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USB interface; High measuring accuracy; Integrated calibration function for simple compensation of sensor tolerances; Measuring channels are freely assignable; Recording maximum, minimum, hold and average Data Logger function for up to values; Integrated sensor holder for one hand operation

Probe	Dual-probes, order separately	order probes separately	Dual-probes, order separately	Single-probe, order separately			
Range	-328° to 1562°F -200° to +850°C	-328° to 1562°F -200° to +850°C	-200°C to +1370°C	-200°C to +1370°C			
Resolution	0.001°C from -200°C to +200°C remaining range 0.01°C	to +200°C to +200°C 0.01°C & °F		0.01°C & °F			
Accuracy (Type K)	±0.015°C from -50°C to +199.99°C ±0.025% of reading for the remaining range	±0.03°C from -50°C to +199.99°C ±0.05% from -200°C to +200°C otherwise 0.05% of reading	±0.2°C from -40°C to +200°C ±0.5°C from +201°C to +1000°C otherwise 1.0°C	±0.2°C from -40°C to +200°C ±0.5°C from +201°C to +1000°C otherwise 1.0°C			
Stem Length	Various						
Power	9v battery						
Traceable Certificate	NIST Traceable Certificate available						

# Thermometer, High-Precision, Calibration

2-channel measurement,

Max./Min., USB Interface,

6000 measurements

**Features** 

The HT-4795 precision hand-held thermometer is a 2-channel instrument that has a resolution of 0.001°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. Optional DE-Graph Windows Software for graphic and tabular documentation. For 3-point calibration certification, order HT-4795C.

Thermocouple	e probe not included.
--------------	-----------------------

Thermometer, Precision	HT-4795
Thermometer, Precision, 3 Pt. Cal	. HT-4795C
Thermocouple Probe, 6"	HT-4795.1
Thermocouple Probe, 12"	HT-4795.2
ups -	Ship wt. 1.3lbs. (0.6kg)

#### Thermometer, Precision, Calibration

and HT-4796-2 HT-4796 The Hand-held Thermometers are high-precision, metrology-NIST-traceable grade, instruments. These high-accuracy thermometers are used when temperature measurement are critical and/or when online documentation is required. The HT-4796 and HT-4796-2 can also used as a NIST Standard to verify and calibrate routinely used instruments. Optional DE-Graph Windows Software for graphic and tabular documentation. Features include: High-accuracy; USB interface; Records maximum, minimum, hold and average values, Measuring channels are freely assignable and integrated sensor holder for one hand operation .Thermocouple probe not included.

#### Thermometer, Precision, 1-channel Thermometer, Precision, 3 Pt. Cal. Thermometer, Precision, 2-channels Thermometer, Precision, 3 Pt. Cal. HT-4796-2C Thermocouple Probe, 6"

HT-4795.1 Thermocouple Probe, 12" HT-4795.2 Ship wt. 2lbs. (0.9kg)

HT-4796

HT-4796C

HT-4796-2

# Thermometer, Precision

The HT-4797 and HT-4798 Digital Thermocouple Thermometers are an economically-priced solution for precision measurements of a wide range of temperature measuring needs. By using thermocouple types J, K, L, N, T a range of -200°C to +1370°C (-328°F to 2498°F) can be obtained. These instruments can be used in a wide variety of applications. Features include: USB interface; High measuring accuracy; Integrated calibration function for simple compensation of sensor tolerances; Measuring channels are freely assignable, Recording maximum, minimum, hold and average values and Integrated sensor holder for one hand operation.

# Thermocouple probe not included.

Thermometer, Precision, 1-channel	HT-4797
Thermometer, Precision, 3 Pt. Cal.	HT-4797C
Thermometer, Precision, 2-channels	HT-4798
Thermometer, Precision, 3 Pt. Cal.	HT-4798C
ups .	Ship wt. 2lbs. (0.9kg)

# ACCESSORIES











Model HT-4794 HT-4793 HT-4132 HT-4015 Total-range,rough-Use Pt100 Platinum Thermometer, Thermocouple, accepts 2 K RTD platinum thermometer with Туре thermometer with traceable accepts Pt100 ohm probes probes traceable certificate certificate F & C switchable. Min-Max, F & C switchable, Min-Max, Hold, Average Values Hold Functions, 19 temperature Memories, alarms, timer and °F and °C switchable, one-butmemory function, Calibration Functions, 10 temperature min/max capabilities, backlit diston operation, low-battery, bad memory function, Timer, High & Low Alarm, Back light, PVC Pro-**Features** Function, RS232 Interface, play, protective casing with flipprobe indicator, 0.5" high digits, out Stand, °F and °C switchable, Optional Windows Software, computer output capability tective Casing, Flip Out Stand 0.625" high digits, hold button Stores 16 Temperature Measurements Platinum, (100-ohm) 4-wire Supplied with 4', fast-response Pt 100 Platinum probe, probe for use with soils, liquids, beaded probe, uses all type K Probe Dual-probes, order separately order separately air/gas probes -200° to 1370°C/-328° -58 to 752°F -328 to 2498°F -100° to 850°C/-148° to 1562°F Range -50 to 400°C -200 to 1370°C to 2498°F 0.1° C&F. -100 to 399.9°C 0.01° below 200°C and 0.1° Resolution 0.1° 0.1°/1° above 200°C Otherwise 1.0°C ±1.0°C/1.8°F from -49° to +740°C & -52° to 1364°F 0.1% + 0.2°C below 200°C and ±1°C from -50° to 740°C (-328 Accuracy ±0.3°C (0.7°F) (Type K) ±2.0°C/4.0°F Below & Above ± 0.15% + 0.5°C above 200°C to 1364°F) otherwise ±2°C Stem 6 inches cable length 4' Length 9-volt battery Power 2 AA Batteries. 3 AAA Batteries (3) AAA batteries (AC adapter available) ISO 17025/IEC Traceable Traceable ISO 17025/IEC Traceable Yes, included Yes, included Certificate Certificate included Certificate included.

# Thermometer, Pt100 Platinum

Handy, Robust temperature instrument has 4-wire technology for Pt100. Min/Max and Hold function. Integrated probe holder for one hand operation. The HT-4794 provides °F and °C switchable readings and an RS232 connection interface. Stores 16 temperature measurements. Includes a calibration function.

Thermometer, Pt100 Platinum	HT-4794
<b>UPS</b>	Ship wt. 2lbs. (0.9kg)

Thermometer, Dual-K Probe, NIST Traceable

NIST Traceable Digital "K" Thermocouple Thermometer with 10 memory storage. Recallable Min/Max function and high-low audible alarm function. Count up timers from 23hr 59 min to 1 min. Low battery indicator and back lit screen. Includes PVC boot for protection and flip-out stand.

Thermometer, Dual K Probe, NIST HT-4793

Thermometer, RTD Platinum, Traceable

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 278 for data acquisition software and cable.

Thermometer, RTD Platinum, Traceable HT-4132 Ship wt. 1.5lbs. (0.7kg)

# Thermometer, Total Range, Traceable

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.

Thermometer, Total Range, Traceable HT-4015 Ship wt. 1.3lbs. (0.6kg)

> A C C E S S O R I E S See Page 308 for standard probes fo<u>r these thermometers</u>



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See Probes and Accessories on Page 308



# **Computer Data Acquisition Software**

Powerful and easy-to-use computer data capture program for 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 Acquisition Software for HT-4132 HT-4136 Ship wt. 5lbs. (2.2kg) 
Image: Window Stress
Image: Wi

Model	H-3558D	H-3564
Туре	Dual input, digital thermometer kit	Dual input, digital thermometer kit
Features	(1) Standard K-Probe, Push Button Opera- tion, °F/°C Selectable, Min/Max temperature display, hold function	(2) SureGrip Piercing Probes, (4) bead probes and Case
Probe	Туре-К	Туре-К, Ј, Т, Е
Range	-58 to 2000°F -50 to 1093°C	-58 to 2000°F -50 to 1093℃
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



# Data Logger for HT-4132 Thermometer

Complete DAS-4<sup>™</sup> 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.

Data Logger for HT-4132 Thermometer HT-4325 Ship wt. 3lbs. (1.3kg)

# Thermometer Kit, Digital, Hand-held

Heavy-duty design with 3.5"-digit LCD display. Range from -58 to 2000°F (-50 to 1093°C). Resolution is 1° F/C. Accuracy is  $\pm 0.3\% + 2°F$ (1°C) from 32 to 2000°F (1093°C) and  $\pm 4°F$  (2°C) from -58 to 32°F (-50 to 0°C). Dual-input 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 3.5" (89mm) stainless steel probe w/handle and 2 K wire probes.

Thermometer Kit, Digital, Hand-held H-3558D Ship wt. 1.4lbs. (.63kg)

# Thermometer Kit, Digital, Hand-held

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) SureGrip<sup>TM</sup> piercing probes and a case. Can use K, J, T and E probes.

Thermometer Kit, Digital, Hand-held H-3564 Ship wt. 4.6lbs. (2.1kg)



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Thermometers, Digital, IR 307



H-3590

H-3591

H-3597A

Model	H-3590	H-3591	H-3597A	H-3593A	H-3599	H-3595A
Туре	Infrared	Infrared	Infrared	Infrared	Infrared	Infrared
Probe	none	none	none	none	One type-K	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	-58 to 1022°F (-50 to 550°C)	IR gun: -76 to 932°F (-60 to 500°C) probe: -76 to 1999°F (-60 to 1400°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.	15-35°C: ±1°C, full range: ±2%, 2°C	IR: 15-35°C: ±1°C, full range: ±2%, 2°C probe: ±0.8%, 1°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	12:1 1" target dia. at 12"	11:1 1" target dia. at 11"	10:1 1" target dia. at 10"
Traceable Certificate	order: H-3590C	included	order: H-3597C	order: H-3593C	order: H-3599C	order: H-3595AC
Power	9 volt	9 volt	(2) AAA	9 volt	AAA	9 volt

# Thermometer, IR Gun, Heavy-Duty

Hand held and portable, the H-3590 infrared thermometer stand up to the day-to-day usage professionals require of their equipment. Feature 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.

Thermometer, Wide-range Memory H-3590 Ship wt. 3lbs. (1.4kg)

# Thermometer, Wide-Range IR Gun, Traceable

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, back-lighting at the touch of a button, data hold, low battery indicator and °C/°F button.

Thermometer, Wide-Range IR Gun H-3591

# Thermometer, Pro IR Gun, Infrared

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.

Thermometer, Pro IR Gun, Infrared H-3597A Ship wt. 3lbs. (1.4kg)

#### Thermometer, IR Gun, Infrared

Point and shoot simplicity. IR gun with high-quality 12:1 optics and laser pointer. Reads °C or °F.

Thermometer, Wide-range Memory H-3593A Ship wt. 1.2lbs. (.54kg)

# Thermometer, IR Gun, K Thermocouple Combo

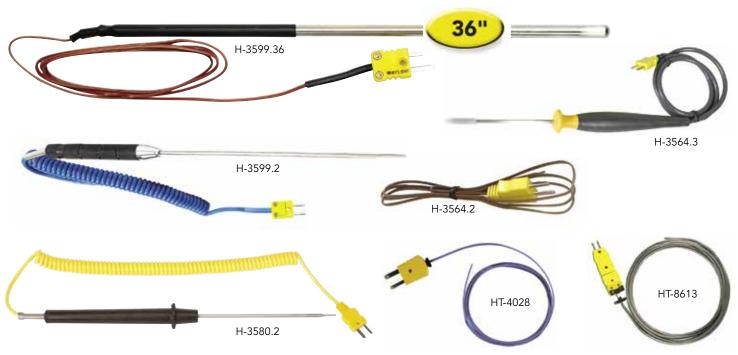
Infrared and type K thermocouple combo gun. High-quality 11:1 optics with laser pointer. Fast response type-K probe is included. You also get max, min, hold, diff, avg, hi/low alarm, backlit display and a °C/°F button.

IR Gun, K Thermocouple Combo H-3599

#### Thermometer, Mini-Laser IR Gun, Infrared

Pocket size, high-quality infrared gun with highquality 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 of NiCd battery, included. Thermometer, Mini-Laser IR Gun Ship wt. 1.3lbs. (.59kg)





# K-Probe, 8"

Eight inch long, K thermocouple with 4.5" 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, 8"	H-3599.2
<b>U</b> P5	Ship wt. 1.4lbs. (.64kg)

# K-Probe 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.

	H-3599.36
Ship	wt. 2lbs. (.91kg

# **K-Probes**

K thermocouples are 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.

K-Probe, 12"	H-3599.12
K-Probe, 24"	H-3599.24
<b>112</b>	Ship wt. 2lbs. (.91kg)



# K-Probe 5"

ASTM-E230-1993

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

K-Probe 5"	H-3580.2
<b>(</b>	Ship wt. 1lbs. (.45kg)

#### K-Probe 4" ASTM-E230-1993

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). Compatible with K-type measurement instruments.

K-Probe 4"	H-3564.3
ups	Ship wt. 1.2lbs. (.54kg)

# Bead Probe

Bead Probe

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.

H-3564.2

# Ship wt. 0.7lbs. (.32kg)

## Bead Probe, Fast Response

Fast-Response, Type-K thermocouple, beaded probe. PTFE 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.

Bead Probe, Fast Response

HT-4028 Ship wt. 0.2lbs. (.009kg)

# **High-Temperature Probe**

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

High-Temperature Probe	HT-8613
ups	Ship wt. 0.6lbs. (.27kg)

## AC Adapter for HT-4132

AC adapter for use with HT-4132 data logging thermometer shown on page 227

AC Adapter for HT-4132	HT-4132.2
ups	Ship wt 1lbs (45kg)

#### Immersion Probes for (page 304) HT-47957, HT-4796, HT-4797 & HT-4798

Range	L	ength x Dia.	Model	
-40 to +752°F -40 to +400°C		20 x 3mm	HT-4798.1	
-148 to +2012°F 100 to +1100°C	3	00 x 1.5mm	HT-4798.2	
-148 to +2012°F 100 to +1100°C	: 3	00 x 3mm	HT-4798.3	
Pt100 Platinum Immersion Probes for HT-4794				
Range	Ler	ngth x Dia.	Model	
-58 to 662°F -50 to 350°C	150mm x 3mm 150mm x 3mm 300mm x 3mm		HT-4794.1	
-58 to 662°F -50 to 350°C			HT-4794.2	
-58 to 662°F 50 to 350°C			HT-4794.3	

# NOTES

Use HT-4797.4 Thermocouple Adapter for attaching standard K-type probes to these thermometers.

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# Temperature/Humidity Instrument- Min/Max

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  $\pm$ 2°F /  $\pm$ 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.

Temperature/Humidity, Min/Max H-2727D Ship wt. 0.8lbs. (.36kg)

#### Minimum/Maximum Thermometer

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.

Minimum/Maximum Ther	mometer H-3543
ups	Ship wt. 1.6lbs. (.72kg)

# Maximum and Minimum Thermometer

Dual-scale thermometer has u-shaped capillary mounted in plastic 8" x 2.625" x 1" (203 x 67 x 25mm) with guard and mounting tab. Ranges: -20°F to 140°F in 2°F div. and -30°C to 60°C in 1°C div. thermometer indicates present, highest and lowest temperature since last indices setting. Indices are easily reset after each reading.

Maximum and Minimum Thermometer H-3560D Ship wt. 0.5lbs. (.22kg)

# Min/Max Alarm, Digital Bottle Thermometer

Certified bottle thermometer monitors critical temperatures in ovens. Bottle probe filled with sand medium. An audible alarm will sound when the temperature rises above or goes below the set point temperature. Each thermometer serialized and is certified and traceable to NIST Thermometer probe is housed in an unbreakable plastic bottle filled with a buffering media, which maintains the thermometer reading when the instrument door is opened.

- Accuracy ± 0.5°C and Resolution of 0.1°C
- C° and °F switchable
- Display size is 48mm x 21mm
- Thermometer size is 73mm x 52mm x 15mm
- H-3561 Min/Max, Digital Bottle Thermometer

Ship wt. 1.6lbs. (.72kg)

# Digital Indoor/Outdoor Thermometer °F

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  $80.0^{\circ}$ C with a resolution of  $0.5^{\circ}$  and accuracy of ±1.5°C. Display's 0.375"-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 In/Out Thermometer °F HT-4105 Ship wt. 0.8lbs. (.36kg)



#### Big Digit, Alarm Thermometer, Traceable

Large, 1.125" high digits display probe temperatures and ambient temperatures, which can be seen from across a lab. This unique fouralert 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  $0.1^{\circ}$  and an accuracy of  $\pm 1^{\circ}$ 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.

Big Digit, Alarm Ther	mometer °F	HT-4142
Big Digit, Alarm Theri	mometer °C	HT-4143
405		Ship wt. 0.8lbs. (.36kg)

#### **Digital Thermo-Timer**

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.

> H-3557D Ship wt. 1lbs. (.45kg)

Ship wt. 0.2lbs. (.09kg)

# **Digital Thermo-Timer Probe**

**Digital Thermo-Timer** 

Replacement probe for H-3557D thermo-timer.

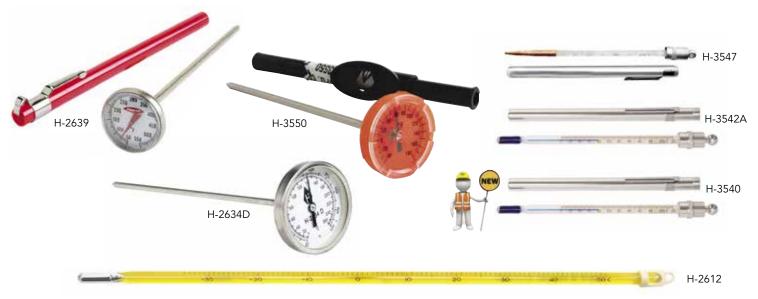
H-3557D-P **Digital Thermo-Timer Probe** 





Model No.	Description	Range	Accuracy	Stem Length	Overall	Ship Wt.	Features
HT-4052	Long-stem, digital thermometer	–58 to 302°F –50 to 150°C	±2.0°F ±1.0°C	8"	11"	0.8 lb. .36 kg	Traceable calibration certificate
HT-4052U	Long-stem, digital thermometer	–58 to 302°F –50 to 150°C	± 0.2°C	8"	11"	1.6 lb. .72 kg	Traceable calibration certificate
HT-4353	Long-stem, digital thermometer	–58 to 572°F –50 to 300°C	±2.0°F ±1.0°C	11.375"	14.375"	.5 lb. .22 kg	Traceable calibration certificate
HT-4353U	Longer-stem, digital thermometer	–58 to 572°F –50 to 300°C	± 0.5°C	11.375"	14.375"	1.1 lb. .50 kg	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"	1.0 lb. .45 kg	Traceable calibration certificate
HT-4149U	Long-stem, multi-angle digital thermometer	–58 to 536°F –50 to 280°C	± 0.4°C	8"	10"	0.8 lb. .36 kg	Traceable calibration certificate
HT-4050	Digital, pocket thermometer w/sheath	–58 to 572°F	± 1.5°C	3.5"	7"	0.45 lb. .20 kg	Traceable calibration certificate, hold button
HT-4050U	Digital, pocket thermometer w/sheath	–50 to 300°C	± 0.4°C	3.5"	7"	0.3 lb. .13 kg	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"	0.45 lb. .20 kg	Traceable calibration certificate
HT-4049U	Digital, jumbo display thermometer	–58 to 302°F –50 to 150°C	± 0.3°C	5.25"	6.5"	0.8 lb. .36 kg	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	0.6 lb. .27 kg	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	0.8 lb. .36 kg	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"	6"	0.8 lb. .36 kg	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"	6.25"	0.4 lb. .2 kg	Field calibratable waterproof. max temp.





# Dial Thermometers, Pocket-Type

Model	Description	Range	Divisions	Ship Wt.
H-2633	1" dial, 5" long stem, includes plastic pocket case and clip.	25 to 125°F	1°F	0.45 lb. .20 kg
H-2639	1" dial, 5" long stem, includes plastic pocket case and clip.	50 to 550°F	5°F	0.25 lb. .11 kg
H-3550	1" dial, 5" long stem, includes plastic pocket case w/ calibra- tion tool.	-40 to 180°F	2°F	0.2 lb. .09 kg
H-3552	1" dial, 5" long stem, includes plastic pocket case w/ calibra- tion tool.	0 to 220°F	2°F	0.7 lb. .32 kg
H-3553	1" dial, 5" long stem, includes plastic pocket case and clip.	0 to 150°C	2°C	0.7 lb. .32 kg
H-3554	1" dial, 5" long stem, includes plastic pocket case and clip.	0 to 250°C	5°C	0.7 lb. .32 kg

# Thermometers, Dual-Scale General Testing

Model	Description	Range	Divisions	Ship Wt.
H-2631D	Direct-reading, all-metal dial thermometers for gener- al 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.	25 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	0.7 lb.
H-2634D		50 to 500°F 0 to 260°C	5°F 2°C	.23 kg

# Thermometers, General Purpose Mercury Fahrenheit

Model	Range	Div.	Length	Ship Wt.
H-2611	-30 to 120°F	1°F	12" (305mm)	
H-2613	0 to 230°F	2°F	12" (305mm)	
H-2615	0 to 300°F	2°F	12" (305mm)	1.5 lb. .09 kg
H-2617	20 to 500°F	2°F	16" (405mm)	.07 Kg
H-2619	20 to 750°F	5°F	16" (405mm)	

# Thermometers, General Purpose Mercury, Celsius

memometers, General i urpose mercury, Celsius							
Model	Range	Div.	Length	Ship Wt.			
H-2612	-35 to 50°C	1°C	305mm (12")				
H-2614	-20 to 110°C	1°C	305mm (12")				
H-2616	-20 to 150°C	1°C	305mm (12")	1.1 lb. .36 kg			
H-2618	-10 to 260°C	1°C	405mm (16")	.50 kg			
H-2620	-10 to 400°C	2°C	405mm (16")				



**CAUTION** Some of these thermometers contain mercury. There are restrictions on their sale and shipment. Please check laws in your area or contact us before ordering. Due to Illinois law, Humboldt must drop-ship these items from New Jersey. Mercury Thermometers require ground shipment in the U.S. International and air shipments ship as Dangerous Goods.



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# Stick Thermometers, Pocket-Type

Model	Description	Range	Divisions	Ship Wt.
H-3547	5" long stem. Non-toxic liquid thermometer, Features copper-plated bulb to resist cutting, includes metal pock- et case and clip	0 to 120°F	1°F	0.2 lb. .09kg
H-3542A	5" long stem. Non-toxic liq- uid thermometer, includes metal pocket case and clip.	-10 to 110°C	1°C	0.7 lb. .32 kg
H-3540	5" long stem. Large-bore, tempered glass with non-tox- ic liquid, includes plastic pocket case and clip.	0 to 220°F	2°F	0.05 lb. .02 kg



Thermometers, Mercury-Free, Blue-Spirit Certified These Thermometers are calibrated against NIST standards and comes with a calibration document showing corrections to the nearest tenth of a scale division traceable to NIST These thermometers meet with all prescribed ASTM requirements. Each incorporates the ice point when not on scale (0 or 32°F) as a reference point enabling the user to validate and update the calibration document to insure accurate temperature measurements over the life of the thermometers.

- Each thermometer is calibrated against NIST Standards
- Certified at 5 temperatures with correction factors
- Traceable calibration document Included
- Blue-Spirit range (-38 to 155°C) or (-36 to 311°F)
- Mercury Range (-38 to 405°C) or (-36 to 761°F)

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

Thermometers, Mercury-Free Certified See Table Ship wt. .8lbs. (0.36kg)

# ASTM Thermometers, Mercury-Free, Blue-Spirit

These Thermometers provide a mercury-free alternative to ASTM mercury thermometers. They provide the same performance as a mercury thermometer, but use a blue liquid formula, which is nontoxic non-caustic, nonhazardous and biodegradable; and, meet or exceed the ASTM E2251 specifications for accuracy and tolerance of uncertainty. These thermometers are supplied with a one-point certification in accordance with ASTM E7 standards.

# Non-Mercury, ASTM-Approved Precision Thermometers

Range	Div.	ASTM	Model
-38 to +2°C	0.1°C	62C	H-2605.62C
-36 to +35°F	0.2°F	62F	H-2605.62F
-8 to +32°C	0.1°C	63C	H-2605.63C
+18 to 89°F	0.2°F	63F	H-2605.63F
+25 to 55°C	0.1°C	64C	H-2605.64C
+77 to 131°F	0.2°F	64F	H-2605.64F
+50 to 80°C	0.1°C	65C	H-2605.65C
+122 to 176°F	0.2°F	65F	H-2605.65F
+75 to 105°C	0.1°C	66C	H-2605.66C
+167 to 221°F	0.2°F	66F	H-2605.66F
+95 to 155°C	0.2°C	67C	H-2605.67C
+206 to 311°F	0.5°F	67F	H-2605.67F

## Non-Mercury, ASTM-Approved Application Thermometers

	1	1	
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-2605.12C
-5 to 215°F	0.5°F	12F	H-2605.12F
-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
98 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

ASTM Thermometers, Mercury-Free See Table Ship wt. 1.0lbs. (0.36kg)

## Thermometers, Mercury-Free, Blue-Spirit

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These Thermometers provide a mercury-free alternative to mercury thermometers. They provide the same performance as a mercury thermometer, but use a blue liquid formula, which is nontoxic non-caustic, nonhazardous and biodegradable. These thermometers use many of the same scales as ASTM mercury thermometers, but currently are not ASTM Compliant.

Range	Div.	Model
-20 to 150°C	1.0°C	H-2604.1C
-38 to 50°C	1.0°C	H-2604.5C
-5 to 110°C	0.5°C	H-2604.9C
+38 to 82°C	0.1°C	H-2604.14C
-2 to 80°C	0.2°C	H-2604.15C
+30 to 200°C	0.2°C	H-2604.16C
+19 to 27°C	1.0°C	H-2604.17C
+49 to 57°C	0.1°C	H-2604.19C
+57 to 65°C	0.1°C	H-2604.20C
+79 to 87°C	0.1°C	H-2604.21C
-38 to 42°C	0.2°C	H-2604.33C
+25 to 105°C	0.2°C	H-2604.34C
-20 to 50°C	0.5°C	H-2604.57C
-1 to 175°C	0.5°C	H-2604.113C
0 to 302°F	2.0°F	H-2604.1F
-36 to 120°F	2.0°F	H-2604.5F
+20 to 230°F	1.0°F	H-2604.9F
+30 to 180°F	0.5°F	H-2604.15F
+66 to 80°F	1.0°F	H-2604.16F
+60 to 160°F	0.2°F	H-2604.17F
+120 to 134°F	0.2°F	H-2604.19F
+134 to 148°F	0.2°F	H-2604.20F
-36.5 to 107.5°F	0.5°F	H-2604.33F
-4 to 122°F	1.0°F	H-2604.57F
+30 to 350°F	1.0°F	H-2604.113F

# Thermometers, Mercury-Free

See Table Ship wt. 0.8lbs. (0.36kg)

# **Custom Calibration Thermometers**

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 Thermometers**

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



PTFE-coated thermometers, which minimize breakage hazards and improve safe handling, are available. See PTFE coated column in table.

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Application	ASTM	Range	Model	PTFE Coated	Subdiv.	Length	Immer- sion
	1F	0-302°F	H-2600.1F	H-2600.1FT		12.5"	31011
	1C	-20-150°C	H-2610.1C	H-2610.1CT		322mm	
	2F	20-580°F	H-2600.2F	H-2600.2FT	2.0°F	15.325"	3"
General use	2C	-5-300°C	H-2610.2C	H-2610.2CT	1.0°C	390mm	76mm
	3F	20-760°F	H-2600.3F	H-2600.3FT		16.25"	
	3C	-5-400°C	H-2610.3C	H-2610.3CT		413mm	
	5F	-36-120°F	H-2600.5F	H-2600.5FT	2.0°F	9.125"	4.25"
Cloud and pour	5C	-38-50°C	H-2610.5C	H-2610.5CT	2.0°F 1.0°C	231mm	4.25 108mm
	6F	-112-70°F	H-2600.6F	H-2600.6FT		9.125"	
Low cloud and pour	6C	-80-20°C	H-2610.6C	H-2610.6CT	2.0°F 1.0°C	231mm	3" 76mm
	7F	30-580°F	H-2600.7F	H-2600.7FT			7 011111
Low distillation	7C	-2-300°C	H-2610.7C	H-2610.7CT	2.0°F 1.0°C	15.25" 386mm	Total
	8F	-2-300 C 30-760°F	H-2600.8F	H-2600.8FT			
High distillation					2.0°F 1.0°C	15.25" 386mm	Total
	8C	-2-400°C	H-2610.8C	H-2610.8CT	1.0 C		
Pesky-martens low	9F	20-230°C	H-2600.9F	H-2600.9FT	1.0°F	11.25" 287mm	2.25"
,	9C	-5-110°C	H-2610.9C	H-2610.9CT	.5°C	20/11/11	57mm
Pesky-martens high	10F	200-700°F	H-2600.10F	H-2600.10FT	5.0°F	11.25"	2.25"
r coxy marceno mgm	10C	90-370°C	H-2610.10C	H-2610.10CT	2.0°C	287mm	57mm
Cleveland open flash	11F	20-760°F	H-2600.11F	H-2600.11FT	5.0°F	12.125"	1"
Cieveland open liash	11C	-6-400°C	H-2610.11C	H-2610.11CT	2.0°C	308mm	25mm
Currit	12F	-5-215°F	H-2600.12F	H-2600.12FT	0.5°F	16.5"	
Gravity	12C	-20-102°C	H-2610.12C	H-2610.12CT	0.2°C	420mm	total
	15F	30-180°F	H-2600.15F	H-2600.15FT	0.5°F	15.625"	
Low softening point	15C	-2-80°C	H-2610.15C	H-2610.15CT	0.2°C	397mm	total
	16F	85-392°F	H-2600.16F	H-2600.16FT	1.0°F	15.625"	
High softening point	16C	30-200°C	H-2610.16C	H-2610.16CT	.5°C	397mm	total
	17F	66-80°F	H-2600.17F	H-2600.17FT			
	17C	19-27°C	H-2610.17C	H-2610.17CT			
	18F	94-108°F	H-2600.18F	H-2600.18FT			
	18C	34-42°C	H-2610.18C	H-2610.18CT			
	19E	120-134°F	H-2600.19F	H-2600.19FT			
Saybolt viscosity	19C	49-57°C	H-2610.19C	H-2610.19CT	0.2°F	10.875"	total
Saybolt viscosity	20F	134-148°F	H-2600.20F	H-2600.20FT	0.1°C	275mm	totai
	20C	57-65°C	H-2610.20C	H-2610.20CT			
	21C	79-87°C	H-2610.21C	H-2610.21CT			
	22F	204-218°F	H-2600.22F	H-2600.22FT			
	22C	95-103°C	H-2610.22C	H-2610.22CT			
Kinematic viscosity	28F	97.5-102.5°F	H-2600.28F	H-2600.28FT	0.1°F	12"	total
,	28C	36.6-39.4°C	H-2610.28C	H-2610.28CT	0.2°C	305mm	
	33F	-36.5-107.5°F	H-2600.33F	H-2600.33FT			
Aniline point	33C	-38-42°C	H-2610.33C	H-2610.33CT	0.5°F	16.5"	2'
	35F	194-338°F	H-2600.35F	H-2600.35FT	0.2°C	419mm	50mm
	35C	90-170°C	H-2610.35C	H-2610.35CT			
	45F	74.5-79.5°F	H-2600.45F	H-2600.45FT			
	45C	23.6-26.4°C	H-2610.45C	H-2610.45CT	a 405		
Kinematic viscosity	46C	48.6-51.4°C	H-2610.46C	H-2610.46CT	0.1°F 0.2°C	12" 305mm	total
	47F	137.5-142.5°F	H-2600.47F	H-2600.47FT	0.2 C	30311111	
	47C	58.6-61.4°C	H-2610.47C	H-2610.47CT			
Tag closed tester,	57F	-4-122°F	H-2600.57F	H-2600.57FT	1.0°F	11.25"	2.25"
low range	57C	-20-50°C	H-2610.57C	H-2610.57CT	.5°C	287mm	57mm
3	63F	18-89°F	H-2600.63F	H-2600.63FT			
	63C	-8-32°C	H-2610.63C	H-2610.63CT	.2°F	15"	
Precision	64F	77-131°F	H-2600.64F	H-2600.64FT	.1 °C	379mm	
	64C	25-55°C	H-2610.64C	H-2610.64CT			
	110F	272.5-277.5°C			405	407	total
Kinematic viscosity			H-2600.110F	H-2600.110FT	.1°F .2°C	12" 305mm	i o tar
-	110C	133.6-136.4°C	H-2610.110C	H-2610.110CT			
Bituminous	113F	30-350°F	H-2600.113F	H-2600.113FT	1.0°F	16" 406mm	
softening point	113C	-1-175°C	H-2610.113C	H-2610.113CT	.5°C	406mm	

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# CAUTION

AUTION These thermometers (contain mercury. There are restrictions on their sale and shipment. Please check laws in your area or contact us before ordering. Due to Illinois law, Humboldt must dropship these items from New Jersey. Mercury Thermometers require ground shipment in the U.S. International and air shipments ship as Dangerous Goods.

# **ASTM Thermometers, Mercury**

ASTM Mercury Thermometers are made in accordance with specifications of the American Society for Testing and Material. Strict manufacturing procedures and quality controls ensure full compliance to ASTM E-1. These instruments are made from annealed glass and have been extensively aged for minimal scale error and stability. These thermometers were designed for specific testing and can be calibrated to your specific requirements.

ASTM Thermometers, PTFE-Coated

All ASTM Mercury Thermometers are available in PTFE-coated versions to minimize breakage and improve safety. See PTFE Coated column for part numbers.

# Mercury Spill Clean-up Kit

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.

Mercury Spill Clean-up Kit

H-3632SK

Ship wt. 1.3lbs. (0.58kg)





H-3568



H-4296A



H-3575A



H-4294



H-2260



H-2629



H-4296



Ship wt. 0.7lbs. (0.32kg)



# **Bi-metal Oven Thermometer**

Thermometer provides a 100 to 600°F (50 to 315°C) range at 25°F divisions. All-metal unit is 2.3" x 3.3" with baked-enamel finish on bezel. Features bi-metal coil movement and glass lens. the thermometer can hang or stand by itself.

Bi-metal Oven Thermometer	H-3568
(ps	Ship wt. 0.5lbs. (.23kg)

### Surface Thermometer

Sensing element comes into direct contact with surface to be measured. Dial readout results from expansion or contraction of bi-metal. Unit is dualmagnet type, 2" (51mm) dia. x 0.5" (13mm) high.

<b>o 1</b>	
Surface Thermometer, 0-250°F/2°F	H-2628
Surface Thermometer, 0-500°F/5°F	H-2628H
Surface Thermometer, 0-120°C/1°C	H-2629
🕫 Ship	wt. 0.3lbs. (.13kg)

#### Digital Timer, Humboldt

Humboldt's portable digital timers automatically shuts off electrical equipment at a set time of up to 60 minutes or 60 seconds. Feature easy-to-use digital interface and two-plug, AC receptacle. The accuracy for both versions is 0.5%.

Digital Timer, Minute, 120V 50/60Hz	H-4296A
Digital Timer, Minute, 220V 50/60Hz	H-4296A.4F
Digital Timer, Second, 120V 50/60Hz	H-4299
Digital Timer, Second, 220V 50/60Hz	H-4299.4F
Ship v	vt. 3.8lbs. (1.7kg)

# Timer, Humboldt

The Humboldt universal 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 Timer, 120V 50/60Hz	H-4296
Humboldt Timer, 220V 50/60Hz	H-4296.4F
ups	Ship wt. 2.6lbs. (1.17kg)

# Digital Timer/Clock, 24-Hour

Electronic digital timer/clock is programmed to sound 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 for mounting to metal surfaces and can also clip on or stand on its own. Includes one 1.5 volt battery. Digital Timer/Clock, 24-Hour H-3575A

# Countdown Timer, Giant Digit

Great for viewing from across a room, easily viewable from 50 ft. with 1.3" 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 placeanywhere mounting.

Countdown Timer, Giant Digit HT-5011 Ship wt. 0.6lbs. (0.27kg)

# Timer, Bell-Type

Economical, manual mechanical timer has 60-minute time range. Signals with clear bell tone at end of set time for manual apparatus shut off. Timer, Bell-Type H-4294

Ship wt.	0.7lbs.	(0.32kg)

# **Universal Lab Timer**

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.

Universal Lab Timer, 120V 50/60	Hz H-4292
Universal Lab Timer, 220V 50Hz	H-4292.5F
095	Ship wt 2 6lbs (1 17ka)

# Stopwatch

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 nickelchromium case and anti-magnetic shock-resistant 7-jewel movement.

1/5 sec. movement, 1 rev = 60 sec H-2260 H-2261 1/10 sec. movement, 1 rev = 30 sec Ship wt. 0.7lbs. (0.32kg)



# Decide which digital scale is right for you with our website's Scale Selector Wizard.

Visit www.humboldt.mfg.com/scales.html and see how our Scale Selector Wizard can help you find it fast!



# **Digital Scale and Balance Comparison Chart**

Capacity	Readability	Model	Mfg. Series	Power	Platform size	Page No.
200g	0.01g	HB-4528A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" Dia. / 130mm	323
220g	0.001g	HB-4620	Ohaus Scout STX Portable	AC / AA	3.7" dia. / 93mm dia.	322
220g	0.001g	HB-4700A	Adam Nimbus Precision	AC	4.7" (120mm) Dia.	321
220g	0.01g	HB-4621	Ohaus Scout STX Portable	AC / AA	4.7" dia. / 120mm dia.	322
220g	0.01g	HB-4720A	Ohaus Scout SPX Portable	AC / AA	4.7" dia. / 120mm dia.	322
250g	0.1g	HB-4529A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" Dia. / 130mm	323
300g	0.01g	HB-4710A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	323
420g	0.001g	HB-5342A	Ohaus Adventurer Precision	AC	Ø 5.1" / 130 mm	318
420g	0.001g	HB-4701A	Adam Nimbus Precision	AC	4.7" (120mm) Dia.	321
420g	0.01g	HB-4622	Ohaus Scout STX Portable	AC / AA	4.7" dia. / 120mm dia.	322
420g	0.01g	HB-4724A	Ohaus Scout SPX Portable	AC / AA	4.7" dia. / 120mm dia.	322
420g	0.1g	HB-4723A	Ohaus Scout SPX Portable	AC / AA	4.7" dia. / 120mm dia.	322
420g	0.1g	HB-4623	Ohaus Scout STX Portable	AC / AA	4.7" dia. / 120mm dia.	322
520g	0.001g	HB-5352A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	318
620g	0.01g	HB-4624	Ohaus Scout STX Portable	AC / AA	4.7" dia. / 120mm dia.	322
600g	0.01g	HB-4712A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	323
600g	0.02g	HB-4711A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	323
600g	0.1g	HB-4530A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" Dia. / 130mm	323
620g	0.001g	HB-4716A	Adam Nimbus Precision	AC	4.7" (120mm) Dia.	321
620g	0.01g	HB-4725A	Ohaus Scout SPX Portable	AC / AA	4.7" dia. / 120mm dia.	322
620g	0.1g	HB-4726A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
620g	0.1g	HB-4625	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322



# Digital Scale and Balance Comparison Chart

720g	0.001g	HB-5000	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	320
720g	0.001g	HB-5100	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	320
720g	0.001g	HB-5001	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	320
720g	0.001g	HB-5101	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	320
820g	0.001g	HB-4702A	Adam Nimbus Precision	AC	4.7" (120mm) Dia.	321
1000g	0.01g	HB-4713A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	323
1100g	0.1g	HB-4960	Ohaus Navigator XL Portable	AC / battery	7.6" x 8" / 194 x 203mm	324
1200g	0.001g	HB-5102	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	320
1200g	0.001g	HB-5002	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	320
1200g	0.01g	HB-4626	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
1200g	0.01g	HB-4740A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
1500g	0.05g	HB-4714A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	323
1500g	0.1g	HB-4532A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" Dia. / 130mm	323
1520g	0.01g	HB-5315A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	318
1600g	0.01g	HB-4703A	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	321
1600g	0.01g	HB-1602	Pioneer Precision Balance	AC	7.09" / 180mm	319
1600g	0.1g	HB-4950	Ohaus Navigator XT Portable	AC / Recharge	9.00" x 6.90" / 250 x 240mm	324
2000g	-	HB-4534A		AC / AA		323
-	1g		Adam Core Balance CQT Compact Portable		5.1" Dia. / 130mm	
2100g	0.001g	HB-5003	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	320
2100g	0.001g	HB-5103	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	320
2100g	0.1g	HB-4961	Ohaus Navigator XL Portable	AC / battery	7.6" x 8" / 194 x 203mm	324
2200g	0.01g	HB-4627	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
2200g	0.01g	HB-5322A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	318
2200g	0.01g	HB-5220	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	318
2200g	0.01g	HB-2202	Pioneer Precision Balance	AC	7.09" / 180mm	319
2200g	0.01g	HB-4741A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
2200g	0.1g	HB-2201	Pioneer Precision Balance	AC	7.09" / 180mm	319
2200g	0.1g	HB-4628	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
2200g	0.1g	HB-4727A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
2600g	0.01g	HB-4704A	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	321
2600g	0.1g	HB-4533A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" Dia. / 130mm	323
3000g	0.1g	HB-4715A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	323
3000g	0.1g	HB-4730	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	324
3200g	0.01g	HB-3202	Pioneer Precision Balance	AC	7.09" / 180mm	319
3200g	0.01g	HB-5004	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	317
3200g	0.01g	HB-5005	•	AC		
	-		Adam Equinox Precision Balance		7.5" x 7.5" / 190 x 190mm	320
3200g	0.01g	HB-5104	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	320
3200g	0.01g	HB-5105	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	320
3200g	0.01g	HB-5004	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	320
3200g	0.2g	HB-4951	Ohaus Navigator XT Portable	AC / Recharge	9.00" x 6.90" / 250 x 240mm	324
3600g	0.01g	HB-4705A	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	321
4200g	0.01g	HB-4202	Pioneer Precision Balance	AC	7.09" / 180mm	319
4200g	0.01g	HB-5343A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	318
4200g	0.01g	HB-5420	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	318
4200g	0.1g	HB-5344A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	318
4200g	0.1g	HB-4201	Pioneer Precision Balance	AC	7.09" / 180mm	319
4200g	0.1g	HB-4539B	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	321
4600g	0.01g	HB-4706A	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	321
5000g	1g	HB-4535A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" (130mm) Dia.	323
5100g	0.5g	HB-4962	Ohaus Navigator XL Portable	AC / battery	7.6" x 8" / 194 x 203mm	324
5200g	0.01g	HB-5355AC	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	318
6000g	0.2g	HB-4731	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	324
6200g	0.2g	HB-5106	Adam Solis Precision Balance	ACTRECharge	7.5" x 7.5" / 190 x 190mm	324
	-					
6200g	0.01g	HB-5006	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	320
6200g	0.01g	HB-5107	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	320
6200g	0.01g	HB-5007	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	320
6200g	0.01g	HB-5622	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	318
6200g	0.1g	HB-4629	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
6200g	0.1g	HB-4729A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
6200g	0.1g	HB-4540B	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	321
6200g	0.1g	HB-5620	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	318
6400g	0.5g	HB-4952	Ohaus Navigator XT Portable	AC / Recharge	9.00" x 6.90" / 250 x 240mm	324
8200g	0.01g	HB-5008	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	320



# Digital Scale and Balance Comparison Chart

8200g	0.01g	HB-5108	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	320
8200g	0.1g	HB-4541B	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	321
8200g	0.1g	HB-5382A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	318
8200g	1.0g	HB-4630	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
8200g	1.0g	HB-4742A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	322
10000g	0.5g	HB-4953	Ohaus Navigator XT Portable	AC / Recharge	9.00" x 6.90" / 250 x 240mm	324
10000g	1g	HB-4963	Ohaus Navigator XL Portable	AC / battery	7.6" x 8" / 194 x 203mm	324
10200g	0.01g	HB-5102C	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	318
10200g	0.1g	HB-5100C	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	318
12kg	0.1g	HB-4943	Adam Eclipse High Capacity	AC / Recharge	9.4" x 9.4" (240 x 240mm)	325
12kg	0.1g	HB-4506A	Ohaus Explorer High Capacity	AC / Recharge	15.7" x 11.8" (400 x 300mm)	325
12kg	0.1g	HB-4543B	Adam Nimbus High Capacity	AC	15.7" x 11.8" (400 x 300mm)	326
15kg	0.1g	HB-3515	Ohaus Ranger 7000 High Capacity	AC / Recharge	14.8" x 12.2" (377 x 311mm)	326
15kg	0.1g	HB-4732		<u> </u>	8.9" x 11.8" / 225 x 300mm	326
16kg	0.3g	HB-4545B	Ohaus Ranger 3000 Compact Bench	AC / Recharge AC		324
3	-	HB-4945	Adam Nimbus High Capacity		15.7" x 11.8" (400 x 300mm)	
16kg 16kg /35lb	0.1g .5g / 0.001lb	HB-4945 HB-4874	Adam Eclipse High Capacity	AC / Recharge	9.4" x 9.4" (240 x 240mm)	325
•	•		Adam ABK Portable	AC / battery	11.8" X 15.7" / 300mm X 400mm	326
16000g	1g	HB-4954	Ohaus Navigator XT Portable	AC / Recharge	9.00" x 6.90" / 250 x 240mm	324
20000g	1g	HB-4964	Ohaus Navigator XL Portable	AC / battery	7.6" x 8" / 194 x 203mm	324
22kg	0.1g	HB-4946	Adam Eclipse High Capacity	AC / Recharge	12.2" x 14.8" (311 x 377mm)	325
24kg	0.1g	HB-4508A	Ohaus Explorer High Capacity	AC / Recharge	15.7" x 11.8" (400 x 300mm)	325
25kg / 50lb	1g / 0.002lb	HB-4840	Ohaus Defender 5000 Bench	AC / opt. battery	12 x 14" / 305 x 355mm	328
25kg / 50lb	1g /. 0.002lb	HB-4844	Ohaus Defender 5000 Bench, Washdown	AC / opt. battery	18 x 18" / 457 x 457mm	328
30kg	1g	HB-4733	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	324
30kg / 66lb	.005kg / 0.01lb	HB-4830	Ohaus Defender 3000 Bench	AC / C batteries	12" X 14" / 30.5mm X 35.5mm	327
32kg	0.1g	HB-4947	Adam Eclipse High Capacity	AC / Recharge	12.2" x 14.8" (311 x 377mm)	325
32kg / 70lb	1g / 0.002lb	HB-4875	Adam ABK Portable	AC / battery	11.8" X 15.7" / 300mm X 400mm	326
35kg	0.1g	HB-4510A	Ohaus Explorer High Capacity	AC / Recharge	15.7" x 11.8" (400 x 300mm)	325
35kg	0.1g	HB-3535	Ohaus Ranger 7000 High Capacity	AC / Recharge	14.8" x 12.2" (377 x 311mm)	326
35kg	0.1g	HB-4546B	Adam Nimbus High Capacity	AC	15.7" x 11.8" (400 x 300mm)	326
35kg / 75lb	01kg / 0.02lb	HB-4774	Adam CPWplus Portable	AC / AA	12" sq / 300mm sq.	327
50kg / 100lb	2g / 0.005lb	HB-4841	Ohaus Defender 5000 Bench	AC / opt. battery	12 x 14" / 305 x 355mm	328
50kg / 100lb	2g / 0.005lb	HB-4842	Ohaus Defender 5000 Bench	AC / opt. battery	18 x 24" / 457 x 610mm	328
50kg / 100lb	2g / 0.005lb	HB-4845	Ohaus Defender 5000 Bench, Washdown	AC / opt. battery	18 x 18" / 457 x 457mm	328
50kg / 100lb	2g / 0.005lb	HB-4846	Ohaus Defender 5000 Bench, Washdown	AC / opt. battery	18 x 18" / 457 x 457mm	328
60kg / 130lb	2g / 0.005lb	HB-4876	Adam ABK Portable	AC / battery	11.8" X 15.7" / 300mm X 400mm	326
60kg / 130lb	10g / 0.02lb	HB-4831	Ohaus Defender 3000 Bench	AC / C batteries	12" X 14" / 30.5mm X 35.5mm	327
75kg / 165lb	0.05lb/.02kg	HB-4775A	Adam CPWplus Portable	AC / AA	12" sq / 300mm sq.	327
120kg / 260lb	5g / 0.01lb	HB-4877	Adam ABK Portable	AC / battery	11.8" X 15.7" / 300mm X 400mm	326
125kg / 275lb	5g / .001lb	HB-4843	Ohaus Defender 5000 Bench	AC / opt. battery	18 x 24" / 457 x 610mm	328
125kg / 275lb	.001lb x 5g	HB-4847	Ohaus Defender 5000 Bench, Washdown	AC / opt. battery	18 x 24" / 457 x 610mm	328
125kg / 275lb	.001lb x 5g	HB-4848	Ohaus Defender 5000 Bench, Washdown	AC / opt. battery	18 x 24" / 457 x 610mm	328
150kg / 330lb	20g / 0.05lb	HB-4832	Ohaus Defender 3000 Bench	AC / C batteries	19.7" X 25.6" / 500mm X 650mm	327
150kg / 330lb	.05kg / 0.1lb	HB-4776	Adam CPWplus Portable	AC / AA	12" sq / 300mm sq.	327
200kg / 440lb	.05kg / 0.1lb	HB-4777	Adam CPWplus Portable	AC / AA	12" sq / 300mm sq.	327
300kg / 660lb	50g / 0.1lb	HB-4833	Ohaus Defender 3000 Bench	AC / C batteries	19.7" X 25.6" / 500mm X 650mm	327







# **Ohaus Explorer Precision Balances**

The Ohaus Explorer balance provides the ultimate in a precision balance by combining fast and highly accurate weighing results with intuitive weighing software, touchless user-programmable operation sensors, modular design and auto-cal internal calibration. The Explorer provides a large, angleadjustable, touch-screen color display, highlighted by icon-driven application software, which provides 14 unique application modes. The Explorer features fast stabilization times and internal or external calibration models. The Explorer is also durable, featuring metal base construction with an ABS top housing, stainless pan, glass draft shield and a replaceable in-use cover.

The Explorer's modular design allows the user to configure the balance in almost any setup

needed, with a display that can be separated from the weighing base for detached control from a counter, the wall or tower-mounted. The balance also features an integral weigh-below hook for weigh-below weighing applications. The balance also uses a unique system of four touchless sensors located on the balance, which let you program functions like print, calibration, tare, etc. that can be activated by the wave of your hand.

# See Chart for Models and Specifications

# **Ohaus Adventurer Precision Balances**

The OHAUS Adventurer incorporates all of the applications necessary for routine weighing and measurement activities. With a color touchscreen, GLP/GMP compliance capabilities, two USB ports, and much more, the Adventurer is the most

complete balance in its class. The Adventurer allows you to operate and access its nine application modes and abundant features that eliminate the need to do several manual calculations through the modern color touchscreen. It also has six mechanical keys that provide tactile feedback and allow the operator to perform repetitive operations such as tare, zero, calibration, and print. It is available in external and internal calibration models. The internal calibration models perform routine calibration maintenance automatically. You can also save balance settings and transfer them to other Adventurers in your lab. The balance also features an integral weigh-below hook for weigh-below weighing applications.

# See Chart for Models and Specifications

Ups

		Externa	al Calibration	Interna	l Calibration					
Capacity	Readability	120V 60Hz	220V 50/60 Hz	120V 60Hz	220V 50/60 Hz	Repeatability	Linearity	Power	Pan Size	Ship Wt.
2200g	0.01g	HB-5220	HB-5220.4F	HB-5220C	HB-5220C.4F	±0.01g	±0.02g			15 lb/6.8kg
4200g	0.01g	HB-5420	HB-5420.4F	HB-5420C	HB-5420C.4F	±0.01g	±0.02g		7.5" x 8" (190 x 200mm)	15 10/6.6Kg
6200g	0.01g	HB-5622	HB-5622.4F	HB-5622C	HB-5622C.4F	.4F ±0.01g	±0.02g	AC		1/ 2 11 /7 201
6200g	0.1g	HB-5620	HB-5620.4F	HB-5620C	HB-5620C.4F	±0.1g	±0.1g	AC		16.3 lb/7.38kg
10200g	0.01g	—		HB-5102C	HB-5102C.4F	±0.01g	±0.02g			10 lb/4.5kg
10200g	0.1g			HB-5100C	HB-5100C.4F	±0.1g	±0.1g			10 ID/4.5Kg

## **Ohaus Explorer Precision Balances**

**Ohaus Adventurer Precision Balances** 

		External Calibration		Interna	l Calibration					
Capacity	Readability	120V 60Hz	220V 50/60 Hz	120V 60Hz	220V 50/60 Hz	Repeatability	Linearity	Power	Pan Size	Ship Wt.
420g	0.001g	HB-5342A	HB-5342A.4F	HB-5342AC	HB-5342AC.4F	±0.001g	±0.002g		Ø 5.1" / 130 mm	
520g	0.001g	HB-5352A	HB-5352A.4F	HB-5352AC	HB-5352AC.4F	±0.001g	±0.002g		95.1 7 150 mm	
1520g	0.01g	HB-5315A	HB-5315A.4F	HB-5315AC	HB-5315AC.4F	±0.01g	±0.02g		7.7" x 6.9" (195 x 175mm)	10 lb/4.5kg
2200g	0.01g	HB-5322A	HB-5322A.4F	HB-5322AC	HB-5322AC.4F	±0.01g	±0.02g	AC		
4200g	0.01g	HB-5343A	HB-5343A.4F	HB-5343AC	HB-5343AC.4F	±0.01g	±0.02g			
4200g	0.1g	HB-5344A	HB-5344A.4F	HB-5344AC	HB-5344AC.4F	±0.1g	±0.2g			
5200g	0.01g	_		HB-5355AC	HB-5355AC.4F	±0.01g	±0.02g			
8200g	0.1g	HB-5382A	HB-5382A.4F	HB-5382AC	HB-5382AC.4F	±0.1g	±0.2g			12.6 lb (5.7kg)





## **Ohaus Explorer Accessories**

Description	Part #
Cable, display extension	HB-5292DC
Display tower mount	HB-5292T
Cable, RS232 PC 25-pin	HB-5392R
Cable, USB interface	HB-5392C

# **Ohaus Adventurer Precision Accessories**

Description	Part #
Cable, USB interface	HB-5392C
Cable, RS232 PC 25-pin	HB-5392R

## **Ohaus Pioneer Precision PX Balance**

The Pioneer PX combines essential weighing functionality with competitive performance, offering high accuracy and repeatability for applications in laboratory, industrial and education settings. The Pioneer PX is affordably priced, and intuitively designed for intelligent operation with a second line display for additional information,

# and USB and RS-232 connectivity for easy communication.

- The PX offers high accuracy and repeatability for essential weighing applications in laboratory, industrial and education settings at an economical price point.
- Featuring a cast metal lower housing, subpan and stainless steel weighing pan, the PX is durably constructed for versatile, long-term use.
- The PX features a second line display for additional information or guidance, a static removal bar for convenient grounding, and USB and RS232 connectivity for easy communication.

A brightly lit dual line display shows the weight in an easy-to-read manner, while a dot-matrix second line provides additional information or guidance prompts to the user.

Featuring a cast metal lower housing, metal subpan, stainless steel weighing pan and removable draft-shield or side doors, the Pioneer is durably constructed for long-term use, and suitable for a variety of applications. Standard RS-232 and USB device ports allow for easy connectivity to printers and other peripherals, allowing convenient capture of results. OHAUS' free data collection tool (SPDC) provides a simple solution to import this data directly in formats such as Excel, Access, .txt, .csv, etc.

Allows the balance to be quickly calibrated and adjusted with the push of a button, thereby eliminating the expense and maintenance of separate calibration weights.

A static removal bar along the top of the draftshield provides a convenient grounding location, allowing the user to discharge any static charge that may have accumulated prior to handling samples and weighing. This helps compliance with good weighing practices, while improving the stability and accuracy of results.

See Chart for Models and Specifications

Ups

		Externa	al Calibration	Interna	l Calibration			
Capacity	Readability	120V 60Hz	220V 50/60 Hz	120V 60Hz	220V 50/60 Hz	Power	Pan Size	Ship Wt.
1620g	0.01g	HB-1602	HB-1602.4F	HB-1602C	HB-1602C.4F			
2200g	0.01g	HB-2202	HB-2202.4F	HB-2202C	HB-2202C.4F		Ø 7.09"	11 lb/5.0kg
2200g	0.1g	HB-2201	HB-2201.4F	HB-2201C	HB-2201C.4F	AC		
3200g	0.01g	HB-3202	HB-3202.4F	HB-3202C	HB-3202C.4F	AC	(180 mm)	TTID/5.0kg
4200g	0.01g	HB-4202	HB-4202.4F	HB-4202C	HB-4202C.4F			
4200g	0.1g	HB-4201	HB-4201.4F	HB-4201C	HB-4201C.4F			



# **Ohaus Pioneer Balance**





# **Equinox Precision Balances**

Equinox precision balances bring remarkable precision to labs that perform highly detailed testing. The Equinox is ideal for research and quality assurance facilities, science education, precision counting, and production and manufacturing applications needing exceptionally precise results. A color touch screen display provides intuitive operation, with icon-driven menus and readily accessible applications and functions.

- Large, responsive 5" 800x480 pixel touch-screen display
- Level indicator and adjustable feet ensure proper balance setup for optimum weighing results
- Security slot for optional Kensington-type lock and cable to help prevent theft
- Large, grade 304 stainless steel pan allows swift cleaning
- RS-232 interface is available to provide speedy connection to computers and printers
- USB host for memory card
- See Chart for Models and Specifications

# **Solis Precision Balances**

With a high-resolution graphic display and intuitive features, Solis precision balances provide an outstanding solution for a variety of lab applications. Versatile and resilient, the Solis is ideal for research and quality assurance labs, science education, precision counting, and production and manufacturing applications needing precision results. The Solis keypad is simple to use, with easy-to-read buttons and helpful navigation arrows for uncomplicated operation.

- High-resolution graphic display is amply sized for clear visibility
- Level indicator and adjustable feet ensure proper balance setup for optimum weighing results
- Security slot for optional Kensington-type lock and cable to help prevent theft
- Large, grade 304 stainless steel pan allows swift cleaning
- RS-232 interface is available to provide speedy connection to computers and printers
- See Chart for Models and Specifications

# **Equinox Precision Accessories**

Description	Part #
Density kit for balance up to 0.001g readability	HB-5000.1
In-use wet cover	HB-5000.2
ATP Thermal Printer	HB-5000.3
ATP Thermal Printer Paper	HB-5000.4
AdamDU Data Collection Program	HB-4545B.3



HB-5000.3

#### Adam Equinox and Solis Precision Balances

		Equinox	Solis	Equinox	Solis			_		-
Capacity	Readability	External C	Calibration	Internal C	Calibration	Repeatability	Linearity	Power	Pan Size	Ship Wt.
720g	0.001g	HB-5000.3F	HB-5100.3F	HB-5001.3F	HB-5101.3F	±0.002g	±0.003g			
1200g	0.001g	—	—	HB-5002.3F	HB-5102.3F	±0.002g	±0.003g		4.3"ø (110mmø) 7.5" x 7.5"	15.2lb
2100g	0.001g	—	—	HB-5003.3F	HB-5103.3F	±0.002g	±0.05g	AC 120-220V		(6.9kg)
3200g	0.01g	HB-5004.3F	HB-5104.3F	HB-5005.3F	HB-5105.3F	±0.02g	±0.03g	50/60Hz		(0.7Kg)
6200g	0.01g	HB-5006.3F	HB-5106.3F	HB-5007.3F	HB-5107.3F	±0.02g	±0.03g		(190 x	
8200g	0.01g	HB-5008.3F	HB-5108.3F	—	—	±0.02g	±0.04g		190mm)	







## Adam Nimbus Precision Balances

The Nimbus series of balances offers a range of models that deliver precision readabilities from 0.0001g (0.1mg) to 0.1g. With a compact footprint and intuitive user interface, Nimbus provides a streamlined weighing experience. Enhanced processing power combines with efficient technology to produce a balance that weathers the storms in demanding laboratories. Experience the Nimbus by Adam Equipment.

Innovative design creates a smaller footprint, so the Nimbus occupies minimal space on the lab bench. An extruded aluminum base provides superior thermal transfer, offering greater stability and performance. Solid metal construction throughout the balance durably withstands chemicals and rigorous daily use. Optimized configuration of the Nimbus's internal weighing system results in enhanced performance. Fabricated from a single block, the weighing sensor contains fewer parts than a traditional force motor balance, improving efficiency.

# Features:

- Vivid, backlit LCD easily visible in any lighting conditions
- Color-coded keys facilitate quick recognition of the most frequently used buttons
- Level indicator and adjusting feet ensure proper balance setup for optimum weighing results
- Removable draft shield on models with 0.001g readability helps to reduce errors caused by air currents

- Robust metal housing protects internal components in harsh environments
- Sealed keypad protects against dirt and accidental spills
- USB and RS-232 interfaces provide speedy communication with computers and printers
- Large, grade 304 stainless steel pan allows swift cleaning
- External calibration allows for verification and adjustment with weights

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See Chart for Models and Specifications
```

## Adam Nimbus Precision Balances

Consoitu	Readability	Externa	l Calibration	Power	Pan Size	Ship
Capacity	Readability	120V 60Hz	220V 50/60 Hz	Fower	Fan Size	Wt.
220g	0.001g	HB-4700A	HB-4700A.4F			
420g	0.001g	HB-4701A	HB-4701A.4F		4.7" (120) Dia	
620g	0.001g	HB-4716A	HB-4716A.4F		4.7" (120mm) Dia.	
820g	0.001g	HB-4702A	HB-4702A.4F			
1600g	0.01g	HB-4703A	HB-4703A.4F			
2600g	0.01g	HB-4704A	HB-4704A.4F	AC		15 lb/7kg
3600g	0.01g	HB-4705A	HB-4705A.4F			
4200g	0.1g	HB-4539B	HB-4539B.4F		6.3" (160mm) Dia.	
4600g	0.01g	HB-4706A	HB-4706A.4F			
6200g	0.1g	HB-4540B	HB-4540B.4F			
8200g	0.1g	HB-4541B	HB-4541B.4F			

# Accessories

Description	Part #
Weigh-below hook	HB-4541B.2
In-use wet cover, 120mm pan	HB-4900.1
In-use wet cover, 160mm pan	HB-4902.1
Cable, RS232	HB-4700ACB
Cable, USB	HB-4700AUSB
Data collection software	HB-4545B.3





# **Ohaus Scout STX Portable Balance**

Ideal for laboratory & industrial applications, the OHAUS Scout features an easy to navigate color touchscreen display & a slim design which allows stackable storage. Geared for superior performance with fast stabilization time and high resolution weighing results, these portable balances set a new standard for a broad range of weighing applications. Features also include superior overload protection and expanded connectivity options. Large, resilient color touchscreen allows for effortless operation of the Scout through its informative icon driven menu structure, guiding the user through every step of the weighing application. Stabilization time as fast as 1 sec means increased productivity in your facility. Equipped with advanced weighing technology, the Scout also ensures repeatable and reliable weighing results.

Integrated superior overload protection system rated at 10 times the capacity protects the balance in rugged and demanding environments. The spacesaving, slim design allows for stackable storage.

# • Display: 4.3" (109mm) full-color VGA graphic touchscreen display with user-controlled brightness

HB-4740A

- Operation: AC adapter (included) or 4 AA batteries (not included)
- Communication: RS232, USB Host, USB Device, Ethernet or Bluetooth
- See Chart for Models and Specifications

# **Ohaus Scout SPX Portable Balance**

Ideal for laboratory and industrial applications, the OHAUS Scout comes in a slim design with large backlit LCD. Features include superior overload protection, multiple weighing units and application modes. Geared for high performance in your facility with fast stabilization time and high resolution weighing results, these portable balances set a new standard in laboratory and industrial weighing. Combined with a simplified 4 button operation, the Scout's large backlit display increases readability in low light working conditions, and is easier to view from a distance. Integrated superior overload protection and impactresistant pan support safeguard against shock and overloading the balance in rugged and demanding environments. Stabilization time as fast as 1 sec and advanced weighing technology, lead to improved productivity in your facility. Increased capacity unlocks a wider range of weighing applications.

- Display: Liquid crystal display (LCD) with backlight
- Operation: AC adapter (included) or 4 AA batteries (not included)
- Communication: RS232, USB Host, USB Device, Ethernet or Bluetooth

# See Chart for Models and Specifications Accessories

Description	Part #
Ethernet Kit	HB-4620.1
Bluetooth Kit	HB-4620.2
RS232 Kit	HB-4620.3
USB Kit– Device	HB-4620.4
USB Kit– Host	HB-4620.5

Onaus Scou	t SIX Portabl	e balance						
Capacity	Readability	120V	220V	Repeatability	Units	Power	Pan Size	Ship Wt.
220g	0.001g	HB-4620	HB-4620.4F	0.002			3.7" dia. / 93mm dia.	
220g	0.01g	HB-4621	HB-4621.4F	0.01				
420g	0.01g	HB-4622	HB-4622.4F	0.01	mg,g,k-		4.7" dia. / 120mm dia.	
420g	0.1g	HB-4623	HB-4623.4F	0.1	g,ct,N,oz,oz-		4.7 dia.7 120mm dia.	
620g	0.01g	HB-4624	HB-4624.4F	0.01	t,dwt,lb,l-			
620g	0.1g	HB-4625	HB-4625.4F	0.1	b:oz,grn,	AC (4) AA batteries		10.0 lb/4.5kg
1200g	0.01g	HB-4626	HB-4626.4F	0.02	hkt,	(4) / V ( Butteries		
2200g	0.01g	HB-4627	HB-4627.4F	0.02	sgt,twt,ti-		5.5" x 6.7" / 140 x 170mm	
2200g	0.1g	HB-4628	HB-4628.4F	0.1	cal,tola		5.5 x 8.7 7 140 x 170mm	
6200g	0.1g	HB-4629	HB-4629.4F	0.2				
8200g	1.0g	HB-4630	HB-4630.4F	1.0				

#### **Ohaus Scout SPX Portable Balance**

Ohaus Scout STV Portable Palance

		e Balance						
Capacity	Readability	120V	220V	Repeatability	Units	Power	Pan Size	Ship Wt.
220g	0.01g	HB-4720A	HB-4720A.4F	0.01				
420g	0.01g	HB-4724A	HB-4724A.4F	0.01			4.7" dia. / 120mm dia.	
420g	0.1g	HB-4723A	HB-4723A.4F	0.1			4.7 dia. / 120mm dia.	
620g	0.01g	HB-4725A	HB-4725A.4F	0.01	g,			
620g	0.1g	HB-4726A	HB-4726A.4F	0.1	kg,ct,N,oz,	AC		5 lb/2.26kg
1200g	0.01g	HB-4740A	HB-4740A.4F	0.02	ozt,dwt,lb,	(4) AA batteries		5 ID/2.20Kg
2200g	0.01g	HB-4741A	HB-4741A.4F	0.02	lb:oz,gm		5.5" x 6.7" / 140 x 170mm	
2200g	0.1g	HB-4727A	HB-4727A.4F	0.1	ib.oz,giii		5.5 x 6.7 / 140 x 170mm	
6200g	0.1g	HB-4729A	HB-4729A.4F	0.1				
8200g	1.0g	HB-4742A	HB-4742A.4F	1				



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# Portable Balances 323



# Adam HCB Highland<sup>™</sup> Precision Balances

Adam's Highland balances have what it takes for lab work. 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™ provides overload protection, and the HandiCal™ internal calibration provides reliable readings. Includes Stainless steel pan; Removable draft shield; Auto power-off saves battery life; Dual, color-coated tare keys and a large, backlit display that is clear and quick to read.



## 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. Core balances include a removable draft shield helps when working on site where wind makes accurate readings difficult, and is battery-powered with six AA batteries. Includes weigh-below hook. An optional carrying case is available

See Chart for Models and Specifications

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## Adam 2600g Core Balance Field Kit

HB-45

Designed to provide a reliable field balance to take the place of triple-beam balances. Balance comes with a durable, hard case and a weigh-below hook. See Chart for Models and Specifications

See Chart for Models and Specifications

Adam HC	Adam HCB Highland <sup>™</sup> Precision Balances										
Capacity	Readability	Pan Size	120V	220V	Ship Wt.						
300g	0.01g		HB-4710A	HB-4710A.4F							
600g	0.02g		HB-4711A	—							
600g	0.01g	4.7" Dia. / 120mm	HB-4712A	HB-4712A.4F	30lb/13.6kg						
1000g	0.01g	4.7 Dia.7 120mm	HB-4713A	HB-4713A.4F	301D/13.0Kg						
1500g	0.05g		HB-4714A	HB-4714A.4F							
3000g	0.1g		HB-4715A	HB-4715A.4F							

Ups

Description	Part #
USB Interface cable	HB-4710CV
RS-232 Interface cable	HB-4700CB
HCB Carrying Case	HB-4710CS

# Adam Core Balance CQT Compact Portable

Capacity	Readability	120V 60Hz	220V50/60Hz	Repeatability	Linearity	Power	Pan Size	Ship Wt.		
200g	0.01g	HB-4528A	HB-4528A.4F	0.01g	±0.02g	g				8 lb/3.6kg
250g	0.1g	HB-4529A	HB-4529A.4F	0.1g	±0.1g			4 lb/1.8kg		
600g	0.1g	HB-4530A	HB-4530A.4F	0.1g	±0.1g		).1g		7 lb/3.1kg	
1500g	0.1g	HB-4532A	HB-4532A.4F	0.1g	±0.2g AC / AA batteries	5.1" Dia. / 130mm	7 lb/3.1kg			
2000g	1g	HB-4534A	HB-4534A.4F	1g	±1g		±1g		6 lb/2.7kg	
5000g	1g	HB-4535A	HB-4535A.4F	1g	±1g			3.7 lb/1.6kg		

# Adam 2600g Core Balance Field Kit

Capacity	Readability	120V 60Hz	220V50/60Hz	Repeatability	Linearity	Power	Pan Size	Ship Wt.
2600g*	0.1g	HB-4533A	HB-4533A.4F	0.1g	±0.2g	AC / AA batteries	5.1" Dia. / 130mm	8.4 lb/3.8kg

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









## **Ohaus Navigator XL Portable Balance**

Designed with two touchless sensors that free up your hands, allowing you to focus on handling samples and keeping the scale free from contaminants. The touch-free sensors control; tare, zero, print, function, and backlight to help minimize touching the keypad. The balance stabilizes in less than one second to provide fast, accurate, and repeatable weighing results, which improve operator efficiency and increasing productivity. A bright backlit LCD display provides optimum visibility in any lighting condition, with large digits and indicators that make it fast and easy to read the weighing results. The balance includes an internal rechargeable battery that operates up to 100 hours, allowing it to be transported and used where a power outlet is not available.

See Chart for Models and Specifications

# **Ohaus Navigator XT Portable Balance**

The Navigator XT is designed with two touchless sensors that free up your hands, allowing you to focus on handling samples and keeping the scale free from contaminants. The touch-free sensors control; tare, zero, print, function, and backlight to help minimize touching the keypad. The balance stabilizes in less than one second to provide fast, accurate, and repeatable weighing results, which improve operator efficiency and increasing productivity. A bright backlit LCD display provides optimum visibility in any lighting condition, with large digits and indicators that make it fast and easy to read the weighing results. The balance includes an internal rechargeable battery that operates up to 100 hours, allowing it to be transported and used where a power outlet is not available.

See Chart for Models and Specifications

# **Ohaus Ranger 3000 Compact Bench Scales**

The Ranger 3000 can produce accurate results within 1 second. Its rapid stabilization time aids in waiting for the scale in weighing items. Its large LEDs and backlit LCD display makes it functional in almost any working condition. The scale uses AC power or a rechargeable battery, which is included. Battery life of up to 210 hours keeps it running when you need it. Its adjustable leveling feet, front level indicator and stability indicator make set up easy. It also includes an integral weigh-below hook.

- Internal, rechargeable battery provides up to 210 hours of running time
- Built-in carrying handle
  - See Chart for Models and Specifications

Onaus Navi		able balances	3					
Capacity	Readability	120V	220V	Repeatability	Linearity	Power	Pan Size	Ship Wt.
1100g	0.1g	HB-4960	HB-4960.4F	0.02g	±0.02g			
2100g	0.1g	HB-4961	HB-4961.4F	0.04g	±0.04g			
5100g	0.5g	HB-4962	HB-4962.4F	0.02g	±0.02g	AC / battery	7.6" x 8" / 194 x 203mm	10 lb/4.5kg
10000g	1g	HB-4963	HB-4963.4F	0.02g	±0.02g			
20000g	1g	HB-4964	HB-4964.4F	0.1g	±0.1g			

# **Ohaus Navigator XL Portable Balances**

#### **Ohaus Navigator XT Portable Balance**

Capacity	Readability	120V	220V	Units	Power	Pan Size	Ship Wt.
1600g	0.1g	HB-4950	HB-4950.4F				
3200g	0.2g	HB-4951	HB-4951.4F				
6400g	0.5g	HB-4952	HB-4952.4F	lb, oz, lb: oz, kg, g	AC / rechargeable	9.00" x 6.90" / 250 x 240mm	30 lb/13.6kg
10000g	0.5g	HB-4953	HB-4953.4F				
16000g	1g	HB-4954	HB-4954.4F				

Ohaus Ranger 3000 Compact Bench Scales										
Capacity	Readability	Pan Size	120V 60Hz	220V50/60Hz	Ship Wt.					
3000g	0.1g		HB-4730	HB-4730.4F						
6000g	0.2g	8.9" x 11.8" /	HB-4731	HB-4731.4F	11 1- /4 001					
15kg	0.5g	225 x 300mm	HB-4732	HB-4732.4F	11 lb/4.98kg					
30kg	1g		HB-4733	HB-4733.4F						

ups

Description	Part #
USB Interface kit	HB-4730USB
RS-232 Interface cable	HB-4730CB
In-use Cover	HB-4730UC





# Adam Eclipse High-Capacity Precision Balances

Eclipse high-capacity balances offer a range of models that deliver a precision readability of 0.1g. With a full spectrum of advanced features, the Eclipse series of precision and analytical balances provides unparalleled performance. Its elegant capacitive touch keypad and large display bring a balance of efficiency, durability, and intuitive operation to any laboratory. Every Eclipse is equipped with an elegant capacitive touch keypad containing color-coded keys, which enable uncomplicated navigation of the functions and features. Operating with a feather-light touch, the keys respond readily, even while wearing latex-gloves. The keypad's smooth surface allows fingerprints to be wiped o easily. Illuminated keys guide users through tasks, highlighting available options. Featuring one of the largest LCD readouts in the industry, the Eclipse displays sizable white digits on a deep-blue background, ensuring ultimate visibility.

A second line shows text prompts, instructions and any other relevant information. Clear, discernible symbols and multi- lingual text make operation easy, while prompts simplify even the most complex activities. The Eclipse achieves connectivity with precision and speed, whether it's basic data printing or advanced communication with a Laboratory Information Management System. Printouts with time, date, and other information are provided to comply with GLP requirements. USB and RS-232 interfaces optimize connections, while a third interface allows use of an optional remote display.

See Chart for Models and Specifications

Ohaus Expl	lorer High-	Capacity P	recision Ba	alances
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The Explorer series includes three high-capacity, precision balances with capacities up to 35 kg. Explorer high-capacity balances offer the same intuitive and modular features as standard Explorer models, such as AutoCal™ fully-automatic internal calibration system, which can also be turned off, 1 second stabilization time, two touchless sensors for operation control, with additional functions and attributes to support higher capacity weighing applications. Balances include: 5.7" full-color touch screen (640 x 480 pixel), which is removable for remote or column-mount placement, QWERTY keyboard and numeric keypad to quickly input GLP and GMP data and other application data; Easy access communication ports include standard USB and RS232 and an optional third port of either RS232 or ethernet; die-casting housing, stainless steel pan and replaceable in-use cover; and, integral weigh below hook. Options include: touch screen column; rolling feet kit; rechargeable battery; cables and interface kits.

See Chart for Models and Specifications

ups

Adam Eclipse Accessories	Part #
USB Interface kit	HB-4730USB
RS-232 Interface kit	HB-4730CB
In-use Cover	HB-4730UC
Weigh-below hook	HB-4541B.2
Data capture software	HB-4545B.3

Ohaus Explorer Accessories	Part #
Wheel kit (set of 4)	HB-4506RF
Rechargeable battery kit	HB-4506RB
Cable, display extension	HB-5292DC
Column kit	HB-4506T
Cable, RS232 PC 25-pin	HB-5392R
Cable, USB interface	HB-5392C



Adam Eclipse High-Capacity Balances						
Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz	Ship Wt.	
12kg	0.1g	9.4 x 9.4" (240 x 240mm)	HB-4943	HB-4943.4F		
16kg	0.1g	9.4 x 9.4" (240 x 240mm)	HB-4945	HB-4945.4F	1/ 1/ 7 2 1.	
22kg	0.1g	12.2 x 14.8" (311 x 377mm)	HB-4946	HB-4946.4F	16 lb / 7.3 kg	
32kg	0.1g	12.2 x 14.8" (311 x 377mm)	HB-4947	HB-4947.4F		

Adam Eclipse High-Capacity Balances with Control Pillar						
Cap.	Readability	Platform 120V 60Hz 220V 50/60Hz Sh				
12kg	0.1g	9.4 x 9.4" (240 x 240mm)	HB-4943P	HB-4943P.4F		
16kg	0.1g	9.4 x 9.4" (240 x 240mm)	HB-4945P	HB-4945P.4F	16 lb / 7.3 kg	
22kg	0.1g	12.2 x 14.8" (311 x 377mm) HB-4946P HB-4946P.4F				
32kg 0.1g 12.2 x 14.8" (311 x 377mm) HB-4947P HB-4947P.4F						
Ohaus Explorer High-Capacity Balances						

Onaus	Unaus Explorer High-Capacity balances						
Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz	Ship Wt.		
12kg	0.1g	15.7" x 11.8" (400 x 300mm)	HB-4506A	HB-4506A.4F			
24kg	0.1g	15.7" x 11.8" (400 x 300mm)	HB-4508A	HB-4508A.4F	26 lb / 12 kg		
35kg	0.1g	15.7" x 11.8" (400 x 300mm)	HB-4510A	HB-4510A.4F			

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# 326 High Capacity

# LABORATORY





Adam Nimbus High-Capacity Precision Balances

Nimbus high-capacity balances offer a range



## **Ohaus Ranger 7000 High-Capacity Balances**

The Ranger 7000 balances were developed to thrive in rugged and harsh industrial environments. This modular scale was built with IP54 a cast-metal housing and sealed-metal indicator to ensure durability. The indicator can be separated from the platform and mounted to the wall or bench with the optional mounting kit accessory, allowing you to customize the placement of your scale based on the size and setup of your workstation. Additionally, a weigh-below hook offers the functionality to perform specific gravity tests or weigh items that cannot be easily placed on the weighing platform. The SmarText 2.0 software interface will have you easily using the Ranger 7000 for all of its unique and advanced features quickly. SmartText 2.0 makes an advanced scale very simple to use, and will greatly reduce training time for operators. Data produced by these balances can easily be exported through a standard RS232 or USB device port. Additional connectivity options include a second RS232, ethernet or standard USB port. Includes an integral weigh-below hook.

of models that deliver a precision readability of
0.1g. With a compact footprint and intuitive user
interface, Nimbus provides a streamlined weighing
experience. Enhanced processing power combines
with efficient technology to produce a balance that
weathers the storms in demanding laboratories.
Nimbus balances provide a vivid, backlit LCD for
easy viewing in any lighting conditions. A level
indicator and adjusting feet ensure proper balance
setup for optimum weighing results. Color-coded
keys facilitate quick recognition of the most
frequently used buttons facilitating quick operation.
Innovative design creates a smaller footprint, so the
Nimbus occupies minimal space on the lab bench.
An extruded aluminum base provides superior
thermal transfer, offering greater stability and
performance. Solid metal construction throughout
the balance durably withstands chemicals and
rigorous daily use. Weigh-below hook can be
ordered from the chart below.
Adam Nimbus Precision Balances see chart

Adam Nimbus Precision Balances see chart Ship wt. 21lbs. (9.5kg)

Ohaus	Ohaus Ranger 7000 High-Capacity Balances						
Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz			
15kg	0.1g	14.8" x 12.2" (377 x 311mm)	HB-3515	HB-3515.4F			
35kg	0.1g	14.8" x 12.2" (377 x 311mm)	HB-3535	HB-3535.4F			

Adam Nimbus High Capacity Precision Balances						
Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz		
12kg	0.1g	15.7" x 11.8" (400 x 300mm)	HB-4543B	HB-4543B.4F		
16kg	0.1g	15.7" x 11.8" (400 x 300mm)	HB-4545B	HB-4545B.4F		
35kg	0.1g	15.7" x 11.8" (400 x 300mm)	HB-4546B	HB-4546B.4F		

# Adam ABK Portable Scales

Capacity	Readability	Model	Model	Power	Pan Size	Ship Wt.
1 3	<b>y</b>					omp tru
35lb. / 16kg	0.001lb / .5g	HB-4874	HB-4874.4F			
70lb / 32kg	0.002lb / 1g	HB-4875	HB-4875.4F	AC (hattan)	11.8" X 15.7" / 300mm X 400mm	20.11- / 0.1-2
130lb / 60kg	0.005lb / 2g	HB-4876	HB-4876.4F	AC / battery	11.8 × 15.7 / 300mm × 400mm	20 lb / 9 kg
260lb / 120kg	0.01lb / 5g	HB-4877	HB-4877.4F			



#### Adam ABK Portable Scales

Adam's ABK portable scales are built tough to deliver reliable performance and effortless weighing. Designed for rugged industrial applications, a sleek, stainless steel indicator with superior sealing protects from dust, ensuring longevity. The scale's large, backlit display is vivid and easy-to-read, helping to streamline activities and reduce errors in data entry. Built-in limit lights make the ABK ideal for check weighing; the indicator shows when you are below your desired weight, at your required weight, or above your weight, and an audible alarm assists to give a secondary notification. Features include: Display hold function; stainless steel platform and indicator; RS232 data output, and rechargeable battery life of up to 90 hrs.

See Chart below for Models and Specifications

Ohaus Ranger Accessory	Part #
Rechargeable battery	HB-4506RB
Cable, display extension, 9m	HB-5292DC
Column kit	HB-4506T
RS232 kit	HB-3515.RS

Adam Nimbus Accessory	Part #
Weigh-below hook	HB-4545B.1
Nimbus HC In-use cover	HB-4545B.2
RS-232 cable	HB-4700ACB
USB cable	HB-4700AUSB
Data capture software	HB-4545B.3

2.Defender

HB-4831



## **Ohaus Digital Field Test Scale**

The Digital Field Test Scale is designed for precise material testing in the construction industry With a capacity of 165 lbs. and readability up to 0.05 lbs. you won't have to sacrifice precision for portability. Key features include the durable metal carrying case and internal battery with a 70-hour life between recharges, making the Field Test Scale a powerful addition to any job site.

• Designed for Precise In-the-Field Weighing

A capacity of 165 lbs. with a readability of 0.05 lb. and the painted steel base in a case means that the Digital Field Test Scale provides precise, clear measurements, no matter where you're working.

• Packaged in a Durable Metal Case with Handle for Protection and Portability. The Field Test Scale comes packaged in a durable metal carrying case with steel latches and carrying handle, ensuring maximum portability for use anywhere on the job without limiting you to the lab.

• Equipped with a Range of User-Friendly Features

The backlit LCD display allows for easy reading of results—even in low-light conditions. The internal battery means that you can operate for up to 70 hours between recharges.

Ohaus Digital Field Test Scale	HB-4778
In-Use Cover	HB-4778.1
Interface Kit, RS232-USB	HB-4778.2
ups .	Ship wt. 17.6lbs. (8kg)

# Adam CPWplus Portable Scales



# 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 splashproof 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. The CPWplus includes a large backlit LCD display on a flexible remote indicator; RS232 bi-directional interface; Hold function freezes reading; 9V adapter (included) or six AA batteries, and steel base, stainless weighing pan and splash-proof keypad.

#### See Chart for Models and Specifications

Description	Part #
CBWplus hard carrying case	HB-4775C

# Ohaus Defender Bench Scales

The Defender 3000 feature a simple, yet rugged, tubular-frame design. Defender 3000 is OIML approved, NTEP certified, and Measurement Canada approved for use in all legal-for-trade applications. They include an indicator with tactile keys, backlit LCD display, built-in rechargeable battery operation and flexible mountina capabilities. These scales provide multiple weighing units: lb, oz, lb: oz, kg, g. Standard features of the Defender bench scales include: 304 stainless steel 304 stainless steel platform, aluminum IP67 load cell, as well as a painted tubular steel frame, column and indicator bracket.; 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. The ultra-long-lasting internal rechargeable battery provides operation on a single charge for up to 120 hours, ensuring uninterrupted operation for five straight days.

See Chart for Models and Specifications

Description	Part #
Rechargeable battery kit	HB-4931RB

Ups

Capacity	Readability	Model	Model	Repeatability	Power	Pan Size	Ship Wt.
75lb./35kg	0.02lb/.01kg	HB-4774	HB-4774.4F	0.02lb/.01kg			
165lb./75kg	0.05lb/.02kg	HB-4775A	HB-4775A.4F	0.05lb/.02kg	AC / AA batteries	12" / 200	10.0 lb / 4.00 lb-
330lb./150kg	0.1lb/.05kg	HB-4776	HB-4776.4F	0.1lb/.05kg	AC / AA batteries	12" sq / 300mm sq.	10.8 lb / 4.89 kg
440lb./200kg	0.1lb/.05kg	HB-4777	HB-4777.4F	0.1lb/.05kg			

# Ohaus Defender 3000 Bench Scale

Capacity	Readability	Model	Model	Power	Platform	Ship Wt.
66lb. / 30kg	0.01 lb / 5 g	HB-4830	HB-4830P.4F			33 lb / 15 kg
132lb / 60kg	0.02lb / 10g	HB-4831	HB-4831P.4F		14"x 12" / 355 x 305mm	
330lb / 150kg	0.05lb / 20g	HB-4832	HB-4832P.4F	AC / Optional battery	21.7" x 16.5"/ 550mm x 420mm	
660lb / 300kg	0.1lb / 50g	—	HB-4833P.4F		25.6" x 19.7" / 650mm x 500mm	60 lb / 27.2 kg





**Ohaus Defender® 5000 Standard Bench Scales** The OHAUS next generation Defender 5000 Series multi-functional bench scale is ideal for a multitude of applications, including production, packaging, inventory and shipping. Built durably and equipped with advanced features such as maximum configurability print output, GMP/ GLP data output, library/ user management, and multiple connectivity options - the Defender 5000 is designed to simplify demanding industrial and commercial applications.

• Indicator guides the user through the operation with on-screen prompts and soft keys. The alphanumeric keypad and function keys allow for a simplified user experience. The construction is made of ABS plastic, powder-coated steel bracket.

• Durably constructed with a stainless steel platform, sand gray powder-coated steel frame and aluminum load cell. Supports up to 6,250e NTEP and Measurement Canada certified resolution for legal-for-trade applications.

• Multiple application modes and high storage capacity for greater flexibility. Features common industrial modes and supports a 50,000 item library and 1,000 user profiles which can be downloaded/ uploaded for easy set-up with the included Micro SD Card. Also equipped with GLP/GMP output capability with time/date for result traceability. Alibi memory available.

• Multiple connectivity options for convenient data transfer and storage. Results can be stored in the Micro SD card. Data output via built-in RS232 or optional interfaces including 2nd RS232/RS485/ USB device, Ethernet, Bluetooth/WiFi,.Analog Output and Discrete I/O with relays.

See Chart below for Models and Specifications Ohaus Defender® 5000 Washdown Bench Scales The OHAUS next generation Defender 5000 Washdown Series multi-functional bench scale is ideal for a multitude of applications, including production, packaging, inventory and shipping. The Washdown Series have the same features as the Standard Series including two extra features.

• Indicator guides the user through the operation with on-screen prompts and soft keys. The alphanumeric keypad and function keys allow for a simplified user experience. The construction is made of 304 stainless steel with sand blasted surface treatment.

• Durably constructed to withstand harsh industrial environments. Durably constructed with a stainless steel platform, frame, IP67 loadcell and IP68 indicator Supports up to 6,250e NTEP and Measurement Canada certified resolution for legal-for-trade applications.

GLP/GMP output capability with time/date for result traceability. Alibi memory available.

See Chart below for Models and Specifications

Defender Accessories	Part #
Rechargeable battery	HB-4506RB
Cable, display extension, 9m	HB-5292DC
RS232 kit	HB-3515.RS

# Ohaus Defender<sup>®</sup> 5000 Standard Bench Scales

Capacity	Readability	Low Profile	220V 50/60Hz	Column	220V 50/60Hz	Power	Pan Size	Ship Wt.
50lb / 25kg	0.002lb x 1g	HB-4840	HB-4840.4F	HB-4840P	HB-4840P.4F		12 x 14"	26.5lb
100lb / 50kg	0.005lb x 2g	HB-4841	HB-4841.4F	HB-4841P	HB-4841P.4F	AC	305 x 355mm	12kg
100lb / 50kg	0.005lb x 2g	HB-4842	HB-4842.4F	HB-4842P	HB-4842P.4F	Optional battery	18 x 24"	66.1lb
250lb / 125kg	.001lb x 5g	HB-4843	HB-4843.4F	HB-4843P	HB-4843P.4F		457 x 610mm	30kg

# Ohaus Defender® 5000 Washdown Bench Scales

Capacity	Readability	Low Profile	220V 50/60Hz	Column	220V 50/60Hz	Power	Pan Size	Ship Wt.
50lb / 25kg	0.002lb x 1g	HB-4844	HB-4844.4F	HB-4844P	HB-4844P.4F			
100lb / 50kg	0.005lb x 2g	HB-4845	HB-4845.4F	HB-4845P	HB-4845P.4F		18 x 18" 457 x 457mm	37.5lb 17kg
100lb / 50kg	0.005lb x 2g	HB-4846	HB-4846.4F	HB-4846P	HB-4846P.4F	AC Optional battery		
250lb / 125kg	.001lb x 5g	HB-4847	HB-4847.4F	HB-4847P	HB-4847P.4F		18 x 24"	68.4lb
250lb / 125kg	.001lb x 5g	HB-4848	HB-4848.4F	HB-4848P	HB-4848P.4F		457 x 610mm	31kg





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

Quality, high-precision overhead mechanical balances, the 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. Both models provide 0.01g readability and a 3.5" diameter x 5" deep, stainless steel pan.

Cent-O-Gram, 311g	H-4825
Dial-O-Gram, 310g	H-4830
ups	Ship wt 15lbs (6.8kg)

# **Ohaus Mechanical Balances**, 2610g

The Ohaus 700 sSeries 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. All of these balances have a 2610g capacity and a readability of 0.1g. They both feature the H-4609 weight set (Ohaus 750-SW/707) and a 6" diameter stainless steel platform.

2610g Mechanical Balance	H-4603
2610g Mechanical Balance, 225g Tare	H-4604
😡 Ship w	t. 12lbs. (5.4kg)

#### Ohaus Mechanical Balance, 2610g

This Ohaus 700 series balance comes with a 12" x 6" x 3" stainless steel scoop platform. 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. Balance has a 2610g capacity and a readability of 0.1g and it features a H-4609 weight set (Ohaus 750-SW/707).

2610g Mechanical Balance, Scoop Platform H-4605 Ship wt. 9lbs. (4kg)

# Ohaus Dial-O-Gram Balance, 2610g

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. 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. Balance has a 2610g capacity and a readability of 0.1g; with a tare of 225g, plus it features a H-4609 weight set (Ohaus 750-SW/707).

2610g Dial-O-Gram Mechanical Balance H-4835 Ship wt. 14lbs. (6.35kg)

# Ohaus Triple, Pro Mechanical Balance

The Triple Pro features 2610g 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 Triple, Pro Mechanical Balance H-4739 Ship wt. 12lbs. (5.4kg)

#### 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, 10" diameter, epoxy-coated steel, 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 Heavy Duty, Field Scale, English H-4660 Ohaus Heavy Duty, Field Scale, Metric H-4665 Ship wt. 22lbs. (9.9kq)

# 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 (2270g) 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. Features an 11" diameter stainless steel platform.

Ohaus Heavy Duty, Solution Balance H-4785 Ship wt. 41lbs. (18.95kg)





# Field Scale Replacement Weights

Set includes: (1) 1lb; (2) 2 lb; (2) 5 lb, and (2) 10lb. (Can only be used with H-4660, not calibration weights.)

Field Scale Weights (avoirdupois) See chart below Ship wt. 22lbs. (10kg)

Field Scale Replacement Weights (Metric)

Set includes: (1) 500g; (1) 1 kg; (2) 2 kg, and (2) 5 kg. (Can only be used with H-4665, not calibration weights.)

Field Scale Weights (metric)	See chart below
UP5	Ship wt. 22lbs. (10kg)

Individual Weights							
Weight	Model		Weight	Model			
1 lb.	H-4660.1		500g	H-4665.1			
2 lb.	H-4660.2		1kg	H-4665.2			
5 lb.	H-4660.5		2kg	H-4665.3			
10 lb.	H-4660.10		5kg	H-4665.4			

# Polypropylene Scoop and Counterweight

Polypropylene scoop and counterweight. Ohaus # 703-00.

Polypropylene Scoop and Counterweight H-4615P Ship wt. 11lbs. (4.9kg)

## **Stainless Scoop and Counterweight**

Stainless steel scoop and counterweight. Ohaus #	ŧ
703-SO.	

1	Stainless Scoop and Counterweight	H-4615S
1	195 1	Ship wt. 2lbs. (.9kg)

# **Under-Balance Weighing Kit**

Rod and clamp assembly for doing under-balance weighing with Ohaus mechanical balances. Ohaus #183-00.

Under-Balance Weighing Kit	H- 21170
ups	Ship wt. 3.2lbs. (1.4kg)

## Weight Set Replacement

Replacement weight set for mechanical balances. Include (2) 1000g and (1) 500g weight.

Weight Set Replacement	H-4609
Ups	Ship wt. 3lbs. (1.2kg)



**Steel Carrying Case** 

Dust Cover	
abs	Ship wt. 10lbs. (4.5.4kg)
Steel Carrying Case	H-4603CC
Carrying case for mechanical	balances.

Vinyl dust cover for mechanical balances. Dust Cover

H-4603C
Ship wt. 2lbs. (.9kg)

# Spring Scale, Circular

For field soil tests in mechanical analysis of aggregates, scale has 110 lb (50kg) x 8oz (200g). capacity. For direct reading, loose pointer can be set to any position on the 8" (203mm) dia. dial with thumbscrew. Overall dimensions: 8" x 1.625" x 16" (203 x 41 x 406mm).

Spring Scale	H-4480A
UP5	Ship wt. 4lbs. (1.7kg)

# Spring Scale, Vertical

Heavy-duty spring balance for batch weighings with reliable accuracy and 70 lb (32kg) x 1lb (500g). capacity. Easy-to-read recessed gauge has deepetched graduations. Adjustable indicator is set to zero for taring. Overall dimensions: 2" x 1.75" x 11" (51 x 45 x 279mm).

Spring Scale, Vertical	H-4490A
	Ship wt. 8lbs. (3.6kg)

# Suspension Scale, Digital Readout (US/metric)

High accuracy, compact digital hanging scale uses a 12-bit A/D converter for accuracy  $\pm$  0.1% of applied load. Capacity is 250lb (113.4kg) with a resolution of .01lb (.01kg) and a  $\pm$ .01% accuracy. Weatherproof ABS plastic case assures maximum protection against moisture, dust and rough usage. High visibility, 0.5" 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.

Suspension Scale, Digital Readout H-4621

Ship wt. 4.7lbs. (2.1kg)

# **Portable Bench Platform Scale**

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. Metric version weighs in kg only. 52kg capacity, Top: 50kg by 2kg; Left: 0-2 kg blank tare; Right: 2 kg x 0.01kg. 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	H-4732
Portable Bench Platform Scale (metric)	H-4732M
W Ship wt	32lbs (14.5kg)

## Scale Cover, Stainless Steel

Cover for use with H-4732 and H-4732M scales. Scale Cover, Stainless Steel H-4732SC Ship wt. 20lbs. (9.1kg)

# Portable Bench Platform Scale, Heavy-Capacity

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.

Portable Bench Scale, Heavy-Capacity H-4748A Ship wt. 35lbs. (15.8kg)



**Electronic Balance Calibration Weights, Individual** 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.

# See Chart for Below

# **Calibration Weight Sets**

Stainless steel calibration weight sets are available in ASTM class 1 with a 2100g capacity. Class 1 weights are for analytical balances and applications

## Electronic Balance Calibration Weights, Individual, Stainless Steel

ASTM Class 1			Class 4	
Weight	Std. Weight	Traceable Cert	Std. Weight	Traceable Cert.
30 kg	H-4888.30KG	H-4888.30KGT	H-4889.30KG	H-4889.30KGT
25 kg	H-4888.25KG	H-4888.25KGT	H-4889.25KG	H-4889.25KGT
24 kg	H-4888.24KG	H-4888.24KGT	H-4889.24KG	H-4889.24KGT
20 kg	H-4888.20KG	H-4888.20KGT	H-4889.20KG	H-4889.20KGT
16 kg	H-4888.16KG	H-4888.16KGT	H-4889.16KG	H-4889.16KGT
10 kg	H-4888.10KG	H-4888.10KGT	H-4889.10KG	H-4889.10KGT
8 kg	H-4888.8KG	H-4888.8KGT	H-4889.8KG	H-4889.8KGT
5 kg	H-4888.5KG	H-4888.5KGT	H-4889.5KG	H-4889.5KGT
4 kg	H-4888.4KG	H-4888.4KGT	H-4889.4KG	H-4889.4KGT
3 kg	H-4888.3KG	H-4888.3KGT	H-4889.3KG	H-4889.3KGT
2 kg	H-4888.2KG	H-4888.2KGT	H-4889.2KG	H-4889.2KGT
1.5 kg	H-4888.15KG	H-4888.15KGT	H-4889.15KG	H-4889.15KGT
1 kg	H-4888.1KG	H-4888.1KGT	H-4889.1KG	H-4889.1KGT
600 g	H-4888.600G	H-4888.600GT	H-4889.600G	H-4889.600GT
500 kg	H-4888.500G	H-4888.500GT	H-4889.500G	H-4889.500GT
400 g	H-4888.400G	H-4888.400GT	H-4889.400G	H-4889.400GT
300 g	H-4888.300G	H-4888.300GT	H-4889.300G	H-4889.300GT
200 g	H-4888.200G	H-4888.200GT	H-4889.200G	H-4889.200GT
160 g	H-4888.160G	H-4888.160GT	H-4889.160G	H-4889.160GT
150 g	H-4888.150G	H-4888.150GT	H-4889.150G	H-4889.150GT
100 g	H-4888.100G	H-4888.100GT	H-4889.100G	H-4889.100GT
80 g	H-4888.80G	H-4888.80GT	H-4889.80G	H-4889.80GT
70 g	H-4888.70G	H-4888.70GT	H-4889.70G	H-4889.70GT
60 g	H-4888.60G	H-4888.60GT	H-4889.60G	H-4889.60GT
50 g	H-4888.50G	H-4888.50GT	H-4889.50G	H-4889.50GT
40 g	H-4888.40G	H-4888.40GT	H-4889.40G	H-4889.40GT
30 g	H-4888.30G	H-4888.30GT	H-4889.30G	H-4889.30GT
20 kg	H-4888.20G	H-4888.20GT	H-4889.20G	H-4889.20GT
10 g	H-4888.10G	H-4888.10GT	H-4889.10G	H-4889.10GT

# Calibration Weights, Sets, Stainless Steel

	<b>3</b> · · ·
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-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

#### Heavy-Capacity, Stainless Steel Calibration Weights

ASTM Class 4			
Weight	Standard weight	with traceable certificate	
250kg	H-4889.250KG	H-4889.250KGT	
200kg	H-4889.200KG	H-4889.200KGT	
180kg	H-4889.180KG	H-4889.180KGT	
150kg	H-4889.150KG	H-4889.150KGT	
100kg	H-4889.100KG	H-4889.100KGT	
80kg	H-4889.80KG	H-4889.80KGT	
75kg	H-4889.75KG	H-4889.75KGT	
60kg	H-4889.60KG	H-4889.60KGT	
50kg	H-4889.50KG	H-4889.50KGT	
40kg	H-4889.40KG	H-4889.40KGT	



# Balance Calibration Weights 331

H-4889.250KG requiring high accuracy. These sets are available with an accuracy certificate, or a traceable 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

See Chart for Below

### Calibration Weights, Individual

outlined in ANSI/ASTM E617.

Individual stainless steel, heavy-capacity weights are an ideal solution for the calibration of large capacity scales.

See Chart for Below

# 332 Lab Ovens

# LABORATORY

# 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 highdensity mineral wool, and interiors are made of corrosive-resistant aluminized steel. Low-watt density incoloy-sheathed elements are used. Include automatic thermo control, pilot light heat indicator and either a top-mounted, mercuryfree 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.

See Chart for Models and Specifications



Laboratory Over	ns – Forced Air			
Model	Max. Temp.	Description	Electric	Dimensions (W x D x H)
H-30105	450°F	0.6 cu. ft. (17L) capacity. Features bi-metal	115V, 60 Hz.	Inside: 12" x 10" x 8.25" (305 x 254 x 210mm)
H-30105.4F	(232°C)	temperature controller, ±2° sensitivity. 800 watts. Shipping wt. 49 lbs. (22.2kg)	230V, 50/60 Hz.	Overall: 14" x 12.3" x 20.5" (356 x 305 x 521mm)
H-30115	450°F	.14 cu. ft. (32.3L) capacity. Features hydraulic	115V, 60 Hz.	Inside: 13" x 13" x 11.6" (330 x 330 x 295mm)
H-30115.4F	(232°C)	temperature controller, ±1° sensitivity. 1050 watts. Shipping wt. 70 lbs. (31.7kg)	230V, 50/60 Hz.	Overall: 15" x 15" x 24.5" (381 x 381 x 622mm)
H-30125	450°F	1.83 cu. ft. (51.8L) capacity. Features hydraulic temperature controller, ±1° sensitivity. 1500 watts. Shipping wt. 82 lbs. (31.7kg)	115V, 60 Hz.	Inside: 18" x 12" x 14.6" (457 x 305 x 371mm)
H-30125.4F	(232°C)		230V, 50/60 Hz.	Overall: 20" x 14" x 28.5" (508 x 356 x 724mm)
H-30131	450°F	2.86 cu. ft. (81L) capacity. Features hydraulic	115V, 60 Hz.	Inside: 18" x 14" x 19.8" (457 x 356 x 503mm)
H-30131.4F	(232°C)	temperature controller, ±1° sensitivity. 1500 watts. Shipping wt. 98 lbs. (44.5kg)	230V, 50/60 Hz.	Overall: 20" x 16.3" x 35" (508 x 414 x 890mm)

# Laboratory Ovens - Gravity Convection

Model	Max. Temp.	Description	Electric	Dimensions (W x D x H)
H-30100	450°F	0.7 cu. ft. (19.8L) capacity. Features bi-metal	115V, 60 Hz.	Inside: 12" x 10" x 10" (305 x 254 x 254mm)
H-30100.4F	(232°C)	temperature controller, ±2° sensitivity. 600 watts. Shipping wt. 44 lbs. (20kg)	230V, 50/60 Hz.	Overall: 14" x 12.3" x 17.5" (356 x 312 x 445mm)
H-30110	450°F	1.27 cu. ft. (36L) capacity. Features hydraulic temperature controller, $\pm 1^{\circ}$ sensitivity. 750	115V, 60 Hz.	Inside: 13" x 13" x 13" (330 x 330 x 330mm)
H-30110.4F	(232°C)	watts. Shipping wt. 58 lbs. (26.3kg)	230V, 50/60 Hz.	Overall: 15" x 15.3" x 21.5" (380 x 389 x 546mm)
H-30120	450°F	2.0 cu. ft. (56.6L) capacity. Features hydraulic	115V, 60 Hz.	Inside: 18" x 12" x 15.6" (457 x 305 x 396mm)
H-30120.4F	(232°C)	temperature controller, ±1° sensitivity. 1200 watts. Shipping wt. 78 lbs. (35kg)	230V, 50/60 Hz.	Overall: 20" x 14.3" x 25.5" (508 x 362 x 6485mm)
H-30128	450°F	3.0 cu. ft. (85L) capacity. Features hydraulic	115V, 60 Hz.	Inside: 18" x 14" x 21.8" (457 x 356 x 554mm)
H-30128.4F	(232°C)	temperature controller, ±1° sensitivity. Shipping wt. 148 lbs. (67.1kg)	230V, 50/60 Hz.	Overall: 20" x 16.3" x 31.5" (508 x 414 x 800mm)



ΝΟΤΕS

230V Models do not have wire plug.

# Laboratory Ovens with Digital Control

These laboratory ovens feature the same durable, quality construction as the ovens on the previous page while offering easy temperature control and the stability of a full, PID microprocessor, which accurately maintains settings within  $\pm$  1°F (0.5°C), even in varying ambient or power supply conditions. This feature helps to confirm temperature stability or indicate any control malfunction or power loss throughout a process period. The digital controller features large, easy-to-read LED numbers that continuously display set temperature and process temperature, as well as a setting lock mode that provides protection against accidental or inadvertent adjustments.

# Features:

- Digital Microprocessor Control
- Forced air or Gravity Convection Designs
- Durable, Double-wall Construction with Scratchresistant, Hammer Finish
- Corrosion-resistant Aluminized Interior
- Quality UL- and CSA-recognized components in all ovens.



# Advanced Design

Cabinets are as attractive as they are durable. Exteriors are painted light gray and have a hard, scratch-resistant hammer finish. Doors open with high-impact thermoplastic handles. Cabinets have heavy steel double-wall construction. Work space is insulated from the outer cabinet with one inch of high-density mineral wool, and interiors are made of corrosion-resistant aluminized steel.

# **Heating Elements**

Energy-efficient, low-watt density, incoloy sheathed elements are engineered into a compact design for quick run-up and recovery times. Temperature uniformity is greatly improved by a perforated heat shield which absorbs radiant heat and distributes it more evenly throughout the product chamber.

#### See Chart for Models and Specification

# Laboratory Ovens - Forced Air with Digital Control

Model	Max. Temp.	Description	Electric	Dimensions (W x D x H)
H-30105E	450°F	0.7 cu. ft. (19.8L) capacity. Features bi-metal	115V, 60 Hz.	Inside: 12" x 10" x 10" (305 x 254 x 254mm)
H-30105E.4F	(232°C)	temperature controller, ±2° sensitivity. 600 watts. Shipping wt. 49 lbs. (22.2kg) 🖑	230V, 50/60 Hz.	Overall: 14" x 12.3" x 17.5" (356 x 312 x 445mm)
H-30115E	450°F	1.27 cu. ft. (36L) capacity. Features hydraulic temperature controller, ±1° sensitivity. 750	115V, 60 Hz.	Inside: 13" x 13" x 13" (330 x 330 x 330mm)
H-30115E.4F	(232°C)	watts. Shipping wt. 70 lbs. (31.7kg)	230V, 50/60 Hz.	Overall: 15" x 15.3" x 21.5" (381 x 389 x 546mm)
H-30125E	450°F	2.0 cu. ft. (56.6L) capacity. Features hydraulic temperature controller, ±1° sensitivity. 1200	115V, 60 Hz.	Inside: 18" x 12" x 15.6" (457 x 305 x 396mm)
H-30125E.4F	(232°C)	watts. Shipping wt. 82 lbs. (31.7kg)	230V, 50/60 Hz.	Overall: 20" x 14.3" x 25.5" (508 x 362 x 648mm)
H-30131E	450°F	3.0 cu. ft. (85L) capacity. Features hydraulic	115V, 60 Hz.	Inside: 18" x 14" x 21.8" (457 x 356 x 554mm)
H-30131E.4F	(232°C)	temperature controller, ±1° sensitivity. 1500 watts. Shipping wt. 98 lbs. (44.5kg)	230V, 50/60 Hz.	Overall: 20" x 16.3" x 31.5" (508 x 414 x 800mm)

# Laboratory Ovens – Gravity Convection with Digital Control

Model	Max. Temp.	Description	Electric	Dimensions (W x D x H)
H-30100E	450°F	0.6 cu. ft. (17L) capacity. Features bi-metal	115V, 60 Hz.	Inside: 12" x 10" x 8.25" (305 x 254 x 210mm)
H-30100E.4F	(232°C)	temperature controller, $\pm 2^{\circ}$ sensitivity. 800 watts Shipping wt. 44 lbs. (20kg) $\text{G}^{\square}$	230V, 50/60 Hz.	Overall: 14" x 12.3" x 20.5" (356 x 312 x 520mm)
H-30110E	450°F	1.14 cu. ft. (32.3L) capacity. Features hydraulic	115V, 60 Hz.	Inside: 13" x 13" x 11" (330 x 330 x 280mm)
H-30110E.4F	)110E.4F (232°C)	temperature controller, $\pm 1^{\circ}$ sensitivity. 1050 watts Shipping wt. 58 lbs. (26.3kg) $\frac{1}{6}$	230V, 50/60 Hz.	Overall: 15" x 15.3" x 25" (380 x 389 x 635mm)
H-30120E	450°F	1.83 cu. ft. (51.8L) capacity. Features hydraulic	115V, 60 Hz.	Inside: 18" x 12" x 14.2" (457 x 305 x 360mm)
H-30120E.4F	(232°C)	temperature controller, ±1° sensitivity. 1500 watts Shipping wt. 78 lbs. (35kg)	230V, 50/60 Hz.	Overall: 20" x 14.3" x 29" (508 x 362 x 737mm)
H-30128E	450°F	2.86 cu. ft. (81L) capacity. Features hydraulic	115V, 60 Hz.	Inside: 18" x 14" x 19.8" (457 x 356 x 503mm)
H-30128E.4F	(232°C)	temperature controller, ±1° sensitivity. 1500 watts Shipping wt. 148 lbs. (67.1kg)	230V, 50/60 Hz.	Overall: 20" x 16.3" x 35" (508 x 414 x 890mm)



230V Models do not have wire plug.





## H-30145

# Laboratory Bench Ovens

These forced-air, convection ovens feature double-wall, steel construction, which provides reliable, even work-space temperature for testing applications. The ovens are constructed of corrosion-resistant, aluminized steel interiors and exteriors coated in an exclusive "high-tech" bronze polyester finish. The large, high-impact thermal plastic door handles provide durability and remain cool-to-the-touch during operation. Ovens come with (2) heavy-duty, chrome-plated wire shelves, which can support 80 lbs. (36kg). Additional shelves can be added. Ovens can accommodate up to 11 shelves (17 for the H-30135 models), which can be adjusted to 1.5" center increments.

See Chart for Models and Specifications



H-30145E with E-Series Digital Control

Laboratory Bench Ovens, Digital-Series

The Digital Series ovens take the standard forcedair, convection ovens and add a PID microprocessor controller with a digital display to provide greater uniformity, repeatability and resolution of heating operations. The precise micro-processor and the J-type thermocouple holds set temperatures accurately to ±1°F or C with improved chamber temperature uniformity. Control features include large, easy-to-read dual LED display, which shows both the set and process temperatures at a glance. The ovens are constructed of corrosion-resistant, aluminized steel interiors and exteriors coated in an exclusive "high-tech" bronze polyester finish. The large, high-impact thermal plastic door handles provide durability and remain cool-to-the-touch during operation. Ovens come with (2) heavy-duty, chrome-plated wire shelves, which can support 80 lbs. (36kg). Additional shelves can be added.

See Chart for Models and Specifications

# Laboratory Bench Ovens, Accessories

Description	Part #
Shelf and Supports for all models	H-30145S
Exhaust Kit, 3" Pipe	H-30181
Floor Stand for all models	H-30150
Cabinet with 2 Slide-out Shelves	H-30155

Model	Max. temp.	Description	Dimensions (W x D x H)		
H-30140		7 cu. ft. (198L) capacity. Features calibrated dial-type temperature con- troller, 115V, 60 Hz, 1050 watts, 9.2 amps, Shipping wt. 185 lbs. (84kg)			
H-30140.4F	300°F (149°C)	230V, 50/60Hz version of H-30140	Inside: 25.5" x 24" x 20" (648 x 610 x 508mm) Overall: 33" x 35.5' x 24" (838 x 902 x 610mm)		
H-30140E	(	E-series digital control version of H-30140			
H-30140E.4F		230V, 50/60Hz version of H-30140E			
H-30145		7 cu. ft. (198L) capacity. Features calibrated dial-type temperature con- troller, 115V, 60 Hz, 1920 watts, 16amps. Shipping wt. 185 lbs. (84kg)			
H-30145.4F	450°F	230V, 50/60Hz version of H-30145	Inside: 25.5" x 24" x 20" (648 x 610 x 508mm)		
H-30145E	(232°C)	E-Series digital control version of H-30145	Overall: 33" x 35.5" x 24" (838 x 902 x 610mm)		
H-30145E.4F		230V, 50/60Hz version of H-30145E			
H-30135	45005	10.6 cu. ft. (300L) capacity. Features calibrated dial-type temperature controller, 115V, 60 Hz. 1920 watts, 16 amps. Uses 20 amp grounded plug. Shipping wt.225 lbs (102kg)			
H-30135.4F	450°F (232°C)	230V, 50/60Hz version of H-30135	Inside: 25.5" x 24" x 30" (648 x 610 x 762mm) Overall: 33" x 35.5" x 34" (838 x 902 x 864mm)		
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	6.6 cu. ft. (187L) capacity. Features calibrated dial-type temperature con- troller, 230V, 60 Hz, 3000 watts, 12.5 amps. Shipping wt. 195 lbs (77.1kg)	Inside: 25.5" x 22.5" x 20" (648 x 572 x 508mm)		
H-30160E.4F	(287°C)	E-series digital control version of H-30160.4F	Overall: 33" x 35.5' x 24" (838 x 902 x 610mm)		
H-30160SS.4F		Stainless steel version of H-30160.4F			
			ΝΟΤΕΣ		



230V Models do not have wire plug.



# 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  $\pm 0.5\%$  control accuracy and  $\pm 8°F$  (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 reduce 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 the 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 nickelplated wire 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.

#### See Chart for Models and Specifications



# Digital Controller Option

A Digital, microprocessor-based controller, which is thermocouple-actuated can be requested at time of order. Model is indicated by the DG2 suffix in the chart below.

Description	Part #
Floor stand for H-32300 models	H-32300.2
Floor stand for H-32333 models	H-32333.2
Floor Stand for H-32343 models	H-32343.2
Shelf for H-32300 models	H-32300.1
Shelf for H-32333 models	H-32333.1
Shelf for H-32343 models	H-32343.1

Volume Cu. ft (m)	Inside dim. W x D x H	Max. temp.	Control accuracy	Oven uniformity	Model	Voltage	Outer dimension W x D x H	Kw	Rise time	Ship. wt.
					H-32300.2F H-32300.2F.DIG2	230V,60Hz 1ph.				
					H-32300.2F.3 H-32300.2F.3.DIG2	230V,60Hz 3ph.				
15.8	36" x 21" x 36"	400°F			H-32300.8F	208V,60Hz 1ph.	40" x 28" x 47"		18	600 lbs
(.447)	(910 x 530 x 910mm)	(204.4°C)	±0.5%	±8°F	H-32300.8F.DIG2	2000,00112 1011.	(1020 x 710 x 1190mm)	4.4	min.	(272kg)
	9 TOmm)				H-32300.8F.3	208V,60Hz 3ph.	1190mm)			80BA
					H-32300.8F.3.DIG2	206V,60Hz 3ph.				
					H-32300.9F.3 H-32300.9F.3.DIG2	460V,60Hz 3ph.				
	36" x 36" x 36" (910 x 910 x 910mm)	" 400°F (204.4°C)	r) ±0.5%	±8°F	H-32333.2F	230V,60Hz 1ph.	40" x 43" x 47" (1020 x 1090 x 1190mm)	6.6	18 min.	750 lbs (340kg)
					H-32333.2F.DIG2					
					H-32333.2F.3 H-32333.2F.3.DIG2	230V,60Hz 3ph.				
27					H-32333.8F	208V,60Hz 1ph.				
(.764)					H-32333.8F.DIG2					
. ,					H-32333.8F.3					
					H-32333.8F.3.DIG2	208V,60Hz 3ph.				
					H-32333.9F.3	460V,60Hz 3ph.				
					H-32333.9F.3.DIG2	400 <b>v</b> ,00112 3pm.				
					H-32343.2F	230V,60Hz 1ph.				
					H-32343.2F.DIG2	2001/00112 10111				850 lbs (385kg)
					H-32343.2F.3	230V,60Hz 3ph.				
<i></i>	36" x 48" x 36"				H-32343.2F.3.DIG2		40" x 55" x 47"			
36 (1.01)	(910 x 1220 x	400°F (204.4°C)	±0.5%	±8°F	H-32343.8F H-32343.8F.DIG2	208V,60Hz 1ph.	(1020 x 1400 x 1190mm)	6.6	22 min.	
(1.01)	910mm)	n) (204.4°C)			H-32343.8F.3					
					H-32343.8F.3.DIG2	208V,60Hz 3ph.				
					H-32343.9F.3					
					H-32343.9F.3.DIG2	460V,60Hz 3ph.				

ΝΟΤΕS

50Hz Models are available upon request.





# Heavy-Duty Laboratory Ovens

## 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 open coil heating elements and a forward curved fan deliver faster heat-up rates and short processing times. Digital controls regulate temperatures within tight tolerances. A 0.75" (1.9cm) LED panel displays temperatures in large, bright, easy-to-read numbers. Temperatures can be reported in either Fahrenheit or Celsius. The LBB series ovens operate at temperatures up to 399°F (204°C) and use forced-convection airflow for uniform temperatures throughout the oven chamber. The LBB is designed and manufactured to provide years of dependable service. The fan and heater are top-mounted to prevent damage from spills. When spills do occur, the corrosionresistant, stainless steel interior and nickel-plated shelves clean up easily. The motor is permanently lubricated and virtually maintenance free. Every LBB bench top oven is UL and C-UL listed, and receives a thorough performance test before shipping. Ovens come with two shelves, either standard shelves, which can handle up to 50 lbs. (22.7kg) or reinforced shelves, which can handle 200 lbs. (90.7kg) of material. See chart below for number and type of shelves included with each oven. Ovens meet AASHTO uniformity requirements of ±3° at 150°C. Motor and fan are located above the stainless steel oven chamber to prevent damage if materials are spilled.

# See Chart for Models and Specifications

Operating range	Chamber size W x D x H	Capacity cu. ft. (L)	Model	Despatch model	Overall size W x D x H	Electrical	Shelves included	Ship Wt.
	18 x 18 x 12"	2.3	H-30356		24 x 24.5 x 26"	50/60Hz, 1ph, 120V 15 amps, 1.2KW heater	(2) Standard	205 lb
	(460 x 460 x 310mm)	(65)	H-30356.4F	LBB1-23	(610 x 620 x 660mm)	50/60Hz, 1ph, 240V 15 amps, 1.2KW heater	(max. 5 @ 2"Ø)	(92 kg)
	30 x 18 x 22" (760 x 460 x 560mm)	6.9	H-30360		36 x 24.5 x 36.5"	50/60Hz, 1ph, 120V 21.6 amps, 2.4KW heater	(2) Reinforced	320 lb
		(195)	LBI H-30360.4F	LBB1-69	(920 x 630 x 930mm)	50/60Hz, 1ph, 240V 10.8 amps, 2.4KW heater	(max. 5 @ 4"Ø)	(146 kg)
95°F to 399°F 35°C to 204°C	30 x 20 x 35" (770 x 510 x 890mm)	12.1 (343)	H-30364.4F	LBB2-12	36 x 26.5 x 51.5" (920 x 680 x 1310mm)	50/60Hz, 1ph, 240V 16.4 amps, 3.6KW heater	(2) Reinforced (max. 8 @ 4"Ø )	315 lb (142 kg)
	37 x 24 x 35" (940 x 610 x 890mm)	18 (510)	H-30366.4F	LBB2-18	43 x 30.5 x 51.5" (1100 x 780 x 1310mm)	50/60Hz, 1ph, 240V 16.4 amps, 3.6KW heater	(2) Reinforced (max. 8 @ 4"Ø )	485 lb (221 kg)
	37 x 37 x 35" (940 x 940 x 890mm)	27.7 (784)	H-30368.4F	LBB2-27	43 x 43.5 x 51.5" (1100 x 1110 x 1310mm)	50/60Hz, 1ph, 240V 21.4 amps, 4.8KW heater	(2) Reinforced (max. 8 @ 4"Ø )	587 lb (266 kg)



# High-Performance Forced-Air Bench-Top Ovens

The LAC high-performance bench-top oven uses horizontal recirculating airflow to ensure uniform temperatures throughout the oven. A high-volume fan circulates air through perforated, stainless steel walls to create a constant horizontal airflow across all sections of the oven. The result is proven reliability

These ovens use a microprocessor-based temperature and hi-limit controller with large LCD display and real time clock for auto start capability. The LCD display shows temperature readings along with clear, detailed information on oven status. The controller features three operating modes for quick and easy operation: Manual mode, Timer mode and Profile mode. The data-logging functionality enables reporting and analyzing data files can be exported via the controller's USB port. Modbus RS485 communications are included for easy data access. in demanding production and laboratory applications such as curing, drying, sterilizing, aging and other process-critical procedures.

The Despatch LAC features sturdy, welded, double-wall construction, three inches (7.6cm) of glass fiber insulation and heavy-duty gaskets. Each oven receives a thorough quality and performance test before it is shipped. Heating elements carry a five-year warranty. All models are UL/C-UL listed.

See Chart for Models and Specifications



H-30322.4F

Operating range	Chamber size W x D x H	Capacity cu. ft. (L)	Model	Despatch model	Overall size W x D x H	Electrical, Single Phase	Exhaust diameter (back)	Doors	Shelves included	Ship Wt.	
	18.8 x 18 x 19" (480x460x480mm)	3.7 (105)	H-30322	LAC1-38A	31 x 27 x 38" (790 x 690 x 960mm)	120V 50/60Hz, 16 amps, 1.6 KW heater			1	(2) Standard (max. 9 @ 2"Ø )	185 lb (84 kg)
	18.8 x 18 x 19" (480x460x480mm)	3.7 (105)	H-30322.4F	LAC1-38B	31 x 27 x 38" (790 x 690 x 960mm)	240V 50/60Hz, 9.2 amps, 1.8 KW heater		1	(2) Standard (max. 9 @ 2"Ø )	235 lb (106.4 kg)	
40-260°C (104-500°F)	23.8 x 20 x 24" (610x510x610mm)	6.6 (187)	H-30324.4F	LAC1-67	36 x 29 x 43" (910x740x1100mm)	240V 50/60Hz, 11.7 amps, 2.4 KW heater	2.5" (6.4cm)	1	(2) Standard (max. 11 @ 2"Ø )	203 lb (92 kg)	
	23.8 x 24 x 36" (610x610x900mm)	12 (340)	H-30326.4F	LAC2-12	36 x 33 x 55" (91x84x139mm)	240V 50/60Hz, 23.4 amps, 4.8 KW heater		1	(2) Standard (max. 17 @ 2"Ø )	360 lb (163 kg)	
	35.3 x 24 x 36" (900x610x900mm)	18 (510)	H-30328.4F	LAC2-18	48 x 33 x 55" (1210x850x1390mm)	240V 50/60Hz, 23.4 amps, 4.8 KW heater		2	(2) Standard (max. 17 @ 2"Ø )	720 lb (326.5 kg)	

# High-Performance Forced-Air Bench-Top Ovens







H-30200

# Small Bench top Muffle Furnace

Small (0.07 cu.ft. 2.1L), 1520W bench top 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 set point temperature control to 2012°F (1100°C) with single display showing actual temperature or set point. 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.

Bench top Furnace, 120V 50/60	Hz	H-30200
Bench top Furnace, 240V 50/60	Hz	H-30200.4F
UP3	Ship wt.	30.6lbs. (13.8kg)

#### Medium Bench top Muffle Furnace

Medium (0.2 cu.ft. 5.8L), 1800W bench top 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 set point temperature control to 2192°F (1200°C) with single display showing actual temperature or set point. 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.

#### Bench top Furnace, 120V 50/60Hz H-30201 Bench top Furnace, 240V 50/60Hz H-30201.4F Ship wt. 86lbs. (39kg)



H-30216.4F

## Large, Premium Bench top Muffle Furnace

Large (0.5 cu.ft. 14L), 3095W bench top muffle furnace has ceramic fiber insulation, which provides faster heat-up and reduced energy consumption. Embedded heating element on top, bottom and both sides provides temperature uniformity. Digital single set point temperature control to 2192°F (1200°C) with single display showing actual temperature or set point. 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.

Bench top Furnace, 240V 50/60Hz H-30204.4F Ship wt. 134lbs. (61kg)

# Economical 1200°C Box Furnace

Small to medium-sized, economical 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, easyto-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. Refer to table for specifications.

1200°C Box Furnace, 6" x 6" x 6"	H-30209.4F
1200°C Box Furnace, 8" x 12" x 7"	H-30216.4F
Ship w	rt. 600lbs. (272kg)

#### Gas Hotplate, Cylinder Gas

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.

Gas Hotplate, Cylinder Gas

H-4947AC Ship wt. 44.7lbs. (20.2kg)

### Gas Hotplate, Natural Gas

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.

Gas Hotplate, Natural Gas

H-4947AN Ship wt. 44.1lbs. (20kg)

Model	Max. temp	Dimensions chamber( W x D x H)	Electrical
H-30200	2012°F	5" x 6" x 4.25"	120V, 12amps, 50/60Hz
H-30200.4F	(1100°C)	(127 x 152 x 108mm)	240V, 6.3amps, 50/60Hz
H-30201	2192°F	7" x 10" x 5"	120V, 15amps, 150/60Hz
H-30201.4F	(1200°C)	(178 x 254 x 127mm)	240V, 7.5amps, 50/60Hz
H-30204.4F	2192°F (1200°C)	12.8" x 10" x 6.8" (330 x 254 x 180mm)	240V, 12.9amps, 50/60Hz
H-30214.4F	2192°F (1200°C)	5" x 8" x 4" (127 x 203 x 102mm)	208/240V 50/60Hz 1 ph.
H-30215.4F	2192°F (1200°C)	7" x 8" x 6" (178 x 203 x 152mm)	208/240V 50/60Hz 1 ph.

Model	Max. temp	Dimensions chamber( W x D x H)	Electrical
H-30209.4F	2192°F (1200°C)	6" x 6" x 6" (203 x 305 x 178mm)	208/220V 50/60Hz 1 ph.
H-30216.4F	2192°F (1200°C)	8" x 12" x 7" (203 x 305 x 178mm)	208/240V 50/60Hz 1 ph.

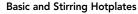


H-4958









Reflective white ceramic surface is acid- and alkali-resistant and easy to clean. Non-heating 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.

Economy Basic Hotplate	See Table
Economy Stirring Hotplate	See Table
Ship wt. 7" x 7": 11lbs. (5kg), 10" x 10":	16lbs. (7.3kg)

### **Heavy-Duty Hotplates**

Reflective white ceramic surface is acid- and alkali-resistant and easy to clean. Non-heating 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.

Heavy-Duty Hotplate, 12" x 12"	See Table
Heavy-Duty Hotplate, 24" x 12"	See Table
Ship wt. 12" x 12": 26lbs. (11.8kg), 24" x 12"	: 50lbs. (22.7kg)

#### **Electric Hotplate**

Dual-burner electric hot plate. Two 825-watt rapid heating burners. Infinite heat controls, heavygauge steel construction; chrome finish; phenolic feet. Includes 3-wire cord and plug. 6.5" (16.5cm) dia. heating elements: Overall: 20.5" x 8.75" x 4" (52 x 22 x 10cm). Warm-simmer rolling boil with adjustable controls.

Electric Hotplate	H-4949
UPS -	Ship wt. 9.9lbs. (4.4kg)

# Heat Gun, Industrial-grade

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 noheat applications, adding versatility. Insulated nozzle Protects operator, provides a cool exterior temperature.

Heat Gun, Industrial-grade	H-4958
8	Ship wt. 6lbs. (2.7kg)

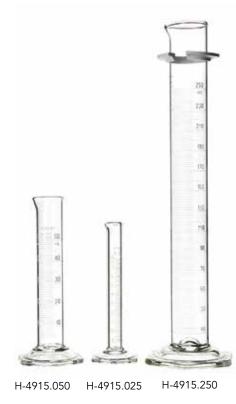
### **Basic and Stirring Hotplates**

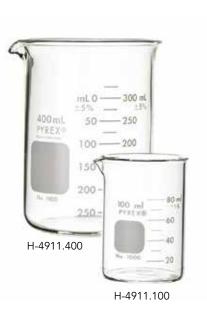
Temperature range	Heating surface	Max. Ioad	Electrical	Standard model	Stirring model	Stirring r angle
A	7" x 7"	12lbs 5.4 kg	120V 60Hz	H-4942	H-4942S	
Ambient to 540°C	/ X/		230V 50/60Hz	H-4942.4F	H-4942S.4F	30 to
(Ambient	10" v 10" 1	16 lbs 7.2 kg	120V 60Hz	H-4943	H-4943S	1200rpm
to 1004°F)			230V 50/60Hz	H-4943.4F	H-4943S.4F	

#### **Heavy-Duty Hotplates**

Т	Temperature range	Heating surface	Max. Ioad	Electrical	Model	Watts
	38	12" x 12"	26 lbs	120V 60Hz	H-4952	1(00
	to 371°C		11.7kg	230V 50/60Hz	H-4952.4F	1600 watts
	(100 to 700°F) 24" x	24" x 12"	50 lbs	120V 60Hz	H-4953	3200 watts
			22.6kg	230V 50/60Hz	H-4953.4F	3200 watts









# Graduated Cylinders, Glass

Glass graduated cylinders. Graduated circular divisions, double-numbered, reading up and down. Calibrated to deliver the indicated capacities. Packed one cylinder to a carton.

Capacity	Graduated Range	Interval	Model
10ml	1-10	.1	H-4915.010
25ml	2-25	.2	H-4915.025
50ml	5-50	1	H-4915.050
100ml	10-100	2	H-4915.100
250ml	10-250	2	H-4915.250
500ml	25-500	5	H-4915.500
1000ml	50-1000	10	H-4915.1M
2000ml	150-2000	20	H-4915.2M

# Graduated Cylinders, Plastic

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.

Capacity	Graduated Range	Interval	Model
10ml	1-10	.2	H-4916P.010
25ml	2-25	.5	H-4916P.025
50ml	5-50	1	H-4916P.050
100ml	10-100	2	H-4916P.100
250ml	30-250	2	H-4916P.250
500ml	50-500	5	H-4916P.500
1000ml	100-1000	20	H-4916P.1M
2000ml	200-2000	20	H-4916P.2M

#### Graduated Beakers, Glass

Griffin low-form beakers for general laboratory use have pour-out lip. Design provides greater strength via heavier uniform walls.

Capacity	Graduated Range	Interval	Model
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 Beakers, Plastic

Low-form laboratory beakers with slightly tapered heavy walls provide firm grip and convenient stacking. Beakers have pour-out spout and graduation markings (±5%).

Capacity	Graduated Range	Interval	Model
50ml	10-50	10	H-4912P.050
100ml	25-100	25	H-4912P.100
250ml	50-250	10	H-4912P.250
400ml	100-400	50	H-4912P.400
600ml	100-600	100	H-4912P.600
1000ml	200-1000	200	H-4912P.1M
2000ml	200-2000	200	H-4912P.2M



H-4916P.050

H-4916P.500





# **Erlenmeyer Flasks**

Narrow-mouth flasks feature heavy-duty rim, volume graduations, tubulation and matte spot for temporarily identifying contents.

Capacity	Graduated Range	Interval	Model
250ml	75-250	25	H-4917.250
500ml	150-500	50	H-4917.500
1000ml	200-1000	50	H-4917.1M
2000ml	600-1800	200	H-4917.2M
4000ml	1500-3500	500	H-4917.4M

# Erlenmeyer Flasks—Vented

Narrow-mouth flasks feature heavy-duty rim, volume graduations, tubulation and matte spot for temporarily identifying contents.

Capacity	Graduated Range	Interval	Model
250ml	75-250	25	H-4913.250
500ml	150-500	50	H-4913.500
1000ml	200-1000	50	H-4913.1M
2000ml	600-1800	200	H-4913.2M
4000ml	1500-3500	500	H-4913.4M

### **Rubber Stoppers for Erlenmeyer Flasks**

Rubber stopper with brass hose fitting for use with Erlenmeyer flasks.

Flask Size (ml)	Model
250	H-4913.250S
500	H-4913.500S
1000	H-4913.1MS
2000	H-4913.2MS
4000	H-4913.4MS

# **Polyethylene Dispensing Bottles**

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

p.	
8 oz. (250ml)	H-3398
16 oz. (500ml)	H-3399
32 oz. (1000ml)	H-3401
ups	Ship wt. 0.5lbs. (0.2kg)

# Guth Wash Bottle

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.

Guth Wash Bottle	H-3397
ups	Ship wt. 2.1lbs. (0.9kg)





# Moisture and Immersion Pans

(305 x 508 x 102mm)

H-4309

woisture and	d Immersion Pans		
Model	Dimensions (LxWxD)	Description	Ship Wt.
Straight Sig	des		
H-3700	18 x 18 x 1.5" deep (457 x 457 x 38mm)	Galvanized steel with wire-bound, rolled-top edges. Features 2 drop handles, straight sides. ASTM D2234, D2961	7 lb (4.5kg)
H-3710	24 x 24 x 4" deep (610 x 610 x 102mm)	Galvanized steel with wire-bound, rolled-top	14 lb
H-3712	24 x 24 x 6" deep (610 x 610 x 152mm)	edges. Features 2 drop handles, straight sides. ASTM D346, D2013, D 2234	(6kg)
Tapered Si	des		
H-3705	18 x 18 x 3" deep (457 x 457 x 76mm)	Galvanized steel with wire-bound, rolled-top edges. Features 2 drop handles, tapered sides for nesting. ASTM D346, D2013, D2234	6.3 lb (2.8kg)
H-3707	18 x 18 x 3" deep (457 x 457 x 76mm)	Galvanized steel with wire-bound, rolled-top edges without handles	6.2 lb (2.8 kg)
H-3723	10 x 20 x 3" deep (254 x 508 x 76mm)	Galvanized steel with wire-bound, rolled-top edges. Features 2 drop handles, tapered sides for nesting.	5 lb (2.2kg)
H-3725	24 x 24 x 3" deep (610 x 610 x 76mm)	Galvanized steel with wire-bound, rolled-top edges. Features 2 drop handles, tapered sides for nesting. ASTM C192	9.9 lb (4.4kg)
H-3728	36 x 36 x 3" deep (914 x 914 x 76mm)	Galvanized steel with wire-bound, rolled-top edges. Features 2 drop handles, tapered sides for nesting. ASTM C192	20 lb (9kg)

stacking. Tapered scoop section controls flow.

# **Stainless Steel Rectangular Pans**

Model	Dimensions (L x W x D)	Ship Wt.
H-3981S	6.5" x 6" x 4.5"D (165 x 152 x 114)	1.2 lb (1.4kg)
H-3981P	6.375" x 5.375" x 4.5"D (165 x 152 x 114)	1 lb (0.4kg)
H-3986S	10.5" x 5.5" x 4.5"D (267 x 40 x 114)	2.3 lb (1.0kg)
H-3967S	13.5" x 6.75" x 5"D (343 x 171 x 127)	3 lb (1.3kg)
H-3993S	22" x 6.5" x 5.25"D (559 x 165 x 133)	4.5 lb (2.0kg)
H-3996S	15.5" x 8" x 7"D (394 x 204 x 178)	5 lb (2.2kg)

### **Tin Rectangular Mixing Pans**

Model	Dimensions (L x W x D)	Ship Wt.
H-3981	8 x 5.25 x 4.25" (203 x 133 x 108mm)	2 lb (.9kg)
H-4934	9 x 4.5 x 2.75 (229 x 114 x 70mm)	1.5 lb (1.3kg)

# Bakalon Rectangular Mixing Pan (Non-Stick)

Model	Dimensions (L x W x D)	Ship Wt.
H-4359A	18 x 13 x 1.875" D (457 x 330 x 47mm)	3 lb (1.3kg)





# Stainless Steel Rectangular Mixing Pans

Model	Dimensions (L x W x D)
H-3969	10.375 x 6.375 x 2.5" (264 x 162 x 64mm)
H-4352.2	20.75 x 12.75 x 2.5" (527 x 323 x 63mm)
H-4352.4	20.75 x 12.75 x 4" (527 x 324 x 102mm)
H-4352.6	20.75 x 12.75 x 6" (527 x 324 x 152mm)
H-4353.2	13.875 x 12.75 x 2.5" (346 x 323 x 63mm)
H-4353.4	13.875 x 12.75 x 2.5" (346 x 323 x 63mm)
H-4353.6	13.875 x 12.75 x 6" (346 x 323 x 152mm)
H-4354.2	12.75 x10.375 x 2.5" (342 x 264 x 64mm)

# Aluminum Round Mixing Pans (Non-Stick)

Model	Dimensions (L x W x D)
H-4940.2	9" x 1.5" (228 x 38mm)
H-4940.4	10" x 1.5" (254 x 38mm)
H-4940.6	12" x 1.5" (304 x 38mm)
H-4940.8	15" x 1.5" (381 x 38mm)

Stainless Steel Rectangular Mixing Pans

Model	Dimensions (L x W x D)
H-4354.4	12.75 x10.375 x 4" (342 x 264 x 102mm)
H-4354.6	12.75 10.375 x 6" (342 x 264 x 152mm)
H-4355.2	12.75 x 6.875 x 2.5" (342x 174 x 64mm)
H-4355.4	12.75 x 6.875 x 4" (342x 174 x 102mm)
H-4355.6	12.75 x 6.875 x 6" (342 x 174 x 152mm)
H-4356.2	14.875 x 10.25 x 2" 376 x 269 x 50mm)
H-4356.4	16.125 x 11.125 x 2.25" (409 x 282 x 57mm)
H-4356.6	18.125 x 12.375 x 2.375" (460 x 314 x 60mm)

Aluminum Rectangular Mixing Pans (Non-Stick)

	J
Model	Size (L x W x D)
H-4941	8" x 8" x 2" (203 x 203 x 51mm)
H-4351.2	15.375" x 10.875" x 2.375" (390 x 276 x 60mm)
H-4351.4	17.625" x 11.75" x 2.375" (447 x 298 x 60mm)
H-4351.6	25.75" x 17.75" x 3.5" (654 x 450 x 89mm)

# Stainless Steel Round Mixing Bowls & Pans

Model	Dimensions (L x W x D)
H-4936	7.25" x 3" (198 x 76mm) 1.5 qt. (1.4L)
H-4937	9.5" x 3.5" (241 x 89mm) 3 qt. (2.8L)
H-4938	12.5" x 5.5" (318 x 140mm) 8 qt. (7.6L)
H-4939	10.75" x 4.75" (273 x 121mm) 5.5 qt. (5.2L)
H-4939.5	17.5" x 6.5" (444 x 165mm) 16 qts. (13.9L)





Moisture Dish, Aluminum

Inverted slip-in cover with beaded edge for tight sealing, can be handled with crucible tongs. Inside dia at top 2.25" x .75" deep (57mm x 19mm). Drawn aluminum construction.

H-17150

See Table

Ship wt. 0.6lbs. (0.27kg)

Moisture Dish, Aluminum

# Ship wt. 0.2lbs. (0.09kg)

Evaporating Dishes, Nickel

Heavy gauge, pure nickel dishes with straight sides, flat bottom and pour lip.

Capacity	Dia	Height	Model
40ml	2.25" (57mm)	1" (25mm)	H-4924.040
100ml	2.75" (70mm)	1.375" (35mm)	H-4924.100
200ml	3.375" (86mm)	1.7625" (46mm)	H-4924.200
300ml	3.875" (98mm)	2.25" (57mm)	H-4924.300

Evaporating Dishes, Nickel

### Beakers, Aluminum or Nickel

Low-form laboratory beakers with pour spout. One-piece construction eliminates breakage.

Capacity	Aluminum	Nickel
60ml	H-4920.060	H-4921.060
125ml	H-4920.125	H-4921.125
250ml	H-4920.250	H-4921.250
500ml	H-4920.500	H-4921.500
1,000ml	H-4920.1M	H-4921.1M
2,000ml	H-4920.2M	H-4921.2M
Beakers, Aluminum or Nickel		See Table Ship wt. 0.6lbs. (0.3kg)

#### Measures, Stainless Steel

Stainless steel measures feature convenient handle and graduations in milliliters and ounces on inside.

Capacity	Model
500ml	H-4923.500
1,000ml	H-4923.1M
2,000ml	H-4923.2M
Measures, Stainless Steel	See Table
UPS	Ship wt. 1lb. (0.5kg)

# Crucibles, Nickel

These nickel crucibles are constructed from pure heavy-sheet nickel. Suitable for fusions, including those with sodium peroxide. Highly resistant to dilute alkalies.

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

# Crucibles, Nickel

#### See Table Ship wt. 0.8lbs. (0.36kg)

**Crucibles Covers, Nickel** 

Covers for the nickel crucibles above. Choose by crucible size.

Crucible	Cover	Crucible	Cover
20ml	H-4922C.020	100ml	H-4922C.100
30ml	H-4922C.030	250ml	H-4922C.250
50ml	H-4922C.050	500ml	H-4922C.500
75ml	H-4922C.075	1000ml	H-4922C.1M

Crucible Covers, Nickel See Table Ship wt. 0.5lbs. (0.2kg)





### Sample Cans

Cans for receiving, transporting and storing sample materials, complete with friction-type lid. H-4183A, 1 gallon capacity (3.48L), can adequately hold all material from an averagesized density hole.

Capacity	Dimensions	Model
1 qt. (.94L)	4.125" dia. x 4.875" (105 x 124mm)	H-4184A
1 gal. (3.48L)	6.5" dia. x 7" (165 x 178mm)	H-4183A

#### See Table Sample Cans Ship wt. 1lbs. (0.5kg)

# Moisture Boxes, Aluminum

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.

Dia	Height	Model
2" (51mm)	.875" (22mm)	H-4926
2.5" (64mm)	1.75" (44mm)	H-4927
3" (76mm)	1" (25mm)	H-4928
3.5" (89mm)	2" (51mm)	H-4929
Moisture Boxes, Aluminum		See Table

# Moisture Boxes, Aluminum

Ship wt. 0.2lbs. (0.09kg) Sample Jars, Plastic with Caps

White plastic jar with cap. 4 oz. jars come 24 to a box, 8 oz. come 12 to a box and 16 oz. come 12 to a box.

Capacity	Model
4 oz (113.4g), 24 ct.	H-4914.04
8 oz (226.8g), 12 ct.	H-4914.08
16 oz (453.6g), 12 ct.	H-4914.16

Sample	Cups,	Tin

		<b>A</b>	
Capacity	Dimensions	Quantity	Model
2.5 oz (71g)	1.87" (47.5mm) ID, 1.42" (36mm) deep	48	H-1350.3A
3 oz (85g)	2.25" (57.1mm) ID, 1.42" (36mm) deep	36	H-1350.3
4.7 oz (133g)	2.42" (61.5mm) ID, 1.67" (42.6mm) deep	36	H-1350.4A
5.6 oz (159g)	2.59" (66mm) ID, 1.72" (43.4mm) deep	36	H-1350.6A
8.2 oz (232g)	3.05" (77.5mm) ID, 1.97" (50mm) deep	18	H-1350.8A
16 oz (454g)	4" (102mm) ID, 2.375" (60.3mm) deep	1	H-1350.16
42.3 oz (1200g)	6.12" (155mm) ID, 3" (76.2mm) deep	1	H-1350.42
70.5 oz (2000g)	6.12" (155mm) ID, 5" (127mm) deep	1	H-1350.70

# Sample Cups, Tin

Flat-bottom, seamless tin sample cups have telescoping covers. Hold samples for determining penetrations.

Sample Cups, Tin

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See chart above
```

### **Evaporating Dishes, Porcelain**

Shallow, porcelain dish has pour lip, glazed inside and partly glazed outside.

Capacity	Top Dia	Height	Model
120ml	90mm	37mm	H-4930.120
250ml	115mm	45mm	H-4930.250
525ml	165mm	54mm	H-4930.500
7655ml	185mm	54mm	H-4930.765
1,285ml	215mm	63mm	H-4930.M1285

Evaporating Dishes, Porcelain See Table . Ship wt. Range: 1lb. (0.5kg) to 2.5lbs. (1.1kg) Desiccator Jar

Heavy-walled, annealed jar has finely ground flanges and cover knob. Includes specimen plate. 5" (128mm) jar has 5" inside diameter and 5.25" (134mm) inside height, and, 8" (203mm) jar has 8" inside diameter and height.

H-4960 Desiccator Jar, 5" (128mm) Dia. Desiccator Jar, 8" (203mm) Dia. H-4961 Ship wt. 8lbs. (3.6kg)

H-1758

# **Specimen Plate**

Raised metal plate provides stable platform for samples.

Specimen Plate for H-4960	H-4960P
Specimen Plate for H-4961	H-4961P
UP3	Ship wt. 2lbs. (0.9kg)

### **Desiccab Desiccator**

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 heavygauge ceramic shelves that are fully adjustable with 0.5" (13mm) centers. Inside dimensions: 11.5" x 10" x 12" (292 x 254 x 305mm).

# Desiccab Desiccator

H-4962 Ship wt. 21lbs. (9.5kg)

H-1757

Drierite Desiccant, 8 mesh ASTM D2041

Ups

Replacement desiccant for air drying unit. Protects vacuum pump by removing final traces of moisture. Drierite Desiccant, 1 lb H-1757

U13	Shipping wt. 2.5 lbs (1.1kg)
Drierite Desiccant, 5 lb	H-1767





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Scoops, Stainless Steel

Model	PTFE coated	Scoop no.	Nose	Bowl Vol./ water (oz/cu. in.)	Length	Bowl width	Depth	Ship Wt.	Overall length
H-3734	H-3734TC	-	Round	3.3 (6.1)	5" (114mm)	2.5" (63mm)	1" (25.4mm)	2.5lbs (1.3kg)	9" (228mm)
H-3735	H-3735TC	-	Flat	6.6 (12.2)	5.5" (139mm)	3" (76mm)	1-1/2" (38mm)	1 lbs (0.45kg)	9.325" (236mm)
H-3736	H-3736TC	-	Flat	29 (53)	8" (203mm)	5.5" (139mm)	2-1/2" (63mm)	3.3 lbs (1.5kg)	13.5" (343mm)
H-3738	-	-	Curved	-	2.5" (635mm)	2.5" (635mm)	-	0.5 lbs (0.23kg)	9" (228mm)

# Scoops, Aluminum

Model	PTFE coated	Scoop no.	Nose	Bowl Vol./ water (oz/cu. in.)	Length	Bowl width	Depth	Ship Wt.	Overall length
H-3729	H-3729TC	1	Round	13.5 (24.4)	6.75" (172mm)	4" (102mm)	2.5 " (64mm)	2 lbs (0.9kg)	10" (254mm)
H-3730	H-3730TC	-	Square	6.7 (12.2)	6" (152mm)	3.75" (95mm)	2" (51mm)	1 lbs (0.45kg)	9.25" (235mm)
H-3731	H-3731TC	2	Round	20 (36.6	8.25" (210mm)	5.25" (133mm)	3" (76mm)	2.1 lbs (0.9kg)	12.25" (311mm)
H-3732	H-3732TC	3	Round	33 (61.02)	10.25" (260mm)	5.25" (146mm)	3.5" (89mm)	2.5 lbs (1.3kg)	14.5" (368mm)

# Scoop, Plastic

Model	PTFE coated	Scoop no.	Nose	Bowl Vol./ water (oz/cu. in.)	Length	Bowl Width	Depth	Ship Wt.	Overall length
H-3727	-	-	Flat	67 (115.5)	9" (228mm)	4" (102mm)	5.5" (139)	0.5 lbs (0.23kg)	9" (228mm)





# Trowel, Plasterer-Type

Plasterer-type trowel's flat rectangular blade is fastened to the mounting and wood handle with stainless steel pins. Dimensions: 4.5" x 10" (114 x 254mm).

Trowel, Plasterer-Type	H-3762
ups	Ship wt. 1lbs. (0.45kg)

# Trowel, Forged Steel

Forged steel trowel for mixing cement batches, filling molds, etc., has flat pointed blade and rubber/plastic handle. Dimensions: 2.75" x 5" (70 x 127mm).

Trowel, 2.75" x 5" (70 x 127mm)	H-3760
Trowel, 5.25" x 10" (133 x 254mm)	H-3780
5hip wt.	0.4lbs. (0.2kg)

### Trowel, ASTM

ASTM C109; AASHTO T106

Forged steel trowel for striking off molds, etc., has edges ground straight and rubber/plastic handle. Dimensions: 2.75" x 5" (70 x 127mm).

	,
Trowel, ASTM	H-3761
<b>U</b> 5	Ship wt. 0.4lbs. (0.2kg)

# Spoon

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

Spoon	H-4974
ups	Ship wt. 0.5lbs. (0.2kg)

#### **Preparation Knife**

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

Preparation Knife	H-4973
ups	Ship wt. 0.5lbs. (0.2kg)

Spatulas, Straight Edge

ASTM C185, C780; AASHTO T137 (H-4907 only)

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.

Spatula, 4" x .75" (102mm x 19mm)	H-4904
Spatula, 6" x .875" (152mm x 22mm)	H-4906
Spatula, 6" x .5" (152mm x 13mm), ASTM	H-4907
Spatula, 8" x 1.25" (204mm x 32mm)	H-4908
Spatula, 10" x 1.25" (254mm x 32mm)	H-4910
💖 Ship wt. 0.5l	lbs. (0.2kg)

#### Step-Up and Down Transformers

Step-Up and down transformers allow the user to use 115-volt electrical equipment on a 230-volt line current, and allow 230-volt equipment to be used on 115V line current. Features case and core internally connected to third conductor of NEMA-standard cord and receptacle for safety. Has 3-conductor, 8" (2.4m) line cord and plug on primary side and female receptacle as output connection.

Model	Power	Ship Wt.
H-1042A	300-watt.	10 lbs. (4.5kg)
H-1042A.5	500-watt.	12 lbs. (5.4kg)
H-1042A.7	750-watt.	16 lbs. (7.3kg)
H-1042A.10	1,000-watt.	17 lbs. (7.7kg)
H-1042A.15	1,500-watt.	21 lbs. (9.5kg)
H-1042A.17	1,750-watt.	21 lbs. (9.5kg)
H-1042A.20	2,000-watt.	28 lbs. (12.7kg)
H-1042A.25	2,500-watt.	28 lbs. (12.7kg)
H-1042A.30	3,000-watt.	28 lbs. (12.7kg)
Step-Up and down Transformers See table above		

and down Transformers



see table



# 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, 16.25" 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	l weight	Head (L x Dia)	Handle	Model
-	lbs 2 kg)	5 x 2.5" (127 x 64mm)	12.75" (324mm)	H-4975
_	lbs 9 kg)	3.75 x 2.25" (95 x 57mm)	11" (280mm)	H-4976

Description	Length	Cut Point	Stock	Model
Pocket chisel	12" / 305mm	.625" / 16mm	.375" / 10mm	H-4896C
Gad point chisel	9" / 229mm	.75" / 19mm	.75" / 19mm	H-4897C
Splitting chisel	8" / 203mm	1.125" / 28mm	.75" / 19mm	H-4898C
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
Concrete chisel	8.5" / 216mm	2.75" / 70mm	.75" / 19mm	H-4905A

# Goggles

Description	Model
Goggles, safety, Soft vinyl frame with replaceable lens	H-4900





### Brushes

Description	Handle	Bristle	Bristle length (mm)	Overall dimension (mm)	Model
Wire scratch brush	Wood	Wire no. 26 gauge flat	2" x 2" x 7" (51 x 51 x 178)	7.75" x 2.625" (197 x 67)	H-4259
Mold cleaning brush	Wood	Brass wire	2" x .875" x 5.25" (25 x 22 x 133)	10.25" (360)	H-3800
Acid-proof crete brush	Plastic	Polypropylene	2" x 3" x 4" (51 x 76 x 102)	8.25" (210)	H-3639.8
Acid-proof crete brush	Plastic	Polypropylene	2" x 3" x 4" (51 x 76 x 102)	20" (508)	H-3639.20
Sieve brush, oval shaped	Plastic	Horsehair	2.75" x 1.125" x .75" (70 x 29 x 19)	10.5" (267)	H-3799
Sieve brush, fine mesh	Wood	Horsehair	2.5" x 1" x .375" (64 x 25 x 10)	10.5" (267)	H-3770
Sieve brush, coarse mesh	Wire loop	Wire	0.5" x 0.5" x 1.375" (13 x 13 x 35)	5.5 " (140)	H-3772
Sieve brush, fine mesh	Plastic	Wire	1.5" x .75" x 0.125" (38 x 19 x 3)	7.25" (184)	H-3773
Sieve brush, fine mesh	Wood	Horsehair	1.5" x 1.25" dia. (38 x 32)	5.25" (133)	H-3774
Table brush	Wood	Horsehair	2.25" x 2" x 8" (57 x 51 x 203)	13.5" (343)	H-3776

**Straight Edge** ASTM C185, D558, D559, D560, D698; AASHTO T137

For striking-off samples in containers, measures or molds. Ground steel with beveled edge.

Straight Edge	See Table
Ups	Ship wt. See table

Straight Edges

Dimensions	Model
8" Straightedge, 0.125 x 1.25 x 8" (3 x 32 x 203mm) Ship wt. 0.8lbs (0.36kg)	H-4144.8
12" Straightedge, 0.125 x 1.25 x 12" (3 x 32 x 305mm) Ship wt. 0.9lbs (0.41kg)	H-4144.12
16" Straightedge, 0.125 x 1.25 x 16" (3 x 32 x 406mm) Ship wt. 1.5lbs (0.7kg)	H-4144.16
24" Straightedge, 0.125 x 1.25 x 24" (3 x 32 x 610mm) Ship wt. 0.9lbs (0.41kg)	H-4144.24





# Durometer, Type C

Durometer used to test medium hard elastomers and plastics. Useful to avoid surface marks. Flat cone point 35° included angle.

Durometer, Type B	H-42220
ups	Ship wt. 3lbs. (1.4kg



keeping seams to a minimum.

Gloves, Heat-Resistant

H-3746

Ship wt. 1.5lbs. (0.68kg)



H-17270

# Rain Gauge

Heavy-duty plastic rain gauge. Can be attached to walls, posts and other structures with included bracket. Measures 5.5" (140mm) with 0.02" gradations for the first 0.5", .05" from 0.5 to 2" and 0.10" from 2 to 5.5".

Rain Gauge	H-3570A
ups	Ship wt. 2lbs. (0.9kg)

### Mortar & Pestle (Plattner's)

For crushing small samples of ore. Made of hardened alloy tool steel. Mortar has flatbottomed cylindrical cavity with removable sleeve for containing crushed material. Mortar: 3" (76mm), O.D. cavity: 1" dia x 0.25" deep (25mm x 6.4mm). Guide sleeve: 1.5" (38mm) long. Pestle: 1" dia x 3" long (25 x 76mm). Mortar & Pestle (Plattner's) H-17270

Mortar & Pestle (Platther s)	H-1/2/0
ups	Ship wt. 3.3lbs. (1.5kg)

# Mortar & Pestle

Meets U.S. Pharmacopoeia 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.

Mortar & Pestle	H-17280
ups	Ship wt. 7lbs. (3.61g)

# Mortar & Pestle, Hardened-Steel

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 4.5"H (76 x 76 x 114mm); bore: 2" dia x 3" deep (51 x 76mm). Pestle: 9.5" (241mm) overall length.

Mortar & Pestle, Hardened-Steel H-17300

# Mortar Only

Mortar: 3" x 3" x 4.5" H (76 x 76 x 114mm); bore: 2" dia x 3" deep (51 x 76mm).

Mortar Only	H-17301
(F)	Ship wt. 3lbs. (1.4kg)

# Pestle Only

Pestle: 9.5" (241mm) overall length. Designed to fit H-17301 Mortar.

estle Only	H-17302
3	Ship wt. 10.2lbs. (4.6kg)

# Mortar & Pestle, Compaction Mold

ASTM E28

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 cold-rolled steel.

Mortar & Pestle, Compaction Mold H-1675 Ship wt. 5lbs. (2.3kg)

#### **Digital Calipers**

May be used for outside, inside, depth and step measurements. Switchable from inches to millimeters. Accuracy is: ±0.001" (0.025mm).

Digital Calipers, 6" (150mm)H-2816Digital Calipers, 8" (200mm)H-2816.8Digital Calipers, 6" (150mm), CalibratedH-2816C

Ups

# **Digital Calipers**

May be used for outside, inside, depth and step measurements. Switchable from inches to millimeters. Accuracy is: ±0.0015" (0.025mm). Digital Calipers, 12" (300mm) H-2816.12A

Ship wt. 3.7lbs. (1.68kg)

# Dial Calipers, Stainless Steel

Easy-to-read, black-face dial caliper with combination inch and metric scales on main beam feature 0.001"/0.1mm gradations, dial gauge reads in 0.001" gradations. Hardened and ground stainless steel main beam with hardened, ground and lapped measuring faces.

Digital Calipers, 6" (150mm), Stainless H-2817M Ship wt. 1.5lbs. (0.68kg)

### Dial Calipers, 6", Stainless Steel

Easy-to-read, 6", dial caliper. Scale features 0.001" graduations, hardened and ground stainless steel main beam with hardened, ground and lapped measuring faces.

Digital Calipers, 6", Stainless H-2817 Ship wt. 1.3lbs. (0.59kg)

### Dial Calipers, Stainless Steel, Calibrated

6" (150mm) dial calipers with .001" accuracy. Dial movement for ultra-smooth sliding and high, shock protection. Can measure OD, ID, depth and steps. Lock screw for dial bezel and for holding sliding jaw position. Supplied with fitted case and calibration certificate.

Digital Calipers, 6" (150mm), Calibrated H-2817C Ship wt. 1.2lbs. (0.54kg)



Ship wt. 2lbs. (0.9kg)



### Gauges, Dial

Indicators are built to American Gauge Design specifications for accuracy and are used in field and laboratory testing applications. Dials are highquality, 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 0.25" long, and a dust cap. Dials listed are clockwise rotation; counterclockwise rotation see note below.

Gauges, Dial	See Table
Ups	Ship wt. 1.3lbs. (0.6kg)

# Gauges, Dial

- · · <b>J</b> · · <b>/</b>				
Range	Div.	Dia.	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 "	3.25"	No	H-4464
4.000"	.001 "	2.75"	No	H-4465
5.000"	.001"	2.75"	No	H-4466

### Gauges, Dial Metric

Range	Div.	Dia.	Brake	Model
12mm	.002mm	57mm	No	H-4465.12
25mm	.010mm	57mm	No	H-4465.25
50mm	.020mm	70mm	No	H-4465.50

#### Indicators, Electronic, Digital

For use in all Humboldt instrumentation. Switchable inch/metric digital indicators are accurate to  $\pm 0.0001$  (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 85 and 161.

Indicators, Electronic, Digital	See Table
<b>U</b> P5	Ship wt. 2.7lbs. (1.2kg)

Range	Division	Model	Dia.
0.2500"	0.0001"	HM-4470.02	2-9/32"
(6.250mm)	(0.002mm)	HIVI-4470.02	(51mm)
0.2500"	0.00005"	HM-4470.025	2-9/32"
(6.250mm)	(0.001mm)	HIVI-4470.025	(51mm)
0.6000"	0.0001"	HM-4470.05	2-9/32"
(15.000mm)	(0.002mm)	HIVI-4470.05	(51mm)
1.0000"	0.0001"	HM-4470.10	2-9/32"
(25.400mm)	(0.002mm)	HIVI-4470.10	(51mm)
2.0000"	0.0001"	HM-4470.20	2-9/32"
(50.800mm)	(0.002mm)	HIVI-4470.20	(51mm)
4.0000"	0.0001"	HM-4470.40	2-9/32"
(101.600mm)	(0.002mm)	⊓₩-4470.40	(51mm)

# Data Cable

Data cable for use with digital indicators and Data Loggers.

Data Cable	HM-4470C
<b>1</b>	Ship wt. 44.1lbs. (20kg)



### **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	Model
0.25" (6.4mm) Gauge Extension	H-4466.2
0.5" (13mm) Gauge Extension	H-4466.5
1" (25mm) Gauge Extension	H-4466.10
1.5" (38mm) Gauge Extension	H-4466.15
2" (50mm) Gauge Extension	H-4466.20
3" (76mm) Gauge Extension	H-4466.30
6" (152mm) Gauge Extension	H-4466.6
🕫 Ship	wt. 0.5lbs. (0.2kg)

# Indicator Holder, Magnetic, Swivel

Convenient, portable method of mounting dial indicators. The holder's magnetic base mounts easily on a flat or curved metallic surface. Non-magnetic stainless steel holding rod is  $6 \times 0.25$ " (154 x 6.4mm) and set in hardened ball socket so indicator may be mounted in almost any position.

Indicator Holder, Magnetic, Swivel H-4470 Ship wt. 1.3lbs. (0.6kg)

# Magnetic Gauge Mount

Convenient, portable mount for mounting indicators and gauges. Mount has magnetic base, which mounts on metallic surfaces.

Magnetic Gauge Mount	HS-4156.14
<b>UB</b>	Shipping wt. 1.3 lb (0.58kg)

