

Offer # 63421
Boschung Compact Sweeper S3



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For: Renk

Project:

Product-group Sweepers
Technical description
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Subject to change without notice

Vacuum Sweeper S3



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1 Description of the sweeper

1.1 Design principle

The compact sweeper „S3“ is designed for cleaning city- and municipal roads, sidewalks, parking lots, commercial and airport premises etc. and is an exceptionally practical, high-performance machine in each aspect. The vehicle may also be used indoors. Due to its various steering modes, the vehicle is extremely maneuverable and exceptionally easy to handle. The fully adjustable hydrostatic drive ensures that the vehicle's speed is continuously variable. The diesel engine complies with the EURO V standard, is quiet, economical and generates low emissions.

The fully glazed panoramic driver's cabin ensures an excellent field of vision, comfortable working and minimizes the noise level. All equipment fitted to the sweeper is controlled from the driver's cabin. The right-hand drive cabin has space for a driver and passenger. The radial turbine is fitted front side of dirt hopper and the synthetic freshwater tank is located wedge formed at lower back of dirt hopper. The dirt hopper may be tipped towards the vehicle's rear. The suction mouth is suspended to the front axle. A well protected linear sweeper unit is fitted in front, below driver's cabin. The „S3“ can be fitted with a third front broom or a double linear system, both extending the range of suitable applications and allow to sweep on two different levels. Optionally a fully automated water recycling system is available, either making use of or dumping accumulated rainwater inside dirt hopper. Sweeper „S3“ may as well be fitted with several additional equipment such as front washing bar, hand suction hose, front broom, snowplough and rear roller spreader etc.

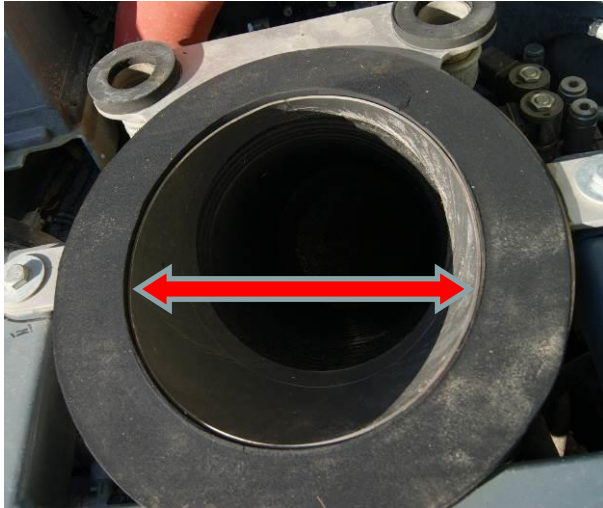
1.2 Sweeping system

„S3“ may be equipped with three different broom systems. With the linear broom system two disk brooms below driver's cabin float on a hydraulically controlled lateral axis. The front broom complements the linear brooms, enlarging sweeping area and allowing sweeping simultaneously on a second level. Double linear broom function similar to linear broom system but with the additional option of moving the linear broom unit in front of the vehicle, so that refuse is better viewed. Double linear brooms are an alternative to front broom. Depending on which broom system is in use, „S3“ may achieve a sweeping width of up to 2.75 m. All brooms are driven by hydraulic motors. The front broom may be replaced by a weed broom. The big water tank of 460 l, to limit dust generation during sweeping operations, allows a high operational range.



Standard: **Linear broom** system two disk brooms below driver's cabin (left)

Suction mouth equipped with a flap system is suspended at front axle and adapts to pavement contours. It allows small and larger waste items to be picked up. A big, straight suction tube makes is connecting suction mouth and dirt hopper. Dirt hopper is made from stainless steel. A powerful radial turbine is fitted front side of dirt hopper. When reversing, suction mouth raise automatically.



Larges sucton tube in class with Ø 220mm



Coarse dirt flap (Boschung patent)

1.3 Water installations

Dust binding is achieved with fresh water via nozzles placed at disk brooms, in suction mouth and inside suction tube. As option a hose reel with high pressure water spray gun may be connected to water installation. Water recycling system cares for re-use of water vacuumed inside suction mouth and enables the vehicle to operate independently for longer period. Water recycling system and rain water dump are controlled either manually by a cock or electrically from the driver's cabin. A high pressure side nozzle placed at the disk broom may remove dirt under parked cars, benches etc.



460 litre fresh water tank



Water level gauche in cab

1.4 Vehicle drive

The vehicle has an ECO-Drive system. It offers several advantages such as improved driving comfort, lower fuel consumption and noise level as well as a longer service life. The economical, electronically regulated transport drive is hydrostatic

and acts to the rear axle. Speed setting is continuous. Two speed ranges are available, one for working operation and one for transfer. During working operation, continuous speed regulation is carried out by means of a variable displacement pump at a constant speed of drive engine. In transport drive, driving is automotive. Like driving another vehicle, speed regulation is proportional to the engine rpm by use of the accelerator pedal. Regulation of hydraulic pump is in this case rpm dependent.

1.5 Axles

Steering axle in front and steering drive axle with self-locking differential at the rear. Front axle suspension by leaf springs with shock absorbers, and rear axle by cantilever suspension with shock absorbers

1.6 Steering

When driving, the fully-hydraulic, four-wheel steering allows continuous switching between the three modes of steering given below:

- Front wheel steering: Safe, simple operation for transfer travel
- Four-wheel steering: Optimal manoeuvrability in tight curves, parking spaces etc.
- Crab steering: Good abilities for special manoeuvres and when parking
- Rear wheel steering: Alternative steering mode for special cleaning applications (in place of crab steering)

With four-wheel steering and rear wheel steering, for safety reasons, maximum speed is automatically limited to 25 km/h and to 20 km/h for crab steering.



Four-wheel steering



Crab steering for climbing on side walks

1.7 Brake system

Hydrostatic brake-effect of transport drive when releasing accelerator pedal, additional hydraulic dual-circuit braking system with disk brakes at front axle and drum brakes at rear axle. Brake force regulator at rear axle. Mechanical parking brake by means of a spring loaded cylinder active at rear axle.

1.8 Drivers cabin

The comfortable and soundproof two-person driver's cabin with all-round vision has a right hand drive. The windscreen is rounded to prevent undesirable light reflections. The driver's seat is a comfort seat and is mechanically or as an option pneumatically suspended. The cabin is vibration-free elastically supported. The ergonomic steering column includes the elements for driving controls as well as the dashboard. Another dashboard and a door console include further elements for driving- and working controls.



Better access for maintenance and cleaning

1.9 Cabin equipment

1.9.1 Standard equipment

- Continuously adjustable ventilation and heating
- Side-view mirrors, right and left
- Parallel, adjustable-speed windscreen wipers
- Windscreen wash system with electric pump
- Driver's seat with mechanical suspension and head rest
- Passenger seat
- Three-point safety belts
- Radio pre-installation

1.9.2 Additional equipment

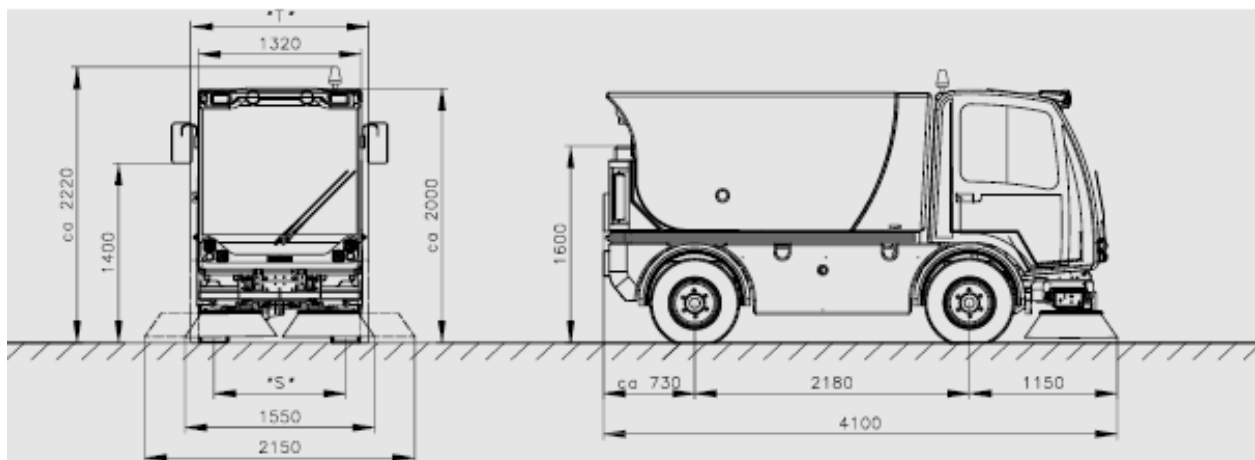
- Heated side-view mirrors
- Heated windscreen
- Driver's seat with pneumatic suspension
- Digital tachograph or RAG way recorder
- Air-conditioning system
- Reversing assistant
- Rear-view camera
- Acoustic back-drive warning (buzzer)
- Cruise control



Discharge-height is 1.41 m

2 Technical data

2.1 Dimension sheet



2.2 Dimensions

Overall length	ca. 4100 mm
Vehicle width	1320 mm
Width over the brooms.....	1550 mm
Height, without beacon light.....	ca. 2000 mm
Wheelbase.....	2180 mm
Track width	1044/1148 mm
Ground clearance	200 mm
Turning track diameter with four-wheel steering	6.2 m
Turning circle diameter with four-wheel steering	7.2 m
Turning circle diameter with third front broom and four-wheel steering	8.6 m
Standard tyres	225/70 R 15 C

2.3 Engine

Manufacturer	VM-Detroit
Model.....	R754EU5
System.....	in-line turbocharged diesel engine
Injection	direct, common rail
Number of cylinders.....	4
Piston displacement	2970 cm ³
Max. performance.....	74 kW (101 HP) at 3000 rpm
Performance limited to.....	72 kW (98 HP) at 2600 rpm
Max. torque.....	340 Nm at 1400 rpm
Cooling	water cooled
Exhaust outlet.....	in front of the left rear wheel
Emission level.....	EURO V
Average fuel consumption	6 - 7 l/h

2.4 Tank capacities

Fuel tank capacity.....	60 l
Hydraulic oil reservoir capacity	50 l

2.5 Chassis

Chassis.....	special frame chassis made of highly flexible steel
Spring suspension front.....	leaf springs with shock absorbers
rear.....	cantilever suspension with shock absorbers

2.6 Steering

Drive	hydrostatic
Steering assist	hydraulic
Position.....	right-hand drive
Steering modes	front wheel, four-wheel and crab or rear wheel steering

2.7 Brakes

Brake system.....	servo-assisted dual-circuit brakes with brake force regulation discs at the front, drums at rear
Auxiliary brake	service brake circuits
Parking brake	mechanically acting on rear axle drums with spring loaded cylinder

2.8 Vehicle drive

Drive	on rear wheels (4 × 2)
Power transmission	hydrostatic
Number of driving levels	1 forward and 1 reverse gear
Driving modes.....	2
Speed in driving mode work	0 - 23 km/h
in driving mode dislocation.....	forward 0-45/50 km/h, backward 0-20 km/h
Switching levels in driving mode dislocation	continuous (hydraulic)
Variable displacement pump nominal volume	56 cm ³ /revolution
maximum pressure.....	400 bar
Variable displacement motor absorption volume.....	max. 80 cm ³ /revolution
maximum pressure.....	400 bar

2.9 Hydraulic operating system

Type.....hydrostatic drive, load-sensing regulated, (hydraulic power regulating)
 Monitoring.....electronic
 Cooling electronically regulated hydraulic fan drive

2.10 Turbine

Volume flow 12'000 m³/h
 Suction tube diameter..... 220 mm

2.11 Suction mouth

Execution..... steel
 Suction width ca. 650 mm

2.12 Dirt hopper

Execution..... stainless steel
 Nominal / useful capacity.....2.5 / 1.7 m³
 Tipping height 1.4 m

2.13 Freshwater tank

Execution..... synthetic material PE
 Capacity..... 460 l

2.14 Performance

Working width in standard configuration (2 brooms)..... 2300 mm
 Working width additional front broom (3 brooms) 2850 mm
 Working performance in standard configuration (2 brooms)21'000 m²/h
 Working performance with additional front broom (3 brooms)27'000 m²/h

2.15 Car body

Cabin steel frame construction
 Tilting cabin with hand pump and hydraulic cylinder
 Doors.....plastic doors reinforced with tubular frames
 Planking..... synthetics
 Accessibility for maintenance workscomplete tilt-up dirt hopper
 Paint finish chassis..... iron grey RAL 7011
 cabin yellow RAL 1021
 Type of paint finish 2-component synthetic enamel
 Priming 2 layer

2.16 Driver's cabin

Entrance and exit..... swinging doors left and right
 Heatingcontinuous
 Outside mirror heating option
 Windows sliding windows operated from front and behind
 Cabin insulation fully insulated
 Cabin noise measurement..... ca. 71 dB(A)
 Driver's seat..... comfort seat, adjustable, mechanically or pneumatically sprung (option)
 Co-driver's seat longitudinal adjustable

2.17 Power supply

Operating voltage	12 V
Generator	14.8 V, 105 A
Starter.....	12 V, 2.3 kW
Battery	12 V, 100 Ah

2.18 Lighting

Basic equipment.....	street lighting
Working lights	option
Additional front headlight	option
Fitted beacon light	option
Reversing light.....	standard

2.19 Additional equipment

Aluminium wheel chock	option
Breakdown warning triangle	standard
Tool kit.....	option

2.20 Weights

Permissible gross vehicle weight	5000 kg
Tare weight, without 3rd brush	ca. 3180 kg
Payload, without 3rd brush	ca. 1820 kg
Permissible axle load front.....	2688 kg
Permissible axle load rear	2688 kg

Suction sweeper S3

Prices without VAT

Code	Description	EURO
0051000320	Suction sweeper S3 EURO V / 3b , including soot particule filter Engine: VM-Detroit Type R 754 EURO V / 3b (2970 cm3) Power: 74 kW (101 HP) at 3000 min-1 Max. couple: 340 Nm at 1400 min-1 Basic vehicle 4x2-Drive with automatic rear differential lock Water management system with manually operated rain flap Lacquering: Lower planking grey RAL 7016 Operation manual as book Spare parts list as CD Fine dust: PM 10 following Eunited-Standard.	101'821
0101004330	ECO-Drive: Electronically controlled hydrostatic drive Electronically controlled driving speed regulation with two drive positions ECO-Drive function: at max. transport speed, engine RPM is automatically reduced (Reduction of fuel consumption, noise level and temperature)	Standard
0101001030	Cabin Safety cabin with steel tube frame, 3 point safety belts Tinted wind screen Steering column adjustable by height and inclination Radio and tachograph preparation Document deposit Cabin lighting with door opening Attachment control right with adjustable armrest Standard lighting Suspended attachment on chassis	inkl.
0101001530	Suspended driver's seat, incl. head support	inkl.
0101001550	Passenger seat as emergency seat	inkl.
0101000010	Speed : 25 km/h	inkl.
0101000100	Steering: Front-, all wheel and crabbing	Standard
0101002350	Tyres 225/70 R15, vehicle width 1.29 m	Standard

0101000230	Standard hydraulic oil (multi range hydraulic oil) First filling	inkl.
Choose color		
0101000471	Planking white RAL 9010	inkl.
0101000481	Planking orange RAL 2011	inkl.
0101000491	Planking yellow RAL 1021	inkl.
0101001710	Linear broom system	Standard
0101001730	Water pump 4 bar 12 l/min, electric drive	inkl.
0101001860	Mechanical inclination adjustment of broom right	Standard
0101001870	Mechanical inclination adjustment of broom left	Standard
0101001751	Front broom Ø 700 mm, light version (standard), Type FKBL-S3 , manually mechanically swivelling left and right electrical inclination adjustment (Pos. 0101001756 mandatory)	inkl.
0101001756	Installation at vehicle for front broom light version (standard)	inkl.
0101000280	Filter with diesel preheating	inkl.
0101001340	Lighting bar in front of cabin roof (mandatory with front attachments)	inkl.
0101001620	Working lights Halogen, at top lighting bar (2 pcs.)	inkl.
0101001640	Beacon light Halogen, retractable (1 pc.)	inkl.
0101001560	Working hour meter	inkl.
0101001665	Air conditioner, integrated in cabin	inkl.
0101001810	Scraper (new version), also for opening of recycling flaps	inkl.

Gross price S3

113'172

Discount 23%

Net price S3

€ 87'142

Conditions:

Prices: FCA Schmitt, Switzerland (following INCOTERMS 2010)

Payment: 100% before delivery
Bank charges, occurring in the country of buyer, to be paid by buyer

Currency: Applied currency is EURO

Delivery time: 14-16 weeks from official order confirmation faster deliveries on request

Discount: A dealer discount of **23%** may be applied

Warranty: 12 months or 1'000 working hours, whatever is first

General: This quotation is related to our general regulations of sales and delivery.
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