LABORATORY

Testing Equipment For **H** Construction Materials

HUMBOLDT

HT-4795
Dual-Channel.
Shown with Probe,
not included

HT-4796, HT-4796-2
Single or Dual-Channel.
Shown with Probe,
not included

HT-4797
Single-Channel.
Shown with Probe,
Adapter, not included

HT-4798
Dual-Channel.
Shown with Probe,
Adapter, not included

Model	HT-4795	HT-4796 & HT-4796-2	HT-4797	HT-4798
Type	Pt100 Platinum Precision, hand-held calibration thermometer	Pt100 Platinum Precision, hand-held thermometer	Dual Channel– Thermocouple High-Precision Digital Thermometer	Single Channel– Thermocouple High-Precision Digital Thermometer
Features	High Precision Accuracy, 2-channel measurement, Max./Min., USB Interface, Data Logger function for up to 6000 measurements	USB interface; High measuring accuracy; Integrated calibration function for simple compensation of sensor tolerances; Measuring channels are freely assignable; Recording maximum, minimum, hold and average values; Integrated sensor holder for one hand operation		
Probe	order probes separately	order probes separately	order probes separately	order probes separately
Range	-328° to 1562°F -200° to +850°C	-328° to 1562°F -200° to +850°C	-200°C to +1760°C	-200°C to +1760°C
Resolution	0.001°C from -200°C to +200°C remaining range 0.01°C	0.01°C from -200°C to +200°C remaining range 0.1°C	0.1°C & °F	0.1°C & °F
Accuracy (Type K)	±0.015°C from -50°C to +199.99°C ±0.025% of reading for the remaining range	±0.03°C from -50°C to +199.99°C ±0.05% from -200°C to +200°C otherwise 0.05% of reading	±0.2°C from -40°C to +200°C ±0.5°C from +201°C to +1000°C otherwise 1.0°C	±0.2°C from -40°C to +200°C ±0.5°C from +201°C to +1000°C otherwise 1.0°C
Power	9v battery			
Traceable Certificate	NIST Traceable Certificate available, please inquire.			

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 ± 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

Ship wt. 1.3lbs. (0.6kg)

Probes and Software
for HT-4795, HT-4796 and HT-4796-2

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 Windows Software		HT-4795SW
USB Data Cable		HT-4795UB

Thermometer, Precision, Calibration

The HT-4796 and HT-4796-2 Hand-held Thermometers are high-precision, metrology-grade, NIST-traceable instruments. These 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-channel	HT-4796
Thermometer, Precision, 1 Ch.- 3 Pt. Cal.	HT-4796C
Thermometer, Precision, 2-channels	HT-4796-2
Thermometer, Precision, 2 Ch.- 3 Pt. Cal.	HT-4796-2C

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; Integrated calibration function for simple compensation of sensor tolerances; Measuring channels are freely assignable, Recording maximum, minimum, hold and average values and Integrated sensor holder for one hand operation. Thermocouple probe not included.

Thermometer, Precision, 1-channel	HT-4797
Thermometer, Precision, 3 Pt. Cal.	HT-4797C
Thermometer, Precision, 2-channels	HT-4798
Thermometer, Precision, 3 Pt. Cal.	HT-4798C

Ship wt. 2lbs. (0.9kg)

Probes for HT-4797 and HT-4798

Range	Length x Dia.	Model
Probe Adapter for K – Mini Connector		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

HT-4510
HT-4511

HT-4505
HT-4506

HT-4015

HT-4500
HT-4501

Model	HT-4510 & HT-4511	HT-4505 & HT-4506	HT-4015	HT-4500 & HT-4501
Type	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	HT-4505 — w/memory HT-4506 — w/data logger Auto-lock connector, Max./Min. dual-display, data hold, power off	Memories, alarms, timer and min/max capabilities, backlit display, 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 (HT-4028) 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 HT-4505 model includes: a Precision Pt-100 Probe, 9V Battery, Instruction Manual and Carry Case. The HT-4506 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 wt. 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. Includes HT-4028 fast probe.

Thermometer, Total Range, Traceable HT-4015

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 separately.

Thermometer, Type K, Precision, Single HT-4500

Thermometer, Type K, Precision, DoubleHT-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
Carry/Storage Case	HT-4500.3
DE-Graph Windows Software	HT-4500.4

HT-4507 HT-4508

HT-4509

H-3564

Model	HT-4507 & HT-4508	HT-4509	H-3564
Type	2 Channel, K-type 4 Channel, K-type thermometer data logger	1 Channel, RTD Platinum Thermometer	Dual input, digital thermometer kit
Features	Auto Power 0ff, USB Interface Windows Software, Data Logger 16,000 Records Records Minimum / Maximum Temperature Hold Function	Auto Power 0ff, USB Interface Windows Software, Data Logger 16,000 Records Records Minimum / Maximum Temperature Hold Function	(2) SureGrip Piercing Probes, (4) bead probes and Case
Probe	Type-K	Platinum RTD stainless-steel	Type-K, J, T, E
Range	-200/1370°C	-100 to 300°C (-148 to 572ºF)	-58 to 2000°F -50 to 1093°C
Resolution	0.1°C (0.1°F)	0.01°C (0.01°F)	0.1 °C/°F/K <1000 and 1 °C/°F/K >1000
Accuracy (Type K)	±0.1%+0.7°C (±0.1%+1.4°F)	± (0.1% + 0.2°C) below 200°C, ± (0.15% + 0.5°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
Power	1 x 9v battery	(4) AA batteries	(3) AA batteries
Traceable Certificate	—	included	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 include: 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**

Ship wt. 1.4lbs. (.63kg)

NOTES

See Probes and Accessories on page 330.

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 ± (0.1% + 0.2°C) below 200°C, ± (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 ±0.3% +2°F (1°C) from 32 to 2000°F (1093°C) and ±4°F (2°C) from -58 to 32°F (-50 to 0°C). Dual-input 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™ 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   H-3599   H-3593A   H-3595A

Model	H-3590	H-3591	H-3597A	H-3593A	H-3599	H-3595A
Type	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)
Repeat-ability	±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

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

Ship wt. 1.9lbs. (.86kg)

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

Thermometer, Mini-Laser IR Gun   H-3595A

Ship wt. 1.3lbs. (.59kg)

H-3599A.36

HT-4028

H-3599A.2

H-3564.2

H-3580.2

H-3564.3
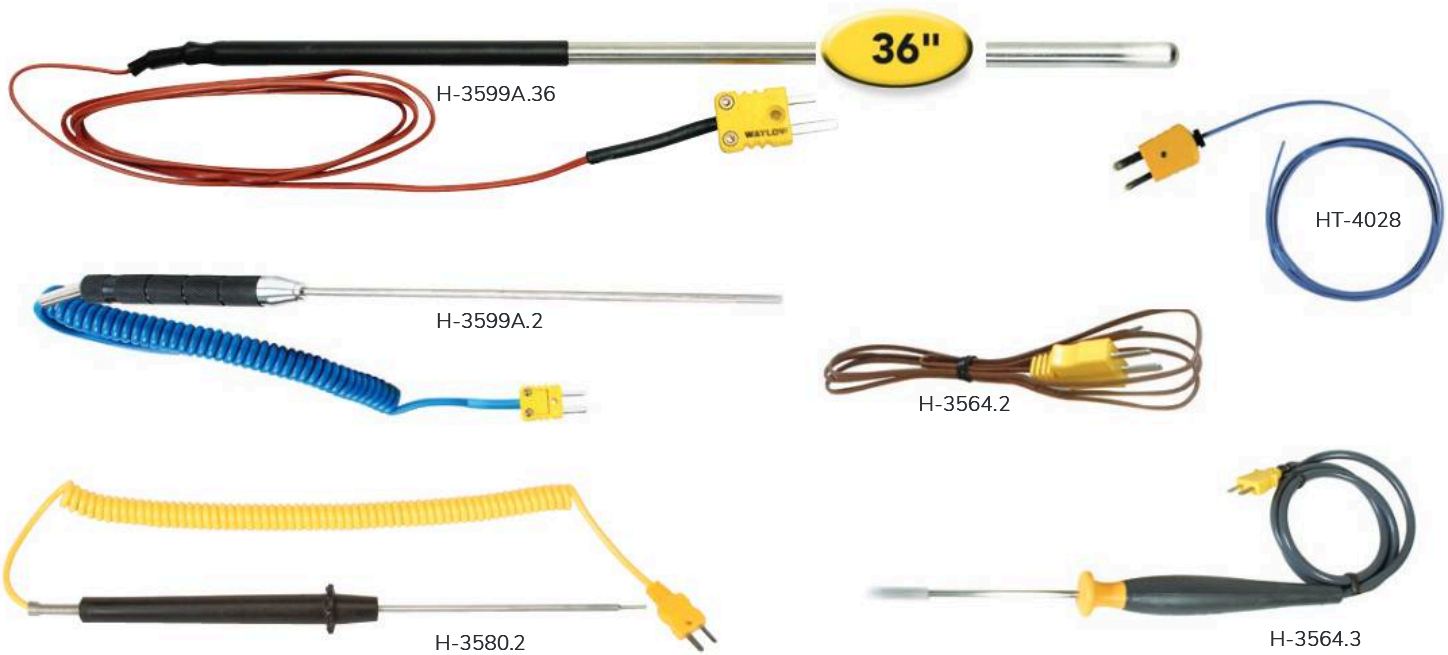
K-Probe, 8"
Eight inch long, K thermocouple with 4.5" metal handle and 40" long coiled cable. Item is standard probe sold with H-3599 IR gun. Temperature range is: -76°F to 1999°F (-60°C to 1400°C), Accuracy is: ±0.8%, 1°C. Compatible with K-type measurement instruments.

K-Probe, 8"   H-3599A.2
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 .125 dia. probe, 36" long with spring transition and 40" of lead wire with mini, type-K plug.

K-Probe, 36"   H-3599A.36
Ship wt. 2lbs. (.91kg)

K-Probes
K thermocouples are great for use in asphalt operations where you desire to know material temperatures in hoppers, trucks, piles, etc. Temperature range is: -30 to 1600°F. Heavy-duty .125 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-3599A.24
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
Ship wt. 1lbs. (.45kg)

K-Probe 4"
ASTM-E230-1993

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

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

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

Bead Probe   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)

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

N O T E S
Use HT-4797.4 Thermocouple Adapter for attaching standard K-type probes to these thermometers.

HT-4052
HT-4052U

HT-4353
HT-4353U

HT-4149
HT-4149U

H-3541D

H-3538D

HT-4050
HT-4050U

MERCURY FREE

HT-4039
HT-4039U

HT-4049
HT-4049U

Description	Model No.	Range	Accuracy	Stem Length	Overall	Ship Wt.	Features
Long-stem, digital thermometer	HT-4052	−58 to 302°F −50 to 150°C	±2.0°F ±1.0°C	8"	11"	0.8 lb. .36 kg	Traceable calibration certificate
Long-stem, digital thermometer	HT-4052U	−58 to 302°F −50 to 150°C	± 0.2°C	8"	11"	1.6 lb. .72 kg	Traceable calibration certificate
Long-stem, digital thermometer	HT-4353	−58 to 572°F −50 to 300°C	±2.0°F ±1.0°C	11.375"	14.375"	.5 lb. .22 kg	Traceable calibration certificate
Longer-stem, digital thermometer	HT-4353U	−58 to 572°F −50 to 300°C	± 0.5°C	11.375"	14.375"	1.1 lb. .50 kg	Traceable calibration certificate
Long-stem, multi-angle digital thermometer	HT-4149	−58 to 536°F −50 to 280°C	±2.0°F ±1.0°C	8"	10"	1.0 lb. .45 kg	Traceable calibration certificate
Long-stem, multi-angle digital thermometer	HT-4149U	−58 to 536°F −50 to 280°C	± 0.4°C	8"	10"	0.8 lb. .36 kg	Traceable calibration certificate
Digital, pocket thermometer w/sheath	HT-4050	−58 to 572°F	± 1.5°C	3.5"	7"	0.45 lb. .20 kg	Traceable calibration certificate, hold button
Digital, pocket thermometer w/sheath	HT-4050U	−50 to 300°C	± 0.4°C	3.5"	7"	0.3 lb. .13 kg	Traceable calibration certificate, hold button
Digital, jumbo display thermometer	HT-4049	−58 to 302°F −50 to 150°C	±2.0°F ±1.0°C	5.25"	6.5"	0.45 lb. .20 kg	Traceable calibration certificate
Digital, jumbo display thermometer	HT-4049U	−58 to 302°F −50 to 150°C	± 0.3°C	5.25"	6.5"	0.8 lb. .36 kg	Traceable calibration certificate
Digital, waterproof min/max thermometer	HT-4039	−58 to 572°F −50 to 300°C	±2.0°F ±1.0°C	4.75"	10ft. cable	0.6 lb. .27 kg	Traceable calibration certificate, min/max, waterproof
Digital, waterproof Guatanteed Accuracy	H-3538D	-40° to 450°F -40° to 232°C	±2.0°F ±1.0°C	5"	6"	0.8 lb. .36 kg	Adjustable temp. alarm waterproof. max temp.
Digital, waterproof calibratable thermometer	H-3541D	-40 to 450°F -40 to 232°C	±2.0°F ±1.0°C	5"	6.25"	0.4 lb. .2 kg	Field calibratable waterproof. max temp.

MERCURY FREE

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

Custom Calibration Thermometers

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

Cases for Thermometers

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

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

Application	ASTM	Range	Model	PTFE Coated	Subdiv.	Length	Immersion
General use	1F	0-302°F	H-2600.1F	H-2600.1FT	2.0°F 1.0°C	12.5" 322mm	3" 76mm
	1C	-20-150°C	H-2610.1C	H-2610.1CT			
	2F	20-580°F	H-2600.2F	H-2600.2FT		15.325" 390mm	
	2C	-5-300°C	H-2610.2C	H-2610.2CT			
	3F	20-760°F	H-2600.3F	H-2600.3FT		16.25" 413mm	
	3C	-5-400°C	H-2610.3C	H-2610.3CT			
Cloud and pour	5F	-36-120°F	H-2600.5F	H-2600.5FT	2.0°F 1.0°C	9.125" 231mm	.425" 108mm
	5C	-38-50°C	H-2610.5C	H-2610.5CT			
Low cloud and pour	6F	-112-70°F	H-2600.6F	H-2600.6FT	2.0°F 1.0°C	9.125" 231mm	3" 76mm
	6C	-80-20°C	H-2610.6C	H-2610.6CT			
Low distillation	7F	30-580°F	H-2600.7F	H-2600.7FT	2.0°F 1.0°C	15.25" 386mm	Total
	7C	-2-300°C	H-2610.7C	H-2610.7CT			
High distillation	8F	30-760°F	H-2600.8F	H-2600.8FT	2.0°F 1.0°C	15.25" 386mm	Total
	8C	-2-400°C	H-2610.8C	H-2610.8CT			
Pesky-martens low	9F	20-230°C	H-2600.9F	H-2600.9FT	1.0°F .5°C	11.25" 287mm	2.25" 57mm
	9C	-5-110°C	H-2610.9C	H-2610.9CT			
Pesky-martens high	10F	200-700°F	H-2600.10F	H-2600.10FT	5.0°F 2.0°C	11.25" 287mm	2.25" 57mm
	10C	90-370°C	H-2610.10C	H-2610.10CT			
Cleveland open flash	11F	20-760°F	H-2600.11F	H-2600.11FT	5.0°F 2.0°C	12.125" 308mm	1" 25mm
	11C	-6-400°C	H-2610.11C	H-2610.11CT			
Gravity	12F	-5-215°F	H-2600.12F	H-2600.12FT	0.5°F 0.2°C	16.5" 420mm	total
	12C	-20-102°C	H-2610.12C	H-2610.12CT			
Low softening point	15F	30-180°F	H-2600.15F	H-2600.15FT	0.5°F 0.2°C	15.625" 397mm	total
	15C	-2-80°C	H-2610.15C	H-2610.15CT			
High softening point	16F	85-392°F	H-2600.16F	H-2600.16FT	1.0°F .5°C	15.625" 397mm	total
	16C	30-200°C	H-2610.16C	H-2610.16CT			
Saybolt viscosity	17F	66-80°F	H-2600.17F	H-2600.17FT	0.2°F 0.1°C	10.875" 275mm	total
	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			
	19C	49-57°C	H-2610.19C	H-2610.19CT			
	20F	134-148°F	H-2600.20F	H-2600.20FT			
	20C	57-65°C	H-2610.20C	H-2610.20CT			
	21C	79-87°C	H-2610.21C	H-2610.21CT			
	22F	204-218°F	H-2600.22F	H-2600.22FT			
	22C	95-103°C	H-2610.22C	H-2610.22CT			
Kinematic viscosity	28F	97.5-102.5°F	H-2600.28F	H-2600.28FT	0.1°F 0.2°C	12" 305mm	total
	28C	36.6-39.4°C	H-2610.28C	H-2610.28CT			
Aniline point	33F	-36.5-107.5°F	H-2600.33F	H-2600.33FT	0.5°F 0.2°C	16.5" 419mm	2" 50mm
	33C	-38-42°C	H-2610.33C	H-2610.33CT			
	35F	194-338°F	H-2600.35F	H-2600.35FT			
	35C	90-170°C	H-2610.35C	H-2610.35CT			
Kinematic viscosity	45F	74.5-79.5°F	H-2600.45F	H-2600.45FT	0.1°F 0.2°C	12" 305mm	total
	45C	23.6-26.4°C	H-2610.45C	H-2610.45CT			
	46C	48.6-51.4°C	H-2610.46C	H-2610.46CT			
	47F	137.5-142.5°F	H-2600.47F	H-2600.47FT			
	47C	58.6-61.4°C	H-2610.47C	H-2610.47CT			
Tag closed tester, low range	57F	-4-122°F	H-2600.57F	H-2600.57FT	1.0°F .5°C	11.25" 287mm	2.25" 57mm
	57C	-20-50°C	H-2610.57C	H-2610.57CT			
Precision	63F	18-89°F	H-2600.63F	H-2600.63FT	.2°F .1°C	15" 379mm	total
	63C	-8-32°C	H-2610.63C	H-2610.63CT			
	64F	77-131°F	H-2600.64F	H-2600.64FT			
	64C	25-55°C	H-2610.64C	H-2610.64CT			
Kinematic viscosity	110F	272.5-277.5°C	H-2600.110F	H-2600.110FT	.1°F .2°C	12" 305mm	total
	110C	133.6-136.4°C	H-2610.110C	H-2610.110CT			
Bituminous softening point	113F	30-350°F	H-2600.113F	H-2600.113FT	1.0°F .5°C	16" 406mm	total
	113C	-1-175°C	H-2610.113C	H-2610.113CT			

C A U T I O N

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 drop-ship 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

HT-5011

H-4292

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

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 dual-magnet type, 2" (51mm) dia. x 0.5" (13mm) high.

Surface Thermometer, 0-250°F/2°F	H-2628
Surface Thermometer, 0-500°F/5°F	H-2628H
Surface Thermometer, 0-120°C/1°C	H-2629

Ship wt. 0.3lbs. (.13kg)

Digital Timer, Humboldt

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

Digital Timer, Minute, 120V 50/60Hz	H-4296A
Digital Timer, Minute, 220V 50/60Hz	H-4296A.4F
Digital Timer, Second, 120V 50/60Hz	H-4299
Digital Timer, Second, 220V 50/60Hz	H-4299.4F

Ship 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

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

Ship wt. 0.7lbs. (0.32kg)

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 place-anywhere mounting.

Countdown Timer, Giant Digit	HT-5011

Ship wt. 0.6lbs. (0.27kg)

Timer, Bell-Type

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

Timer, Bell-Type	H-4294

Ship wt. 0.7lbs. (0.32kg)

Universal Lab Timer

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

Universal Lab Timer, 120V 50/60Hz	H-4292
Universal Lab Timer, 220V 50Hz	H-4292.5F

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 nickel-chromium 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. 0.7lbs. (0.32kg)

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

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

Decide which digital scale is right for you with our

▶ Scale Selector Wizard

Input your capacity and readability to quickly view your available options...

Capacity   **Readability**
Select... ▼   Select... ▼

☐ Show only scales with 'Weigh Belo

Apply   Reset

Scale Selector Wizard

Humboldt Scales and Balances

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	4.7" Dia. / 120mm	346
220g	0.001g	HB-4620	Ohaus Scout STX Portable Balance	AC / AA	3.7" dia. / 93mm dia.	344
220g	0.01g	HB-4621	Ohaus Scout STX Portable Balance	AC / AA	4.7" dia. / 120mm dia	344
220g	0.01g	HB-4720A	Ohaus Scout SPX Portable Balance	AC / AA	4.7" dia. / 120mm dia	344
220g	0.01g	HB-4980	Ohaus Navigator NV Portable Balance	AC / C	5.7" dia. / 145mm dia.	345
220g	0.1g	HB-4981	Ohaus Navigator NV Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
250g	0.1g	HB-4529A	Adam Core Balance CQT Compact Portable	AC / AA	4.7" Dia. / 120mm	346
300g	0.05g	HB-4710B	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	346
420g	0.001g	HB-5342A	Ohaus Adventurer Precision	AC	Ø 5.1" / 130 mm	340
420g	0.01g	HB-4622	Ohaus Scout STX Portable Balance	AC / AA	4.7" dia. / 120mm dia	344
420g	0.01g	HB-4724A	Ohaus Scout SPX Portable Balance	AC / AA	4.7" dia. / 120mm dia	344
420g	0.1g	HB-4623	Ohaus Scout STX Portable Balance	AC / AA	4.7" dia. / 120mm dia	344
420g	0.1g	HB-4723A	Ohaus Scout SPX Portable Balance	AC / AA	4.7" dia. / 120mm dia	344
420g	0.01g	HB-4982	Ohaus Navigator NV Portable Balance	AC / C	5.7" dia. / 145mm dia.	345
520g	0.001g	HB-5352A	Ohaus Adventurer Precision	AC	Ø 5.1" / 130 mm	340
600g	0.01g	HB-4712B	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	346
600g	0.1g	HB-4530A	Adam Core Balance CQT Compact Portable	AC / AA	4.7" Dia. / 120mm	346
620g	0.01g	HB-4624	Ohaus Scout STX Portable Balance	AC / AA	4.7" dia. / 120mm dia	344
620g	0.01g	HB-4725A	Ohaus Scout SPX Portable Balance	AC / AA	4.7" dia. / 120mm dia	344
620g	0.1g	HB-4625	Ohaus Scout STX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
620g	0.1g	HB-4726A	Ohaus Scout SPX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
620g	0.01g	HB-4983	Ohaus Navigator NV Portable Balance	AC / C	5.7" dia. / 145mm dia.	345
620g	0.1g	HB-4984	Ohaus Navigator NV Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
720g	0.001g	HB-5000	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	342
720g	0.001g	HB-5100	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	342
720g	0.001g	HB-5001	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	342
720g	0.001g	HB-5101	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	342
820g	0.01g	HB-5372A	Ohaus Adventurer Precision	AC	6.9" x 7.7" / 175 x 195 mm	340
1200g	0.001g	HB-5102	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	342
1200g	0.001g	HB-5002	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	342
1200g	0.01g	HB-4626	Ohaus Scout STX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
1200g	0.01g	HB-4740A	Ohaus Scout SPX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
1200g	0.01g	HB-4985	Ohaus Navigator NV Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
1200g	0.1g	HB-4970	Ohaus Navigator NV Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
1200g	0.01g	HB-4713B	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	346
1500g	0.05g	HB-4714A	Adam HCB Highland™ Precision	AC / Recharge	4.7" Dia. / 120mm	346
1500g	0.1g	HB-4532A	Adam Core Balance CQT Compact Portable	AC / AA	4.7" Dia. / 120mm	346
1500g	0.05g	HB-4729	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	347
1520g	0.01g	HB-5315A	Ohaus Adventurer Precision	AC	6.9" x 7.7" / 175 x 195 mm	340
1620g	0.01g	HB-1602	Pioneer Precision Balance	AC	7.09" / 180mm	341
2000g	1g	HB-4534A	Adam Core Balance CQT Compact Portable	AC / AA	5.7" Dia. / 145mm	346
2100g	0.001g	HB-5003	Adam Equinox Precision Balance	AC	4.3"ø / 110 mm ø	342

Digital Scale and Balance Comparison Chart

Capacity	Readability	Model	Mfg. Series	Power	Platform size	Page
2100g	0.001g	HB-5103	Adam Solis Precision Balance	AC	4.3"ø / 110 mm ø	342
2200g	0.01g	HB-5322A	Ohaus Adventurer Precision	AC	6.9" x 7.7" / 175 x 195 mm	340
2200g	0.01g	HB-5220	Ohaus Explorer Precision	AC	7.5" x 8" / 190 x 200mm	340
2200g	0.01g	HB-2202	Pioneer Precision Balance	AC	7.09" / 180mm	341
2200g	0.1g	HB-2201	Pioneer Precision Balance	AC	7.09" / 180mm	341
2200g	0.01g	HB-4627	Ohaus Scout STX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
2200g	0.01g	HB-4741A	Ohaus Scout SPX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
2200g	0.1g	HB-4628	Ohaus Scout STX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
2200g	0.1g	HB-4727A	Ohaus Scout SPX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
2200g	0.01g	HB-4987	Ohaus Navigator NV Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
2200g	0.1g	HB-4971	Ohaus Navigator NV Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
2200g	0.1g	HB-4974	Ohaus Navigator NVT Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
2200g	1.0g	HB-4976	Ohaus Navigator NVT Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
2600g	0.01g	HB-4785.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
2600g	0.01g	HB-4785C.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
2600g	0.1g	HB-4533A	Adam Core Balance CQT Compact Portable	AC / AA	5.7" Dia. / 145mm	346
3000g	0.1g	HB-4715B	Adam HCB Highland™ Precision	AC / Recharge	5.1" Dia. / 45mm	346
3000g	0.1g	HB-4730	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	347
3000g	0.1g	HB-4734	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	347
3200g	0.01g	HB-3202	Pioneer Precision Balance	AC	7.09" / 180mm	341
3200g	0.01g	HB-5004	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	342
3200g	0.01g	HB-5005	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	342
3200g	0.01g	HB-5104	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	342
3200g	0.01g	HB-5105	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	342
3200g	0.01g	HB-4989	Ohaus Navigator NV Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
3600g	0.01g	HB-4786.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
3600g	0.01g	HB-4786C.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
4200g	0.1g	HB-5344A	Ohaus Adventurer Precision	AC	6.9" x 7.7" / 175 x 195 mm	340
4200g	0.01g	HB-5343A	Ohaus Adventurer Precision	AC	6.9" x 7.7" / 175 x 195 mm	340
4200g	0.01g	HB-5420	Ohaus Explorer Precision	AC	7.5" x 8" / 190 x 200mm	340
4200g	0.01g	HB-4202	Pioneer Precision Balance	AC	7.09" / 180mm	341
4200g	0.1g	HB-4201	Pioneer Precision Balance	AC	7.09" / 180mm	341
4600g	0.01g	HB-4787.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
4600g	0.01g	HB-4787C.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
5000g	0.5g	HB-4716B	Adam HCB Highland™ Precision	AC / AA	4.7" Dia. / 120mm	346
5000g	1g	HB-4535A	Adam Core Balance CQT Compact Portable	AC / AA	5.7" Dia. / 145mm	346
5200g	0.01g	HB-5355AC	Ohaus Adventurer Precision	AC	6.9" x 7.7" / 175 x 195 mm	340
6000g	0.01g	HB-4788.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
6000g	0.1g	HB-4788C.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
6000g	0.1g	HB-4789.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
6000g	0.2g	HB-4731	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	347
6000g	0.2g	HB-4735	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	347
6200g	0.01g	HB-5622	Ohaus Explorer Precision	AC	7.5" x 8" / 190 x 200mm	340
6200g	0.1g	HB-5620	Ohaus Explorer Precision	AC	7.5" x 8" / 190 x 200mm	340
6200g	0.01g	HB-5006	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	342
6200g	0.01g	HB-5106	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	342
6200g	0.01g	HB-5107	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	342
6200g	0.01g	HB-5007	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	342
6200g	0.1g	HB-4629	Ohaus Scout STX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
6200g	0.1g	HB-4729A	Ohaus Scout SPX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
6200g	0.1g	HB-4629	Ohaus Navigator NVT Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
6200g	1.0g	HB-4778	Ohaus Navigator NVT Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
8000g	0.1g	HB-4790.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
8200g	0.1g	HB-5382A	Ohaus Adventurer Precision	AC	6.9" x 7.7" / 175 x 195 mm	340
8kg / 16lb	0.1g / 0.0002lb	HB-5010	Adam GBK Bench Scale	AC / Recharge	15.7" x 11.8" / 400 x 300mm	351
8200g	0.01g	HB-5008	Adam Equinox Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	342
8200g	0.01g	HB-5108	Adam Solis Precision Balance	AC	7.5" x 7.5" / 190 x 190mm	342
8200g	1.0g	HB-4630	Ohaus Scout STX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
8200g	1.0g	HB-4742A	Ohaus Scout SPX Portable Balance	AC / AA	5.5" x 6.7" / 140 x 170mm	344
10200g	0.01g	HB-5102C	Ohaus Explorer Precision	AC	7.5" x 7.9" / 190 x 200mm	340
10200g	0.1g	HB-5100C	Ohaus Explorer Precision	AC	7.5" x 7.9" / 190 x 200mm	340
10200g	0.1g	HB-4979	Ohaus Navigator NVT Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
12000g	0.1g	HB-4791.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
12000g	1.0g	HB-4972	Ohaus Navigator NVT Portable Balance	AC / C	7.5" x 5.7" / 190 x 144mm	345
12kg	0.1g	HB-4506A	Ohaus Explorer High Capacity	AC / Recharge	15.7" x 11.8" / 400 x 300mm	348
12kg	0.1g	HB-4543B	Adam Nimbus High Capacity	AC	15.7" x 11.8" / 400 x 300mm	348
12.5kg / 25lb	0.5g / 0.001lb	HB-5100	Ohaus Defender 5000 Standard Bench Scale, Column	AC / Recharge battery	12"x 12" / 305mm x 305mm	350
12.5kg / 25lb	0.5g / 0.001lb	HB-5130	Ohaus Defender 5000 Standard Bench Scale, Low Profile	AC / Recharge battery	12"x 12" / 305mm x 305mm	350
12.5kg / 25lb	0.5g / 0.001lb	HB-5103	Ohaus Defender 5000 Standard Bench Scale, Column	AC / Recharge battery	12"x 14" / 305mm x 355mm	350
12.5kg / 25lb	0.5g / 0.001lb	HB-5133	Ohaus Defender 5000 Standard Bench Scale, Low Profile	AC / Recharge battery	12"x 14" / 305mm x 355mm	350
14kg	0.1g	HB-4790	Adam Luna High Capacity	AC	15.7" x 11.8" / 400 x 300mm	348
15000g	0.1g	HB-4792.3F	Adam Luna Precision Balance	AC	7.3"x 7.3" / 185 x185mm	343
15kg	0.5g	HB-4732	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	347
15kg	0.5g	HB-4736	Ohaus Ranger 3000 Compact Bench	AC / Recharge	8.9" x 11.8" / 225 x 300mm	347
15kg	0.1g	HB-4512	Ohaus Ranger 7000 High Resolution, Capacity	AC	14.8" x 12.2" / 377 x 311mm	349
15kg	0.2g	HB-4513	Ohaus Ranger 7000 High Resolution, Capacity	AC	14.8" x 12.2" / 377 x 311mm	349
15kg / 30lb	2g / 0.005lb	HB-4800	Ohaus Defender 3000 Bench Scale	AC / Recharge battery	14"x 12" / 355mm x 305mm	352
15kg / 30lb	2g / 0.005lb	HB-4816	Ohaus Defender 3000 Hybrid Bench Scale, Column	AC / Recharge battery	14"x 12" / 355mm x 305mm	352
15kg / 30lb.	2g / 0.0005 lb	HB-4809	Ohaus Defender 3000 Hybrid Bench Scales, Front Mount	AC / Recharge battery	14"x 12" / 355mm x 305mm	352
16kg	0.1g	HB-4545B	Adam Nimbus High Capacity	AC	15.7" x 11.8" / 400 x 300mm	348

HUMBOLDT

HB-5000.3F   HB-5104.3F

Equinox Precision Balances

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

• Large, responsive 5" 800x480 pixel touch-screen display

• Level indicator and adjustable feet ensure proper balance setup for optimum weighing results

• Security slot for optional Kensington-type lock and cable to help prevent theft

• Large, grade 304 stainless steel pan allows swift cleaning

• RS-232 interface is available to provide speedy connection to computers and printers

• USB host for memory card

See Chart for Models and Specifications

Solis Precision Balances

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

• High-resolution graphic display is amply sized for clear visibility

• Level indicator and adjustable feet ensure proper balance setup for optimum weighing results

• Security slot for optional Kensington-type lock and cable to help prevent theft

• Large, grade 304 stainless steel pan allows swift cleaning

• RS-232 interface is available to provide speedy connection to computers and printers

See Chart for Models and Specifications

Equinox Precision Accessories

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

HB-5000.2

HB-4545B.3

HB-5000.4

HB-5000.3

Adam Equinox and Solis Precision Balances

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

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

See Chart for Models and Specifications

Adam Luna Precision Balances

Capacity	Readability	External Calibration 120/220V 50/60Hz	Internal/External Calibration 120/220V 50/60Hz	Power	Pan Size	Ship Wt.
2600g	0.01g	HB-4785.3F	HB-4785C.3F			
3600g	0.01g	HB-4786.3F	HB-4786C.3F			
4600g	0.01g	HB-4787.3F	HB-4787C.3F			
6000g	0.01g	HB-4788.3F	HB-4788C.3F	AC	7.3"x 7.3" (185 x185mm)	15 lb/7kg
6000g	0.1g	HB-4789.3F	—			
8000g	0.1g	HB-4790.3F	—			
12000g	0.1g	HB-4791.3F	—			
15000g	0.1g	HB-4792.3F	—			

Accessories

Description	Part #
In-use wet cover	HB-4785.1
USB cable	HB-4785.2
RS-232 cable M-F	HB-4785.3
Calibration certificate	HB-4785.4
ATP thermal printer	HB-5000.3
ATP thermal printer Paper	HB-5000.4
Adam DU Data Collection Program	HB-4545B

HB-4624

HB-4740A

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 space-saving, slim design allows for stackable storage.

- Display: 4.3" (109mm) full-color VGA graphic touchscreen display with user-controlled brightness
- 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 impact-resistant 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 for STX and SPX

Description	Part #
Carrying Case	HB-4631
In-use Cover	HB-4632
USB Host Interface Kit	HB-4633
Ethernet Interface Kit	HB-4637
USB Device Interface Kit	HB-4638
Bluetooth Interface Kit	HB-4639

Ohaus Scout STX Portable Balance

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	mg,g,kg,ct,N,oz, ozt,dwt,lb,lb:oz,grn, hkt, sgt,twt,tical,tola	AC (4) AA batteries	3.7" dia. / 93mm dia.	10.0 lb/4.5kg
220g	0.01g	HB-4621	HB-4621.4F	0.01			4.7" dia. / 120mm dia.	
420g	0.01g	HB-4622	HB-4622.4F	0.01				
420g	0.1g	HB-4623	HB-4623.4F	0.1				
620g	0.01g	HB-4624	HB-4624.4F	0.01				
620g	0.1g	HB-4625	HB-4625.4F	0.1				
1200g	0.01g	HB-4626	HB-4626.4F	0.02			5.5" x 6.7" / 140 x 170mm	
2200g	0.01g	HB-4627	HB-4627.4F	0.02				
2200g	0.1g	HB-4628	HB-4628.4F	0.1				
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	g, kg,ct,N,oz, ozt,dwt,lb, lb:oz,gm	AC (4) AA batteries	4.7" dia. / 120mm dia.	5 lb/2.26kg
420g	0.01g	HB-4724A	HB-4724A.4F	0.01				
420g	0.1g	HB-4723A	HB-4723A.4F	0.1				
620g	0.01g	HB-4725A	HB-4725A.4F	0.01				
620g	0.1g	HB-4726A	HB-4726A.4F	0.1				
1200g	0.01g	HB-4740A	HB-4740A.4F	0.02			5.5" x 6.7" / 140 x 170mm	
2200g	0.01g	HB-4741A	HB-4741A.4F	0.02				
2200g	0.1g	HB-4727A	HB-4727A.4F	0.1				
6200g	0.1g	HB-4729A	HB-4729A.4F	0.1				
8200g	1.0g	HB-4742A	HB-4742A.4F	1				

HUMBOLDT

HB-4731

HB-4736

Ohaus Ranger 3000 Compact Bench Scale

The multipurpose Ranger 3000 has all of the capabilities to produce precise results rapidly for a variety of applications. With nine application modes, Ranger 3000 is the ideal scale to meet many weighing needs. Portable and equipped with a rechargeable battery, this scale is equipped with functions and features that elevate the Ranger 3000 to a class of its own. 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 to perform specific gravity tests.

Standard Features:

• With the largest display in its class, The Ranger 3000 provides 1.1" (28mm) digits on its large LCD display with white backlight.

• User-friendly scale with easy setup to ensure efficiency in the workplace.

• Eliminate waiting time and increase control of your operation with accurate one-second results.

The bright display makes the Ranger 3000 ideal for use in low-light visibility. Ranger 3000 produces accurate results within one second. Rapid stabilization virtually eliminates your wait time and allows you to move at a pace determined by you. External calibration, with user-selectable calibration weight allows for easy calibration documentation. With its convenient integrated carrying handle and rechargeable lead acid battery that can provide power for more than 210 hours between 12hr. recharges, the Ranger 3000 can provide many hours of uninterrupted operation.

See Chart for Models and Specifications

Ohaus Ranger 4000 Compact Bench Scale

The multipurpose Ranger 4000 is the right tool for industrial weighing applications in which value is important but quality, durability, and functionality cannot be compromised. Portable with die-cast-metal housing and a rechargeable battery, this scale is equipped with seven application modes that can provide results for many weighing and measurement needs.

Standard Features:

• Sturdy metal housing and slip-resistant rubber feet provide the protection, stability and long product life needed for tough applications.

• With the largest display in its class, The Ranger 4000 provides 1.5" (40mm) digits on its large, 6-digit, 7 segment white LED display.

• The most user-friendly scale on the market features SmarText™ for easy operation and setup to ensure efficiency in the workplace.

With its convenient integrated carrying handle and rechargeable lead acid battery that can provide power for more than 100 hours between 12hr. recharges, the Ranger 4000 can provide many hours of uninterrupted operation. External calibration, with user-selectable calibration weight allows for easy calibration documentation.

See Chart for Models and Specifications

Ohaus Ranger 3000 Compact Bench Scales					
Capacity	Readability	Pan Size	120V 60Hz	220V50/60Hz	Ship Wt.
1500g	0.05g		HB-4739	HB-4739.4F	
3000g	0.1g		HB-4730	HB-4730.4F	
6000g	0.2g	8.9" x 11.8" / 225 x 300mm	HB-4731	HB-4731.4F	12 lb/5.45kg
15kg	0.5g		HB-4732	HB-4732.4F	
30kg	1g		HB-4733	HB-4733.4F	

Ohaus Ranger 4000 Compact Bench Scales					
Capacity	Readability	Pan Size	120V 60Hz	220V50/60Hz	Ship Wt.
3000g	0.1g		HB-4735	HB-4735.4F	
6000g	0.2g	8.9" x 11.8" / 225 x 300mm	HB-4736	HB-4736.4F	16 lb/7.2kg
15kg	0.5g		HB-4737	HB-4737.4F	
30kg	1g		HB-4738	HB-4738.4F	

Ohaus Ranger Acc.	Part #
USB Interface kit	HB-4730USB
In-use Cover*	HB-4730UC3
In-use Cover**	HB-4730UC4
Ethernet Kit	HB-4730ETK
2nd Platform, Kit**	HB-4730PL
Second RS232 Kit	HB-4730CB

* Ranger 3000
** Ranger 4000

HB-4790

HB-4545B

HB-4508A

Adam Luna High-Capacity Precision Balances
Luna LBL large pan precision balances combine rugged durability, the latest processing power and ultimate precision with the convenience of RJ45 ethernet connectivity, USB and RS-232 ports (included) as well as optional Bluetooth, providing easy communication of GLP-compliant data. LBL offers capacities of up to 75lb/34kg while delivering a fine readability of 0.1g. Its compact design fits comfortably on a bench while the removable indicator – featuring an LCD display with 0.9"/24mm digits – can be used in place on the machine or wall-mounted with an included bracket for easy viewing. Some models include a pillar-mount for the indicator. LBL also offers selectable digital filtering to help minimize the effects of vibration and other disturbances and a capacity tracker built into the display for monitoring possible overloads. Options include: a weigh-below hook for below-balance weighing, including applications like density determination, and a rechargeable battery for up to 50 hours of use.

Ship wt. 21lbs. (9.5kg)

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   see chart

Ship wt. 21lbs. (9.5kg)

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™ 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 Luna High-Capacity Precision Balances			Bench Top Model		Pillar Model		
Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz	120V 60Hz	220V 50/60Hz	Ship Wt.
14kg	0.1g	15.7" x 11.8" (400 x 300mm	HB-4790	HB-4790.4F	HB-4793P	HB-4793P.4F	19 lb / 8.6 kg 22 lb / 9.9 kg
24kg	0.1g		HB-4791	HB-4791.4F	HB-4794P	HB-4794P.4F	
34kg	0.1g		HB-4792	HB-4792.4F	HB-4795P	HB-4795P.4F	

Adam Nimbus High-Capacity Precision Balances			Bench Top Model		Pillar Model		
Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz	120V 60Hz	220V 50/60Hz	Ship Wt.
12kg	0.1g	15.7" x 11.8" (400 x 300mm	HB-4543B	HB-4943B.4F	HB-4943BP	HB-4943BP.4F	19 lb / 8.6 kg 22 lb / 9.9 kg
16kg	0.1g		HB-4545B	HB-4945B.4F	HB-4945BP	HB-4945BP.4F	
22kg	0.1g		HB-4546B	HB-4946B.4F	HB-4946BP	HB-4946BP.4F	

Ohaus Explorer High-Capacity Precision 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	26 lb / 12 kg
24kg	0.1g	15.7" x 11.8" (400 x 300mm)	HB-4508A	HB-4508A.4F	
35kg	0.1g	15.7" x 11.8" (400 x 300mm)	HB-4510A	HB-4510A.4F	

Adam Accessories	Part #
Weigh-below hook	HB-4545B.1
USB cable	HB-4700AUSB
RS-232 Interface kit	HB-4700ACB
In-use Cover	HB-4545B.2
Data capture software	HB-4545B.3

Ohaus 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

Shown with optional column kit

HB-4515

Shown with optional, hard carrying case

HB-4778A

HB-4775A

Ohaus Ranger 7000 Compact Bench Scales

Ohaus Ranger 7000 Compact Bench Scales combine an extremely durable scale designed to thrive in rugged environments with every ingenious feature that Ohaus offers in an industrial bench scale. It boasts the highest resolution, largest display, most application modes and connectivity options, as well as the largest memory library of any Ohaus industrial compact bench scale. The Ranger 7000 has a die-cast sealed metal indicator and housing, ensuring its accurate and long- term operation in even the most demanding industrial environments. The indicator can be separated from the platform and mounted to the wall or bench, or can be mounted to the optional 19.6 in. column, 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 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.

See Chart for Models and Specifications

Ohaus Defender 3000 Field Scale and Case

The Defender 3000 Field Test Scale is perfect for testing applications, as well as in the lab. It is perfect for aggregate testing standards: ASTM C29 and C1348, AASHTO T 19 and T 12. It provides a capacity/readability rating of: 0 lb x 0.05 lb (75 kg x 0.02kg) and its powder-coated steel base provides a durable surface for the rigors of field testing. The Field Test Scale comes packaged in a durable plastic carrying case with latches and carrying handle, ensuring maximum portability for use anywhere on the job without limiting you to the lab. The backlit LCD display allows for easy reading of results, even in low-light conditions. It can be powered using (6) C cell batteries for up to 150 hours and an optional internal rechargeable battery available.

The Defender 3000 Field Scale includes a durable ABS Indicator with a bright LCD display. This display assists in both low light and bright sun conditions. Its large display provides 1.8" digital character height. It provides the following configurable units: lb, kg, g, oz, lb: oz (lb and kg default) and provides a dedicated tare key and low battery alert.

The Defender 3000 provides RS232 data connectivity. Optional USB or Ethernet connectivity is also available.

See Chart for Models and Specifications

Adam CPWplus Portable Scales

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

Ranger 7000 Accessories	Part #
Column Kit— 19.6" (498mm)	HB-4512.1
Ethernet Kit (2 in 4 out)	HB-4512.2
Cable Extension Kit (29.5"/9m)	HB-4512.3
Li-ion Rechargeable Kit	HB-4512.4
In-use Cover	HB-4512.5

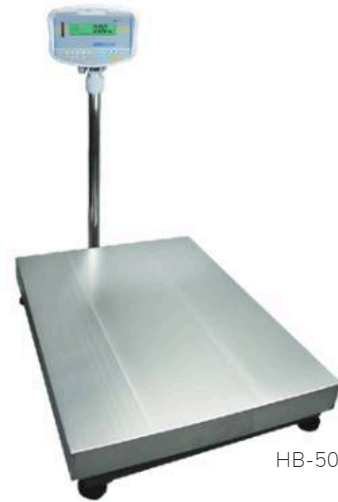| Defender Field Scale Acc.	Part #
Ethernet Kit	HB-4778.1
Printer, Zebra Lable	HB-4778.2
USB Device Interface Kit	HB-4778.3
Dust Covers, set of 5	HB-4778.4
Rechargeable Battery Kit	HB-4778.5

Adam CPWplus Accessory	Part #
CBWplus hard carrying case	HB-4775C

Ohaus Ranger 7000 Compact Bench Scales

Cap.	Readability	Platform	120V 60Hz	120V 60Hz	Ship Wt.
15kg	0.2g	14.8" x 12.2" (377 x 311mm)	HB-4512	HB-4512.4F	30lb / 13.5kg
15kg	0.1g	14.8" x 12.2" (377 x 311mm)	HB-4513	HB-4513.4F	30lb / 13.5kg
35kg	0.5g	14.8" x 12.2" (377 x 311mm)	HB-4514	HB-4514.4F	
35kg	0.1g	14.8" x 12.2" (377 x 311mm)	HB-4515	HB-4515.4F	32lb / 4.4kg
60kg	1.0g	14.8" x 12.2" (377 x 311mm)	HB-4516	HB-4516.4F	32lb / 4.4kg

Ohaus Defender 3000 Field Scale and Case

Cap.	Readability	Platform	Part #	Power	Ship Wt.
165 lb (75 kg)	0.05lb (0.02kg)	12.4" x 11" (316 x 280mm)	HB-4778A	(6) C batteries	17.6lb / 8kg

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			

HB-5011

HB-5018

Adam GBK Bench Scales

Durable and flexible, GBK bench check weighing scales provide a superb value for businesses that need a scale to perform multiple functions. GBK scales consist of a 304 stainless steel weighing pan and sealed keypad to protect against dirt and spills. All GBK models feature a full numeric keypad to simplify operation, whilst built-in check weighing lights and audible check weighing alarms can be pre-configured to a specified weight for performing accurate weighing tasks.

The GBK scales feature:

- Large, grade 304 stainless steel pan allows swift cleaning
- RS-232 interface for computers and printers
- Rugged construction stands up to industrial use
- Check weighing with audible alarm
- Preset tare function speeds the process of repetitive weighing
- Selectable digital filtering helps minimize effects of vibration and disturbances

- Zero-tracking feature ensures display returns to zero reading
- Vivid, backlit LCD easily visible in any lighting conditions
- Rechargeable battery included for operation almost anywhere
- Programmable auto power-off to save energy

See Chart for Models and Specifications

Adam GFK Floor Scales

With a full keypad that simplifies unit weight and sample entry, the GFK floor scale capably performs check counting to a predefined weight or count. Ideal for materials labs dealing with large samples. A durable stainless steel platform and pillar-mounted ABS plastic indicator make the GFK suitable for most heavy counting and weighing applications. The large backlit display is visible in most settings and shows unit weight and total weight.

The GFK scales feature:

- Large, grade 304 stainless steel pan allows swift cleaning
- RS-232 interface for computers and printers
- Rugged construction stands up to industrial use
- Check weighing with audible alarm
- Preset tare function speeds the process of repetitive weighing
- Selectable digital filtering helps minimize effects of vibration and disturbances
- Zero-tracking feature ensures display returns to zero reading
- Vivid, backlit LCD easily visible in any lighting conditions
- Rechargeable battery included for operation almost anywhere
- Programmable auto power-off to save energy

See Chart for Models and Specifications

Adam GBK Bench Scales			Models		
Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz	Ship Wt.
16lb (8kg)	0.0002lb (0.1g)		HB-5010	HB-5010.4F	
35lb (16kg)	0.001lb (0.5g)		HB-5011	HB-5011.4F	
70lb (32kg)	0.0002lb (1g)	15.7" x 11.8" (400 x 300mm)	HB-5012	HB-5012.4F	17 lb / 7.7 kg
130lb (60kg)	0.005lb (2g)		HB-5013	HB-5013.4F	
260lb (120kg)	0.01lb (5g)		HB-5014	HB-5014.4F	

Adam GFK Floor Scales			Models		
Cap.	Readability	Platform	120V 60Hz	220V 50/60Hz	Ship Wt.
165lb (75kg)	0.01lb (5g)		HB-5016	HB-5016.4F	
165lb (75kg)	0.002lb (1g)	19.7" x 15.7" (500 x 400mm)	HB-5017	HB-5017.4F	40 lb / 18.1kg
330lb (150kg)	0.02lb (0.01g)		HB-5018	HB-5018.4F	
330lb (150kg)	0.005lb (2g)		HB-5019	HB-5019.4F	

HUMBOLDT

H-4732

H-4480A

H-4490A

H-5051

H-4621

H-4830

H-4825

H-4604

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

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)

Suspension Scale, Digital Readout (US/metric)

High accuracy, compact digital hanging scale uses a 12-bit A/D converter for accuracy ± 0.1% of applied load. Capacity is 250lb (113.4kg) with a resolution of .01lb (.01kg) and a ±.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)

Adam SHS Crane Scale

The SHS Crane Scale provides a bright LED display for easy viewing. The display has 0.6" (15mm) LED digits. The housing is a heavy-duty Polycarbonate. The rotating hook allows for easy access with safety locks that secures the load. A remote is included, which is powered by (2) AAA batteries. It provides external calibration ability for verification and adjustment. A hold function freezes the display weight and a zero-tracking feature returns the unit to the zero reading. AC adapter included.

100lb (50kg) x 0.02lb (0.01kg)	H-5050
100lb (50kg) x 0.02lb (0.01kg)	H-5051
600lb (300kg) x 0.1lb (0.05kg)	H-5052

Ship wt. 6lbs. (2.72kg)

Spring Scale, Circular

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

Spring Scale	H-4480A

Ship wt. 4lbs. (1.7kg)

Spring Scale, Vertical

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

Spring Scale, Vertical	H-4490A

Ship wt. 8lbs. (3.6kg)

Ohaus Mechanical Balances, 2610g

The Ohaus 700 Series accommodates a large range of laboratory applications. Standard features include: Faster stability— three times faster stability reading than any other three-beam balance on the market; and, greater accuracy— outstanding beam quality allows for smooth positioning of the poise. Include weight sets. Both 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 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

Ship wt. 15lbs. (6.8kg)

H-4605

H-4835

H-4660.10

H-4615S

H-4609

H-4739

H-21170

H-4603CC

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)

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

Ship wt. 22lbs. (10kg)

Individual Weights

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

Stainless Scoop and Counterweight

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

Stainless Scoop and Counterweight   H-4615S

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

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

Ship wt. 3lbs. (1.2kg)

Steel Carrying Case

Carrying case for mechanical balances.

Steel Carrying Case   H-4603CC

Ship wt. 10lbs. (4.5.4kg)

Dust Cover

Vinyl dust cover for mechanical balances.

Dust Cover   H-4603C

Ship wt. 2lbs. (.9kg)

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 ± 1°F (0.5°C), even in varying ambient or power supply conditions. This feature helps to confirm temperature stability or indicate any control malfunction or power loss throughout a process period. The digital controller features large, easy-to-read LED numbers that continuously display set temperature and process temperature, as well as a setting lock mode that provides protection against accidental or inadvertent adjustments.

Features:

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

H-30100E

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

Laboratory Ovens – Gravity Convection with Digital Control

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

NOTES

230V Models do not have wire plug.

H-30145

H-30145E with E-Series Digital Control

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

Laboratory Bench Ovens, Digital-Series

The Digital Series ovens take the standard forced-air, 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

NOTES

230V Models do not have wire plug.

Digital-Controlled Bench Ovens

Model	Max. temp.	Description	Dimensions (W x D x H)
H-30140E	300°F (149°C)	7 cu. ft. (198L) capacity. Features Digital P.I.D. controller, 115V, 60 Hz, 1050 watts, 9.2 amps, Shipping wt. 185 lbs. (84kg)	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.4F		230V, 50/60Hz version of H-30140E	
H-30145E	450°F (232°C)	7 cu. ft. (198L) capacity. Features Digital P.I.D. controller, 115V, 60 Hz, 1920 watts, 16amps. Shipping wt. 185 lbs. (84kg)	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-30145E.4F		230V, 50/60Hz version of H-30145E	
H-30135E	450°F (232°C)	10.6 cu. ft. (300L) capacity. Features Digital P.I.D. controller, 115V, 60 Hz. 1920 watts, 16 amps. Uses 20 amp grounded plug. Shipping wt.225 lbs (102kg)	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.4F		230V, 50/60Hz version of H-30135E	
H-30160E.4F	550°F (287°C)	7 cu. ft. (198L) Features Digital P.I.D. controller, 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) Overall: 33" x 35.5' x 24" (838 x 902 x 610mm)

Analog-Controlled Bench Ovens

Model	Max. temp.	Description	Dimensions (W x D x H)
H-30140	300°F (149°C)	7 cu. ft. (198L) capacity. Features calibrated dial-type temperature controller, 115V, 60 Hz, 1050 watts, 9.2 amps, Shipping wt. 185 lbs. (84kg)	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-30140.4F		230V, 50/60Hz version of H-30140E	
H-30145	450°F (232°C)	7 cu. ft. (198L) capacity. Features calibrated dial-type temperature controller, 115V, 60 Hz, 1920 watts, 16amps. Shipping wt. 185 lbs. (84kg)	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-30145.4F		230V, 50/60Hz version of H-30145E	
H-30135	450°F (232°C)	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)	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-30135.4F		230V, 50/60Hz version of H-30135E	
H-30160.4F	550°F (287°C)	7 cu. ft. (198L) Features calibrated dial-type temperature controller, 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) Overall: 33" x 35.5' x 24" (838 x 902 x 610mm)
H-30160SS.4F		Stainless steel version of H-30160.4F	

HUMBOLDT www.humboldtmfg.com • 1.800.544.7220 • 708.468.6300

H-32300A

H-32333A
(shown with Digital Controller)

H-32343A
(shown with
optional stand)

Large Capacity Bench Ovens

These economical, large-capacity, bench ovens are designed to handle a wide variety of applications, which require a maximum temperature of 400°F (204°C) with a ±0.5% control accuracy and ±8°F (4°C) uniformity for efficient drying of large samples. All models feature an analog thermocouple-actuated, temperature controller and a 1/3 HP motor with a 400 CFM blower. Ovens have 2" (51mm) 6 lb/cf industrial rockwool insulation and the built-in baffle helps 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 contractors are electrically interlocked to shut off heaters if power to the blower is interrupted, and, permits operation of the blower without heat for cooling.

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

See Chart for Models and Specifications

Digital Controller Option

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

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

Volume Cu. ft (m)	Inside dim. W x D x H	Max. temp.	Control accuracy	Oven uniformity	Model	Voltage	Outer dimension W x D x H	Kw	Rise time	Ship. wt.
15.8 (.447)	36" x 21" x 36" (910 x 530 x 910mm)	400°F (204.4°C)	±0.5%	±8°F	H-32300A.2F.DIG2	230V,60Hz 1ph.	40" x 28" x 47" (1020 x 710 x 1190mm)	4.4	18 min.	600 lbs (272kg)
					H-32300A.2F.3.DIG2	230V,60Hz 3ph.				
					H-32300A.8F.DIG2	208V,60Hz 1ph.				
					H-32300A.8F.3	208V,60Hz 3ph.				
					H-32300A.8F.3.DIG2					
					H-32300A.9F.3	460V,60Hz 3ph.				
					H-32300A.9F.3.DIG2					
27 (.764)	36" x 36" x 36" (910 x 910 x 910mm)	400°F (204.4°C)	±0.5%	±8°F	H-32333A.2F	230V,60Hz 1ph.	40" x 43" x 47" (1020 x 1090 x 1190mm)	6.6	18 min.	750 lbs (340kg)
					H-32333A.2F.DIG2					
					H-32333A.2F.3	230V,60Hz 3ph.				
					H-32333A.2F.3.DIG2					
					H-32333A.8F	208V,60Hz 1ph.				
					H-32333A.8F.DIG2					
					H-32333A.8F.3	208V,60Hz 3ph.				
					H-32333A.8F.3.DIG2					
					H-32333A.9F.3	460V,60Hz 3ph.				
					H-32333A.9F.3.DIG2					
36 (1.01)	36" x 48" x 36" (910 x 1220 x 910mm)	400°F (204.4°C)	±0.5%	±8°F	H-32343A.2F	230V,60Hz 1ph.	40" x 55" x 47" (1020 x 1400 x 1190mm)	6.6	22 min.	850 lbs (385kg)
					H-32343A.2F.DIG2					
					H-32343A.2F.3	230V,60Hz 3ph.				
					H-32343A.2F.3.DIG2					
					H-32343A.8F	208V,60Hz 1ph.				
					H-32343A.8F.DIG2					
					H-32343A.8F.3	208V,60Hz 3ph.				
					H-32343A.8F.3.DIG2					
					H-32343A.9F.3	460V,60Hz 3ph.				
					H-32343A.9F.3.DIG2					

NOTES
50Hz Models available upon request.

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 corrosion-resistant, stainless steel interior and nickel-plated shelves clean up easily. The motor is permanently lubricated and virtually maintenance free. Every LBB bench top oven is UL and C-UL listed, and receives a thorough performance test before shipping. Ovens come with two shelves, either standard shelves, which can handle up to 50 lbs. (22.7kg) or reinforced shelves, which can handle 200 lbs. (90.7kg) of material. See chart below for number and type of shelves included with each oven. Ovens meet AASHTO uniformity requirements of ±3° at 150°C. Motor and fan are located above the stainless steel oven chamber to prevent damage if materials are spilled.

See Chart for Models and Specifications

H-30366.4F

H-30360.4F

Heavy-Duty Laboratory Ovens

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.
95°F to 399°F 35°C to 204°C	18 x 18 x 12" (460 x 460 x 310mm)	2.3 (65)	H-30356	LBB1-23	24 x 24.5 x 26" (610 x 620 x 660mm)	50/60Hz, 1ph, 120V 15 amps, 1.2KW heater	(2) Standard (max. 5 @ 2"Ø)	205 lb (92 kg)
			H-30356.4F			50/60Hz, 1ph, 240V 15 amps, 1.2KW heater		
	30 x 18 x 22" (760 x 460 x 560mm)	6.9 (195)	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 (max. 5 @ 4"Ø)	320 lb (146 kg)
			H-30360.4F			50/60Hz, 1ph, 240V 10.8 amps, 2.4KW heater		
	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. Excels 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-30326.4F

H-30322.4F

High-Performance Forced-Air Bench-Top Ovens

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

H-30200   H-30204.4F   H-30216.4F

H-4947AC

H-4949A

H-4958

Small Bench top Muffle Furnace

Small (0.07 cu.ft. 2.1L), 1520W bench top muffle furnace has ceramic fiber insulation, which provides faster heat-up and reduced energy consumption. Embedded heating element on top and both sides provides temperature uniformity. Digital single set point temperature control to 2012°F (1100°C) with single display showing actual temperature or set point. Drop-down door doubles as a convenient shelf for loading and unloading. Rear chamber port for monitoring temperatures with independent measuring devices. Shipped with power cord. Refer to table for specifications.

Bench top Furnace, 120V 50/60Hz   H-30200

Bench top Furnace, 240V 50/60Hz   H-30200.4F

Ship wt. 30.6lbs. (13.8kg)

Medium Bench top Muffle Furnace

Medium (0.2 cu.ft. 5.8L), 1800W bench top muffle furnace has ceramic fiber insulation, which provides faster heat-up and reduced energy consumption. Embedded heating element on top and both sides provides temperature uniformity. Digital single set point temperature control to 2192°F (1200°C) with single display showing actual temperature or set point. Drop-down door doubles as a convenient shelf for loading and unloading. Rear chamber port for monitoring temperatures with independent measuring devices. Shipped with power cord. Refer to table for specifications.

Bench top Furnace, 120V 50/60Hz   H-30201

Bench top Furnace, 240V 50/60Hz   H-30201.4F

Ship wt. 86lbs. (39kg)

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, easy-to-use PID programmable temperature controller, allows control of heating rates, dwells (time holds) and cooling rates. Safety feature includes a safety interlock system to shut off power when furnace door open. 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   H-4947AN

Ship wt. 44.1lbs. (20kg)

Electric Hotplates

Dual-burner electric hot plate. Two 825-watt rapid heating burners, for a total of 1650 watts. Infinite heat controls, heavy-gauge steel construction; stainless steel 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-4949A

Ship wt. 9.9lbs. (4.4kg)

Heat Gun, Industrial-grade

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

Heat Gun, Industrial-grade   H-4958

Ship wt. 6lbs. (2.7kg)

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

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

H-7535

H-7530

H-7534.4F

Guardian 2000 Ceramic, Hotplate

Dependable OHAUS Guardian 2000™ Hotplates are ideal for education and other lab environments that require affordable, everyday fast heating up to 15L. The OHAUS Guardian 2000™ offer simple knob control to easily adjust the heating functions. The durable housing includes a built-in support rod holder which accepts the optional support rod.

Unique Features:

• Fast heating at an economical price. Safely heat up to 500°C up to 15L with easy to use knob control for simple and reliable everyday heating in the lab.

• Designed to last - the rugged metal housing has a spill resistant design for long life in the lab under harsh conditions. The smooth, chemical-resistant ceramic top plate is perfect for easy clean up.

• Safety is of utmost importance - the prominent hot top indicator light illuminates when the heater is above 40°C, keeping the end user safe during all heating applications.

Guardian 2000 Ceramic Hotplate   See Table

Ship wt. 7.1lb (3.2kg)

Guardian 5000 Ceramic, Hotplate/Stirrers

OHAUS Guardian 5000™ 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™ 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 software-controlled 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™ 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:

• SmartPresence™ and SmartLink™ 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 passed.

SafetyHeat™ 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 software-controlled ramp rates.

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

SmartRate™ 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 wt. 6.2lb (2.8kg)

Guardian 2000 Ceramic Hotplates

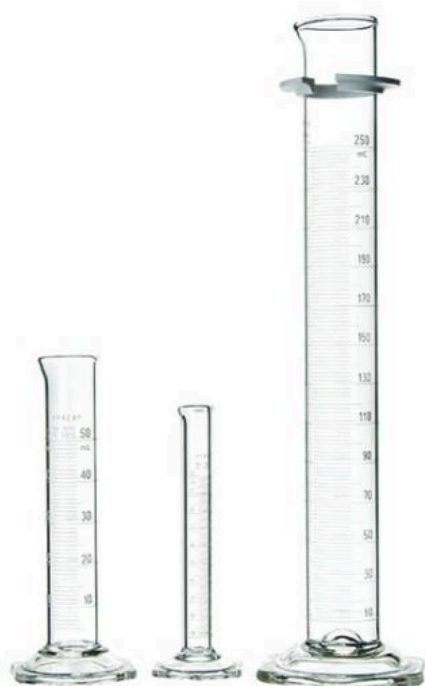| Temperature range	Heating surface	Capacity	Electrical	Power consumption	Standard model
Ambient 70° to 500°C	7" x 7"	15L	115V 60Hz	1005W (100-120V)	H-7535
			230V 50/60Hz	1005W (220-240V)	H-7535.4F

Guardian 5000 Ceramic Basic and Stirring Hotplates

Temperature range	Heating surface	Max. load	Electrical	Standard model	Stirring model	Speed range
Ambient +5° to 500°C	7" x 7" ceramic	Up to 14.5kg (32 lbs)	120V 50/60Hz	H-7530	H-7531	60 to 1600rpm
			230V 50/60Hz	H-7530.4F	H-7531.4F	
	10" x 10" ceramic		120V 50/60Hz	-	H-7532	
			230V 50/60Hz	-	H-7532.4F	

Guardian 7000 Ceramic, Hotplate/Stirrers

Temperature range	Heating surface	Max. load	Electrical	Stirring model	Speed range
Ambient +5° to 500°C	7" x 7" ceramic	Up to 14.5kg (32 lbs)	120V 50/60Hz	H-7533	60 to 1600rpm
			230V 50/60Hz	H-7533.4F	
	10" x 10" ceramic		120V 50/60Hz	H-7534	
			230V 50/60Hz	H-7534.4F	

H-4912P.1M

H-4911.400

H-4911.100

H-4912P.250

H-4912P.050

H-4915.050   H-4915.025   H-4915.250

H-4916P.050   H-4916P.500

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
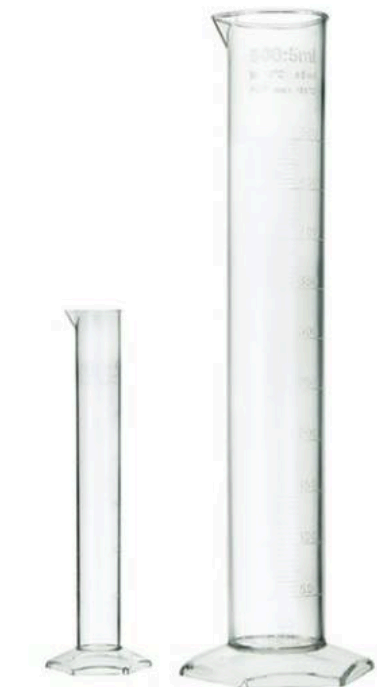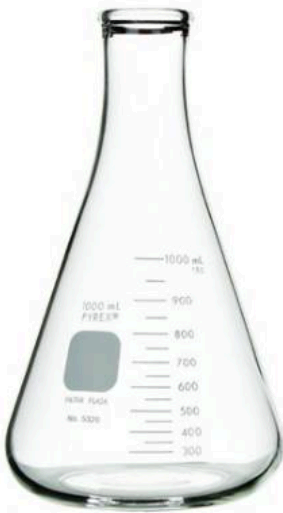
H-4917.2M

H-4913.250
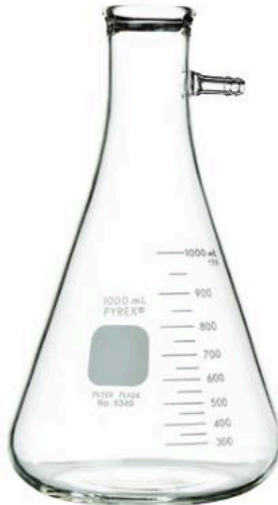
H-4913.1M

H-3401

H-3399   H-3398

H-4913.1MS   H-4913.250S

H-3397

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.

8 oz. (250ml)	H-3398
16 oz. (500ml)	H-3399
32 oz. (1000ml)	H-3401

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

Ship wt. 2.1lbs. (0.9kg)

H-1702

H-3700

H-3710

H-3712

H-4308

H-4309

H-3996S

H-3993S

H-3986S

H-3981P

H-3981S

H-3967S

H-3705

H-3707

H-3723

H-3725, H-3728

H-3981

H-4934

H-4359A

Material Handling Scoops

Model	Size	Description	Ship Wt.
H-1702	8" H x 15" W x 23" L (203 x 381 x 584mm)	Material handling scoop	13.4 lb (6kg)
H-4308	15" x 30" x 4" (381 x 762 x 102mm)	Welded steel construction with open chute simplifies transfer or bag loading. Front swing-down handle folds inside pan to permit criss-cross stacking. Tapered scoop section controls flow.	13.4 lb (6kg)
H-4309	12" x 20" x 4" (305 x 508 x 102mm)		

Moisture and Immersion Pans

Model	Dimensions (LxWxD)	Description	Ship Wt.
		Straight Sides	
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 edges. Features 2 drop handles, straight sides. ASTM D346, D2013, D 2234	14 lb (6kg)
H-3712	24 x 24 x 6" deep (610 x 610 x 152mm)		
		Tapered Sides	
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)

Stainless Steel Rectangular Pans

Dimensions (L x W x D)	Ship Wt.	Model
6.5" x 6" x 4.5"D (165 x 152 x 114)	1.2 lb (1.4kg)	H-3981S
6.375" x 5.375" x 4.5"D (165 x 152 x 114)	1 lb (0.4kg)	H-3981P
9.75" x 7.75" x 4.25"D (267 x 40 x 114)	2.3 lb (1.0kg)	H-3986S
13.5" x 6.75" x 5"D (343 x 171 x 127)	3 lb (1.3kg)	H-3967S
22" x 6.5" x 5.25"D (559 x 165 x 133)	4.5 lb (2.0kg)	H-3993S
15.5" x 8" x 7"D (394 x 204 x 178)	5 lb (2.2kg)	H-3996S

Tin Rectangular Mixing Pans

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

Bakalon Rectangular Mixing Pan (Non-Stick)

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

H-3969

H-4353.2, H-4353.4, H-4353.6

H-4354.2, H-4354.4, H-4354.6

H-4355.2, H-4355.4, H-4355.6

H-4352.2, H-4352.4, H-4352.6

H-4351.2, H-4351.4, H-4351.6

H-4941

H-4356.2, H-4356.4, H-4356.6

H-4940.2, H-4940.4,
H-4940.6, H-4940.8

H-4936, H-4937, H-4938,
H-4939, H-4939.5

Stainless Steel Rectangular Mixing Pans

Model	Dimensions (L x W x D)
H-3969	10.375 x 6.375 x 2.5" (264 x 162 x 64mm)
H-4352.2	20.75 x 12.75 x 2.5" (527 x 323 x 63mm)
H-4352.4	20.75 x 12.75 x 4" (527 x 324 x 102mm)
H-4352.6	20.75 x 12.75 x 6" (527 x 324 x 152mm)
H-4353.2	13.875 x 12.75 x 2.5" (346 x 323 x 63mm)
H-4353.4	13.875 x 12.75 x 4" (346 x 323 x 101.6mm)
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)

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)

H-17150

H-4924.100

H-4924.200

H-4920.050

H-4920.1M

H-4923.1M

H-4923.500

H-4922.050

H-4922C.050

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   **H-17150**

Ship wt. 0.2lbs. (0.09kg)

Evaporating Dishes, Nickel

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

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

Evaporating Dishes, Nickel   **See Table**

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**

Ship wt. 1lb. (0.5kg)

Crucibles, Nickel

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

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

Crucibles, Nickel   **See Table**

Ship wt. 0.8lbs. (0.36kg)

Crucibles Covers, Nickel

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

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

Crucible Covers, Nickel   **See Table**

Ship wt. 0.5lbs. (0.2kg)

H-4183A

H-4184A

H-4927

H-1350.70

H-4962

H-4914.08

H-4930.250

H-4960

H-1758   H-1757

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 average-sized 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

Ship wt. 1lbs. (0.5kg)

Moisture Boxes, Aluminum

Seamless aluminum, flat-bottom, straight-side box has tight fitting cover that fits bottom of box also. Sample is protected from exposure during weighing operations.

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

Ship wt. 0.2lbs. (0.09kg)

Sample Jars, Plastic with Caps

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

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

Sample Cups, Tin

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

Sample Cups, Tin

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

Sample Cups, Tin   See chart above

Evaporating Dishes, Porcelain

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

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

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

Desiccator Jar

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

Desiccator Jar, 5" (128mm) Dia.   **H-4960**
Desiccator Jar, 8" (203mm) Dia.   **H-4961**

Ship wt. 8lbs. (3.6kg)

Specimen Plate

Raised metal plate provides stable platform for samples.

Specimen Plate for H-4960   **H-4960P**
Specimen Plate for H-4961   **H-4961P**

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 heavy-gauge 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)

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**

Shipping wt. 2.5 lbs (1.1kg)

Drierite Desiccant, 5 lb.   **H-1767**

Shipping wt. 9 lbs (4kg)

H-4890A

HUMBOLDT MFG. CO.
#3800 — MADE IN U.S.A.

H-3740

H-3742

H-3746

H-4208

H-4209

H-3745

H-4206

H-4207

H-4982

H-4983

H-3743.9
H-3743.10

H-4222D

H-4207A

Shovel, Round-Point

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

Shovel, Round-Point   H-4982
Ship wt. 8.2lbs. (3.7kg)

Shovel, Square-Point

Heat-treated high-carbon steel 9.375 x 11.5" (24 x 29cm) square-pointed blade with 48" (122cm) handle.

Shovel, Square-Point   H-4983
Ship wt. 5lbs. (2.3kg)

Gloves, Rough Finish PVC

For use in compaction, concrete and general lab work. Best suited for oils, acids, caustics, grease and most solvents and chemicals. Vinyl coated gloves offer the best value in coated gloves by combining superior abrasion resistance with grip and flexibility. Size Large - 14" length (9" hand circumference); Rough finish; Interlock lined, Black color.

Gloves, Rough Finish PVC   H-3740
Ship wt. 0.3lbs. (0.14kg)

Gloves, Heavy-Weight, Heat-Resistant

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

Gloves, Heavy-Weight, Heat-Resistant   H-3742
Ship wt. 0.5lbs. (0.22kg)

Gloves, Heat-Resistant

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

Gloves, Heat-Resistant   H-3746
Ship wt. 1.5lbs. (0.68kg)

Gloves, Nitrile-Coated, Hot Mill

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

Gloves, Nitrile-Coated, Size 9   H-3743.9
Gloves, Nitrile-Coated, Size 10   H-3743.10
Ship wt. 0.8lbs. (0.36kg)

Gloves, Heavy-Weight, Terrycloth

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

Gloves, Heavy-Weight, Terrycloth   H-3745
Ship wt. 1lbs. (0.5kg)

Sample Bags

Heavy-duty material, unlined sample bag. Bag has draw-cord closure and can be used for various applications involving soils, aggregates, sands and similar materials.

Sample Bags, 10" x 18" (254 x 457mm) H-4206
Sample Bags, 17" x 32" (432 x 813mm) H-4207
Ship wt. 0.5lbs. (0.22kg)

Sample Bags, Plastic-Lined

Heavy-duty material, plastic-lined sample bag. Bag has draw-cord closure and can be used for various applications involving soils, aggregates, sands and similar materials.

Sample Bags, 10" x 18" (254 x 457mm) H-4208
Sample Bags, 17" x 32" (432 x 813mm) H-4209
Ship wt. 0.7lbs. (0.31kg)

Sample Bags, Economy

Heavy-duty material, unlined sample bag. Bag has draw-cord closure and can be used for various applications involving soils, aggregates, sands and similar materials.

Sample Bags, 10" x 19" (254 x 483mm) H-4206A
Sample Bags, 15" x 29" (381 x 737mm) H-4207A
Ship wt. 0.25lbs. (0.1kg)

Durometer, Type D
ASTM D4318, D2240

Durometer used to test the hardness of the base of a liquid limit machine, as well as hard rubber and plastics, thermo plastics, flooring materials. Sharp cone point 30°. Precision construction delivers lifetime accuracy. Sealed springs maintain load deflection rate to a tolerance of .0004".

Durometer, Type D   H-4222D
Ship wt. 1.7lbs. (0.77kg)

Durometer, Type A

Durometer used to test soft rubber, plastics, and elastomers, printer's rolls. Flat cone point 35° included angle.

Durometer, Type A   H-4222A
Ship wt. 2.1lbs. (0.95kg)

Durometer, Type B

Durometer used to test harder elastomers and plastics. Paper and fibrous materials above 93 Duro A. Sharp Cone Point 30°.

Durometer, Type B   H-4222B
Ship wt. 3lbs. (1.4kg)

Durometer, Type C

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

Durometer, Type B   H-4222C
Ship wt. 3lbs. (1.4kg)

H-4460

H-4461A

HM-4471.10

H-4470

H-4466.30
H-4466.15
H-4466.10

HS-4156.14

Gauges, Dial

Indicators are built to American Gauge Design specifications for accuracy and are used in field and laboratory testing applications. Dials are high-quality, low-friction type, designed for long life and accurate repeatable readings. All dial indicators have continuous graduations and revolution counters that show revolutions of the indicator hand. They are furnished with a lug back (with a 90° mounting hole to be used vertically or horizontally), a regular contact point 0.25" long, and a dust cap. Dials listed are clockwise rotation; counter-clockwise rotation see note below.

Gauges, Dial   See Table

Ship wt. 1.3lbs. (0.6kg)

Gauges, 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

Digital Indicators

Switchable inch/metric digital indicator is accurate to ±.0001" (.002mm). Instant zero feature. Locks in maximum reading on LCD display with characters 0.240" high and 0.115" wide. Runs either clockwise or counter clockwise. Uses replaceable batteries or USB power with automatic shutoff. Will replace any mechanical dial gauge.

Range	Resolution	Model
.250" / 6.35mm		HM-4471.02
.600" / 15.0mm		HM-4471.05
1.0" / 25.4mm	.0001" .002mm	HM-4471.10
2.0" / 50.0mm		HM-4471.20
4.0" / 101.6mm		HM-4471.40

Digital Indicators   See Table

Shipping wt. 1 lb (0.45kg)

Data Cable

Data cable for use with digital indicators and Data Loggers.

Data Cable   HM-4470C

Ship wt. 44.1lbs. (20kg)

Gauge Contact Point Extensions

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

Contact Point	Model
0.25" (6.4mm) Gauge Extension	H-4466.2
0.5" (13mm) Gauge Extension	H-4466.5
1" (25mm) Gauge Extension	H-4466.10
1.5" (38mm) Gauge Extension	H-4466.15
2" (50mm) Gauge Extension	H-4466.20
3" (76mm) Gauge Extension	H-4466.30
6" (152mm) Gauge Extension	H-4466.6

Ship wt. 0.5lbs. (0.2kg)

Indicator Holder, Magnetic, Swivel

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

Indicator Holder, Magnetic, Swivel   H-4470

Ship wt. 1.3lbs. (0.6kg)

Magnetic Gauge Mount

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

Magnetic Gauge Mount   HS-4156.14

Shipping wt. 1.3 lb (0.58kg)

HUMBOLDT