

Measuring Tape Calibration Procedure

Memorial University Technical Services

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1.0 Standards and Equipment

The following equipment is required:

Granite Plate
Master Gauge Block Set

NOTE: Standards and equipment used must have a valid calibration certificate

2.0 Calibration Procedure

"TS-0069 Measuring Tape Calibration Record Sheet" must be used

Clean the Measuring Tape's measuring surfaces, the granite surface, and the gauge blocks to be used

NOTE: Use a conversion factor of 25.40 mm/in to convert gauge block lengths to Metric from Imperial

Step 1:

Measure the ambient temperature and record it. If the temperature is $<18^{\circ}\text{C}$ or $>24^{\circ}\text{C}$, See the Division Manager for further instructions.

Step 2:

Test Characteristic: Visual inspection of the tape

Test Method: Slide out one foot of the measuring tape. Inspect the body of the tape measure, the tape itself, and the tabbed metal clip on the end of the tape for damage, visibility of scale and marks, and looseness

Acceptable Limit: Should have smooth movement along its whole length and markings should be clearly visible

Step 3:

Test Characteristic: Inside scale measurement

Test Method: Using gauge blocks, measure and record 5 different lengths. Join multiple gauge blocks for checking longer measurements

Acceptable Limit: +/- 0.05" (1/16") or 1mm

Step 4:

Test Characteristic: Outside scale measurement

Test Method: Put the gauge blocks vertically on a granite surface and hold them in place using a height gauge. Put the metal clip on the measuring tape against the granite surface measure and record 5 different lengths. Join multiple gauge blocks for longer measurements

Acceptable Limit: +/- 0.05" (1/16") or 1mm