

Weight Scale Calibration Procedure

Memorial University Technical Services

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1.0 Standards and Equipment

The following equipment is required:

Set of Known Weights

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

2.0 Calibration Procedure

"TS-0085 Weight Scale Calibration Record Sheet" must be used.

Clean the Weight Scale's measuring surface, the surface the scale is laid on, and wear gloves when handling the weights to be used.

NOTE: Use a conversion factor of 0.453592 kg/lb to convert weights 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: Leveling of scale surface

Test Method: Level the scale using its adjustable feet. There is a bubble-level just behind the digital readout. If the scale cannot be leveled or one of the feet is broken, record it as damaged/failed and notify the supervisor for further action. A granite surface is not entirely necessary because the scale is self-leveling.

Acceptable Limit: Bubble is within the inner-marked circle.

Step 3:

Test Characteristic: Scale measurement

Test Method: Using a known weight, measure and record the scale's calibration weight. Each precision scale should have its own specified calibration weight that can be found in its manual or in the manufacturer's table of standard calibration weights. Use multiple smaller weights for checking larger weight measurements if necessary. If it is required, remember to zero/tare the scale after turning the scale on for the most accurate measurement. Do a final check by measuring and recording 5 other weights over the range of the scale.

Acceptable Limit: +/- 2% of nominal weight value