

**BUCHER**  
municipal

# CityCat VS20 & VS20e

The agile compact sweepers





# CityCat VS20

Bucher Municipal's new lighter more mobile sweeper.

The 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.

# CityCat VS20e

Bucher Municipal's new lighter all-electric sweeper.

The 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 6 hours. Powerful but respectful to its surroundings, the 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 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  
CityCat VS20e

## Engines

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

# The 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 tank (optional)

## Floating suction intake

Patented mounting system combined with straight suction hose

## 2 m³

Hopper volume of 2 m³ with a discharge height of 1555 mm

## Bucher gearbox

With torsen differential for the CityCat VS20e



## Hill Holder

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

## Articulated steering

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



## Side brush arms

Maintenance-free brush arms with tilt compensation

## Disc brakes

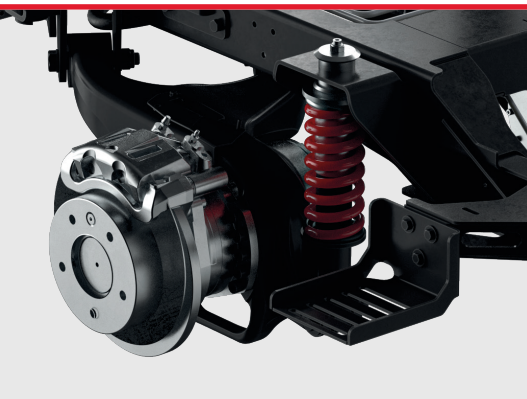
On front and rear axles

## Hydrostatic drive

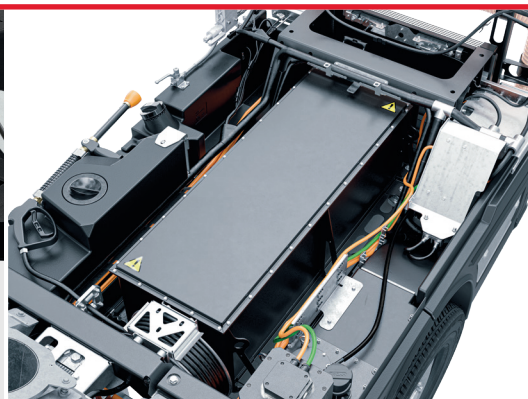
The CityCat VS20 can switch seamlessly from work mode to transit mode and make a safe start-up on an incline

## 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 m³, easy to clean hopper



# Low environmental **impact**

**Low noise**

CityCat VS20e 92 dB(A) / 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 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**

CityCat VS20 98 dB(A)  
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.



- 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 (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.

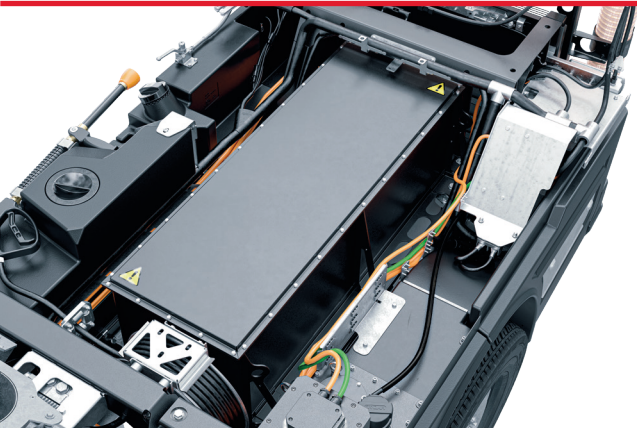


**Instrumentation and air condition**  
All switches are within easy reach on the overhead console. The optional air-con offers great comfort for the driver and passenger.



# 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 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**  
BASE / PLUS / MAX

**Hydraulic**  
Optimized design for less maintenance

**Service interval**  
CityCat VS20 every 500 h  
CityCat VS20e every 1000 h

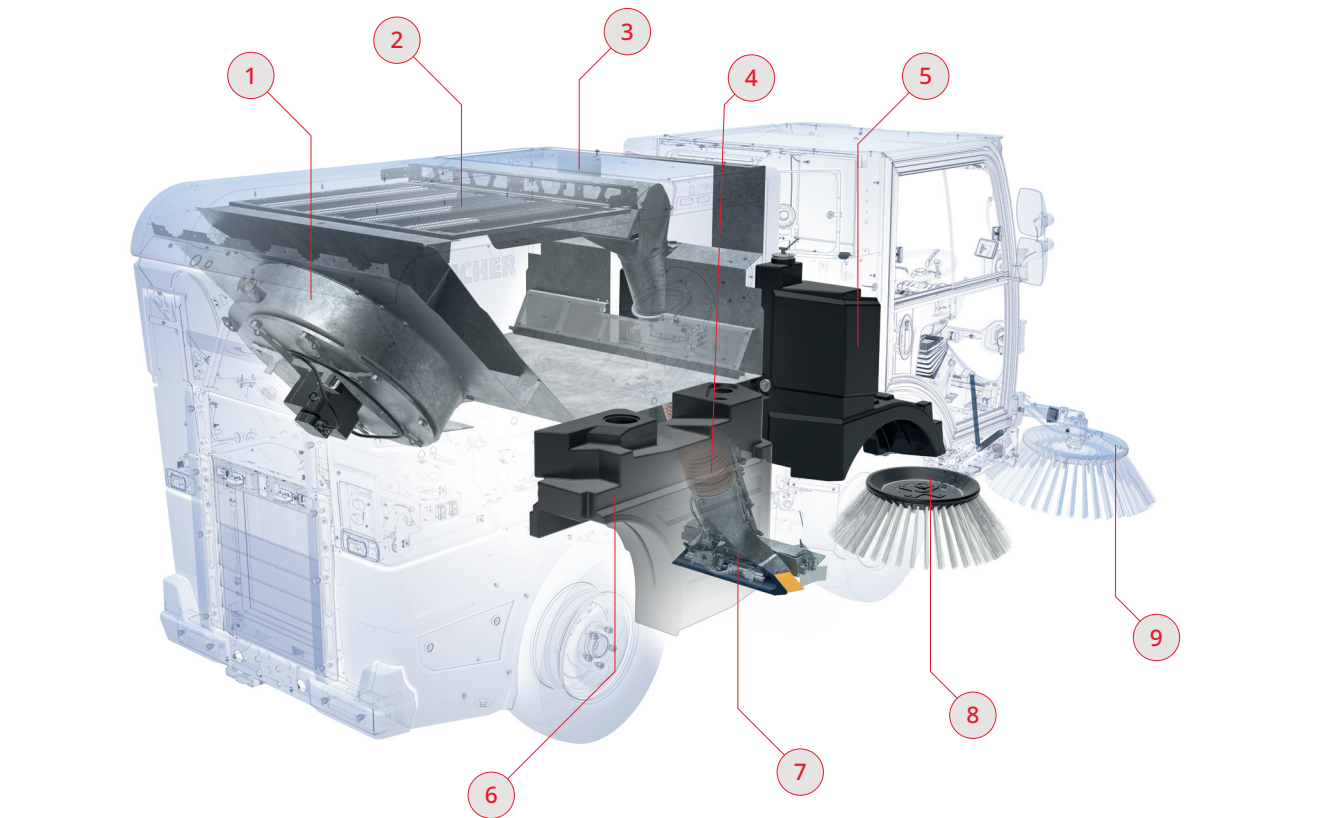
**LED lights**  
Energy-saving yet powerful





# Sweep and suction system

The 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.



- |  |  |  |
|--|--|--|
| <p>1 Optimised fan arrangement, with bigger, optimised blade wheels for greater efficiency</p> | <p>4 Straight suction hose providing optimum air flow with minimum risk of blockage</p>  | <p>7 Flow-optimised, floating suction mouth with patented mounting mechanism for uneven surfaces - ensures maximum air velocity for perfect sweeping results</p> |
| <p>2 Easy to clean mesh in hopper to prevent clogging by leaves and debris</p>                 | <p>5 Large 275 l fresh water capacity for maximum operating times</p>  | <p>8 Maintenance free sweep gear. 0-120 rpm, infinitely adjustable. Overlapping of suction mouth and brush due to unique brush arm design</p>                    |
| <p>3 Large 2 m³ hopper with „easy clean“ option available</p>                                  | <p>6 150 l tank for used water (and optional fresh water extension) separated from hopper for easier cleaning and low point of gravity</p> | <p>9 Water nozzles for maximum dust suppression</p>  |

# 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 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.

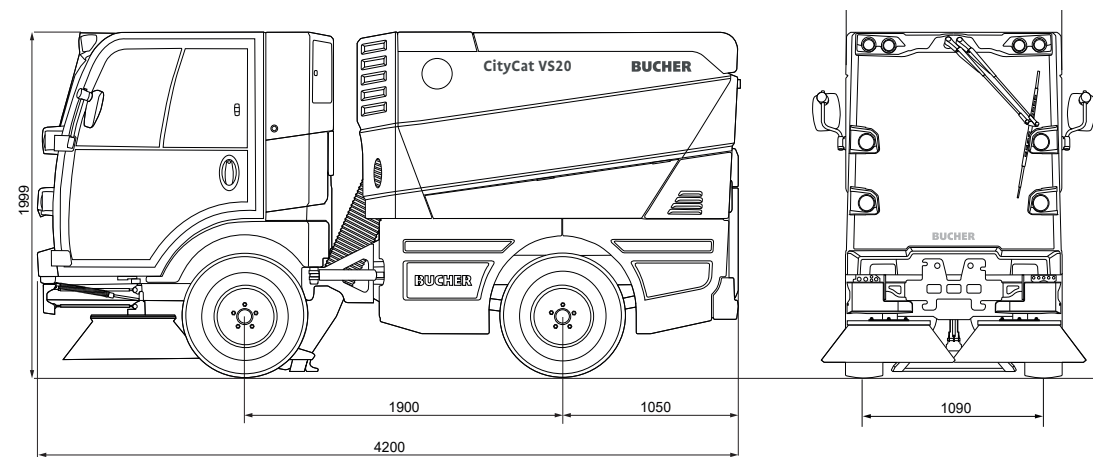


**Brush options**  
The sweeper can be equipped with different kinds of brushes like silent, weed or poly/steel, to suit every need. Brushes can be changed in no time with the quick change system.





## CityCat VS20 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 $L_{WA}$	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.	

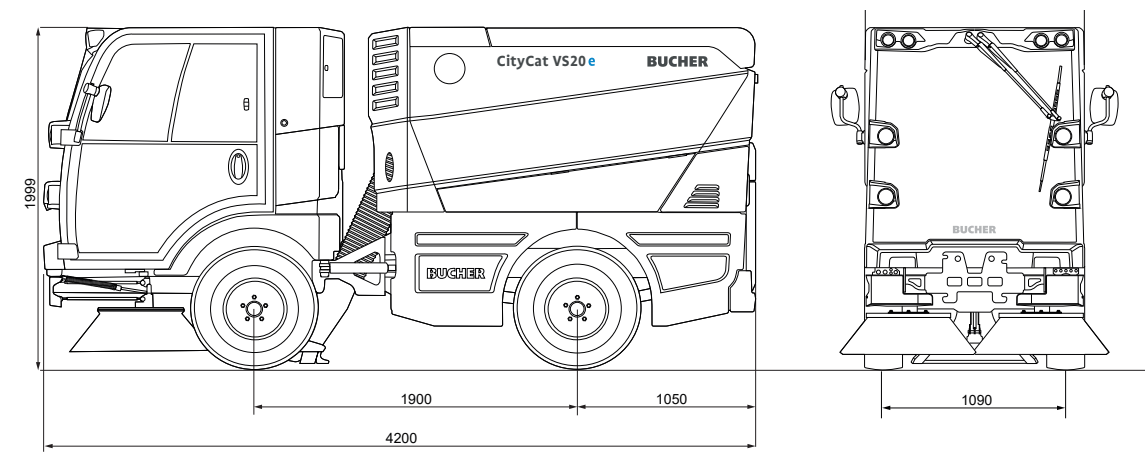
**Engine**

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



## 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 $L_{WA}$	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	45 kW
Electric fan	8.5 kW
Electric hydraulic aggregate	12 kW

**HV Battery**

Battery type	Li-ion
Battery capacity	45 kWh
Nominal voltage	335 Volt
Operating time	up to 6 hours

**Charging system**

Internal charger	22 kW
Charger inlet	Type 2
Charging time	2 to 2.5 hours

\* According to national legislation



# Bucher Connect

The digitalisation 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 minimising downtime and operating costs. Its aim is the optimal operation of sweepers – and street cleaning at a lower cost.

## Bucher Connect **BASE**

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 utilisation 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





Cleaner streets one  
**sweep** at a time

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**Bucher Municipal AG**

Murzenstrasse 80  
CH-8166 Niederweningen  
T. +41 44 857 22 11  
info.ch@buchermunicipal.com

**Bucher Municipal A/S**

Salten Skovvej 4-6  
DK-8653 Them  
T. +45 8684 76 00  
nordics@buchermunicipal.com

**Bucher Municipal GmbH**

Schörlingstrasse 3  
DE-30453 Hannover  
T. +49 511 2149-0  
info-hannover.de@buchermunicipal.com

**Bucher Municipal Ltd.**

Curtis Road, Dorking  
Surrey RH4 1XF  
United Kingdom  
T. +44 1306 884722  
info.uk@buchermunicipal.com

**Bucher Municipal Senlis SAS**

40, avenue Eugène Gazeau  
FR-60300 Senlis  
T. +33 3 44 53 30 57  
commercial@eurovoirie.fr

**Giletta Spa**

Via A. De Gasperi, 1  
IT-12036 Revello (CN)  
T. +39 0175 258800  
giletta@buchermunicipal.com

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

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:



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Municipal  
E-Shop

**Driven by better**