

Auto Lift Arm ECO Wheel Tracker

CRT-WTECO-A

(European Community registered design #: 001699042)



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The Auto Lift Arm ECO Wheel Tracker saves energy, is space efficient and can double daily testing output

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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-WTECO-A™ 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 and the tests are longer. To speed up the testing process the CRT-WTECO-A™ was designed to test two specimens within one working day via a pre-programmable unique lift arm mechanism (European Community registered design #: 001699042).

KEY FEATURES

- Tests materials for roads with axle loads up to 13 tonnes
- Fully programmable automated lift arm, enables up to twice the normal test throughput
- Automated pre programmable sample conditioning
- Small and compact for maximum energy efficiency, 28% saving over CRT-WTEN1
- Integral temperature controlled cabinet with fully glazed doors
- PID control of test temperature in the range 40°C to 62°C
- Specimens compacted with the Cooper Technology Roller Compactor can be transferred directly to the wheel tracker without de-moulding
- User-friendly Windows™ software
- Supplied with UKAS accredited calibration certification and CE marked

KEY USES

- Determination of the rut resistance of asphaltic paving materials.

STANDARDS

- EN 12697-22 Small device
- AGPT/T231 (supersedes AST 01)
- T 0719

SYSTEM ELEMENTS

The CRT-WTECO-A™ is comprised of :

- A fabricated frame supporting a single innovative hinged loading arm, enclosed by an insulated cabinet which uses PID control linked to a PRT for accurate closed loop temperature control.
- A rubber-tyred wheel which runs on top of the specimen and applies 700N to the specimen.
- A table which is reciprocated a distance of 230mm on linear bearings at 26.5rpm.
- One precision linear pot for rut measurement.
- A fully glazed lifting door which enable visual monitoring of the test if required and easy practical access.

Auto Lift Arm ECO Wheel Tracker

CRT-WTECO-A

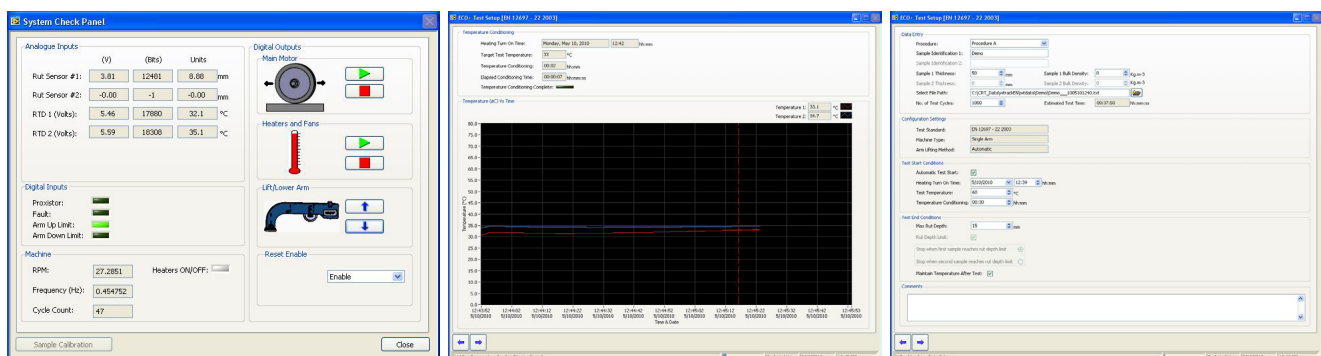


SPECIFICATIONS

Wheel Load	700N
Mould Dimensions mm	305 x 305
Wheel Speed	26.5 cycles per minute
Slab Thickness mm	35 to 100
Rut Depth Transducer Range mm	50
Temperature Range	40 to 62°C
Electrical Supply	220-240 Volts 50/60Hz @ 13A (others available)
Dimension mm (WxDxH)	1450 x 540 x 1450
Working space required mm (WxDxH)	2450 x 540 x 2000
Estimated Weight Kg	380
PC	Included

SOFTWARE

- User friendly, intuitive and reliable Windows™ software developed using LabVIEW™
- Programmable for auto start, enabling up to double daily testing output
- Programmable sample conditioning to enable test to start prior to the working day
- 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
- USB PC link
- Excel import data output



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 deep¹



CRT-WTRCM-100
Steel and aluminium quick release mould for roller compactor or wheel tracker, 305 x 305 x 100mm deep¹

CRT-INSERT-10
Mould - Aluminium Insert 305 x 305 x 10mm - used to adjust mould depth¹

CRT-INSERT-5
Mould - Aluminium Insert 305 x 305 x 5mm - used to adjust mould depth¹



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



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

CRT-ECOWH-IRDH-20
Rubber wheel for Wheel Tracker for AGPT/T231(supersedes AST 01)

CRT- WTECO-MCS
Mould Conditioning Shelf

¹ Please enquire for any other depths

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 annually.