New Clean Room Weights and Weight Sets in Cases

Precisely Engineered to Meet the Highest Clean Room Requirements

Troemner, an ISO 9001 registered company, now offers an entire series of clean room weights and weight sets in cases specifically designed to meet the exacting requirements for clean room use. Committed to providing the highest level of service to our customers, Troemner holds NIST/NVLAP accreditation in multiple disciplines including mass, pipettes and now density determinations. Additionally, we are currently seeking NIST/NVLAP accreditation for magnetic susceptibility. Our level I weight calibration laboratories exceed the Environmental Cleanliness System according to FED-STD 209-E, Class 1,000 requirements.

Precision Weights

Using the latest computer-based metalworking equipment, we precision machine the finest stainless steel bar stock, chosen for its uniform density, high resistance to wear and corrosion and low magnetic properties.

These weights are constructed of Troemner's *new* UltraClass Weight Alloy 8 austenitic stainless steel, specially developed for use in precision weights and mass standards. UltraClass Weight Alloy 8 possesses closely controlled density, extremely low magnetic permeability, good stability and resistance to corrosion and damage from handling.

UltraClass Weight Alloy 8 has a density of 8.0 at 25°C (controlled to ±0.1%). Essentially non-magnetic in the annealed condition, its austenitic structure will not transform to magnetic properties under any combination of temperature and cold work down to -320°F.

UltraClass Weight Alloy 8 meets and exceeds all stainless steel material specifications that NBS (NIST) specified over 35 years ago when purchasing the original state laboratory mass standards which Troemner helped supply.

Careful attention is paid to every detail of production. Weight bottoms are slightly recessed to expose the smallest possible area to wear. Weight heads and necks are precisely shaped to give a solid, sure grip to forceps or weight lifters. All surfaces are polished to a perfect, mirror-like finish. Weights are adjusted on the basis of apparent mass versus material of 8.0 g/cm^3 density, following the recommendations of both ANSI/ASTM E617 and OIML International Recommendation No. R111.

Precision Cases

These specially designed cases conform to clean room requirements and are approved for use in all clean room environments including Class 1. Constructed of either clear acrylic with extruded aluminum edges and plated steel hardware or entirely of molded polypropylene, they are totally inorganic and free of materials that may be potential sources of particulate generation. The inserts are either acrylic or polypropylene depending on the case selected.

Troemner is committed to serving the needs of our customers with new and innovative products and services. This commitment is not only reflected in this new line of clean room weights, but also in our mass metrology capabilities. A significant investment in both time and resources ensures we have the country's best independent metrology laboratory capable of the finest calibrations available. Troemner's laboratories are accredited by both the NIST-administered NVLAP and its internationally recognized UK equivalent, UKAS.

Please contact us today to discuss your calibration needs.

Selection Guide

Description	UltraClass*	Class 1*	Class 4*
Weight Sets			
2 kg (2) – 1 mg	7163-0	7163-1	7163-4
2 kg – 1 mg	7162-0	7162-1	7162-4
1 kg – 1 mg	7160-0	7160-1	7160-4
500 g – 1 mg	7156-0	7156-1	7156-4
200 g (2) – 1 mg	7154-0	7154-1	7154-4
200 g – 1 mg	7153-0	7153-1	7153-4
100 g – 1 mg	7152-0	7152-1	7152-4
Weights			
5 kg	7110-0	7110-1	7110-4
2 kg (2)	7150-0	7150-1	7150-4
2 kg	7112-0	7112-1	7112-4
1 kg (2)	7151-0	7151-1	7151-4
1 kg	7113-0	7113-1	7113-4
500 g	7114-0	7114-1	7114-4
200 g	7116-0	7116-1	7116-4
100 g	7117-0	7117-1	7117-4

* To add the Traceable Certification to your selection, add "T" to the end of the part number. To add the NIST/NVLAP Certification to your selection, add "W" to the end of the part number.

Certification Services

Every Troemner weight and weight set is supplied with a Statement of Accuracy that contains both the date of calibration and density of each weight. It verifies that the product has been manufactured to meet all specifications for its class and has been calibrated using standards traceable to NIST. The statement of accuracy is supplied only when the weights are new. It is not available for purchase after the initial sale. More detailed certification services are available for an additional fee including Troemner's Traceable and NIST/NVLAP Certificates.

Traceable Certificate includes the nominal value of the weight, mass correction and tolerances, customer name, address, purchase order number, date of calibration, accuracy class, density and a statement of traceability to NIST. The Traceable Certificate measurement process uses one series of comparisons using a single standard.

The NIST/NVLAP Weight Calibration Certificate is our most detailed and meets all ISO, FDA, GMP, GLP, DOD, ANSI/NCSL Z540-1 and Nuclear requirements. All procedures and processes used to generate this multi-page certificate, as well as its format and content, are prescribed by the NIST-administered National Voluntary Laboratory Accreditation Program. The document contains: customer name, address, date of calibration, equipment and standards used during the calibration, accuracy class, true mass value (mass in a vacuum), "as found" mass correction (for recalibration), "as left" mass corrections for each weight, uncertainty of measurement process for each weight, environmental conditions during test, construction and density of weights, calibration procedures used, statement of traceability to NIST along with a helpful list of terms and definitions.

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ISO 9001 REGISTERED

UKAS CALIBRATION 0516

NVLAP®
Accredited by the National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code 105013.

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