Ne

0H

Beakers .													
Boxes													. 357
Brushes .													. 361
Calipers .													. 363
Chisels .													. 360
Crucibles.													. 356
Desiccator													. 357
Dishes												35	56-357
Dispensers													. 353
Flasks													. 353
Gauges .													. 364
Gloves .													. 362
Graduated	Су	lind	der	s &	Be	eak	ers						. 352



Hammers	360
Hot Plates	351
Indicators	364
Jars	357
Ovens	344-349
Bench Ovens	346-349
Lab Ovens	344-345
Mortar & Pestle	363
Muffle & Box Furnaces	350
Pans & Bowls	354-355
Scales & Balances	. 327-329, 342
Balance Calibration Weights	
Bench Scales	
Comparison Chart	
Field Scales	
High Capacity	
Mechanical Balances.	
Portable Balances	335-336
Precision Balances	330-334
Scoops	
Scoops & Pans	354
Shovels	
Spatulas	
Śtraight Edge	
Thermometers	
ASTM Mercury	325
Digital	316-319, 321-322
IR	
Mercury-Free	
Probes	
Stem	
Timers	
Trowels	



±0.03°C from -50°C to +199.99°C ±0.015°C from -50°C to +199.99°C ±0.2°C from -40°C to +200°C  $\pm 0.2^{\circ}$ C from -40°C to +200°C Accuracy ±0.05% from -200°C to +200°C ±0.5°C from +201°C to ±0.5°C from +201°C to ±0.025% of reading for the (Type K) +1000°C otherwise 1.0°C remaining range otherwise 0.05% of reading +1000°C otherwise 1.0°C Power 9v battery Traceable NIST Traceable Certificate available, please inquire. Certificate

### Thermometer, High-Precision, Calibration

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 or operations requiring highly accurate readings. 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. **Thermocouple probe not included.** 

Thermometer, High-Precision	HT-4795
Thermometer, High-Precision, 3 Pt. Cal.	HT-4795C
5 Ship wt.	1.3lbs. (0.6kg)

### Probes and Software for HT-4795, HT-4796 and HT-4795.

Range	Length x Dia.	Model
-200 to +450°C & F	230 x 3mm	HT-4795.1
-200 to +450°C & F	300 x 3mm	HT-4795.2
-200 to +450°C & F	150 x 3mm	HT-4795.3
Smartgraph Windo	HT-4795SW	
USB Data (	Cable	HT-4795UB

#### Thermometer, Precision, Calibration

The HT-4796 and HT-4796-2 Hand-held Thermometers are high-precision, metrology-NIST-traceable instruments. These arade. high-accuracy thermometers are used when temperature measurement is critical and/or when online documentation is required. The HT-4796 and HT-4796-2 can also be used as a NIST Standard to verify and calibrate routinely used instruments. Optional Smartgraph 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-channelHT-4796Thermometer, Precision, 1 Ch.- 3 Pt. Cal.HT-4796CThermometer, Precision, 2-channelsHT-4796-2Thermometer, Precision, 2 Ch.- 3 Pt. Cal.HT-4796-2CImage: Ship wt. 2lbs. (0.9kg)Ship wt. 2lbs. (0.9kg)

### 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: calibration function for Integrated 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-channelHT-4797Thermometer, Precision, 3 Pt. Cal.HT-4797CThermometer, Precision, 2-channelsHT-4798Thermometer, Precision, 3 Pt. Cal.HT-4798CImage: Comparison of the state of the sta

### Probes for HT-4797 and HT-4798

Range	Length x Dia.	Model
Probe Adapter for K – Mini Conne	ector	HT-4797.4
K-Thermocouple Steel braided -40/480°C	6000mm	HT-4797.1
K- Immersion Probe -100 to +1100°C &F	300 x 3mm	HT-4797.2



Thermometers, Digital 3

<u>317</u>



Model	HT-4510 & HT-4511	HT-4505 & HT-4506	HT-4015	HT-4500 & HT-4501
Туре	Pt100 Platinum Precision, hand- held calibration thermometer	Pt100 RTD Platinum Precision, hand-held thermometer	Single Channel– Thermocouple High-Precision Digital Thermometer	Dual Channel– Thermocouple High-Precision Digital Thermometer
Features	High Precision Accuracy, 1 or 2-channel models, Max./Min./Avg., temp. hold function, Data Logger function for up to 6000 measurements	CT-3705DIG — w/memory CT-3706DIG — w/data logger Auto-lock connector, Max./Min. dual-display, data hold, power off	Memories, alarms, timer and min/max capabilities, backlit dis- play, protective casing with flip- out Stand, °F and °C switchable, 0.625" high digits, hold button	MAX, MIN, HOLD, AVG functions 1-point-CAL-function USB Interface Memory: 20 Measurements Single and Dual Probe Models
Probe	includes Pt100 Insertion probe	includes precision Pt100 probe	4', fast-response beaded probe, uses all type K probes	order probes separately
Range	-100°C to 300°C	-148 to 752°F (-100 to 400°C)	-328 to 2498°F -200 to 1370°C	-200°C to 1370°C
Resolution	0.1°C, 0.1°F	0.02°F, (0.01°C)	0.1°/1°	0.1°C from -99.9°C to 399.9°C, otherwise 1°C
Accuracy (Type K)	±0.4°C (instrument only)	±0.05% reading + .02°F (±0.05% reading + .01°C)	±1°C from -50° to 740°C (-328 to 1364°F) otherwise ±2°C	±0.5°C (instrument only)
Power	(3) AAA batteries	9v battery	(3) AAA batteries	(2) AA batteries
Traceable Certificate	Yes, included	NIST Traceable Certificate available, please inquire.	Yes, included	NIST Traceable Certificate available, please inquire.

### Thermometer, Pt100 Platinum, Digital

The HT-4510 & HT-4511 Single and Dual-Probe Precision RTD Digital Thermometers can be used as a Laboratory Temperature Standard, for the verification and calibration of liquid-in-glass, digital and dial bi-metal thermometers. They can also be used to calibrate laboratory instruments such as freezers, refrigerators, incubators, ovens, etc. These precision Pt100 platinum thermometers meet EN 60751 standards and are traceable to NIST Standards, being furnished with a certificate of accuracy. The HT-4510 and HT-4511 are loaded with the features requested by most laboratories. Both models include Pt 100 Insertion probes. Battery life is approximately 100 hours.

Thermometer, Single, Pt100 Platinum	HT-4510
Thermometer, Dual, Pt100 Platinum	HT-4511
🕫 Ship	wt. 2lbs. (0.9kg)

### Probe for HT-4510 and HT-4511

Description	Model
Pt100 Probe	HT-4510.1

Thermometer, "Supra" Precision Pt100 Platinum

The HT-4505 & HT-4506 are very accurate temperature measuring systems. With the accuracy of 0.1 °C and resolution of 0.01°C, these thermometers will fulfill the most critical measuring requirements in your lab. Both units include a Platinum temperature-measurement resistor (Pt 100/4-line type) 9" probe with 5" handle and 24" cable. Both units also provide a dual-display; data-hold function; max/min function; auto-lock connector and a large backlight LCD display.

The standard CT375DIG model includes: a Precision Pt-100 Probe, 9V Battery, Instruction Manual and Carry Case. The CT376DIG data logger model includes these same items, plus Windows software and a USB cable.

Thermometer, Standard, Pt100 Platinum HT-4505 Thermometer, Data Logger, Pt100 Platinum HT-4506 Ship vrt. 2lbs. (0.9kg)

### Accessories for HT-4505 and HT-4506

Description	Model
Pt100 Insertion Probe	HT-4505.1
Pt100 Immersion Probe	HT-4505.2
RS-232 Cable	HT-4505.3
AC Adapter	HT-4505.4

### 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 Rar	nge, Tracea	able	HT-4015
₩S		-	Ship wt.	1.3lbs. (0.6kg)

### Thermometer, Type-K Precision Thermocouple

Handy, Robust temperature instrument with K-Type thermocouple inputs. Min/Max and Hold function. Stores 20 Measurements in Memory.1-point CAL function and USB interface. AA battery with 160hr, life. Single and Dual-thermocouple models. Order probes seaparately.

Thermometer, Type K, Precision, Single HT-4500 Thermometer, Type K, Precision, Double HT-4501 Ship wt. 1.3lbs. (0.6kg)

### Accessories for HT-4500 and HT-4501

Description	Model
K-Therm. Steel braided, -40/250°C	HT-4500.1
K-Therm. Steel braided, -100/400°C	HT-4500.2
Carry/Storage Case	HT-4500.3
DE-Graph Windows Software	HT-4500.4



### 318 Thermometers, Digital

### LABORATORY



HT-4507 HT-4508

Model	HT-4507 & HT-4508	HT-4509	H-3558D	H-3564
Туре	2 Channel, K-type 4 Channel, K-type thermometer data logger	1 Channel, RTD Platinum Thermometer	Dual input, digital thermometer kit	Dual input, digital thermometer kit
Features	Auto Power Off, USB Interface Windows Software, Data Logger 16,000 Records Records Minimum / Maximum Temperature Hold Function	Auto Power Off, USB Interface Windows Software, Data Logger 16,000 Records Records Minimum / Maximum Temperature Hold Function	(1) Standard K-Probe, Push Button Operation, °F/°C Selectable, Min/Max temperature display, hold function	(2) SureGrip Piercing Probes, (4) bead probes and Case
Probe	Туре-К	Platinum RTD stainless-steel	Туре-К	Type-K, J, T, E
Range	-200/1370°C	-100 to 300°C (-148 to 572°F)	-58 to 2000°F -50 to 1093°C	-58 to 2000°F -50 to 1093°C
Resolution	0.1°C (0.1°F)	0.01°C (0.01°F)	1°F/C	0.1 °C/°F/K <1000 and 1 °C/°F/K >1000
Ассигасу (Туре К)	±0.1%+0.7°C (±0.1%+1.4°F)	± (0.1% + 0.2°C) below 200°C, ± (0.15% + 0.5°C)	±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	_	5.9" probe, 0.1" dia.	Various	Various
Power	1 x 9v battery	(4) AA batteries	(3) AA batteries or optional AC adapter	(3) AA batteries
Traceable Certificate	—	included	order: H-3558D-C	order: H-3564C

### Precision, Handheld, K-Type Data Loggers

Precision handheld thermocouple data logger are designed for advanced applications which require accurate temperature data collection over a period of time. The control interface is designed in a very intuitive way so that the user can locate the function by just looking at the panel. A real-time clock, providing your data with a time stamp so that every record can be traced back to the time the event occurred.

Windows Software is included that not only is used to transfer the recorded data, but also provides a virtual panel in the window to fully control the test.

Both models inlcude: Calibration Certificate, Carrying Case, USB Cable, Windows Software, Instruction Manual, 1 9v Battery

2-Channel, Thermometer Data Logger	HT-4507
4-Channel, Thermometer Data Logger	HT-4508

NOTES

Ship wt. 1.4lbs. (.63kg)

See Probes and Accessories on page 320.

### Precision RTD Platinum Thermometer

High-precision thermometer is geared specifically for measuring temperatures in soil, ovens, gas systems, water baths, wastewater, incubators, chemical solutions, petroleum products, and extremely cold conditions. Innovative 0.01° resolution digital thermometer developed specifically for lab and plant use is the finest-performing RTD Platinum Thermometer ever designed. Accuracy of  $\pm$  (0.1% + 0.2°C) below 200°C,  $\pm$  (0.15% + 0.5°C) otherwise makes it ideal for experimental requirement. Ease of use makes it perfect for routine quality-control needs. One-button operation allows everyone in the lab to report identical readings and eliminates operator technique errors.

- Min/Max reading display
- Hold function to freeze current reading
- Countdown time function included
- Programmable high temperature alarm threshold
   Precision RTD Platinum Thermometer HT4509
   Ship wt. 1.4lbs. (.63kg)

### 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)





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
195	Ship wt. 4lbs. (1.8kg)

### 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

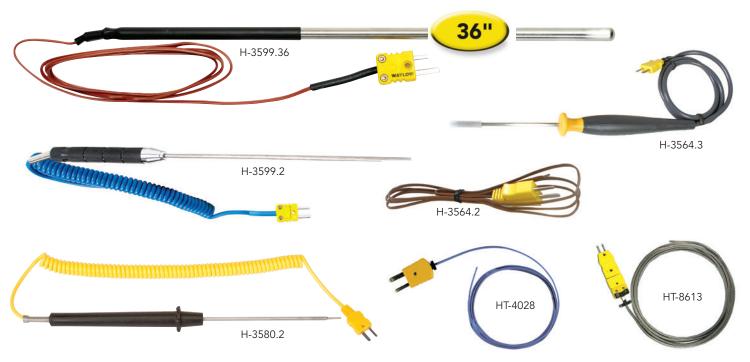
Infrared and type K thermocouple combo gun. High-quality 11:1 optics with laser pointer. Fast response type-K probe is included. You also get max, min, hold, diff, avg, hi/low alarm, backlit display and a °C/°F button.

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:  $\pm 0.8\%$ , 1°C. Compatible with K-type measurement instruments.

K-Probe, 8"	H-3599.2
105 1	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.

K-Probe, 36"	H-3599.36
UPS .	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
ups	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
20 20	Ship wt. 1lbs. (.45kg)

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

4" stainless steel probe with 40" (1m) cable. Measurement range: -40 to  $662^{\circ}F$  (-40 to  $350^{\circ}C$ ). Accuracy is  $\pm 3.96^{\circ}F$  (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:  $\pm 1.1$ °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)

#### Immersion Probes for (page 316) HT-4797 & HT-4798

Range	Length x Dia.	Model
-40 to +752°F -40 to +400°C	120 x 3mm	HT-4798.1
-148 to +2012°F 100 to +1100°C	300 x 1.5mm	HT-4798.2
-148 to +2012°F 100 to +1100°C	300 x 3mm	HT-4798.3

Pt100 Platinum Immersion Probes for HT-4794

Range	Length x Dia.	Model
-58 to 662°F -50 to 350°C	150mm x 3mm	HT-4794.1
-58 to 662°F -50 to 350°C	150mm x 3mm	HT-4794.2
-58 to 662°F 50 to 350°C	300mm x 3mm	HT-4794.3

### ΝΟΤΕΣ

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





### 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:  $\pm 2^{\circ}F/\pm 1^{\circ}C$ , sensor cord length: 120" (304cm). Battery: 1 alkaline 1.5V, AAA.

Minimum/Maximum Thermometer	H-3543
👼 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  $\pm$  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
- Min/Max, Digital Bottle Thermometer H-3561

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°C with a resolution of 0.5° and accuracy of  $\pm 1.5$ °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 bip 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° and an accuracy of ±1°C. Front panel controls are easy-to-set. Alarms can be set to activate at a temperature above, or below a setting or, between or outside two settings. Comes with traceable certificate of calibration.

Big	Digit, Alarm Thermometer °F	HT-4142
	Digit, Alarm Thermometer °C	C HT-4143
Ups	•	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  $\pm 2^{\circ}$ 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)

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

**Digital Thermo-Timer** 

Replacement probe for H-3557D thermo-timer.

Digital Thermo-Timer Probe H-3557D-P

Ship wt. 0.2lbs. (.09kg)





waterproof. max temp.

Field calibratable

waterproof. max temp.





### **Dial Thermometers, Pocket-Type**

Stick Thermometers, Pocket-Type

Description

liquid thermometer, Features

copper-plated bulb to resist

liquid thermometer, includes

metal pocket case and clip. 5" long stem. Large-bore,

tempered glass with non-

pocket case and clip.

toxic liquid, includes metal

5" long stem. Non-toxic

cutting, includes metal pocket case and clip 5" long stem. Non-toxic

Model

H-3547

H-3542A

H-3540

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	25 to 125°F 0 to 50°C	1°F .5°C	
H-2632D	scales. Units have bi-metal element that actuates pointer over graduated dial.	0 to 220°F -10 to 100°C	2°F 1°C	0.7 lb.
H-2634D	Stainless steel stem is 8" long x 0.15" (203 x 4mm). Dial face is 1-3/4" (45mm) dia. external adjustment allows recalibration.	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)	.09 kg
H-2619	20 to 750°F	5°F	16" (405mm)	

### Thermometers, General Purpose 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

**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.

Ship

0.2 lb.

.09kg

0.7 lb.

.32 kg

0.05 lb.

.02 kg

Divisions

1°F

1°C

2°F

Range

0 to

120°F

-10 to

110°C

0 to

220°F





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

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

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

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.

	ott	580				F	PTFE-coate breaka
580 560	540	600 480 480 56(	5, 41 31 00 31	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	22 22 22 22 22 22 22	500	handling,
			50 5:	480			
			and the second second	48			
				A LAND	2		
		_					Immer-
Application	ASTM	Range	Model	PTFE Coated	Subdiv.	Length	sion
	1F 1C	0-302°F -20-150°C	H-2600.1F H-2610.1C	H-2600.1FT H-2610.1CT		12.5" 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	2.0°F 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	
Cloud and pour	5F	-36-120°F	H-2600.5F	H-2600.5FT	2.0°F	9.125"	4.25"
	5C	-38-50°C	H-2610.5C	H-2610.5CT	1.0°C	231mm	108mm)
ow cloud and pour	6F	-112-70°F	H-2600.6F	H-2600.6FT	2.0°F	9.125" 231mm	3"
	6C 7F	-80-20°C 30-580°F	H-2610.6C H-2600.7F	H-2610.6CT H-2600.7FT	1.0°C		76mm
ow distillation	7C	-2-300°C	H-2610.7C	H-2610.7CT	2.0°F 1.0°C	15.25" 386mm	Total
	8F	30-760°F	H-2600.8F	H-2600.8FT	2.0°F	15.25"	
High distillation	8C	-2-400°C	H-2610.8C	H-2610.8CT	2.0°F 1.0°C	386mm	Total
	9F	20-230°C	H-2600.9F	H-2600.9FT	1.0°F	11.25"	2.25"
Pesky-martens low	9C	-5-110°C	H-2610.9C	H-2610.9CT	.5°C	287mm	57mm
Pesky-martens high	10F	200-700°F	H-2600.10F	H-2600.10FT	5.0°F	11.25"	2.25"
resky-martens nign	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"
	11C	-6-400°C	H-2610.11C	H-2610.11CT	2.0°C	308mm	25mm
Gravity	12F	-5-215°F	H-2600.12F	H-2600.12FT	0.5°F	16.5"	total
, 	12C	-20-102°C	H-2610.12C	H-2610.12CT	0.2°C	420mm	
Low softening point	15F 15C	30-180°F -2-80°C	H-2600.15F H-2610.15C	H-2600.15FT H-2610.15CT	0.5°F 0.2°C	15.625" 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			
	19F	120-134°F	H-2600.19F	H-2600.19FT	0.2°F	10.875"	
Saybolt viscosity	19C	49-57°C	H-2610.19C	H-2610.19CT	0.1°C	275mm	total
	20F 20C	134-148°F 57-65°C	H-2600.20F H-2610.20C	H-2600.20FT H-2610.20CT			
	20C	79-87°C	H-2610.20C	H-2610.20CT			
	216 22F	204-218°F	H-2600.22F	H-2600.22FT			
	22C	95-103°C	H-2610.22C	H-2610.22CT			
/:	28F	97.5-102.5°F	H-2600.28F	H-2600.28FT	0.1°F	12"	4-4-1
Kinematic viscosity	28C	36.6-39.4°C	H-2610.28C	H-2610.28CT	0.2°C	305mm	total
	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 45C	74.5-79.5°F 23.6-26.4°C	H-2600.45F H-2610.45C	H-2600.45FT H-2610.45CT			
Kinematic viscosity	43C	48.6-51.4°C	H-2610.45C	H-2610.46CT	0.1°F	12"	total
	40C	137.5-142.5°F	H-2600.47F	H-2600.47FT	0.2°C	305mm	totar
	47C	58.6-61.4°C	H-2610.47C	H-2610.47CT			
lag closed tester,	57F	-4-122°F	H-2600.57F	H-2600.57FT	1.0°F	11.25"	2.25"
ow range	57C	-20-50°C	H-2610.57C	H-2610.57CT	.5°C	287mm	57mm
	63F	18-89°F	H-2600.63F	H-2600.63FT	0.07		
Precision	63C	-8-32°C	H-2610.63C	H-2610.63CT	.2°F .1 °C	15"	
	64F	77-131°F	H-2600.64F	H-2600.64FT		379mm	
	64C	25-55°C	H-2610.64C	H-2610.64CT			total
Kinematic viscosity	110F 110C	272.5-277.5°C 133.6-136.4°C	H-2600.110F H-2610.110C	H-2600.110FT H-2610.110CT	.1°F .2°C	12" 305mm	totai
	1100	100.0-100.4 C	1-2010.1100				-

LABORATORY

113F

113C

Bituminous

softening point

30-350°F

-1-175°C

H-2600.113F

H-2610.113C

H-2600.113FT

H-2610.113CT

1.0°F .5°C 16"

406mm

### 

**CAUTION** 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
<b>1</b> 15	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.

0 11	
Surface Thermometer, 0-250°F/2°F	H-2628
Surface Thermometer, 0-500°F/5°F	H-2628H
Surface Thermometer, 0-120°C/1°	С Н-2629
UPS	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	wt. 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. (0.27kq)

### 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.	(0.32ka)

### **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
ups	Ship wt. 2.6lbs. (1.17kg)

### Stopwatch

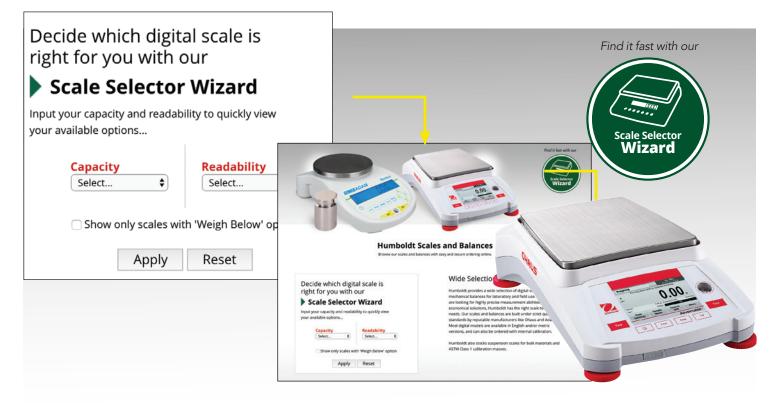
Time-out type stopwatch, used for timing operations and tests Start, stop and restart are activated by depressing the crown. Hands are reset by depressing pin on side of case. Features nickelchromium case and anti-magnetic shock-resistant 7-jewel movement.

1/5 sec. movement, 1 rev = 60 sec	H-2260
1/10 sec. movement, 1 rev = 30 sec	H-2261
👳 Ship wt. (	).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
200g	0.01g	HB-4528A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" Dia. / 130mm	335
220g	0.001g	HB-4700A	Adam Nimbus Precision	AC	4.7" (120mm) Dia.	333
220g	0.001g	HB-4620	Ohaus Scout STX Portable	AC / AA	3.7" dia. / 93mm dia.	334
220g	0.01g	HB-4621	Ohaus Scout STX Portable	AC / AA	4.7" dia. / 120mm dia.	334
220g	0.01g	HB-4720A	Ohaus Scout SPX Portable	AC / AA	4.7" dia. / 120mm dia.	334
250g	0.1g	HB-4529A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" Dia. / 130mm	335
300g	0.01g	HB-4710A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	335
420g	0.001g	HB-4701A	Adam Nimbus Precision	AC	4.7" (120mm) Dia.	333
420g	0.001g	HB-5342A	Ohaus Adventurer Precision	AC	Ø 5.1" / 130 mm	330
420g	0.01g	HB-4622	Ohaus Scout STX Portable	AC / AA	4.7" dia. / 120mm dia.	334
420g	0.01g	HB-4724A	Ohaus Scout SPX Portable	AC / AA	4.7" dia. / 120mm dia.	334
420g	0.1g	HB-4723A	Ohaus Scout SPX Portable	AC / AA	4.7" dia. / 120mm dia.	334
420g	0.1g	HB-4623	Ohaus Scout STX Portable	AC / AA	4.7" dia. / 120mm dia.	334
520g	0.001g	HB-5352A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	330
600g	0.01g	HB-4712A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	335
600g	0.02g	HB-4711A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	335
600g	0.1g	HB-4530A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" Dia. / 130mm	335
620g	0.001g	HB-4716A	Adam Nimbus Precision	AC	4.7" (120mm) Dia.	333
620g	0.01g	HB-4624	Ohaus Scout STX Portable	AC / AA	4.7" dia. / 120mm dia.	334
620g	0.01g	HB-4725A	Ohaus Scout SPX Portable	AC / AA	4.7" dia. / 120mm dia.	334
620g	0.1g	HB-4726A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	334
620g	0.1g	HB-4625	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	334



### Digital Scale and Balance Comparison Chart

720g	0.001g	HB-5000	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	332
720g	0.001g	HB-5100	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	332
720g	0.001g	HB-5001	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	332
720g	0.001g	HB-5101	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	332
820g	0.001g	HB-4702A	Adam Nimbus Precision	AC	4.7" (120mm) Dia.	333
1000g	0.01g	HB-4713A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	33
1100g	0.1g	HB-4960	Ohaus Navigator XL Portable	AC / battery	7.6" x 8" / 194 x 203mm	330
1200g	0.001g	HB-5102	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	332
1200g	0.001g	HB-5002	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	332
1200g	0.01g	HB-4626	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	334
1200g	0.01g	HB-4740A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	334
1500g	0.05g	HB-4714A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	33
1500g	0.1g	HB-4532A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" Dia. / 130mm	33
•	-	HB-5315A				
1520g	0.01g		Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	33
1600g	0.01g	HB-4703A	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	33
1600g	0.01g	HB-1602	Pioneer Precision Balance	AC	7.09" / 180mm	33
1600g	0.1g	HB-4950	Ohaus Navigator XT Portable	AC / Recharge	9.00" x 6.90" / 250 x 240mm	33
2000g	1g	HB-4534A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" Dia. / 130mm	33
2100g	0.001g	HB-5003	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	33
2100g	0.001g	HB-5103	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	33
2100g	0.1g	HB-4961	Ohaus Navigator XL Portable	AC / battery	7.6" x 8" / 194 x 203mm	33
2200g	0.01g	HB-4627	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	33
2200g	0.01g	HB-4741A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	33
2200g	0.01g	HB-2202	Pioneer Precision Balance	AC	7.09" / 180mm	33
2200g	0.01g	HB-5322A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	33
2200g	0.01g	HB-5220	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	33
2200g	0.1g	HB-4628	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	33
2200g	0.1g	HB-4727A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	33
2200g	0.1g	HB-2201	Pioneer Precision Balance	AC	7.09" / 180mm	33
2200g	0.01g	HB-4704A	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	33
2600g	-	HB-4533A		AC / AA		33
•	0.1g		Adam Core Balance CQT Compact Portable		5.1" Dia. / 130mm	
3000g	0.1g	HB-4715A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	33
3000g	0.1g	HB-4730	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	33
3200g	0.01g	HB-3202	Pioneer Precision Balance	AC	7.09" / 180mm	33
3200g	0.01g	HB-5004	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	33
3200g	0.01g	HB-5005	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	33
3200g	0.01g	HB-5104	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	33
3200g	0.01g	HB-5105	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	33
3200g	0.01g	HB-5004	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	33
3200g	0.2g	HB-4951	Ohaus Navigator XT Portable	AC / Recharge	9.00" x 6.90" / 250 x 240mm	33
3600g	0.01g	HB-4705A	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	33
4200g	0.01g	HB-5343A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	33
4200g	0.01g	HB-5420	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	33
4200g	0.01g	HB-4202	Pioneer Precision Balance	AC	7.09" / 180mm	33
4200g	0.1g	HB-5344A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	33
4200g	0.1g	HB-4201	Pioneer Precision Balance	AC	7.09" / 180mm	33
4200g	0.1g	HB-4539B	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	33
4600g	0.01g	HB-4706A	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	33
-						33
5000g	1g	HB-4535A	Adam Core Balance CQT Compact Portable	AC / AA	5.1" (130mm) Dia.	
5100g	0.5g	HB-4962	Ohaus Navigator XL Portable	AC / battery	7.6" x 8" / 194 x 203mm	33
5200g	0.01g	HB-5355AC	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	33
6000g	0.2g	HB-4731	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	33
6200g	0.01g	HB-5006	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	3
6200g	0.01g	HB-5106	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	33
6200g	0.01g	HB-5622	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	33
6200g	0.01g	HB-5107	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	33
6200g	0.01g	HB-5007	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	33
6200g	0.1g	HB-5620	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	3
6200g	0.1g	HB-4540B	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	33
6200g	0.1g	HB-4629	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	33
6200g	0.1g	HB-4729A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	33
6400g	0.5g	HB-4952	Ohaus Navigator XT Portable	AC / Recharge	9.00" x 6.90" / 250 x 240mm	33
5.009	0.09	.10 4732	Chaus Navigator ATT Oltable	//c/ necharge	7.00 X 0.70 7 200 X 2401111	50

### Digital Scale and Balance Comparison Chart

8200g	0.01g	HB-5108	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	332
8200g	0.1g	HB-4541B	Adam Nimbus Precision	AC	6.3" (160mm) Dia.	333
8200g	0.1g	HB-5382A	Ohaus Adventurer Precision	AC	6.9" x 7.7" 175 x 195 mm	330
8200g	1.0g	HB-4630	Ohaus Scout STX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	334
8200g	1.0g	HB-4742A	Ohaus Scout SPX Portable	AC / AA	5.5" x 6.7" / 140 x 170mm	334
10000g	0.5g	HB-4953	Ohaus Navigator XT Portable	AC / Recharge	9.00" x 6.90" / 250 x 240mm	336
10000g	1g	HB-4963	Ohaus Navigator XL Portable	AC / battery	7.6" x 8" / 194 x 203mm	336
10200g	0.01g	HB-5102C	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	330
10200g	0.1g	HB-5100C	Ohaus Explorer Precision	AC	7.5" x 7.9" 190 x 200mm	330
16000g	1g	HB-4954	Ohaus Navigator XT Portable	AC / Recharge	9.00" x 6.90" / 250 x 240mm	336
20000g	1g	HB-4964	Ohaus Navigator XL Portable	AC / battery	7.6" x 8" / 194 x 203mm	336
6kg	0.02g	HB-3506	Ohaus Ranger 7000 High Resolution, High Capacity	AC	11" x 11" (280 x 280mm)	339
12kg	0.1g	HB-4543B	Adam Nimbus High Capacity	AC	15.7" x 11.8" (400 x 300mm)	338
12kg	0.1g	HB-4943	Adam Eclipse High Capacity	AC / Recharge	9.4" x 9.4" (240 x 240mm)	337
12kg	0.1g	HB-4506A	Ohaus Explorer High Capacity	AC / Recharge	15.7" x 11.8" (400 x 300mm)	337
15kg	0.01g	HB-3506	Ohaus Ranger 7000 High Resolution, High Capacity	AC / Recharge	14.8" x 12.2" (377 x 311mm)	337
15kg	0.2g	HB-3515		AC	14.8" x 12.2" (377 x 311mm)	338
15kg	0.29	HB-4732	Ohaus Ranger 7000 High Capacity			336
	0.3g	HB-4945	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	
16kg 16kg	0.1g	HB-4545B	Adam Eclipse High Capacity	AC / Recharge	9.4" x 9.4" (240 x 240mm)	337
	ů.		Adam Nimbus High Capacity	AC	15.7" x 11.8" (400 x 300mm)	338
16kg / 35lb	.5g / 0.001lb	HB-4874	Adam ABK Portable	AC / battery	11.8" X 15.7" / 300mm X 400mm	338
22kg	0.1g	HB-4946	Adam Eclipse High Capacity	AC / Recharge	12.2" x 14.8" (311 x 377mm)	337
24kg	0.1g	HB-4508A	Ohaus Explorer High Capacity	AC / Recharge	15.7" x 11.8" (400 x 300mm)	337
25kg / 50lb	1g / 0.002lb	HB-4840	Ohaus Defender 5000 Bench	AC / opt. battery	12 x 14" / 305 x 355mm	340
30kg	1g	HB-4733	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	336
30kg / 66lb	.005kg / 0.01lb	HB-4830	Ohaus Defender 3000 Bench	AC / C batteries	12" X 14" / 30.5mm X 35.5mm	340
32kg	0.1g	HB-4947	Adam Eclipse High Capacity	AC / Recharge	12.2" x 14.8" (311 x 377mm)	337
32kg / 70lb	1g / 0.002lb	HB-4875	Adam ABK Portable	AC / battery	11.8" X 15.7" / 300mm X 400mm	338
35kg	0.1g	HB-3506	Ohaus Ranger 7000 High Resolution, High Capacity	AC	14.8" x 12.2" (377 x 311mm)	339
35kg	0.1g	HB-4546B	Adam Nimbus High Capacity	AC	15.7" x 11.8" (400 x 300mm)	338
35kg	0.1g	HB-4510A	Ohaus Explorer High Capacity	AC / Recharge	15.7" x 11.8" (400 x 300mm)	337
35kg	0.5g	HB-3535	Ohaus Ranger 7000 High Capacity	AC	14.8" x 12.2" (377 x 311mm)	338
35kg / 75lb	.01kg / 0.02lb	HB-4774	Adam CPWplus Portable	AC / AA	12" sq / 300mm sq.	339
50kg / 100lb	2g / 0.005lb	HB-4841	Ohaus Defender 5000 Bench	AC / opt. battery	12 x 14" / 305 x 355mm	340
50kg / 100lb	2g / 0.005lb	HB-4842	Ohaus Defender 5000 Bench	AC / opt. battery	18 x 24" / 457 x 610mm	340
60kg	1g	HB-3560	Ohaus Ranger 7000 High Capacity	AC	14.8" x 12.2" (377 x 311mm)	338
60kg / 130lb	2g / 0.005lb	HB-4876	Adam ABK Portable	AC / battery	11.8" X 15.7" / 300mm X 400mm	338
60kg / 130lb	10g / 0.02lb	HB-4831	Ohaus Defender 3000 Bench	AC / C batteries	12" X 14" / 30.5mm X 35.5mm	340
60kg / 130lb	10g / 0.02lb	HB-4831	Ohaus Defender 3000 Bench	AC / C batteries	21.7" x 16.5"/ 550mm x 420mm	340
75kg / 165lb.	.02kg / 0.05lb	HB-4778	Ohaus Digital Field Scale	Rechargeable	11" x 12.4" x 1.8" (280 x 316 x 45mm)	339
75kg / 165lb.	.02kg / 0.05lb	HB-4775A	Adam CPWplus Portable	AC / AA	12" sq / 300mm sq.	339
120kg / 260lb	5g / 0.01lb	HB-4877	Adam ABK Portable	AC / battery	11.8" X 15.7" / 300mm X 400mm	338
125kg / 275lb	5g / .001lb	HB-4843	Ohaus Defender 5000 Bench	AC / opt. battery	18 x 24" / 457 x 610mm	340
150kg / 330lb	20g / 0.05lb	HB-4832	Ohaus Defender 3000 Bench	AC / C batteries	21.7" x 16.5"/ 550mm x 420mm	340
150kg / 330lb	20g / 0.05lb	HB-4832	Ohaus Defender 3000 Bench	AC / C batteries	25.6" x 19.7" / 650mm x 500mm	340
150kg / 330lb	.05kg / 0.1lb	HB-4776	Adam CPWplus Portable	AC / AA	12" sq / 300mm sq.	339
200kg / 440lb	0.1lb/.05kg	HB-4777	Adam CPWplus Portable	AC / AA	12" sq / 300mm sq.	339
300kg / 660lb	50g / 0.1lb	HB-4833	Ohaus Defender 3000 Bench	AC / C batteries	25.6" x 19.7" / 650mm x 500mm	340







### **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	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 // 0lum
4200g	0.01g	HB-5420	HB-5420.4F	HB-5420C	HB-5420C.4F	±0.01g	±0.02g			15 lb/6.8kg
6200g	0.01g	HB-5622	HB-5622.4F	HB-5622C	HB-5622C.4F	±0.01g	±0.02g	AC	7.5" x 8"	16.3 lb/7.38kg
6200g	0.1g	HB-5620	HB-5620.4F	HB-5620C	HB-5620C.4F	±0.1g	±0.1g	AC	(190 x 200mm)	10.3 ID/7.30Kg
10200g	0.01g	—		HB-5102C	HB-5102C.4F	±0.01g	±0.02g			10 lb /4 El
10200g	0.1g	—	_	HB-5100C	HB-5100C.4F	±0.1g	±0.1g			10 lb/4.5kg

### **Ohaus Explorer Precision Balances**

### **Ohaus Adventurer Precision Balances**

		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.
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		Ø 5.1 / 130 mm	
1520g	0.01g	HB-5315A	HB-5315A.4F	HB-5315AC	HB-5315AC.4F	±0.01g	±0.02g			10 lb/4.5kg
2200g	0.01g	HB-5322A	HB-5322A.4F	HB-5322AC	HB-5322AC.4F	±0.01g	±0.02g	AC		10 15/ 4.5Kg
4200g	0.01g	HB-5343A	HB-5343A.4F	HB-5343AC	HB-5343AC.4F	±0.01g	±0.02g	AC	7.7" x 6.9"	
4200g	0.1g	HB-5344A	HB-5344A.4F	HB-5344AC	HB-5344AC.4F	±0.1g	±0.2g		(195 x 175mm)	
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

### **Ohaus Pioneer Balance**

		External 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			
2200g	0.1g	HB-2201	HB-2201.4F	HB-2201C	HB-2201C.4F	AC	Ø 7.09"	11 lb/5.0kg
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			



ups





### **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



Adam Equinox and Solis Precision Balances

		Equinox	Solis	Equinox	Solis	_		-		<b>-</b>
Capacity	Readability	External (	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)	15.2lb
2100g	0.001g	_	_	HB-5003.3F	HB-5103.3F	±0.002g	±0.05g	AC 120-220V	(1.1.011112)	(6.9kg)
3200g	0.01g	HB-5004.3F	HB-5104.3F	HB-5005.3F	HB-5105.3F	±0.02g	±0.03g	50/60Hz	7.5" x 7.5"	(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)	





HB-4785.3F

### Adam Luna Precision Balances

Featuring a wide selection of capacities and readabilities, Luna precision balances can meet the diverse weighing needs in a variety of labs. The Luna range offers improved performance for faster, more accurate readings. Luna combines durability and performance in a stylish design, with an LCD that delivers results in large 24mm digits in white on a black background. Suitable for international use, Luna provides a useful multilingual text and display capability. RS-232 and USB connections allow speedy connection with computers and printers to transmit results. Designed to tolerate demanding lab tasks, Luna is constructed with easy-to-clean ABS plastic construction and a durable grade 304 stainless steel pan.

#### 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 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
- Sealed keypad protects against dirt and spills
- USB and RS-232 interfaces provide speedy communication with computers and printers

- External calibration allows for verification and adjustment with weights
- Multilingual display permits use in various regions
- Parts counting with preset sample sizes
- Printouts include date and time for data tracking within Good Laboratory Practices (GLP) guidelines
- Selectable digital filtering for animal/dynamic weighing enables consistent results for moving subjects
- Auto power-off to save energy
- AC adapter included

ups

See Chart for Models and Specifications

### Adam Luna Precision Balances

Capacity	Readability	External Calibration	Internal/External Calibration	Calibration Power Pan Size		Ship Wt.		
		120/220V 50/60Hz	120/220V 50/60Hz			VVT.		
2600g	0.01g	HB-4785.3F						
2600g	0.01g	—	HB-4786.3F					
3600g	0.01g	HB-4787.3F	—				Accessories	
3600g	0.01g	—	HB-4788.3F				Description	Part #
4600g	0.01g	HB-4785C.3F	—		7.3"x 7.3"		In-use wet cover	HB-4785.1
4600g	0.01g	—	HB-4786C.3F	AC	(185 x185mm)	15 lb/7kg	USB cable	HB-4785.2
6000g	0.01g	HB-4787C.3F			(105 × 1051111)	13 lb/7 kg	RS-232 cable M-F	HB-4785.3
6000g	0.1g	—	HB-4788C.3F				Calibration certificate	HB-4785.4
6000g	0.1g	HB-4789.3F	_				ATP thermal printer	HB-5000.3
8000g	0.1g	HB-4790.3F	_				ATP thermal printer Paper	HB-5000.4
12000g	0.1g	HB-4791.3F					Adam DU Data	HB-4545B
15000g	0.1g	HB-4792.3F	—				Collection Program	пр-4040В





### **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

### Ohaus Scout STX Portable Balance

	C STAT OI LUDI	• = = = = = = = = = = = = = = = = = = =							
Capacity	Readability	120V 60Hz	220V 50/60 Hz	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,				
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 6.7 / 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**

Capacity	Readability	120V 60Hz	220V 50/60 Hz	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.7 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,qm		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				



#### Portable Balances 335







Adam 2600g Core Balance Field Kit

Ups

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

### 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.

ups See Chart for Models and Specifications

Pan Size

4.7" Dia. / 120mm

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

0.01g

0.02g

0.01g

0.01g

0.05g

0.1g

Capacity

300g

600g

600g

1000g

1500g

3000g

### 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

220V 50/60Hz

HB-4710A.4F

HB-4711A.4F

HB-4712A.4F

HB-4713A.4F

HB-4714A.4F

HB-4715A.4F

Ship Wt.

30lb/13.6kg

Ups

120V 60Hz

HB-4710A

HB-4711A

HB-4712A

HB-4713A

HB-4714A

HB-4715A

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	220V 50/60Hz	Repeatability	Linearity	Power	Pan Size	Ship Wt.
200g	0.01g	HB-4528A	HB-4528A.4F	0.01g	±0.02g		5.1" Dia. / 130mm	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			7 lb/3.1kg
1500g	0.1g	HB-4532A	HB-4532A.4F	0.1g	±0.2g	AC / AA batteries		7 lb/3.1kg
2000g	1g	HB-4534A	HB-4534A.4F	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 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

Ohaus Ranger 3000 Compact Bench Scales								
Capacity	Readability	Pan Size	120V 60Hz	220V50/60Hz	Ship Wt.			
3000g	0.1g		HB-4730	HB-4730.4F	11 lb/4.98kg			
6000g	0.2g	8.9" x 11.8" / 225 x 300mm	HB-4731	HB-4731.4F				
15kg	0.5g	0.9 X I I.0 / 225 X 300mm	HB-4732	HB-4732.4F				
30kg	1g		HB-4733	HB-4733.4F				

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 0.1q. 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

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	16 lb / 7.3 kg	
22kg	0.1g	12.2 x 14.8" (311 x 377mm)	HB-4946	HB-4946.4F	то ю 7.5 кд	
32kg	0.1g	12.2 x 14.8" (311 x 377mm)	HB-4947	HB-4947.4F		

Adam B	Adam Eclipse High-Capacity Balances with Control Pillar					
Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz	Ship Wt.	
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	10 ID / 7.3 Kg	
32kg	0.1g	12.2 x 14.8" (311 x 377mm)	HB-4947P	HB-4947P.4F		

Ohaus 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	

### **Ohaus Explorer High-Capacity Precision Balances**

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<sup>™</sup> 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

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



ups



## Shown with optional column kit HB-3535

**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.

### Adam Nimbus High-Capacity Precision Balances

Nimbus high-capacity balances offer a range 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 Ship wt. 21lbs. (9.5kg)

see chart

Ohaus Ranger 700 High Capacity Balances see chart Ship wt. 10lbs. (4.53kg)

### 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 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

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

Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz
15kg	0.2g	14.8" x 12.2" (377 x 311mm)	HB-3515	HB-3515.4F
35kg	0.5g	14.8" x 12.2" (377 x 311mm)	HB-3535	HB-3535.4F
60kg	1g	14.8" x 12.2" (377 x 311mm)	HB-3560	HB-3560.4F

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



Field Scales 339

Shown with optional, hard carrying case



### Ohaus Ranger 7000 High-Resolution Balances

The Ranger 7000 high-resolution, high capacity balances provide enhanced resolution for even more accurate weighing in rugged and harsh industrial environments. Like the standard Ranger 7000 models these modular scales are built with IP54 a castmetal 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.

### Ohaus Digital Field Test Scale, 165 x 0.05 lbs.

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

• 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 Scale, 165 x 0.05 lbs.
 HB-4778

 In-Use Cover
 HB-4778.1

 Interface Kit, RS232-USB
 HB-4778.2

 Ship wt. 17.6lbs. (8kg)

### 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 Ranger 7000 High Resolution, High-Capacity Balances

Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz
6kg	0.02g	11" x 11" (280 x 280mm)	HB-3506	HB-3506.4F
15kg	0.1g	14.8" x 12.2" (377 x 311mm)	HB-3516	HB-3516.4F
35kg	0.1g	14.8" x 12.2" (377 x 311mm)	HB-3536	HB-3536.4F

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

### **Ohaus Digital Field Scale**

(	Capacity	Readability	120V 60Hz	Repeatability	Power	Pan Size	Ship Wt.
16	5lb./75kg	0.05lb/.02kg	HB-4778	0.05lb/.02kg	AC / battery	11" x 12.4" x 1.8" (280 x 316 x 45mm)	10.8 lb / 4.89 kg

### Adam CPWplus Portable Scales

Capacity	Readability	120V 60Hz	220V 50/60Hz	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" sq / 300mm sq.	10.8 lb / 4.89 kg
330lb./150kg	0.1lb/.05kg	HB-4776	HB-4776.4F	0.1lb/.05kg			
440lb./200kg	0.1lb/.05kg	HB-4777	HB-4777.4F	0.1lb/.05kg			

ups



340 Bench Scales





### LABORATORY



### Ohaus Defender® 3000 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 mounting capabilities. These scales provide multiple weighing units: lb, oz, lb: oz, kg, g. Standard features of the Defender bench scales include: 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" (25mm) high LCD weight display with high-contrast backlight; Built-in RS232 for printing and data connection. The ultra-longlasting internal rechargeable battery provides operation on a single charge for up to 120 hours, ensuring uninterrupted operation for five straight days.

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.

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

 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 for Models and Specifications

Description	Part #
Rechargeable battery kit	HB-4931RB

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

See Chart for Models and Specifications

### Ohaus Defender 3000 Bench Scales

Capacity	Readability	120V 60Hz	220V 50/60Hz	Power	Platform	Ship Wt.
66lb. / 30kg	0.01 lb / 5 g	HB-4830	HB-4830.4F			
132lb / 60kg	0.02lb / 10g	HB-4831	HB-4831.4F	AC / Optional battery	14"x 12" / 355mm x 305mm	26 lb (12 kg)
132lb / 60kg	0.02lb / 10g	HB-4834	HB-4834.4F			42 lb (10 ls r)
330lb / 150kg	0.05lb / 20g	HB-4832	HB-4832.4F	AC / Optional battery	21.7" x 16.5"/ 550mm x 420mm	42 lb (19 kg)
330lb / 150kg	0.05lb / 20g	HB-4835	HB-4835.4F		25.6" x 19.7" / 650mm x 500mm	71 11 (22 1 .)
660lb / 300kg	0.1lb / 50g	HB-4833	HB-4833.4F	AC / Optional battery		71 lb (32 kg)

### **Ohaus Defender® 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 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
495	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 wt.	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)



342 Scales & Balances

### LABORATORY



### 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 H-4665.1 500g 2 lb. H-4660.2 H-4665.2 1kg H-4660.5 5 lb. 2kg H-4665.3 H-4660.10 H-4665.4 10 lb. 5kg

### 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. Ohau	s #
703-SO.	

Stainless Scoop and Counterweight	H-4615S
<b>UP</b> 3	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
095	Ship wt. 3lbs. (1.2kg)

**Steel Carrying Case** 

Carrying case for mechanic	al balances.
Steel Carrying Case	H-4603CC
475 475	Ship wt. 10lbs. (4.5.4kg

Dust Cover Vinyl dust cover for mechanical balances. Dust Cover H-4

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:  $8" \times 1.625" \times 16"$  (203 x 41 x 406mm).

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

### Spring Scale, Vertical

Spring

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" ( $51 \times 45 \times 279$ mm).

Spring Scale, Vertical	H-4490A
ups	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

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 outlined in ANSI/ASTM E617.

### See Chart for Below

### Calibration Weights, Individual

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

See Chart for Below

ASTM Class 1		ASTM 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 g	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 g	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

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	



### 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	I		
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	1.14 cu. ft. (32.3L) capacity. Features hydraulic temperature controller, $\pm 1^{\circ}$ sensitivity. 1050	115V, 60 Hz.	Inside: 13" x 13" x 11.6" (330 x 330 x 295mm)
H-30115.4F	(232°C)	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	115V, 60 Hz.	Inside: 18" x 12" x 14.6" (457 x 305 x 371mm)
H-30125.4F	(232°C)	temperature controller, ±1° sensitivity. 1500 watts. Shipping wt. 82 lbs. (31.7kg)	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	115V, 60 Hz.	Inside: 13" x 13" x 13" (330 x 330 x 330mm)
H-30110.4F	(232°C)	temperature controller, ±1° sensitivity. 750 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 temperature controller, $\pm 1^{\circ}$ sensitivity. 1200	115V, 60 Hz.	Inside: 18" x 12" x 15.6" (457 x 305 x 396mm)
H-30120.4F	(232°C)	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)

NOTES 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, easyto-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 temperature controller, ±1° sensitivity. 1500 watts. Shipping wt. 98 lbs. (44.5kg)	115V, 60 Hz.	Inside: 18" x 14" x 21.8" (457 x 356 x 554mm)
H-30131E.4F	(232°C)		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) $\text{B}^{\square}$	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 temperature controller, ±1° sensitivity. 1050	115V, 60 Hz.	Inside: 13" x 13" x 11" (330 x 330 x 280mm)
H-30110E.4F	(232°C)	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)





### 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

230V Models do not have wire plug.

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	Υ - <i>γ</i>	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)	Lecide: 25 5" 24" 20" ((40 (10 7/ 2
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

HUMBOLDT



### 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

H-32343 (shown with optional stand)

#### 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.			18	600 lbs
					H-32300.2F.3 H-32300.2F.3.DIG2	230V,60Hz 3ph.				
15.8	36" x 21" x 36"	400°F	0.50/		H-32300.8F	208V,60Hz 1ph.	40" x 28" x 47"			
(.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.	1190(11(1))			
					H-32300.8F.3.DIG2	200v,00Hz 3ph.				
					H-32300.9F.3	460V,60Hz 3ph.				
					H-32300.9F.3.DIG2	400V,00Hz 3pn.				
		2/# 2/#			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	2300,00112 1011.				
					H-32333.2F.3	230V,60Hz 3ph.				
	36" x 36" x 36"				H-32333.2F.3.DIG2	2001,00112 0p11.				
27	30 x 30 x 30 (910 x 910 x	400°F	±0.5%	±8°F	H-32333.8F	208V,60Hz 1ph.				
(.764)	910mm)		C)	-01	H-32333.8F.DIG2	2001/00112 (pm				
					H-32333.8F.3	208V,60Hz 3ph.				
					H-32333.8F.3.DIG2					
					H-32333.9F.3	460V,60Hz 3ph.				
					H-32333.9F.3.DIG2	· · · · · · · · · · · · · · · · · · ·				
					H-32343.2F	230V,60Hz 1ph.				850 lbs (385kg)
					H-32343.2F.DIG2					
					H-32343.2F.3	230V,60Hz 3ph.				
	36" x 48" x 36"				H-32343.2F.3.DIG2		40" x 55" x 47"			
36	(910 x 1220 x	400°F	±0.5%	±8°F	H-32343.8F	208V,60Hz 1ph.	40 x 33 x 47 (1020 x 1400 x 1190mm)	6.6	22 min.	
(1.01)	910mm)	(204.4°C)	() = 0.070		H-32343.8F.DIG2					
					H-32343.8F.3	208V,60Hz 3ph.				
					H-32343.8F.3.DIG2 H-32343.9F.3					
						460V,60Hz 3ph.				
					H-32343.9F.3.DIG2					

NOTES

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  $\pm 3^{\circ}$  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" (460 x 460 x 310mm)	2.3 (65)	H-30356	LBB1-23	24 x 24.5 x 26" 11-23 (610 x 620 x 660mm)	50/60Hz, 1ph, 120V 15 amps, 1.2KW heater	(2) Standard	205 lb
			H-30356.4F			50/60Hz, 1ph, 240V 15 amps, 1.2KW heater	(max. 5 @ 2"Ø )	(92 kg)
	30 x 18 x 22"	6.9	H-30360	LBB1-69	36 x 24.5 x 36.5" (920 x 630 x 930mm)	50/60Hz, 1ph, 120V 21.6 amps, 2.4KW heater	(2) Reinforced	320 lb
	(760 x 460 x 560mm)	(195)	H-30360.4F			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	2.5" (6.4cm)		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		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









Small Bench top Muffle Furnace

Refer to table for specifications.

Bench top Furnace, 120V 50/60Hz

Bench top Furnace, 240V 50/60Hz

Medium Bench top Muffle Furnace

Refer to table for specifications.

Bench top Furnace, 120V 50/60Hz

Bench top Furnace, 240V 50/60Hz

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.

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.

H-30204.4F

H-30200

H-30201

H-30201.4F

Ship wt. 86lbs. (39kg)

H-30200.4F

Ship wt. 30.6lbs. (13.8kg)



### 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 wt. 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 Ship wt. 44.1lbs. (20kg)

### **Electric Hotplates**

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

Ship wt. 9.9lbs. (4.4kg)

H-4947AN

### 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 g)

		U13	Ship wt. 6lbs. (2.7k
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.

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
	2192°F	5" x 8" x 4"	



H-30214.4F

H-30215.4F

(1200°C)

2192°F

(1200°C)

(127 x 203 x 102mm)

7" x 8" x 6"

(178 x 203 x 152mm)

208/240V 50/60Hz 1 ph.

208/240V 50/60Hz 1 ph.

LABORATORY







#### Guardian 5000 Ceramic, Hotplate/Stirrers

OHAUS Guardian 5000<sup>™</sup> Hotplates Stirrers are designed for safety and simplicity in all research, academia and industrial applications. The design ensures proper mixing and temperature control of the top plate or your sample when using the optional temperature probe. Heating models include a Single Point Calibration feature for multiple set points. Select from two stirring models with two plate sizes for your everyday heating and stirring applications.

### **Unique Features:**

SafetyHeat<sup>™</sup> System Protects the Lab: An industry-leading early detection system that continuously monitors the electronics and shut off heating before an over-temperature condition occurs.

**Powerful, Consistent Stirring Performance:** Precise stirring from 60 to 1600 rpm provided by a powerful motor, strong magnet and softwarecontrolled ramp rates.

Easy to Read LCD Display With Everything You Need to Know: The bright LCD display includes large temperature and speed settings, intuitive icons and a prominent hot top indicator

Guardian 5000 Ceramic Basic Hotplate See Table Guardian 5000 Ceramic Stirring Hotplate See Table Ship wt. 6.2lb (2.8kg)

## Guardian 7000 Ceramic, Hotplate/Stirrers

OHAUS Guardian 7000 Hotplate Stirrers are designed with outstanding safety features and superior heating and mixing performance. The SmartHousing<sup>™</sup> is chemical resistant with an innovative, easy-to-clean design that channels spills away from internal components and the angled glass control panel. The bright LCD display includes intuitive icons, temperature, speed and time settings - all designed to monitor performance from across the lab.

#### **Unique Features:**

passed.

SmartPresence<sup>™</sup> and SmartLink<sup>™</sup>

Technologies Ensure Supervised Operation: Protect your lab with patented SmartPresence™ and SmartLink™ technologies. These exclusive features automatically shut off the heater if no one is detected after a user set "time out" period has SafetyHeat<sup>™</sup> System Protects the Lab: An industry-leading early detection system that continuously monitors the electronics and shut off heating before an over-temperature condition occurs.

**Powerful, Consistent Stirring Performance:** Precise stirring from 60 to 1600 rpm provided by a powerful motor, strong magnet and softwarecontrolled ramp rates.

SmartHeat™ allows you to set the maximum temperature of the unit and

SmartRate<sup>™</sup> enables fast or slow temperature and speed ramp rates.

Guardian 7000 7"x7" Ceramic, Hotplate/Stirrers See Table Guardian 7000 10"x10" Ceramic, Hotplate/Stirrers See Table Ship vt. 6.2lb (2.8kq)

#### Heavy-Duty Hotplates

Electric hot plate with aluminum top plate outperforms other materials and provides superior temperature uniformity and stability. Hot plates feature a sturdy stainless steel case that resists spills and corrosion and supports heavy loads. Large top plate surface accommodate a 40 lb maximum load capacity. Heating surface resists warping and buckling. Embedded heating elements provide better heat transfer and have a longer life than "open-coil" designs. Perforated side plates allow air circulation—keep controls cool to the touch. For added safety, an indicator lights up when power is supplied to the heating element.

 Heavy-Duty Hotplate, 12" x 12"
 See Table

 Heavy-Duty Hotplate, 24" x 12"
 See Table

 Image: Ship wt. 12" x 12": 26/lbs. (11.8kcj), 24" x 12": 50/lbs. (22.7kcj)
 See Table

#### **Guardian 5000 Ceramic Basic and Stirring Hotplates**

Temperature range	Heating surface	Max. Ioad	Electrical	Standard model	Stirring model	Speed range
Ambient +5° to	7" x 7" Up to	120V 50/60Hz	H-7530	H-7531		
		Up to 14.5kg (32 lbs)	230V 50/60Hz	H-7530.4F	H-7531.4F	60 to
	Ŭ		120V 50/60Hz	-	H-7532	1600rpm
		230V 50/60Hz	-	H-7532.4F		

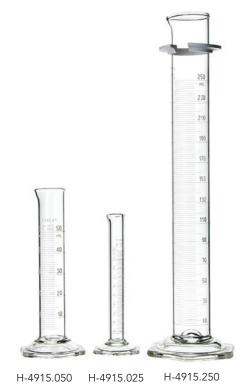
#### Guardian 7000 Ceramic, Hotplate/Stirrers

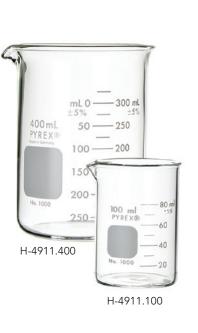
Temperature range	Heating surface	Max. Ioad	Electrical	Stirring model	Speed range
Ambient +5° to 500°C 10" × 10"		120V 50/60Hz	H-7533		
	U	Up to	230V 50/60Hz	H-7533.4F	(0 to 1/00mm
	14.5kg 10" x 10" (32 lbs)	120V 50/60Hz	H-7534	60 to 1600rpm	
		230V 50/60Hz	H-7534.4F		

#### Heavy-Duty Hotplates

Temperature range	Heating surface	Max. Ioad	Electrical	Model	Watts
38 to 371°C (100	50 lbs	120V 60Hz	H-4952	1/00	
		11.7kg	230V 50/60Hz	H-4952.4F	1600 watts
		120V 60Hz	H-4953	2200	
	24" x 12"	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.

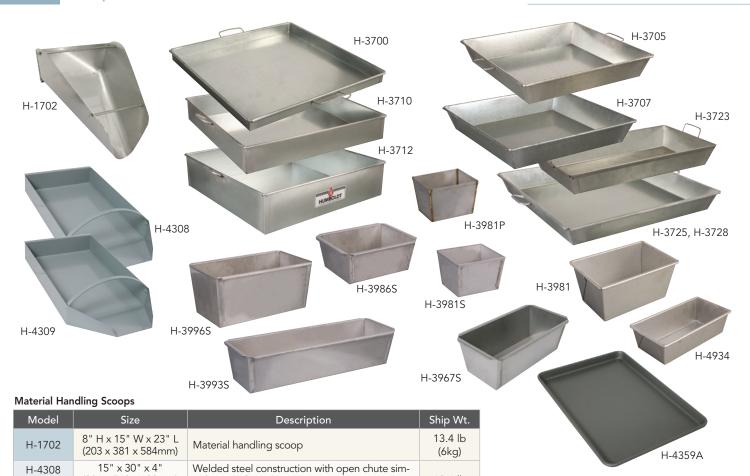
p.	
8 oz. (250ml)	H-3398
16 oz. (500ml)	H-3399
32 oz. (1000ml)	H-3401
ups	Ship wt. 0.5lbs. (0.2kg)

## **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)





13.4 lb

(6kg)

Moisture and Immersion Pans

H-4309

(381 x 762 x 102mm)

12" x 20" x 4"

(305 x 508 x 102mm)

Moisture and 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)

plifies transfer or bag loading. Front swing-down handle folds inside pan to permit criss-cross 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	9.75" x 7.75" x 4.25"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

	J J
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. 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.

Moisture Dish, Aluminum

### **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 Ship wt. 0.6lbs. (0.27kg)

#### 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
<b>U</b> 5	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.1				
Crucible Covers, Nickel See T Ship wt. 0.5lbs. (0						



See Table

H-17150 Ship wt. 0.2lbs. (0.09kg)



### 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

Sample Cans	See Table
<b>US</b>	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, A	See Table	

```
Moisture Boxes, Aluminum
```

#### 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

S

 	<u> </u>	

Sample Cups, Lin			
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

**Evaporating Dishes, Porcelain** 

Top Dia

90mm

115mm

165mm

185mm

215mm

Evaporating Dishes, Porcelain

inside diameter and height.

and partly glazed outside.

Capacity

120ml

250ml

525ml

7655ml

1,285ml

**Desiccator Jar** 

Ship wt. 0.2lbs. (0.09kg)

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

Sample Cups, Tin See chart above

Shallow, porcelain dish has pour lip, glazed inside

Height

37mm

45mm

54mm

54mm

63mm

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"

Ship wt. Range: 1lb. (0.5kg) to 2.5lbs. (1.1kg)

Model

H-4930.120

H-4930.250

H-4930.500

H-4930.765

H-4930.M1285

See Table

```
Specimen Plate
```

Desiccator Jar, 5" (128mm) Dia.

Desiccator Jar, 8" (203mm) Dia.

Raised metal plate provides stable platform for samples.

Specimen Plate for H-4960	H-4960P
Specimen Plate for H-4961	H-4961P
<b>U</b> 5	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-4960

H-4961

Ship wt. 8lbs. (3.6kg)

Drierite Desiccant, 8 mesh ASTM D2041

Replacement desiccant for air drying unit. Protects					
vacuum pump by removing	final traces of moisture.				
Drierite Desiccant, 1 lb.	H-1757				
Ups	Shipping wt. 2.5 lbs (1.1kg)				
Drierite Desiccant, 5 lb. H-1767					
वपुष	Shipping wt. 9 lbs (4kg)				





## 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
5 Ship 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
ups	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
6	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
	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. 0.5lbs. (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



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 weight	Head (L x Dia)	Handle	Model	
3 lbs (1.2 kg)	5 x 2.5" (127 x 64mm)	12.75" (324mm)	H-4975	
2 lbs (0.9 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

HUMBOLDT www.humboldtmfg.com • 1.800.544.7220 • 708.468.6300



## 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
W 0 0	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







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). H-17270 Mantan & Dastla (Distinguis)

Mortal & restle (riattilers)	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
<b>115</b>	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 Ship wt. 16lbs. (7.3kg)

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
5	Ship wt. 3lbs. (1.4kg)

## Pestle Only

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

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

#### Mortar & Pestle, Compaction Mold ASTM F28

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

Ship wt. 2lbs. (0.9kg)

Ups

### **Digital Calipers**

H-17300

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)





## 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, E	Dial		Ship v	See Table rt. 1.3lbs. (0.6kg)
Gauges, I	Dial			
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

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 151-152.

See Table

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-4470.03	(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)	1111-4470.40	(51mm)	

#### Data Cable

Data cable for use with digital indicators and Data Loggers.

Data Cable	HM-4470C
Ups	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 v	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 Bhip 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
Ops	Shipping wt. 1.3 lb (0.58kg)

