

IN-HOUSE PROCEDURE # _____

PROCEDURE FOR VERIFYING CORE LENGTH MEASURING DEVICES

Item:

Core Length Measuring Device

Purpose:

This method provides instructions for checking the critical dimensions and distance measurements of a core length measuring device.

Inspection Equipment Required:

1. Caliper readable to 0.001 in. (0.025 mm) or better
2. Verification gauge (approximately the same diameter as cylinders)
3. Straight-edge (at least 4 inches in length)
4. Feeler gauge 0.001 in. (0.02 mm)

Tolerance:

Equipment shall meet the dimensional tolerances specified in the applicable test method.

Procedure:

1. Measure the distance from the end of the rod to at least three markings on the measuring rod to the nearest 0.1 in. (1 mm) or better using a caliper.
2. Measure the length of the verification gauge to 0.002 in. (0.05 mm) or better using a caliper.
3. Verify the planeness of the ends of the verification gauge using a straight-edge and feeler gauge. The flatness of the ends shall not depart from plane by more than 0.001 in. (0.02 mm) across the diameter for all cylinder sizes.
4. Center the verification gauge in the length measuring device. Measure the length at the center and at four additional points along the circumference of the cylinder with the core length measuring device. Average the five readings.
5. If the average measurement does not meet the required tolerance, determine the correction needed for accurate core length measurement.