



CRT Corrugation Recording Trolley

The Corrugation Recording Trolley from Donfabs & Consillia is a self contained lightweight measuring instrument designed specifically to record the corrugation along a railhead. The system is configured for use on both ballasted and embedded track types (35GP-NP40S).

Utilising a sliding shoe system, the unit is capable of measuring various wavelengths providing a very accurate reading. All data is stored for later retrieval and analysis.



Features

- Sliding Shoe Technology with 1m straight edge reference
- Composite Channel
- Filtered Channel 25 to 150mm wavelength
- Filtered Channel 150mm to infinity wavelength
- Measurement wavelength range 10 to 600mm
- Battery Powered
- Integral Recording System
- Folds for easy transportation

For more information, please contact the Railway Sales Department at Donfabs & Consillia

Email: sales@consillia.com

Measurement

The CRT employs a sliding shoe system with a reference length of 1m. The sensing unit is centrally mounted within the length of the shoe, to provide the most accurate reading possible. The shoe has two positions, measurement mode, where the shoe is in contact with the rail and transport mode, where the shoe is lifted from the rail to reduce the amount of wear on the shoe surface. The composite signal is stored along with filtered versions which provides 25 to 150mm and 150mm to infinity wavelength results. This enables areas of corrugation on the track to be easily identified.

Recording Systems

The trolley is supplied with a sophisticated data logging system and state of the art wireless tablet PC. All data is streamed though to the PC where it can be displayed real time in graphical, tabular or error log formats.

Operation

The CRT has been designed for quick setup and operation. Upon arrival at site, the unit is unfolded, the push handle inserted and the portable PC slotted into its holder. A setup wizard enables parameters to be entered and recording can commence.

Batteries

The unit is self contained, operating from its own battery source, giving an autonomy of up to 5 hours.

Portable

The CRT is designed to be portable, with a removable cross arm enabling the unit to be transported in a small van or estate car.

Software

All data can be transferred to our own software data analysis package, VTAS, where it can be compared, annotated, viewed and manipulated into various report formats.

Technical Specification

Construction

Aluminium box section with removable cross arm. Sprung wheel assembly for opposite rail for use on ballasted or embedded track

Technical Details

Measurement Principle	Sliding Shoe
Reference	Straight edge over length of 1metre
Number of measuring shoes	1
Measurement Resolution	2.5 microns (averaged over a 40mm diameter target area)
Measurement Sensitivity	
Filtered Channel	25 to 150mm wavelength
Filtered Channel	150mm to infinity wavelength

Recording System

Integrated Ruggedised PC with folding lid. Removable from the trolley for transportation and storage. Data is stored directly to the hard disc of the PC. All data can be reviewed using the replay software

Environmental

Measurement Mode

Length:	1550mm
Width:	1600mm
Height:	300mm
Weight:	22kg (including Recording System)
Temperature:	0°C to +50°C
Humidity Range	5 to 95% non condensing

Other Measuring Trolleys

Measurement Type	GXT	GXT-D	GXTT	GXTT-D	SGMT-5	SGMT-5D	PTST	CRT	SLMT-D	RSWR-C-S
Gauge	✓	✓	✓	✓	✓	✓	✓			
Crosslevel	✓	✓	✓	✓	✓	✓	✓			
Twist	C	C	C	C	C	C	C			
Top			✓	✓						
Switch Left					✓	✓	✓			
Switch Right					✓	✓	✓			
3M Horizontal Versine							✓			
3M Vertical Versine							✓			
Corrugation								✓		
Platform Height		0				0	0			
Platform Lateral Position		0				0	0			
Conductor Rail		0				0	0			
Distance Recording	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Topography							✓			
Cyclic Top							✓			
GPS							0			
Sleeper Height							✓			
Road / Pavement Height									✓	
Rail Profile										✓
Note: 0 = Optional, C = calculated from trace										