



C401

Mid-sized sweeper



FM 83396



EMS 533329



OHS 543760



ENMS 623042

The mid-sized sweeper with big ideas

A Johnston C401 mid-sized sweeper, available at 10,500kg or 7,500kg GVM, provides the best of both worlds; with the manoeuvrable dimensions of the compact range combined with the heavy-duty suction performance of a truck mounted sweeper – an ideal combination for sweeping urban areas where large hopper capacity and compact agility are equally important.

OPPOSITE PAGE
Four wheel steer

TOP
Clear glass floor panel

MIDDLE
Third passenger seat option

BOTTOM
Optional reverse camera
appears on JVM screen



Operator Environment

Johnston Sweepers is dedicated to achieving the highest productivity from our sweepers. We believe enhanced operator comfort directly relates to productivity and equipment performance, so our sweepers are designed to give the best driver-comfort and ease of operation.

The cab design of the C401 achieves space, wide screen visibility, ease of use and comfort, from a range of standard and optional benefits:

- Air-suspension adjustable seat with lumbar support (and optional heating)
- Telescopic soft-feel steering wheel with rake adjustment
- Power-assisted steering
- Full automotive suspension
- Heated and tinted windscreen
- Cruise-control feature reducing operator effort
- Clear glass floor panels for increased visibility
- Integrated air conditioning option
- In-cab heating
- In-cab radio and MP3 player
- All-round disc braking system (front and rear) and hydraulic-operated disc handbrake system
- Third passenger seat (allowing transportation of additional crew members)

The JVM System displays on a screen, giving information on sweeper functions; from engine speed and temperature, to hours and distance swept, and also a diagnostic fault finding capability. Fault diagnosis is also accessible from the JVM screen, and with optional built-in rear-view camera, the operator is able to see behind the sweeper whilst sweeping or reversing.

An innovative torque management system ensures the most efficient use of engine power, significantly reducing fuel consumption and sweeper emissions.

The palm-rest control panel enables operators to control the sweeping functions of the machine from a single large buttoned keypad, which is easy to operate, even in gloves.

The hopper body is constructed from 1.4003 stainless steel, with a huge mesh-protected fan that supports maximum airflow.

Performance & Productivity

The C401 range is designed and built to the exacting standards required by demanding municipal environments.



Heavy-duty suction power and payloads of up to 5,000kg with 10,500kg GVM (and 2,000kg with 7,500kg GVM with options), are combined with a patented 4-wheel steer system as standard, to provide capacity and agility without compromise. Comfortable in heavy-duty cleansing environments and crowded streets, the C401 easily cleans the inner-city environment.

The front-facing brushes can access hard-to-reach areas and the fingertip control, with unrivalled visibility of the brushes and the nozzle, makes the sweeping manoeuvrability comparable to much smaller sweepers.

With the 4.1m³ hopper, and an optional water recirculation feature, the C401 achieves increased on-station working and reduces 'tip runs', enhancing productivity and reducing running costs.

The unique low-level twin front brush is designed to effortlessly sweep inside corners and hammer heads. Additionally, the reverse sweeping function (shuffle button) and the ability to bring both brushes together, means that all of the debris can be cleaned away easily, without the need for a third front brush.

The two front brushes have the widest reach of all 4 cubic sweepers, allowing the C401 brush arm to stretch out from the optimum 2650mm sweeping width, to reach debris 815mm outside of the compact chassis. With the independently adjustable brush pressure and variable brush speed (which is standard), the C401 can reduce brush wear on a daily sweep, or allow for a deep clean in areas of heavy compacted material.

OPPOSITE TOP LEFT
Supawash option

OPPOSITE TOP RIGHT
Rotatilt option

OPPOSITE BOTTOM LEFT
Control panel

OPPOSITE BOTTOM RIGHT
Third brush option

OPPOSITE PAGE
Wide sweeping width



The C401 is designed to have a tight turning circle and has 4-wheel steer as standard. It can achieve a turning radius of 2950mm, accessing areas that other sweepers cannot.

A demountable third brush-arm extends the swept width of the C401 by 30%, to an optimum 3450mm; whilst the 1000mm diameter brush enables pathways to be swept at the same time as channels. It can also support a weed-ripping brush to clean the kerb line, or path edges of plant growth or heavily soiled areas.

Add lightweight design and an acute steering lock, and you have superb handling and manoeuvrability to negotiate tight spaces.

The C401 delivers on performance; with sweeping speeds up to 16km/h, combined with transit speeds up to 50km/h and a wide 2650mm swept width. The C401 can achieve the same linear distance and the work of two smaller sweepers for lower operational costs. It has the appetite of a large truck-mounted sweeper, the functionality of a multi-purpose vehicle and the manoeuvrability of a compact sweeper; all delivered in a single package.



Low Environmental Impact

Dust Retention

- Fine-spray jets of water from the clean water tank suppress dust on the floor, before the brushes direct the dirt and debris into the suction box.
- Three water jets, controlled from the cab and the recirculated water from the hopper are injected into the airflow which ensures all the dirt and debris are soaked before entering the hopper.
- Once the soaked debris reaches the hopper void, the water containing the dirt and debris falls to the hopper floor trapping all the dust particles in the sweeper body.
- Where water recirculation is fitted, the water collected in the hopper is then filtered back through wedge wire screens into the nozzle to reduce water usage and improve on station time.

The C401 dust containment system meets the highest EUnited PM₁₀ standards for dust control.

Low Noise

Low noise levels (70-74dB(A)) at maximum revs in-cab provides a comfortable all day working environment. Quiet pack available.



Cost of Ownership

The initial capital cost of a sweeper is only part of the calculation for cost of ownership, as there are numerous additional benefits of using a Johnston C401 sweeper.

Built at our Dorking factory, the C401 offers lower maintenance costs when compared to a chassis mounted vehicle. With 500 hour service intervals on the whole vehicle, service costs and downtime are kept to a minimum.

Designed to cope with tough environments, the C401 hopper is manufactured from 1.4003 stainless steel for protection against corrosion and wear.

The C401 is designed and built for urban and city sweeping, and the engine and drive train is also matched to this purpose, resulting in greater fuel efficiency.

- The water recirculation option and standard large 825 litre water tank allowing prolonged productive work time
- Heavy-duty Multivane fan with wear resistant blades
- Winter services equipment available offering a year-round multi-tasking machine - clearing snow in the winter and sweeping for the rest of the year
- UK-wide customer service network to provide support throughout the lifetime of the sweeper



TOP
Work lights

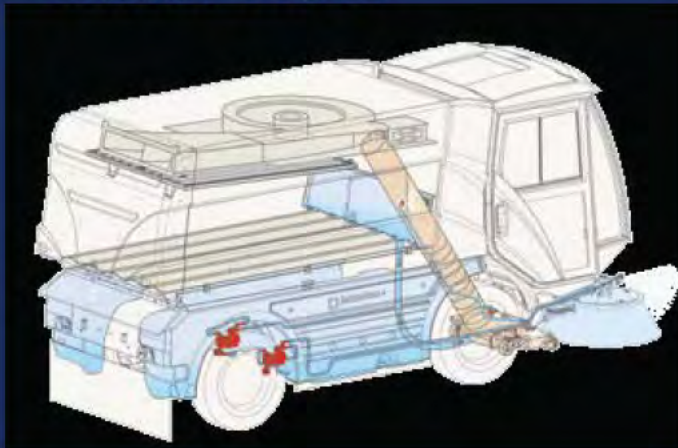
BOTTOM
Clean sweep



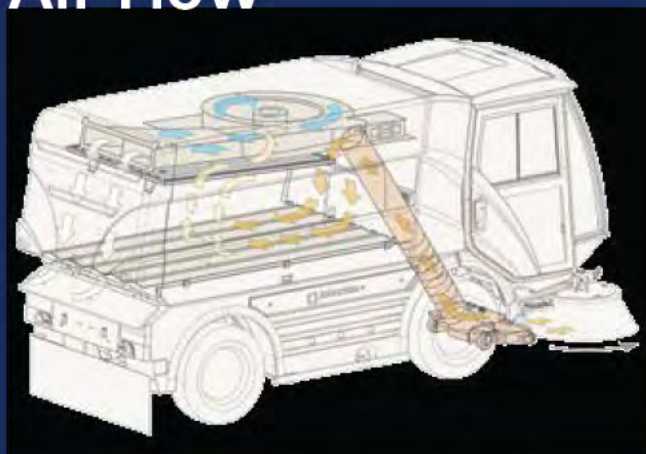
Optional benefits:

- High pressure hand lance and 13m self-recoiling hose for ease-of-use (allowing street furniture to be cleaned along the sweeping route)
- Third brush for simultaneous pavement and kerbside cleaning
- The high dump hopper option is mounted on a heavy-duty lifting platform that allows a discharge height of 1550mm for tipping into skips or refuse vehicles.
- Rotatilt is available on all of the brushes to allow the operator to sweep cambered kerbs or allow access to crevices
- Wanderhose is roof mounted with a 4.5m, 360° working radius or Littasnatch (side mounted flexible duct for litter collection)
- Rear-mounted camera system

Water Flow



Air Flow



TOP LEFT
Littasnatch

MIDDLE LEFT
Water flow

BOTTOM LEFT
Air flow

MIDDLE RIGHT
Front brush facing



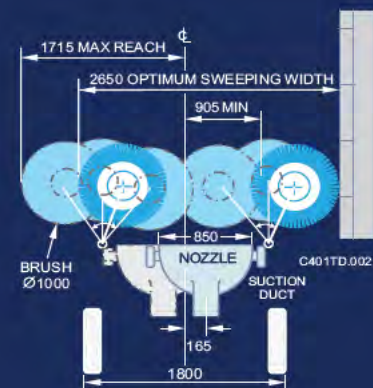
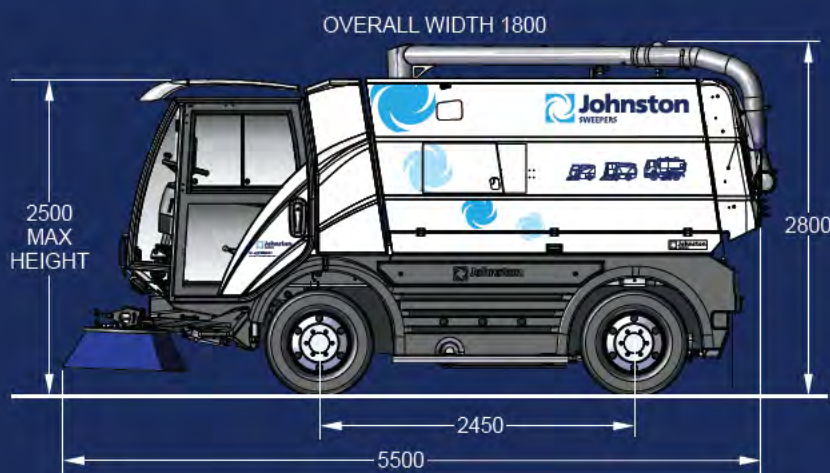
TOP LEFT
High dump option

TOP RIGHT
Daily check

Low Carbon Footprint

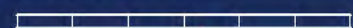
The C401 is purpose-designed and built as a compact road sweeper, and along with the latest FPT Euro 6 engine, it effectively regulates the power required and automatically adjusts the engine revs to match the demand; reducing fuel costs and lowering emissions.

Sweeping Configurations



Outline Specification C401	
Engine: FPT (Iveco) NEF 46 ENT VI Common rail direct injection turbocharged diesel	
Length: 5500 mm (inc brushes)	Max Speed: 50km/h
Width: 1800 mm	Brush Diameter: 1000mm
Height: 2800 mm	Brush speed: Variable up to 125 rev./min.
Unladen weight: 5500 kg	Gradeability: 22% @ GVM 10,500 kg
Payload: 5000 kg (std machine)	Clean water tank capacity: 825 litres
Payload: 4800 kg (high dump machine)	Sweep rate/output: 42,400m ² /hr (theoretical max)
GVM: 10,500 kg (std/high dump machine)	Hopper voided volume: 4.1 m ³

Turning Radius



Kerb to Kerb
2.95m

Optional Four Wheel Steering



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