Wheel Tracker Small Devices - 1 & 2 Arms

CRT-WTEN1
CRT-WTEN2
CRT-WTAUS

The CRT-WTEN1 and CRT-WTEN2 are supplied with a UKAS certificate of accreditation validating conformance to EN 13108

BRIEF INTRODUCTION

Wheel tracking is used to assess the resistance to rutting of asphaltic materials under conditions which simulate the effect of traffic. A loaded wheel tracks a sample under specified conditions of load, speed and temperature while the development of the rut is monitored continuously during the test. Test specimens can be either slabs prepared with a laboratory compactor or 200mm Ø cores cut from the highway.

The CRT-WTEN1 wheel tracker performs both procedures A and B specified for the small scale device in EN 12697-22. Procedure A requires that six specimens are tested. For procedure B only two specimens need to be tested, but rut depth must be measured at more points along the longitudinal rut profile. To speed up the testing process the CRT-WTEN2 was designed to test two specimens simultaneously.

KEY FEATURES

- Tests materials for roads with axle loads up to 13 tonnes
- Rigid test frame built from extruded aluminium section
- Integral temperature controlled cabinet with double glazed doors
- PID control of test temperature in the range 40°C to 62°C
- Rack for pre-test temperature conditioning of specimens
- The CRT-WTEN2 tests two specimens simultaneously
- Specimens compacted with the Cooper Technology Roller Compactor can be transferred directly to the wheel tracker without de-moulding
- Closed-loop speed control
- User-friendly Windows™ software
- Supplied with certification of a UKAS accredited calibration

KEY USES

- Determination of the rut resistance of asphaltic paving materials

STANDARDS

- EN 12697-22 Small device
- AST 01:2004
- BS 598-110:1998

SYSTEM ELEMENTS

The CRT-WTEN1 is comprised of

- A solid extruded aluminium frame supporting an insulated cabinet which uses PID control linked to a PRT for accurate closed loop temperature control
- A rubber-tyred wheel runs on top of the specimen and applies 700 or 520N to the specimen
- A table which is reciprocated a distance of 230mm on linear bearings at 26.5rpm
- One LVDT for rut measurement
- Large double glazed doors for full access which enable visual monitoring of the test if required

The CRT-WTEN2 is as above, but with two wheels so that specimens can simultaneously be tracked.

Wheel Tracker Small Device

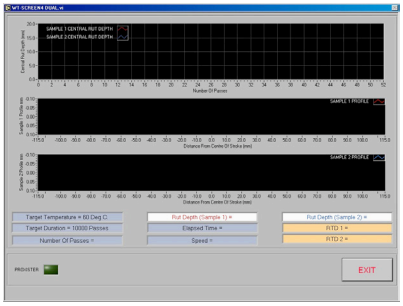
CRT-WTEN1
CRT-WTEN2
CRT-WTAUS

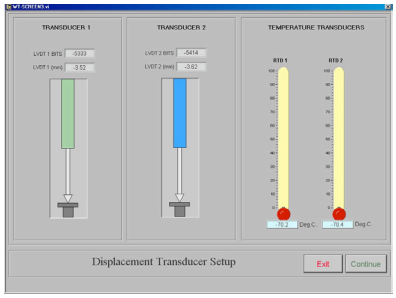
SPECIFICATIONS

Wheel Load	700/520N
Mould Dimensions	305 x 305mm (others available)
Wheel Speed	26.5 cycles per minute
Slab Thickness	40 to 100mm (others available)
Rut Depth Transducer Range mm	50
Temperature Range	40 to 60°C
Electrical Supply	Single 220-240 Volts 50/60 Hz @ 13A (others available) Dual 220-240 Volts 50/60 Hz @ 16A (others available)
Compressed Air	Dual 7-10 bar @ 600 L/min
Dimensions mm (WxDxH)	Single 1579 x 840 x 1740 Dual 1750 x 1090 x 1970
Working space required mm (WxDxH)	Single 1680 x 1840 x 1940 Dual 1850 x 3090 x 2070
Estimated Weight Kg	Single 448 Dual 500
PC	Included

SOFTWARE

- User friendly, intuitive and reliable Windows™ software developed using LabVIEW™
- Software is designed to perform EN 12697-22 Small device
- Software automatically starts the wheel tracker, maintaining the speed at the specified 26.5 cycles per minute
- Measures rut depth and sample temperature automatically at regular intervals
- The rut profile is captured automatically by the software and analysed to calculate the rut depth
- A continuously updated on-screen graph shows rut depth versus time, along with the rut profile and temperature
- Software stops the wheel tracker on completion of a test and prints a test report if required
- Stored test data can be analysed and compared with other test data utilising a spreadsheet package
- Utilities are included for transducer check, diagnostic routines and RTD calibration





Accessories

Accessories are not included in the price of the main device and may be purchased separately if required.

CRT-WTRCM-50
Steel and aluminium quick release mould for roller compactor or wheel tracker, 305 x 305 x 50mm deep[1]

CRT-WTRCM-100
Steel and aluminium quick release mould for roller compactor or wheel tracker, 305 x 305 x 100mm deep[1]

CRT-INSERT-10
Mould - Aluminium Insert 305 x 305 x 10mm - used to adjust mould depth[1]

CRT-WT-DIAM200
Split wooden holder with steel base-plate for 200mm Ø core specimen

CRT-WH-IRDH-80-20
Rubber wheel for Wheel Tracker for EN 12697-22

CRT-WH-IRDH-20
Rubber wheel for Wheel Tracker for AST 01:2004 and BS 598:110

CRT-WT-VM
Add on to accept any mould sizes from 260mm. Retroffitable. For CRT-WTEN1

CRT-WTRCM-50L
Mould - Wheel Tracker/Roller Compactor 260 x 305x 50mm deep

CRT-WTRCM-100L
Mould - Wheel Tracker/Roller Compactor 260 x 305 x 100mm deep

[1] Other sizes available, please enquire

Calibration & Maintenance

Calibration, Annual Service and Maintenance Contracts are available for this device.
UKAS accreditation to satisfy typed testing as described in EN 13108.
Please enquire for further details.

Note: This device should be checked and calibrated annually.