

European Standard Roller Compactors – Steel Roller

CRT-RC2S
CRT-RC2SV



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The most popular Roller compactor worldwide is robust,
reliable and the industry standard

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BRIEF INTRODUCTION

The Roller Compactor is considered to be the method of laboratory specimen compaction that results in slabs of asphaltic paving materials with properties that most closely simulate those of materials in the highway. Slabs can be compacted to target mixture densities using loads that are equivalent to those of full-scale compaction equipment.

The CRT-RC2S and CRT-RC2SV are pneumatically powered and controlled by a programmable logic controller (PLC) connected to an HMI which the operator can use to select the number of passes and compaction load levels. Although the primary function is to produce slabs for wheel tracking tests, the slabs can be sawn into beams or cored to provide specimens for a variety of other tests. Users have compacted hot asphaltic materials over stress absorbing membrane interlayers (SAMIs) on a base of cracked concrete in order to assess the effectiveness of the SAMI by using shear or bending tests.

KEY FEATURES

- Steel wheeled roller segments
- Solid machine frame
- Model for compaction of 305 x 400mm and 305 x 305mm slabs
- Roller compactor moulds will fit Cooper Technology Wheel trackers so that compacted slabs can be wheel-tracked without de-moulding
- Maximum compaction load of 30kN per 305mm roll width (equivalent to largest on-site static rollers)
- Speed control
- HMI for operator selection of number of passes and compaction levels
- Vibrating roller option with adjustable frequency to simulate on-site vibratory rollers
- Safety enclosure with interlocked doors to prevent unguarded operation
- Slabs can be used as wheel-tracking specimens, cored to make indirect tensile test specimens or sawn into beam fatigue specimens

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 Steel roller

SYSTEM ELEMENTS

The CRT-RC2S is comprised of:

- A robust flame cut steel frame with integral safety cabinet
- An HMI controlled pneumatic system designed together with SMC
- An alterable stroke mechanism
- Removable roller segments of different sizes

A vibrating roller on the V systems to simulate conditions in-situ.

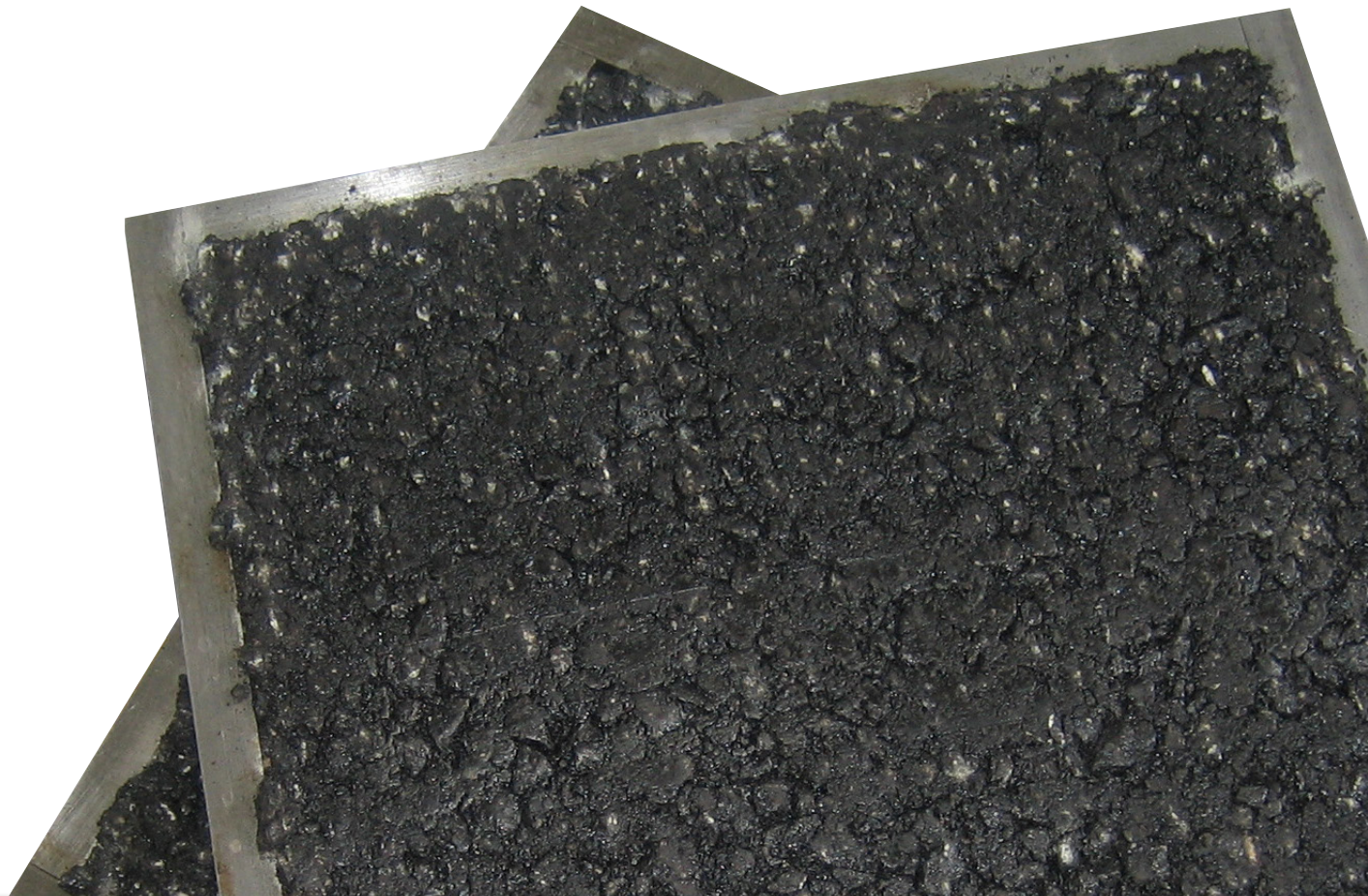
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SPECIFICATIONS

Maximum Roller Load	30kN over 305mm roll width @ 7bar, 38kN @ 9 bar
Trolley Travel mm	±150
Speed	Variable up to 10 cycles per minute
Slab Thickness mm	40-100
Electrical Supply	220–240 Volts 50-60 Hz @ 13A (others available)
Vibrating Frequency	0-50 Hz (CRT-RC2SV model only)
Compressed Air	7-10 bar @ 700 L/min
Dimensions mm (WxDxH)	1900 x 1100 x 1520
Working space required mm (WxDxH)	2900 x 1700 x 1700
Estimated Weight Kg	670
PC	N/A



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-RCM-50W

Steel and aluminium quick release mould for roller compactor or wheel tracker, 305 x 400 x 50mm deep¹



CRT-RCM-100W

Steel and aluminium quick release mould for roller compactor or wheel tracker, 305 x 400 x 100mm deep¹

CRT-RCVIB

Vibration option to simulate conditions in-situ

CRT-RCHEIGHT

Specimen height measurement during compaction

CRT-RC2S-TEMP

Temperature in mould display

CRT-COMP-1210

Large Compressor (up to 10bar and 1200l/min) for supply of air to two pieces of large flow equipment such as Roller Compactors and Four Point Bending rigs

CRT-F12T-AIRDRYER

Air dryer with 43cfm flow rate and 3C dew point. 230/1/50

¹ Other sizes available, please enquire

Maintenance

Annual Service and Maintenance Contracts are available for this device. Please enquire for further details.

Note: This device should be checked annually.