

Precise and Powerful Binding Agent Spreading

BINDING AGENT SPREADERS – TC / MC SERIES

SW 112 TC | SW 218 TC |

SW 212 MC | SW 318 MC | SW 418 MC | SW 422 MC

SW D18 MC | SW D22 MC | SW T13 MC



PRECISE, HIGH-PERFORMANCE BINDING AGENT SPREADING

STREUMASTER binding agent spreaders are suitable both for spreading large quantities of binding agents during soil stabilization and for spreading small quantities of binding agents with maximum precision during cold recycling.

There are various different types and series of binding agent spreaders. Essentially, these can be subdivided according to type into the categories truck-mounted spreaders (M - Mounted) and towed spreaders (T - Towed). In addition to the vehicle type, these types also differ in the form of their spreading units: STREUMASTER primarily offers spreaders with cellular wheel spreading units (C - Cellular wheel).

The TC series binding agent spreaders are available as single-axle and tandem trailers and can be towed by towing vehicles with an engine output of either approx. 132 kW / 178 HP / 180 PS for single-axle or approx. 184 kW / 247 HP / 250 PS for tandem trailers.

The MC series mobile binding agent spreaders are mounted on a carrier vehicle and are therefore predestined for use in difficult off-road terrain.

With a maximum spreading width of 2,360 mm the TC and MC series achieve spreading rates of up to 60 kg/m² (at a speed of 2 km/h with a binder density of 1 kg/l).

In combination with products from the WIRTGEN GROUP, STREUMASTER binding agent spreaders cover the complete cycle in road construction and earthworks.



STREUMASTER BINDING AGENT SPREADERS



BINDING AGENT SPREADERS - FC / RC SERIES

- > Tractor-mounted spreader
- > Cellular wheel sluice
- > Working width up to 2,460 mm

BINDING AGENT SPREADERS - TA SERIES

- > Towed Spreader
- > Spreading auger
- > Working width up to 2,500 mm

BINDING AGENT SPREADERS - TC SERIES

- > Towed Spreader
- > Cellular wheel sluice
- > Working width up to 2,360 mm

BINDING AGENT SPREADERS - MC SERIES

- > Truck-mounted spreader
- > Cellular wheel sluice
- > Working width up to 2,360 mm

SUMMARY OF HIGHLIGHTS

Perfectly equipped

01 Ideal Filling and Container Geometries

- > Different sized containers for different requirements
- > High-speed filling device on both sides for rapid filling of the binder container
- > Specially designed container geometry ensures perfect material flow and complete emptying of the container without any issues
- > Can be mounted on a variety of carrier vehicles (MC series only)
- > Trailer hitches can be mounted on the spreader (truck mounting only)

02 High-Efficiency Material Conveying

- > Uniform, efficient lateral distribution and transfer of the binding agent to the cellular wheel sluice, also when using partial spreading widths
- > Optimum monitoring of filling chutes
- > Reliable binding agent feed
- > Self-tensioning chain conveyor eliminates the need for retensioning



03 Maximum Spreading Precision

- > Spreading unit in three partial spreading widths with self-cleaning cellular wheel sluices
- > Separately controllable partial spreading widths with individual spread rate control
- > Fully automatic binding agent metering independent of the travel speed
- > Universal, low-volume, or high-performance spreading units available
- > WeighTronic electronic weighing device with automatic readjustment
- > Intelligent speed detection for travel speed independent control of spread rates

04 Flexible Drive System

- > Wide range of possible drive system options
- > TC Series:
 - Standard drive via the tractor's Power Beyond hydraulic system for lower cost-purchase and maintenance
 - Optional wide-angle cardan shaft drive for an independent spreader-side hydraulic oil circulation system
 - Optional auxiliary engine for autonomous drive capability
- > MC Series:
 - On-board hydraulic system powered by the carrier vehicle's power take-off ensures that the binding agent spreader operates reliably and spreads more cost-effectively
 - Optional auxiliary engine for autonomous drive capability



05 Innovative and Multi-Functional Operating Concept

- > Control panel with intuitive user interface for easy operating
- > Convenient, continuous spread rate regulation
- > Integrated container fill-level monitoring

06 High-Precision WPT - WIRTGEN PERFORMANCE TRACKER

- > Automatic determination of spreading performance for precise project accounting and analysis of savings potentials





IDEAL FILLING AND CONTAINER GEOMETRIES

Different container capacities for different requirements

MC series binding agent spreaders are available in sizes from 12 m³ to 22 m³ capacity containers. The TC Series offers container capacities of 12 m³ or 18 m³. Regardless of whether a truck mounted (M) or a towed variant (T) is chosen, both spreader types fulfill the highest expectations in terms of performance.

High-speed filling system on both sides

The binding agent spreaders are factory-fitted with two generously dimensioned filling connectors. These are positioned at the rear of the spreader and allow vehicles to approach and fill the container from either side.

The factory-fitted high-speed filling system assures fast and even distribution of the binding agent in the container. The filling connectors have a standard diameter of 4", which enables a material flow of up to 2 t/min per connector.

Intelligently designed container geometry

The intelligently designed container geometry ensures that the binding agent is ideally distributed during filling - which guarantees a low center of gravity.

The optimized design of the container prevents the cumulation of material and allows the container to be completely emptied without any problems.





- 01** High-speed filling system for maximum filling performance.
- 02** The new container geometry improves both material flow and the machine's center of gravity.
- 03** The six self-cleaning filters are designed for quick and easy maintenance.

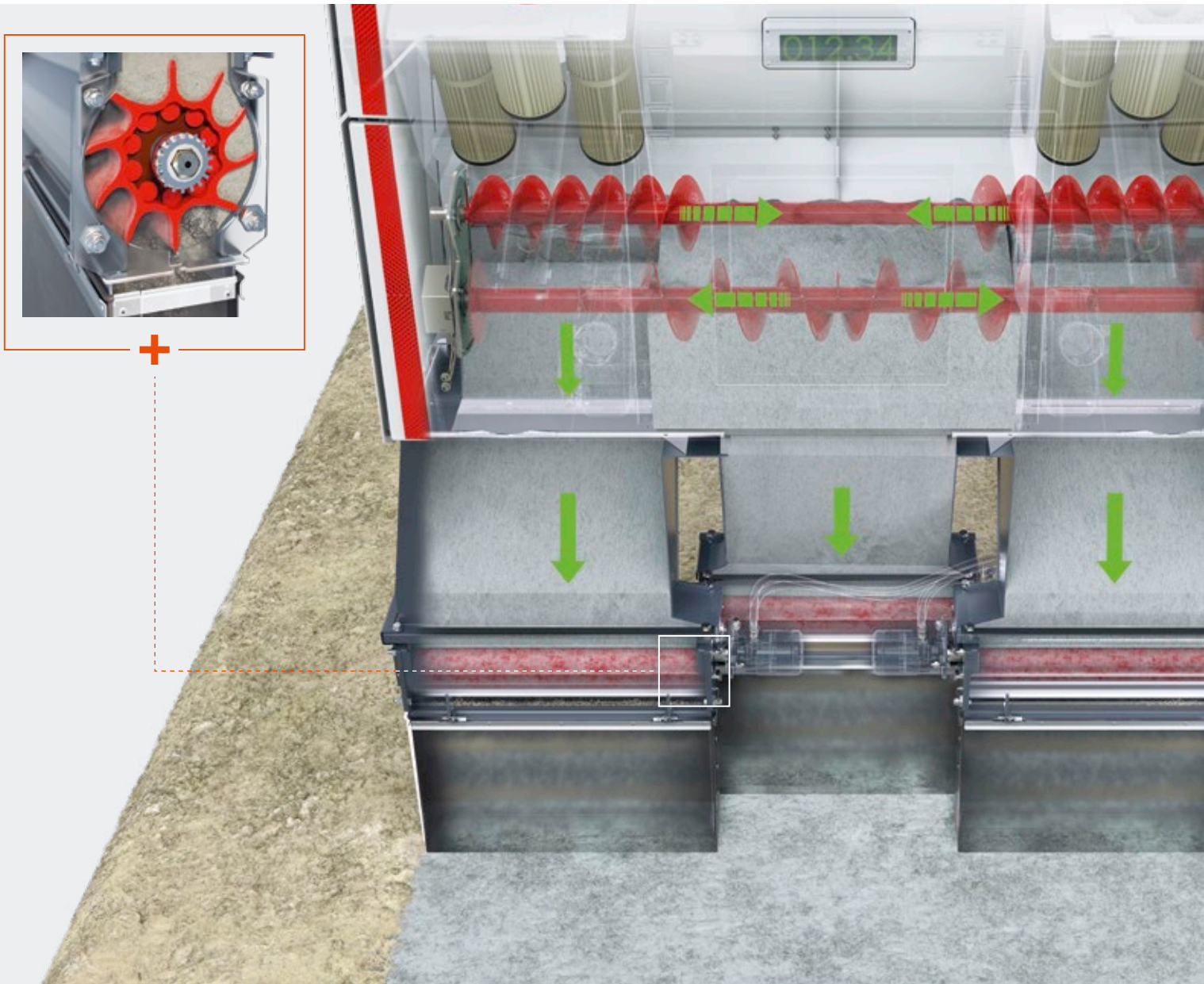
HIGH-EFFICIENCY MATERIAL CONVEYING

Optimum lateral distribution of the binding agent

Two contra-rotating two distribution augers located above the filling chute ensure even and efficient lateral distribution of the binding agent across the three cellular wheel sluices. While the lower transverse auger distributes the material the full width of the container, the upper auger transports excess material back to the middle. Because they rotate in opposite directions, the augers create a cycle that results in a constant fill level above the cellular wheel sluices.

Monitored filling chutes

A sophisticated sensor system ensures constant monitoring of the filling chutes above the cellular wheel sluices. This ensures high process reliability by assuring sufficient filling of the cellular wheel sluices at all times.





01

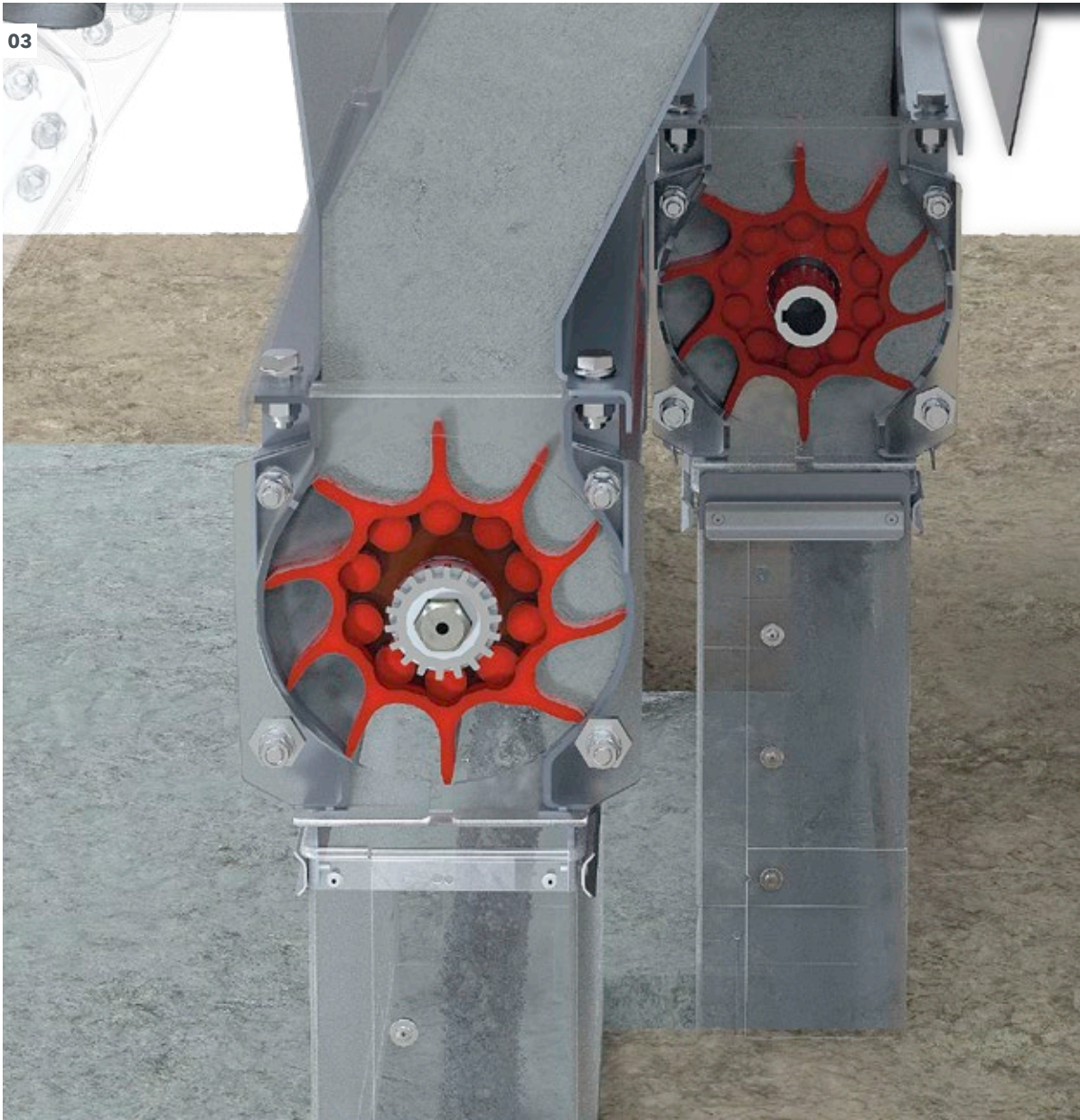
01 Reliable binding agent feed.

02 The lateral distribution auger ensures that all dosing sluices are evenly filled with the binding agent.

03 The material is fed to the cellular wheel sluice through the filling chute.



02



03

HIGH-EFFICIENCY MATERIAL CONVEYING

01





Reliable binding agent feed

In combination with the sensor-monitored drive system, the innovative chain guide system that allows the chain conveyor to run only partially within the material reduces power demand and, in turn, reduces the fuel consumption. This convincing concept leads to lower operating costs.

Low-maintenance, self-tensioning conveyor chain

The dead weight of the chain conveyor provides automatic tensioning. Maintenance costs are therefore reduced to a minimum.

01 Optimized material conveying ensures maximum spreading performance. Automatic tensioning of the chain conveyor is guaranteed.

MAXIMUM SPREADING PRECISION

Self-cleaning dosing sluices

The spreading unit consists of patented dosing sluices featuring cellular wheels. Self-cleaning of the dosing sluices is assured by a special housing with pressure and relief zones and the elastomer cellular wheel. This is due to the regular deformation of the wheel cells, which removes any material adhering to their surfaces.

Separately controllable partial spreading widths

The binding agent can be spread across three different partial widths - in addition, the spread rate of each partial width can be individually adjusted (optional). This is useful, for example, when slightly more binding agent is needed on outer areas than on inner areas, e.g. when constructing embankments or dams.

Fully automated dosing of binding agents

Dosing of the binding agent is continuous and fully-automated. This guarantees that the binding agent is always discharged precisely, independent of the machine's travel

speed. In combination with the optional WeighTronic electronic weighing system, the quantity spread is monitored and readjusted if required.

Universal, low-volume, or high-performance spreading units

Different spreading units can be selected for different applications and spread rates in soil stabilization or cold recycling. STREUMASTER offers two other spreading units as optional alternatives to the factory-fitted universal spreading unit with a spreading capacity of up to 42 kg/m². While the low-volume spreading unit with a spreading capacity of up to 10 kg/m² is particularly suitable for cold recycling applications, the high-performance spreading unit with a spreading capacity of up to 60 kg/m² is used primarily in soil stabilization scenarios. All three spreading units operate based on the volumetric dosing principle. All the necessary parameters (cell volume, rotation speed, travel speed) are brought together in the control system and guarantee precise spread rates independent of the machine's travel speed.



- 01** Spreading the binding agent in partial widths virtually eliminates the risk of overlaps in the spreading process.
- 02** Different spreading units are available for specific applications.
- 03** Self-cleaning dosing sluice, thanks to pressure and relief zones.

02



01



02

01 Low-volume spreading unit

02 Universal spreading unit

03 High-performance spreading unit

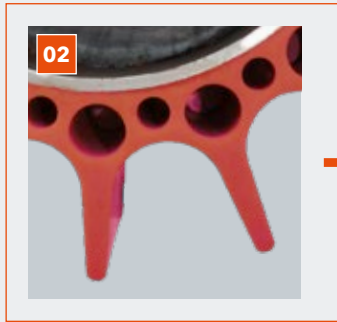


03

03



01



02



01 Pressure zone

02 Relief zone



MAXIMUM SPREADING PRECISION

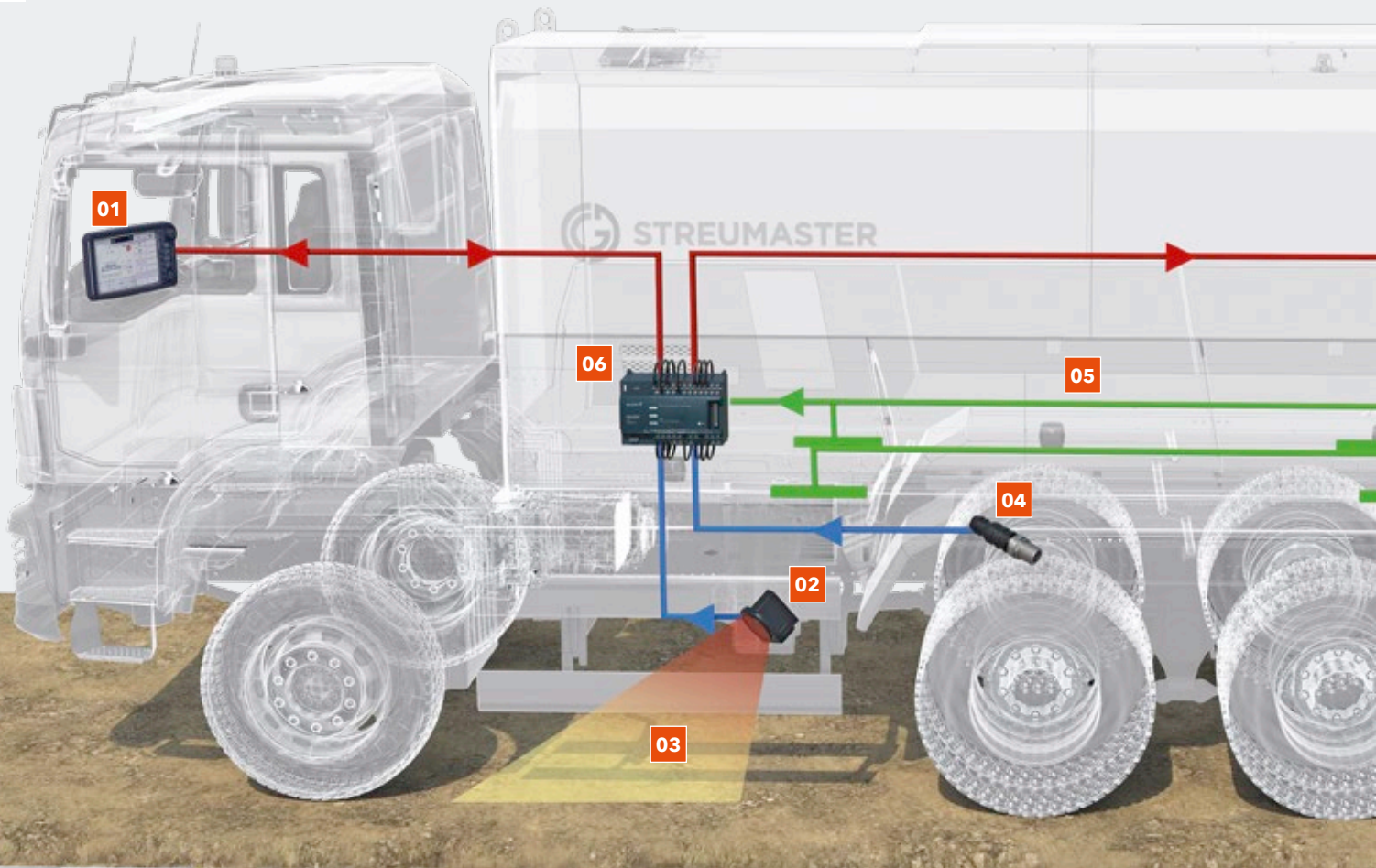
The WeighTronic electronic weighing system

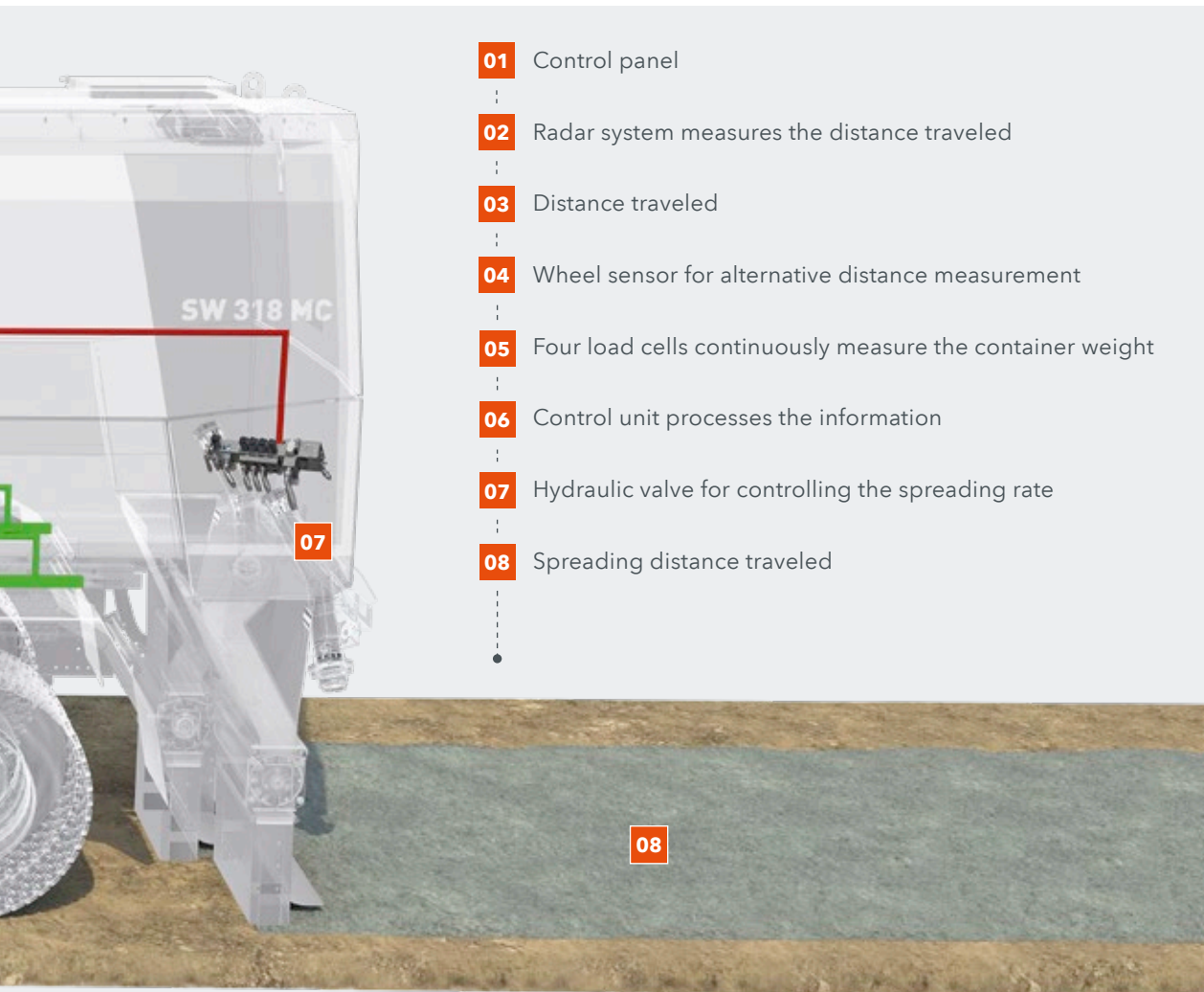
The WeighTronic electric weighing system continuously measures the container's fill weight and the quantity of binding agent discharged. The binding agent container is mounted on four load cells that make the measurements. The WeighTronic system continuously compares the actual and target values during spreading. Thanks to this, the binding agent spreader consistently guarantees the set quantity of the binding agent to be discharged (kg/m²) and ensures maximum process reliability. The immediate and continuous adjustment also maximizes the spreading precision. On the whole, this leads primarily to considerably lower costs, as there is never more binding agent spread than is actually required.

Smart speed measurement

The precise speed and distance traveled is measured by a radar system mounted on the vehicle. Alternatively, this can be measured with the factory-fitted wheel sensor. This guarantees sufficiently precise measurement of the speed, regardless of the site conditions. This enables regulation of the spread rate at all times, independent of the travel speed.

01





- 01** Control panel
- ⋮
- 02** Radar system measures the distance traveled
- ⋮
- 03** Distance traveled
- ⋮
- 04** Wheel sensor for alternative distance measurement
- ⋮
- 05** Four load cells continuously measure the container weight
- ⋮
- 06** Control unit processes the information
- ⋮
- 07** Hydraulic valve for controlling the spreading rate
- ⋮
- 08** Spreading distance traveled

- 01** Graphic visualization of the most important control components.
- 02** The current measurements are displayed to the machine operator on the control panel.
- 03** The radar system registers the speed.
- 04** WeighTronic processes the values measured by the load cells.

08

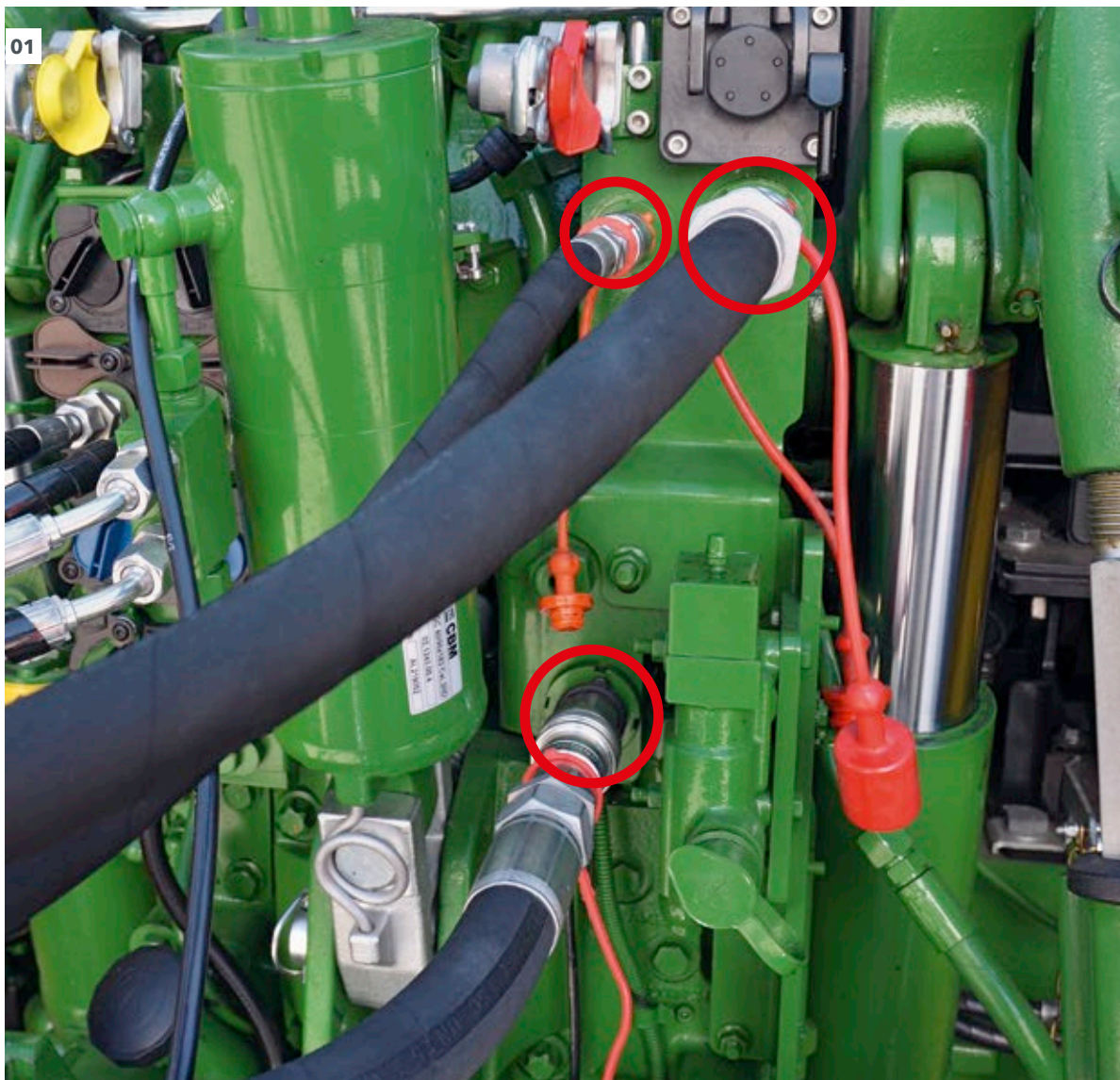
FLEXIBLE DRIVE SYSTEMS

Power supplied by the hydraulic system of the towing vehicle (Power Beyond)

Power Beyond uses the hydraulic system of the towing vehicle and is characterized by low acquisition costs and low maintenance. The STREUMASTER TC binding agent spreaders are designed for the use of the Power Beyond system as a standard feature and can therefore be used without their own on-board hydraulic system.

On-board hydraulic system powered by a wide-angle cardan shaft from the power take-off of the towing vehicle

In the case of the TC series, the hydraulic system of the spreader can also be powered by a wide-angle cardan shaft coupled to the power take-off of the towing vehicle. This is a widespread solution that offers enormous flexibility on construction sites.



Drive system for truck mounted spreaders

In the case of MC series, the hydraulic system of the binding agent spreader is powered by the carrier vehicle's power take-off. This enable reliable and cost-efficient operation of the spreader.

Autonomous drive capability by means of an optional auxiliary engine

TC and MC series spreaders can also be supplied with an integrated auxiliary engine option. The auxiliary diesel engine powers the spreader's hydraulic oil circulation system. This eliminates the need for an additional cardan shaft or a hydraulic connection. As a result, the binding agent spreader can be powered completely autonomously.

- 01** Power Beyond is compatible with the majority of modern towing vehicles.
- 02** The wide-angle cardan shaft allows the TC series to be conveniently powered from the power take-off of the towing vehicle.
- 03** The auxiliary engine allows complete independence from the towing and carrier vehicle.



INNOVATIVE AND MULTI-FUNCTIONAL OPERATING CONCEPT

Control panel with intuitive user interface for easy operating

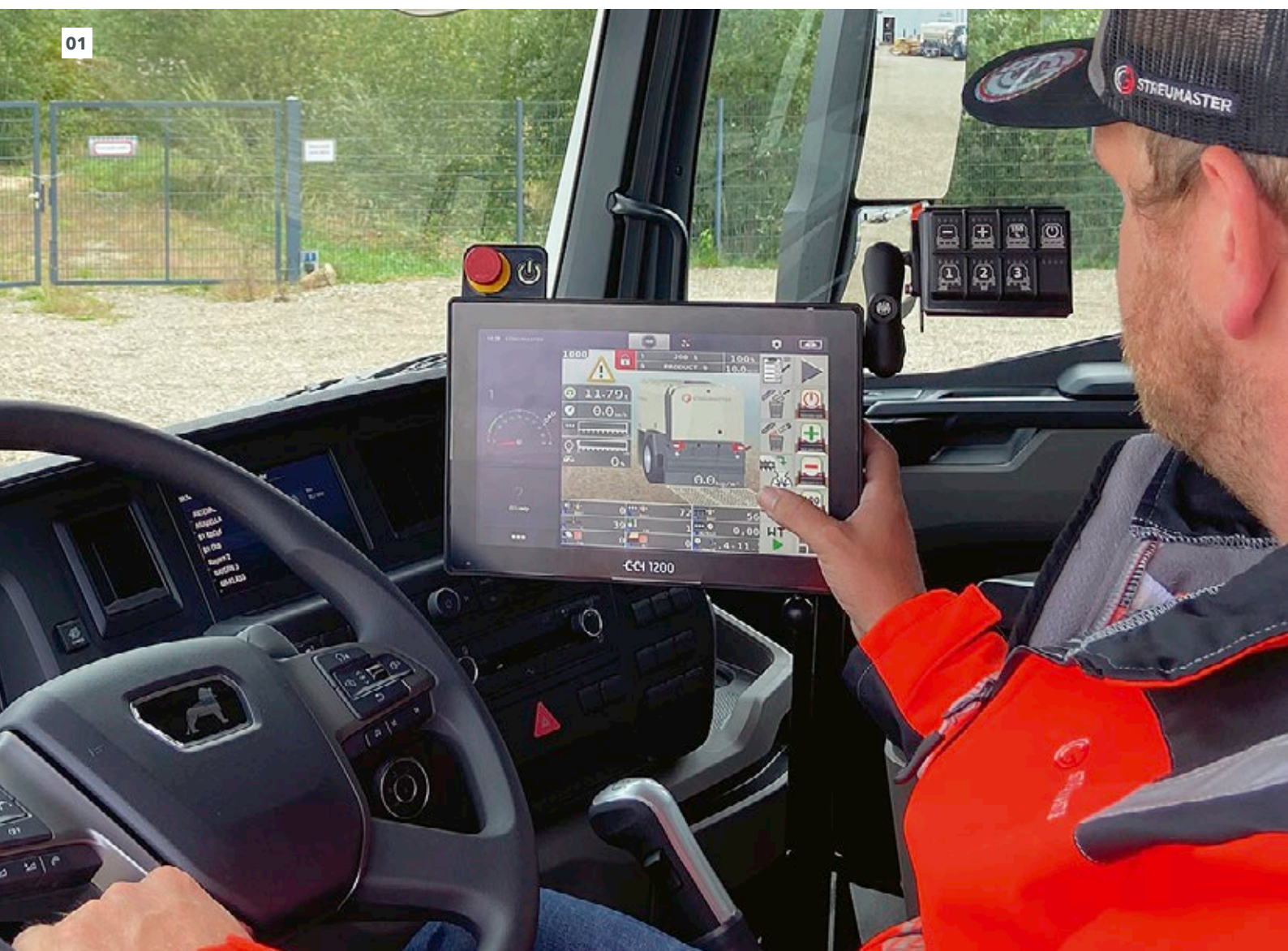
The control panel for monitoring and controlling the STREUMASTER binding agent spreader features a large 12-inch color display. This means that the operator always has a clear overview of all options and spreading settings. The operating values and function keys can be set individually on the user interface. The split-screen function of the panel serves as a monitor for the optional camera system.

Convenient, continuous spread rate regulation

The spread rate in kg/m^2 and various bulk densities of the binding agent can be entered easily and conveniently via the control panel's touch-screen user interface.

Container fill-level monitoring

Sensors indicate whether the container is "almost full" or "full" with optical and acoustic signals. This makes it easy to monitor the fill level. A weight display at the rear of the container

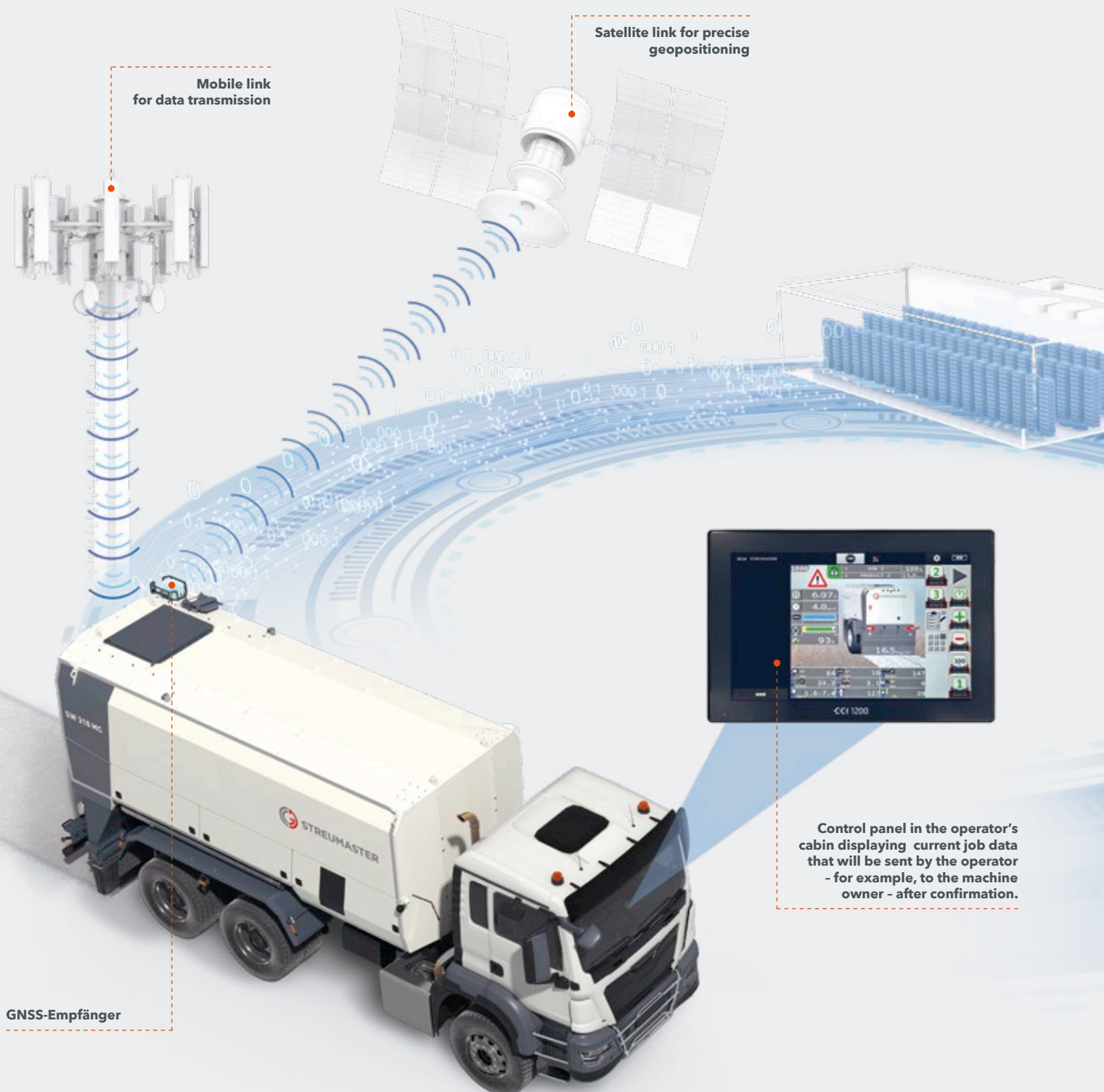


is available in conjunction with the WeighTronic option. This display makes it possible to read and check the weight of the binding agent in the container from the outside at any time during the filling process.



- 01** The optimal positioning of the control elements enables easy operation.
- 02** Two sensors at the top of the container measure the fill level.
- 03** Split-screen function with simultaneous display of machine operating and camera view (only with optional camera system).

HIGH-PRECISION WPT- WIRTGEN PERFORMANCE TRACKER



- 01** The operator receives constant information about the current machine and job parameters and, at the end of the working day, this data is transmitted to the machine owner simply by pressing a button.



STREUMASTER binding agent spreaders are equipped with innovative WIRTGEN hardware-components that, amongst other things, enable the use of **WPT** and all associated software modules. STREUMASTER binding agent spreaders are therefore fully integrated in this WIRTGEN GROUP system solution.

Precise tracking of spreading performance

WIRTGEN PERFORMANCE TRACKER WPT is a satellite-positioning-based monitoring and tracking system for precise documentation of construction sites. It records all relevant site-specific parameters and documents them in a detailed project site report. After completion of the work (e.g. the end of the working day), the machine operator presses the send button to transmit the data to the WITOS server via the telematic control unit (TCU) of the mobile communication interface. From there, the data are distributed to the designated recipients, e.g. in the form of a report by e-mail.

The GNSS receiver with the licensed SF-RTK correction signal enables accuracy in the range of +/- 2.5 cm from strip to strip, and this with a very quick pull-in time. This enables the documentation of extremely precisely-positioned machine information immediately after the day's work begins, i.e. as soon as the machine is started.

In addition to high-precision GNSS machine position data, the report contains various parameters such as the working width, the distance and area covered, and the quantities of binding agent added. In addition a separate layer file in PDF format shows the respective working widths and the precise locations at which binding agents were added and the corresponding overlap.

The results enable a precise analysis of performance on the construction site, the quality of the results delivered, and the process efficiency. This in turn enables detailed accounting of all processes and the identification of future savings potentials. At the same time, at the end of each shift, the resource planner receives reliable and precise documentation of performance and progress on the construction site without any additional effort.

**WIRTGEN GmbH**

Reinhard-Wirtgen-Str. 2
53578 Windhagen
Germany

T: +49-2645-131-0
F: +49-2645-131-392
M: info@wirtgen.com

 www.wirtgen.de



For further information, please scan the code.