

# Bending Beam Rheometer 3S (BBR3S)



The ATS Bending Beam Rheometer 3S (BBR3S) performs flexural tests on asphalt/bitumen binder and similar specimens per AASHTO T 313, AASHTO TP 87, ASTM D6648, GOST 58400.8-2019, and BS EN 14771 specifications as part of the PG grading system according to Superpave. An ATS original, the BBR3 is the first of its kind to offer a state of the art internal computer system, incorporating intuitive new software and touchscreen technology.

## Features:

- \* A redesign of the calibration disk and weight pan allows for standardizing the LVDT sensor with a reduced chance for possible error, by minimizing variations in positioning the weight pan during standardization.
- \* Improved temperature control algorithms stability incorporating a next generation controller.
- \* New motor assures exceedingly long motor life due to no moving parts; especially quiet operation. Unaffected by moisture.
- 12 inch, industrial strength touchscreen display
- Programmable test parameters include deflection plot, load plot, bath temperature, specimen size, testing times, load, and testing company
- Optional changeable specimen supports easily transition for crack sealant testing
- Remote monitoring capabilities
- Compact external chiller with reduced noise during operation
- Customizable report settings - add a company logo, notes, and accreditations
- Test data available in CSV and HTML.



\* Denotes Improvements to BBR3

## Product Specifications

Load Frame Construction	Integral stainless steel, frictionless construction
Loading Shaft Point	In-line stainless steel with blunt point
Test Load	Variable test range from 0 to 4,500 mN (459 g) standard. System maintains required test load within +/- 5 mN (0.5 g) throughout test cycle.
Test Cycle Times	Cycle times for pre-load, recovery, and test load are completely operator-adjustable.
Load Cell	500 g (temperature-compensated)
Mechanical Overload Protection	Standard
Testing Temperature Range	0 to -40°C (32 to -40°F)
Temperature Measurement	Platinum RTD
Power Requirements	115 VAC, 1 ph, 50/60 Hz, 2 A or 230 VAC, 1 ph, 50/60 Hz, 2 A
Air Pressure	60 psi inlet pressure (414 kPa) @ Class 3 Quality max particle of 5 µm
Test Weights	Calibrated and traceable to NIST
Rating	IP20 Enclosure rating
Sample Supports	3 mm (0.118 in) radius stainless steel spaced 101.6 mm (4.00 in) apart
LVDT Displacement Transducer	0.25 in (6.35 mm) calibrated range to provide 2 µm resolution throughout testing and verification range.
Data Display	Large on-screen display of load, displacement, and bath temperature provides ease of setup and operation. Real time displacement, loading, and temperature graphs are displayed during the test cycle and can be re-plotted and re-scaled as needed for easy viewing.
Tank Liquid Volume	1.5 gallons (5.5 liters)
Weight	150 lbs
Dimensions	BBR: 24 in W x 26.5 in D x 23.5 in H (with load frame) Chiller: 10.5 in W x 20 in D x 9.25 in H