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hp4000



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HP4000: the high-performance street sweeper, powerful and innovative

The HP4000 is the evolution of Comac street sweeper, combining the performance of two machines into one to ensure excellent results in every situation.



THE FUTURE OF URBAN AND INDUSTRIAL CLEANING

HP4000 is the powerful street sweeping machine with a green soul, designed to take cleaning to the next level, reducing waste and emissions. The rotating shaft with hammers with which the HP4000 is equipped allows large waste to be shredded into small pieces. The sweeping machine can therefore collect much more material than its competitors, filling the hopper completely.

Thanks to the TwinAction system, the HP4000 manages to combine the strength of the mechanical action, aimed at collecting larger residue, with the effectiveness of the vacuum action for finer dust. This means that excellent results can be achieved with just one machine and in just one pass.
The power of the TwinAction system effectively vacuums and traps fine dust, minimising water usage and ensuring exceptional performance even in the most demanding conditions.

Great performance packed into a machine

TWO ACTIONS COMBINED TO ACHIEVE 100% PRODUCTIVITY AND THE HIGHEST QUALITY

MECHANICAL ACTION

Perfect for collecting large waste

VACUUM ACTION

To capture dust



FLUIDITY AND POWER

The design of the HP4000 ensures that no element touches the ground, so it is possible to sweep effectively over uneven ground and over bumps and pavements. The central brush, thanks to its design and automatic pressure adjustment, can easily follow the contours of any surface.

The HP4000 is suitable for cleaning the urban areas, for the maintenance of warehouses and machine parks, but also for picking up large and small leaves and branches.

Reduced water consumption also makes the HP4000 particularly suitable for cleaning industrial structures and cement plants, both places characterised by the presence of large quantities of dust.

Optimising resources

Reducing waste is a key issue for all Comac machines, and the HP4000 has in fact been designed with a special vacuum system which significantly reduces water consumption during cleaning.

REDUCED WATER CONSUMPTION

The HP4000 is designed to work without water, which is in fact only used in auxiliary functions to abate dust on the side brushes, when dumping waste and in the pressure washer.



The great advantage is that by dry scrubbing, the waste loaded by the HP4000 stays dry. There is therefore a great economic benefit in the dumping phase, as a dry debris load such as the HP4000 will weigh much less than a wet debris load.

A sustainable choice

The unmistakable design combined with the latest Comac technologies make the HP4000 the street sweeping machine capable of combining high performance and waste reduction. This high-performance, robust model is therefore able to conserve resources by revolutionising the usual view of cleaning.

EUnited Municipal Equipment

PM 10

FOR A CLEAN ENVIRONMENT

acc to EN 15429-3

★★★★

CERTIFIED

REDUCTION OF PARTICULATE MATTER

The large 50 sq.m class L hydro and oleophobic air filter, combined with the power of the TwinAction system, ensures clean ambient air, free of PM10 and PM2.5 particles.

CONSUMPTION OPTIMIZATION

The powerful FCA engine reduces fuel consumption and ensures consistent application over time, certified according to EURO6 PHASE E emissions legislation.

ECO MODE

ECO MODE

Comac technology designed to safeguard resources and reduce waste.

Activated during both the transfer phase and the work phase, it decreases energy consumption and lowers the noise level of the machine.

TwinAction System, the Comac technology that makes the difference

Comac has designed the TwinAction System, a unique technology capable of merging the performance of two machines into one. The strength of the mechanical action allows bulky waste, branches and leaves to be collected, while the efficiency of the vacuum action allows even fine dust to be captured.
The HP4000 is equipped with a waste chopper to easily collect even large residue, which will then be shredded, without the risk of clogging the vacuum channel. The filters with which the HP4000 is equipped allow it to trap PM10 and PM2.5 particulate matter thereby releasing clean air back into the environment.



How does the TwinAction System work?

TwinAction is an exclusive technology, designed by Comac to allow the side brushes to move the material to be collected to the centre towards the central brush. This then in turn, thanks to the force of the mechanical action, collects the dirt from the ground and directs it towards a rotating shaft equipped with hammers capable of shredding and grinding the debris.
The power of the vacuum action at this point allows the shredded waste to pass through the vacuum channel to the collection hopper, which, thanks to a special system, will first fill the rear and then the front. The possibility of installing automatic scrapers to clean the vacuum channel also promotes proper passage of debris in all situations. The dirty air then passes through the filter unit for further purification and is finally returned to the outside clean.



The details that make the HP4000 unique

HIGH CLEANING PERFORMANCE:

- The hydraulically driven and adjusted central brush ensures perfect cleaning on every surface.
- Water atomising nozzles positioned on the side brushes ensure complete control of dust during the sweeping action.
- Effective cleaning even in reverse.
- Automatic brush pressure adjustment for great performance on all types of ground.

EXTREMELY COMFORTABLE, SAFE AND MANOEUVRABLE:

- Intelligent 4-wheel steering system with symmetrical front and rear angles for high machine manoeuvrability.
- Rear wheel steering lock allows greater comfort even on long stretches of road without bends.
- 4 independent suspensions for excellent road holding even at gross weight and high comfort when driving over bumps and pavements.
- LED headlights to ensure full visibility of the machine during cleaning operations.

INCREASED COLLECTION CAPACITY THANKS TO THE LARGE HOPPER:

- Large 4.1cu.m. flat-bottomed collection hopper which ensures many hours of non-stop work, also available in a stainless steel version.
- Hopper filling sensor to know when the hopper is full.
- Vacuum channel with reverse cone design for easy passage of debris.



QUICK AND EASY WASTE DUMPING OPERATIONS:

- Convenient hydraulic control for opening and closing the tailgate during dumping.
- High dumping system of the waste container to facilitate emptying into the hoppers.
- Low dumping system of the waste container to facilitate emptying operations on the ground.
- Dust elimination for low dumping with pressure washer, to avoid dust dispersion when emptying the hopper on the ground.
- Dust elimination for high dumping with pressure washer, to optimise hopper dumping and reduce dust.
- Pressure washer to easily clean the machine and surrounding areas.

DURABILITY AND LOW MAINTENANCE OVER THE YEARS:

- By-pass system to divert the air flow and thereby exclude the filter when working in wet conditions, such as in the rain.
- Coaxial turbine for optimum performance and significantly reduced maintenance.
- Electrically operated double filter shaker to make maintenance easy.



Sweeping system designed for maximum efficiency

The brush system designed by Comac for the HP4000 is conceived to achieve excellent cleaning results in all conditions.



- Adjustable left and right side brushes.
- Kit side brush tracking to constantly follow the machine's progress and ensure excellent cleaning results even on bends.
- Kit brush pressure adjustment on the ground to best suit any surface.
- It is possible to adjust the inclination of the brushes in order to work best over bumps and uneven pavements.
- The side brushes have a diameter of 900 mm and are ideal for sweeping various types of surfaces.
- High brush power allows even heavy and bulky materials to be conveyed to the centre.

A unique swinging brush

The HP4000 is equipped with a moving third swinging brush that also reaches edges and pavements for perfect surface cleaning in a single pass.

- The moving third swinging brush reaches even the most distant debris and then directs it towards the central brushes.
- Wide swing opening with rotation up to 180°.
- High manoeuvrability of the swinging brush, which thanks to a special mechanism is able to move from right to left to pick up residue deposited on both sides of the road.
- Ability to adjust height, inclination and incidence of the swinging brush for cleaning walls and pavements.
- Position of the swinging brush when not in use, to facilitate moving the machine.



Rediscover the pleasure of driving with HP4000

HIGH VISIBILITY

The fully glazed cab, including the doors, provides the operator with full visibility of the outside. Front brushes clearly visible and controllable from the driver's seat.

MAXIMUM COMFORT FOR THE OPERATOR

The driver's seat is pneumatic, comfortable and insulated by anti-vibration mounts to ensure a comfortable and smooth ride, even after many hours of work.

CAMERAS

Rear view camera for visibility of the surrounding space and camera on the inlet to monitor the incoming flow.

FULLY CUSTOMISABLE CABIN

Possibility of equipping the cab with a premium driver's seat, air conditioning and Bluetooth radio to make the driving experience unique.

3 SPEED STEPS

The display allows the vacuum speed to be adjusted in 3 different modes to best suit specific cleaning needs.

Designed around you



SIMPLE CONTROLS

Simple and user-friendly operating controls are grouped in the centre console and at the front of the armrest, all easily accessible from the working position.

INCREDIBLY SMART

The centre console is equipped with a 10-inch touch screen display to control work functions and a 4.5-inch display to show driving aid information. The HP4000 is able to detect issues in the sweeping system in real time, allowing the operator to intervene promptly.

ACTIVATED WITH A SIMPLE CLICK

With just one button, all machine functions can be switched on and off.

SAFE AND INTERACTIVE

The simple and functional design allows the driver easy access to all controls without ever taking his eyes off the road, thereby ensuring a safe and pleasant drive.

EMERGENCY BUTTON

Safety button to immediately stop the machine and all active functions in an emergency.

MANOEUVRABLE STEERING WHEEL

The comfortable steering wheel equipped with a knob allows the machine to be easily steered and at the same time contributes to significantly reduced operator effort.

Efficiency meets functionality

State-of-the-art components and technologies make the HP4000 safe and efficient in every use:

- Hand-held debris vacuum hose with support arm to enable the operator to pick up material deposited in inaccessible areas.
- Hydraulic drive with variable displacement hydrostatic pump and individual motors on both rear wheels.
- Rear-view mirrors and camera, for safe operation even in crowded places or where space is limited.

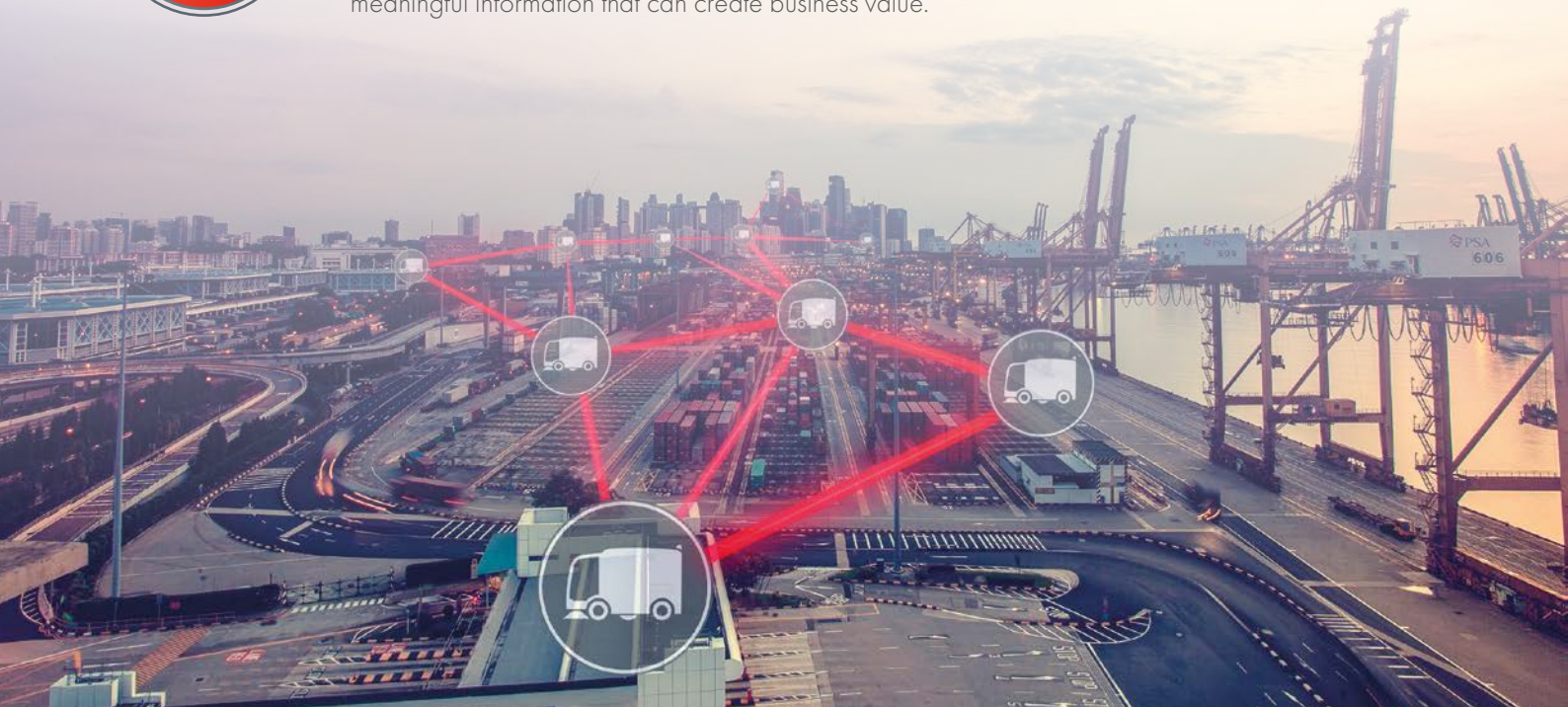






EASY FLEET

The technology for Comac street sweeping machines that allows the digitization of cleaning operations. The Easy Fleet system allows optimal management of the work of Comac street sweeping machines. Thanks to digitisation, it is possible to communicate with machines, collect data and transform them into meaningful information that can create business value.

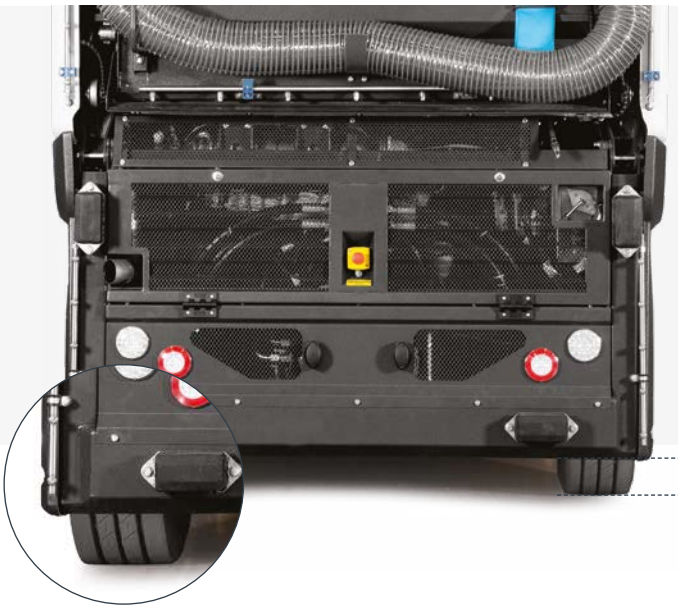


Tailor-made for your needs

Thanks to the hydraulic suspension with three levels of adjustment and self-levelling, the HP4000 is able to adapt perfectly to every surface.
The operator can position the machine on 3 levels for proper setting of cleaning operations:

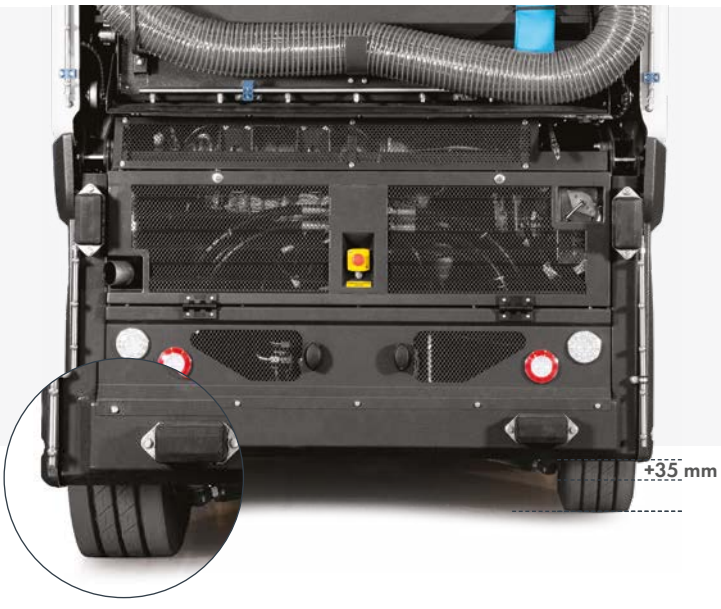
WORKING POSITION

This is the lowest level, the containment rubber blades are placed close to the ground to prevent lateral spillage of dust.



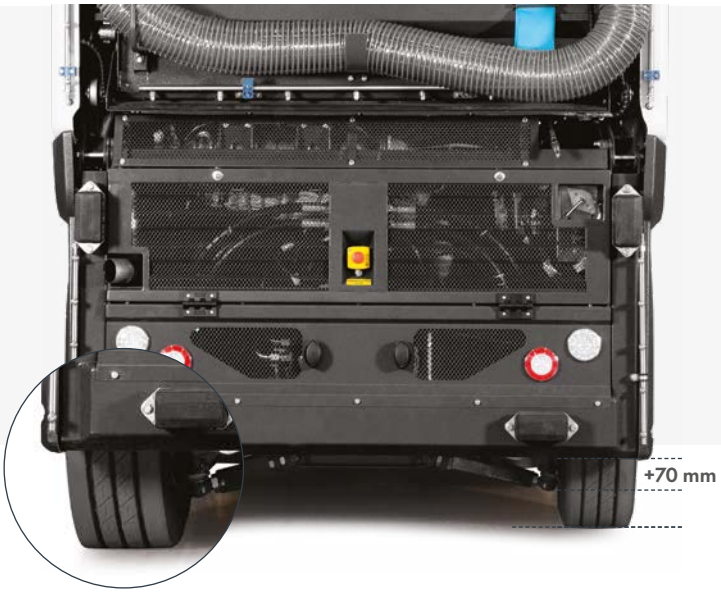
TRANSFER POSITION

The machine in this position travels at a raised level of about 35 mm, allowing the sweeping machines to travel at a higher speed than in the working position.



MAINTENANCE POSITION

Position raised an additional 70 mm above the transfer position to facilitate replacement of the central brush and perform all maintenance operations.



To achieve maximum efficiency configure your machine or choose one of three configurations

The HP4000 adapts easily to any situation, thanks to the 3 possible configurations: municipal, cement and heavy industry, designed for different situations. If the solution you require is not present, it is possible to fully configure the HP4000, creating a machine capable of meeting any requirement.

MUNICIPAL CONFIGURATION

Recommended for municipal companies and city centres, it is the most comprehensive option, ideal for all cleaning tasks requiring high precision and quality.



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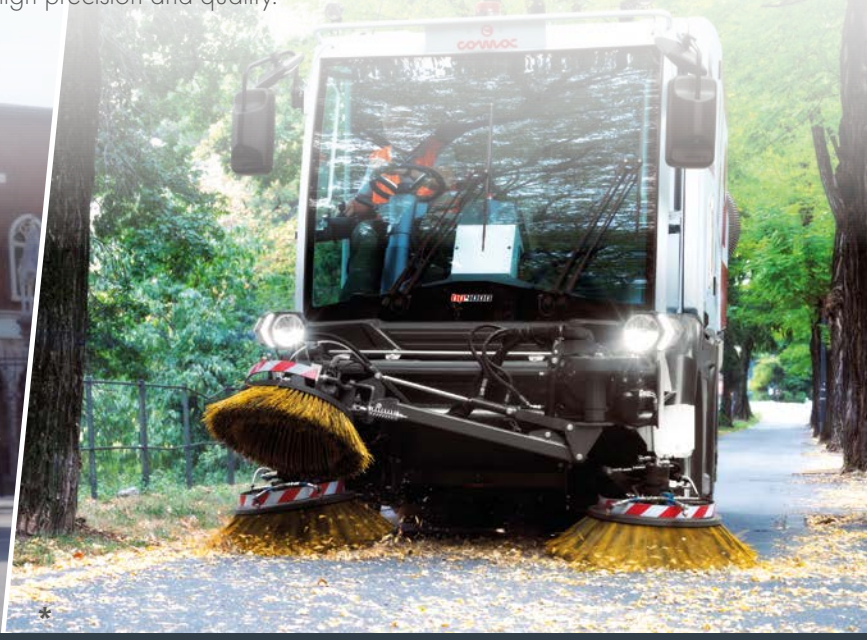

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WHY CHOOSE HP4000 WITH MUNICIPAL CONFIGURATION FOR URBAN AREA CLEANING?

- The mechanical system with shaft and hammers allows shredding of any debris such as leaves, branches, fruit boxes, cans and bottles.
- The combination of mechanical action and vacuum action allows even fine dust to be effectively collected and clean air to be reintroduced without using water.
- The ECO MODE function and the possibility of adjusting the power of the sweeping head/vacuum unit noise level to be reduced so as not to disturb people.

The version includes:

- Kit for automatic internal cleaning of the vacuum channel, to facilitate the flow of residue and maintain performance in all conditions
- Shredding speed and vacuum control to best adapt to different dirt conditions
- Side brush tilting kit for cleaning edges and pavements as well
- Brush pressure adjustment kit to best suit different types of terrain
- Front brush tracking for excellent cleaning results even on bends
- Speed control of the side brushes for conveying different-sized residue to the central brush
- LED headlights to signal the presence of the machine at all times during work and ensure adequate illumination of the surrounding space
- Debris hopper fill sensor to constantly monitor the amount of waste collected
- High waste container outlet and extension for easy dumping
- Extension for waste container dumping to make emptying the container easier
- Hand-held debris vacuum hose for picking up debris deposited at the roadside or in areas which are hard to reach
- Mist spray on the front side brushes to minimise dust dispersion during cleaning
- Dust elimination for high dumping with high-pressure cleaner and enlarged tank for easier cleaning of vertical surfaces
- MGP (Manual Greasing Point) manual centralised lubrication for proper lubrication of all points
- Shredding camera to constantly monitor the flow of incoming debris
- Air conditioning and radio for pleasant driving
- Premium driver's seat for a comfortable driving experience even on long journeys
- Motorised heated rear-view mirrors for proper visibility of the machine and the road
- Central and side brush boosters to implement ground pressure

* Pictures are indicative

For perfect dust control

CEMENT CONFIGURATION

Recommended for cement plants and the ceramic sector, it is the option designed by Comac for all places where water cannot be used.



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WHY CHOOSE HP4000 WITH THE CEMENT CONFIGURATION FOR CLEANING CEMENT PLANTS AND THE CERAMIC SECTOR?

- Comac's innovative vacuum system allows the HP4000 to operate even in the presence of fine dust.
- Thanks to an air filter, fine dust particles are blocked and the air returned to the environment is free of PM10 and PM2.5 particles.
- Because it was designed to work without water. In fact, when necessary, it is only sprayed on the side brushes or during the dumping phase in order to be operated in cement plants.

The version includes:

- Side brush tilting kit for cleaning edges and pavements as well
- Brush pressure adjustment kit to best suit different types of terrain
- Controlling the speed of the side brushes to direct different-sized residue towards the central brush
- LED headlights to signal the presence of the machine at all times while in operation and ensure adequate illumination of the surrounding space
- Debris hopper fill sensor to constantly monitor the amount of waste collected
- Extension for waste container dumping to make emptying the container easier
- Hand-held debris vacuum hose for picking up debris deposited at the roadside or in areas which are hard to reach
- Automatic battery cut-off kit to automatically switch off all functions after prolonged downtime
- MGP (Manual Greasing Point) manual centralised lubrication for proper lubrication of all points
- Air conditioning and radio for a pleasant drive
- Motorised heated rear view mirrors for proper visibility of the machine and the road
- Central and side brush boosters to implement ground pressure

* Pictures are indicative

For high performance even with heavy duty cleaning

HEAVY INDUSTRY CONFIGURATION

Recommended for heavy industry structures and metallurgy, it is the intermediate option, with a less rich configuration but one that fully meets the needs of large industrial structures.



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WHY CHOOSE HP4000 WITH THE HEAVY INDUSTRY CONFIGURATION FOR CLEANING IN THE HEAVY INDUSTRY AND METALLURGY SECTOR?

- It is the essential set-up for those seeking optimal cleaning results in the presence of all types of dirt, even heavy dirt.
- Complete brush control allows the HP4000 to be extremely versatile in adapting to any type of terrain.
- Also designed for the less experienced operator: touch screen display, instrument panel and vacuum duct cleaning kit make it incredibly easy to operate.

The version includes:

- Kit for automatic internal cleaning of the vacuum channel, to facilitate the flow of residue and maintain performance in all conditions
- Side brush tilting kit for cleaning edges and pavements as well
- Brush pressure adjustment kit to best suit different types of terrain
- Controlling the speed of the side brushes to direct different-sized residue towards the central brush
- LED headlights to signal the presence of the machine at all times during work and ensure adequate illumination of the surrounding space
- Debris hopper fill sensor to constantly monitor the amount of waste collected
- Extension for waste container dumping to make emptying the container easier
- Mist spray on the front side brushes to minimise dust dispersion during cleaning
- Dust elimination for high dumping with high-pressure cleaner and enlarged tank for easier cleaning of vertical surfaces
- MGP (Manual Greasing Point) manual centralised lubrication for proper lubrication of all points
- Shredding camera to monitor the flow of incoming debris and intervene if necessary
- Air conditioning and radio for a pleasant drive
- Motorised heated rear view mirrors for proper visibility of the machine and the road
- Heated rear view camera for easy manoeuvring

* Pictures are indicative

STANDARD EQUIPMENT

- Twin Action collection system
- Hydraulic suspension with three levels of adjustment and self-levelling trim
- Intelligent 4-wheel steering system
- FCA EURO6 PHASE E diesel engine
- Vacuum channel with Reverse Cone Design
- Central brush PPL 580x 1400
- Right and left side brushes PPL + STEEL Ø 900 mm
- Hopper group with low dumping
- Hydro and oil-repellent air filter in class L
- Extension for debris hopper dumping
- Vacuum cleaner unit
- Centre console with 10" touch screen display
- RH cab assembly
- Standard headlights
- STD seats
- Rear-view mirror assembly
- Manual battery cut-off switch
- Emergency push button
- Rear view camera
- ECO Mode

OPTIONALS

- Side brush tilting kit
- Brush pressure adjustment kit
- Front brush tracking with 4 steering wheels
- Front brush tracking with 2-4 steering wheels with rear axle lock
- Side brush speed control
- Moving front brush 180° right/left without incidence
- Moving front brush 180° right/left translating brush with incidence
- Moving brush speed control
- Central and side brush booster
- Misting on front side brushes (includes standard tank)
- Dust elimination (low) with pressure washer and tank (includes standard tank)
- Dust elimination (high) with pressure washer and tank (includes standard tank)
- Pressure washer with tank (includes standard tank)
- Oversized water tank unit
- Water inlet connection UNI45
- Automatic internal vacuum duct cleaning kit
- Shredding and vacuum speed control
- INOX debris hopper
- Debris hopper filling sensor
- High debris hopper dumping
- Hose with manual rear debris vacuum arm, Ø 150 mm, L= 5000 mm
- LED headlights
- Supplement for LH cab
- Air conditioning
- Premium driver's seat
- Heated rear-view mirrors
- Motorised heated rear-view mirrors
- Heated rear view camera
- Shredding camera
- Radio
- Cruise control
- Easy Fleet
- RFID key
- Remote control for hopper control
- Annual subscription to Comac Easy Fleet
- Rear axle lock kit (two steering wheels)
- Automatic battery cut-off switch
- MPG (Manual Greasing Point) manual centralised lubrication
- AGP (Automatic Greasing Point) automatic centralised lubrication
- Hydraulic system pressure reading kit
- Adaptive buzzer
- Rear emergency button
- Kit for shipping in containers

TECHNICAL DESCRIPTION		HP4000
Working width		
Central brush working width	mm	1400
Working width with two side brushes	mm	2400
Working width with side brushes + third brush	mm	3100
Central cylindrical brush diameter	mm	580
Side disc brush diameter	mm	900
Swinging disc brush diameter	mm	750
Debris hopper		
Volume	l	4100
Maximum hopper lifting height	mm	1820
Vacuum		
Air flow	cu.m./h	14000
Filtering surface	sq m	35
Suction motor rated power	KW	25/30
Performance		
Maximum speed	km/h	40
Max gradient with empty hopper	%	29
Working speed	km/h	0-20
Motorization		
Motor	-	FCA R754 EU VI phase E
Power supply	-	Diesel
Motor power	HP/KW	126 / 100
Motor	rpm	2600
Dimensions and weights		
Machine length with side brushes + third brush	mm	5450
Machine length with side brushes	mm	5050
Machine width	mm	1900
Machine height when in operation	mm	2750
Machine height on transfer	mm	2800
Mass in running order - GVW	kg	5800
GVW	kg	9000
General specifications of the vehicle		
Turning circle	mm	4500
Service brake	-	Hydraulic
Parking and emergency brake	-	Hydraulic - negative
Rear wheel traction	-	Hydraulics - automotive
Wheels	-	245/70 R17.5
Suspensions	-	MC Person type - hydraulics
Machine height control	-	On 4 wheels
Diesel tank capacity	l	150
Tank capacity	l	0/200/400

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