



# GEDO VORSYS

## PRE-MEASUREMENT FOR TAMPING

Fast, accurate track position measurements are a key component of efficient track tamping applications. The Trimble GEDO Vorsys track measurement system is a fast and efficient system for measurement and quality control in conjunction with track tamping machines and associated work. The long-chord measuring principle used in the system guarantees high productivity with a proven measuring method. Reduced downtimes as well as fast data transfer increase the productivity of the tamping machine. The high accuracy and the continuous, error-free data flow increase the quality of the track position. The Trimble GEDO Vorsys track measurement system is characterised by high flexibility and ease of use.

### TRIMBLE GEDO SYSTEMS

Trimble GEDO systems can be used for various applications to measure, record and analyze the track position and quality, as well as for construction and maintenance work. Trimble GEDO instruments and software are designed specifically for the diverse surveying tasks on railway lines, simplifying work procedure in the field and in the office. Using standard data formats, information can be exchanged with leading track design software products and track maintenance equipment.

### SYSTEM EQUIPMENT

#### Trimble GEDO CE 2.0

Track measurement trolley with sensors for measuring gauge and cant. Together with a Trimble control unit suitable for use in the field, this forms the basis for the simple and fast acquisition of the most important parameters for assessing track quality. The track measuring trolley can easily be lifted off the track by one person before a train passes through.

#### Trimble GEDO Vorsys

Software for controlling track survey in the field in combination with two Trimble GEDO CE 2.0 track measurement trolleys and a Trimble Robotic total station. The absolute track position and the relative track geometry are recorded together with track gauge, cant and twist. Deviations of the actual track position from the target track position along the track are displayed during the measurement.

#### Trimble GEDO Office Module Tamp

Software for preparing data for tamping machines. Ramps at the beginning and end of tamping and at constraint points can be created very easily. For data exchange with the machines, the formats of all well-known manufacturers are supported.

#### Trimble GEDO Office Module Quality

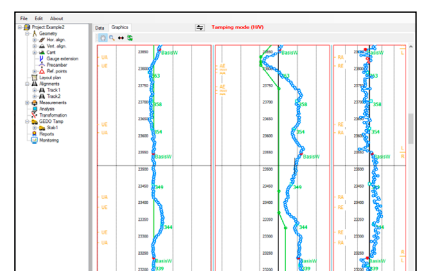
Software to generate compliance reports ensuring conformity within track safety and quality parameters.



### Key Benefits:

- ▶ Reduce tamping time and costs with rapid delivery of data to the tamping machine
- ▶ Reduce track downtime for construction and maintenance
- ▶ Capture 3D track position, gauge and cant in a single operation
- ▶ Verify track geometry with accuracy and confidence. Precise optical positioning and a simple, self-contained trolley provide visibility and reliable results
- ▶ Import alignment design from digital or paper plans. Alignment editor lets you check design information before it goes to the job site
- ▶ Post-tamping measurement reduces rework and provides immediate quality control
- ▶ Support for industry-standard formats and protocols

<b>Chainage</b> 110	<b>5.13</b>	<b>Slue</b> ◀ 5	<<<
<b>Lift left</b> ▲ 48		<b>Lift right</b> ▲ 51	Stop
<b>Tang. point</b> BEG_SPIR		<b>Point type</b> Auto store	Store
<b>Gauge</b> 1436	<b>Tw</b> -2	<b>dCant</b> -4	



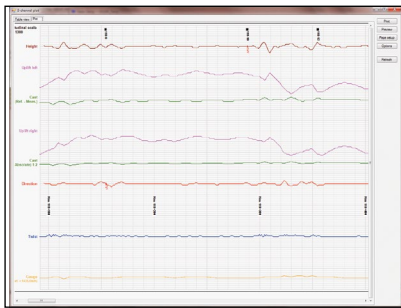
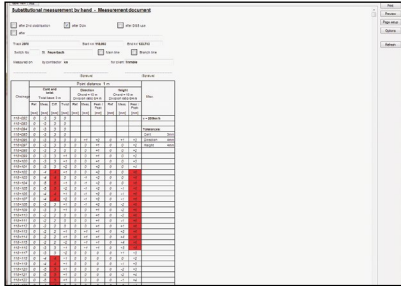
# PRE-MEASUREMENT FOR TAMPING

## GENERAL

Application .....	Pre- and post-tamping measurement of track New construction, renewal, maintenance, tracks and turnouts
Performance .....	Up to 1,400 m/hr Up to 2,500 m/hr in Kinematic Mode
Measurement speed .....	1 Hz (Stop&Go Mode) 10 Hz (Kinematic Mode, only S8 and S9)
System accuracy .....	±0.3 mm
Position accuracy .....	±1 mm in Stop&Go Mode ±3 mm in Kinematic Mode
Supported positioning sensors .....	Trimble S-Series Total Stations Recommendation: Trimble S9

## TRIMBLE GEDO CE 2.0 TRACK MEASUREMENT TROLLEY

Description .....	Track-mounted trolley supports Trimble GNSS, total station other gauges on request
Gauge .....	1000 mm, 1067 mm, 1435 mm, 1520 mm, 1600 mm, 1668 mm
Weight prism trolley .....	16.8 kg
Weight instrument trolley .....	19.5 kg
<b>Gauge measurement</b>	
Range .....	-20 mm to + 60 mm
Accuracy .....	±0.3 mm
<b>Cant measurement</b>	
Range .....	±10° or ±265 mm
Accuracy .....	±0.5 mm (static)
<b>Battery</b>	
Type .....	Trimble S-Series Li-Ion, rechargeable
Life .....	6-8 hours



## TRIMBLE TSC7 CONTROLLER

Operating system .....	Windows® Microsoft 10 Pro
Operation .....	Touchscreen, Keyboard
Interfaces .....	USB, RS232, Bluetooth®, WLAN (802.11a/b/g/n)
Environmental Protection .....	IP68; MIL-STD-810G
Temperature range .....	-20 °C to +60 °C
Weight .....	1.6 kg
<b>Battery</b>	
Life .....	up to 7 hours

## TRIMBLE S9 TOTAL STATION

Weight .....	5.5 kg
Angle accuracy .....	0.5" or 1"
Typical accuracy for distance measurement .....	0.8 mm + 1 ppm or 1 mm + 2 ppm



Specifications subject to change without notice.

TRIMBLE authorized distribution partner

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