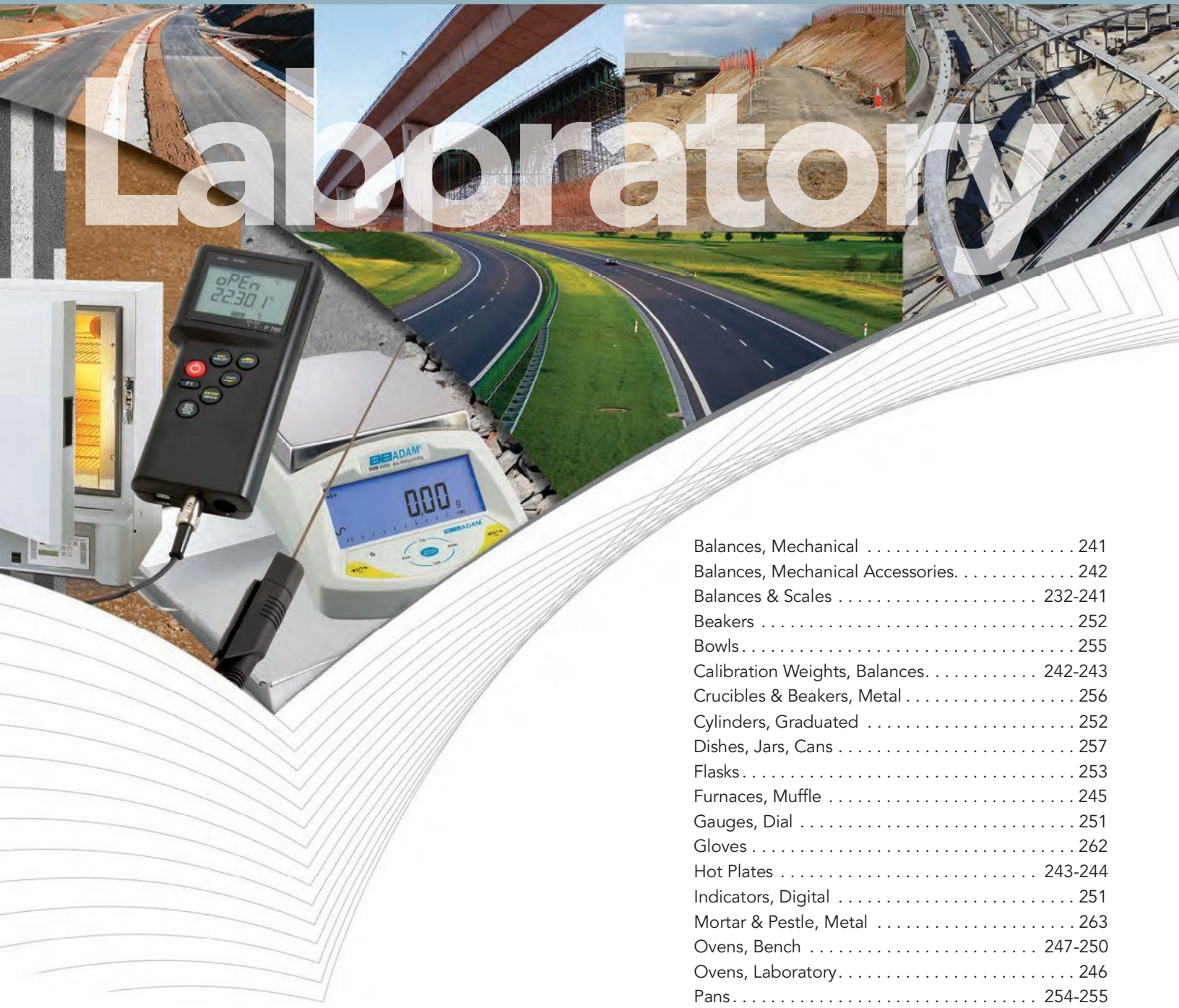


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Testing Equipment for  Construction Materials

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H-3580

Shown with optional protective, rubber armor and built in stand

H-3582

HT-3513

HT-3523

HT-4795
Shown with Probe, not included

Data logging, Digital Thermometer w/2 K Thermocouples— H-3580

Data logging, Digital Thermometer for up to 2000 points. Allows time-and-date stamp for advanced data analysis. Dual thermocouples provide simultaneous readings. Push-button, menu-driven operation provides easy setup and use.

Digital Thermometer w/ K-Type Thermocouple— H-3582

Universal temperature monitoring thermometer with countdown timer and audible alarms. Can switch update rate between 1 and 10 seconds. Comes with splash-proof pouch.

Wrap & Stow Thermocouple Thermometer— HT-3513

This instrument/probe system delivers $\pm 0.9F^\circ$ accuracy and probes can be replaced in the field without the need for recalibration. The heavy-duty patented probe cable is reinforced with Kevlar[®] and a metal braid that neatly wraps and stows around the instrument.

Wrap & Stow Thermocouple Thermometer— HT-3523

This instrument/probe system delivers $\pm 0.9F^\circ$ accuracy and probes can be replaced in the field without the need for recalibration. The heavy-duty patented probe cable is reinforced with Kevlar[®] and a metal braid that neatly wraps and stows around the instrument. Also, backlight LCD screen and Hold button.

Precision, Hand-held Calibration Thermometer— HT-4795

The HT-4795 precision hand-held thermometer is a 2-channel instrument that has a resolution of $0.001^\circ C$ with a system accuracy of $\pm 0.015K$. It provides an excellent calibration reference for your other thermometers. Simultaneous display of two measured values or differential. Records minimum, maximum, hold and average values. Integrated calibration function (according to EN60751 up to 14 points) Password protected calibration function. For 3-point calibration certification, order HT-4795C.

For 6" Probe, order HT-4795.1
For 12" Probe, order HT-4795.2

Model	H-3580	H-3582	HT-3513	HT-3523	HT-4795
Type	Dual Inputs, Data logging (2000 points), Digital Thermometer	One K-type Input Digital Thermometer	Wrap & Stow Thermocouple Thermometer	Wrap & Stow Thermocouple Thermometer	Precision, Hand-held Calibration Thermometer
Features	(2) Standard K-Probes, Data logging of up to 2000 Points, Menu-Driven Operation, USB Output, Min/Max Temperature Display	(1) Standard K-Probe, Push Button Operation, $^\circ F/^\circ C$ Selectable, Min/Max Temperature Display, Hold Function	$^\circ F$ and $^\circ C$ switchable, Wrap & Stow, replaceable Thermocouple. Large, Easy-to-read LCD screen, IPX7 waterproof	$^\circ F$ and $^\circ C$ switchable, Wrap & Stow, replaceable Thermocouple. Large, Back-light LCD screen, Hold Button, IPX7 waterproof	High Precision Accuracy, 2-channel measurement, Max./Min., USB Interface, DataLogger to 4000 measurements, ISO cert.
Probe	Type-K, J, T, E, R, S, B	One Type-K	DuraNeedle Probe included	DuraNeedle Probe included	Order Probes Separately
Range	-418 to 2501 $^\circ F$ -250 to 1373 $^\circ C$	-418 to 2501 $^\circ F$ -250 to 1373 $^\circ C$	-100 $^\circ$ to 500 $^\circ F$ -73 $^\circ$ to 260 $^\circ C$	-100 $^\circ$ to 500 $^\circ F$ -73 $^\circ$ to 260 $^\circ C$	-328 $^\circ$ to 1562 $^\circ F$ -200 $^\circ$ to +850 $^\circ C$
Resolution	0.01 $^\circ$ or 0.1 $^\circ F/C$ auto ranging to 0.1 $^\circ$ above 99.99	0.1 $^\circ F/C$ between -1999.9 $^\circ$ and 999.9 $^\circ$, 1 $^\circ$ below -199.9 $^\circ$ and above 999.9 $^\circ$	0.1 $^\circ$	0.1 $^\circ/1^\circ$	0.001 $^\circ C$ from -200 $^\circ C$ to +200 $^\circ C$ remaining range 0.01 $^\circ C$
Accuracy (Type K)	$\pm 0.25\%$ of reading $\pm 2^\circ F$ ($\pm 1^\circ C$) below -148 $^\circ F$ (-99.9 $^\circ C$), 0.1% of reading $\pm 0.7^\circ F$ ($\pm 0.4^\circ C$) above -238 $^\circ F$ (-150 $^\circ C$)	Below -238 $^\circ F$ (-150 $^\circ C$): $\pm 0.25\%$ of reading $\pm 2^\circ F$ ($\pm 1^\circ C$) Above -238 $^\circ F$ (-150 $^\circ C$): $\pm 0.1\%$ of reading $\pm 0.7^\circ F$ ($\pm 4^\circ C$)	$\pm 0.9F^\circ$ ($\pm 0.5C^\circ$) total system at ambient temperatures between 68 $^\circ$ to 86 $^\circ F$ (20 $^\circ$ to 30 $^\circ C$)	$\pm 0.9F^\circ$ ($\pm 0.5C^\circ$) total system at ambient temperatures between 68 $^\circ$ to 86 $^\circ F$ (20 $^\circ$ to 30 $^\circ C$)	$\pm 0.015^\circ C$ from -50 $^\circ C$ to +199.99 $^\circ C$ $\pm 0.025\%$ of reading for the remaining range
Stem Length	Various	Various	6 inches	6 inches	Various
Power	(3) AA batteries or optional AC adapter	(3) AA batteries	AAA Batteries	AAA Batteries	9v Battery
Traceable Certificate	order H-3580C	order H-3582C	Available	Available	3-point calibration certification available

See Probes and Accessories on Page 212



HT-4007



HT-4110



HT-4132



HT-4135



HT-4015

Traceable, Wide-range, Memory Thermometer—HT-4007

Wide-range, Memory thermometer, which is °F /°C switchable and accepts all type K, J and T probes. Its backlit large display is easy-to-read in any light and information can be output to a computer. See page 210 for data acquisition software and cable.

Traceable Universal, Alarm Thermometer—HT-4110

Universal temperature monitoring thermometer with countdown timer and audible alarms. Can switch update rate between 1 and 10 seconds. Comes with splash-proof pouch.

Traceable, RTD Platinum Thermometer—HT-4132

One button operation, great for QC and processes. Platinum (100-ohm) 4-wire probe. Has low battery/bad probe indicator and can be output to a computer. See page 210 for data acquisition software and cable.

Traceable, User-Adjustable, 2-Channel Thermometer—HT-4135

Two-channel thermometer with user-adjustable offsets, allows adjustment to specific temperatures, in-house calibration, or different sensors for increased accuracy. Shockproof, rubber case with built-in stand.

case, great for rugged applications. Max and Hold buttons help in operation.

Traceable, Total Range Thermometer—HT-4015

One of the fastest reading and technically advanced thermometers available. Unit is constructed for rugged applications and provides the use of all Type-K probes. It also provides Min/Max capabilities, a 24-hour timer, alarms and a memory function.

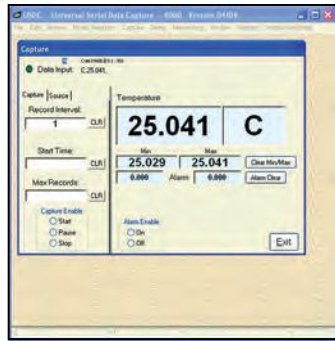
Model	HT-4007	HT-4110	HT-4132	HT-4135	HT-4015
Type	Wide-range with Memory Thermometer with Traceable certificate	Universal Thermometer with alarm capability	RTD Platinum Thermometer with Traceable certificate	User-Adjustable, Two-Channel, Offset Thermometer with Traceable certificate	Total-Range, Rough-Use Thermometer with Traceable certificate
Features	°F and °C switchable, Accepts Type K, J or T probes, Min/Max readings, backlit display, count-up timer, Computer output capability	°F and °C switchable, 3/4-inch LCD display, Can monitor temperature continuously for 3 years in 1 or 10 second intervals, Audible alarms with countdown timer 5/8-inch high digits	°F and °C switchable, One-button operation, Low-battery, bad probe indicator, 1/2-inch high digits, Computer output capability	Rubberized instrument case with stand, Velcro wrist strap, user adjustable for in-house calibration, Max temp button, Hold button, uses all Type K thermocouples	Memories, alarms, Timer and Min/Max capabilities, Backlit Display, Protective casing with flip-out Stand, °F and °C switchable, 5/8-inch high digits, Hold Button
Probe	Stainless, triple-purpose Type K thermocouple probe for use with soils, liquids, Air/Gas	Stainless, triple-purpose probe for use with soils, liquids, Air/Gas	Platinum, (100-ohm) 4-wire probe for use with soils, liquids, Air/Gas	Supplied with 4', Fast-Response Beaded Probe, Uses all Type K probes	Supplied with 4', Fast-Response Beaded Probe, Uses all Type K probes
Range	-328 to 2498°F -200 to 1370°C	-58 to 500°F -50 to 260°C	-58 to 752°F -50 to 400°C	-58 to 1999°F -50 to 1300°C	-328 to 2498°F -200 to 1370°C
Resolution	0.1° from -200° to 640°C (-328 to 990°F) otherwise 1°	0.1°	0.01° below 200°C and 0.1° above 200°C	0.1°/1°	0.1°/1°
Accuracy (Type K)	±1°C	±1.0°C or 1% of reading	0.1% + 0.2°C below 200°C and ± 0.15% + 0.5°C above 200°C	±0.3% plus 1°C meter	±1°C from -50° to 740°C (-328 to 1364°F) otherwise ±2°C
Stem Length	6 inches	4.25 inches	6 inches	cable length 10'	cable length 4'
Power	9-volt battery	(2) AAA Batteries	9-volt battery (AC adapter available)	9-volt battery	(3) AAA Batteries
Traceable Certificate	Yes, included	Yes, included	Yes, included	Yes, included	Yes, included

See Probes and Accessories on Page 212

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MERCURY FREE



Computer Data Acquisition System For HT-4132 Thermometer— HT-4136

Computer Data Acquisition System For HT-4007 Thermometer— HT-4237

Powerful and easy to use computer data capture program for HT-4007 and HT-4132 Digital Thermometers. The software allows connecting up to eight instruments all running simultaneously on one computer. The software captures data in the background, tech for other tasks. Records interval readings from 1 to 10,000 seconds; displays minimum/maximum readings; and utilizes an alarm mode that permits the user to be notified visually, audibly, and by email when an alarm is triggered. Unlimited readings are saved to a file that can be viewed and printed as is, or printed in any report or spreadsheet format. Networking server/client capability allows the captured data to be monitored on a remote workstation. Readings may be streamed to cell phones or anywhere via email every minute or in any time interval. 24/7 notification of audible/visual alarms are sent to user's computer, remote computer, via email anywhere, and by email to cell phones. Program automatically installs in less than two minutes. Absolutely no user programming, no user keystrokes, no user entries are required. Simply connect the cable to the instrument and to a USB port (or serial port) and data is captured. Operation is straight forward plug and play. It is that easy. It is designed to work with Windows® 98/Me/NT/2000/XP/Vista/Windows 7. Includes a CD, a 6-foot cable (supplied USB, serial, and instrument connections) cable plugs into the instrument and computer. Multiple accessory extension cables expand cable length to 300 feet.

Data Logger For HT-4132 Thermometer— HT-4325

Complete DAS-4™ System captures and stores up to 8000 bytes (over 1000 readings). Great for those who want to capture field readings and upload to computer. Readings may be taken at intervals from 1 second to 99 hours. Stored readings may be downloaded to any PC and viewed. Includes Windows CD, a 3-foot cable (supplied USB, serial, and instrument connections). Cable plugs into instrument and computer. Four AA alkaline batteries supplied.



H-3558D

Hand-Held, Digital Thermometer Kit— H-3558D

Heavy-duty design with 3-1/2" -digit LCD display. Range from -58 to 2000°F (-50 to 1093°C). Resolution is 1° F/C. Accuracy is ±0.3% +2°F (1°C) from 32 to 2000°F (1093°C) and ±4°F (2°C) from -58 to 32°F (-50 to 0°C). Dual input thermocouple jacks for K thermocouples allow operator to monitor two locations. Other features include hold button, max temperature display and max memory. Supplied complete with removable rubber boot and one type-K 3-1/2" (89mm) stainless steel probe w/handle and 2 K wire probes.



H-3564

Hand-Held, Digital Thermometer Kit— H-3564

Laboratory accuracy and fast response in a rugged dual-input contact thermometer. Operating Range: -58 to 2000°F (-50 to 1093°C). Kit includes the Fluke 52II thermometer, (4) general purpose bead probes and (2) Sure-Grip™ piercing probes and a case. Can use K, J, T and E probes.

Model	H-3558D	H-3564
Type	Dual Input, Digital Thermometer Kit	Dual Input, Digital Thermometer Kit
Features	(1) Standard K-Probe, Push Button Operation, °F/°C Selectable, Min/Max Temperature Display, Hold Function	(2) SureGrip Piercing Probes, (4) bead probes and Case
Probe	Type-K	Type-K, J, T, E
Range	-58 to 2000°F -50 to 1093°C	-58 to 2000°F -50 to 1093°C
Resolution	1°F/C	0.1 °C/°F/K <1000 and 1 °C/°F/K >1000
Accuracy (Type K)	±0.3% +2°F (1°C) from 32 to 2000°F (1093°C) ±4°F (2°C) from -58 to 32°F (-50 to 0°C)	Above -100°C: J, K, T, E-type: 0.05% Below -100°C: ± 0.3°C
Stem Length	Various	Various
Power	(3) AA batteries or optional AC adapter	(3) AA batteries
Traceable Certificate	order: H-3558D-C	order: H-3564C

See Probes and Accessories on Page 212



IR Gun, Infrared Thermometer, H-3590

Point and shoot simplicity. IR Gun with high-quality 9:1 optics and laser pointer. Reads °C or °F. Backlit display and batteries are included.

Infrared and Type K Thermocouple Combo Gun, H-3599

Infrared and Type K Thermocouple Combo Gun. High-quality 11:1 optics with laser pointer. Fast Response Type-K Probe is included. You also get Max, Min, Hold, Diff, Avg, Hi Alarm, Lo Alarm, backlit display and a °C/°F button.

Mini, Laser Infrared Thermometer, H-3595A

Pocket size, high-quality infrared gun with high-quality 10:1 optics and laser pointer. Operation is simple— aim, press trigger and read the backlit display. Reads °C or °F and has ergonomic grip handle. Uses 9V alkaline or NiCd battery, included.

Heavy-duty, Infrared Thermometer—H-3590

Handheld, and portable, the H-3590 Infrared Thermometer stands up to the day-to-day usage professionals require of their equipment. Features backlit LCD and extra bright laser pointer, making it more

visible in all conditions, especially outdoors. Includes tripod mount, display hold (7 seconds) and is switchable between °F and °C. Uses 9V alkaline or NiCd battery, included.

Wide-Range, Traceable, Infrared Thermometer, H-3591

Hand-held and portable, the H-3591 features 50:1 optics and a range of -58 to 1832°F (-50 to 1000°C). This thermometer features a traceable calibration certificate, backlighting at the touch of a button, data hold, low battery indicator and °C/°F button.

Professional Infrared Thermometer—H-3597A

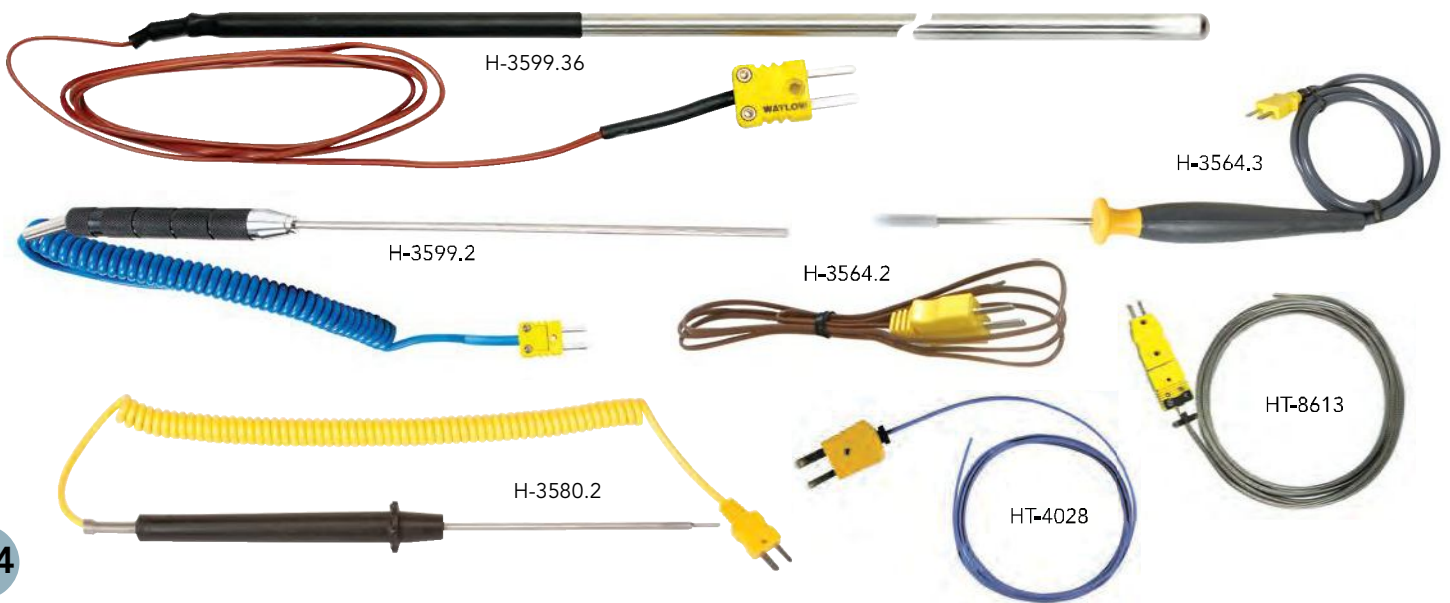
The Professional IR Thermometer is packed full of the features you need to make accurate infrared measurements. The H-3597A shows you exactly the size of your target every time. Its unique dual laser design highlights the outer edges of your target eliminating any guesswork or calculations. With a 50:1 target ratio you can be confident from long distance. It includes data functions like Min, Max, Lock, and Hi/Low alarms. Includes ABS carrying case and two AAA batteries.

Model	H-3590	H-3591	H-3597A	H-3599	H-3593	H-3595A
Type	Infrared	Infrared	Infrared	Infrared	Infrared	Infrared
Probe	none	none	none	One Type-K	none	none
Range	-25 to 999°F (-320 to 535°C)	-58 to 1832°F (-50 to 1000°C)	-76°F to 1832°F, -60°C to 1000°C	IR Gun: -76 to 932°F (-60 to 500°C) Probe: -76 to 1999°F (-60 to 1400°C)	-58 to 750°F (-50 to 400°C)	-20 to 932°F -30 to 500°C
Accuracy	The greater of: ±1% of reading or ±2°F (±1°C), at 73°F (23°C) ambient temp.	0.1° to 200°C	The greater of: ±1.5% of reading or ±2.7°F (±1.5°C), at 73°F (23°C) ambient temp.	IR: 15-35°C: ±1°C, Full Range: ±2%, 2°C Probe: ±0.8%, 1°C	15-35°C: ±1°C, Full Range: ±2%, 2°C	±1°C (2°F) from 50°F to 86°F (10°C to 30°C), ± 1.5% or ± 1.5°C (3°F)
Repeatability	±0.5% of reading or ±2°F (±1°C), whichever is greater	±1.5% +2°C between -20 to 200°C	±1.5% of reading -76°F to 1832°F (-60°C to 1000°C)	0.15°C at 25°C, 0.75°C at 80°C	0.15°C at 25°C, 0.75°C at 80°C	±0.5% of reading or < ±1°C (±2°F) whichever is greater
Optics Target Size	12:1 1" target dia. at 12"	50:1 1" target dia. at 50"	50:1 1" target dia. at 50" Dual-Laser shows target	11:1 1" target dia. at 11"	9:1 1" target dia. at 9"	10:1 1" target dia. at 10"
Traceable Certificate	order: H-3590C	included	order: H-3597C	order: H-3599C	order: H-3593C	order: H-3595AC
Power	9 Volt	9 Volt	(2) AAA	AAA	AAA	9 Volt

See Probes and Accessories on Page 212

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K-Probe, 8"— H-3599.2

Eight inch long, K Thermocouple with 4-1/2" metal handle and 40" long coiled cable. Item is standard probe sold with H-3599 IR Gun. Temperature range is: -76°F to 1999°F (-60°C to 1400°C), Accuracy is: ±0.8%, 1°C. Compatible with K-type measurement instruments.

K-Probe, 3 ft.— H-3599.36

Three foot long, K Thermocouple is great for use in asphalt operations where you desire to know material temperatures in hoppers, trucks, piles, etc. Temperature range is: -30 to 1600°F. Heavy duty .250 dia. probe, 36" long with spring transition and 40" of lead wire with mini, type-K plug.

Bead Probe— H-3564.2

40" (1m) wire length with maximum continuous temperature measurement: 500°F (260°C). Accuracy is: ±1.1°C (0-260°C). Fast response time. Not suitable for liquid immersion. Compatible with K-type measurement instruments.

K-Probe, 5"— H-3580.2

5" stainless steel probe with 5 ft. PVC coiled cable and Nylon handle. Measurement range: -418 to 1650°F (-250 to 899°C). ASTM-E230-1993. Compatible with K-type measurement instruments.

K-Probe, 4"— H-3564.3

4" stainless steel probe with 40" (1m) cable. Measurement range: -40 to 662°F (-40 to 350°C). Accuracy is ±3.96°F (2.2°C). ASTM-E230-1993. Compatible with K-type measurement instruments.

Bead Probe— HT-4028

Fast-Response, Type-K thermocouple, beaded probe. Teflon cable can withstand temperatures of -40 to 250°C continuous or 300°C short-term use. Dimensions: 0.06-inch diameter probe with cable length of 4 feet for use with all Type-K thermometers in liquids, air/gas, and semisolids.

High-Temperature Probe— HT-8613

Ten-foot-long 0.19-inch diameter braided metal wire cable with smooth tip measures -73 to 982°C continuous or 1093°C short-term use. For use with all Type-K thermometers in liquids, air/gas, and semisolids

AC-Adapter for HT-4132— HT-4132.2

AC Adapter for use with HT-4132 Datalogging Thermometer on page 221.

Calibration Tester for Thermocouple Instruments— HT-9319

Test and validate the calibration accuracy of Type K thermocouple instruments. The HT-9319 simulates three preset temperatures of 32°F, 100°F and 160°F when plugged into unit. Accuracy is ±0.25°F in ambient conditions 50° to 90°F and 90% RH. Unit is calibrated to NIST Standards. Powered by a 3V Lithium battery, included.



Accessories for H-3580 and H-3582 Thermometers



Optional, Rubber, Protective Armor— H-3580.3 and integral stand allow you to prop the meter up on a bench for easy reading and use.



Optional, Hands-Free Mounting Kit— H-3580.4 allows you to hang a meter from your belt or other object, such as a pipe or stand for ease of use.

Digital Thermometer Accessories:	Model
Rubber Armor w/Built-in Stand For Thermometers Above	H-3580.3
Hands-Free Mounting Kit for Thermometers Above	H-3580.4
Thermocouple, K-Type for Thermometers Above	H-3580.2
AC adapter for H-3580 Datalogging Thermometer	H-3580.6

Other thermocouples are available, please enquire.



H-2727D



H-3543



H-3560D



H-3557D



HT-4142



HT-4105



HT-4107

Temperature/Humidity Instrument- Min/Max—H-2727D

The H-2727D measures both temperature and % Relative Humidity. It features Min/Max memory and switchable °F/°C. Temperature range is: 14° to 140°F / -10° to 60°C at ±2°F / ±1°C accuracy and 0.1°F/°C resolution. Measures 10 to 99% relative humidity at a resolution of 1.0% RH. Includes Min/Max memory capability. Uses (1) AAA battery.

Minimum/Maximum Thermometer— H-3543

Wall or desk-mount minimum/maximum thermometer with remote sensor. Sensor range is -58° to 158°F (-50° to 70°C). Switchable between °F and °C. Indoor/outdoor capabilities: Outdoor Temperature Range: -58 to 158°F (-50 to 70°C) Indoor Temperature Range: 32 to 122°F (0 to 50°C), Temperature Accuracy: ±2°F/±1°C, Sensor cord length: 120" (304cm). Battery: 1 Alkaline 1.5v, AAA

Maximum and Minimum Thermometer— H-3560D

Dual-scale thermometer has U-shaped capillary mounted in plastic 8" x 2-5/8" x 1" (203 x 67 x 25mm) with guard and mounting tab. Ranges: -40°F to 120°F in 2°F div. and -40°C to 50°C in 1°C div. Thermometer indicates present, highest and lowest temperature since last indices setting. Indices are easily reset after each reading.

Digital Thermo-Timer—H-3557D

Versatile, 24-hour lab timer for use with ovens, incubators and other environmental chambers. Includes probe with 48" (1.2mm) long cable. Probe may be placed inside oven door for internal chamber temperature monitoring. Monitors and displays temperatures over a 0 to 200°C range at an accuracy of ±2°C. Time and temperature functions may be used separately or simultaneously. Alarm sounds when programmed time or temperature high limits are reached. Display shows remaining time/temperature/high limit set points. Magnet permits mounting on side of oven. Uses "AAA" battery, not included.

Thermo-Timer Probe—H-3557D-P

Replacement probe for H-3557D Thermo-Timer.

Traceable Big Digit, Alarm Thermometer °F—HT-4142

Traceable Big Digit, Alarm Thermometer °C—HT-4143

Large, 1.125" high digits display probe temperatures and ambient temperatures, which can be seen from across a lab. This unique Four-alert Thermometer provides precise monitoring of even the slightest changes in temperature. Range is: -58 to 158°F or -50 to 70°C with a resolution of 0.1° and an accuracy of ±1°C. Front panel controls are easy-to-set. Alarms can be set to activate at a temperature above, or below a setting or, between or outside two settings. Comes with traceable certificate of calibration.

Digital Indoor/Outdoor Thermometer °F—HT-4105

Thermometer displays current, minimum, and maximum temperatures. Most importantly, it captures and shows the exact time and date when the minimum and maximum temperature occurred. Ideal for monitoring solutions, refrigerators, and room temperature. Range is -40.0 to 176.0°F and -40.0 to 80.0°C with a resolution of 0.5° and accuracy of ±1.5°C. Display's 3/8-inch-high digits show Min/Max of probe temperature or ambient temperature, time-of-day, and month/day. Wire mounting bracket permits easy probe placement. Sensor and 6-foot cable perform accurately even when both are under water. Comes with traceable certificate of calibration.

Digital Indoor/Outdoor Thermometer °F—HT-4107

Large LCD for easy reading of temperatures. Includes Min/Max Memory. External Range is: -58 to 158°F or -50 to 70°C and Inside Range is: 32 to 122°F or 0 to 50°C. Accuracy is: ±2°F or 2% or reading. Probe cable length is 120"/304cm. Uses "AAA" battery, included.



Model No.	Description	Range	Accuracy	Stem Length	Overall	Features
HT-4052	Long-Stem, Digital Thermometer	-58 to 302°F -50 to 150°C	±2.0°F ±1.0°C	8"	11"	Traceable Calibration Certificate
HT-4052U	Long-Stem, Digital Thermometer	-58 to 302°F -50 to 150°C	± 0.2°C	8"	11"	Traceable Calibration Certificate
HT-4353	Longer-Stem, Digital Thermometer	-58 to 572°F -50 to 300°C	±2.0°F ±1.0°C	11.375"	14.375"	Traceable Calibration Certificate
HT-4353U	Longer-Stem, Digital Thermometer	-58 to 572°F -50 to 300°C	± 0.5°C	11.375"	14.375"	Traceable Calibration Certificate
HT-4149	Long-Stem, Multi-Angle Digital Thermometer	-58 to 536°F -50 to 280°C	±2.0°F ±1.0°C	8"	10"	Traceable Calibration Certificate
HT-4149U	Long-Stem, Multi-Angle Digital Thermometer	-58 to 536°F -50 to 280°C	± 0.4°C	8"	10"	Traceable Calibration Certificate
HT-4050	Digital, Pocket Thermometer w/Sheath	-58 to 572°F	± 1.5°C	3.5"	7"	Traceable Calibration Certificate, Hold Button
HT-4050U	Digital, Pocket Thermometer w/Sheath	-50 to 300°C	± 0.4°C	3.5"	7"	Traceable Calibration Certificate, Hold Button
HT-4049	Digital, Jumbo Display Thermometer	-58 to 302°F -50 to 150°C	±2.0°F ±1.0°C	5.25"	6.5"	Traceable Calibration Certificate
HT-4049U	Digital, Jumbo Display Thermometer	-58 to 302°F -50 to 150°C	± 0.3°C	5.25"	6.5"	Traceable Calibration Certificate
HT-4039	Digital, Waterproof Min/Max Thermometer	-58 to 572°F -50 to 300°C	±2.0°F ±1.0°C	4.75"	10ft. cable	Traceable Calibration Certificate, Min/Max, Waterproof
HT-4039U	Digital, Waterproof Min/Max Thermometer	-58 to 572°F -50 to 300°C	± 0.5°C	4.75"	10ft. cable	Traceable Calibration Certificate, Min/Max, Waterproof
H-3538D	Digital, Waterproof Calibratable Thermometer	-40° to 450°F -40° to 232°C	±2.0°F ±1.0°C	5"		Field Calibratable Waterproof. Max Temp.
H-3541D	Digital, Waterproof Calibratable Thermometer	-40 to 450°F -40 to 232°C	±2.0°F ±1.0°C	5"		Field Calibratable Waterproof. Max Temp.



H-2633



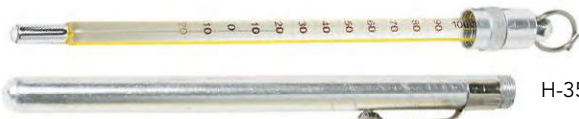
H-3550



H-2634D



H-3540



H-3542



H-2630
H-3547



Pocket-Type, Dial Thermometers

Model	Description	Range	Divisions
H-2633	1" Dial, 5" long stem, includes plastic pocket case and clip.	25 to 125°F	1°F
H-2639	1" Dial, 5" long stem, includes plastic pocket case and clip.	50 to 550°F	5°F
H-3550	1" Dial, 5" long stem, includes plastic pocket case w/ calibration tool.	-40 to 180°F	2°F
H-3552	1" Dial, 5" long stem, includes plastic pocket case w/ calibration tool.	0 to 220°F	2°F
H-3553	1" Dial, 5" long stem, includes plastic pocket case and clip.	0 to 150°C	2°C
H-3554	1" Dial, 5" long stem, includes plastic pocket case and clip.	0 to 250°C	5°C

Dual-Scale General Testing Thermometers

Model	Description	Range	Divisions
H-2631D	Direct-reading, all-metal dial thermometers for general use include °F and °C scales. Units have bi-metal element that actuates pointer over graduated dial. Stainless steel stem is 8" long x 0.15" (203 x 4mm). Dial face is 1-3/4" (45mm) dia. External adjustment allows recalibration.	025 to 125°F 0 to 50°C	1°F .5°C
H-2632D		0 to 220°F -10 to 100°C	2°F 1°C
H-2634D		50 to 500°F 0 to 260°C	5°F 2°C

Pocket-Type, Stick Thermometers

Model	Description	Range	Divisions
H-2630	5" long stem. Features copper-plated bulb to resist cutting, includes metal pocket case and clip.	100 to 450°F	5°F
H-3540	5" long stem. Large-bore, tempered glass with non-toxic liquid, includes plastic pocket case and clip.	0 to 220°F	2°F
H-3542	5" long stem. Mercury thermometer, includes metal pocket case and clip.	-20 to 110°C	1°C
H-3547	5" long stem. Mercury thermometer, includes metal pocket case and clip.	0 to 120°F	1°F

General Purpose Thermometers, Fahrenheit

Range	Div.	Length	Model
-30 to 120°F	1°F	12" (305mm)	H-2611
0 to 230°F	2°F	12" (305mm)	H-2613
0 to 300°F	2°F	12" (305mm)	H-2615
20 to 500°F	2°F	16" (405mm)	H-2617
20 to 750°F	5°F	16" (405mm)	H-2619

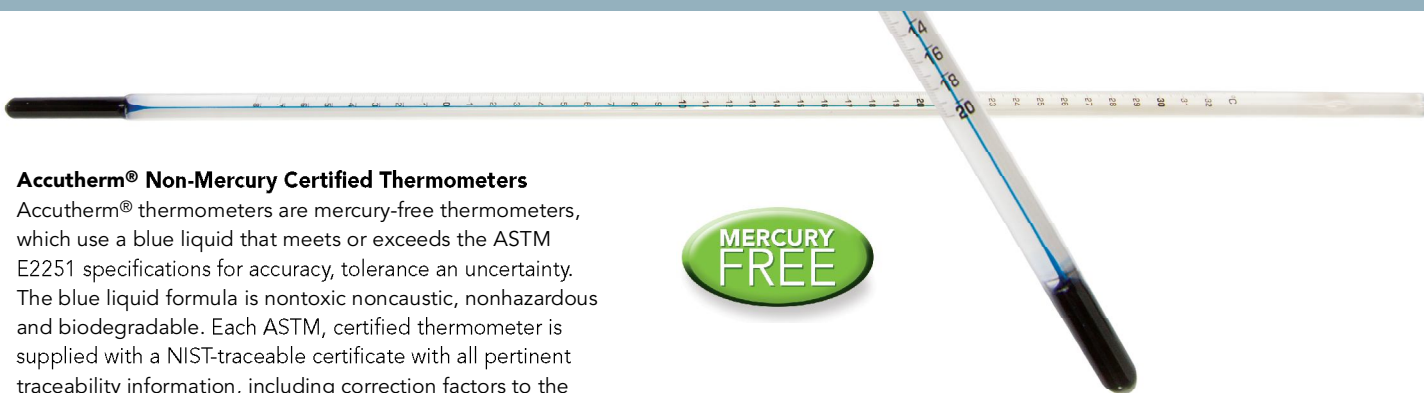
General Purpose Thermometers, Celsius

Range	Div.	Length	Model
-35 to 50°C	1°C	305mm (12")	H-2612
-20 to 110°C	1°C	305mm (12")	H-2614
-20 to 150°C	1°C	305mm (12")	H-2616
-10 to 260°C	1°C	405mm (16")	H-2618
-10 to 400°C	2°C	405mm (16")	H-2620

General Purpose Mercury Thermometers

Single-scale, mercury-filled, engraved stem thermometers, calibrated for total immersion tolerances. Meet NBS accuracy requirements.

CAUTION
 Many State and Local laws prohibit the sale or shipment of mercury thermometers. Please check laws in your area or contact us before ordering.



Accutherm® Non-Mercury Certified Thermometers

Accutherm® thermometers are mercury-free thermometers, which use a blue liquid that meets or exceeds the ASTM E2251 specifications for accuracy, tolerance and uncertainty. The blue liquid formula is nontoxic noncaustic, nonhazardous and biodegradable. Each ASTM, certified thermometer is supplied with a NIST-traceable certificate with all pertinent traceability information, including correction factors to the nearest 1/10th of a scale division. These thermometers are supplied with one point certification in accordance with ASTM E411 standards.

Accutherm® Non-Mercury, Certified Thermometers

Range	Div.	ASTM	Model
-36 to 35°F	0.2°F	S62F	H-2605.62FC
-38 to 2°C	0.1°C	S62C	H-2605.62CC
18 to 89°F	0.2°F	S63F	H-2605.63FC
-8 to 32°C	0.1°C	S63C	H-2605.63CC
77 to 131°F**	0.2°F	S64F	H-2605.64FC
25 to 55°C**	0.1°C	S64C	H-2605.64CC
122 to 176°F**	0.2°F	S65F	H-2605.65FC
-50 to 80°C**	0.1°C	S65C	H-2605.65CC
167 to 221°F**	0.2°F	S66F	H-2605.66FC
75 to 105°C**	0.1°C	S66C	H-2605.66CC
206 to 311°F**	0.5°F	S67F	H-2605.67FC
95 to 155°C**	0.2°C	S67C	H-2605.67CC

**Has auxiliary ice point scale

Accutherm® Non-Mercury, ASTM-Approved Thermometers

Range	Div.	ASTM	Model
-38 to 50°C	1.0°C	5C	H-2605.5C
-36 to 120°F	2.0°F	5F	H-2605.5F
-20 to 102°C	0.2°C	12C	H-2605.2C
-5 to 215°F	0.5°F	12F	H-2605.2F
-2 to +80°C	0.1°C	15C	H-2605.15C
30 to 180°F	0.5°F	15F	H-2605.15F
34 to 42°C	0.1°C	18C	H-2605.18C
94 to 108°F	0.2°F	18F	H-2605.18F
204 to 103°C	0.1°C	22C	H-2605.22C
204 to 218°F	0.2°F	22F	H-2605.22F
19 to 35°C	0.02°C	56C	H-2605.56C
66 to 95°F	0.05°F	56F	H-2605.56F
-34 to 49°C	0.5°C	58C	H-2605.58C
-30 to 120°F	1.0°F	58F	H-2605.58F
-18 to 82°C	0.5°C	59C	H-2605.59C
0 to 180°F	1.0°F	59F	H-2605.59F
20 to 50°C	0.1°C	91C	H-2605.91C
18.9 to 25.1°C	0.01°C	116C	H-2605.116C
23.9 to 30.1°C	0.01°C	117C	H-2605.117C
38.6 to 41.4°C	0.05°C	120C	H-2605.120C
-7 to 105°C	0.5°C	130C	H-2605.130C
20 to 220°F	1.0°F	130F	H-2605.130F



Accutherm® Non-Mercury Thermometers

Accutherm® mercury-free thermometers with the same scales as ASTM mercury thermometers, but not ASTM approved.

Range	Div.	Model	Range	Div.	Model
-20 to 150°C	1.0°C	H-2604.C1	0 to 302°F	2.0°F	H-2604.F1
-38 to 50°C	1.0°C	H-2604.C2	-36 to 120°F	2.0°F	H-2604.F2
-5 to 110°C	0.5°C	H-2604.C3	+20 to 230°F	1.0°F	H-2604.F3
+38 to 82°C	0.1°C	H-2604.C4	+100 to 180°F	0.2°F	H-2604.F4
-2 to 80°C	0.2°C	H-2604.C5	+30 to 180°F	0.5°F	H-2604.F5
+30 to 200°C	1.0°C	H-2604.C6	+85 to 392°F	1.0°F	H-2604.F6
+19 to 27°C	0.1°C	H-2604.C7	+66 to 80°F	0.2°F	H-2604.F7
+49 to 57°C	0.1°C	H-2604.C8	+120 to 134°F	0.2°F	H-2604.F8
+57 to 65°C	0.1°C	H-2604.C9	+134 to 148°F	0.2°F	H-2604.F9
+79 to 87°C	0.1°C	H-2604.C10	+174 to 188°F	0.2°F	H-2604.F10
-38 to 42°C	0.2°C	H-2604.C11	-36.5 to 107.5°F	0.5°F	H-2604.F11
+25 to 105°C	0.2°C	H-2604.C12	+77 to 221°F	0.5°F	H-2604.F12
-2 to 68°C	0.2°C	H-2604.C13	+68 to 213°F	0.5°F	H-2604.F13
-2 to 52°C	0.2°C	H-2604.C14	-4 to 122°F	1.0°F	H-2604.F14
+24 to 78°C	0.2°C	H-2604.C15	+90 to 260°F	0.5°F	H-2604.F15
+48 to 102°C	0.2°C	H-2604.C16	0 to 220°F	2.0°F	H-2604.F16
+72 to 126°C	0.2°C	H-2604.C17	+60 to 160°F	1.0°F	H-2604.F17
+95 to 255°C	0.5°C	H-2604.C18	+75 to 175°F	1.0°F	H-2604.F18
+20 to 70°C	0.2°C	H-2604.C19	+100 to 300°F	2.0°F	H-2604.F19
-10 to 5°C	0.1°C	H-2604.C20	+200 to 350°F	2.0°F	H-2604.F20
+20 to 100.6°C	0.2°C	H-2604.C21	+50 to 392°F	2.0°F	H-2604.F21
-20 to 50°C	0.5°C	H-2604.C22	0/120°F x 0.5°F	0.5°F	H-2604.F22
+32 to 127°C	0.2°C	H-2604.C23	+60/180°F x 1.0°F	1.0°F	H-2604.F23
-15 to 105°C	1.0°C	H-2604.C24	-58/41°F x 0.5°F	0.5°F	H-2604.F24
+15 to 70°C	1.0°C	H-2604.C25	30 to 350°F	1.0°F	H-2604.F25
+25 to 80°C	1.0°C	H-2604.C26			
+40 to 150°C	1.0°C	H-2604.C27			
+95 to 175°C	1.0°C	H-2604.C28			
+10 to 200°C	1.0°C	H-2604.C29			
-20 to 10°C	0.1°C	H-2604.C30			
0 to 30°C	0.1°C	H-2604.C31			
-18 to 49°C	0.5°C	H-2604.C32			
+16 to 82°C	0.5°C	H-2604.C33			
-50 to 5°C	0.2°C	H-2604.C34			
-1 to 175°C	0.5°C	H-2604.C35			

Accutherm® Custom Calibration Thermometers

Accutherm® thermometers are available calibrated to any three (3) points up to 300°F. Please contact us at 1.800.544.7220 or 1.708.468.6300

Cases for Accutherm® Thermometers

Leatherette protective cases are available for all Accutherm thermometers. To order, please add a "C" suffix after the main model number, i.e.: H-2605C.5C.



ASTM E1 Thermometers—Fahrenheit and Celsius

Application	ASTM	Range	Model	Subdiv.	Length	Immersion
General Use	1F	0-302°F	H-2600.1F	2.0°F 1.0°C	12.5" 322mm	3" 76mm
	1C	-20-150°C	H-2610.1C			
	2F	20-580°F	H-2600.2F			
	2C	-5-300°C	H-2610.2C			
	3F	20-760°F	H-2600.3F			
Cloud and Pour	5F	-36-120°F	H-2600.5F	2.0°F 1.0°C	9.125" 231mm	4.25" 108mm)
	5C	-38-50°C	H-2610.5C			
Low Cloud and Pour	6F	-112-70°F	H-2600.6F	2.0°F 1.0°C	9.125" 231mm	3" 76mm
	6C	-80-20°C	H-2610.6C			
Low Distillation	7F	30-580°F	H-2600.7F	2.0°F 1.0°C	15.25" 386mm	Total
	7C	-2-300°C	H-2610.7C			
High Distillation	8F	30-360°F	H-2600.8F	2.0°F 1.0°C	15.25" 386mm	Total
	8C	-2-400°C	H-2610.8C			
Pensky-Martens Low	9F	20-230°C	H-2600.9F	1.0°F .5°C	11.25" 287mm	2.25" 57mm
	9C	-5-110°C	H-2610.9C			
Pensky-Martens High	10F	200-700°F	H-2600.10F	5.0°F 2.0°C	11.25" 287mm	2.25" 57mm
	10C	90-370°C	H-2610.10C			
Cleveland Open Flash	11F	20-760°F	H-2600.11F	5.0°F 2.0°C	12-1/8" 308mm	1" 25mm
	11C	-6-400°C	H-2610.11C			
Gravity	12F	-5-215°F	H-2600.12F	0.5°F 0.2°C	16-1/2" 420mm	total
	12C	-20-102°C	H-2610.12C			
Low Softening Point	15F	30-180°F	H-2600.15F	0.5°F 0.2°C	15-5/8" 397mm	total
	15C	-2-80°C	H-2610.15C			
High Softening Point	16F	85-392°F	H-2600.16F	1.0°F .5°C	15-5/8" 397mm	total
	16C	30-200°C	H-2610.16C			
Saybolt Viscosity	17F	66-80°F	H-2600.17F	0.2°F 0.1°C	10.875" 275mm	total
	17C	19-27°C	H-2610.17C			
	18F	94-108°F	H-2600.18F			
	18C	34-42°C	H-2610.18C			
	19F	120-134°F	H-2600.19F			
	19C	49-57°C	H-2610.19C			
	20F	134-148°F	H-2600.20F			
	20C	57-65°C	H-2610.20C			
Kinematic Viscosity	21C	79-87°C	H-2610.21C	0.1°F 0.2°C	12" 305mm	total
	22C	95-103°C	H-2610.22C			
Aniline Point	33F	-36.5-107.5°F	H-2600.33F	0.5°F 0.2°C	16.5" 419mm	2" 50mm
	33C	-38-42°C	H-2610.33C			
Kinematic Viscosity	35F	194-338°F	H-2600.35F	0.1°F 0.2°C	12" 305mm	total
	35C	90-170°C	H-2610.35C			
	45F	74.5-79.5°F	H-2600.45F			
	45C	23.6-26.4°C	H-2610.45C			
Tag Closed Tester, Low Range	46C	48.6-51.4°C	H-2610.46C	1.0°F .5°C	11.25" 287mm	2.25" 57mm
	47F	137.5-142.5°F	H-2600.47F			
Precision	47C	58.6-61.4°C	H-2610.47C	.2°F .4°C	15" 379mm	total
	63F	18-89°F	H-2600.63F			
Kinematic Viscosity	63C	-8-32°C	H-2610.63C	.1°F .2°C	12" 305mm	total
	64F	77-131°F	H-2600.64F			
Bituminous Softening Point	64C	25-55°C	H-2610.64C	1.0°F .5°C	16" 406mm	total
	110F	272.5-277.5°C	H-2600.110F			
Precision	110C	133.6-136.4°C	H-2610.110C	1.0°F .5°C	16" 406mm	total
	113F	30-350°F	H-2600.113F			
Precision	113C	-1-175°C	H-2610.113C			

Specifications: All of these thermometers meet ASTM E1. All of the thermometers listed here can be calibrated and certified per ASTM specification. Call Humboldt for a price quote.

CAUTION
Many State and Local laws prohibit the sale or shipment of mercury thermometers. Please check laws in your area or contact us before ordering.



Teflon coated thermometers, for breakage and safety protection, are available, Add T to the end of the desired part number, i.e. H-2600.9FT

Mercury Spill Clean-up Kit—H-3632SK
For recovery and disposal of spills up to 500g. Includes gloves, two plastic spatulas for cleaning, mercury collector to swab spill, absorbent and activator to absorb mercury, plastic bag for disposal, instructions.





H-4381A

H-4370
pH Only

H-4371
pH &
Temp.

H-4373

H-4383

H-4389

230

EcoTestr™ pH2— H-4381A

Simple, single line display with $\pm 0.1\%$ pH, full-scale accuracy. Push button calibration with hold function and auto shut-off make this unit easy to use. Automatic temperature compensation provides accurate readings even in fluctuating temperatures. Waterproof, dustproof housing. Includes Tester, integral sensor and batteries.

pHTestrs®—

H-4370 or H-4371
Provides 3-point calibration and $\pm 0.01\%$ accuracy. Double-junction electrode provides longer electrode life. Replaceable electrodes. Push-button calibration with auto-buffer recognition. Compact, hand-held design. Waterproof, dustproof housing. Includes Tester, detachable sensor and batteries.

pHTestr® 10 BNC— H-4373

Use any pH electrode with BNC connector. Provides 3-point, push-button calibration and $\pm 0.01\%$ accuracy. Microprocessor-based functions for fast, stable readings. Hold function, auto-off and Error messages. Waterproof, dustproof housing. Includes Tester without electrode and batteries.

Order BNC electrode below.

pH/mV Temp Meter— H-4383

Measurements in both pH and mV, as well as temperature. Use U.S. or NIST buffer sets with auto buffer recognition. Store up to 50 readings. Ready indicator and hold function. Power with batteries or optional AC adapter. Use with most electrodes with BNC connector. Includes Meter, "All-in-one pH/Temp probe, electrode holders and batteries.

Model	H-4381A	H-4370	H-4371	H-4373	H-4383
Range	-1.0 to 15.0 pH	-1.00 to 15.00 pH	-1.00 to 15.00 pH	-1.00 to 15.00 pH	-2.00 to 16.00 pH
Resolution	0.1 pH	0.01 pH	0.01 pH	0.01 pH	0.01 pH
Accuracy	± 0.1 pH	± 0.01 pH	± 0.01 pH	± 0.01 pH (meter only)	± 0.01 pH
Calibration	Three-point, automatic (4.0, 7.0 or 10.0)	Three-point at either (USA 4.01, 7.0 or 10.0) (NIST 4.01, 6.86 or 9.18)	Three-point at either (USA 4.01, 7.0 or 10.0) (NIST 4.01, 6.86 or 9.18)	Three-point at either (USA 4.01, 7.0 or 10.0) (NIST 4.01, 6.86 or 9.18)	Up to 5 buffer values pH 1.68, 4.01, 6.86/7.00 9.18/10.01, 12.45
Temperature Range			32 to 122°F (0 to 50°C)		-10.0 to 110.0°C
Shpg. Wt.	6 oz. (170g)	4.5 oz. (125g)	4.5 oz. (125g)	6 oz. (170g)	1.4 lb (0.7kg)

Buffer Solutions	Model
pH 10.0 \pm pH Accuracy, 1-pint	H-4360A.10
pH 12.45 \pm pH Accuracy, 1-pint	H-4360A.12
pH 1.68 \pm pH Accuracy, 1-pint	H-4360A.2
pH 4.01 \pm pH Accuracy, 1-pint	H-4360A.4
pH 7.00 \pm pH Accuracy, 1-pint	H-4360A.7
Buffer Solutions, Singles	Model
pH 10.0 \pm pH Accuracy, 20 pack	H-4361A.10
pH 4.01 \pm pH Accuracy, 20 pack	H-4361A.4
pH 7.00 \pm pH Accuracy, 20 pack	H-4361A.7
Deionized Water Singles, 20 pack	H-4361A.00



pH Meter Accessories:	Model
Replacement Electrode Sensor for H-4370/H-4371	H-4370.1
pH Electrode (BNC), 0-14pH, Double-Junction, 12mm Dia	H-4373.1
pH Electrode (BNC), 0-12pH, Double-Junction, 12mm Dia.	H-4373.2
Replacement "All-in-One" Electrode for H-4383	H-4383.1
AC Adapter, 110 VAC for H-4383	H-4383.2
AC Adapter, 220 VAC for H-4383	H-4383.3

ECTestrs® Conductivity Tester — H-4389

Conductivity Tester with $\pm 1\%$ full-scale accuracy. User-replaceable cup-type sensor. Measures conductivity/TDS/salt and temperature. Range: 0-200 μ S, 0-2000 μ S; 0 to 20.00 mS. 3-point manual or auto calibration. Replacement electrode: H-4389.1



H-3568



H-4296



H-4296A



HT-5011



H-2629



H-3575



H-4294



H-4292



H-2260

Bi-metal Oven Thermometer

Description	Range	Div.	Model
All-metal unit is 2.3" x 3.3" with baked-enamel finish on bezel. Features bi-metal coil movement and glass lens. Hangs or stands.	100 to 600°F 50 to 315°C	25°F	H-3568

Surface Thermometer

Description	Range	Div.	Model
Sensing element comes into direct contact with surface to be measured. Dial read-out results from expansion or contraction of bi-metal. Unit is dual-magnet type, 2" (51mm) dia. x 1/2" (13mm) high.	0 to 250°F	2°F	H-2628
	0 to 500°F	5°F	H-2628H
	-20 to 120°C	1°C	H-2629

Humboldt Universal Timer—H-4296

Humboldt Universal Timer—H-4296.4F

Timer automatically shuts off electrical apparatus at set time of up to 60 minutes. Features two receptacles and a 3-wire cord and plug.

Humboldt Universal Digital Timer—H-4296A

Humboldt Universal Digital Timer—H-4296A.4F

Portable timer automatically shuts off electrical apparatus at set time up to 60 minutes. Features easy-to-use digital interface and two-plug AC receptacle.

24-Hour Digital Timer Clock—H-3575

Electronic digital timer/clock is programmed to alarm for one minute when time is up. Unit counts down or up in seconds. LCD displays hours, minutes and seconds. Memory timer allows preset time to be stored. Unit has magnetic back and can also clip on or stand. Includes one 1.5 volt battery.

Giant Digit Countdown Timer—HT-5011

Great for viewing from across a room, easily viewable from 50 ft. with 1-1/3 inch high numbers. Three-button intuitive operation eliminates reading instructions. Traceable timer has automatic bounce-back Memory for repetitive timing. Timing range is 99 minutes, 59 seconds. Resolution is 1 second, accuracy is 0.01%. Individually, traceable calibration certificate is provided, and comes with easel bench stand and magnetic back for place-anywhere mounting.

Universal Lab Timer—H-4292

Universal Lab Timer—H-4292.5F

Portable electric timer functions as elapsed-time indicator, interval timer and electrical apparatus on-off timer. Features time range of 60 minutes by minutes and seconds, 8" dial with two sets of numerals (use inner circle of small numerals as stop clock) and selective automatic buzzer alarm. Has two separate outlet receptacles for automatic switching of external appliances. Toggle switch controls one outlet, which can make or break circuit at "0." Circuit automatically breaks on second outlet after time interval. Shipping wt. 6 lbs. (2.7kg)

Bell-Type Timer—H-4294

Economical, manual mechanical timer has 60-minute time range. Signals with clear bell tone at end of set time for manual apparatus shut off.

Stopwatch, 1/5 sec. movement, 1 rev = 60 sec.—H-2260

Stopwatch, 1/10 sec. movement, 1 rev = 30 sec.—H-2261

Time-out type stopwatch, used for timing operations and tests Start, stop and restart are activated by depressing the crown. Hands are reset by depressing pin on side of case. Features nickel-chromium case and anti-magnetic shock-resistant 7-jewel movement.



Digital Scale and Balance Comparison Chart

Capacity	Readability	Model Number	Power	Platform	Mfg.	Page No.
200g	.01g	HB-4720	AC / AA batteries	4.7" dia. / 120mm dia.	Ohaus	237
200g	0.01g	HB-4528	AC / AA batteries	4.7" dia. / 120mm dia.	Adam	237
250g	0.001g	HB-4700	AC	5.7" x 4.9" / 145 x 125mm	Adam	235
250g	0.1g	HB-4529	AC / AA batteries	4.7" Dia. / 120mm	Adam	237
300g	.01g	HB-4710A	Battery / AC	4.7" Dia. / 120mm	Adam	235
310g	0.001g	HB-313	AC	4.7" Dia. / 120mm	Ohaus	234
400g	.01g	HB-4724	AC / AA batteries	4.7" dia. / 12mm dia.	Ohaus	237
400g	0.1g	HB-4723	AC / AA batteries	4.7" dia. / 12mm dia.	Ohaus	237
450g	0.001g	HB-4701	AC	5.7" x 4.9" / 145 x 125mm	Adam	235
600g	.0001g	HB-4716	Battery / AC	5.7" x 4.9" / 145 x 125mm	Adam	235
600g	.01g	HB-4712A	Battery / AC	4.7" Dia. / 120mm	Adam	235
600g	0.1g	HB-4726	AC / AA batteries	6.5" x 5.5" / 16.5 x 14.2mm	Ohaus	237
600g	0.02g	HB-4711A	Battery / AC	4.7" Dia. / 120mm	Adam	235
600g	0.1g	HB-4530	AC / AA batteries	4.7" Dia. / 120mm	Adam	237
750g	0.001g	HB-4702	AC	5.7" x 4.9" / 145 x 125mm	Adam	235
810g	0.01g	HB-812	AC / 4 AA batteries	5.8" x 6.3" / 14.9 x 16.2mm	Ohaus	234
1000g	.01g	HB-4713A	Battery / AC	4.7" Dia. / 120mm	Adam	235
1500g	0.01g	HB-4703	AC	7.6" x 7.6" / 192 x 192mm	Adam	235
1500g	0.05g	HB-4714A	Battery / AC	4.7" Dia. / 120mm	Adam	235
1500g	0.1g	HB-4532	AC / AA batteries	4.7" Dia. / 120mm	Adam	237
1600g	0.1g	HB-4950	AC / Rechargeable	9.00" x 6.90" / 250 x 240mm	Ohaus	237
2000g	0.1g	HB-4727	AC / AA batteries	6.5" x 5.5" / 16.5 x 14.2mm	Ohaus	237
2000g	0.1g	HB-4820	AC / C batteries	5.75" x 6.22" / 146 x 158mm	Ohaus	240
2000g	0.01g	HB-4536A	AC	7.6" x 7.6" / 192 x 192mm	Adam	236
2000g	1g	HB-4534	AC / AA batteries	5.1" Dia. / 130mm	Adam	237
2100g	0.01g	HB-2102	AC	6.6" x 7.1" / 16.8 x 18mm	Ohaus	234
2100g	0.1g	HB-2101	AC / 4 AA batteries	5.8" x 6.3" / 14.9 x 16.2mm	Ohaus	234
2200g	0.01g	HB-5220	AC	7.5" x 7.9" / 190 x 200mm	Ohaus	234
2500g	0.01g	HB-4704	AC	7.6" x 7.6" / 192 x 192mm	Adam	235
2600g	0.1g	HB-4533	AC / AA batteries	4.7" Dia. / 120mm	Adam	237
3000g	0.01g	HB-4542A	Battery / AC	7.6" x 7.6" / 192 x 192mm	Adam	236
3000g	0.1g	HB-4715A	Battery / AC	4.7" Dia. / 120mm	Adam	235
3000g	1g	HB-4821	AC / C batteries	5.75" x 6.22" / 146 x 158mm	Ohaus	240
3000g	1g	HB-4823	AC / C batteries	5.75" x 6.22" / 146 x 158mm	Ohaus	240
3100g	0.01g	HB-3102	AC	6.6" x 7.1" / 16.8 x 18mm	Ohaus	234
3200g	0.2g	HB-4951	AC / Rechargeable	9.00" x 6.90" / 250 x 240mm	Ohaus	237
3500g	0.01g	HB-4705	AC	7.6" x 7.6" / 192 x 192mm	Adam	235
4000g	0.1g	HB-4728	AC / AA batteries	6.5" x 5.5" / 16.5 x 14.2mm	Ohaus	237
4000g	0.1g	HB-4539A	AC	7.6" x 7.6" / 192 x 192mm	Adam	236
4100g	0.1g	HB-4101	AC / 4 AA batteries	5.8" x 6.3" / 14.9 x 16.2mm	Ohaus	234
4500g	0.01g	HB-4706	AC	7.6" x 7.6" / 192 x 192mm	Adam	235



Digital Scale and Balance Comparison Chart

Capacity	Readability	Model Number	Power	Platform	Mfg.	Page No.
5000g	1g	HB-4535	AC / AA batteries	5.7" Dia. / 145mm	Adam	237
6000g	0.01g	HB-4707	AC	7.6" x 7.6" / 192 x 192mm	Adam	235
6000g	0.1g	HB-4540A	AC	7.6" x 7.6" / 192 x 192mm	Adam	236
6000g	2g	HB-4822	AC / C batteries	5.75" x 6.22" / 146 x 158mm	Ohaus	240
6000g	2g	HB-4824	AC / C batteries	5.75" x 6.22" / 146 x 158mm	Ohaus	240
6200g	0.01g	HB-5622	AC	7.5" x 7.9" / 190 x 200mm	Ohaus	234
6200g	0.1g	HB-5620	AC	7.5" x 7.9" / 190 x 200mm	Ohaus	234
6400g	0.5g	HB-4952	AC / Rechargeable	9.00" x 6.90" / 250 x 240mm	Ohaus	237
8000g	0.1g	HB-4541A	AC	7.6" x 7.6" / 192 x 192mm	Adam	236
8100g	0.1g	HB-8101	AC / 4 AA batteries	5.8" x 6.3" / 14.9 x 16.2mm	Ohaus	234
10,000g	0.1g	HB-4538AWB	AC	15.7" x 11.8" / 400 x 300mm	Adam	236
10,000g	0.5g	HB-4953	AC / Rechargeable	9.00" x 6.90" / 250 x 240mm	Ohaus	237
10,200g	0.01g	HB-5102	AC	7.5" x 7.9" / 190 x 200mm	Ohaus	234
10,200g	0.1g	HB-5100	AC	7.5" x 7.9" / 190 x 200mm	Ohaus	234
12,000g	0.1g	HB-4506	AC	4.7" Dia. / 120mm	Ohaus	236
16,000g	1g	HB-4954	AC / Rechargeable	9.00" x 6.90" / 250 x 240mm	Ohaus	237
35lb./16kg	.001lb/.5g	HB-4636	AC / battery	8.9" x 10.8" / 225 x 275mm	Adam	239
20,000g	0.1g	HB-4537AWB	AC	15.7" x 11.8" / 400 x 300mm	Adam	236
22,000g	0.1g	HB-4508	AC	5.8" x 6.3" / 14.9 x 16.2mm	Ohaus	236
60lb. / 30kg	.01lb / .005kg	HB-4830	AC / C batteries	12" X 14" / 30.5mm X 35.5mm	Ohaus	238
60lb. / 30kg	.01lb / .005kg	HB-4930	AC / C batteries	12" X 14" / 30.5mm X 35.5mm	Ohaus	238
60lb. / 30kg	.01lb / .005kg	HB-4781	AC / rechargeable battery	11.8" x 9" / 300 x 230mm	Ohaus	239
70lb./32kg	.002lb/1g	HB-4635	AC / battery	8.9" x 10.8" / 225 x 275mm	Adam	239
32,000g	0.1g	HB-4510	AC	5.8" x 6.3" / 14.9 x 16.2mm	Ohaus	236
75lb./35kg	.02lb/.01kg	HB-4774	AC / AA batteries	12" sq / 300mm sq.	Adam	238
100lb./45kg	.005lb/2g	HB-4634	AC / battery	8.9" x 10.8" / 225 x 275mm	Adam	239
110lb./50kg	.05lb/.02kg	HB-4770	AC / AA batteries	12.2 x 10.8 in. / 310 x 270mm	Ohaus	239
110lb./50kg	.05lb/.02kg	HB-4769	AC / AA batteries	20.5 x 15.7 in. / 520 x 400mm	Ohaus	239
150lb / 60kg	.02lb / .01kg	HB-4831	AC / C batteries	16.5" X 21.7" / 420mm X 550mm	Ohaus	238
150lb / 60kg	.02lb / .01kg	HB-4931	AC / C batteries	12" X 14" / 30.5mm X 35.5mm	Ohaus	238
165lb./75kg	.05lb/.02kg	HB-4775A	AC / AA batteries	12" sq / 300mm sq.	Adam	238
220lb./100kg	.1lb/.05kg	HB-4771	AC / AA batteries	20.5 x 15.7 in. / 520 x 400mm	Ohaus	239
250lb / 100kg	.05lb / .02kg	HB-4932	AC / C batteries	15.7" X 19.7" / 400mm X 500mm	Ohaus	238
300lb / 150kg	.05lb / .02kg	HB-4832	AC / C batteries	19.7" X 25.6" / 500mm X 650mm	Ohaus	238
300lb / 150kg	.05lb / .02kg	HB-4933	AC / C batteries	16.5" X 21.7" / 420mm X 550mm	Ohaus	238
330lb./150kg	.1lb/.05kg	HB-4776	AC / AA batteries	12" sq / 300mm sq.	Adam	238
440lb./200Kg	.1lb/.05kg	HB-4777	AC / AA batteries	12" sq / 300mm sq.	Adam	238
440lb./200kg	.2lb/.1kg	HB-4772	AC / AA batteries	20.5 x 15.7 in. / 520 x 400mm	Ohaus	239
600lb / 300kg	.1lb / .05kg	HB-4833	AC / C batteries	19.7" X 25.6" / 500mm X 650mm	Ohaus	238
600lb / 300kg	.1lb / .05kg	HB-4934	AC / C batteries	17" X 22" / 42mm X 55mm	Ohaus	238

NOTE: For 220V, 50/60 Hz applications use .4F suffix to part number, i.e. HB-4500.4F



HB-3102

Adventurer Pro Precision Balances

The Adventurer Pro Series has established itself as the industry's most versatile balance. It counts, it sums, it holds and it delivers traceable results. No other balance in its class offers as many features in a compact design.

- Weighing units: Milligram, Gram, Kilogram, Ounce, Pound, Carat, Pennyweight, Ounce Troy, Grain, Newton, Hong Kong Tael, Singapore Tael, Taiwan Tael, Momme, Tical, Baht, Mesghal, Tola, Custom
- Digital Calibration with external weight or Digital with Internal Weight (Pro "C" models with InCal option)
- 2-line alphanumeric LCD with brilliant backlight. Portable models include a backlight auto-off feature to conserve batteries
- Use RS232 Interface to connect to a PC or a printer and record GLP/GMP data including date, time, balance ID, user ID, project ID and reference data to meet traceability and compliance requirements.



HB-5102

Explorer Precision Balances

The NEW Explorer balance provides ultimate quality by combining fast and highly accurate weighing results combined with intuitive weighing software, touchless user-programmable operation sensors, modular design and auto-cal internal calibration.

- Modular design allows user to configure the balance in almost any setup needed.
- 4 touchless sensors let you program functions like print, calibration, tare, etc., which are activated by the wave of your hand.
- Intuitive software provides easy-to-use graphical software featuring 14 applications.
- Fast stabilization time, up to 50% faster
- Auto-Cal Intelligent calibration ensures accurate performance by daily calibrating the balance automatically.
- Intuitive user-setup makes this balance a joy to use.

Ohaus Adventurer Pro Precision Balances

Capacity	Readability	Model	Repeatability	Linearity	Power	Pan Size	Ship Wgt.
310g	0.001g	HB-313	0.001g	±0.002g	AC	4.7" Dia. / 120mm	13.7 lb/6.2kg
810g	0.01g	HB-812	0.01g	±0.02g	AC / 4 AA batt.	5.8" x 6.3" / 14.9 x 16.2mm	5.3 lb/2.4kg
2100g	0.1g	HB-2101	0.1g	±0.2g	AC / 4 AA batt.	5.8" x 6.3" / 14.9 x 16.2mm	5.5 lb/2.5kg
2100g	0.01g	HB-2102	0.01g	±0.02g	AC	6.6" x 7.1" / 16.8 x 18mm	12.6 lb/5.7kg
3100g	0.01g	HB-3102	0.01g	±0.02g	AC	6.6" x 7.1" / 16.8 x 18mm	12.6 lb/5.7kg
4100g	0.1g	HB-4101	0.1g	±0.2g	AC / 4 AA batt.	5.8" x 6.3" / 14.9 x 16.2mm	5.5 lb/2.5kg
8100g	0.1g	HB-8101	0.1g	±0.2g	AC / 4 AA batt.	5.8" x 6.3" / 14.9 x 16.2mm	5.5 lb/2.5kg

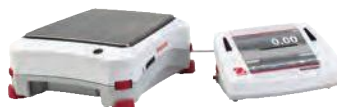
Calibrated Models Note: Models above are available with InCal Internal Calibration—Place a "C" at the end of the part number to order this option. InCal Balance shipping weights are roughly double std. models. (InCal models do not provide for AA battery operation)

Ohaus Explorer Pro Precision Balances

Capacity	Readability	Model	Repeatability	Linearity	Power	Pan Size	Ship Wgt.
2200g	0.01g	HB-5220	±0.01g	±0.02g	AC	7.5" x 7.9" / 190 x 200mm	15 lb/6.8kg
4200g	0.01g	HB-5420	±0.01g	±0.02g	AC	7.5" x 7.9" / 190 x 200mm	15 lb/6.8kg
6200g	0.01g	HB-5622	±0.01g	±0.02g	AC	7.5" x 7.9" / 190 x 200mm	11 lb/7.4kg
6200g	0.1g	HB-5620	±0.1g	±0.1g	AC	7.5" x 7.9" / 190 x 200mm	11 lb/7.4kg
10200g	0.01g	HB-5102	±0.01g	±0.02g	AC	7.5" x 7.9" / 190 x 200mm	11 lb/7.4kg
10200g	0.1g	HB-5100	±0.1g	±0.1g	AC	7.5" x 7.9" / 190 x 200mm	11 lb/7.4kg

Display Cable Extension— HB-5100C

Cable to allow Display to detach from weighing base.



Tower Mount for Explorer Scales— HB-5100T

Tower Mount Kit for Explorer Series Scales for raising display above weighing base.



NOTE: For 220V, 50/60 Hz applications use .4F suffix to part number, i.e. HB-4500.4F



HB-4706

Adam PGW Precision Balances

PGW precision balances are designed to deliver the ultimate in speed and accuracy in an easy-to-use, reliable model. These balances incorporate a simple user interface for easy setup and control of a wide range of smart functions and security features, allowing simple and advanced weighing applications to be executed on the spot, without the need for complex calculations. PGW balances are designed for the lab but have the rugged features needed for materials testing. They include all metal chemical resistant die-cast housings, below balance weighing, and a huge backlit display.

- Weighing units: g, ct, mg*, Kg, GN, N, dr, oz, ozt, dwt, mm, tl T, tl H, tl S, T, ti, custom. (*0.001 models only)
- All models are available with or without motorized internal calibration. Digital filters compensate for vibration, drafts or temperature changes
- GLP-compliant software and print outs via RS232 connection; date and time stored in memory
- Lock down Kensington™ type mounting point
- Below balance weighing with optional hanger

Adam PGW Precision Balances

Capacity	Readability	Model	Repeatability	Linearity	Power	Pan Size	Ship Wgt.
250g	0.001g	HB-4700	0.001g	0.002g	AC	5.7" x 4.9" / 145 x 125mm	28 lb/12.7kg
450g	0.001g	HB-4701	0.001g	0.002g	AC	5.7" x 4.9" / 145 x 125mm	28 lb/12.7kg
600g	0.001g	HB-4716	0.001g	0.002g	AC	5.7" x 4.9" / 145 x 125mm	28 lb/12.7kg
750g	0.001g	HB-4702	0.002g	0.002g	AC	5.7" x 4.9" / 145 x 125mm	28 lb/12.7kg
1500g	0.01g	HB-4703	0.01g	0.02g	AC	7.6" x 7.6" / 192 x 192mm	28 lb/12.7kg
2500g	0.01g	HB-4704	0.01g	0.02g	AC	7.6" x 7.6" / 192 x 192mm	28 lb/12.7kg
3500g	0.01g	HB-4705	0.01g	0.02g	AC	7.6" x 7.6" / 192 x 192mm	28 lb/12.7kg
4500g	0.01g	HB-4706	0.01g	0.02g	AC	7.6" x 7.6" / 192 x 192mm	28 lb/12.7kg
6000g	0.01g	HB-4707	0.01g	0.02g	AC	7.6" x 7.6" / 192 x 192mm	28 lb/12.7kg

NOTE: Internal Calibration—Place a "C" at the end of the part number to order this option.

Weigh Below Hook— HB-4700WB	In-use Cover— HB-4700CV
RS-232 Cable— HB-4700CB	RS-232 to USB Cable— HB-4700USB

Adam HCB Precision Balances

Capacity	Readability	Model	Repeatability	Linearity	Power	Pan Size	Ship Wgt.
300g	.01g	HB-4710A	0.02g	±0.02g	Battery / AC	4.7" Dia. / 120mm	7 lb/3.2kg
600g	0.02g	HB-4711A	0.04g	±0.04g	Battery / AC	4.7" Dia. / 120mm	7 lb/3.2kg
600g	.01g	HB-4712A	0.02g	±0.02g	Battery / AC	4.7" Dia. / 120mm	7 lb/3.2kg
1000g	.01g	HB-4713A	0.02g	±0.02g	Battery / AC	4.7" Dia. / 120mm	7 lb/3.2kg
1500g	0.05g	HB-4714A	0.1g	±0.1g	Battery / AC	4.7" Dia. / 120mm	7 lb/3.2kg
3000g	0.1g	HB-4715A	0.2g	±0.2g	Battery / AC	4.7" Dia. / 120mm	7 lb/3.2kg

In-use Cover— HB-4710CV	Carrying Case— HB-4710CS
RS-232 Cable— HB-4700CB	USB Cable— HB-4700USB



HB-4712A

Adam HCB Highland™ Precision Balances

Adam Equipment's Highland balances have what it takes for lab work, field use, and various industrial applications. They feature multiple weighing units, RS-232 and USB interfaces, rechargeable battery pack and AC operation, capacity tracker, adjustable feet and level, lock down and more. Density and specific gravity determination are easy with the below balance weighing feature, and the removable draft shield eliminates wind disturbances outdoors or in drafty environments. ShockProtect™ overload protection keeps the performance of the Highland safe and secure, and the HandiCal™ internal calibration weight provides reliable readings time after time.

- Weighing units: g, ct, oz, pennyweight (dwt), Tels T (TL.T), Tels S (TL.S), Tels Hk. (TL.H) Newtons (N), kilogram (kg), pound (lb)
- USB and RS-232 interfaces
- Stainless steel pan
- Dual, color-coated tare keys
- Large backlit display is clear and quick to read
- Removable draft shield
- Auto power off saves battery life

NOTE: Internal Calibration is built in on all models above.

NOTE: For 220V, 50/60 Hz applications use .4F suffix to part number, i.e. HB-4500.4F



HB-4506



HB-4537AWB

Explorer Pro High Capacity Models

Built to meet the most rugged demands, Ohaus Explorer Pro high-capacity balances provide an industrial capacity balance with the resolution and features of a premium laboratory balance. Three models are available with loads up to 32,000g and a readability of 0.1g. The extra large 11" x 14" (28 x 35.6cm) platform is ideal for laboratory and industrial applications in concrete/asphalt production and quality control.

- Weighing units: gram, kilogram, pound, ounce, ounce troy, carat, pennyweight, Hong Kong Tael, Singapore Tael, Taiwan Tael, mommes, grain, tical, Newton, custom
- Unique high-resolution graphic display with pop-up windows and menus to guide you through balance functions
- RS232 port for easy communication with computer or printer
- Weigh below capability
- Application library to store/recall Procedures
- Models available with AutoCal™, temperature sensitive motor driven internal calibration, which automatically self-calibrates when needed—always ready and calibrated!

PGL Balances

PGL balances combine the solid construction and fundamental features of a high-precision top loader with the versatility of a portable balance. A full-metal die cast housing, sealed front panel, and readabilities of 1mg, 10mg, and 0.1g make the PGL ideal for applications that demand both high precision and ruggedness. A built-in rechargeable battery and AC adapter/charger allow you to take your PGL balance anywhere, even out to the field. And, the unique ShockProtect™ overload protection keeps the weighing mechanism safe from overloads.

- Weighing units: gram, kilogram, carat, grain, newton, pound, ounce, pound-ounce, custom unit
- RS232 port for easy communication with computer or printer
- Backlit LCD display with capacity tracker
- Stainless steel platform
- AC power or rechargeable battery operation
- All metal construction
- Below balance weighing

PGL In-use Cover— HB-4540CV
Weigh Below Hook for PGL Balance

Ohaus Explorer Pro Precision Balances

Capacity	Readability	Model	Repeatability	Linearity	Power	Pan Size	Ship Wgt.
12,000g	0.1g	HB-4506	0.1g	±0.4g	AC	11 x 14 / 28 x 35.6mm	27 lb/12.3kg
22,000g	0.1g	HB-4508	0.1g	±0.4g	AC	11 x 14 / 28 x 35.6mm	27 lb/12.3kg
32,000g	0.1g	HB-4510	0.1g	±0.4g	AC	11 x 14 / 28 x 35.6mm	27 lb/12.3kg

Calibrated Models Note: Models above are available with InCal Internal Calibration—Place a "C" at the end of the part number to order this option.

Adam PGL Precision Balances

Capacity	Readability	Model	Repeatability	Linearity	Power	Pan Size	Ship Wgt.
2000g	0.01g	HB-4536A	0.02g	0.04g	AC	7.6" x 7.6" / 192 x 192mm	20 lb/9.1kg
3000g	0.01g	HB-4542A	0.02g	0.04g	AC	7.6" x 7.6" / 192 x 192mm	20 lb/9.1kg
4000g	0.1g	HB-4539A	0.2g	0.04g	AC	7.6" x 7.6" / 192 x 192mm	20 lb/9.1kg
6000g	0.1g	HB-4540A	0.2g	0.04g	AC	7.6" x 7.6" / 192 x 192mm	20 lb/9.1kg
8000g	0.1g	HB-4541A	0.2g	0.04g	AC	7.6" x 7.6" / 192 x 192mm	20 lb/9.1kg

Adam PGL Precision Balances, Large Capacity with Weigh-Below Hook (Density Determination Measurements)

Capacity	Readability	Model	Repeatability	Linearity	Power	Pan Size	Ship Wgt.
10000g	0.1g	HB-4538AWB	0.2g	0.4g	AC	15.7" x 11.8" / 400 x 300mm	20 lb/9.1kg
20000g	0.1g	HB-4537AWB	0.2g	0.4g	AC	15.7" x 11.8" / 400 x 300mm	20 lb/9.1kg



NOTE: For 220V, 50/60 Hz applications use .4F suffix to part number, i.e. HB-4500.4F



HB-4951



HB-4726



HB-4532

Ohaus NavigatorXT Portable Balance

The touch-free control of the zero, print, function, tare, and backlight operations help to avoid transferring sample residue to the keypad. In addition, the two sensors can be set up independently to control up to 36 combinations of operations. Accurately stabilizes in less than one second providing fast and accurate weighing results. Navigator XT is designed with a superior mechanical overload protection system that allows the scale to withstand loads up to 400% of its rated capacity.

- Internal, rechargeable battery provides up to 100 hours running time
- Touchless control feature

USB Interface Cable— HB-4950.1
Navigator Hard Case— HB-4950C

Ohaus Scout Pro Portable Balance

The Ohaus Scout Pro portable balances feature easy-to-use two-button operation, a high-contrast LCD display, multiple weighing units, four application modes, and the option of either RS232 or USB connectivity.

- Easy to Use – The high-contrast LCD display combined with two key operation makes the Scout Pro a snap to operate
- Battery or AC Power – Uses 4 "AA" batteries with auto shut-off feature for 40 hours of operation, or AC powerpack
- Integral Weigh-Below Hook – for density or specific gravity determination
- USB or RS232 Connectivity

USB Interface Cable— HB-4727.1
Scout Hard Case— HB-4727C

Adam Core Balance Compact Portable

The CQT provides a low-cost solution for field and lab usage. Complete with removable draft shield, AC adapter, adjustable feet and level and an integral security bracket. Ready for use out of the box, the CQT balances can operate with 6 AA batteries and an optional carrying case is available.

- A removable draft shield helps when working on site where wind makes accurate readings difficult
- Battery-powered with six AA batteries
- Optional carrying case available
- 2600g model is a great upgrade for triple-beam balances and comes with a hard case

Ohaus NavigatorXT Portable Balance

Capacity	Readability	Model	Units	Power	Pan Size	Ship Wgt.
1600g	0.1g	HB-4950	lb, oz, lb:oz, kg, g	AC / Rechargeable	9.00" x 6.90" / 250 x 240mm	6.1 lb/2.8kg
3200g	0.2g	HB-4951	lb, oz, lb:oz, kg, g	AC / Rechargeable	9.00" x 6.90" / 250 x 240mm	6.1 lb/2.8kg
6400g	0.5g	HB-4952	lb, oz, lb:oz, kg, g	AC / Rechargeable	9.00" x 6.90" / 250 x 240mm	6.1 lb/2.8kg
10000g	0.5g	HB-4953	lb, oz, lb:oz, kg, g	AC / Rechargeable	9.00" x 6.90" / 250 x 240mm	6.1 lb/2.8kg
16000g	1g	HB-4954	lb, oz, lb:oz, kg, g	AC / Rechargeable	9.00" x 6.90" / 250 x 240mm	6.1 lb/2.8kg

Ohaus Scout Pro Portable Balance

Capacity	Readability	Model	Repeatability	Units	Power	Pan Size	Ship Wgt.
200g	.01g	HB-4720	±.01	kg, lb, g, oz	AC / AA batteries	4.7" dia. / 12mm dia.	5.3 lb/2.4kg
400g	.01g	HB-4724	±.01	kg, lb, g, oz	AC / AA batteries	4.7" dia. / 12mm dia.	5.5 lb/2.5kg
400g	.1g	HB-4723	±.1	kg, lb, g, oz	AC / AA batteries	4.7" dia. / 12mm dia.	12.6 lb/5.7kg
600g	.1g	HB-4726	±.1	kg, lb, g, oz	AC / AA batteries	6.5" x 5.5" / 16.5 x 14.2mm	5.5 lb/2.5kg
2000g	.1g	HB-4727	±.1	kg, lb, g, oz	AC / AA batteries	6.5" x 5.5" / 16.5 x 14.2mm	5.5 lb/2.5kg
4000g	.1g	HB-4728	±.1	kg, lb, g, oz	AC / AA batteries	6.5" x 5.5" / 16.5 x 14.2mm	5.5 lb/2.5kg

Adam Core Balance CQT Compact Portable

Capacity	Readability	Model	Repeatability	Linearity	Power	Pan Size	Ship Wgt.
200g	0.01g	HB-4528A	0.01g	±0.02g	AC / AA batteries	5.1" Dia. / 130mm	5.3 lb/2.4kg
250g	0.1g	HB-4529A	0.1g	±0.1g	AC / AA batteries	5.1" Dia. / 130mm	5.5 lb/2.5kg
600g	0.1g	HB-4530A	0.1g	±0.1g	AC / AA batteries	5.1" Dia. / 130mm	12.6 lb/5.7kg
1500g	0.1g	HB-4532A	0.1g	±0.2g	AC / AA batteries	5.1" Dia. / 130mm	5.5 lb/2.5kg
2000g	1g	HB-4534A	1g	±1g	AC / AA batteries	5.1" Dia. / 130mm	5.5 lb/2.5kg
2600g*	0.1g	HB-4533A	0.1g	±0.2g	AC / AA batteries	5.1" Dia. / 130mm	5.5 lb/2.5kg
5000g	1g	HB-4535A	1g	±1g	AC / AA batteries	5.1" Dia. / 130mm	5.5 lb/2.5kg

*2600g, Model HB-4533 is sold with a hard case (see picture)— perfect for field use, great upgrade to triple beam balances.



HB-4775A

Adam CPWplus Portable Scales

The CPWplus line of industrial scales is one of our most popular scales for materials testing and general field use. With a steel base, stainless steel weighing pan, flexible remote indicator and splash-proof keypad, the CPWplus can handle harsh messy applications easily. The RS232 interface, AC adapter and wall-mount bracket make it a versatile solution for lab and field work. Uses 6 AA batteries. Optional carrying case (HB-4775C) available for ease of portability.

- Large backlit LCD display on flexible remote indicator
- RS232 bi-directional interface
- Hold function freezes reading
- Uses 9V adapter (included) or six AA batteries
- Steel base, stainless weighing pan and splash-proof keypad



HB-4831

Ohaus Defender Bench Scales

The Defender 3000 feature a simple, yet rugged, tubular-frame design. They include an indicator with tactile keys, backlit LCD display, built-in rechargeable battery operation and flexible mounting capabilities. These scales provide multiple weighing units: lb, oz, lb:oz, kg, g.

Standard Features Include:

- 304 stainless steel pan with painted carbon steel frame and aluminum IP67 load cell
- Indicator features a high-impact durable ABS housing with reversible face for either wall, column or table-top mounting
- Adjustable non-slip rubber leveling feet with externally visible level indicator
- 1-in/25mm high LCD weight display with high-contrast backlight
- Built-in RS232 for printing and data connection
- AC adapter and internal rechargeable lead acid battery



Defender Low-Profile Bench Scales

The OHAUS Defender 5000 Series Low-Profile scales are a feature-rich line of bench scales, combining an ABS plastic indicator with painted steel bases and mounting brackets. The Defender 5000 offers a multifunctional indicator with multiple weighing units (kg, g, lb, oz, lb:oz (decimal), metric tonnes and a user-definable unit) and software modes to meet your requirements.

Standard Features Include:

- Painted steel bases with ABS indicator
- Quick display of results using large LCD with high-contrast white backlight
- Easy to operate with 4-key membrane keypad with raised tactile keys
- Weighs in one or more units: kg, g, lb, oz, lb:oz (decimal), metric tonnes and user-definable custom unit
- Internal power supply with universal line cord or 6 "C" batteries (80 hr. battery life)
- Base and indicator connected using quick connect plug

Adam CPWplus Portable Scales

Capacity	Readability	Model	Repeatability	Power	Pan Size	Ship Wgt.
75lb./35kg	.02lb/.01kg	HB-4774	.02lb/.01kg	AC / AA batteries	12" sq / 300mm sq.	11 lb / 5 kg
165lb./75kg	.05lb/.02kg	HB-4775A	.05lb/.02kg	AC / AA batteries	12" sq / 300mm sq.	11 lb / 5 kg
330lb./150kg	.1lb/.05kg	HB-4776	.1lb/.05kg	AC / AA batteries	12" sq / 300mm sq.	11 lb / 5 kg
440lb./200kg	.1lb/.05kg	HB-4777	.1lb/.05kg	AC / AA batteries	12" sq / 300mm sq.	11 lb / 5 kg

Hard Carrying Case for CBWplus Scales—HB-4775C

Ohaus Defender 3000 Bench Scale

Capacity	Readability	Model	Power	Pan Size	Ship Wgt.
60lb. / 30kg	.01lb / .005kg	HB-4830	AC / C batteries	12" X 14" / 30.5mm X 35.5mm	33 lb / 15 kg
150lb / 60kg	.02lb / .01kg	HB-4831	AC / C batteries	16.5" X 21.7" / 420mm X 550mm	51 lb / 23 kg
300lb / 150kg	.05lb / .02kg	HB-4832	AC / C batteries	19.7" X 25.6" / 500mm X 650mm	82 lb / 37 kg
600lb / 300kg	.1lb / .05kg	HB-4833	AC / C batteries	19.7" X 25.6" / 500mm X 650mm	82 lb / 37 kg

Rechargeable Battery Kit— HB-4931RB

Ohaus Defender 5000 Low Profile Bench Scale

Capacity	Readability	Model	Power	Pan Size	Ship Wgt.
60lb. / 30kg	.01lb / .005kg	HB-4930	AC / C batteries	12" X 14" / 30.5mm X 35.5mm	35.9 lb / 12.7 kg
150lb / 60kg	.02lb / .01kg	HB-4931	AC / C batteries	12" X 14" / 30.5mm X 35.5mm	35.9 lb / 12.7 kg
250lb / 100kg	.05lb / .02kg	HB-4932	AC / C batteries	15.7" X 19.7" / 400mm X 500mm	53.6 lb / 24.3 kg
300lb / 150kg	.05lb / .02kg	HB-4933	AC / C batteries	16.5" X 21.7" / 420mm X 550mm	64.8 lb / 29.4 kg
600lb / 300kg	.1lb / .05kg	HB-4934	AC / C batteries	17" X 22" / 42mm X 55mm	64.8 lb / 29.4 kg

Rechargeable Battery Kit— HB-4931RB





Ohaus Multi-function Weighing Scale

This multi-function weighing scale is designed for light to medium industrial applications and provides fast displayed results, multiple functionality and internal battery operation. It offers versatility, portability and dependability in one affordable package.

- Stainless steel weighing pan
- Four weighing units: kg, g, lb and oz
- 80-hour internal rechargeable battery with power-saving auto-shut off feature
- Included in-use cover

Ohaus ES Bench Scale

The Ohaus ES Low profile Bench Scale brings utility and economy together. Easy, two-button operation and a large display guarantee accurate and unmistakable results. The unique 3-way mounting bracket allows you to mount the indicator to the scale base, above the scale platform, or on any vertical surface. For simple weighing at a favorable cost, this scale is the one to choose.

- Auto-zero tracking
- Large platform with leveling feet
- Battery saving auto-off timer, (after 5 minutes of inactivity)
- Large backlit LCD display on flexible remote indicator
- RS232 bi-directional interface
- Hold function freezes reading
- Steel base, stainless weighing pan and splash-proof keypad

Adam CBK Bench Scale

Repetitive weighing tasks are fast and simple with a large stainless steel platform, backlit display, and a graphic capacity tracker to show how much weighing range is used or available. Amber, green and red indicators make check weighing applications trouble free and quickly show operators if a sample is under or over the preset limits. The CBK includes features like RS232 interface, date & time, a built in rechargeable battery pack and AC adapter, to make it ideal for production, warehousing or even in the field.

- Large backlit LCD with capacity tracker
- Colored LED check limit indicators
- Stainless steel pan
- 5 weighing units (g, Kg, lb, oz, lb;oz)
- Rechargeable battery
- RS-232 interface with multi-language, date and time output

Ohaus Multi-function Weighing Scale

Capacity	Readability	Model	Power	Pan Size	Ship Wgt.
60lb. / 30kg	.01lb / .005kg	HB-4781	AC / rechargeable battery	11.8" x 9" / 300 x 230mm	11.7 lb / 5.3 kg

In-use Cover—HB-4636CV

Adam CBK Bench Scale

Capacity	Readability	Model	Repeatability	Power	Pan Size	Ship Wgt.
35lb./16kg	.001lb/.5g	HB-4636A	.001lb/.5g	AC / battery	8.9" x 10.8" / 225 x 275mm	11 lb / 22 kg
70lb./32kg	.002lb/1g	HB-4635A	.002lb/1g	AC / battery	8.9" x 10.8" / 225 x 275mm	11 lb / 22 kg
100lb./48kg	.005lb/2g	HB-4634A	.005lb/2g	AC / battery	8.9" x 10.8" / 225 x 275mm	11 lb / 22 kg

NOTE: To order factory-installed weigh-below hook, use WB suffix to part number.
 Hard Carrying Case for CBK Scales—HB-4635C
 In-use Cover—HB-4636CV

Ohaus ES Bench Scale

Capacity	Readability	Model	Power	Units	Pan Size	Ship Wgt.
110lb./50kg	.05lb/.02kg	HB-4770	AC / AA batteries	lb, oz, kg, lb:oz	12.2 x 10.8 in. / 310 x 270mm	8.8 lb / 4 kg
110lb./50kg	.05lb/.02kg	HB-4769	AC / AA batteries	lb, oz, kg, lb:oz	20.5 x 15.7 in. / 520 x 400mm	38 lb / 17 kg
220lb./100kg	.1lb/.05kg	HB-4771	AC / AA batteries	lb, oz, kg, lb:oz	20.5 x 15.7 in. / 520 x 400mm	38 lb / 17 kg
440lb./200kg	.2lb/.1kg	HB-4772	AC / AA batteries	lb, oz, kg	20.5 x 15.7 in. / 520 x 400mm	38 lb / 17 kg



HB-4821

Ohaus Valor Xtreme Precision Scale

The Valor Xtreme features a full stainless steel housing with added chemical resistance and a removable stainless weighing pan. It has advanced overload protection rated at 10x the scale capacity, making it ideal for tough environments. Long battery life of up to 100 hours is supplied from four C-type batteries. These scales also feature up-front level bubbles and a large backlit display. Models HB-4823 and HB-4824 provide full NEMA 4X/IP65 water resistance for use in wet applications.



H-4732



H-4621



H-4480



H-4490

Ohaus Valor Xtreme Precision Scale

Capacity	Readability	Model	Units	Power	Pan Size	Ship Wgt.
2000g	.1g	HB-4820	lb, oz, lb:oz, kg, g	AC / C batteries	5.75" x 6.22" / 146 x 158mm	5.3 lb/2.4kg
3000g	1g	HB-4821	lb, oz, lb:oz, kg, g	AC / C batteries	5.75" x 6.22" / 146 x 158mm	5.5 lb/2.5kg
6000g	2g	HB-4822	lb, oz, lb:oz, kg, g	AC / C batteries	5.75" x 6.22" / 146 x 158mm	12.6 lb/5.7kg
3000g	1g	HB-4823	lb, oz, lb:oz, kg, g	AC / C batteries	5.75" x 6.22" / 146 x 158mm	5.5 lb/2.5kg
6000g	2g	HB-4824	lb, oz, lb:oz, kg, g	AC / C batteries	5.75" x 6.22" / 146 x 158mm	5.5 lb/2.5kg

Portable Bench Platform Scale— H-4732

Compact, self-contained scale is designed for rugged use, ideal for location or lab applications where scale can take a pounding. Complete with carrying handle, which doubles as a beam guard and allows convenient hanging from wall brackets, freeing bench and counter space. Weighs in lbs. only. 131 lbs capacity, Top: 125 lbs by 5 lbs; Left: 5 lbs x 1 oz; Right: 1 lb x 0.01 lb; Tare Bar: 0-10 lbs. The H-4732 is constructed of steel and cast aluminum with adjustable hardened steel pivots and self-aligning steel bearings. The built-in platform and steel locking mechanism ensure safe, secure operation and portability. Also features a stainless steel poise rail, the beams are mounted below the platform, allowing unrestricted visibility when weighing. Beam balance indicator ensures correct reading. Main frame has rubber cushion mounting for protection. Platform: 12" x 17" (305 x 432mm).

Portable Bench Platform Scale (metric)— H-4732M

Metric version of H-4732 above. Weighs in kg only. 52 kg capacity, Top: 50 kg by 2 kg; Left: 0-2 kg blank tare; Right: 2 kg x 0.01 kg.

Heavy Capacity Portable Bench Platform Scale— H-4748A

Heavier capacity model of the H-4732 above. Weighs in lbs. only. 260 lbs capacity, Top: 250 lbs by 10 lbs; Left: 5 lbs x 1 oz; Right: 5 lbs x 0.1 lb; Tare Bar: 0-25 lbs. Complete with carrying handle, which doubles as a beam guard and allows convenient hanging from wall brackets, freeing bench and counter space.

Stainless Steel Cover for H-4732 and H-4732M— H-4732SC

Digital Readout, U.S./Metric Suspension Scale— H-4621

High accuracy, compact digital hanging scale uses a 12-bit A/D converter for accuracy $\pm 0.1\%$ of applied load. Weatherproof ABS plastic case assures maximum protection against moisture, dust and rough usage. High visibility, 1/2" high LCD digital readout provides easy reading of weights. Membrane push button switches allow simple trouble-free operation. Power is supplied by (1) 9-volt alkaline battery (not included). Peak hold, stainless steel hooks. Function keys for Zero, lb/kg, On/Off. Overall case size 3.75" W x 2" D x 6"H.

Capacity	Resolution	Model	Accuracy
250lb/113.4kg	.01lb/.01kg	H-4621	$\pm .01\%$

Spring Scale— H-4480

For field soil tests in mechanical analysis of aggregates, scale has 60 lb. capacity. Dial is 30 lbs. by 0.1 lb. For direct reading, loose pointer is set at any position on the 8" (203mm) dia. dial with thumbscrew. Overall dimensions: 8" x 1-5/8" x 16" (203 x 41 x 406mm). Shipping wt. 8 lbs. (3.6kg)

Straight Spring Balance— H-4490

Heavy-duty spring balance for batch weighings with reliable accuracy and 100 lb. capacity. Gauge 100 lbs. by 1 lb. Easy-to-read recessed gauge has deep-etched graduations. Adjustable indicator is set to zero for taring. Overall dimensions: 2" x 1-3/4" x 11" (51 x 45 x 279mm).



Ohaus Mechanical Balances

The Ohaus 700 Series accommodates a large range of laboratory applications. Standard features include: Faster stability—three times faster stability reading than any other three-beam balance on the market; and, greater accuracy—outstanding beam quality allows for smooth positioning of the poise. Include weight sets. The OHAUS Dial-O-Gram® Series combines the convenience of direct-reading dial calibration with the speed of magnetic damping for a balance that accurately and quickly weighs everything.

Ohaus Triple Pro Mechanical Balance

The Triple Pro features 2600g capacity and 0.1g readability. Balance has integral covered mass storage, including weight set and built in handle for ease of use. Balance also features a storage lock to protect balance when not in use and a spring-loaded zero adjust compensator. **Includes rod and clamp for fast set up of weigh-below applications like specific gravity.**



Ohaus Heavy-Duty Solution Balance

The Ohaus Heavy-Duty Solution Balance is a dual beam mechanical balance with a maximum capacity of 20 kilograms and a readability of 1 gram. A dual-faced Indicator Plate allows front and rear weighing. The base and beam are constructed of cast aluminum and finished with a durable epoxy powder coating. A large lockable tare and magnetic damping speeds up the weighing process. Readings up to 1100 grams may be taken directly off the two beams and the slotted mass set provided extends the weighing capacity to 20 kilograms.

Ohaus Heavy-Duty Field Test Scale

The Field Test Scale is a very compact design and provides accurate weighings of a wide variety of heavy materials, even under the most adverse conditions. The large stabilized pan will hold oversized samples without tipping, and the weighted base keeps the entire scale rock steady. Two models are available: 16kg with a readability of 5g and a 36lb model with a readability of 0.01lb. Includes a set of slotted weights, stored in the base.

Ohaus Cent-O-Gram and Dial-O-Gram Scales

Quality, high precision overhead mechanical balances Ohaus Cent-O-Gram and Dial-O-Gram Overhead Balances offer the accuracy and convenience of an integrated weigh-below balance while allowing students to visualize mass measurement principles. Designed with a hanging pan system, both balances offer 10 times the readability of the Ohaus Triple Beam and Dial-O-Gram top-loading balances. The Vernier dial on the Dial-O-Gram 310 replaces two of the beams and is a great time saver.

Ohaus Mechanical Balances

Capacity	Readability	Model	Description (Ohaus No.)	Tare	Platform	Shipping wt.
311g	0.01g	H-4825	Cent-O-Gram (311-00)	—	3.5" dia. x .5" deep stainless steel pan	5.5lb/2.49kg
310g	0.01g	H-4830	Dial-O-Gram (310-00)	—	3.5" dia. x .5" deep stainless steel pan	5.5lb/2.49kg
2610g	0.1g	H-4603	Series 700 Triple Beam w/ H-4609 weight set (750-SW/707)	—	6" dia. stainless steel plate	8.8lb/3.99kg
2610g	0.1g	H-4604	Series 700 Triple Beam w/ H-4609 weight set (750-SW/707)	225g	6" dia. stainless steel plate	8.8lb/3.99kg
2610g	0.1g	H-4605	Series 700 Triple Beam w/ H-4609 weight set (750-SW/707)	—	12" x 6" x 3" stainless steel scoop	8.3lb/3.76kg
2610g	0.1g	H-4835	Dial-O-Gram (1650-WO)	225g	6" dia. stainless steel plate	9.9lb/4.49kg
2610g	0.1g	H-4739	Triple Pro Mechanical Balance (TP2611)	—	147 x 147mm	8.8lb/3.99kg
16kg	5.0g	H-4665	Heavy-Duty Field Scale, metric (2400-11)	—	10" dia. epoxy-coated steel	23lb/10.4.5kg
36lb	0.01lb	H-4660	Heavy-Duty Field Scale, english (2400-12)	—	10" dia. epoxy-coated steel	23lb/10.4.5kg
20kg	1.0g	H-4785	Heavy-Duty Solution Balance (1119-DO)	2270g	11" dia. stainless steel	44lb/19.96kg

* includes H-4615S stainless steel scoop and counterweight



H-4615S



H-4615P



H-4609



H-4603CC



H-21170

Mechanical Balance Accessories

(Models: H-4603, H-4604, H-4605, H-4835, H-4837)

Description (Ohaus No.)	Model
Polypropylene scoop & counterweight (703-00)	H-4615P
Stainless steel scoop & counterweight (703-S0)	H-4615S
Rod & clamp assembly for under-balance weighing (183-00)	H-21170

Description (Ohaus No.)	Model
Vinyl dust cover (706-00)	H-4603C
Steel carrying case	H-4603CC
Replacement attachment weight set (707-00)	H-4609



H-4888.5KG

Stainless Steel Electronic Balance Calibration Weights—

Stainless Steel Electronic Balance Calibration Weights are available in ASTM Classes 1 and 4 in sizes ranging from 10g to 30kg. Class 1 weights are for analytical balances and applications requiring high accuracy while Class 4 weights are typically used for balances less sensitive than 0.01g. Weights are available in a cylindrical design up to 5kg and a stackable grip-handle design from 5kg to 30kg for all necessary testing, calibration and adjustment. All ANSI/ASTM E617 class weights meet or exceed specifications for tolerance, construction, surface finish, and magnetism as outlined in ANSI/ASTM E617. Weights 5kg and below are supplied in protective cases.

For weights with a Traceable Certificate, place a T at the end of the part number when ordering, i.e. H-4888.30KGT.

For weights with a NVLAP Certificate, place a W at the end of the part number when ordering, i.e. H-4888.30KGW.

Individual Weights— Stainless Steel

Weight	ASTM Class 1	ASTM Class 4
30 kg	H-4888.30KG	H-4889.30KG
25 kg	H-4888.25KG	H-4889.25KG
24 kg	H-4888.24KG	H-4889.24KG
20 kg	H-4888.20KG	H-4889.20KG
16 kg	H-4888.16KG	H-4889.16KG
10 kg	H-4888.10KG	H-4889.10KG
8 kg	H-4888.8KG	H-4889.8KG
5 kg	H-4888.5KG	H-4889.5KG
4 kg	H-4888.4KG	H-4889.4KG
3 kg	H-4888.3KG	H-4888.3KG
2 kg	H-4888.2KG	H-4888.2KG
1.5 kg	H-4888.15KG	H-4889.15KG
1 kg	H-4888.1KG	H-4889.1KG
600 g	H-4888.600G	H-4889.600G
500 g	H-4888.500G	H-4889.500G
400 g	H-4888.400G	H-4889.400G
300 g	H-4888.300G	H-4889.300G
200 g	H-4888.200G	H-4889.200G
160 g	H-4888.160G	H-4889.160G
150 g	H-4888.150G	H-4889.150G
100 g	H-4888.100G	H-4889.100G
80 g	H-4888.80G	H-4889.80G
70 g	H-4888.70G	H-4889.70G
60 g	H-4888.60G	H-4889.60G
50 g	H-4888.50G	H-4889.50G
40 g	H-4888.40G	H-4889.40G
30 g	H-4888.30G	H-4889.30G
20 g	H-4888.20G	H-4889.20G
10 g	H-4888.10G	H-4889.10G



H-4889.250KG



H-4886SS



H-4660.10

Stainless Steel Heavy Capacity Calibration Weights—

Stainless Steel Heavy Capacity Weights are an ideal solution for for the calibration of large capacity scales.

Weight	ASTM Class 4
250kg	H-4889.250KG
200kg	H-4889.200KG
180kg	H-4889.180KG
150kg	H-4889.150KG
100kg	H-4889.100KG
80kg	H-4889.80KG
75kg	H-4889.75KG
60kg	H-4889.60KG
50kg	H-4889.50KG
40kg	H-4889.40KG
20kg	H-4889.20KG

For weights with a Traceable Certificate, place a T at the end of the part number when ordering, i.e. H-4889.50KGT.

For weights with a NVLAP Certificate, place a W at the end of the part number when ordering, i.e. H-4889.50KGW.

Stainless Steel Calibration Weight Sets—

Stainless Steel Electronic Balance Calibration Weight Sets are available in ASTM Class 1 with a 2100g capacity. Class 1 weights are for analytical balances and applications requiring high accuracy. These sets are available three ways: with and Accuracy Certificate, with a Traceable Certificate or with a NVLAP Certificate. These sets include a convenient holder for the set. All ANSI/ASTM E617 class weights meet or exceed specifications for tolerance, construction, surface finish, and magnetism as outlined in ANSI/ASTM E617.

Weight Sets— Stainless Steel

Model	Description
H-4888WS	Stainless Steel Electronic Balance Calibration Weight Set: 2100g capacity: 1kg, 500g, 300g, 200g, 100g, ASTM Class 1 w/ accuracy certificate
H-4888WST	Stainless Steel Electronic Balance Calibration Weight Set: 2100g capacity: 1kg, 500g, 300g, 200g, 100g, ASTM Class 1 w/ Traceable Certificate
H-4888VSW	Stainless Steel Electronic Balance Calibration Weight Set: 2100g capacity: 1kg, 500g, 300g, 200g, 100g, ASTM Class 1 w/ NVLAP Certificate
H-4886SS	Metric Economical Stainless Steel Weight Set: 2010g capacity: 1kg, 500g, 200g, (2) 100g, 50g, 20g, (2) 10g, 5g, (2) 2g, 1g w/ accuracy certificate
H-4886SSC	Metric Economical Stainless Steel Weight Set: 2010g capacity: 1kg, 500g, 200g, (2) 100g, 50g, 20g, (2) 10g, 5g, (2) 2g, 1g w/Traceable Certificate
H-4887SS	Metric Economical Stainless Steel Weight Set: 4110g capacity: 2000g, 1000g, 500g, (2) 200g, 100g, 50g, (2) 20g, 10g, 5g, (2) 2g, 1g. w/ accuracy certificate
H-4887SST	Metric Economical Stainless Steel Weight Set: 4110g capacity: 2000g, 1000g, 500g, (2) 200g, 100g, 50g, (2) 20g, 10g, 5g, (2) 2g, 1g. w/Traceable Certificate

Field Scale Replacement Weights

Model H-4660 (avoirdupois)

Model H-4665 (metric)

Weight	Model
1 lb.	H-4660.1
2 lb.	H-4660.2
5 lb.	H-4660.5
10 lb.	H-4660.10

Weight	Model
500g	H-4665.1
1kg	H-4665.2
2kg	H-4665.3
5kg	H-4665.4

Original set includes: (1) 1lb; (2) 2 lb; (2) 5 lb, and (2) 10lb

Original set includes: (1) 500g; (1) 1 kg; (2) 2 kg, and (2) 5 kg

Gas Hotplate, Cylinder Gas— H-4947AC

Two-burner, heavy-duty cast iron stove runs on cylinder gas. Designed for portability, this stove is perfect for any lab or location application. Burners are rated at 35,000 BTU and provide fast heating. Shpg. wt. 53lbs. (24kg)



H-4947AC

Gas Hotplate, Natural Gas— H-4947NC

Two-burner, heavy-duty cast iron stove runs on natural gas. Designed for portability, this stove is perfect for any lab or location application. Burners are rated at 35,000 BTU and provide fast heating. Shpg. wt. 53lbs. (24kg)

Gas Hotplate— H-4955

Stainless and aluminized steel construction provides durability and long life. Two, individual-controlled 26,000 BTU burners with individual grates. Heavy-duty legs with leveling legs. Comes with regulator kit for field conversion to propane gas. Dimensions: 12"W x 27"D x 13"H (30.5 x 68.6 x 34 cm).



H-4955



H-4943



H-4943S



H-4954



H-4944



H-4953



H-4952



H-4949



H-4956



H-4958

Basic and Stirring Hotplates—

Reflective white ceramic surface is acid- and alkali-resistant and easy to clean. Nonheating frame surrounds the heated ceramic plate for added protection. Fit virtually anywhere in the lab. Easy-to-set analog temperature control knob with graduated scale. LED display. Top plate and base design diverts liquids away from internal electronics. Safety warning system with visual alert protects user from accidental burns. Redundant temperature control systems for over-temperature protection. Incorporated base mount holds support rods up to 13mm diameter—ideal when using thermometers or pH probes.

Stirring Function Models— Variable analog stirring control to 1200 rpm. Instant-On feature begins stirring at low 60 rpm to prevent splashing. Direct-drive motor/magnet system runs silently.

Heavy-Duty Hotplates—

Electric hotplate with cast-aluminum heating surface and integral structural ribs that will not warp or buckle. Perforated stainless steel base supports heavy loads.

Basic and Stirring Hotplates—

Temperature Range	Heating Surface	Electrical	Standard Model	Stirring Model	Stirring Range
Ambient to 540°C (Ambient to 1004°F)	7" x 7"	120V 60Hz	H-4942	H-4942S	60 to 1200rpm
		230V 50/60Hz	H-4942.4F	H-4942S.4F	
		120V 60Hz	H-4954	H-4944S	
		230V 50/60Hz	H-4954.4F	H-4944S.4F	
Ambient to 400°C (Ambient to 752°F)	10" x 10"	120V 60Hz	H-4943	H-4943S	60 to 1200rpm
		230V 50/60Hz	H-4943.4F	H-4943S.4F	
		120V 60Hz	H-4955	H-4945S	
		230V 50/60Hz	H-4955.4F	H-4945S.4F	

Heavy-Duty Hotplates—

Model	Electrical	Heating Surface	Temperature Range
H-4952	120V 60Hz	12" x 12" (30 x 61cm)	Ambient to 371°C (Ambient to 700°F) Temp. stability: ±3.5°C (6.3°C)
H-4952.4F	230V 50/60Hz		
H-4953	120V 60Hz	12" x 24" (30 x 30cm)	
H-4953.4F	230V 50/60Hz		

Electric Hotplate— H-4949

Dual-burner electric hot plate. Two 825-watt rapid heating burners. Infinite heat controls, heavy-gauge steel construction; chrome finish; phenolic feet. Includes 3-wire cord and plug. 6-1/2" (16.5cm) dia. heating elements: Overall: 20-1/2" x 8-3/4" x 4" (52 x 22 x 10cm). Warm-simmer rolling boil with adjustable controls. Shpg. wt. 9lbs. (4.1kg)

Electric Hotplate— H-4956

Stainless steel construction provides durability and long life. 9-inch solid plate burners for faster, more even heating and easier clean-up. Dimensions: 15"W x 27"D x 12"H (38.1 x 69.5 x 29.3 cm).

Industrial-grade Heat Gun—H-4958

Powerful blower provides a high volumes of air needed for almost any application and convenient base allows for stationary use. Unit is 14.3 Amps and produces temperatures of 750-1000°F. Air intake regulator provides temperature adjustment and cool air setting is great for no-heat applications, adding versatility. Insulated nozzle Protects operator, provides a cool exterior temperature.



H-30200



H-30204.4F



H-30216.4F



H-30210.4F

**Small Benchtop Muffle Furnace,
120V 50/60Hz—H-30200
240V 50/60Hz—H-30200.4F**

Small (0.07 cu.ft.), 1500W benchtop muffle furnace has ceramic fiber insulation, which provides faster heat-up and reduced energy consumption. Embedded heating element on top and both sides provides temperature uniformity. Digital single setpoint temperature control to 1100°C with single display showing actual temperature or setpoint. Drop-down door doubles as a convenient shelf for loading and unloading. Rear chamber port for monitoring temperatures with independent measuring devices. Shipped with power cord. Refer to table for specifications. Shpg. wt. 28lb (12.7kg)

**Small Benchtop Muffle Furnace,
120V 50/60Hz—H-30201
240V 50/60Hz—H-30201.4F**

Small (0.2 cu.ft.), 1800W benchtop muffle furnace has ceramic fiber insulation, which provides faster heat-up and reduced energy consumption. Embedded heating element on top and both sides provides temperature uniformity. Digital single setpoint temperature control to 1200°C with single display showing actual temperature or setpoint. Drop-down door doubles as a convenient shelf for loading and unloading. Rear chamber port for monitoring temperatures with independent measuring devices. Shipped with power cord. Refer to table for specifications. Shpg. wt. 60 lb (27.2kg)

**Large Premium Benchtop Muffle Furnace,
240V 50/60Hz—H-30204.4F**

Small (0.5 cu.ft.), 3095W benchtop muffle furnace has ceramic fiber insulation, which provides faster heat-up and reduced energy consumption. Embedded heating element on top and both sides provides temperature uniformity. Digital single setpoint temperature control to 1200°C with single display showing actual temperature or setpoint. Drop-down door doubles as a convenient shelf for loading and unloading. Rear chamber port for monitoring temperatures with independent measuring devices. Shipped with power cord. Refer to table for specifications. Shpg. wt. 134 (61kg)

**Low-Cost 1200°C Box Furnaces,
208/220V 50/60Hz 1 phase**

Small to medium-sized, low-cost box furnaces with a maximum working temperature of 1200°C. Furnaces exhibit excellent temperature uniformity and use a ceramic fiber board lining to ensure energy efficiency. Heating elements are designed in a unique configuration, which lays directly on a fiber-groove surface to ensure the longest heating element life, best heat radiation properties and minimum distortion of heating elements at high temperature. All models use long-life platinum/rhodium S-type thermocouple. 30-segment, easy-to-use PID programmable temperature controller, allows control of heating rates, dwells (time holds) and cooling rates. Safety feature includes a safety interlock system to shut off power when furnace door open.

**High-Temperature, 1500°C Box Furnaces,
208/220V 50/60Hz 1 phase**

Small to medium-sized, low-cost box furnaces with a maximum working temperature of 1500°C. Furnaces exhibit excellent temperature uniformity and use a ceramic fiber board lining to ensure energy efficiency. Long lasting high-temperature silicon carbide heating elements are designed in a unique U-shaped configuration to ensure the longest heating element life, best heat radiation properties at high temperatures, and easy exchange. All models use long-life platinum/rhodium S-type thermocouple. 30-segment, easy-to-use PID Programmable Temperature Controller, allows control of heating rates, dwells (time holds) and cooling rates. Safety feature includes a safety interlock system to shut off power when furnace door open.

Model	Max. Temp	Dimensions Chamber (HxWxD)	Electrical
H-30200	2012°F (1100°C)	4.25" x 5" x 6" (108 x 127 x 152mm)	120V, 12amps, 50/60Hz
H-30200.4F			240V, 6.3amps, 50/60Hz
H-30201	2192°F (1200°C)	5" x 7" x 10" (130 x 180 x 250mm)	120V, 15amps, 150/60Hz
H-30201.4F			240V, 7.5amps, 50/60Hz
H-30204.4F	2192°F (1200°C)	6.8" x 12.8" x 10" (180 x 330 x 250mm)	240V, 12.9amps, 50/60Hz
H-30214.4F	2192°F (1200°C)	4" x 5" x 8" (180 x 330 x 250mm)	208/220V 50/60Hz 1 ph.
H-30215.4F	2192°F (1200°C)	6" x 7" x 8" (180 x 330 x 250mm)	208/220V 50/60Hz 1 ph.
H-30216.4F	2192°F (1200°C)	7" x 8" x 12" (180 x 330 x 250mm)	208/220V 50/60Hz 1 ph.
H-30210.4F	2732°F (1500°C)	4" x 5" x 8" (180 x 330 x 250mm)	208/220V 50/60Hz 1 ph.
H-30211.4F	2732°F (1500°C)	6" x 7" x 8" (180 x 330 x 250mm)	208/220V 50/60Hz 1 ph.
H-30212.4F	2732°F (1500°C)	7" x 8" x 12" (180 x 330 x 250mm)	208/220V 50/60Hz 1 ph.
H-30213.4F	2732°F (1500°C)	10" x 10" x 16" (180 x 330 x 250mm)	208/220V 50/60Hz 1 ph.

**Gloves: see page 262; Evaporating Dishes: see page 256-257;
Crucible Tongs: see page 262; Safety Tongs: see page 262;**





Laboratory Ovens

Quality fan-forced circulation or gravity-convection ovens feature double-wall construction and heavy, welded-steel exterior. Work space is insulated from the outer cabinet with one inch of high-density mineral wool, and interiors are made of corrosive-resistant aluminized steel. Low-watt density incoloy-sheathed elements are used. Include automatic thermocontrol, pilot light heat indicator and either a top-mounted, mercury thermometer (0°-300°C) on the gravity convection models or a door-mounted, dial thermometer on the forced air models. All ovens come with two, adjustable shelves and a 6 ft., 3-wire power cord and grounded plug. Units also have scratch-proof rubber feet, full-length piano-hinged door and extruded thermoplastic door handle.

Laboratory Ovens – Forced Air

Model	Max. Temp.	Description	Dimensions (W x H x D)
H-30105	437°F (225°C)	.6 cu. ft. (17L) capacity. Features bi-metal temperature controller, ±2° sensitivity. 115V, 60 Hz, 800 watts minimum. Shipping wt. 50 lbs. (22.6kg)	Inside: 12" x 8.6" x 10" (305 x 218 x 254mm) Overall: 14" x 20.5" x 12" (356 x 521 x 305mm)
H-30105.4F		230V, 50/60 Hz. version of above	
H-30115	437°F (225°C)	1.14 cu. ft. (32L) capacity. Features hydraulic temperature controller, ±1° sensitivity. 115V, 60 Hz, 1000 watts minimum. Shipping wt. 66 lbs. (30kg)	Inside: 13" x 11.6" x 13" (330 x 295 x 330mm) Overall: 15" x 24.5" x 15" (381 x 622 x 381mm)
H-30115.4F		230V, 50/60 Hz. version of above	
H-30125	437°F (225°C)	2 cu. ft. (56L) capacity. Features hydraulic temperature controller, ±1° sensitivity. 115V, 60 Hz, 1600 watts min. Shipping wt. 82 lbs. (31.7kg)	Inside: 18" x 14.6" x 12" (457 x 371 x 305mm) Overall: 20" x 28.5" x 14" (508 x 724 x 356mm)
H-30125.4F		230V, 50/60 Hz. version of above	
H-30131	437°F (225°C)	2.86 cu. ft. (81L) capacity. Features hydraulic temperature controller, ±1° sensitivity. 115V, 60 Hz, 1600 watts min. Shipping wt. 112 lbs. (51kg)	Inside: 18" x 19.6" x 14" (457 x 498 x 356mm) Overall: 20" x 33.5" x 16" (508 x 851 x 406mm)
H-30131.4F		230V, 50/60 Hz. version of above	

Laboratory Ovens – Gravity Convection

Model	Max. Temp.	Description	Dimensions (W x H x D)
H-30100	437°F (225°C)	.7 cu. ft. (20L) capacity. Features bi-metal temperature controller, ±2° sensitivity. 115V, 60 Hz, 600 watts minimum. Shipping wt. 44 lbs. (20kg)	Inside: 12" x 10" x 10" (305 x 254 x 254mm) Overall: 4" x 17" x 12" (355 x 431 x 304mm)
H-30100.4F		230V, 50/60 Hz. version of above	
H-30110	437°F (225°C)	1.27 cu. ft. (35L) capacity. Features hydraulic temperature controller, ±1° sensitivity. 115V, 60 Hz, 800 watts minimum. Shipping wt. 60 lbs. (27.2kg)	Inside: 13" x 13" x 13" (330 x 330 x 330mm) Overall: 15" x 21" x 15" (381 x 534 x 381mm)
H-30110.4F		230V, 50/60 Hz. version of above	
H-30120	437°F (225°C)	2 cu. ft. (56L) capacity. Features hydraulic temperature controller, ±1° sensitivity. 115V, 60 Hz. 1200 watts min. Shipping wt. 78 lbs. (35kg)	Inside: 18" x 16" x 12" (457 x 406 x 305mm) Overall: 20" x 25" x 14" (508 x 635 x 356mm)
H-30120.4F		230V, 50/60 Hz. version of above	
H-30128	437°F (225°C)	3.0 cu. ft. (85L) capacity. Features hydraulic temperature controller, ±1° sensitivity. 115V, 60 Hz, 1600 watts min. Shipping wt. 94 lbs. (43kg)	Inside: 18" x 21" x 14" (457 x 534 x 356mm) Overall: 20" x 30" x 16" (508 x 762 x 406mm)
H-30128.4F		230V, 50/60 Hz. version of above	



H-30145



H-30145E with E-Series Digital Control

Laboratory Bench Ovens

These ovens feature fan-forced-air circulation, which provides even work space temperature for testing applications. Ovens incorporate large, 7/16" diameter, Low-watt density incoloy-sheathed elements and 2" (51mm) thick mineral wool, high density insulation, steel-lined interior, piano-hinged and gasketed doors, adjustable damper control and an ambient temperature range to 300°F (149°C). Ovens include two adjustable shelves. Additional shelves can be ordered, shelf support holes are on 1-1/2" (38mm) centers to accommodate up to 11 shelves. Features on-off switch, panel board, thermostat, heat switch, 3-wire cord and plug.

Digital Control Bench Ovens (E-Series)

These units utilize a precise digital PID microprocessor temperature controller, which with a J-type thermocouple will hold set temperatures accurately within 1 degree with improved chamber uniformity. Control features include large easy-to-read dual LED display, showing both set and process temperatures, °C or °F units. A versatile on/off control mode allows for even faster temperature recovery times and processing of batch-style work loads not requiring accurate temperature stability.

Model	Max. Temp.	Description	Dimensions (W x H x D)
H-30140	300°F (149°C)	7 cu. ft. (198L) capacity. Features calibrated dial-type temperature controller, 115V, 60 Hz, 1110 watts Shipping wt. 180 lbs. (68kg)	Inside: 25.5" x 20" x 24" (648 x 508 x 610mm) Overall: 33" x 24" x 35.5" (838 x 610 x 902mm)
H-30140.4F		230V, 50/60Hz version of H-30140	
H-30140E		E-Series digital control version of H-30140	
H-30140E.4F		230V, 50/60Hz version of H-30140E	
H-30145	437°F (225°C)	7 cu. ft. (198L) capacity. Features calibrated dial-type temperature controller, 115V, 60 Hz, 2110 watts. Uses 20 amp grounded plug. Shipping wt. 180 lbs. (68kg)	Inside: 26" x 20" x 26" (660 x 508 x 660mm) Overall: 33" x 24" x 32" (838 x 610 x 813mm)
H-30145.4F		230V, 50/60Hz version of H-30145	
H-30145E		E-Series digital control version of H-30145	
H-30145E.4F		230V, 50/60Hz version of H-30145E	
H-30135	437°F (225°C)	10.6 cu. ft. (300L) capacity. Features calibrated dial-type temperature controller,, 115V, 60 Hz. 2110 watts. Uses 20 amp grounded plug. Shipping wt.180 lbs (68kg).	Inside: 25.5" x 30" x 24" (648 x 782 x 610mm) Overall: 33" x 34" x 35.5" (838 x 804 x 902mm)
H-30135.4F		230V, 50/60Hz version of H-30135	
H-30135E		E-Series digital control version of H-30135	
H-30135E.4F		230V, 50/60Hz version of H-30135E	
H-30160.4F	550°F (287°C)	6.6 cu. ft. (187L) capacity. Features calibrated dial-type temperature controller, 230V, 60 Hz, 2800 watts. Shipping wt. 185 lbs (77.1kg)	Inside: 25.5" x 20" x 22.5" (660 x 508 x 572mm) Overall: 33" x 24" x 35.5" (838 x 610 x 902mm)
H-30160E.4F		E-Series digital control version of H-30160.4F	
H-30160.4FSS		Stainless Steel version of H-30160.4F	



Heavy-Duty Forced-Air, Convection Ovens

Ideally suited for soil and asphalt testing, the Despatch LBB series ovens feature fast heat-up rates and precise, easy-to-read digital controls. Powerful heating elements bring the oven to temperature very quickly, resulting in fast test results and improved sample quality. Digital controls deliver precise temperature and a large LED panel makes it easy to monitor oven temperatures. The LBB series ovens operate at temperatures up to 400°F (204°C) and use forced convection airflow for uniform temperatures throughout the oven chamber. Standard shelves can handle up to 50 lbs. (22.7kg) and are easy to slide out and reposition. Shelves that can handle 200 lbs. (90.7kg) of material are available as an option. Meets AASHTO uniformity requirements of $\pm 3^\circ$ at 150°C. Motor and fan are located above the stainless steel oven chamber to prevent damage if materials are spilled.

Heavy-Duty Laboratory Ovens

Chamber Size W x D x H	Capacity cu. ft. (L)	Oper. Range	Model	Despatch Model	Overall Size W x D x H	Electrical	Shpg. wt.
18 x 18 x 12" (46 x 46 x 31cm)	2.3 (65)	104°F to 399°F	H-30356	LBB1-23	24 x 24.5 x 26" (61 x 63 x 67cm)	50/60Hz, 1ph, 120V 15 amps, 1.2KW heater	205 lb (92 kg)
		40°C to 204°C	H-30356.4F			50/60Hz, 1ph, 240V 15 amps, 1.2KW heater	
24 x 14 x 22" (61 x 36 x 56cm)	4.3 (122)	104°F to 399°F	H-30358	LBB1-43	30 x 20.5 x 36.5" (77 x 53 x 93cm)	50/60Hz, 1ph, 120V 20 amps, 1.6KW heater	270 lb (121 kg)
		40°C to 204°C	H-30358.4F			50/60Hz, 1ph, 240V 15 amps, 1.6KW heater	
30 x 18 x 22" (77 x 46 x 56cm)	6.9 (196)	104°F to 399°F	H-30360	LBB1-69	36 x 24.5 x 36.5" (92 x 63 x 93cm)	50/60Hz, 1ph, 120V 21.6 amps, 2.4KW heater	320 lb (146 kg)
			H-30360.4F			50/60Hz, 1ph, 240V 10.8 amps, 2.4KW heater	
30 x 20 x 35" (77 x 51 x 89cm)	12.1 (340)	40°C to 204°C	H-30364.4F	LBB2-12	36 x 26.5 x 51.5" (92 x 68 x 131cm)	50/60Hz, 1ph, 240V 16.4 amps, 3.6KW heater	385 lb (175 kg)
37 x 24 x 35" (94 x 61 x 89cm)	18 (510)		H-30366.4F	LBB2-18	43 x 30.5 x 51.5" (110 x 78 x 131cm)	50/60Hz, 1ph, 240V 16.4 amps, 3.6KW heater	485 lb (221 kg)
37 x 37 x 35" (94 x 94 x 89cm)	27 (765)		H-30368.4F	LBB2-27	43 x 43.5 x 51.5" (110 x 111 x 131cm)	50/60Hz, 1ph, 240V 21.4 amps, 4.8KW heater	635 lb (289 kg)



High-Performance Forced-Air Bench-Top Ovens

For faster processing, testing, preheating, sterilizing, drying, aging, curing and other production applications. Despatch LAC ovens have microprocessor-based control system with single set-point operation, timer function and up to 48 steps of ramp/soak programming, as well as manual reset high-limit protection and solid-state relay switching. Horizontal air flow with high fan volume of forced recirculated air through perforated stainless steel walls for uniform heating. Welded double-wall construction, 3" Fiberglass insulation, rapid-response heater with 5-year warranty, baked enamel finish and stainless steel interior.



High-Performance Forced-Air Bench-Top Ovens

Chamber Size W x D x H	Capacity cu. ft. (L)	Oper. Range	Model	Despatch Model	Overall Size WxDxH	Electrical, Single Phase	Exhaust Dia. (on Chamber Back)	Cord and Plug	Doors	Shpg. wt.
14 x 12 x 12" (36x30x30cm)	1.1 (28)	35-260°C (95-500°F)	H-30320	LAC1-10	23 x 21 x 30" (58x53x76cm)	120V 50/60Hz, 10 amps, 1KW heater	1"	incl.	1	95 lb (43 kg)
19 x 18 x 19" (48x46x48cm)	3.8 (108)		H-30322	LAC1-38A	28 x 28 x 37" (71x71x93cm)	120V 50/60Hz, 16 amps, 1.6 KW heater	2"		1	165 lb (75 kg)
19 x 18 x 19" (48x46x48cm)	3.8 (108)		H-30322.4F	LAC1-38B	28 x 28 x 37" (71x71x93cm)	240V 50/60Hz, 9.2 amps, 1.8 KW heater	2"		1	165 lb (75 kg)
24 x 20 x 24" (61x51x61cm)	6.7 (190)		H-30324.4F	LAC1-67	36 x 30 x 42" (91x76x107cm)	240V 50/60Hz, 11.7 amps, 2.4 KW heater	2"		1	203 lb (92 kg)
24 x 24 x 36" (61x61x90cm)	12 (340)	50-260°C (122-500°F)	H-30326.4F	LAC2-12	36 x 33 x 54" (91x84x137cm)	240V 50/60Hz, 18.4 amps, 3.6 KW heater	2 to 2-1/2"	none	1	535 lb (243 kg)
36 x 24 x 36" (90x61x90cm)	18 (510)		H-30328.4F	LAC2-18	48 x 31 x 54" (122x79x137cm)	240V 50/60Hz, 23.4 amps, 4.8 KW heater	2 to 2-1/2"		2	720 lb (284 kg)





H-32300



H-32333



H-32343
(shown with optional stand)

Large Capacity Bench Ovens

These economical, large-capacity, bench ovens are designed to handle a wide variety of applications, which require a maximum temperature of 400°F (204°C) with a ±0.5% control accuracy and ±8°F (4°C) uniformity for efficient drying of large samples.

All models feature an analog thermocouple-actuated, temperature controller and a 1/3 HP motor with a 400 CFM blower. Ovens have 2" (51mm) 6 lb/cf industrial rockwool insulation and the built-in baffle helps prevent radiant heat and optimizes oven heating operation. All ovens have 304 stainless steel interiors, explosion venting latches and incoloy sheathed tubular heating elements.

All ovens feature a UL-listed control panel and meet the requirements of National Fire Prevention Association Standard 86, Industrial Risk Insurers, Factory Mutual and OSHA standards. Motor starter and heating element contactors are electrically interlocked to shut off heaters if power to the blower is interrupted, and, permits operation of the blower without heat for cooling.

Ovens include two (2) 50lb (22.7kg) capacity nickel-plated wired shelves, which can be placed on any of the 10 support channels, which are located on 3" centers. Extra shelves can be ordered to accommodate needs.

Digital Controller Option for Ovens—

A Digital, Microprocessor-based indicating, thermocouple-actuated temperature controller can be requested at time of order. Add the suffix, DIG2 to the oven model number, (ie: H-32300.DIG2).

Additional Shelf for H-32300—H-32300.1

Additional Shelf for H-32333—H-32333.1

Additional Shelf for H-32343—H-32343.1

50lb (22.7kg) capacity nickel-plated wired shelf for use with H-32300 oven.

Optional Stand for H-32300—H-32300.2

Optional Stand for H-32333—H-32333.2

Optional Stand for H-32343—H-32343.2

Designed to hold oven at convenient 24" working height. Specify model number of oven when ordering.

Large Capacity Bench Ovens

Volume Cu. ft (m)	Inside Dim. W x D x H	Max. Temp.	Model	Voltage	Outer Dim. W x D x H	Kw	Rise Time	Shpg. wt.
15.8 (.447)	36" x 21" x 36" (91 x 53 x 91cm)	400°F (204.4°C)	H-32300.2F	230V,60Hz 1ph.	40" x 28" x 47" (102 x 71 x 119cm)	4.4	18 min.	600 (272)
			H-32300.2F.3	230V,60Hz 3ph.				
			H-32300.8F	208V,60Hz 1ph.				
			H-32300.8F.3	208V,60Hz 3ph.				
			H-32300.9F.3	460V,60Hz 3ph.				
27 (.764)	36" x 36" x 36" (91 x 91 x 91cm)	400°F (204.4°C)	H-32333.2F	230V,60Hz 1ph.	40" x 43" x 47" (102 x 109 x 119cm)	6.6	18 min.	750 (340)
			H-32333.2F.3	230V,60Hz 3ph.				
			H-32333.8F	208V,60Hz 1ph.				
			H-32333.8F.3	208V,60Hz 3ph.				
			H-32333.9F.3	460V,60Hz 3ph.				
36 (1.01)	36" x 48" x 36" (91 x 122 x 91cm)	400°F (204.4°C)	H-32343.2F	230V,60Hz 1ph.	40" x 55" x 47" (102 x 140 x 119cm)	6.6	22 min.	850 (385)
			H-32343.2F.3	230V,60Hz 3ph.				
			H-32343.8F	208V,60Hz 1ph.				
			H-32343.8F.3	208V,60Hz 3ph.				
			H-32343.9F.3	460V,60Hz 3ph.				



H-4460



H-4461A



HM-4469.02



H-4466.30
H-4466.15
H-4466.10



H-4470

Dial Gauges

Indicators are built to American Gauge Design specifications for accuracy and are used in field and laboratory testing applications. Dials are high-quality, low-friction type, designed for long life and accurate repeatable readings. All dial indicators have continuous graduations and revolution counters that show revolutions of the indicator hand. They are furnished with a lug back (with a 90° mounting hole to be used vertically or horizontally), a regular contact point .25" long, and a dust cap. Dials listed are clockwise rotation; counter-clockwise rotation see note below.

Dial Gauges, Inches

For counter-clockwise dial indicators add "CC" suffix to part number, i.e.: H-4460CC.

Range	Division	Diameter	Brake	Model
.200"	.0001"	2.25"	No	H-4460
.200"	.0001"	2.25"	Yes	H-4461A
.300"	.0001"	2.25"	No	H-4462
.500"	.0001"	2.25"	No	H-4471
1.000"	.001"	2.25"	No	H-4158.1
2.000"	.001"	2.75"	No	H-4463
3.000"	.001"	2.75"	No	H-4464
4.000"	.001"	2.75"	No	H-4465
5.000"	.001"	2.75"	No	H-4466

Dial Gauges, Metric

For counter-clockwise dial indicators add "CC" suffix to part number, i.e.: H-4465.08CC.

Range	Division	Diameter	Brake	Model
8mm	.002mm	57mm	No	H-4465.08
12mm	.002mm	57mm	No	H-4465.12
25mm	.010mm	57mm	No	H-4465.25
50mm	.020mm	70mm	No	H-4465.50

Electronic Digital Indicators

For use in all Humboldt instrumentation. Switchable inch/metric digital indicators are accurate to ± 0.0001 (0.002mm). Feature instant "0" at any spindle position, lock in maximum reading, LCD display with .305"-high characters, infrared linear encoder, AC power or replaceable batteries. Order HM-4469.02 as a replacement indicator for H-4454-Series Proving Rings—see pages 83 and 155. Brake is available for most model dial indicators, call 1-800-544-7220

Range	Division	Model	Diameter	Peak Hold
0.2500" (6.250mm)	0.0001" (0.002mm)	HM-4469.02	2-9/32" (72mm)	Yes
0.6000" (15.000mm)	0.0001" (0.002mm)	HM-4469.05	2-9/32" (72mm)	Yes
1.0000" (25.400mm)	0.0001" (0.002mm)	HM-4469.10	2-9/32" (72mm)	Yes
2.0000" (50.800mm)	0.0001" (0.002mm)	HM-4469.20	2-9/32" (72mm)	Yes
4.0000" (101.600mm)	0.0001" (0.002mm)	HM-4469.40	2-9/32" (72mm)	Yes

Gauge Contact Point Extensions—

Used in applications where gauges require longer contact points to ensure correct gauge placement. Contact Points feature hardened steel points with polished tip to prevent scratching. Points fit all standard indicators and gauges. Not compatible with H-4471, H-4471CC, H-4465.12, and H-4465.12CC gauges.

Contact Point Extensions	Model
.25" (6.4mm) Extension	H-4466.2
1" (25mm) Extension	H-4466.10
1.5" (38mm) Extension	H-4466.15
2" (50mm) Extension	H-4466.20
3" (76mm) Extension	H-4466.30
5" (127mm) Extension	H-4466.5

Magnet Holder with Swivel Adapter Yoke—H-4470

Convenient, portable method of mounting dial indicators. Holder's Alnico magnetic base mounts on flat or curved metallic surfaces. Non-magnetic stainless steel holding rod is 6 x 1/4" (154 x 6.4mm) and set in hardened ball socket so indicator may be mounted in almost any position.



Graduated Glass Beakers

Description	Capacity	Grad. Range	Interval	Model
Griffin low-form beakers for general laboratory use have pourout lip. Design provides greater strength via heavier uniform walls.	50ml	10-40	10	H-4911.050
	100ml	20-80	10	H-4911.100
	250ml	25-200	25	H-4911.250
	400ml	25-325	25	H-4911.400
	600ml	50-500	50	H-4911.600
	800ml	50-750	50	H-4911.800
	1000ml	50-950	50	H-4911.1M
	2000ml	50-1950	50	H-4911.2M
	3000ml	50-2950	50	H-4911.3M
	4000ml	50-3950	50	H-4911.4M

Graduated Glass Cylinders

Description	Capacity	Model
Glass graduated cylinders. Graduated circular divisions, double-numbered, reading up and down. Calibrated to deliver the indicated capacities. Packed one cylinder to a carton.	10ml	H-4915.010
	25ml	H-4915.025
	50ml	H-4915.050
	100ml	H-4915.100
	250ml	H-4915.250
	500ml	H-4915.500
	1000ml	H-4915.1M
	2000ml	H-4915.2M

Graduated Plastic Beakers

Description	Capacity (ml)	Model
Low-form laboratory beakers with slightly tapered heavy walls provide firm grip and convenient stacking. Beakers have pourout spout and graduation markings (±5%).	50	H-4912P.050
	100	H-4912P.100
	250	H-4912P.250
	400	H-4912P.400
	600	H-4912P.600
	1000	H-4912P.1M
	2000	H-4912P.2M

Graduated Plastic Cylinders

Description	Capacity	Model
Polypropylene graduated cylinders are double scale with easy-to-read numbers. Stable base makes cylinders tip- and roll-proof. 10ml size has flared top for easy filling.	10ml	H-4916P.010
	25ml	H-4916P.025
	50ml	H-4916P.050
	100ml	H-4916P.100
	250ml	H-4916P.250
	500ml	H-4916P.500
	1000ml	H-4916P.1M
	2000ml	H-4916P.2M



H-3399

H-3398

H-3399XL

Polyethylene Dispensing Bottle

Easy-to-squeeze, resilient bottles provide excellent leak-proof dispensing units. Heavier flow rate can be accomplished by cutting back dispenser tip.

Capacity	Model
8 oz. (250ml)	H-3399
16 oz. (500ml)	H-3399
32 oz. (1000ml)	H-3399XL



H-3397

Guth Wash Bottle— H-3397

Bottle has aspirator bulb with integral passageways and neck-mounted check-valve on a 1,000ml borosilicate florence flask. Includes bent delivery tube and flexible tubing tip. Flask allows natural grip with either hand. Forefinger closes the opening while the other fingers squeeze the bulb ejecting a stream of liquid.



H-4913.250

H-4913.1M

H-4917.2M

Erlenmeyer Flasks

Description	Capacity (ml)	Model
Narrow-mouth flasks feature heavy-duty rim, volume graduations, tubulation and matte spot for temporarily identifying contents.	250	H-4917.250
	500	H-4917.500
	1000	H-4917.1M
	2000	H-4917.2M
	4000	H-4917.4M

Erlenmeyer Flasks—Vented

Description	Capacity (ml)	Model
Narrow-mouth flasks feature heavy-duty rim, volume graduations, tubulation and matte spot for temporarily identifying contents.	250	H-4913.250
	500	H-4913.500
	1000	H-4913.1M
	2000	H-4913.2M
	4000	H-4913.4M

Rubber Stoppers for Erlenmeyer Flasks

Description	Capacity (ml)	Model
Rubber stopper with brass hose fitting for use with Erlenmeyer flasks.	250	H-4913.250S
	500	H-4913.500S
	1000	H-4913.1MS
	2000	H-4913.2MS
	4000	H-4913.4MS



H-4913.1MS

H-4913.250S



Material Handling Scoops

Model	Size	Description	Shpg. Wt.
H-1702	8" H x 15" W x 23" L (203 x 381 x 584mm)	Material Handling Scoop	12 lb (5.4kg)
H-4308	15" x 30" x 4" (381 x 762 x 102mm)	Welded steel construction with open chute simplifies transfer or bag loading. Front swing-down handle folds inside pan to permit criss-cross stacking. Tapered scoop section controls flow.	9 lb (4.1kg)
H-4309	12" x 20" x 4" (305 x 508 x 102mm)		

Moisture and Immersion Pans

Model	Size	Description	Shpg. Wt.
H-3700	18 x 18 x 1-1/2" deep (457 x 457 x 38mm)	Galvanized iron with wire-bound, rolled-top edges. Features 2 drop handles, straight sides. ASTM D2234, D2961	10 lb (4.5kg)
H-3707	18 x 18 x 3" deep (457 x 457 x 76mm)	Same as above but without handles	
H-3705	18 x 18 x 3" deep (457 x 457 x 76mm)	Same as H-3700, except with tapered sides for nesting. ASTM D346, D2013, D2234	12 lb (5.4kg)
H-3710	24 x 24 x 4" deep (610 x 610 x 102mm)	Same as H-3700. ASTM D346, D2013, D 2234	20 lb (9kg)
H-3712	24 x 24 x 6" deep (610 x 610 x 152mm)		
H-3723	10 x 20 x 3" deep (254 x 508 x 76mm)	Same as H-3700, except with tapered sides for nesting.	9 lb (4.1kg)
H-3725	24 x 24 x 3" deep (610 x 610 x 76mm)	Same as H-3700, except with tapered sides for nesting. ASTM C192	18 lb (8.2kg)

Stainless Steel Rectangular Pans

Model	Dimensions	Shpg. Wt.
H-3981S	6-1/2" x 6" x 4-1/2"D (165 x 152 x 114)	3 lb (1.4kg)
H-3986S	10-1/2" x 5-1/2" x 4-1/2"D (267 x 40 x 114)	4 lb (1.8kg)
H-3967S	13-1/2" x 6-3/4" x 5"D (343 x 171 x 127)	5 lb (2.3kg)
H-3993S	22" x 6-1/2" x 5-1/4"D (559 x 165 x 133)	6 lb (2.7kg)
H-3996S	15-1/2" x 8" x 7"D (394 x 204 x 178)	6 lb (2.7kg)

Tin Rectangular Mixing Pans

Model	Dimensions	Shpg. Wt.
H-3981	8 x 5-1/4 x 4-1/4" (203 x 133 x 108mm)	1 lb (.45kg)
H-4934	8-1/2 x 4-1/2 x 2-1/2" (216 x 114 x 64mm)	1 lb (.45kg)

Bakalon Rectangular Mixing Pans

Model	Dimensions	Shpg. Wt.
H-4359A	18 x 13 x 1-7/8" D (457 x 330 x 47mm)	1 lb (.45kg)



H-4351.6



H-4352 Series



H-3969



H-4936



H-4940

Aluminum Rectangular Mixing Pans

Model	Size (L x W x D)
H-4351.2	15-3/8" x 10-7/8" x 2-3/8" (390 x 276 x 60mm)
H-4351.4	17-5/8" x 11-3/4" x 2-3/8" (447 x 298 x 60mm)
H-4351.6	25-3/4" x 17-3/4" x 3-1/2" (654 x 450 x 89mm)
H-4941	8" x 8" x 2" (203 x 203 x 51mm)

Stainless Steel Round Mixing Bowls and Pans

Model	Size and Volume
H-4936	7-1/4" x 3" (198 x 76mm) 1-1/2 qt. (1.4L)
H-4937	9-1/2" x 3-1/2" (241 x 89mm) 3 qt. (2.8L)
H-4938	12-1/2" x 5-1/2" (318 x 140mm) 8 qt. (7.6L)
H-4939	10-3/4" x 4-3/4" (273 x 121mm) 5-1/2 qt. (5.2L)
H-4939.5	17-1/2" x 6-1/2" (444 x 165mm) 16 qts. (13.9L)

Aluminum Round Mixing Bowls and Pans

Model	Size (L x W x D)
H-4940.2	9" x 1-1/2" (228 x 38mm)
H-4940.4	10" x 1-1/2" (254 x 38mm)
H-4940.6	12" x 1-1/2" (304 x 38mm)
H-4940.8	15" x 1-1/2" (381 x 38mm)

Stainless Steel Rectangular Mixing Pans

Model	Dimensions
H-3969	10-3/8 x 6-3/8 x 2-1/2" (264 x 162 x 64mm)
H-4352.2	20-3/4 x 12-3/4 x 2-1/2" (527 x 323 x 63mm)
H-4352.4	20-3/4 x 12-3/4 x 4" (527 x 324 x 102mm)
H-4352.6	20-3/4 x 12-3/4 x 6" (527 x 324 x 152mm)
H-4353.2	13-7/8 x 12-3/4 x 2-1/2" (346 x 323 x 63mm)
H-4353.4	13-7/8 x 12-3/4 x 4" (346 x 323 x 102mm)
H-4353.6	13-7/8 x 12-3/4 x 6" (346 x 323 x 152mm)
H-4354.2	10-3/8 x 12-3/4 x 2-1/2" (264 x 342 x 64mm)
H-4354.4	10-3/8 x 12-3/4 x 4" (264 x 342 x 102mm)
H-4354.6	10-3/8 x 12-3/4 x 6" (264 x 342 x 152mm)
H-4355.2	6-7/8 x 12-3/4 x 2-1/2" (174 x 342 x 64mm)
H-4355.4	6-7/8 x 12-3/4 x 4" (174 x 342 x 102mm)
H-4355.6	6-7/8 x 12-3/4 x 6" (174 x 342 x 152mm)
H-4356.2	14-7/8 x 10-1/4 x 2" 376 x 269 x 50mm)
H-4356.4	16-1/8 x 11-1/8 x 2-1/4" (409 x 282 x 57mm)
H-4356.6	18-1/8 x 12-3/8 x 2-3/8" (460 x 314 x 60mm)



H-4922C.050



H-4922.050



H-4923.1M



H-4923.500



H-4924 Series



H-4920.050



H-4920.1M

Nickel Crucibles & Covers

Nickel crucibles from pure heavy sheet nickel. Suitable for fusions, including those with sodium peroxide. Highly resistant to dilute alkalis.

Capacity	Top Dia.	Height	Crucible	Cover
20ml	38mm	35mm	H-4922.020	H-4922C.020
30ml	42mm	45mm	H-4922.030	H-4922C.030
50ml	45mm	51mm	H-4922.050	H-4922C.050
75ml	51mm	57mm	H-4922.075	H-4922C.075
100ml	60mm	64mm	H-4922.100	H-4922C.100
250ml	83mm	83mm	H-4922.250	H-4922C.250
500ml	102mm	92mm	H-4922.500	H-4922C.500
1000ml	127mm	114mm	H-4922.1M	H-4922C.1M

Nickel Evaporating Dishes

Capacity	Dia	Height	Description	Model
40ml	2-1/4" (57mm)	1" (25mm)	Heavy gauge pure nickel dishes have straight sides, flat bottom, pour lip.	H-4924.040
100ml	2-3/4" (70mm)	1-3/8" (35mm)		H-4924.100
200ml	3-3/8" (86mm)	1-13/16" (46mm)		H-4924.200
300ml	3-7/8" (98mm)	2-1/4" (57mm)		H-4924.300

Stainless Steel Measures

Capacity	Description	Model
500ml	Measures feature convenient handle and graduations in milliliters and ounces on inside.	H-4923.500
1,000ml		H-4923.1M
2,000ml		H-4923.2M

Aluminum and Nickel Beakers

Capacity	Description	Aluminum	Nickel
60ml	Low-form laboratory beakers with pour spout.	H-4920.060	H-4921.060
125ml		H-4920.125	H-4921.125
250ml		H-4920.250	H-4921.250
500ml	One-piece construction eliminates breakage.	H-4920.500	H-4921.500
1,000ml		H-4920.1M	H-4921.1M
2,000ml		H-4920.2M	H-4921.2M



H-17150

Aluminum Moisture Dish— H-17150

Inverted slip-in cover with beaded edge for tight sealing, can be handled with crucible tongs. Inside dia at top 2-1/4" x 3/4" deep (57mm x 19mm). Drawn aluminum construction. Packed 10 per ctn.



H-4914.08



H-4927



H-4930.250



H-4184

H-4183



H-4962



H-4960

Sample Cans

For receiving, transporting and storing sample materials. Has friction-type lid. H-4183, 1 gal-capacity (3.48L), can adequately hold all material from an average-sized density hole.

Capacity	Dimensions	Model
1 qt. (.87L)	4-1/8" dia. x 4-7/8" (105 x 124mm)	H-4183
1 gal. (3.48L)	6-1/2" dia. x 7" (165 x 178mm)	H-4184

Desiccator Jar, 5" (128mm) Diameter— H-4960
Desiccator Jar, 8" (203mm) Diameter— H-4961

Heavy-walled, annealed jar has finely ground flanges and cover knob. Includes specimen plate. 5" (128mm) Jar has 5" inside diameter and 5-1/4" (134mm) inside height, and, 8" (203mm) jar has 8" inside diameter and height.

Specimen Plate for H-4960 Desiccator Jar— H-4960P
Specimen Plate for H-4961 Desiccator Jar— H-4961P

Desiccator Cabinet— H-4962

Stainless steel cabinet with Clear-Vue door eliminates danger of glass breakage. Interior has chemical-resistant finish; door is sealed with two firm-grip latches and molded rubber gasket. Includes glass desiccator tray and two heavy-gauge ceramic shelves that are fully adjustable with 1/2" (13mm) centers. Inside dimensions: 13" x 13" x 13-1/4" (330 x 330 x 336mm).

Porcelain Evaporating Dishes

Capacity	Top Dia	Height	Description	Model
120ml	90mm	37mm	Shallow porcelain dish has pour lip, glazed inside, partly glazed	H-4930.120
250ml	115mm	45mm		H-4930.250
765ml	185mm	54mm		H-4930.765
1,285ml	215mm	63mm		H-4930.M1285

Aluminum Moisture Boxes

Dia	Height	Description	Model
2" (51mm)	7/8" (22mm)	Seamless aluminum flat bottom, straight side box has tight fitting cover that fits bottom of box also. Sample is protected from exposure during weighing operations.	H-4926
2-1/2" (64mm)	1-3/4" (44mm)		H-4927
3" (76mm)	1" (25mm)		H-4928
3-1/2" (89mm)	2" (51mm)		H-4929

Plastic Jars with Caps

Capacity	Description	Model
4 oz (113.4g)	White plastic jar with cap; 12 per pack.	H-4914.04
8 oz (226.8g)		H-4914.08
16 oz (453.6g)		H-4914.16



Stainless Steel Scoops

Model	Teflon® Coated	Scoop No.	Nose	Bowl Vol./ Water (oz/cu. in.)	Length	Bowl Dimensions Width	Depth	Overall Length
H-3734	H-3734TC	-	Round	3.3 (6.1)	5" (114mm)	2-1/2" (63mm)	1" (25.4mm)	9" (228mm)
H-3735	H-3735TC	-	Flat	6.6 (12.2)	5-1/2" (139mm)	3" (76mm)	1-1/2" (38mm)	9.3" (236mm)
H-3736	H-3736TC	-	Flat	29 (53)	8" (203mm)	5-1/2" (139mm)	2-1/2" (63mm)	13-1/2" (343mm)
H-3738		-	Curved	-	2-1/2" (635mm)	2-1/2" (635mm)	-	9" (228mm)

Aluminum Scoops

Model	Teflon® Coated	Scoop No.	Nose	Bowl Vol./ Water (oz/cu. in.)	Length	Bowl Dimensions Width	Depth	Overall Length
H-3729	H-3729TC	1	Round	13.5 (24.4)	6-3/4" (172mm)	4" (102mm)	2-1/2" (64mm)	10" (254mm)
H-3730	H-3730TC	-	Square	6.7 (12.2)	6" (152mm)	3-3/4" (95mm)	2" (51mm)	9-1/4" (235mm)
H-3731	H-3731TC	2	Round	20 (36.6)	8-1/4" (210mm)	5-1/4" (133mm)	3" (76mm)	12-1/4" (311mm)
H-3732	H-3732TC	3	Round	33 (61.02)	10-1/4" (260mm)	5-3/4" (146mm)	3-1/2" (89mm)	14-1/2" (368mm)

**Plastic Scoop**

Model	Teflon® Coated	Scoop No.	Nose	Bowl Vol./ Water (oz/cu. in.)	Length	Bowl Dimensions Width	Depth	Overall Length
H-3727	-	-	Flat	67 (115.5)	9" (228mm)	4" (102mm)	5-1/2" (139)	9" (228mm)

Trowel— H-3760

Forged steel trowel for mixing cement batches, filling molds, etc., has flat pointed blade and rubber/plastic handle. Dimensions: 2-3/4" x 5" (70 x 127mm)

Trowel— H-3780

Forged steel trowel for mixing cement batches, filling molds, etc., has flat pointed blade and rubber/plastic handle. Dimensions: 5-1/4" x 10" (133 x 254mm)

Trowel— H-3761

Forged steel trowel for striking off molds, etc., has edges ground straight and rubber/plastic handle. Complies with ASTM C109; AASHTO T106. Dimensions: 2-3/4" x 5" (70 x 127mm)

Trowel— H-3762

Plasterer-type trowel's flat rectangular blade is fastened to the mounting and wood handle with stainless steel pins. Dimensions: 4-1/2" x 10" (114 x 254mm)

Spoon — H-4974

For mixing and transferring soils, handling corrosive chemicals, etc., stainless steel spoon is 13" (330mm) long.

Spatulas —

Flexible stainless steel blades with straight edges and rounded ends. Blade is riveted into wooden handle. H-4907 complies with ASTM C185, C780; AASHTO T137.

H-4904—

4" long, straight-edge spatula, 3/4" x 4" (19mm x 102mm)

H-4906—

6" long, straight-edge spatula, 7/8" x 6" (22mm x 152mm)

H-4907—

6" long, straight-edge spatula, 1/2" x 6" (13mm x 152mm)

H-4908—

8" long, straight-edge spatula, 1-1/4" x 8" (32mm x 204mm)

H-4910—

10" long, straight-edge spatula, 1-1/4" x 10" (32mm x 254mm)

Preparation Knife — H-4973

Used for sample preparation and general lab work, knife has 6"-long thin, sharp blade and wood handle.



Hammers

Size	Model
14 oz. Rock Pick—Pointed tip: nylon-vinyl grip	H-4891
22 oz. Rock Pick—Pointed tip; leather grip	H-4892
20 oz. Rock Pick—Chiseled edge; nylon-vinyl grip	H-4893
22 oz. Rock Pick—pointed tip, 16-1/4" long	H-4894
3 lb. Crack Hammer—painted w/nylon-vinyl grip	H-4895
3 lb. Cross Peen Hammer (for EDG)	H-4890A

Rubber Mallets

ASTM Weight	Head (L x Dia)	Handle	Model
2.10 lbs (0.95 kg)	5 x 2.5" (127 x 64mm)	12.75" (324mm)	H-4975
1.30 lbs (0.59 kg)	3.75 x 2.25" (95 x 57mm)	11" (280mm)	H-4976

Chisels

Description	Length	Cut Point	Stock	Model
Pocket Chisel	12" / 305mm	.625" / 16mm	.375" / 10mm	H-4896
Gad Point Chisel	9" / 229mm	.75" / 19mm	.75" / 19mm	H-4897
Splitting Chisel	8" / 203mm	1.125" / 28mm	.75" / 19mm	H-4898
Rock Chisel	7" / 178mm	2.375" / 60mm	.625" / 16mm	H-4899
Chisel w/Guard	8" / 203mm	1.0" / 25.4mm	.75" / 19mm	H-4970
Pocket Chisel	12" / 305mm	.625" / 16mm	.5" / 12.7mm	H-4896
Concrete Chisel	10" / 254mm	2" / 50.8mm	.625" / 16mm	H-4889
Stone Chisel	8" / 203mm	2.25" / 57mm	1" / 25mm	H-4902
Bull Point Chisel	12" / 305mm	point	.75" / 19mm	H-4903
Dura-Soft Chisel	9" / 229mm	2" / 50.8mm	.625" / 16mm	H-4905



H-4900

Clear Safety Goggles — H-4900
soft vinyl frame and replaceable lens



Brushes

Description	Model	Handle	Bristle	Bristle Length (mm)	Overall Dimension (mm)
Wire Scratch Brush*	H-4259	Wood	Wire No. 26 gauge flat	2" x 2" x 7" (51 x 51 x 178)	7-3/4" x 2-5/8" (197 x 67)
Mold Cleaning Brush	H-3800	Wood	Brass Wire	2" x 7/8" x 5-1/4" (25 x 22 x 133)	10-1/4" (360)
Acid-proof Crete Brush	H-3639.8	Plastic	Polypropylene	2" x 3" x 4" (51 x 76 x 102)	8-1/4" (210)
Acid-proof Crete Brush	H-3639.20	Plastic	Polypropylene	2" x 3" x 4" (51 x 76 x 102)	20" (508)
Sieve Brush, Oval Shaped	H-3799	Wood	Horsehair	2-3/4" x 1-1/8" x 3/4" (70 x 29 x 19)	10-1/2" (267)
Sieve Brush, Fine Mesh	H-3770	Wood	Horsehair	2-1/2" x 1" x 3/8" (64 x 25 x 10)	10-1/2" (267)
Sieve Brush, Coarse Mesh	H-3772	Wire Loop	Wire	1/2" x 1/2" x 1-3/8" (13 x 13 x 35)	5 1/2" (140)
Sieve Brush, Fine Mesh	H-3773	Plastic	Wire	1-1/2" x 3/4" x 1/8" (38 x 19 x 3)	7-1/4" (184)
Sieve Brush, Fine Mesh	H-3774	Wood	Horsehair	1-1/2" x 1-1/4" dia. (38 x 32)	5-1/4" (133)
Table Brush	H-3776	Wood	Horsehair	2-1/4" x 2" x 8" (57 x 51 x 203)	13-1/2" (343)

Model	Dimensions
H-4144.8	8" Straightedge, 1/8 x 1-1/4 x 8" (3 x 32 x 203mm)
H-4144.12	12" Straightedge, 1/8 x 1-1/4 x 12" (3 x 32 x 305mm)
H-4144.16	16" Straightedge, 1/8 x 1-1/4 x 16" (3 x 32 x 406mm)
H-4144.24	24" Straightedge, 1/8 x 1-1/4 x 24" (3 x 32 x 610mm)

Straight Edges

For striking-off samples in containers, measures or molds. Ground steel with beveled edge. Meets ASTM C185, D558, D559, D560, D698; AASHTO T137.



H-4982

H-4983



H-3740



H-3742



H-3743.9
H-3743.10



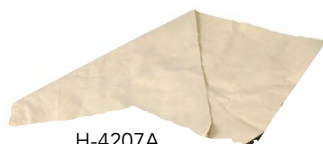
H-3745



H-4206



H-4207



H-4207A



H-4208



H-3746

Round Point Shovel — H-4982

Heat-treated high-carbon steel round-pointed blade has 27" (69cm) D-grip handle and full wooden yoke with steel casing.

Square-Point Shovel — H-4983

Heat-treated high-carbon steel 9-3/8 x 11-1/2" (24 x 29cm) square-pointed blade with 48" (122cm) handle.

Rubber Gloves—H-3740

For use in compaction, concrete and general lab work, medium thickness short-form gloves without gauntlets are chemical and abrasion resistant and feature curved fingers and contoured palm for ease while working.

Heavy-Weight Heat-Resistant Gloves—H-3742

Made from heavy-weight hot mill, kevlar cotton blend. Cotton acrylic liner with nitrile N-coating. Reversible.

Nitrile-Coated Hot Mill Glove, Size 9—H-3743.9

Nitrile-Coated Hot Mill Glove, Size 10—H-3743.10

Non-woven, felt insulation and a full-length heat barrier protect hands. Nitrile coating prevents cuts and abrasions. For use in handling hot objects up to 400°F.

Heavyweight Terrycloth Glove—H-3745

Heavyweight terrycloth glove; one size.

Heat-Resistant Gloves—H-3746

Made with large thumb, fingers and loose-fitting palm with wide gauntlet, gloves feature one-piece full-length palm and finger portions, keeping seams to a minimum.

Sample Bags—

Heavy-duty material in lined and un-lined configurations. All bags have drawcord and can be used for various applications involving soils, aggregates, sands and similar materials.

Plastic-lined Sample Bags

Size	Model
10 x 18" (254 x 457mm)	H-4208
17 x 32" (432 x 813mm)	H-4209

Sample Bags

Size	Model
10 x 18" (254 x 457mm)	H-4206
17 x 32" (432 x 813mm)	H-4207

Economy Sample Bags

Size	Model
10 x 19" (254 x 483mm)	H-4206A
15x 29" (381 x 737mm)	H-4207A

Stepdown Transformers

Allow use of 115-volt electrical equipment on 230-volt line current. Features case and core internally connected to third conductor of NEMA standard cord and receptacle for safety. Has 3-conductor 8' 0" (2.4m) line cord and plug on primary side and female receptacle as output connection.

Available in 250W, 500W, 750W, 1,000W, 1,500W, 2,000W.

Model	Model Description
H-1042	250-watt transformer. Shipping wt. 10 lbs. (4.5kg)
H-1042.5	500-watt transformer. Shipping wt. 12 lbs. (5.4kg)
H-1042.7	750-watt transformer. Shipping wt. 16 lbs. (7.3kg)
H-1042.10	1,000-watt transformer. Shipping wt. 17 lbs. (7.7kg)
H-1042.15	1,500-watt transformer. Shipping wt. 21 lbs. (9.5kg)
H-1042.20	2,000-watt transformer. Shipping wt. 28 lbs. (12.7kg)



Mortar & Pestle (Plattner's)— H-17270

For crushing small samples of ore. Made of hardened alloy tool steel. Mortar has flat-bottomed cylindrical cavity with removable sleeve for containing crushed material. Mortar: 3" (76mm), O.D. cavity: 1" dia x 1/4" deep (25mm x 6.4mm). Guide sleeve: 1-1/2" (38mm) long. Pestle: 1" dia x 3" long (25 x 76mm).

Mortar & Pestle— H-17280

Meets U.S. Pharmacopeia XIX. Made from hardened tool steel in accordance with specifications for Powdered Glass Test. Mortar has a flat-bottomed cylindrical cavity. Mortar: 76.2mm. O.D. cavity: 50.8mm dia x 43.9mm deep; Pestle: 50.4mm dia, 108mm overall length, Shipping. wt. 8 lbs

Mortar & Pestle, Hardened Tool Steel— H-17300

Pestle Only— H-17301

Mortar Only— H-17302

Made of hardened alloy tool steel, this mortar and pestle is designed for crushing hard, tough substances. Pestle has ball-end to fit bottom of mortar cavity. Mortar: 3" x 3" x 4-1/2"H (76 x 76 x 114mm); bore: 2" dia x 3" deep (51 x 76mm). Pestle: 9-1/2" (241mm) overall length.

Mortar and Pestle Compaction Mold— H-1675

Mortar and pestle compaction mold used to prepare powdered samples to test softening point of resins and other bituminous materials using ring-and-ball method. Mortar, pestle, sleeve, knockout button and ring support are C.R. steel. Meets dimensions in Fig. 3 of ASTM E28.

Digital Calipers — H-2616, H-2616.8, H-2616.12

May be used for outside, inside, depth and step measurements. Switchable from inches to millimeters.

Dimensions:

H-2616 – 0-6" (0-150mm), Range: ±0.001" accuracy.

H-2616.8 – 0-8" (0-200mm), Range: ±0.001" accuracy.

H-2616.12A – 0-12" (0-300mm), Range: ±0.0015" accuracy.

Stainless Steel Dial Caliper 6" (150mm)—H-2817M

Easy to read black face dial caliper with combination inch and metric scales features 0.001" / 0.1mm graduations, hardened and ground stainless steel main beam with hardened, ground and lapped measuring faces.

Stainless Steel Dial Caliper (6 inch)—H-2817

Similar to above, features a 6" measuring range with .001" graduations and .100" per revolution

Durometers

Type	Applications/Indenter	Model
Type A	Soft rubber, plastics, and elastomers, printer's rolls. Flat cone point 35° included angle.	H-4222A
Type B	Harder elastomers and plastics. Paper and fibrous materials above 93 Duro A. Sharp Cone Point 30°	H-4222B
Type C	Medium hard elastomers and plastics. Useful to avoid surface marks. Flat cone point 35° included angle	H-4222C
Type D	Hard rubber and plastics, thermo plastics, flooring materials. Sharp cone point 30° included angle	H-4222D

Durometers—

Durometers are used to test the hardness of materials, such as the base of a Liquid Limit Machine. Precision construction delivers lifetime accuracy. Sealed springs maintain load deflection rate to a tolerance of .0004". H-4222D is used to check the hardness of the base of Liquid Limit Machines and complies with ASTM D4318, D2240.

