

**BUCHER**  
municipal

# Bucher CityCat VS20 Bucher CityCat VS20e

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The agile compact sweepers



# Bucher CityCat VS20

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Bucher Municipal's new lighter more mobile sweeper.

The Bucher CityCat VS20 offers an unmatched combination of articulated steering, maximum suction power and an energy-saving fan for outstanding efficiency. With its low fuel consumption, low noise levels and high comfort, it's obvious why this sweeper should be part of any fleet for inner-city cleaning purposes.



# Bucher CityCat VS20e

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Bucher Municipal's new lighter all-electric sweeper.

The Bucher CityCat VS20e is the second generation of electrically powered sweeping vehicles with a big plus. Here we utilize a custom-designed battery pack with the capacity to last at least up to 7 hours. Powerful but respectful to its surroundings, the Bucher CityCat VS20e can also be used round the clock – such are its impressive low noise emissions. This is proven technology with minimal environmental impact, ready to use in small and confined spaces.



# High performance **and productivity**

The new CityCat series is designed around our customers. With a selection of combustion engines or the specially designed Bucher Battery Pack, the sweeper and its all new Smart-Con operating concept in the spacious cabin are revolutionizing street cleaning.

For the Bucher CityCat VS20e, the 22 kW on-board charger means that batteries can be recharged in just two to two and a half hours at any public car-charging station. With a recuperation function, the high-voltage battery can be charged during deceleration, further extending the range. Thus, the range will be further extended.

The floating suction intake with patented mounting mechanism ensures maximum air velocity for

perfect sweeping results, no matter how uneven the surface. A more efficient, energy-optimized fan is equally no longer troubled by debris because of its placement.

The wide in diameter, straight suction pipe also belongs to the Bucher "DNA" and resulting in minimum risk of blockage and optimum air flow for trouble-free operation.

Tried and tested, the articulated steering provides exceptional agility, manoeuvrability and maximum directional stability, allowing the driver to concentrate fully on sweeping without worrying about manoeuvring. Therefore, these sweepers can efficiently and cost-effectively clean everything from the narrowest of passages to the largest of spaces.

## High payload

Up to 1000 kg at 3500 kg GVW

## HMI

Intuitive Smart-Con operation concept combined with CSense touch display

## BBP

Specially designed Bucher Battery Pack tailored to the Bucher CityCat VS20e

## Engines

Bucher CityCat VS20 offering articulated sweeping with a choice of Stage V or Stage III a engines.

# The Bucher CityCat VS20 & VS20e deliver



## Smart-Con

Multi-functional armrest with smart start function combined with 4.3-inch driver display



## Single wheel suspension

Ensures a unique and comfortable driving experience

## CSense display

10.1-inch touch display with intuitive design for extended functions and information (optional)



## Water volume up to 425 l

275 l fresh water volume 150 l service water volume (optional)

## Floating suction intake

Patented mounting system combined with straight suction hose

## 2 m<sup>3</sup>

Hopper volume of 2 m<sup>3</sup> with a discharge height of 1555 mm

## Bucher gearbox

With torsen differential for the Bucher CityCat VS20e



## Hill Holder

For safe start-up on an incline with the Bucher CityCat VS20e

## Articulated steering

Great manoeuvrability with suction mouth always positioned in the direction of travel

## Hydrostatic drive

The CityCat VS20 can switch seamlessly from work mode to transit mode and make a safe start-up on an incline



## Side brush arms

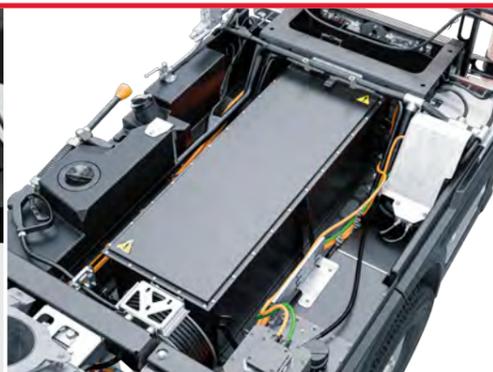
Maintenance-free brush arms with tilt compensation

## Disc brakes

On front and rear axles

## 1999 mm

Under 2 m with retractable and knock-down beacons, allowing access to car parks and other confined spaces



Exceptional driving comfort

High capacity Bucher Battery Pack

22 kW on-board charger

Articulated steering

Pulled brush system with 3<sup>rd</sup> brush

2 m<sup>3</sup>, easy to clean hopper

## Low environmental **impact**

### Low noise

Bucher CityCat VS20e 92 dB(A) /  
Bucher CityCat VS20 98 dB(A)  
Innovative hydraulic unit with silent pumps significantly reduces noise emissions.

### Low water usage

The optional water recirculation system reuses service water which is fed to the suction intake via the service water tank. This reduces refilling costs and extends on-station time.

### Dust emissions

EUnited 4 star certified for PM10 and PM2.5

### Low fuel consumption

Using the latest engine technology for the respective exhaust emission stage ensures minimal harm to the environment with lowest fuel consumption.

### Dust suppression

Water jets, adjustable from the cabin, on each brush provide a fine clean water spray to trap dust particles lifted by the two (optional three) brushes. In addition, service water is fed into the suction intake.

### Electric drive

With our all-electric Bucher CityCat VS20e sweeper, sustainability remains a key focus. Bucher Municipal has specially created a custom-designed Bucher Battery Pack that's tailored to the sweeper. This proven technology subjects minimal footprint to the environment and provides very low noise emissions.

### Bucher Connect

Enables a reduction of fuel or energy cost while increasing productivity.

### Low noise emission

Bucher CityCat VS20  
98 dB(A)  
Bucher CityCat VS20e  
92 dB(A)

### PM10 and PM2.5

EUnited 4 star  
certified

### Bucher Battery Pack

Zero emission



# Safety and comfort

We believe all drivers should enjoy working with our sweepers, so we've introduced better suspension, soft-touch steering and Smart-Con with ergonomically perfected controls. Of course, safety is crucial. From the 3-point safety belts to the enhanced illumination of the sweeping area - ensuring a safe over-view for the driver and high visibility for third parties - it's our duty to take care.



- |   |  |  |
|---|--|--|
| <p><b>1</b> Two full value seats with head-rest and 3-point safety belts on both driver and passenger seats, offering a comfortable and safe experience</p> | <p><b>4</b> 4.3-inch display for overview of all automotive information, as well as setting feedback which pops up</p> | <p><b>7</b> Ergonomically designed workstation for enhanced operating experience in ROPS tested aluminium cabin</p>                                    |
| <p><b>2</b> Excellent all-round view due to the continuous windscreen, all-glass doors and the two rear windows</p>   | <p><b>5</b> Throttle and brake pedal positioned in-line for more foot room and increased movability</p>                | <p><b>8</b> Low-energy LED lights to illuminate the sweeping area, ensuring a safe view and visibility for third parties</p>                           |
| <p><b>3</b> Intuitive, one-handed operation of the sweeper via an adjustable multi-function armrest allowing sweeping to start with the push of button</p>  | <p><b>6</b> Gas spring-loaded steering column, adjustable in rake and reach for a tailored set-up</p>                  | <p><b>9</b> The 10.1-inch touch display for operating settings and functions enables extended setting possibilities and diagnostics of the vehicle</p> |



**Smart-Con armrest**  
Multi-functional armrest with smart start function makes it possible to operate all working functions with one hand.



**Smart-Con driver display**  
All relevant information and pop-up feedback at a glance at any time thanks to the digital 4.3-inch display.



**CSense display**  
10.1-inch touch display with intuitive design for extended functions, central overview of all settings and visual diagnostic system. The displayed vehicle set-up can be individually chosen by the driver (optional).



**Seats**  
The cabin can be equipped with two fully fledged driver seats with headrests and 3-point safety belts to offer not just a comfortable driving experience, but also an ergonomic workstation (optional).



**Cab**  
Comfortably suspended, sound-insulated and ROPS tested aluminium cab. Windscreen made of heat-reflecting, curved, low-reflection safety glass.



**Instrumentation and air condition**  
All switches are within easy reach on the overhead console. The optional air-con offers great comfort for the driver and passenger.

## Low cost of ownership

- Water recirculation system reuses the service water from the hopper and feeds this to the suction intake to minimize fill-ups and maximize on station time (optional).
- Disc brakes on both axles are self-adjusting and reduce service time.
- Maintenance-free brush arms and low to no maintenance articulated steering.
- Maintenance free single wheel suspension on front axle and low maintenance heavy duty leaf springs on rear axle.
- Energy-saving LED Lights offer more powerful lighting while significantly reducing the number of times bulbs require replacement.
- Reduced number of greasing points with autolube option to save on servicing costs.
- Vulnerable nodes and electronic components protected up to IP69 standard and additional covers reduce risk of water ingress further.
- CSense display with full on-board diagnostics for easy fault finding and reduced downtime (optional).
- Steel hydraulic pipes replace flexible hoses to reduce chaffing and premature hose wear.
- Hopper manufactured out of stainless steel for protection against corrosion and wear.



Specially designed Bucher Battery Pack with superior lifetime and no memory effect. Made with high quality automotive prismatic Li-ion NMC cells, managed through an automotive battery management system, the battery is placed in a shock, water and dust-proof case. The Bucher Battery Pack is maintenance-free and has a sophisticated repair concept for maximum safety. Due to the electric drive concept of the sweeper, maintenance and service costs in general are kept very low.

### Bucher Connect

GO / GO+ /  
BASE / PLUS / MAX

### Hydraulic

Optimized design for  
less maintenance

### Service interval

Bucher CityCat VS20  
every 500 h  
Bucher CityCat VS20e  
every 1000 h

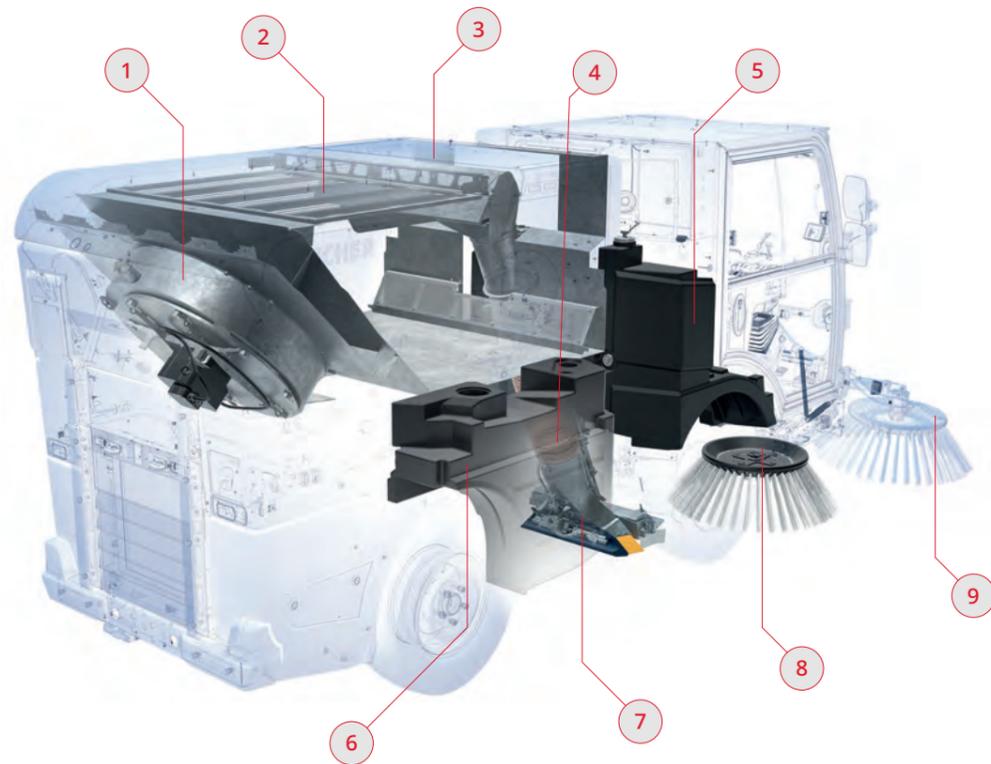
### LED lights

Energy-saving yet  
powerful



# Sweep and suction system

The Bucher CityCat VS20 and CityCat VS20e models are designed so that the high-suction power hose is free to work harder. Optimized suction intake, fan placement and air flow direction in combination with the Bucher "DNA" pulled sweep gear and straight suction hose result in unmatched sweeper performance.



**1** Optimised fan arrangement, with bigger, optimised blade wheels for greater efficiency

**2** Easy to clean mesh in hopper to prevent clogging by leaves and debris

**3** Large 2 m<sup>3</sup> hopper with „easy clean“ option available

**4** Straight suction hose providing optimum air flow with minimum risk of blockage

**5** Large 275 l fresh water volume for maximum operating times

**6** 150 l tank for used water (and optional fresh water extension) separated from hopper for easier cleaning and low point of gravity

**7** Flow-optimised, floating suction mouth with patented mounting mechanism for uneven surfaces - ensures maximum air velocity for perfect sweeping results

**8** Maintenance free sweep gear. 0-120 rpm, infinitely adjustable. Overlapping of suction mouth and brush due to unique brush arm design

**9** Water nozzles for maximum dust suppression

# Significant options



**Seats**  
AGR certified driver seat with air suspension and passenger seat with mechanical or air suspension and headrest. Additional 3-point safety belt available for both seats.



**3<sup>rd</sup> brush**  
This option significantly increases the sweeping width and flexibility. Telescopic or heavy duty universal 3<sup>rd</sup> brush available with different brush options.



**Wanderhose**  
The wanderhose can be used to clean in places where the sweeper cannot reach. It has a length of 4.9 m with a diameter of 120 mm.



**Camera system**  
Increases safety and line of sight at the suction intake or when backing up, and reduces the risk of accidents with obstacles or traffic by displaying the video on the CSense and Smart-Con screens.



**High pressure water system with hand lance**  
120 bar high pressure system for cleaning walls, staircases, posts, handrails and such, as well as the sweeper. The hand lance, water hose and an automatic reel are easily accessible via the flaps on the hopper.

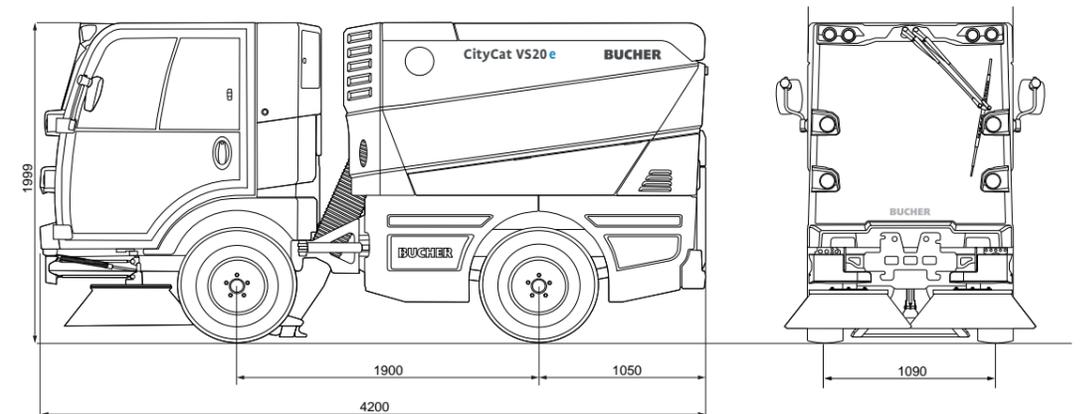
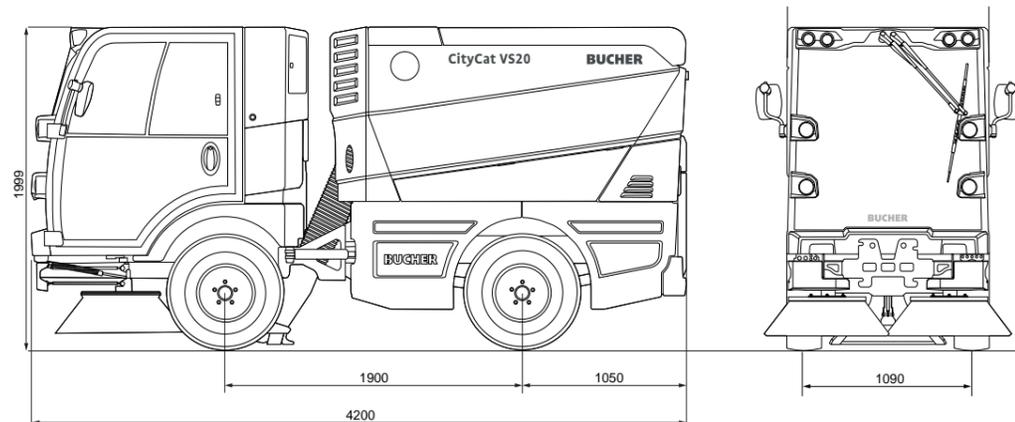


**Brush options**  
The sweeper can be equipped with different kinds of brushes like silent, weed or poly/steel, to suit every need. Brushes can be changed in no time with the quick change system.



## Bucher CityCat VS20 configuration

## Bucher CityCat VS20e configuration



Dimensions	
Length	4200 mm
Width	1300 mm
Height	1999 mm
Wheelbase	1900 mm
Track width	1090 mm
Cleaning width	2100 mm

Weight	
Empty weight	2500 kg
Payload	1000 kg
GVW	3500 kg

Emissions	
Noise level L <sub>WA</sub>	98 dB(A)
PM certification	PM 2.5/PM10 ****

Tyres	
215/75 R16 C M+S	

Drive system	
Working speed	0-15 km/h
Travelling speed	0-40 km/h*
Climbing ability	up to 30 %
Stepless, hydrostatic drive system. Two speed levels with automatic, load-dependent electronic control.	

Engine	
Type	TCD 2.2 L3
Emission standard	Stage V / Stage 3A
Engine Displacement	2200 cm <sup>3</sup>
Output	45 kW
Torque	250 Nm
Fuel tank	80 l
Electrical system	12 V
Battery	95 Ah

\* According to national legislation

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Emissions	
Noise level L <sub>WA</sub>	92 dB(A)
PM certification	PM 2.5/PM10 ****

Tyres	
215/75 R16 C M+S	

Drive system	
Working speed	0-15 km/h
Travelling speed	0-40 km/h*
Climbing ability	up to 30 %
Electric drive	88 kW
Electric fan	8.5 kW
Electric hydraulic aggregate	12 kW

HV Battery	
Battery type	Li-ion
Battery capacity	45 kWh
Nominal voltage	382 Volt
Operating time	up to 7 hours

Charging system	
Internal charger	22 kW
Charger inlet	Type 2
Charging time	2 hours

\* According to national legislation

# Get Connected

Bucher Connect is a holistic after sales solution. A leading fleet management system, with comprehensive care and a digital platform for your repair and service planning – all in one simple package.

Using Bucher Connect makes the daily workload much easier for owners and managers of any fleet size. Our all-inclusive service offers targeted support and services for street cleaning and clearing operations, to minimise downtime and costs through the optimal efficiency of vehicles and equipment.

## One connection **Many benefits**

**Combining a digital platform with the complete after sales service, Bucher Connect has everything you need to operate your fleet at its best. It can be perfectly tailored to your needs through five different packages, as well as additional services and products.**

### Digital platform

Featuring two components, our «Fleet» module displays current machine positions, error messages with repair suggestions and important vehicle parameters, while «Service» takes care of all your repair and service needs.

This is supplemented by the two role-specific modules: «Jobs» and «Analytics». On a road map, route planning and road sweeps are marked in different colours for easy handling, with individual tracks via the address search.

### «Fleet» for a detailed overview

- Current vehicle status and GPS position to give an overview of the fleet and detect potential breakdowns early
- Automatic fault alerts and digital support to enable quick resolution
- Service reminders for efficient workshop planning

### «Jobs» for route planning and monitoring

- Digital cleaning report instead of manual operating logs and «On the route» KPIs for track

### «Analytics» for fleet optimisation

- Optimise uptime for improved fleet productivity
- Optimise energy demand for improved sustainability and lower costs
- Easy reporting of vehicle data

### «Service» for repair and service planning

- Access to the e-shop, workshop manuals and maintenance plans for optimal service
- One touch point for all your repair and service needs

### Maintenance and repair

The maintenance and repair service enables you to focus on core business. Your maintenance partner carries out maintenance in accordance with factory specifications and uses trained service technicians, supporting you in procuring spare parts and providing remote support to reduce downtime.

### Digital spare parts procurement

- Proactive service announcement
- Automatic service parts delivery to end-customers
- Time savings and prompt delivery for efficient workshop operation

### Certified service

- Certified service and repair work for optimal fleet availability
- Comprehensive service and repair contract for predictable financial planning

### Technical training

- Technical vehicle training
- Efficient vehicle use and higher first-time fix rate

### Remote support and diagnostics

- Reduced downtime for optimal fleet use



Bucher CityCat VS20e - Honoured by various **design & innovation awards** for its formally and functionally reflection of the claim to sustainability, advanced technology, functionality and user-friendliness.



reddot winner 2021



reddot winner 2021  
innovative product



GERMAN  
DESIGN  
AWARD  
SPECIAL  
2021



GERMAN  
INNO  
VATION  
AWARD '21  
WINNER

## Bucher Municipal



For local support,  
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At Bucher Municipal, we innovate and engineer better cleaning and clearing solutions, helping our customers grow and maintain efficient and profitable businesses. Leveraging the over 200-year-old heritage of Bucher, we are committed to helping you achieve more using less. Taking pride in being seen as a reliable partner, we work locally with you in realising the possibilities for a smarter, cleaner and more efficient tomorrow. Today.



Your Bucher Municipal contract partner:

**Driven by better**



Bucher  
Municipal  
E-Shop