

Bending Beam Rheometer - BBR



CRT-BBR-3

The improved Bending Beam Rheometer 3 (CRT-BBR3) has been designed to perform flexural tests on asphalt binder and similar specimens per AASHTO T 313, AASHTO TP 87, ASTM D6648, and BS EN 14771 specifications as part of the PG grading system according to Superpave. The BBR3 is the first of its kind to offer an internal computer system incorporating touch screen technology. Each BBR consists of a fluid bath base with a built-in touchscreen computer, load frame, external refrigeration unit, and a calibration kit with carrying case. Used in part to determine a sample's critical cracking temperature and low temperature PG grade, the BBR's -40°C to 25°C temperature range is efficiently calculated by a platinum RTD measuring device. The 500g load cell and changeable specimen supports easily transition the BBR3 for crack sealant testing. Designed to be user friendly and efficient, the BBR3 allows operators to enter a multitude of customisable test parameters. A built-in Ethernet connection allows users to monitor their equipment remotely using a tablet, smartphone, or other mobile device.

Standards

- AASHTO T313
- AASHTO TP87
- ASTM D 6648
- BS EN 14771

Key Features

- Touchscreen controller with easy to use, step-through instructions
- Integral stainless steel, corrosion resistant construction
- Leveling legs
- Languages available: English, French, German, Spanish, Italian, Chinese, and Arabic
- 500 gram load cell with mechanical overload protection
- 0.25 Linear Variable Displacement Transducer (LVDT)
- NIST traceable platinum RTD
- Mechanical refrigeration system
- Cooling coil located in test bath. No pumping required.
- Programmable test parameters, detailed test reporting
- Digital controls
- Out of tolerance indicator lights for: air bearing, LVDT, load cell, RTD, load shaft alignment, & system check
- USB port on front and back of unit for software updates and data downloads, as well as printer connection

- Ethernet capabilities
- Latest BBR software
- Load frame featuring integral stainless steel friction-less construction
- In-line stainless steel loading shaft with blunt point
- VNC Viewer - Remote monitoring capabilities with smart phone or tablet app.

Accessories

Accessories are not included in the price of main device (unless stated otherwise) and may be purchased separately if required.

CRT-BBR-CAL-KIT	BBR Calibration Kit complete with: - Step Disk and Index - (4 each) 50 Gram Weights - (2 each) 2 Gram Weights - Confidence Beam - Non-Compliance Beam - Wood Case - Dimensional Certificates
CRT-BBR-SPEC-MOLD-KIT	Set of 5 Complete Specimen Moulds Including: - Aluminum Casing Bars - Mylar Strips - Holding Bands - 127mm Length, With End Piece Location Marks - 6.4mm Thick, 12.7mm Wide
CRT-BBR-CS-MOLD-KIT	Set of 6 Complete Crack Sealant Specimen Moulds Including: - Aluminum bars, end pieces and bottom plate - 165.00mm x 19.00mm (12 each) Side Bar - 12.70mm x 19.00mm (12 each) Spacer Bar - 177.00mm x 13.00mm (6 each) Bottom Plate - Holding Bands (12 each) Interer specimen mould when fully assembled to be 12.70 +/- 0.05mm W x 12.70 +/- 0.05 mm D x 102.0 +/- 0.5mm L

Specifications

Technical specifications are subject to change without notice.

Power Requirements	230 V 50-60Hz, 1ph
Operating Temperature	Ambient to -40°C
Test Load	Variable test range from 0 to 4,000 mN standard. System. Maintains required test load within +/- 5mN throughout test cycle.
Test Cycle Times	Cycle times for pre-load, recovery, and test load are completely operator adjustable
Load Cell	500g (temperature compensated)
LVDT Displacement Transducer	6.35mm (0.25in) calibrated range to provide 2µm resolution throughout testing and verification range.
Recommended Cooling Bath Fluid	Non-flammable ethylene glycol mixture
Temperature Measurement	Platinum RTD
Compressed Air Requirements	60 PSI inlet pressure (414 kpa) @ Class 3 Quality max particle of 5µm
Weight (approx.) Kg	67
Dimensions mm (W x D x H)	610 x 600 x 675

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