

**GENERAL INFORMATION**

**Schedule and Arrangements**

To utilize the facilities of the laboratory to the fullest extent, work will be accepted by appointment. To make appointments, please contact: Paul Masterson, by phone: (608) 224-4910, or by email at [DATCPMetrologyLab@wisconsin.gov](mailto:DATCPMetrologyLab@wisconsin.gov)

Shipping Address

Wisconsin Weights and Measures Laboratory  
3601 Galleon Run  
Madison, WI 53718

If you do not schedule an appointment with a metrologist, the laboratory will consider the work unscheduled. Unscheduled work will be performed when time allows. Expect a turnaround time of two weeks from the date of receipt.

**Cost Estimates/Quotes**

Upon request, the laboratory will make a concerted effort in providing a quote to you. However, the cost of service may differ due to the metrology fee schedule as well as the variability of necessary adjustments to your artifacts. You may estimate the cost of service by referring to our fee schedule, accessed on our website, <https://datcp.wi.gov/Documents/FeeSchedule.pdf>

**Calibration and Adjustments**

"Calibration" describes a documented comparison of the unknown measurement device against a traceable reference standard. The laboratory will receive a measurement result from the calibration and compare it against the specifications or tolerances agreed upon by the lab and the customer. Any device not meeting the proper specifications or tolerances will be adjusted and recalibrated. A calibration certificate will be mailed/emailed to you, with the measurement results, as soon as reasonably possible by laboratory.

At least every two years, the state weights and measures laboratory or a NIST traceable laboratory must recalibrate weights used to test commercial devices, per Wisconsin state law.

**WEIGHT FIELD STANDARDS SUBMITTING GUIDE**

**Cast Iron Weights**

Cast iron weights should be thoroughly cleaned with a wire brush. A weight painted with numerous coats of paint, which are beginning to chip, should be cleaned with paint remover. DO NOT sand or shot blast or sandpaper cast iron weights. This method of cleaning removes metal as well as paint and could result in the weight being rejected.

Cast iron weights should be freshly painted with a good quality coat of aluminum paint. Use a spray can or a thin mixture in a spray gun. Do not brush on. Avoirdupois weights should be sprayed with a thin coat silver paint. For metric weights use gold paint.

**Stainless Steel or Plated Weights**

Weights ten pounds / five kilograms and less must be made of stainless steel. New brass weights are no longer acceptable and will not be calibrated. Old style plated weights will be approved only until they go out of tolerance or physical condition warrants rejecting them for calibration. Weight kits MUST have a serial number associated with the kit.

Stainless steel or plated weights should be cleaned with solutions to remove all extraneous matter. Care should be taken to prevent leaving a residue of any kind on the weight and to prevent getting water into the adjustment cavity. Alcohol may be needed to remove some stains.

### **Weight Specifications**

The laboratory references NIST HB 105-1 (2019) for specifications and tolerances. All mass standards must conform to the specifications listed in NIST Handbook 105-1 (2019). Weights manufactured before 2020 and used for Class III scales will be given a NIST Class F rating. Weights manufactured 2020 or later and used for Class III scales will be given an ASTM E617-18 Class rating suitable for commercial testing. Adjustment cavities on weights will be sealed with a soft metal seal; lead for cast iron and aluminum for stainless.

### **Shipping and Handling**

If weights are shipped to the laboratory, do not pack them in Styrofoam peanuts. Use bubble pack, folded cardboard, or other packing paper. Damage to weights or the shipping container may occur during shipment. Please pack your weights accordingly. The customer is responsible for all shipping charges and fees associated with the work order(s).

## **VOLUME TEST MEASURE AND PROVER SUBMITTING GUIDE**

### **Test Measures and Provers (10 Gallons or less)**

Gasoline and fuel oil MUST be drained from all test measures and provers and they should be washed out with a strong solution of soap and water, and be dry before coming into the laboratory.

If not made of stainless steel, the outside of a test measure should be clean and freshly painted. If a volume measuring device has been damaged, all dents should be flattened and all leaks fixed. Normal testing fee will apply to any test measures submitted whether approved or rejected if an attempt was made to test.

Volume measuring devices with sight gauges that are dirty, yellow and hard to see through, should have the tube replaced before submitting to the laboratory. These tubes are available from various manufacturers. On occasion, we may replace them at the lab for a fee.

### **Large Provers (Over 10 Gallons)**

Gasoline or fuel oil must be thoroughly drained from the pump and hose before being brought into the laboratory. Gauge tubes should be clean and easy to see through. Clean the outside of the prover to present a professional appearance. Check your prover valves and gauge tubes for leaks. The laboratory does not repair or fix large volume provers.

### **Volume Specifications**

Any new volumetric provers or test measures must conform to all of the specifications as listed in the National Institute of Standards and Technology (NIST) Handbooks 105-3 and 4.

### **Shipping and Handling**

If you ship the test measures into the laboratory for your appointment, do not pack them in Styrofoam peanuts. Wrap in bubble pack or folded cardboard and ship in sturdy container to prevent damage. Cover the top opening to prevent foreign material from getting inside. The customer is responsible for all shipping charges and fees associated with the work order(s).