

# CityCat V20 & V20e

Agile compact sweepers



# CityCat V20

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Bucher Municipal's flagship sweeper in the 2.6 yd<sup>3</sup> (2 m<sup>3</sup>) class.

The CityCat V20 offers an unmatched combination of articulated steering and a state-of-the-art Tier 4 final, Deutz 3 cylinder TCD 2.2 L3, three brushes, maximum suction power, and an energy-saving fan for outstanding efficiency. With its low fuel consumption, reduced exhaust emissions, and low noise levels, it's obvious why this sweeper should be part of any fleet for inner-city cleaning purposes.



# CityCat V20e

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Bucher Municipal's new all-electric sweeper.

The CityCat V20e 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 a full 8-hour shift. Assertive but respectful to its surroundings, the CityCat V20e can also operate round the clock – such are its impressively low noise emissions. The CityCat V20e is a proven technology with minimal environmental impact, ready to use in small and confined spaces.



# High performance **and productivity**

The new CityCat series designed around our customers. With the selection of a Deutz 3 cylinder TCD 2.2 L3 engine 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 CityCat V20e, the 22 kW onboard charger can recharge the batteries in just two to three 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 a 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 airflow for trouble-free operation.

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

## High payload

Up to 4,630 lbs at  
10,583 lbs GVW

## HMI

Intuitive Smart-Con  
operation concept  
combined with  
CSense touch display

## BBP

Specially designed  
Bucher Battery  
Pack tailored to the  
CityCat V20e



Unparalleled suction performance

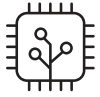


High capacity Bucher Battery Pack



22 kW on-board charger

# The CityCat V20 & V20e 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



### Water volume 112 gallon (425 l)

72 gallon (275 l) freshwater volume with an additional 40 gallon (150 l) service water tank

### Floating suction intake

Patented mounting system combined with straight suction hose

### 2.6 yd<sup>3</sup> (2 m<sup>3</sup>)

Hopper volume of 2.6 yd<sup>3</sup> (2 m<sup>3</sup>) with a discharge height of 61" (1555 mm)

### Bucher gearbox

With torsen differential for the CityCat V20e



### Hill Holder

For safe start-up on an incline with the CityCat V20e

### Articulated steering

Excellent maneuverability with suction mouth always positioned in the direction of travel

### Hydrostatic drive

The CityCat V20 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

### 78" (1999 mm)

Under 6.5' (2 m) with retractable and knock-down beacons, allowing access to car parks and other confined spaces



Articulated steering



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



2.6 YD<sup>3</sup> (2.0 m<sup>3</sup>), easy to clean hopper

# Low environmental **impact**

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## **Low noise**

CityCat V20e 92 dB(A) / CityCat V20 98 dB(A)  
Innovative hydraulic unit with silent pumps significantly reduces noise emissions.

## **Low water usage**

A 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

## **Latest regulation engine**

For the CityCat V20:  
Deutz 3 cylinder TCD 2.2 L3 engine - Tier 4 final

## **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 CityCat V20e 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.  
Coming Soon – BASE / PLUS / MAX

### **PM10 and PM2.5**

EUnited 4 star  
certified

### **Bucher Battery Pack**

Zero emission



# Safety and comfort

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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.



**1** Two full value seats with head-rest and 3-point safety belts on both driver and passenger seats, offering a comfortable and safe experience

**2** Excellent all-round view due to the continuous windscreen, all-glass doors and the two rear windows

**3** Intuitive, one-handed operation of the sweeper via an adjustable multi-function armrest allowing sweeping to start with the push of button

**4** 4.3-inch display for overview of all automotive information, as well as setting feedback which pops up

**5** Throttle and brake pedal positioned in-line for more foot room and increased movability

**6** Gas spring-loaded steering column, adjustable in rake and reach for a tailored set-up

**7** Ergonomically designed workstation for enhanced operating experience in ROPS tested aluminium cabin

**8** Low-energy LED lights to illuminate the sweeping area, ensuring a safe view and visibility for third parties

**9** The 10.1-inch touch display for operating settings and functions enables extended setting possibilities and diagnostics of the vehicle





**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.



**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.



**Cab**

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



**Instrumentation**

All switches are also within easy reach on the overhead console with the air-con controls.

# Low cost of ownership

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- 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.
- 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.
- Steel hydraulic pipes replace flexible hoses to reduce chaffing and premature hose wear.
- Hopper manufactured out of 1.4003 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 BBP-Module 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

– Coming Soon –  
BASE / PLUS / MAX

## Hydraulic

Optimized design for  
less maintenance

## Service interval

CityCat V20  
every 500 h  
CityCat V20e  
every 1000 h

## LED lights

Energy-saving yet  
powerful



# Sweep and suction system

The CityCat V20 series 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** Optimized fan arrangement, with bigger, optimized blade wheels for greater efficiency

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

**3** Large 2.6 YD<sup>3</sup> (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 72 gallon (275 l) fresh water capacity for maximum operating times

**6** 40 gallon (150 l) tank for used water (and optional fresh water extension) separated from hopper for easier cleaning and low point of gravity

**7** Flow-optimized, 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 nozzle for maximum dust suppression

# Significant options



## Seats

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 cleans in places where the sweeper cannot reach. It has a length of 16 feet (4.9 m) with a diameter of 4.7 inches (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

1740 PSI system for cleaning walls, staircases, posts, handrails, and such, as well as the sweeper. The hand lance, water hose, and an automatic reel is easily accessible via the flaps on the hopper.

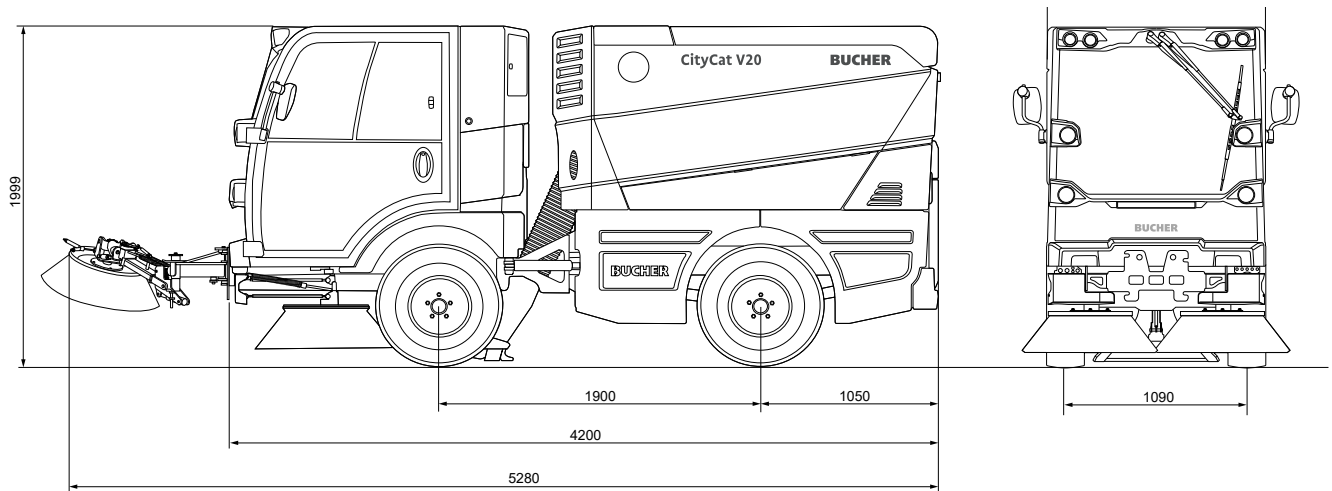


## Brush options

The CityCat V20 series 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.



## CityCat V20 configuration



### Dimensions

Length	165" (4200 mm)
Width	51" (1300 mm)
Height	79" (1999 mm)
Wheelbase	75" (1900 mm)
Track width	43" (1090 mm)
Cleaning width	83" (2100 mm)
Cleaning width 3rd brush	106" (2700 mm)

### Weight

Empty weight	5,953 lbs (2700 kg)
Payload	4,630 lbs (2100 kg)
GVW	10,583 lbs (4800 kg)

### Emissions

Noise level $L_{WA}$	98 dB(A)
PM certification	PM 2.5/PM10 ****

### Tyres

215/75 R16 C M+S

### Drive system

Working speed	0-9 MPH (0-15 km/h)
Traveling speed	0-25 MPH (0-40 km/h*)
Climbing ability	up to 30 %
Stepless, hydrostatic drive system. Two speed levels with automatic, load-dependent electronic control.	

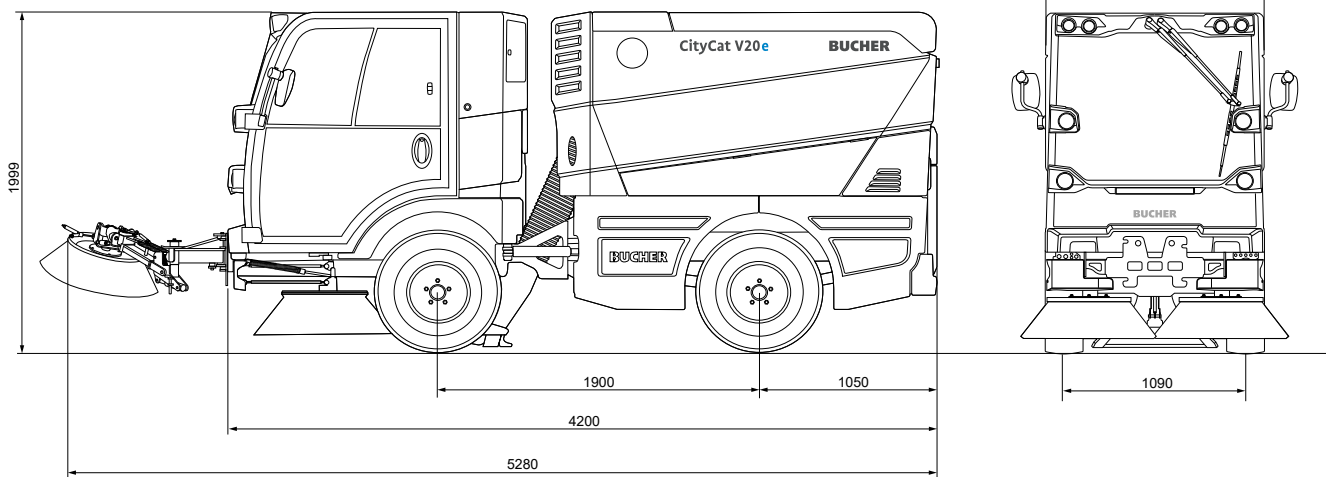
### Engine

Type	Deutz 3 cylinder TCD 2.2 L3
Emission standard	Tier 4 final
Engine Displacement	135 in <sup>3</sup>
Output	75 H.P.
Torque	180 ft/lb @ 1600 RPM
Fuel tank	18 gal
AdBlue tank	14 l
Electrical system	12 V
Battery	95 Ah

\* According to national legislation



## CityCat V20e configuration



### Dimensions

Length	165" (4200 mm)
Width	51" (1300 mm)
Height	79" (1999 mm)
Wheelbase	75" (1900 mm)
Track width	43" (1090 mm)
Cleaning width	83" (2100 mm)
Cleaning width 3rd brush	106" (2700 mm)

### Weight

Empty weight	5,953 lbs (2700 kg)
Payload	4,630 lbs (2100 kg)
GVW	10,583 lbs (4800 kg)

### Emissions

Noise level $L_{WA}$	92 dB(A)
PM certification	PM 2.5/PM10 ****

### Tyres

215/75 R16 C M+S

### Drive system

Working speed	0-9 MPH (0-15 km/h)
Traveling speed	0-25 MPH (0-40 km/h*)
Climbing ability	up to 30 %
Electric drive	45W
Electric fan	8.5 kW
Electric hydraulic aggregate	12kW

### HV Battery

Battery type	Li-ion
Battery capacity	63 kWh
Nominal voltage	335 Volt
Operating time	up to 8 hours

### Charging System

Internal charger	22 kW
Charger inlet	Type 2
Charging time	2 to 3 hours

\* According to national legislation

# Bucher Connect

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The digitalization of fleets of any size using Bucher Connect makes the daily workload of fleet owners and managers much easier. Designed as an all-inclusive service, it offers targeted support and services for minimizing downtime and operating costs. Its aim is the optimal operation of sweepers – and street cleaning at a lower cost.



# Bucher Connect **BASE** – Coming Soon

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**The Bucher Connect BASE package solution includes fleet management, operational data monitoring and spare parts handling. Completely digital, it simplifies the work of fleet owners and managers - and complements Bucher's proven support.**

## Hardware

Connectivity to Bucher Connect platform with IoT gateway, antenna, SIM and cabling.

## Digital platform

The platform consists of the basic module «Fleet» for all roles, which displays current machine positions, all error messages and important vehicle parameters. It is supplemented by the three role-specific modules «Jobs», «Analytics» and «Service». Digital error messages with repair suggestions help to reduce downtimes. On a road map, route planning and road sweeps are marked in different colours for easy handling, and individual tracks can be found via the address search.

## «Fleet» for all roles

- Monitoring of utilization and service status
- Machine status and location in real-time
- Automatic fault alerts

## «Jobs» for dispatchers

- Proof of swept routes
- Route optimization
- Efficient resource planning

## «Analytics» for fleet managers

- Fleet and vehicle productivity at a glance
- KPI dashboard for all important key figures
- Statistical data for shift and route planning

## «Service» for workshop managers

- Service reminders for efficient workshop planning
- Comprehensive remote support in the event of a fault
- E-Shop, digital workshop manual and service plans

## Digital spare parts procurement

- Proactive service announcement
- Automatic service parts delivery to end customers
- Service kits for regular maintenance up to 4500 operating hours included



## Lower energy consumption

3 % reduction in fuel or energy consumption



## Exact sweeping proof

Time saving and simplified accounting through digital logbook



## Optimal route planning

5 % increase in productivity due to proactive route planning



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Sweeping  
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The 5 Things  
You Must Know  
Before Buying a  
Street Sweeper

**Bucher Municipal North America Inc.**

105 Motorsports Road  
 Mooresville, NC 28115  
 Tel. +1 704 658 1333  
 Fax +1 704 658 1377  
 info.us@buchermunicipal.com

[www.buchermunicipal.com](http://www.buchermunicipal.com)

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