

Steps to Prepare Apparatus Checklist

Below is a checklist covering the four steps required to prepare the apparatus for testing, as well as the items needed for verification of calibration.

Note that some specifications described in the following content may not be the same as the specifications followed by your agency. Always check with your State agency's standards and specifications when using these guidelines.

Sections

- Step 1
- Step 2
- Step 3
- Step 4
- Verification of Calibration

Step 1

- Prior to the time when the asphalt mixture is ready for placement in the mold, turn on the main power for the compactor for the manufacturer's required warm-up period



Gyratory compactor screen display showing system is idle

Step 2

- ❑ Verify the machine settings are correct for angle, pressure, and number of gyrations per the manufacturer's instructions



Gyratory compactor screen display showing the following, "View Settings; # Gyration: 75; Mode: # Gyration; Angle (Int.): 1.16 degrees"

Step 3

- ❑ Lubricate any bearing surfaces as needed per the manufacturer's instructions



Lab technician lubricating the platen of the gyratory compactor

Step 4

- When specimen height is to be monitored, immediately prior to the time when the asphalt mixture is ready for placement in the mold, turn on the device for measuring and recording the height of the specimen, and verify the readout is in the proper units, mm, and the recording device is ready
- Prepare the computer, if used, to record the height data and enter the header information for the specimen
- Note: Typically, the measuring and recording devices are turned on automatically when you turn on the Superpave Gyrotory Compactor**
 - Therefore, you may not need to conduct this step separately as you may have completed it as a part of Step 1

Verification of Calibration

- Items needing verification of calibration include:**
 - Ram pressure
 - Angle of gyration
 - Refers to the internal angle (the tilt of the mold with respect to the end plate surface within the gyratory mold)
 - Linear Variable Differential Transformer (LVDT)
 - Gyration frequency
 - Mold and platen dimensions and the inside finish of the mold
 - Oven temperature is standardized