



# VIPER

**Measuring trolley for tram tracks including the Rail profiles measurement.**

The VIPER Trolley is a measuring device intended for measuring of the basic geometry and rail profiles of grooved tram track rails. It can be used for rail wear evaluation, switches measurements and to examine track gauge, cant and twist.



The VIPER Trolley is able to measure a series of continuous track sections (including switches), evaluate the acquired data and compute the results being complied with the standard EN 13848 and EN 13231. The Viper trolley is equipped with two rail profile cameras for Rail profile measurement.

The trolley is designed to be capable of go through switches with no need to stop or using brakes. The trolley is constructed with solid body, so the possibility of derailment in curves with small radiuses is minimized.

### TROLLEY DESIGN

The VIPER consists of a two measuring units, two rail profile cameras on each side (oriented vertically) and external computer (tablet or notebook).

The trolley is light and compact, which makes it easy to put on/remove from the track in one person. The correct position in the rail is ensured by wheels construction.

For transportation is the trolley easily dismantlable into three basic parts.

### MEASURED QUANTITIES

The VIPER Trolley is capable of measurement and evaluation of following quantities:

Tram track geometry

- Gauge
- Cant
- Twist

Rail profiles and switches

- Flangeway gap
- Horizontal head wear
- Vertical head wear
- Height of gauge point below top of rail

After the measuring, collected primary data are transferred from the measuring computer into any PC computer.

### Evaluation software

The Krab 11 software is used for data evaluation. The software is part of the delivery package

### THE BASIC TECHNICAL DATA

Total weight:	25 kg
Basic dimensions:	Length 80 cm
	Width track gauge + 40 cm
Battery operation time:	8 hours
Measuring speed:	max. 12 m/s
Scanning interval:	optional - from 0,25 mm
Sensor resolution:	1 µm



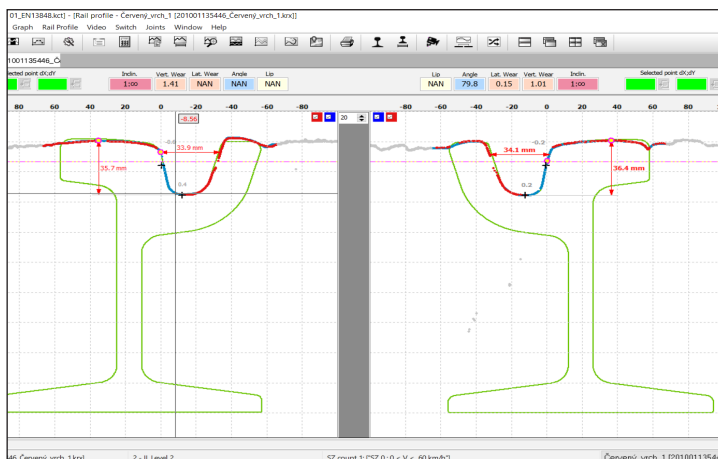
Suitable for tram track switch measurement



Easy to put on/remove from the track



Two measurement units and rail profile cameras (one on each side of the trolley).



Example of rail profiles evaluation in Krab 11 software



### Manufacturer:

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