



H-1642



**Bending Beam Rheometer— H-1642**

**Bending Beam Rheometer, 230V 50Hz— H-1642.5F**

The Bending Beam Rheometer (BBR) performs flexural tests on asphalt binder and similar specimens per ASTM D6648-01 and AASHTO T313-02. These tests, initially developed by the Strategic Highway Research Program (SHRP), consist of a constant force being applied to a specimen in a chilled fluid bath in order to derive specific rates of deformation at various temperatures. The complete BBR system consists of a fluid bath base unit, a three-point bend test apparatus, which is easily removed from the base unit for specimen loading and unloading, an external cooling unit with temperature controller and a calibration hardware kit with carrying case. The unit features an integral, stainless steel load frame and in-line, blunt-point loading shaft. The large, easy-to-read digital display shows load, displacement, and bath temperature for 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. Unit includes ASTM/AASHTO-compliant specimen molds and complete calibration kit with carrying case. Shipping Weight 250 lbs. (115kg)

**System Features:**

- Durable, corrosion-resistant construction
- Computerized control, data acquisition, and analysis
- PID temperature controller with digital display
- Two independent platinum RTDs for precise temperature control
- Mechanically-refrigerated cooling bath with environmentally-safe non-CFC coolant
- Integral LVDT and temperature-compensated load cell for accurate test results
- Patented air bearing ensures reliable loading with accurate, repeatable results

**Specifications**

Test Load	0 to 200g
Test Cycle Control	±0.5g
Cycle Times	Operator Adjustable
Load Cell (temp. compensated)	500g
Sample Supports	25mm (0.98 in.) dia. spaced 4.00 in. (101.6mm) apart
Operating Temperature	Ambient to -40°F (-40°C)
Compressed Air Requirements	50 psi (0.34 MPa) clean, dry

**Specimen Mold Set— H-1642.1**

Set is for 5 complete specimen molds and includes: aluminum casing bars, mylar strips, holding bands 127mm length with end piece location marks, 6.4 mm thick, 12.7 mm wide.

**Vacuum Degassing Oven (VDO)— H-1641**

**Vacuum Degassing Oven, 230V 50Hz— H-1641.5F**

The Vacuum Degassing Oven (VDO) is used to precisely and accurately degas pressure-aged binder samples to meet AASHTO R28-06 and ASTM D6521-05 standards. The compact, table-top unit is constructed of stainless steel with a hinged lid to conserve space while allowing easy access to the stainless steel vacuum chamber. The oven holds up to (4) specimen containers and features a self-contained, automatic vacuum system. The high-precision controller features a digital display indicating time, temperature and the current stage of each process, as well as illuminated pre-heat, degas and end/stop buttons. It also features audible and visual alarms, indicating end of process. Over temperature protection is provided by a pressure safety release solenoid valve. The VDO includes (4) specimen containers and a specimen removal tool.

H-1641



**Specifications**

Operating Pressure	Adjustable from 15 KPA to Atmosphere
Temperature Range	175° C ± 5° C
Temperature Control Resolution	0.1° C
Test Temperature Uniformity	± 5° C