

# European Large Roller Compactor - Pneumatic Tyred Roller

CRT-RCENLD-III



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Optimisation of repeatability and productivity through the automation of human interface

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## BRIEF INTRODUCTION

Roller compaction is the laboratory method that most closely simulates on-site compaction. The machine can be configured to operate with a single or twin wheels depending on the mould size. The wheels track the surface in overlapping wheel-paths using sequences specified in EN 12697-33 or custom sequences designed by the user. The base of the mould is incrementally raised by a precision jacking system and the system is tracked to keep it level with the top of the mould.

Compacted slabs can be from 50 to 150mm thick. 500 x 180mm slabs are usually wheel tracked in the Cooper Technology Large Wheel Tracker, whilst 600 x 400mm slabs are normally cut to produce trapezoidal or prismatic specimens for fatigue, modulus tests and Duriez test.

## KEY FEATURES

- Compacts uniform slabs of asphaltic paving mixture
- Computer control for repeatable standard EN 12697-33 compaction patterns
- Option for customer defined compaction patterns to be programmed and saved
- Single or dual wheeled configuration
- Mould size (length x width) 500 x 180mm or 600 x 400mm
- Compacted slabs can be used in the large pneumatic tyred wheel tracker or cut into beams for bending tests
- Safety enclosure with optical laser sensors for user safety, easy access and excellent manoeuvrability
- Issued with UKAS certification of calibration

## KEY USES

- Preparation of homogeneous asphalt slabs:
- Wheel tracking tests
- Sawing into beams for bending tests
- Coring to produce specimens for indirect tensile and axial tests

## STANDARDS

- EN 12697-33 Pneumatic tyred roller
- NF P98-250-2

## SYSTEM ELEMENTS

The CRT-RCENLD-III is comprised of:

- The machine with integrated steel safety enclosure
- An easy access open front guarded with a SmartScan™ laser light gate
- A hydraulic power pack sits to the side, or in a separate room
- Four synchronized screw jacks which are driven by an electric motor for vertical table movement with feedback through a calibrated displacement transducer
- One or two wheels which are loaded with a hydraulic actuator under force feed-back via a load cell
- A stepper motor for accurate control of the lateral wheel position
- A large electric motor which drives the wheel(s) in the longitudinal axis
- System control which is housed in a side mounted control box
- The screen and the keyboard which are installed on an arm with adjustable height and angle

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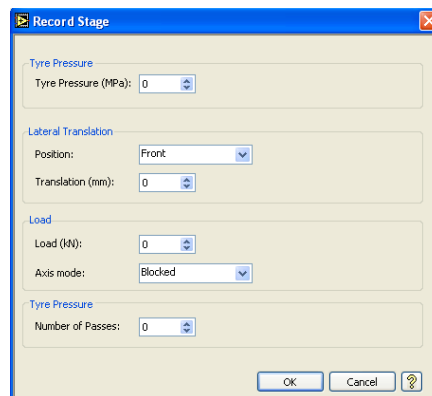
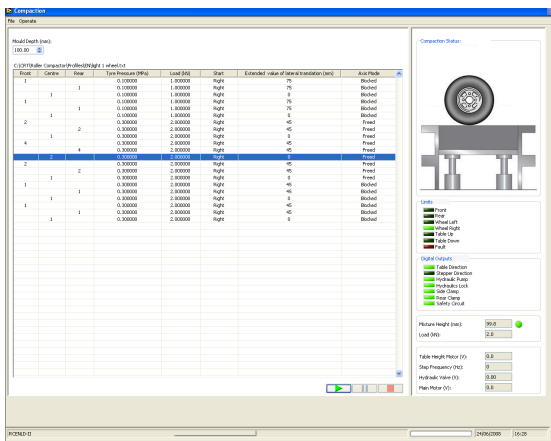


## SPECIFICATIONS

Maximum Wheel Load	5kN Single wheel, 10kN Dual wheel
Mould Dimensions	500 x 180, 600 x 400 (others available)
Wheel Speed	200 to 500 mm/s
Slab Thickness	50, 100, 150 mm (others available)
Electrical Supply	3 Phase 415 Volts 50Hz @ 32A (others available)
Compressed Air	7-10 bar @ 100 L/min
Dimension mm (WxDxH)	Compactor 1600 x 1300 x 2150 Power Pack 550 x 600 x 700
Working space required mm (WxDxH)	2600 x 3300 x 2300
Estimated Weight Kg	1365 (including Power Pack)
PC	Included

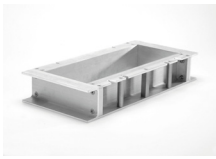
## SOFTWARE

- User friendly, intuitive and reliable Windows™ software developed using LabVIEW™
- Software is designed to perform EN 12697-33 (Large Scale Device)
- The user interface can be translated into the user's preferred language – please enquire
- Real time display of current compaction height and diagnostic indicators
- EN compaction routines are included as standard
- User can design and save custom compaction routines



## Accessories

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



**CRT-WTRCM-100LD**  
Mould - Large Device Wheel Tracker/Roller Compactor 500 x 180 x 100mm deep



**CRT-INSERT-50LD**  
Mould - Insert 500 x 180 x 50mm deep

**CRT-RCM-600LD**  
Mould - Large Device Roller Compactor 600 x 400 x 100mm deep

**CRT-RCM-150LD**  
Mould - Large Device Roller Compactor 600 x 400 x 150mm deep



**CRT-RCLD-500SR**  
Light weight steel roller to level surface of compacted samples 500 x 180mm

**CRT-RCLD-600SR**  
Light weight steel roller to level surface of compacted samples 600 x 400mm



**CRT-WTRCLD-FK**  
Lifting trolley specifically designed for use with the Roller Compactor And Wheel Tracker Large Device



**CRT-WTRCLD-TREP**  
Replacement pneumatic tyre for Large Device Wheel Tracker/ Roller Compactor



**CRT-WTRCLD-IREP**  
Replacement inner tube for Large Device Wheel Tracker/ Roller Compactor

## 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.