

Cleaning Technology · Municipal Technology

**Hako**  
Clean ahead



## **Citymaster 2000**

### *Professional compact sweeper*

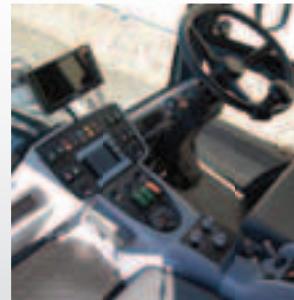
*Urban cleaning with low service life costs*

*Robust, reliable and durable*

# *The Citymaster 2000 – top quality for reliable sweeping*

## **Proven utility vehicle design**

The Citymaster 2000 is a high-end compact sweeping vehicle designed for commercial and industrial use with numerous additional uses for year round deployment. Through the use of proven utility vehicle components, such as ladder-type chassis, axles and helical springs, the Citymaster 2000 sets standards in respect of sturdiness, reliability and efficiency.



### **COMFORT**

Noise, vibration and thermal insulation in the 2-man panorama cab; standard features include a convenient heater, air conditioning unit, multi-stage fan, heatable windscreen.

## **Low operating costs**

The new generation of powerful Volkswagen diesel engines consumes considerably less fuel than other engines in comparable sweeping vehicles and therefore, also produces less pollutants. Long periods between changing service fluids and, on average, lower fill quantities contribute to further savings over the service life. The robust vehicle construction minimises the time spent in workshops and ensures the highest levels of availability.



### **ENVIRONMENT**

Equipped with the extended noise reduction kit, the Citymaster 2000 fully complies with the German RAL-UZ 59 standard „Blue Angel“.



### **FRAME**

Classic, offset utility vehicle ladder-type chassis with optimal dead weight to load capacity ratio; optimum construction stability for its entire service life. No risks from weld seams.



## **Full flexibility in all-year deployment**

You can choose from a 2-brush system (pushed brush), a 3-brush system (pulled basic brush with pre-sweep brush) and a scrubbing deck. The Citymaster 2000 does not need a break, even in winter. Its well-conceived construction enables it to be retrofitted quickly and easily for winter services with a minimum of effort, whereby its comparatively high load capacity for road grit reduces the number of empty trips.



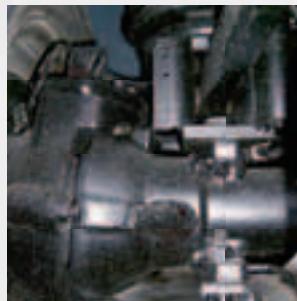
## **Quality made in Germany**

Incidentally: Hako develops and produces in Germany!



#### AXLES

Utility vehicle axles for high loads enabling higher load capacity; rear axle optionally with differential lock for optimal traction in critical situations.

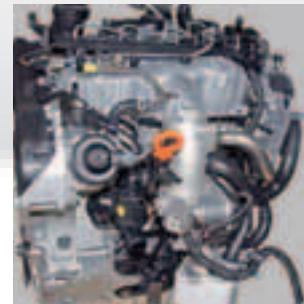


#### BODY

Cathodic NFZ electrophoretic dip painting and full winter service preservation as anticorrosive. Trim parts and wings made of plastic – no painting costs in the event of light damage.

#### ENGINE

Economic common-rail diesel engine with turbocharger and direct injection from Volkswagen; maintenance-free particle filter for service life (EEV).



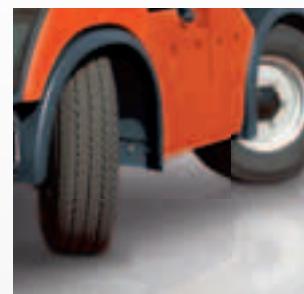
#### CLEAN AIR

Approved by highest possible ranking in EUUnited PM 10 Test.



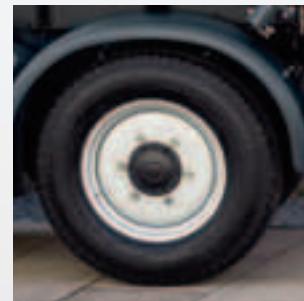
#### STEERING

Short rear overhang and all-wheel steering (ratio 1:1) to keep on track in work mode for the highest levels of flexibility even in confined spaces. Front steering in transport mode ensures safe driving on roads.

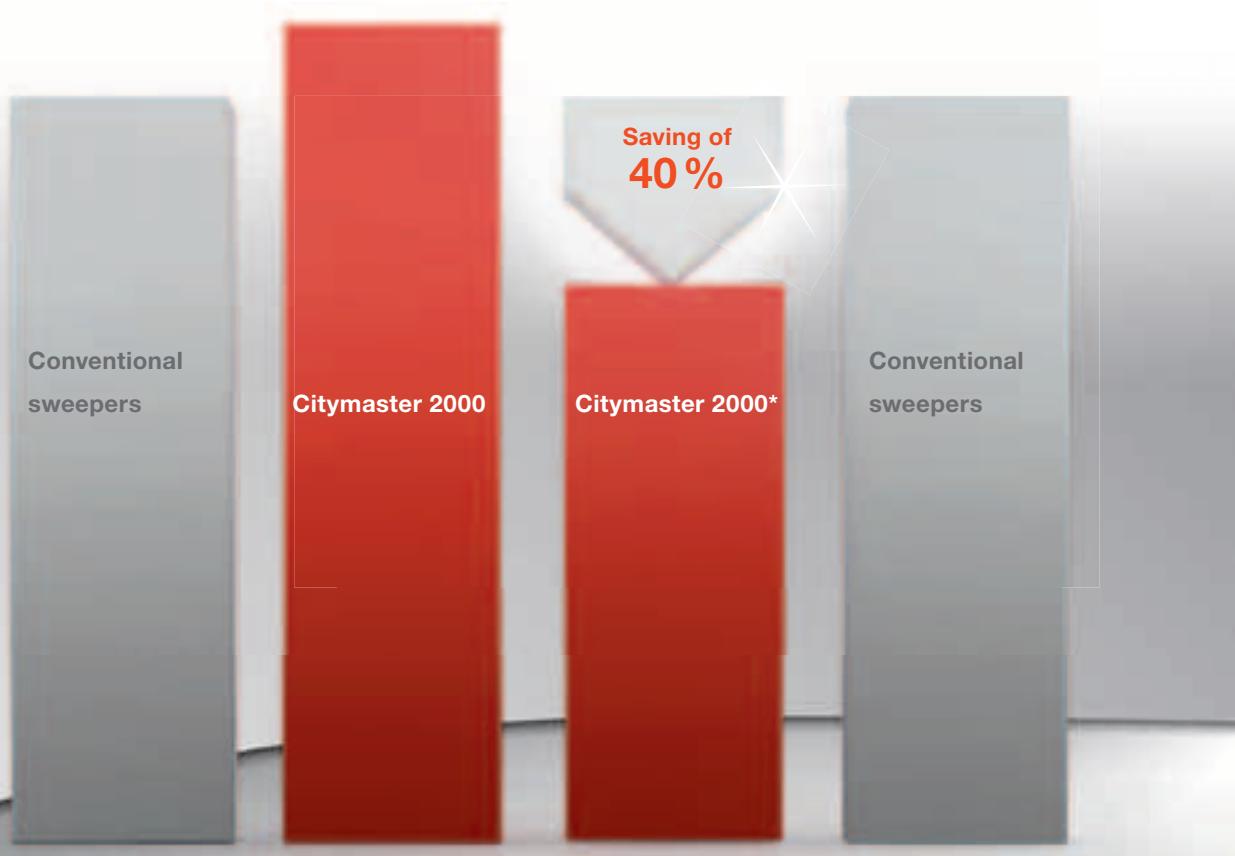


#### SAFETY

Dirt resistant drum brakes guarantee a high level of braking efficiency and operational safety, automatic brake force distribution with ALB regulator dependent on the load.



## Low service life costs as a standard measure



### Purchase costs

#### Hako added value

- Robust design  
Made in Germany
- Driver comfort
- Safety
- Environmentally friendly
- Innovative technology

### Service life costs

#### Driving is cheaper with Hako:

- Hako is clearly a leader in respect of service fluid efficiency: based on approx. 8,000 operating hours, a saving of approx. € 31,000 is possible. You also profit from further advantages, such as
- the high level of availability through the robust utility vehicle construction and long periods between servicing
  - the efficient method of operation with a higher load capacity

- the sound insulation package (option) for use in areas sensitive to noise
- the uncomplicated retrofitting options for all-year deployment
- and the low loss of value in the event of resale

\* Calculated at an average of 4.1 l / hour fuel consumption (can vary according to working conditions) and full service performance



## *Environmental efficiency pays dividends*

### **Lower consumption**

- highly economic VW common-rail diesel engine with turbocharger and direct injection
- consumption of only 214.5 g/kWh
- according to customers, up to 3 litre per hour lower consumption compared to competitor machines.

### **Low emissions**

- accurate fuel injection and regular combustion for high performance and reduction in emission of harmful substances (EEV)
- lower fine particulate matter emissions due to the triple dust control system with clean water on the brush, circulating water system and optional clean water feed in the suction channel

### **Quiet running**

- sound insulated fan integrated in the hopper cover
- sound insulation packages, 99 d(B)A (Blue Angel eco-label) and 97 d(B)A for extremely low noise levels without loss of suction power

### **ECO mode as standard measure**

- the ECO mode as a standard measure reduces fuel consumption and noise without losing any suction power

### **Hydraulics with load sensing**

- contrary to gear pump systems, the load sensing controlled hydraulic system only feeds oil when it is actually required thereby also saving fuel and money!

### **Hako quality pays dividends in several ways**

The Citymaster 2000 is a future-oriented financial investment with high quality features with numerous extras fitted as standard, its robust construction with utility vehicle technology, its service-friendly design with long periods between maintenance and economic, low consumption common-rail diesel engine sets new standards in respect of service life costs – not only work is more fun but filling up, too.

*Urban areas cleaned thoroughly with a 2 or 3-brush system*

## *Perfect sweeping results every time*



### **Top solutions for cleaning cities**

The Citymaster 2000 simply makes urban areas thoroughly clean. You also profit from a wide range of advantages which optimise functions and costs even further.

### **Collision protection for less repairs**

All the brush systems have several protection features. Collisions at the front and side are compensated for by intelligent, automatically triggered and resettable safety features. This prevents expensive collision damage and reduces repair costs.

### **Individual brush pressure adjustment**

The brush pressure can be adjusted according to individual cleaning requirements, saving the brush material and lengthening the service life. In conjunction with the wide pivoting range of the brush to the vacuum nozzle, the bristle length can be optimally exploited without a loss of sweeping performance.

### **Stability for clearing weeds**

Both brush systems can be supplied with extended brush controllers and more powerful hydraulic motors for effective weed clearance. The brush arms are configured for the loads necessary for weed clearance on leaving the factory.

### **Maximum loading capacity**

The smooth surfaced stainless-steel hopper with a nominal capacity of 2m<sup>3</sup> can be filled up to the hilt and can be cleaned especially quick and simple.

### **Vacuum nozzle and brushes with clever details**

The vacuum nozzle runs on rollers – forwards and backwards. The 2-brush machine is also capable of sweep out of corners in reverse. Skids support the vacuum nozzle when adapting to the working location. The horizontally sucking vacuum nozzle also enables the cleaning of critical surfaces, such as natural stone pavements with sand-filled joints. It also prevents vacuuming up of joint material while the flat brush prevents it being scraped out. Larger pieces of debris can be cleared into the wide, larger material flap conveniently by the driver from the driver's cab at the press of a button.

### **Working efficiently**

The sweeping functions are controlled by means of easily operated joysticks. Further functions are arranged directly in front of the driver for easy access. The disk brushes positioned far to the front and the low slung windscreens of the driver's cab provide an excellent view of the brushes for both the 2 and 3-brush units!



### **2-brush system**

The 2-brush system has a working width of up to 2.50 m with full and individual brush control. Together with the all-wheel steering, it provides the highest levels of performance for all sweeping tasks on even and very uneven surfaces on one plane. It ensures a high degree of flexibility for precise cleaning where individual operation of the brushes is essential.

- Brush speed, control and pressing force can be adjusted individually for each brush for a longer service life
- Simple sweeping of corners or cul-de-sacs using reverse sweeping at the touch of a button
- Weed clearing option with extended positioning functions and more powerful hydraulic motor

### **3-brush system**

The 3-brush system enables the highest sweeping performance even on two planes. It is ideal for all applications in which the machine drives in one direction. The 3rd brush sweeps dirt from the side or a second plane to the basic brush and vacuum nozzle.

- Basic brush adjustments: working width (to 2.60 m) and speed, 3rd brush with larger diameter can be adapted completely regarding speed, position and pressing force
- 3rd brush for can be used with a height offset of up to 250 mm, e.g. to clean traffic islands.
- Weed clearing option with extended positioning function and more powerful hydraulic motor, spray guard



### **New: wet cleaning with scrubbing deck**

The sweeping unit can simply be replaced by the scrubbing deck attachment and the Citymaster 2000 becomes a wet cleaning vehicle. The new scrubbing deck removes stubborn dirt, fine particle dust or oil smears thoroughly from all smooth and high quality surfaces where sweeping is simply not enough. A useful functional addition to increase utilisation of the basic machine and not investing in a special machine.

*All-year deployment for winter service*

## **Full deployment flexibility even with snow and ice**



### *The Citymaster 2000 – cleans paths in winter too*

The Citymaster 2000 was conceived for all-year deployment right from the start. As a result, it can provide safe, snow and ice-free paths and drives in winter. Fitted with comprehensive standard equipment it is perfectly prepared for the winter season:

- the heater with multi-stage fan and heatable windscreen mean it leaves the factory ready for winter service and they ensure comfortable temperatures in the driver's cab and a perfect view to complete work safely

- the standard differential lock on the rear axle provides the necessary traction and safety in snow and ice
- the Citymaster 2000 is prepared for winter service at the factory as a standard measure and is also protected from corrosion

#### **A good option: the winter package**

The coupling triangle on the front of the vehicle is designed so that it has the necessary strength to withstand the forces which occur when completing winter service work with the snow plough.

With regard to retrofitting for winter service, add-on spreaders for dry gritting and wet-salt gritting are available with a maximum volume of 800 l for gritting roads, paths and bicycle paths.

#### **For fast winter service too**

The Citymaster 2000 can also be supplied with an option enabling fast (light and heavy duty) winter service: up to 45 km/h working speed enables long roads and paths to be cleared and gritted even more efficiently!



### Winter services with Hako – hot savings in the cold season!

Within no time at all and without any expensive visits to the workshop, the Citymaster 2000 can be modified for winter services simply by changing attachments, providing for flexible all-year-round employment and low fleet costs. The vehicle's high payload allows carrying large amounts of gritting material, resulting in fewer transport trips and less wasted working time. In addition, the "fast-winter-service" equipment option with up to 45 km/h working speed reduces the total number of snow-clearing vehicles and drivers required.



A front-mounted sweeper (160 cm), various snow blades (working width up to 170 cm) and a spreader mounted to the rear coupling triangle allow for fast and easy snow clearing without demounting the hopper.

For more comprehensive winter service tasks, an additional chassis-mounted spreader is available to replace the hopper.

Hako services – for a long service life

## Cost transparency and operational safety

### Even more security with Hako insurance cover

The Hako insurance cover extends the guarantee for your machine by 12 or 24 months following on from the legal warranty – for full security even in the event of unforeseen risks.

Would you like to learn more about our  
after-sales services?

We would be pleased to advise you.



The Citymaster 2000 stands for robust quality and low operating costs for its entire service life. By implementing our after-sales services, even maintenance costs become calculable: they make the Citymaster 2000 an unbeatable complete package by providing comprehensive machine cover and maximum availability at attractive conditions!

#### **Hako Full Service – the comprehensive, all-round package**

To ensure maintenance costs are calculable, it contains all the operating hour-related maintenance work, wearing parts, additional expenses and prescribed safety inspections – including immediate fault clearance!

#### **Tailor-made: the Hako Service Contract**

No rigid maintenance schedules but usage-dependent inspections: maintenance cycles are lengthened or shortened to ensure machine availability is fully reliable – and for an attractive service flat-rate!

*The Citymaster 2000 at a glance*

## Technical data

Technical data, Citymaster 2000 basic vehicle	
<b>Engine and transmission</b>	
Engine	<ul style="list-style-type: none"> <li>Water-cooled, 4-cylinder Volkswagen diesel engine with 1,968 ccm</li> <li>75 kW output at 3,000 rpm, operating speed 1,600 (ECO) - 2,300 rpm</li> <li>Direct fuel injection</li> <li>56 litre tank volume</li> </ul>
Pollutant emissions/ Approval	<ul style="list-style-type: none"> <li>Engine emissions below the limit values compliant with directive 97/68/ EC, Stage III B, EEV status</li> </ul>
Drive	<ul style="list-style-type: none"> <li>Type approval of basic vehicle as a work machine</li> <li>Hydrostatic drive, work mode, transition mode, transport mode, rear axle drive</li> <li>Drive control with automatic load regulation in transport and transition mode or specifying the engine speed (work mode)</li> <li>Differential lock (option)</li> </ul>
Device drives	<ul style="list-style-type: none"> <li>Load-sensing high pressure hydraulics with variable power distribution</li> <li>Fan speed can generally be adjusted independent of the engine speed</li> <li>Additional equipment for multipurpose deployment via winter service option</li> </ul>
<b>Driving and work characteristics</b>	
Speed	<ul style="list-style-type: none"> <li>Driving speed, automotive 0–50 km/h, standard steering</li> <li>Transition mode, automotive 0–25 km/h, all-wheel steering</li> <li>Work mode, hydrostatic 0–15 km/h, all-wheel steering</li> <li>Reversing, 0–10 (25) km/h</li> </ul>
Chassis and steering	<ul style="list-style-type: none"> <li>Utility vehicle ladder-type chassis with 2 steering axles</li> <li>Helical springs with shock absorbers on all axles</li> </ul>
Brakes	<ul style="list-style-type: none"> <li>Multiple safety brake system with hydrostatic brake via drive</li> <li>Additional hydraulic service brake via foot pedal, load-dependent brake force distribution</li> <li>Mechanical parking brake</li> </ul>
Tyres	<ul style="list-style-type: none"> <li>215/70 R 15C (series production), special tyres on request</li> </ul>
Driver's cab	<ul style="list-style-type: none"> <li>2-seat comfort cab with driver's seat adjustable to the driver's weight</li> <li>Ergonomic arrangement of all operating controls</li> <li>2-fold adjustable steering column</li> <li>Hot water heater with air-con system as standard feature</li> <li>Framed doors with sliding windows</li> <li>Hinged wing mirror, adjustable from inside</li> </ul>
<b>Load values</b>	
Permissible total weight	3,500/4,500/5,000 kg
Permissible axle load	2,700/2,700 kg (front/rear)
<b>Dimensions</b>	
H/W/L	<ul style="list-style-type: none"> <li>Sweeper 2-brush: 1,999 mm (cab) x 1,300 mm (standard tyres) x 3,450 mm</li> <li>Sweeper 3-brush: 1,999 mm (cab) x 1,300 mm (standard tyres) x 4,860 mm</li> </ul>
Wheelbase	1,900 mm
Gauge	1,033 mm

We reserve the right to make technical improvements to machines with regard to shape, colour and design without notice. Please ask your local Hako sales & service partner about country-specific deviations where applicable. Illustrations could contain optional equipment.



### **Hako: environmental-friendly right from the start**

It is our legacy to leave behind a clean planet. That is why resources-, environmental- and climate protection characterizes each and every process at Hako which has been certified by independent institutions. Learn more about our on-going commitment at [www.hako.com](http://www.hako.com).

### **Everywhere and close by**

Our efficient sales & service network guarantees close proximity and rapid help - worldwide.

### **Buying, leasing, renting**

We offer you many individual and attractive financing options.

### **We are available 24/7**

Hako's spare part express-on-call service guarantees best possible availability.

### **Cleanliness combined with safety**

Our machines meet the highest standards. Reliable quality "Made by Hako."



Partner of the Engineering Industry Sustainability Initiative



DIN EN ISO 9001:2008  
DIN EN ISO 14001:2009

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