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CALIBRATION WEIGHTS

Ensuring your weighing is accurate and precise





Calibration Weights

Calibration weights are designed in cast iron or stainless-steel. Weights are used to calibrate weighing equipment and manufactured and laboratory compared to a known standard. To maintain your weighing device accuracy and for Legal for Trade applications, it is important to use a reliable and certifled test weight.

Applications:

- Calibration Class I & II balance in accordance to Handbook 44
- Student laboratory use
- · Rough weighing operations
- Tolerance testing
- Verification checks
- · Calibration shift test & calibration adjustments
- Sensitivity testing



Selecting Calibration Weights

Materials & Features:

- · Stainless steel polished finish
- Meets ASTM E617-19
- USP-41 compliant
- · Nominal value marked on weight
- · Serial Number applied to case

Style Available:

- · Type I design (one piece) for ASTM Class 0
- Type II design (screw-knob) for ASTM Class I-4 with sealing cavity for adjustment of material

| | Cast Iron | Stainless Steel | |
|--------------------------------|---|---|--|
| Application Use | Test industrial weighing devices, non-marked scales without class designation, check acceptable tolerance | Test Class III scales and balances, non-classified scales, check acceptable tolerance | |
| Balance / Scale Classification | Class III / Non-designated | Class III | |
| Marked for Consistency | 0 | ✓ | |
| Serial Number | 0 | Optional | |
| Approvals | NIST Handbook 44 and 105-1 specifications | NIST Handbook 44 and 105-1 specifications, Class F tolerances | |
| Styles | Grip handle Nesting slab Slotted | CylindricalGrip handleLeafDish | |
| Weight Class | ASTM Class 6 and 7 OIML Class M1 and M2 | ASTM Class 5,6,7 | |





| | Electronic Balance Calibration Weights | Precision Laboratory Test Weights |
|--------------------------------|---|--|
| Application Use | Calibration Tolerance & Verification Checks | Calibration, Tolerance & Verification Checks |
| Balance / Scale Classification | Class I, Class II | Class I, Class II |
| Marked for Consistency | • | * |
| Serial Number | Optional for class 2-4 | Optional for Class 2-4 |
| Approvals | ASTM E 617-13Density 7.84 g/cm3 (303 SS) | ASTM E 617-13Density 7.95 g/cm3 (316 SS) |
| Styles | Grip handle Cylindrical Leaf | Cylindrical Type 1 one piece construction Type 2 two piece construction (screw knob) Leaf |
| Weight Class | ASTM Class 0-7 | ASTM CLass 0-4OIML Class E1, E2, F1, F2 |

^{*}Precision Laboratory Test Weights

ASTM Class 0 test weights are not individually marked with their weight value or individually serialized per ASTM E 617-13. Single-piece cylindrical test weights are Type I, ASTM Class 0 and OIML Class E1 and E2, and F1 and F2 with a one-piece construction. These weights have no added adjusting material. Type II designs are cylindrical weights with adjusting cavities.

Test Weights and Configurations

A&D offers test weights as Individual weights, Cal-pal kits or Weight sets.









| | Individual Weights | Cal-Pal Weight Kits | Weight Sets |
|-----------|---|--|---|
| Includes: | Test weight: 1 pieceVial or soft caseCotton glove | Test weights: 3 piecesVial or PVC hard caseTweezer or Lifter | Test weights: 9 to 21 piecesHard case (varies)White glove & Tweezer or Lifter |

Individual Weights

Class I ASTM 1-piece test weight with screw knob test weight screw knob with sealing cavity or leaf, includes vial or soft case and cotton glove.

Cal-Pal Weight Kits

All cylindrical ASTM kits (excluding grip-handle weights) include their own protective hard case and glove set for safe handling.

Weight Sets

Sets may be ordered in a 5-2-2-1 or a 5-3-2-1 configuration. For example, a set might include:

- (1) 50 g weight, (2) 20 g weights, and (1) 10 g weight, or
- (1) 50 g weight, (1) 30 g weight, (1) 20 g weight, and (1) 10 g weight.

OIML and ASTM test weight sets larger than 500 grams, or one pound, include a hardwood case with velvet-lined pockets. Test weight sets with the largest weight of 500 grams include a precision-machined polyvinyl, crush-resistant case.

Serial numbers are not stamped on polished or milligram weights. A test weight should be more accurate than the precision of the weighing device, and it is recommended that a test weight has an accuracy of one-third the weighing device readability.

Product Configurations

With and without ISO 17025 Accredited Certificate of Calibration documentation



Individual ASTM Weight Metric Kits

| Leaf | | | | | | | |
|--------|---------|--------|--------------------------|--------------------------|---------------------------|---------------------------------|--|
| Weight | Class | Туре | Material | Includes | Part No. without Cert. | Part No. with ISO 17025 Cert | |
| 1 mg | Class I | Type I | Stainless Steel Polished | Vial, White Cotton Glove | AD-1700-1MG | AD-1700-1MG-C | |
| 5 mg | Class I | Type I | Stainless Steel Polished | Vial, White Cotton Glove | AD-1700-5MG | AD-1700-5MG-C | |
| 10 mg | Class I | Type I | Stainless Steel Polished | Vial, White Cotton Glove | AD-1700-10MG | AD-1700-10MG-C | |
| 20 mg | Class I | Type I | Stainless Steel Polished | Vial, White Cotton Glove | AD-1700-20MG | AD-1700-20MG-C | |
| 50 mg | Class I | Type I | Stainless Steel Polished | Vial, White Cotton Glove | AD-1700-50MG | AD-1700-50MG-C | |
| 100 mg | Class I | Type I | Stainless Steel Polished | Vial, White Cotton Glove | AD-1700-100MG | AD-1700-100MG-C | |
| 200 mg | Class I | Type I | Stainless Steel Polished | Vial, White Cotton Glove | AD-1700-200MG | AD-1700-200MG-C | |
| 300 mg | Class I | Type I | Stainless Steel Polished | Vial, White Cotton Glove | AD-1700-300MG | AD-1700-300MG-C | |
| 500 mg | Class I | Type I | Stainless Steel Polished | Vial, White Cotton Glove | AD-1700-500MG | AD-1700-500MG-C | |



Individual ASTM Weight Metric Kits

Screw-Knob (sealing cavity for adjustment)

| Weight | Class | Туре | Material | Includes | Part No. without Cert. | Part No. with ISO 17025 Cert | | |
|--------|---------|---------|--------------------------|----------------------------------|------------------------|------------------------------|--|--|
| 1 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-1G | AD-1700-1G-C | | |
| 2 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-2G | AD-1700-2G-C | | |
| 5 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-5G | AD-1700-5G-C | | |
| 10 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-10G | AD-1700-10G-C | | |
| 20 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-20G | AD-1700-20G-C | | |
| 50 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-50G | AD-1700-50G-C | | |
| 100 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-100G | AD-1700-100G-C | | |
| 200 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-200G | AD-1700-200G-C | | |
| 300 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-300G | AD-1700-300G-C | | |
| 400 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-400G | AD-1700-400G-C | | |
| 500 g | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-500G | AD-1700-500G-C | | |
| 1 kg | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-1KG | AD-1700-1KG-C | | |
| 2 kg | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-2KG | AD-1700-2KG-C | | |
| 3 kg | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-3KG | AD-1700-3KG-C | | |
| 4 kg | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-4KG | AD-1700-4KG-C | | |
| 5 kg | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-5KG | AD-1700-5KG-C | | |
| 10 kg | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-10KG | AD-1700-10KG-C | | |
| 20 kg | Class I | Type II | Stainless Steel Polished | Soft Case, White Cotton Glove | AD-1700-20KG | AD-1700-20KG-C | | |



Cal-Pal ASTM Weight Kits

| Screw-Knob (sealing cavity for adjustment) | | | | | | | |
|--|---------|---------|--------------|---------------------------------|--|--|--|
| 3 Essential Cal-Pal Kits | Class | Туре | Material | Part No. with ISO17925 Cert. | Micro, Semi, Analytical Balances | Precision Toploading Balances | |
| 2 g, 200 mg, 1 mg, | Class 0 | Type II | SS Polished | AD-2-200-1 | BM-5D / BM-22 | | |
| 5 g, 500 mg, 1 mg | Class 0 | Type II | SS Polished | AD-5-500-1 | BM-5 / BM-20 | | |
| 20 g, 2 g, 20 mg | Class I | Type II | SS Polished | AD-20-2-20 | BM-20 / BM-22 | | |
| 100 g, 10 g, 20 mg | Class I | Type II | SS Polished | AD-100-10-20 | HR-100A/AZ, GH-120, GF & GX124A AE, EK-120i | | |
| 100 g, 10 g, 200 mg | Class I | Type II | SS Polished | AD-100-10-200 | HR-150AZ, EW-150i | GF&GX-123A, FX/FZ-120i | |
| 200 g, 20 g, 20 mg | Class I | Type II | SS Polished | AD-200-20-20 | BM-252, GH-252/202, GR-202 | | |
| 200 g, 20 g, 200 mg | Class I | Type II | SS Polished | AD-200-20-200 | BM-252, GH-252/202, GR-202/200, GF&GX-224A AE, HR-250A/AZ | | |
| 200 g, 20 g, 2 g | Class I | Type II | SS Polished | AD-200-20-2 | BM-300/200, GH-300/200, GR-300/200, GF-224A/324A, GX-224A AE/324A AE, HR-250A/AZ | GF&GX-203A / 303A / 403A, FX/FZ-200/300i | |
| 500 g, 50 g, 200 mg | Class I | Type II | SS Polished | AD-500-50-200 | BM-500 | GF&GX-603A, FX/FZ-500i | |
| 500 g, 50 g, 2 g | Class I | Type II | SS Polished | AD-500-50-2 | EK-610i | GF&GX-603A, FX/FZ-500i | |
| 1 kg, 100 g, 2 g | Class I | Type II | SS Polished | AD-1-100-2 | | GF&GX-1003A / 1603A, FX/FZ-1200i | |
| 1 kg, 100 g, 20 g | Class I | Type II | SS Polished | AD-1-100-20 | | | |
| 2 kg, 200 g, 2 g | Class I | Type II | SS Polished | AD-2-200-2 | | | |
| 2 kg, 200 g, 20 g | Class I | Type II | SS Polished | AD-2-200-20 | | | |
| 5 kg, 500 g, 2 g | Class I | Type II | SS Polished | AD-5,500,2 | | | |
| 5 kg, 500 g, 20 g | Class I | Type II | SS Polished | AD-5-500-20 | | | |
| 100 g, 10 g, 2 g | Class I | Type II | SS Polished | AD-100-10-2 | HR-100A/AZ, HR-150AZ, GH-120, EK-200/300/400i | | |
| 500 g, 50 g, 20 mg, | Class I | Type II | SS Polished | AD-500-50-20 | BM-500 | | |
| 50 g, 5 g, 200 mg | Class I | Type II | SS Polished | AD-50-5-200 | HR-150AZ, EW-150i | | |
| 50 g, 5 g, 2 g | Class I | Type II | SS Polished | AD-50-5-2 | HR-150AZ, EW-150i | | |
| White gloves – white cotton | N/A | N/A | White Cotton | AD-1700-11714 | | | |





ASTM Weight Sets 5-2-2-1 Configurations

| Combination of Leaf and Screw-Knob | | | | | | | |
|------------------------------------|---------------|---------|-----------|-----------------------------|--|---------------------------|-----------------------|
| Piece Count | Weight | Class | Туре | Material | Includes | Part No. without Cert. | Part No. with Cert |
| 21 | 100 g - 1 mg | Class I | Type II | Stainless Steel Polished | Hard Case, Tweezer or Lifter, White Cotton Glove | AD-1800-1M | AD-1800-1M-C |
| 17 | 100 g - 10 mg | Class I | Type II | Stainless Steel Polished | Hard Case, Tweezer or Lifter, White Cotton Glove | AD-1800-10M | AD-1800-10M-C |
| 9 | 100 g - 1 g | Class I | Type II | Stainless Steel Polished | Hard Case, Tweezer or Lifter, White Cotton Glove | AD-1800-1G | AD-1800-1G-C |
| 25 | 1 kg - 1 mg | Class I | Type II | Stainless Steel Polished | Hard Case, Tweezer or Lifter, White Cotton Glove | AD-1800-10K | AD-1800-10K-C |
| 13 | 1 kg - 1 g | Class I | Type II | Stainless Steel Polished | Hard Case, Tweezer or Lifter, White Cotton Glove | AD-1800-10G | AD-1800-10G-C |
| 28 | 5 kg - 1 mg | Class 0 | Type I/II | Stainless Steel Polished | Hard Case, Tweezer or Lifter, White Cotton Glove | AD-1800-5M | AD-1800-5M-C |
| 16 | 5 kg - 1 g | Class 0 | Type I/II | Stainless Steel Polished | Hard Case, Tweezer or Lifter, White Cotton Glove | AD-1800-5G | AD-1800-5G-C |

