

Cleaning Technology · Municipal Technology

**Hako**  
Clean ahead

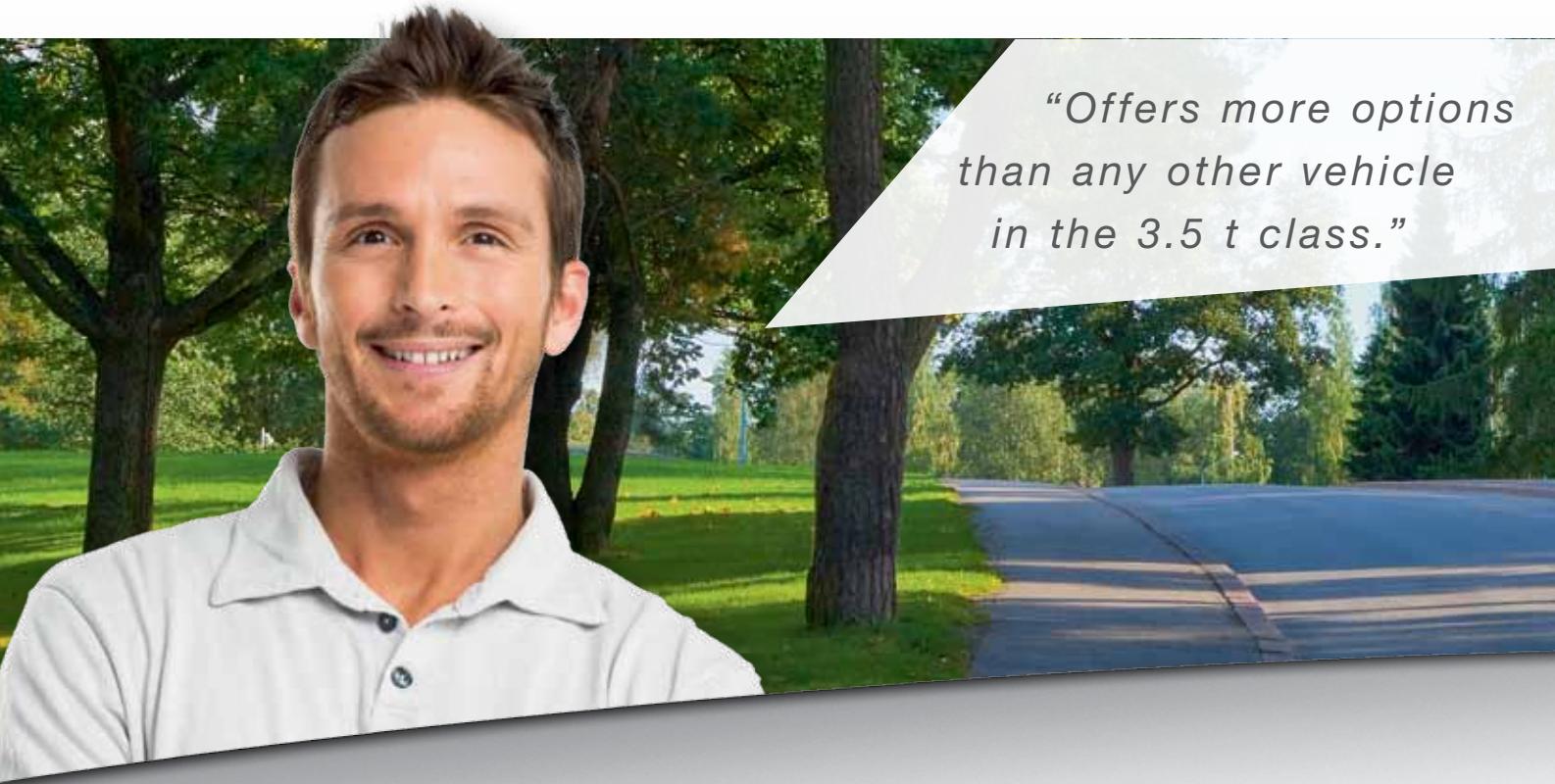


## **Citymaster 1600**

*Professional sweeper –  
with multifunctional  
employment options!*



## Setting new standards



*“Offers more options  
than any other vehicle  
in the 3.5 t class.”*

### *Sweeper or implement carrier? All in one!*

#### **Setting new standards**

Are you aiming at carrying out all your tasks reliably by having your machines constantly and readily available? Are you looking for an efficient, professional sweeper that meets your individual requirements? Does your daily routine involve more than just carrying out sweeping tasks? The Citymaster 1600 meets your demands perfectly – with maximum operating and driving comfort – now available in the 3.5 t class. Whether used exclusively as a compact sweeper or as a versatile implement carrier – this machine embodies Hako's many years of experience in manufacturing sweepers, compact tractors and implement carriers as well as transporters. Benefit from our expertise and experience!

#### **New dimensions of economic efficiency**

The Citymaster 1600 combines the many qualities and functions usually found in larger sweepers while keeping to the permissible total weight of 3.5 t. The spacious and comfortable workplace makes long working days easier. The vehicle's directional stable articulated steering and manoeuvrability make even narrow working areas easily accessible and safe for the driver. Highly flexible employment as well as the quick-change system ensure low operating costs. You buy only the functions and tools you really need – either right away or later as an addition. Thanks to its robust and maintenance-friendly design, the Citymaster 1600 is also an economically efficient investment in the long term. Hako quality pays off quickly. Simply ask your local Hako Sales & Service Partner for more information!



## Flexibility

The Citymaster 1600 is both a sweeper with articulated steering and a multifunctional implement carrier, all in one. The 3.5 t-class vehicle performs on the road just as well as on footpaths and green areas.

With comfortable quick-change system.

## Economic efficiency

The driver can change the machine's attachments and functions all on his own within minutes, no tools needed. Quickly back on the road and off to the next job site at high driving speed. No other machine saves more time!



## Comfort

The full-suspension chassis and the spacious cabin go easy on both the driver and the vehicle. The driver has everything under control thanks to the integrated operating panel – and everything in view thanks to the central display and the panoramic view!

## Possibilities

With its permissible total weight of 3.5t, the vehicle can be employed on footpaths and operated by drivers holding a Class B driving licence. Low noise levels allow for employment in sensitive areas.



## For more flexible employment



*Can access nearly all areas.  
For Class B driving licence holders.*

### **Environmentally friendly sweeper**

Particularly low consumption- and emission values characterize the sweeper Citymaster 1600. The low-emissions engine with particle filter combined with our ultra-modern, low-noise and low-dust-emissions sweeping technology allows for employment not only in the city but also in quiet residential areas – even early in the morning or late at night. With the sweeping performance of a 2m<sup>3</sup>-sweeper but without its limitations regarding employment on footpaths or driving license requirements. Class B driving licence holders can drive the Citymaster 1600 without restrictions. .

### **Versatile implement carrier**

No matter whether the machine is used solely as a sweeper or, by combining different functions, as a fully-fledged implement carrier - there are hardly any limits. The directional stable articulated steering, permanent all-wheel-drive with automatic load distribution as well as the powerful and extremely efficient attachment working drive provide for variable on- and off-road employment. Numerous different quick-change attachments enable a particularly flexible and economic operation of the basic unit.



# More comfort for the driver



## Spring-suspended chassis meets ergonomic cabin

### The workplace

The spacious and comfortable cabin offers sufficient room for the operator and blends in harmoniously with the vehicle's outer dimensions. The workplace offers superior ergonomics to prevent back problems – which has been independently tested and recommended by the AGR e.V. (German Association for Healthy Backs) and is unique in this vehicle class. The clearly arranged operating elements and functions integrated in the armrest and the one-button operation additionally facilitate easy handling.

The air-sprung driver's seat has been adapted to the chassis and offers optimal suspension comfort for long working days.

### The chassis

The elaborately designed chassis of the Citymaster 1600 pulls double duty. Coil springs, shock absorbers and stabilisers ensure safe road handling even when fully loaded and enable safe kerb climbing. The long-distance articulated joint with maintenance-free bearings constitutes a stable link between the front and the back of the vehicle – for more safety and a direct response. The intelligent drive control and a disc brake system ensure safe braking.



## Increased economic efficiency through short set-up times



Quickly (back) in operation



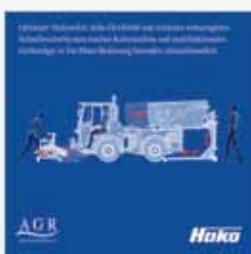
### Fast and economically efficient

Getting ready for operation 'made easy': Routine maintenance in the morning on easily accessible parts is just as easy as filling the city sweeper with freshwater and circulation water. Then it's off to the job site with high speed where the machine is put into operation safely and easily through the one-button operating system, working with the parameters last selected, depending on the attachment devices used.

The Citymaster 1600 is equipped with intelligent drives providing only the kind of power really needed, both in transport and work mode. For a lower fuel consumption, more economic efficiency and less emissions.

### The quick-change system

One person alone can change the attachments and superstructures safely and simply in a way that is easy on the back, without the need for tools or remaining loose parts. This characteristic has also been independently tested and recommended. The Citymaster 1600 bears the AGR quality seal. The quick-change system shows in an exemplary manner that the operator can change the attachments all on his own - no workshop support required. When it comes to servicing the vehicle in the workshop however, the technicians too benefit from the fact that the components can be dismantled easily.



# For better planning



## *More than just sweeping*

### **Job planning made easy**

The Citymaster 1600 can be employed in the city in all paved or hard-surfaced areas, fully loaded and without restrictions.

Due to its excellent sweeping performance and high payload, the machine covers the entire range of services usually attributed to a larger sweeper, from simple maintenance cleaning to thorough basic cleaning tasks (i.e. after the winter). Hako-Fleet-Management-Solutions provide customized reports from and about the machine.

For more transparency and clarity of costs.

### **Working in all seasons**

The Citymaster 1600 has been designed as an all-season machine, combining the advantages of a professional road sweeper with those of a powerful implement carrier. If the sweeper is underutilized or cannot be employed due to seasonal weather conditions, providing winter services offers additional utilization options. Another possibility is to use the Citymaster 1600 as a versatile implement carrier right from the start, to maintain green areas and roadside greenery in addition.



Citymaster 1600

## Uncompromised multifunctionality



### Snow clearing and gritting



### Mowing



### Sweeping



### Wet cleaning





### Special tasks



### Transport and attachment



For inner-city employment

## *The professional machine for every sweeping task*



*Fast, manoeuvrable – and downright efficient!*



### **The professional city sweeper**

Two large disc brooms with various adjustment options and control functions, equipped with comprehensive safety features against collision damage, feed the dirt to the suction duct with semi-automatic coarse dirt flap. The tangential suction system with superior dust-binding qualities ensures joint-protecting working and the efficient intake of sweepings through the patented circulation-water supply system into the universal hopper. Flow-optimised fans and the patented airflow system in the hopper provide a particularly efficient, low-dust intake of sweepings and full utilization of the hopper's capacity.

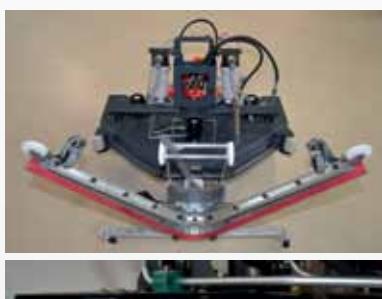
### **All-round environmental protection**

The low-emission, low-consumption drive engine with non-wearing particle filter protects the environment and saves money. The machine delivers its maximum performance at the push of a button when required. The Citymaster 1600 generates very little noise and can be employed in noise-sensitive areas. The combined dust-binding system has been independently tested and certified in accordance with the EUUnited PM 10 guidelines.

*... and if sweeping is not enough*

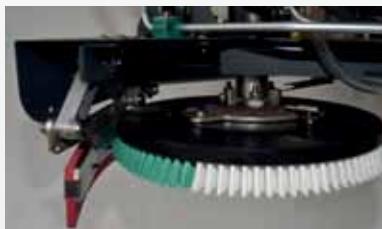


## Citymaster 1600 CityCleaner



### Intensive cleaning

The Citymaster 1600 equipped with the scrub deck attachment 'CityCleaner' offers powerful wet cleaning performance while protecting surfaces and joints. It is also suitable for use on asphalt and concrete surfaces and coated floors, for example in multi-storey car parks. Fully integrated in the quick-change system and used in combination with the universal hopper, the machine can be converted back into a city sweeper in no time at all. Freshwater and circulation water supply for long operating times.



### Oil spill removal

The Citymaster 1600 CityCleaner is independently certified to clean traffic areas after accidents involving oil spills. Pre-cleaning with circulation water, the simultaneous removal of particles as large as 25 mm and subsequent cleaning with freshwater in combination with special cleaning agents restore road safety in a single operation, reliable and independently certified. Oil, particles and contaminated water are collected in the universal hopper.



Uncompromised multifunctionality

## *The grounds maintenance expert*



*For variable employment, with an excellent area performance*



### **The mowing-suction combination with universal hopper**

The universal hopper of the Citymaster 1600 can also be used for lawn-mowing purposes. Together with the central suction system, maintaining roadside greenery amidst flowing traffic and working close to the edges on both sides can be carried out in a safe and easy fashion. The vacuum suction system is basically wear-free and easier to clean at the same time. Blockages are reduced to a minimum. The vacuum compresses the grass cuttings. The compact mower can be used as a rear-discharge or mulch mower in addition.



### **Maintenance of large or less work-intensive areas**

The Citymaster 1600 also makes for versatile employment on large areas. A large-area sickle mower, either used as a rear-discharge or alternatively as a mulch mower, is available for demanding maintenance tasks in parks or on sports grounds. Different flail mowers, cutting back high scrub and brushwood efficiently, are available for extended, low-maintenance or hardly-used areas.

# *The power machine against ice and snow*



*Challenges all weather conditions – with top performance*



## **Snow clearing**

With the Citymaster 1600 you are well equipped for snow-clearing tasks. A wide range of perfectly aligned snow ploughs, universal front sweepers or genuine winter sweeping machines with a particularly high output enables the flexible adaption to all kinds of weather conditions and different amounts of snow. Moreover, powerful snow blowers in various sizes are available to cope with extensive amounts of snow.



## **Fighting black ice**

Whether equipped with loading bed and rear attachment spreader or with top-mounted silo spreader – the Citymaster 1600 adapts to your individual spreading requirements. Whether sand, grit, granules or salt – you can choose between cylinder spreaders for employment on footpaths, combi-spreaders for employment in car parks or silo spreaders in various sizes. In addition, a brine-spraying system is available for special applications.

## *The universal implement carrier*



### *One basic unit, plenty of options!*

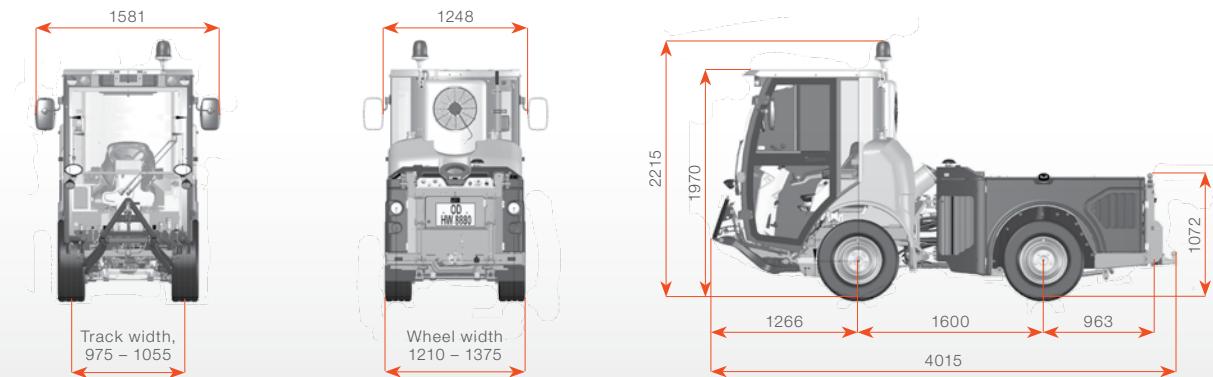
#### **The basis for uncompromised multifunctionality**

Versatility is the characteristic feature of every implement carrier. The quick-change system offers four interfaces for easy, tool-free, one-man operation. The quick-coupling triangle at the front enables the quick and easy changing of attachments and is fully compatible with older attachment devices. The interface at the suction device enables working with full ground clearance whenever the suction-hose system is not needed. The rear attachments are installed via a mounting frame, which can easily be removed by using a trolley. The rear attachment frame allows the uptake of further accessories and of the tow bar.

Permanent all-wheel drive during road use, two automatically switching and load-dependent drive control levels for a constantly optimized tractive force, with maximum tractive force and axle load regulation in work mode.

The thermostatically controlled engine- and hydraulics cooling – optionally available with swivel van – reduces noise-levels and guarantees safe operation at any given outside temperature. The load-sensing hydraulic system is adjustable and provides only as much power as is effectively required. For lowest possible consumption and emissions.





Technical data basic unit Citymaster 1600	
<b>Engine and drive</b>	
Engine	<ul style="list-style-type: none"> <li>water-cooled 4-cylinder VW industrial diesel engine with 1,968 ccm</li> <li>exhaust gas turbocharging and charge air cooling, particle filter, performance 55 kW at 2,700 rpm</li> <li>common-rail direct fuel injection, tank capacity 50 l</li> <li>engine comes below the threshold value according to exhaust directive 97 / 68 / EC level IIIb</li> </ul>
Approval	<ul style="list-style-type: none"> <li>EU type approval basic unit as a tractor (LoF)</li> </ul>
Drive	<ul style="list-style-type: none"> <li>traction- and energy-efficient optimized hydrostatic drive with permanent all-wheel drive</li> <li>drive control system with automatic load regulation in transport mode, 2-speed automatic transmission</li> <li>3-level fixed rpm in work travel mode (1,600 rpm [ECO] – 2,000 rpm [Standard] – 2,400 rpm [MAX])</li> </ul>
Hydraulics	<ul style="list-style-type: none"> <li>load-sensing high pressure hydraulics with variable power distribution for rotatory consumers</li> <li>circuit 1 (front) 0-50/0-70 l/min @ 225 bar</li> <li>circuit 2 (rear) 0-20/25/30 l/min @ 195 bar</li> <li>2 hydraulic circuits at the front, 1 hydraulic circuit at the back</li> </ul>
<b>Driving and working characteristics</b>	
Speed	<ul style="list-style-type: none"> <li>driving speed automotive 0 – 40 km/h</li> <li>work travel hydrostatic 0 – 24 km/h</li> <li>reverse 0 – 12 km/h</li> </ul>
Steering and chassis	<ul style="list-style-type: none"> <li>hydraulic 4-wheel chassis with articulated steering, steering angle 45°</li> <li>robust articulated joint with maintenance-free PTFE-coated bearings</li> <li>trailing-arm-guided, suspended front and rear axles, coil springs and hydraulic shock absorbers</li> <li>stabilizer at the rear axle</li> </ul>
Brakes	<ul style="list-style-type: none"> <li>hydraulic brake on all 4 wheels, disc brake front with load depending support via HST transmission on both axles</li> <li>electrically operated multi-disc stop brake at the rear axle</li> </ul>
Tyres	<ul style="list-style-type: none"> <li>225/70 R15C (M+S road tyres standard)</li> <li>255/65 R16C (M+S universal tyres § 35 StVO)</li> <li>320/55-15 (lawn tyres)</li> </ul>
Cabin	<ul style="list-style-type: none"> <li>1-seater comfort cabin with comfort driver's seat and operating panel integrated in the armrest</li> <li>central display showing all the machine's functions, adjustable steering column</li> <li>hot-water heating and optional air conditioning</li> <li>robust doors with sliding windows</li> <li>folding exterior mirrors, adjustable from the inside</li> </ul>
<b>Load data</b>	
Dead weights	1,990 kg (implement carrier), 2,490 kg (sweeper)
Permissible values	total weight 3,500 kg, axle load 1,550/2,400 kg (front/rear)
<b>Dimensions</b>	
H/W/L	basic unit: 1,970 mm x 1,210 x 3,830 mm (standard tyres, without tow bar) Sweeper: 1,970 mm x 1,248 x 4,510 mm (standard tyres)
Wheelbase	1,600 mm
Track width	975–1,055 mm
Inner turning radius	1,290 mm

Form, colour and design of our products are subject to change in favour of further technical developments.  
Pictures may show 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 characterize 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)

### Close to you wherever you are

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

### Buying, leasing, renting

We offer you a number of individual and attractive financing & procurement options.

### We are available 24/7

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

### Cleanliness combined with safety

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



Das AGR Gütesiegel (Aktion Gesunder Rücken (AGR) e. V.): Geprüft und empfohlen vom Forum: Gesunder Rücken - besser leben e.V. und dem Bundesverband deutscher Rückenschulen (BdR) e.V. weitere Infos bei: AGR e.V., Pf. 103, 27443 Selsingen  
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