingo 200+ is equipped with a **flexibly adjustable sweeping system** that guarantees reliable sweeping results in any situation.

Two independent sweeping systems are available: the shunted 2-brush system and the towed 3-brush system. Each of the two systems is optimally adapted to the Swingo.

- You can choose between a 2-brush and a 3-brush system
- Third front-mounted brush permits sweeping on two levels
- Trouble-free sweeping in 90° corners
- Heavy weed-removal work possible
- High suction performance permits high operating speeds and trouble-free collection of large amounts of dirt

**The 3-brush system** with a freely movable front-mounted brush arm offers a multitude of options and sweeping widths of up to 2,600 mm.

Left-right alignment of the front-mounted brush is equally possible as sweeping on two levels or heavy weed-removal work. All functions of the front-mounted brush, including the brush ground pressure, are controlled hydraulically.

The sweeping unit under the driver's cab ensures optimum transport of the debris to the suction nozzle; coverage is always guaranteed. As an option, the side-mounted brushes can also be extended and tilted hydraulically, which permits even better adaptation to the ground during sweeping operations.

Featuring independently controlled disc brushes, **the 2-brush system** guarantees absolute mobility in any sweeping situation.

Two solid brush arms with integrated buffers permit sweeping widths of up to 2,900 mm. As a standard, the brush ground pressure can be adjusted hydraulically via a rotary knob from the driver's cab.

The independent brush control system is available as an option. Separately controlled brushes, up/down, left/right, ground pressure: All this can be adjusted precisely and separately for both brushes.

This additionally ensures reliable sweeping results and low brush wear. The brush angle is tracked automatically, ensuring that the brush always returns to its original position, even when the road conditions change.

A version for heavy weed-removal work featuring hydraulic additional tilt functions for the brush is available as well.





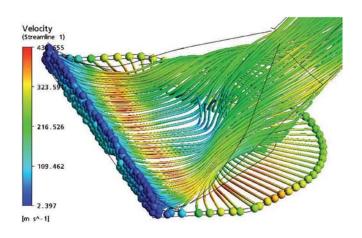


### Schmidt Swingo - Sweeping Technology

**The suction nozzle** is towed, which ensures brake-back protection. The spherical joint permits movement in all directions, which guarantees optimum adaptation to the ground and constant sweeping performance.

Two alternative suction nozzles are available for the Swingo 2-brush system: A basic suction nozzle with a hydraulically operated debris flap and the new high-performance suction nozzle, which combines the benefits of an integrated debris flap with optimum air flow. Maximum suction performance even at low fan speeds: A significant advantage that saves up to 15% operating costs.

The 3-brush version also features an air flowoptimised suction nozzle, but no separate debris flap. The trouble-free collection of coarse dirt is ensured just by tilting the suction nozzle.



The high suction performance of more than 8,600 m³/h enables the Swingo 200+ to sweep at high operating speeds and to collect large amounts of dirt without any problems. The fan speed can be easily adjusted almost continuously, making it possible to quickly react to changing conditions. Furthermore, the flow-optimised arrangement ensures effective sweeping operations at reduced fuel consumption already at a low fan speed.

The towed suction nozzle for dirt collection is arranged behind the brush but in front of the front axle and is guided on either skids or rollers with a constant distance to the ground.



# Schmidt Swingo - Sweeping Technology

The large hopper with a **system volume of 2 m³** permits an increased radius of action and maximum debris collection. The Swingo additionally impresses with a high payload and optimum axle load distribution, making it possible to utilise the full hopper capacity even with heavy debris.

As a standard, the Swingo 200+ comes equipped with a high-dump system for emptying the container. The hopper lid opens hydraulically; a sturdy rubber gasket guarantees water-proof sealing during sweeping operations and prevents "external air" from being drawn in.

The hopper lid is opened and the hopper is emptied safely via a wired remote controller.

The leaf screen is fixed along the full width of the hopper, enabling optimum utilisation of the hopper capacity. The large screen surface effectively prevents the screen from blinding and guarantees a constant air stream at 100% hopper filling. The screen can be conveniently folded down for cleaning.

The Swingo 200+ compact sweeper can now also be fitted with the innovative **Koanda system**. As a result, it works virtually without any particulate emissions, has extremely low water consumption and is very quiet.

The combination of the one-of-a-kind Koanda air circulation system and the pressurised water recirculation system reduces the emission of harmful particulate matter by up to 95%. A major part of the dust-laden air drawn in remains in the suction system and is conducted back to the suction nozzle in a closed cycle. The special design of the suction nozzle, which employs flow energy to support the collection of debris, guarantees a substantial improvement in debris collection. The small amount of residual air is cleaned by a fine-pored filter.

#### Koanda air circulation system

- Eliminates particulate emissions nearly completely
- Reduces the noise level
- Impresses with low water consumption
- Permits sweeping operations even at moderate sub-zero temperatures







# Schmidt Swingo – Clean Environmental Technology

Water is added to the debris at several points of the sweeping process to **ensure low-dust sweeping** and optimum utilisation of the hopper capacity.

The Swingo 200+ is equipped with the tried and tested pressurised water recirculation system, which significantly reduces the water consumption by conducting the unbound water in the hopper back to the bottom wastewater tank via filter screens.

- Low-dust sweeping PM-10 3-star certificate
- Optimum utilisation of hopper capacity thanks to the pressurised water recirculation system
- Eco-friendly, powerful Euro-6 diesel engine
- Outstanding steerability and manoeuvrability
- Eco-Drive at reduced engine speed

The wastewater pump pumps the process water back into the cycle for reuse. This not only saves fresh water, but also permits optimum utilisation of the hopper capacity. The collected debris is both wetted and compacted to ensure that only clean and low-dust air gets into the environment. This increases the working radius so that the Swingo 200+ can be used even more effectively.

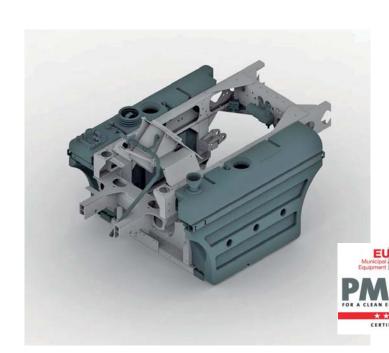
Moreover, the combination of the pressurised water recirculation and the Koanda air circulation system makes the machine even more efficient and ecofriendly than ever before.

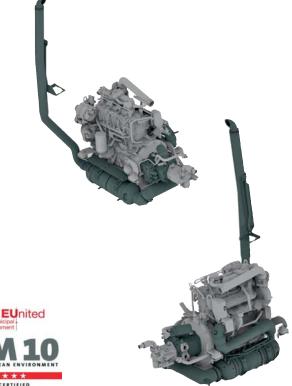
The intelligent system permits even more extended sweeping operations, since the need for time-consuming stops to refill water is eliminated. In addition, the large amount of water in the suction system ensures reliable and low-wear collection of dirt.

A circulating water immersion pump supplies a connection in the suction port and one at the top in the suction nozzle. The water amount can additionally be adjusted with a quantity regulator behind the driver's cab.

The large screen surfaces of over 3.3 m<sup>2</sup> in the hopper ensure reliable flow of the circulating water at all times.

The electric freshwater pump supplies the spray nozzles on the disc brushes. The water volume for the brushes can be adjusted conveniently from the driver's cab.







# Schmidt Swingo - Clean Environmental Technology

# The Swingo 200\* is equipped with highly efficient turbo diesel engines.

The basic version features a powerful EuroMot 3B engine with 55 kW (75 HP), which meets all statutory requirements and offers a high torque. This engine works WITHOUT additional urea injection (AdBlue).

The advanced Euro6 engine with 62 kW (84 PS) is available as an alternative, featuring the most state-of-the-art **exhaust gas purification system with diesel oxidation catalytic converter, a closed particulate filter system as well as urea injection (AdBlue) and SCR system.** With minimum toxic emission levels, the Swingo 200+ fully meets the Euro6 standard. Moreover, it stays far below the legally permitted maximum levels.

The compact integration of the 4-cylinder Euro6 engine with constant wheelbase is unique in this machine category compared to previous versions.

The Euro6 engine incl. AdBlue tank is perfectly integrated in the chassis, enabling the Swingo to maintain its optimum steerability and manoeuvrability.

The combination with the powerful hydrostatic drive permits comfortable and economical driving and working. The hydrostatic drive driven by the rear axle is variable with automatically load-sensing control (automotive driving).



#### Vehicle technology

- Efficient, quiet-running Euro6 or EuroMot 3B 4-cylinder diesel engine
- Hydrostatic drive allows automotive driving
- Front-axle steering or all-wheel steering, permitting turning manoeuvres in extremely confined space
- High transport speed of up to 50 km/h
- Large 14" wheels
- Hydraulic dual-circuit brake system with disc brakes on front and rear axle



#### Clean environmental technology

- Euro6 diesel engine
- Certificate for passing the PM-10 test
- Koanda air circulation system Working virtually without any particulate emissions
- Targeted fresh water supply to disc brushes and suction
- Pressurised water recirculation system conserves resources through water recovery



#### **Modular equipment**

- Two- or three-brush system
- Transport speed 25 / 40 / 45 / 50 km/h
- Brushes of polypropylene, steel or mixed material
- Size-3 mounting plate
- Winter service options: snow plough (e.g. type EN17), truck-mounted sweeper roller brush



#### **Ergonomics & Comfort**

- Sound-proof driver's cab with optimum all-round view for safe operation in road traffic
- Excellent view of brush sweeping unit and suction nozzle for maximum control of functions
- · Smooth steering
- Minimum pedal forces
- Ergonomic driver' seat
- Height-and tilt-adjustable steering column
- All operating and control instruments within optimum reach
- Air-conditioning system
- Auto-Drive control lever





#### Quality

- Consistent corrosion protection
- High-quality branded components
- High level of reliability
- Economical operation
- Minimum wear
- Long-term maintenance of value

Blue: Fresh water
Purple: Recirculation water
Green: Air circulation / clean air

### **Sweeping technology**

Two- or three-brush system

- 2-brush system: brush diameter 850 mm
- 3-brush system: brush diameter 800 mm
- Dependent and independent disc brush control using the convenient operating elements integrated in the driver's door
- Suction nozzle guided on rollers
- Automatic sweeping pattern adjustment for 2-brush system
- Variable adjustment of brush angle and ground pressure
- Sweeping on two levels
- Heavy weed-removal work

# Schmidt Swingo – Technical Equipment and Accessories

#### **Optional equipment**

Schmidt pays special attention to the illumination of the sweeping area and the surroundings around the Swingo 200+. The LED light packages offered turn night into day, ensuring excellent illumination and maximum safety. The driver has an excellent view of the working area, even in adverse weather conditions.

Quality pays off: All integrated LED headlights are high-quality branded products made in Germany.

- Reversing camera and suction nozzle camera
- Weed brush
- Wander hose
- High-pressure cleaning system
- Sound-proofing package
- Automatic central lubrication system
- Winter service attachments
- Koanda air circulation system
- Auto-Drive (operation via control lever)
- Lowerable chassis











Lowerable chassis



High-pressure cleaning system



3-brush system and 2-brush system



Reversing and suction nozzle camera



Weed brush



Auto-Drive (operation via control lever)



Wander hose



Hydro-pneumatic suspension



Mechanical suspension

# Technical Equipment and Accessories

Hopper	Swingo 200+, 2-brush	Swingo 200+, 3-brush
System volume approx.	2 m³	2 m <sup>3</sup>
Discharge angle	55°	55°
Discharge height	1,400 mm	1,400 mm
Drive	1,700 11111	1,400 11111
VM R756 Euro6 with closed particulate filter system,	62 kW @ 2,300 1/min	62 kW @ 2,300 1/min
urea (AdBlue) injection and SCR system	2,970 cm <sup>3</sup> cubic capacity	2,970 cm³ cubic capacity
area ( labiae) injection and correspondin	4-cylinder, 270 Nm / 1,350 1/min	4-cylinder, 270 Nm / 1,350 1/min
VM R756 EuroMot 3B with open particulate filter system	55 kW @ 2,300 1/min	55 kW @ 2,300 1/min
Will 11730 Eurolviot 3B with open particulate linter system	2,970 cm <sup>3</sup> cubic capacity	2,970 cm <sup>3</sup> cubic capacity
	4-cylinder, 310 Nm / 1,100 1/min	4-cylinder, 310 Nm / 1,100 1/min
Sweeping unit	4-Cyllinder, 310 Ni11/ 1,100 I/IIIII	4-Cyllinder, 3101vi11/ 1,100 1/11ll1
Disc brush diameter / speed approx.	Ø 850 mm, max. 120 1/min	Ø 800 mm, max. 100 1/min
Brush material	Steel, polypropylene or mixed	
	1,400 – 2,900 mm	Steel, polypropylene or mixed
Sweeping width		up to 2,600 mm
Fan speed max.	3,300 1/min	3,300 1/min
Air flow rate max.	8,640 m <sup>3</sup> /h	8,640 m³/h
Water system	200 L (5	0001/5
Total water volume	360 l (Euro 6)	360 l (Euro 6)
	380 I (EuroMot 3B)	380 I (EuroMot 3B)
Freshwater tank	190	190
Water spray system	3 bar / 11 l/min	3 bar / 11 l/min
Speeds		
Transport speed max.	25 / 40 / 45 / 50 km/h	25 / 40 / 45 / 50 km/h
Operating speed max.	12 km/h	12 km/h
Weights		
Empty weight Euro 6	2,900 kg	3,000 kg
Empty weight EuroMot 3B	2,850 kg	2,950 kg
Total permissible weight	4,500 kg	4,500 kg
	optional: 5,000 kg	optional: 5,000 kg
Dimensions		
Length without brush	4,040 mm	4,030 mm
Length with second or third brush	4,580 mm	5,030 mm
Width without brush	1,300 mm	1,300 mm
Height without rotating beacon	1,990 mm	1,990 mm
Wheelbase	1,820 mm	1,820 mm
Track width	1,053 mm	1,053 mm
Steering		
Steering angle front axle	48°	48°
Steering angle rear axle	24°	24°
Turning circle between kerbs (2-wheel steering)	6,350 mm	6,350 mm
Turning circle between walls (2-wheel steering)	8,400 mm	8,300 mm
Turning circle between kerbs (4-wheel steering)	4,750 mm	4,750 mm
Turning circle between walls (4-wheel steering)	7,100 mm	6,800 mm



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