

Cleaning Technology · Municipal Technology

**Hako**

Clean ahead



## **Citymaster 650**

*Designed to provide maximum flexibility*

*Multifunctional city cleaning machine in the 2-t class*



*“The ideal solution for residential areas: this machine is small enough to enable cleaning even between parked cars – and it’s so versatile that it can be used both in the summer and winter!”*



**More freedom**

*Compact, highly manoeuvrable, economical: for optimal results – even on footpaths and in confined areas.*

The professional machine for urban areas

**More flexibility**

*365 working days a year: through multifunctionality and a wide range of attachments and superstructures for any kind of seasonal challenge.*

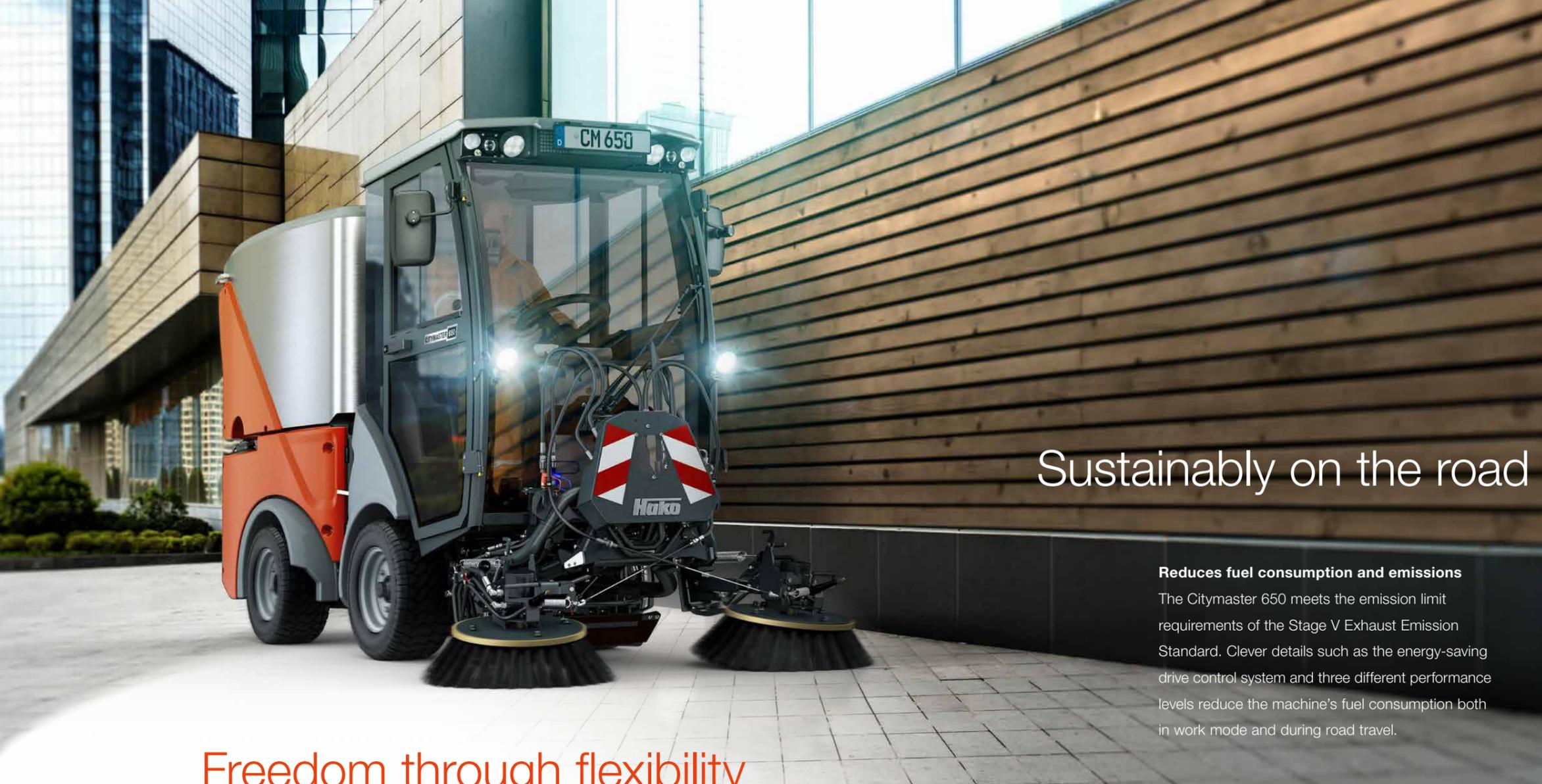
**More comfort**

*Made for the operator: spacious and ergonomic workplace, easy-to-learn operating concept and a back-friendly quick-change system.*

**The Citymaster 650**

*The basic version of the Citymaster 650, designed as a compact implement carrier, already sets new standards in the 2-t class: for example with articulated steering, permanent all-wheel drive with a fully electronic control system and extensive features providing increased comfort and safety at work. Thanks to its multifunctional design, the Citymaster 650 can be retooled quickly and easily, for example as a professional sweeper or an efficient snowplough for winter service tasks, which makes this machine not only extremely versatile in use but also particularly economical as it provides multiple application options.*

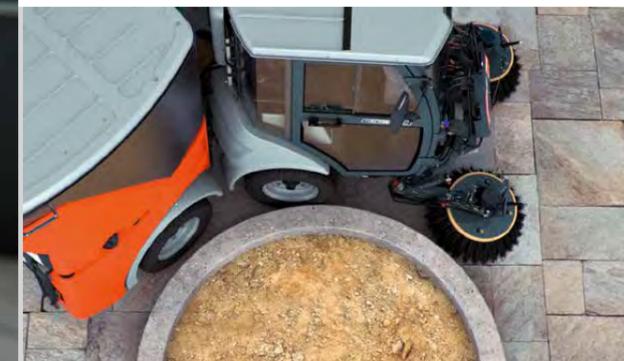
**CITYMASTER 650**



## Sustainably on the road

### Reduces fuel consumption and emissions

The Citymaster 650 meets the emission limit requirements of the Stage V Exhaust Emission Standard. Clever details such as the energy-saving drive control system and three different performance levels reduce the machine's fuel consumption both in work mode and during road travel.



## Freedom through flexibility

Working in the city comes with a wide range of different demands posed on Municipal Technology equipment – and these demands change with the seasons. The Citymaster 650 meets all seasonal requirements with its small vehicle width, directionally stable steering and a small turning circle ensuring excellent manoeuvrability in confined areas. In addition, the vehicle's multifunctional design ensures economically efficient use all year round.



### Quickly off to the next job site

With its top speed of 25 km/h, the Citymaster 650 is fast enough to travel to the next nearby job site on its own axles – and compact enough to be transported on a trailer in order to cover larger distances.



### Adapts perfectly to its surroundings

Urban furniture, flower beds and narrow passages are obstacles we often see in public areas. With its small turning circle of only 139 cm and independently controlled sweeping units, the Citymaster 650 overcomes these obstacles easily. Even kerbs as high as 150 mm are no problem at all for this machine thanks to its permanent all-wheel drive with fully electronic control system. When working in ECO mode, a standard feature which is not only good for the environment but also for applications in noise-sensitive areas, the Citymaster 650 works at 85 % of its maximum performance capacity and saves up to 40 % of fuel. The extended sound insulation package, available as an option for the basic unit, reduces noise emissions even further.



## Multipurpose use through multifunctionality

The Citymaster 650 is a versatile implement carrier and professional sweeper all in one. Thanks to four attachment interfaces allowing the combined use of different attachments and superstructures, the machine can carry out a wide range of additional tasks: for example winter service, green area maintenance or wet cleaning tasks. You only need one machine instead of several special vehicles – which is both more efficient and economical.



Sweeping  
Weed removal  
Mowing  
Wet cleaning  
Snow clearing  
Spraying

Transport  
Pick-up  
Gritting

Gritting  
Pulling  
Spraying

|                   |                        |                        |                |                  |
|-------------------|------------------------|------------------------|----------------|------------------|
|                   |                        |                        |                |                  |
| Sweeping          | Wet cleaning           | Green area maintenance | Winter service | Transport        |
|                   |                        |                        |                |                  |
| Sweeping 2 brooms | Scrubbing              | Mowing + discharge     | Snow blade     | Tipper           |
|                   |                        |                        |                |                  |
| Sweeping 3 brooms | Sluicing               | Mowing + collecting    | Snowplough     | Lattice box      |
|                   |                        |                        |                |                  |
| Weed broom        | High pressure washer   | Flail mower            | Snow sweeper   | Trailer          |
|                   |                        |                        |                |                  |
| Dirt sweeper      | Watering arm           | Thermal weeding        | Snow blower    | Skip loader      |
|                   |                        |                        |                |                  |
| Leaves collecting | Reflector post washing | Hedge trimmer          | Spreader       | Lifting platform |
|                   |                        |                        |                |                  |
| Leaves blowing    | Shredder               | Brine sprayer          |                |                  |



Quickly ready for use:  
Thanks to the quick-coupling triangle allowing easy and back-friendly changing of attachments without the need for tools.



### Four seasons – one Citymaster!

Each season comes with different challenges for Municipal Technology products. Hako masters each challenge with consistent multifunctionality. You only need one machine to carry out almost any task – 365 days a year. At Hako, we call it “One for All”. And our customers say: the right machine for every application.



# More than standard

## Ready for every job

Sweeping, suction, transport – or cutting, watering, sluicing: The list of possible jobs for the Citymaster 650 is long and includes solutions for all standard tasks and many special applications. A win-win for both your budget and the cityscape!



Highest accolade for lowest fine particulate emission values.



## Brilliant performance for a clean city

Sweeping is one of the main tasks in the field of Municipal Technology. The Citymaster 650 carries out all sweeping tasks rapidly, reliably and efficiently: thanks to its hydraulically driven 2-broom sweeping unit, quick-change suction duct and Intelli-Flap® coarse dirt flap. The machine's patented circulation water system provides maximum dust control – and ensures clean exhaust air and lowest possible dust and fine particulate emissions.



### Safe roads and paths in autumn

Leaves and twigs can make roads and paths slippery and thus become a menace to road users. For municipal service providers, this means regular sweeping also in autumn. Equipped with a powerful and efficient sweeping/suction combi device, the Citymaster 650 reliably removes autumn leaves and dirt from public roads, paths and squares.



Weed control without the use of chemicals: with a weed broom providing fast and easy mechanical removal and collection of weeds.

Expert in the field of green area maintenance: for example with a hedge trimmer or a sprinkler system to water flower beds, bushes and trees.

### One hopper for every purpose

The 600-litre universal hopper made of seawater-resistant aluminium alloy can be used for a wide range of different applications: e.g. for sweeping tasks or to collect grass and leaves – at maximum payload. Emptying the hopper is particularly easy thanks to the hydraulic tipper function which automatically opens the hopper lid.





A smart choice

## Green is in vogue

As a versatile implement carrier, the Citymaster 650 is always in season. Changing the attachments only takes minutes, which allows for several different applications to be carried out in just one day: for example maintaining green areas in the morning and sweeping paths in the afternoon – all with one and the same hopper. For superior cleanliness and economic efficiency in every season.



### The lawn specialist

In combination with different mowers, grass collecting systems and flail mowers, the Citymaster 650 ensures flexible use for green area maintenance tasks in the gardening & landscaping sector. Together, the large universal hopper and the Citymaster 650 equipped with a mowing/suction attachment combi form a powerful team for efficient green area maintenance. Thanks to the central suction system, working close to kerbs and edges is possible on both sides of the machine.



### The winter specialist

Especially in the cold season, the Citymaster 650's excellent manoeuvrability, ease-of-use and high transport capacity come into full effect. Thanks to the front attachment system providing the flexible use of a wide range of different attachments, the Citymaster 650 ensures clear roads and paths in the winter: with a front sweeper for reliable snow sweeping or different snow blades and a snow blower for safe snowploughing. In addition, the machine efficiently fights black ice: with a cylindrical gritter for footpaths, a combi gritter for larger areas, or a brine spraying system.



### Full functionality at the push of a button

The intuitive operating concept of the Citymaster 650 facilitates easy handling – and thus ensures efficient working. All functions are comfortably controlled via the one-hand operating system integrated

## Designed with the machine operator in mind

in the armrest. For complex tasks, the hydraulic system can carry out operating sequences fully automatically at the push of a button. The weed broom is coded via the operating system as well – there is no separate control unit. The clearly structured, high-resolution colour display with automatic brightness control shows all relevant operating information at a glance. And the service timer on the display automatically indicates when the next maintenance date is due.

## More comfort at the workplace



A spacious, ergonomic workplace facilitates long working days. In this respect, the Citymaster 650 sets a best-practice example: with extended and individually adjustable seat options as well as a comfort steering column adjustable in height and length. During road travel, the driver benefits from the machine's fully electronically controlled ground drive. In addition, both the cruise control and the directionally stable steering with articulated joint improve the vehicle's driving characteristics. And to ensure that work runs smoothly for the machine operator, a powerful heating system with optional air conditioning ensures pleasant temperatures in the cabin.

### Safety on the road

The large ROPS-tested comfort safety cabin with two doors and large windows ensures maximum visibility on all sides. In addition, a full LED lighting system and LED work lights are optionally available to give the driver a clear view onto his work environment at all times. A dual rear view camera provides additional safety. Both the windscreen wash/wiper system with interval switching and heated wing mirrors ensure a clear view even in wet conditions. The vehicle is equipped with an acoustic reversing signal to warn pedestrians, and an additional service brake provides even more safety on the road. And a USB charging socket for two mobile devices ensures that data communication is possible at all times.



## Optimise your resources: Hako-Fleet-Management

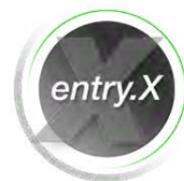
The larger the number of machines in your fleet, the more important it is to have a good overview of all relevant key data. With Hako-Fleet-Management, Hako offers you a digital solution to keep your fleet of machines reliably under control – available around the clock, and on all web-based systems. To ensure optimum operation, the system can be customised by individually combining the four Hako-Fleet-Management modules:



**view.X** helps you to use and manage your fleet efficiently. All evaluations are available online 24/7, and are easy to retrieve thanks to the system's intuitive user interface.



**view.X.live** includes all information collected by view.X, and, in addition, transmits relevant fleet operating data in real time for visual processing in the web portal – which provides a good basis for performance records.



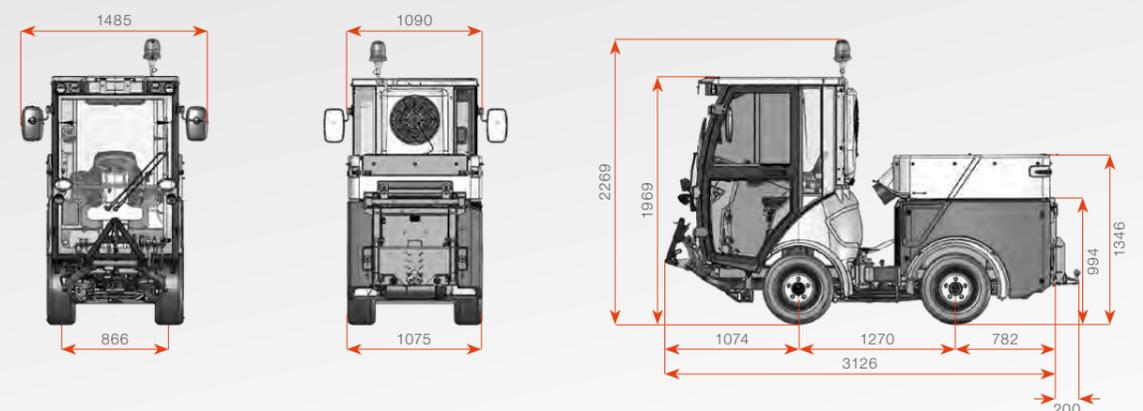
**entry.X** Our optional electronic machine access authorisation tool enables the fleet manager to set up access accounts for authorised users.



**data.X** This interface allows authorised third-party suppliers of telemetric systems local access to raw operating data directly at the machine.

| Technical data basic vehicle Citymaster 650 |                      |  |
|---|----------------------|--|
| Engine and drive                            | Engine               | <ul style="list-style-type: none"> <li>Water-cooled 3-cylinder industrial Diesel engine with 1,642 cc</li> <li>DOC and DPF, output 25.5 kW at 2,630 rpm</li> <li>Common-rail direct fuel injection, tank capacity 41 litres</li> <li>Engine stays below the limit values according to the Emission Standard 2016 / 1628 / EC Stage V</li> </ul>  |
|   | Approval             | <ul style="list-style-type: none"> <li>EU type approval for the basic unit as a tractor T2a (LoF) (agricultural and forestry machine)</li> </ul>   |
|   | Ground drive         | <ul style="list-style-type: none"> <li>Traction- and energy-efficiency-optimised hydrostatic ground drive with permanent all-wheel drive</li> <li>Drive control system with automatic load control in transport mode</li> <li>3-stage fixed speed in work-travel mode (1,900 rpm [ECO] – 2,250 rpm [Standard] – 2,630 rpm [MAX])</li> </ul>  |
|   | Hydraulics           | <ul style="list-style-type: none"> <li>High pressure hydraulics with variable output distribution for rotary consumers</li> <li>Circuit 1 (front) 27 / 31 / 37 l/min @ 195 bar</li> <li>Circuit 2 (rear) 21 / 25 / 29 l/min @ 195 bar</li> <li>1 hydraulic circuit at the front, 1 hydraulic circuit at the rear</li> </ul>  |
| Driving and working characteristics         | Speed                | <ul style="list-style-type: none"> <li>Automotive driving speed 0–25 km/h</li> <li>Hydrostatic work-travel speed 0–25 km/h</li> <li>Reversing 0–12 km/h</li> </ul>   |
|   | Steering and chassis | <ul style="list-style-type: none"> <li>Hydraulically steered, articulated 4-wheel chassis; steering angle 53°</li> <li>Robust articulated joint with integrated pendulum compensation and roll stability control system</li> </ul>   |
|   | Brake                | <ul style="list-style-type: none"> <li>Hydrostatic brake acting on all four wheels, service brake at the rear</li> <li>Mechanical parking brake acting on the rear wheels</li> </ul>   |
|   | Tyres                | <ul style="list-style-type: none"> <li>270/50-12 comfort tyres</li> <li>23 x 10.50-12 lawn tyres</li> <li>23 x 8.50-12 standard 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 shows all machine functions, adjustable steering column</li> <li>Hot-water heating and optional air conditioning</li> <li>Frame doors with sliding windows</li> <li>Foldable wing mirrors, adjustable from inside the cabin</li> </ul> |
|   | Load data            | Empty weight   |
|   | Permissible values   | Total weight 2,200 kg, axle load 1,200/1,500 kg (front/rear)   |
| Dimensions                                  | H/W/L                | Basic unit: see picture<br>Sweeper: 1,980 x 1,090 x 3,900 mm (standard tyres 2B)   |
|   | Wheelbase            | 1,270 mm   |
|   | Track width          | 866 mm   |
|   | Inner turning radius | 1,390 mm   |

Form, colour and design of our products are subject to alterations in favour of further technical development. Pictures may show optional equipment.





Cleanliness combined with safety: Our machines meet the highest requirements.



## Service Excellence

### Full availability, full security

Our sales and service organization is one of our biggest plus points. We are always in your close vicinity, offering qualified expert advice and reliable service. All around the clock. To ensure trouble-free operation – and to give you a good feeling. In addition, we offer you efficient and reliable spare part delivery as well as digital service solutions such as the service QR code you'll find on each of our machines.

### Attractive financing alternatives

Our customers benefit from a complete package of efficient machines and excellent services at fixed, predictable ownership costs over the entire lifecycle – tailored to your individual requirements and with maximum flexibility.



Leasing options – tailored to individual customer requirements.



Rental agreement ALL-IN-plus: financing, maintenance and insurance, all inclusive!



Hire purchase – specified monthly payments, adapted in line with your liquidity.



Seasons – rental payments adapted to season-related sales fluctuations.



Blue Competence is an initiative of VDMA (www.vdma.org). By engaging in this partnership, we are committed to comply with the twelve sustainability principles applied in the field of mechanical and system engineering (www.bluecompetence.net/about).

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