



*Do More with OHAUS*



*Laboratory Equipment*

# WEIGH IT



Explorer



Adventurer



Pioneer

## Semi-Micro, Analytical and Precision Balances

**Weigh It** in the laboratory, at school or in any industrial setting. From simple applications to highly demanding, regulated areas requiring log records, OHAUS offers a broad variety of weighing equipment designed to meet your requirements. Accurate weighing with readability ranging from 0,01 mg to 1 g is not an issue.

## Top questions to ask

- 1 What is the size of your sample?**  
It is important to select a balance able to handle your samples. Insufficient capacity might lead to a problem when tare comes to the equation.
- 2 What is the accuracy at which you need to measure your sample?**  
Readability of the balance influences directly the accuracy of weighing, especially when relatively small samples are being processed. Select from a Semi-Micro to a Precision instrument according to your needs.
- 3 Are you working in a demanding, regulated environment?**  
OHAUS Explorer features a 4 level User Management system with 110+ user accounts allowing for balance menus access control. System log function keeps records of measurements and changes to the device, allowing also for generating a PDF report with electronic signature directly from the balance. Minimum Weight function does not allow for measuring samples that are too small according to the required standards.
- 4 Does your balance need to be connected to a printer or data collecting system?**  
All OHAUS Analytical and Precision balances are equipped with RS232 making it possible to connect it to our SF40A printer. Selected products offer also USB connectivity or Ethernet ports for more sophisticated solutions.
- 5 Is ease of use important in your workplace?**  
Selected OHAUS balances come with built-in calibration systems assuring accurate measurement at all times. They also feature an easy-to-use interface, including a colour touchscreen and an intuitive interface. Several Explorer models come with automatic draftshield doors and all of them have touchless sensors improving efficiency and throughput.

## Semi-Micro & Analytical balances

Family	Model	Capacity	Readability	Pan Size	Display	Item No.
Explorer	EX125	120 g	0,01 mg	ø80 mm	Color Touchscreen 5,7"	30218999
	EX225D	120/220 g	0,01/0,1 mg	ø80 mm	Color Touchscreen 5,7"	30219000
	EX225/AD	220 g	0,01 mg	ø80 mm	Color Touchscreen 5,7"	30219002
	EX124	120 g	0,1 mg	ø90 mm	Color Touchscreen 5,7"	83021331
	EX224/AD	220 g	0,1 mg	ø90 mm	Color Touchscreen 5,7"	30061977
	EX324/AD	320 g	0,1 mg	ø90 mm	Color Touchscreen 5,7"	30061978
Adventurer	AX124	120 g	0,1 mg	ø90 mm	Color Touchscreen 4,3"	30122610
	AX224	220 g	0,1 mg	ø90 mm	Color Touchscreen 4,3"	30122611
	AX324	320 g	0,1 mg	ø90 mm	Color Touchscreen 4,3"	30122613
Pioneer	PX125D	52/120 g	0,01/0,1 mg	ø80 mm	Backlit LCD	30478196
	PX85	82 g	0,01 mg	ø80 mm	Backlit LCD	30485340
	PX225D	82/220 g	0,01/0,1 mg	ø90 mm	Backlit LCD	30478197
	PX124	120 g	0,1 mg	ø90 mm	Backlit LCD	30429803
	PX224	220 g	0,1 mg	ø90 mm	Backlit LCD	30429804

The table above represents only a selection of OHAUS portfolio

# WEIGH IT

## Precision balances

Family	Model	Capacity	Readability	Pan Size	Display	Item No.
Explorer	EX423	420 g	1 mg	ø130 mm	Color Touchscreen 5,7"	83021342
	EX1103	1 100 g	1 mg	ø130 mm	Color Touchscreen 5,7"	83021350
	EX4202	4 200 g	0,01 g	190x200 mm	Color Touchscreen 5,7"	83021357
	EX6202	6 200 g	0,01 g	190x200 mm	Color Touchscreen 5,7"	83021360
	EX10202	10 200 g	0,01 g	190x200 mm	Color Touchscreen 5,7"	83021362
	EX35001-EU	35 000 g	0,1 g	377x311 mm	Color Touchscreen 5,7"	30078074
Adventurer	AX423	420 g	1 mg	ø130 mm	Color Touchscreen 4,3"	30127962
	AX523	520 g	1 mg	ø130 mm	Color Touchscreen 4,3"	30122614
	AX1502	1500 g	0,01 g	175x195 mm	Color Touchscreen 4,3"	30127966
	AX2202	2 200 g	0,01 g	175x195 mm	Color Touchscreen 4,3"	30127968
	AX4202	4 200 g	0,01 g	175x195 mm	Color Touchscreen 4,3"	30122616
	AX4201	4 200 g	0,1 g	175x195 mm	Color Touchscreen 4,3"	30127970
Pioneer	AX8201	8 200 g	0,1 g	175x195 mm	Color Touchscreen 4,3"	30122619
	PX523	520 g	1 mg	ø120 mm	Backlit LCD	30429806
	PX623	620 g	1 mg	ø120 mm	Backlit LCD	30619383
	PX6202	6 200 g	0,01 g	ø180 mm	Backlit LCD	30429808
	PX4201	4 200 g	0,1 g	ø180 mm	Backlit LCD	30429809

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EX125



PX125D



EX124



AX124



PX124



EX423



AX423



PX623

# DRY IT



MB120



MB23

MB25

MB27

MB90

## Moisture Analyzers

**Dry It** quickly and efficiently to make sure the moisture content of your sample is within the required range. OHAUS moisture analyzers feature either an IR or Halogen heating element and readabilities up to 0,01% MC. And if you struggle with determining the right drying procedure for your sample MB120 will help you **Dry It** right with its SmartGuide™ - a revolutionary feature that automatically analyzes a sample and creates a method, thereby removing the guesswork from the initial setup.

## Top questions to ask

- 1 What is the size of your sample?**  
OHAUS offers a selection of instruments with capacities up to 120g to make sure your sample fits in the heating chamber.
- 2 What is the required accuracy of your measurement?**  
Readability up to 0,01% MC allows for analyzing samples containing low amounts of moisture, with accuracy needed in your workplace.
- 3 Do you know how to dry your sample most efficiently?**  
SmartGuide™ automatically analyzes a sample and creates a method, simplifying the method creation process and removes the guesswork from the initial setup. It offers an alternative to oven method saving time and efforts! Whether you have a reference moisture content or not, this feature will help you set the MB120 properly and dry your sample the most optimal way.
- 4 Are you working in a regulated environment?**  
MB120 features a 4-level User Management system that allows controlling access to the instrument's settings. Printouts on MB90 and MB120 are also GLP-compliant.
- 5 Do you need more from your moisture balance?**  
MB120 is equipped with 4 drying profiles and a library of 100+ drying procedures. Recalling a saved method is extremely easy and improves efficiency in the laboratory. OHAUS instruments are equipped with connectivity ports allowing for a printer or a PC to be connected. MB120 in addition allows over 1000 results to be stored in the device's memory for further statistical analysis.

Model	Capacity	Readability	Platform	Heating element	Item No.
MB120	120 g	1 mg/0,01%	ø90 mm	Halogen	30241169
MB90	90 g	1 mg/0,01%	ø90 mm	Halogen	30241168
MB27	90 g	1 mg/0,01%	ø90 mm	Halogen	30251541
MB25	110 g	5 mg/0,05%	ø90 mm	Halogen	80252472
MB23	110 g	10 mg/0,1%	ø90 mm	Infrared	80252470



# CARRY IT



NV621



CX221

SKX2201

STX621

## Portable Precision Balances

**Carry It** with you, around the lab, around the classroom or to any remote location where ingeniously practical OHAUS portable precision balances will help you weigh. Battery operation, overload protection as well as optional connectivity kits make these instruments truly versatile in mobile operations.

## Top questions to ask

- 1 What is the main application for your balance to perform?**  
OHAUS offers a variety of portable products, from simple Compass Series to a Scout balance equipped with a touchscreen and multiple application modes. There is plenty to choose from!
- 2 What is the size of your sample?**  
Capacity and readability is very important to make sure your sample is properly measured. OHAUS starts with 120 g and 1 mg readability going up to 22kg capacity and 1g readability combination. Just pick the one matching your needs!
- 3 Is the balance working in a difficult environment?**  
At OHAUS we know that portable balances are more prone to overload and shock as they are being used in many different locations and for a variety of applications. All of our balances feature overload protection, moreover Scout balances are shock-proof to withstand a long-term uninterrupted use.
- 4 Do you need to collect and record weighing data?**  
If the answer is yes, our portable solutions can be equipped with optional connectivity kits ranging from USB to Ethernet and Bluetooth™. Data loggers are also compatible with our BT™ kit.
- 5 Is power always available?**  
Portability is important, therefore all of our balances can be battery operated, and some of them can run up to 1000h with no need for a battery change.



# CARRY IT

Family	Model	Capacity	Readability	Pan Size	Display	Item No.
Scout	STX223	220 g	1 mg	ø93 mm	Color Touchscreen 4,3"	30253059
	STX622	620 g	0,01 g	ø120 mm	Color Touchscreen 4,3"	30253062
	STX2202	2 200 g	0,01 g	170x140 mm	Color Touchscreen 4,3"	30253064
	STX6201	6 200 g	0,1 g	170x140 mm	Color Touchscreen 4,3"	30253068
	STX8200	8 200 g	1 g	170x140 mm	Color Touchscreen 4,3"	30253069
	SKX123	120 g	1 mg	ø93 mm	Backlit LCD	30253070
	SKX422	420 g	0,01 g	ø120 mm	Backlit LCD	30253072
	SKX1202	1 200 g	0,01 g	170x140 mm	Backlit LCD	30253074
	SKX2201	2 200 g	0,1 g	170x140 mm	Backlit LCD	30253078
	SKX8200	8 200 g	1 g	170x140 mm	Backlit LCD	30253080
Navigator	NV123	120 g	0,001 g	ø93 mm	Backlit LCD	30615581
	NV422	420 g	0,01 g	ø145 mm	Backlit LCD	30456383
	NV3202	3 200 g	0,01 g	190x144 mm	Backlit LCD	30615586
	NV621	620 g	0,1 g	190x144 mm	Backlit LCD	30456386
	NV2201	2 200 g	0,1 g	190x144 mm	Backlit LCD	30456388
	NVT10201	10 000 g	0,1 g	230x174 mm	Backlit LCD	30615587
	NVT6200	6 200 g	1 g	230x174 mm	Backlit LCD	30456393
	NVT22000	22 000 g	1 g	230x174 mm	Backlit LCD	30456395
Traveler	TA502	500 g	0,01 g	ø120 mm	LCD	83997626
	TA301	300 g	0,1 g	ø120 mm	LCD	72202484
	TA1501	1 500 g	0,1 g	120x135 mm	LCD	72202486
	TA5000	5 000 g	1 g	120x135 mm	LCD	72202489
Compass	CX221	220 g	0,1 g	132x125 mm	Backlit LCD	30428208
	CX1201	1 200 g	0,1 g	132x125 mm	Backlit LCD	30428210
	CX5200	5 200 g	1 g	132x125 mm	Backlit LCD	30428212
	CR621	620 g	0,1 g	142x128 mm	LCD	30428214
	CR2200	2 200 g	1 g	142x128 mm	LCD	30428215

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Scout (SKX)



Scout (STX)



Navigator (NV)



Navigator (NVT)



Traveler



Compass (CX)



Compass (CR)

# SHAKE IT



SHLD0403DG



SHRK07AL2

SHLDMP03DG

ISWV02HDG

## Shakers

Wide range of both Open Air Shakers and Incubating and Incubating & Cooling Shakers intended for different applications, offering a variety of capacities and flexibility to maximize sample processing, designed as well to withstand the extreme environments. Perfect for life science applications such as ELISA assays, cell cultures, protein studies, solubility studies, and more.

## Top questions to ask

- 1 What type of motion are you looking for?**  
You can choose your model among OHAUS selection of orbital, rocking, waving and reciprocating shakers.
- 2 Do you need a specific speed and orbit?**  
The larger the sample the larger the orbit and a slower speed is needed for a good mix. For smaller samples, it is the opposite, smaller orbit and faster speed for a good mix.
- 3 What size of shaker do you need?**  
You can easily find a shaker that can meet required capacity and sample kind. The most common samples are either Erlenmeyer flasks or tubes. The OHAUS Equipment Catalog has a guide in the accessory section listing the number of tube racks or flask clamps each shaker can hold.
- 4 Do you need a temperature control?**  
Incubating models are available as well as incubating/cooling. Remember, incubating models can begin to control temperature at ~5 °C above whatever the ambient (room) temperature is, so if the customer needs a temperature close to ambient, select a model that can cool.
- 5 How important is reproducibility of your settings?**  
If it is important, you should recommend a digital (DG) shaker as opposed to an analog (AL). Analog settings are not exact, digital settings are.
- 6 Do you need a simple means for capturing your data?**  
The OHAUS Thermal Shaker units (ISTHBLHTS and ISTHBLCTS) have a USB. Downloading the data is as simple as inserting a flash drive into the port and selecting USB mode on the utilities menu. Your customer does not need special software. The data is uploaded to a .csv file, similar to an Excel spreadsheet.



# SHAKE IT

Type	Model	Motion	Capacity	Speed Range RPM	Item No
Open Air Shakers	SHLD0415AL	Orbital, 15 mm	3,6 kg	40 to 300	30391893
	SHLD0403DG	Orbital, 3 mm	3,6 kg	100 to 1 200	30391900
	SHLD0415DG	Orbital, 15 mm	3,6 kg	40 to 300	30391914
	SHLDMP03DG	Orbital, 3 mm	4 microplates or 2 micro-tube racks	100 to 1 200	30391907
	SHHSMPDG	Orbital, 3,6 mm	48 microplates or up to 3,2 kg	600 to 2 500	30573785
	SHEX1619DG	Orbital, 19 mm	16 kg	15 to 500	30391816
	SHHD1619AL	Orbital, 19 mm	16 kg	25 to 500	30391802
	SHHD1619DG	Orbital, 19 mm	16 kg	15 to 500	30391811
	SHHD2325AL	Orbital, 25 mm	22,7 kg	25 to 500	30391837
	SHHD2325DG	Orbital, 25 mm	22,7 kg	20 to 500	30391844
	SHHD4525DG	Orbital, 25 mm	45,4 kg	15 to 500	30391865
	SHHD4550DG	Orbital, 51 mm	45,4 kg	15 to 300	30391872
	SHHD6825DG	Orbital, 25 mm	68 kg	15 to 500	30391879
	SHHD6850DG	Orbital, 51 mm	68 kg	15 to 300	30391886
	SHRK07AL1	Rocking, 0 to 15°	7,3 kg	1 to 75	30391954
	SHRK07AL2	Rocking, 0 to 15°	7,3 kg	1 to 75	30391961
	SHRK04DG	Rocking, 0 to 15°	4,5 kg	1 to 50	30391989
SHWV02AL	Waving, 0 to 16°	2,3 kg	1 to 75	30391968	
SHWV02DG	Waving, 0 to 20°	2,3 kg	1 to 30	30391949	
SHRC0719DG	Reciprocating, 19 mm	6,8 kg	20 to 300	30391830	
Incubating Shakers	ISTHBLHTS	Orbital, 3 mm	1 thermal block	300 to 3 000	30392005
	ISTHBLCTS	Orbital, 3 mm	1 thermal block	300 to 3 000	30391998
	ISTHBLCTS*	Orbital, 3 mm	1 thermal block	300 to 3 000	30573842
	ISTHBLHTSN*	Orbital, 3 mm	1 thermal block	300 to 3 000	30573848
	ISLD04HDG	Orbital, 3 mm	3,6 kg	100 to 1 200	30391919
	ISLDMPHDG	Orbital, 3 mm	4 microplates or 2 micro-tube racks	100 to 1 200	30391933
	ISLDMPHDGL	Orbital, 3 mm	2 microplates 2 modular blocks	100 to 1 200	30391926
ISICMBCDG	Orbital, 3 mm	3,6 kg	100 to 1 200	30391940	

\*No block included

www.ohaus.com

Type	Model	Motion	Capacity	Speed Range RPM	Item No
Incubating Shakers	ISRK04HDG	Rocking, 0 to 15°	4,5 kg	1 to 50	30391975
	ISWV02HDG	Waving, 0 to 20°	2,3 kg	1 to 30	30391982
	ISHD16HDG	Orbital, 19 mm	16 kg	15 to 500	30573770
	ISHD23CDG	Orbital, 25 mm	22,7 kg	15 to 500	30573780
	ISHD23HDG	Orbital, 25 mm	22,7 kg	15 to 500	30573775



SHHD1619AL



ISWV02HDG



SHEX1619DG



ISICMBCDG



SHHD2325DG



ISTHBLCTS



SHHD2325DG



ISHD16HDG

**NEW!**

AL - Analog models (e.g., SHLD0415AL), DG - Digital models (e.g., SHLD0403DG)



# MIX IT



VXMNDG



VXMPAL



VXHDDG



VXMTAL

## Vortex Mixers

Four Mini Vortex Mixer models for gentle to high-speed reliable mixing. Heavy-Duty Vortex Mixers feature a robust design and the highest quality motor to permit continuous-duty operation. Microplate Vortex Mixers are perfect for mixing microplates throughout the speed range and Multi-Tube Vortexers are ideal for hands-free, high-throughput sample processing. Perfect for life science applications such as re-suspending liquids, mixing reagents, genotyping, cell disruptions, and more.

## Top questions to ask

- 1 Do you need to vary the speed of your mix?**  
OHAUS has analog and digital models with variable speed control.
- 2 Do you need to use an accessory or run multiple tubes at high speeds?**  
Most vortex mixers have speed limitations when using an accessory attachment. The OHAUS Microplate, Heavy-Duty and Multi-Tube Vortexers are designed to run at high speeds with their accessories.
- 3 Would you like to vortex 50 samples at a time?**  
OHAUS has analog and digital models that can handle that capacity.
- 4 Do you need to know the exact speed when vortexing?**  
Select a digital model for accurate speed values.

Model	Type	Control	Duty Rating	Orbit	Item No.
VXMNFS	Mini	Fixed Speed	Intermittent	4,9 mm	30392110
VXMNAL	Mini	Analog	Intermittent	4,9 mm	30392117
VXMNDG	Mini	Digital	Intermittent	4,9 mm	30392124
VXMNPS	Mini	Pulsing	Intermittent	2,5 mm	30392131
VXHDDG	Heavy-Duty	Digital	Continuous	4,9 mm	30392136
VXHDAL	Heavy-Duty	Analog	Continuous	4,9 mm	30392141
VXMPDG	Microplate	Digital	Continuous	3,5 mm	30392150
VXMPAL	Microplate	Analog	Continuous	3,5 mm	30392155
VXMTAL*	Multi-Tube	Analog	Continuous	3,6 mm	30392166
VXMTDG*	Multi-Tube	Digital	Continuous	3,6 mm	30392173
VXMTALB**	Multi-Tube	Analog	Continuous	3,6 mm	30573832
VXMTDGB**	Multi-Tube	Digital	Continuous	3,6 mm	30573837

\* Stainless steel housing

\*\* Painted steel housing



# HEAT IT



HB2DG



HB1AL

HB6DG

HB2DGHL

## Dry Block Heaters

Versatile block heaters designed for everyday use with accessories for every application, ideal for applications that require temperature stability. Perfect for life science applications such as incubation and activation of cultures, ELISA and other immunoassays, isothermal incubations, and more.

## Top questions to ask

- 1 Do you need to incubate small samples like microtubes, microplates, test tubes, or vials?**  
OHAUS Dry Block Heaters provide a wide range of block accessories designed to accommodate samples of different types.
- 2 Are you looking for a specific temperature range?**  
OHAUS has models that can heat up to 150 °C.
- 3 How important is reproducibility of your settings?**  
If it is important, you should recommend a digital block heater as opposed to an analog. Analog settings are not exact, digital settings are.
- 4 Do you need to calibrate your heater to a traceable temperature device?**  
OHAUS models can be calibrated to an external temperature device such as a thermometer, probe or thermocouple.
- 5 Is the formation of condensation on your sample lids, caps, and covers causing a problem with your assays?**  
If it is, recommend the Block Heater with the Heated Lid.

Model	Number of Blocks	Control	Temperature Range	Stability @ 37 °C	Uniformity Within the Block @ 37 °C	Item No.
HB1DG	1	Digital	Ambient + 5 °C to 120 °C	± 0,2 °C	± 0,2 °C	30392061
HB2DG	2	Digital	Ambient + 5 °C to 120 °C	± 0,2 °C	± 0,2 °C	30392082
HB4DG	4	Digital	Ambient + 5 °C to 120 °C	± 0,2 °C	± 0,2 °C	30392089
HB6DG	6	Digital	Ambient + 5 °C to 120 °C	± 0,2 °C	± 0,2 °C	30392096
HB1AL	1	Analog	Low Range: Ambient +5 °C to 100 °C High Range: 75 °C to 150 °C	± 1,5 °C	± 0,2 °C	30392047
HB2AL	2	Analog		± 2 °C	± 0,2 °C	30392054
HB4AL	4	Analog		± 2,5 °C	± 0,2 °C	30392068
HB6AL	6	Analog		± 2,5 °C	± 0,2 °C	30392075
HB2DGHL	2	Digital	Ambient + 5 °C to 100 °C	± 0,2 °C	± 0,2 °C	30392103



# STIR IT



Guardian 7000



Guardian 7000



Guardian 5000



Guardian 5000

## Stirrers, Hotplates & Hotplate-Stirrers

From durable Hotplate Stirrers with superior safety features and intelligent performance to compact and easy-to-use hotplates and stirrers for basic heating and stirring. Perfect for life science applications such as dissolving buffers and reagents, preparing media, concentrating samples, and more.

## Top questions to ask

- 1 Are safety features an important part of your decision process?**  
 Guardian 5000 and 7000 units feature SafetyHeat™, an industry leading early detection system that uses two independent safety controls to continuously monitor the electronics and will shut off the heating function before an over-temperature condition occurs. Additional protection is available with the Guardian 7000's patented SmartPresence™ & SmartLink™ technologies; exclusive features that automatically shut off the heater if no one is detected after a user set, "time out" period has passed. All units feature the innovative SmartHousing™ that stays cool to the touch and is chemical resistant.
- 2 Do you need precise sample control?**  
 The Guardian 5000 and 7000 Hotplate Stirrers can be used with a temperature probe when sample temperature is critical. The Guardian 7000 unit's SmartHeat™ allows you to set the maximum temperature of the unit and SmartRate™ enables fast or slow temperature and speed ramp rates. When simple heating and stirring is required the HSMN units will do the job.
- 3 Are you looking for a specific top plate material?**  
 Ceramic top plates are more chemical resistant, heat up very quickly, and are easy to clean. The white reflective surface aids in viewing the sample. Aluminum top plates offer a more uniform heating surface, will not crack or chip but are more susceptible to corrosion.
- 4 How important is reproducibility of your settings?**  
 If it is important, you should recommend a Guardian 5000 or 7000 which is fully digital as opposed to the HSMN Mini Hotplate Stirrers.
- 5 What is the volume of your sample?**  
 It is important to select a model that can handle the volume as it may not heat or stir properly if it is undersized. Sample viscosity plays a role in selecting a stirrer. The more viscous the sample, the greater magnetic coupling strength needed. The stir bar size and shape, the distance between the drive magnet and the stir bar, vessel shape and size, speed and viscosity also must be considered.

## Guardian Hotplate-Stirrers

Family	Model	Function	Capacity	Plate Construction	Plate Size	Temperature Range	Speed Range RPM	Item No.
Guardian 7000	e-G71HS07C	Heating and Stirring	15 L	Ceramic	17,8 x 17,8 cm	Ambient + 5°C – 500°C	60 to 1 600	30500603
	e-G71HS10C	Heating and Stirring	18 L	Ceramic	25,4 x 25,4 cm	Ambient + 5°C – 500°C	60 to 1 600	30500613
	e-G71HSRDM	Heating and Stirring	20 L	Aluminum	round 13,5 cm	Ambient + 5°C – 380°C	60 to 1 600	30500623
Guardian 5000	e-G51HS07C	Heating and Stirring	15 L	Ceramic	17,8 x 17,8 cm	Ambient + 5°C – 500°C	60 to 1 600	30500523
	e-G51HP07C	Heating	15 L	Ceramic	17,8 x 17,8 cm	Ambient + 5°C – 500°C	—	30500533
	e-G51ST07C	Stirring	15 L	Ceramic	17,8 x 17,8 cm	—	60 to 1 600	30500543
	e-G51HS10C	Heating and Stirring	18 L	Ceramic	25,4 x 25,4 cm	Ambient + 5°C – 500°C	60 to 1 600	30500553
	e-G51HSRDM	Heating and Stirring	20 L	Aluminum	round 13,5 cm	Ambient + 5°C – 380°C	60 to 1 600	30500563

# STIR IT

## OHAUS GUARDIAN SERIES SMART FEATURES



### SmartHeat™

Safely control and monitor the maximum temperature with SmartHeat™ which allows you to set the maximum temperature of the Guardian 7000 hotplate stirrer, preventing overheating of sensitive samples.



### SmartRate™

For precise sample control with the Guardian 7000, use the included temperature probe and enable SmartRate™ to select fast or slow temperature and speed ramp rates.



### SmartPresence™

Exclusive proximity sensor technology in Guardian 7000 recognizes nearby users and safely turns off heating function if none are detected.



### SafetyHeat™

Industry-leading internal protection system to assure safety in heating applications with dual monitoring of system health.



### SmartLink™

Guardian 7000 SmartLink™ provides long-range user detection for heater safety by installing the OHAUS Bluetooth dongle accessory into the USB port and pairing to a mobile device. If the Bluetooth link is broken, the heating function will safely shut off.



### SmartHousing™

With chemical resistant SmartHousing™ that remains cool to the touch at all temperature settings and channels away chemical spills from internal components, the Guardian 7000 and 5000 assures safety in the lab. All units feature a large hot top light that can be seen across the lab when the heater is above 40 °C.

## Mini Hotplates & Stirrers

Model	Function	Capacity	Plate Construction	Plate Size	Temperature Range	Speed Range RPM	Item No.
HSMNHP4CAL	Heating	1000 mL	Ceramic	10,2 x 10,2 cm	Ambient – 500 °C	—	30392012
HSMNHP4CFT (fix T)	Heating	1000 mL	Ceramic	10,2 x 10,2 cm	500 °C	—	30392033
HSMNST4CAL	Stirring	1000 mL	Ceramic	10,2 x 10,2 cm	—	100 – 1 200	30392019
HSMNAS4CAL (auto)	Stirring	1000 mL	Ceramic	10,2 x 10,2 cm	—	100 – 1 200	30392040
HSMNHS4CAL	Heating and Stirring	1000 mL	Ceramic	10,2 x 10,2 cm	Ambient – 500 °C	100 – 1 200	30392026



HSMNHP4CAL



HSMNHS4CAL



HSMNHP4CFT



HSMNST4CAL



HSMNAS4CAL



# STIR IT



Achiever 5000



## Overhead Stirrers

OHAUS Achiever 5000™ Overhead Stirrers are designed for powerful, precise stirring, safety and simplicity in all applications. The sealed design has an IP54 rating and ensures safe mixing performance even in the most demanding applications. The keyless chuck and software controlled speed ramping provide easy set up and safe stirring to protect the sample and user. Select from five models with up to 200 Ncm torque and up to 100 L volume capacity.

## Top questions to ask

- 1 What is your sample type that you need to stir?**  
Choosing the right Overhead Stirrer depends on your unique application. Consider the sample type, volume, composition and physical properties you need to stir. Select the model with the speed range, maximum torque, volume capacity and maximum viscosity specifications that suit your needs.
- 2 What is viscosity of your sample?**  
Overhead Stirrers are designed to provide more power in stirring which makes them an ideal choice for viscous samples. OHAUS Overhead Stirrers are the perfect solution for demanding applications for samples with viscosities up to 100,000 mPa. Powerful mixing and constant speed is assured with the brushless motor and torque compensation technology – delivering accurate, controlled stirring of viscous liquids with quiet operation
- 3 What volume is your sample?**  
Always make sure that your stirrer can process large sample volumes. Depending on model, OHAUS Overhead Stirrers can handle sample volumes between 25 to 100 L. Remember the vessel size and shape can affect the flow of the sample; therefore select the vessel size and stirring shaft that will optimize mixing in the application.
- 4 What stirring speed your application requires?**  
OHAUS Overhead Stirrers are designed for powerful and precise stirring with a speed range from 30 to 2,000 rpm. The software controlled speed ramping provides safe stirring to protect the sample and user and the digital display ensures repeatable results.
- 5 What is your mixing preference?**  
A number of different stirring shaft options are available for Overhead Stirrers making them more versatile. OHAUS offers a variety of stirring shafts to suit your mixing preferences. To select the right stirring shaft for your application consider the viscosity, volume of the sample and the desired flow pattern (axial, radial, tangential) you want to generate.

### Achiever 5000 Overhead Stirrers

Model	Stirring Speed Range	Stirring Volume (H <sub>2</sub> O)	Maximum Viscosity (cP or mPa's)	Maximum Torque (Ncm)	Item No.
e-A51ST020	30-2000 rpm	up to 25 l	10 000	20	30586763
e-A51ST040	30-2000 rpm	up to 25 l	25 000	40	30586764
e-A51ST060	30-2000 rpm	up to 40 l	50 000	60	30586765
e-A51ST100	30-1300 rpm	up to 100 l	70 000	100	30586766
e-A51ST200	6-400 rpm (I), 30-2000 rpm (II)	up to 100 l	100 000	200	30586767

## Choosing Stirring Shaft Accessory:

Shape								
Flow Diagram								
Stirring Shaft with	Floating Blades	Fixed Blade	Folding Blade	Turbine	Propeller	Turbo Propeller	Paddle, 6 Holes	Anchor
Item Number	30586777	30586776	30586778	30586781	30586780	30586782	30586779	30586775
Blade	93 × 11 mm	50 × 10 mm	60 × 15 mm	49 × 10 mm	60 × 9 mm	46 × 14 mm	69 × 75 mm	45 × 54 mm
Shaft Ø	7 mm	7 mm	7 mm	7 mm	7 mm	7 mm	7 mm	7 mm
Shaft Length	400 mm	400 mm	400 mm	400 mm	400 mm	400 mm	510 mm	400 mm
Speed Range	250 – Max rpm	250 – Max rpm	250 – Max rpm	250 – Max rpm	250 – Max rpm	250 – Max rpm	Up to 800 rpm	All Speeds
Viscosity Range	0 - 1 000 cP	0 - 10 000 cP	0 - 1 000 cP	1 000 - 100 000 cP	0 - 10 000 cP	1 000 - 100 000 cP	0 - 10 000 cP	1 000 - 100 000 cP
Flow Pattern	Radial	Radial	Radial	Radial	Axial	Axial	Tangential	Tangential
Description	Floating Blades align during stirring and create radial flow from top to bottom in the vessel. This blade is ideal for stirring in narrow neck vessels such as flasks.	Fixed Blade creates radial flow from top to bottom in the vessel. Ideal for use at medium to high speeds for stirring light solids, mixing thickening materials, flocculation, etc.	Folding Blade aligns during stirring and creates radial flow from top to bottom in the vessel. This blade is used for stirring in narrow neck vessels.	Turbine creates a high shear, high turbulence radial flow in the vessel. This flow is from top to bottom.	Propeller creates axial flow with limited shearing forces. This flow pulls the sample from top to bottom in the vessel.	Turbo Propeller creates a low shearing axial flow in the vessel. This flow pulls the sample from top to bottom and the ring limits the contact of the blade with walls of the vessel or probes.	Paddle creates a reduced turbulence radial flow in the vessel producing gentle mixing of the sample.	Anchor creates tangential flow with high shearing forces on the ends. This flow can prevent sedimentation on the walls of the vessel.

# SPIN IT



FC5513



FC5816R



FC5515



FC5714

## Centrifuges

The Frontier™ Series includes Multi Pro, Micro, Multi, and Mini Centrifuges that have been carefully designed to provide liquid separation for various life science applications such as sample preparation, cell pelleting, nucleic acid extraction, immunoprecipitation and more.

## Top questions to ask

- 1 What is the highest RCF that you need to prepare your samples for your workflow?**  
OHAUS centrifuges have models can reach up to 18,000 rpm generating over 26,000 g.
- 2 Which sample tube sizes do you use in your lab?**  
An extensive rotor and adapter selection can accommodate just about any lab setup with volume ranging from 0.2 – 750 ml.
- 3 Do your samples need to be kept cool during centrifugation?**  
The refrigerated centrifuge models can keep your samples cool even when running at the maximum speed.
- 4 Are safety features an important feature in your lab?**  
Ohaus centrifuges are equipped with additional protective features for redundancy in safety and reliable operation : over-speed protection, active imbalance-detection and motorized lid-locking system to protect operators from accidental injuries.
- 5 How many tubes do you want to run at once?**  
OHAUS offers a few different rotors that can handle high throughput applications at various RCF.

Model	Speed Range RPM	Maximum Relative Centrifuge Force (x g)	Maximum Capacity (Rotor)	Temperature range	Item No.
FC5916	200 - 16 000	24,325 g	4 × 750 ml	-	30553036
FC5916R	200 - 16 000	26,331 g	4 × 750 ml	-20 °C – 40 °C	30553101
FC5816	200 – 15 000	21,379 g	6 × 250 ml	-	30314816
FC5816R	200 – 16 000	24,325 g	6 × 250 ml	-20 °C – 40 °C	30314818
FC5718	200 – 18 000	23,542 g	4 × 100 ml	-	30314812
FC5718R	200 – 18 000	23,542 g	4 × 100 ml	-20 °C – 40 °C	30314814
FC5714	200 – 14 000	18,624 g	4 × 100 ml	-	30314810
FC5515	200 – 15 200	21,953 g	44 × 1,5/2,0 ml;	-	30130866
FC5515R	200 – 15 200	21,953 g	12 × 5 ml	-20 °C – 40 °C	30130868
FC5513	200 – 13 500	17317 × g	24 × 1,5/2,0 ml	-	30393187
FC5513-K	200 – 13 500	17317 × g			30370691
FC5706	200 – 6 000	4,427 g	6 × 50 ml	-	30130875
FC5706-K	200 – 6 000	4,427 g		-	30332131
FC5707-K	200 – 6 800	4,445 × g	8 × 15 ml RB; 4 × 15 ml FA	-	30393189
FC5306	max 6 000	2,000 g	8 × 1,5/2,0 ml	-	30134156

# BEAT IT



HOHTDG

## High-Throughput Lysing Homogenizer

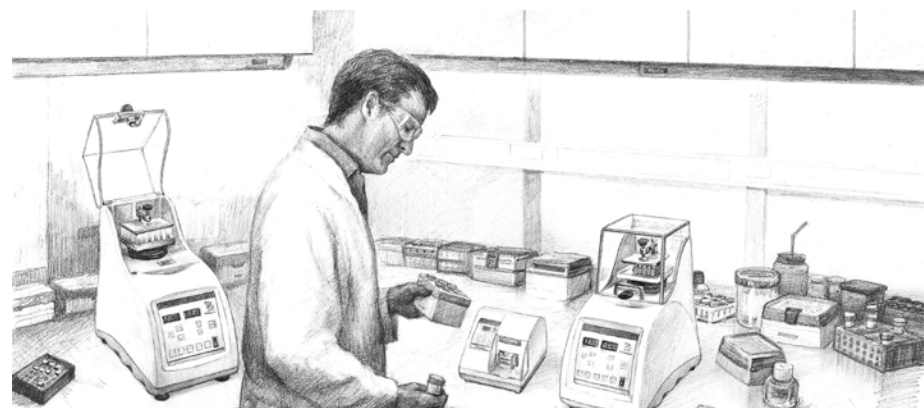
The HT (High-Throughput) Lysing Bead Mill Lab Homogenizer offers efficient solutions for all of your grinding, lysing, pulverizing, mixing and homogenizing sample preparation applications such as DNA, RNA and protein analysis. High-throughput processing is ideal for multiple sample, plate, and tube configurations. High-speed linear motion processes samples quickly.

## Top questions to ask

- 1 Would you like to increase sample throughput without the added expense of adapters for holding different size tubes or matrixes?**  
The OHAUS HT Lysing Homogenizer has an adjustable tray that allows you to use your tube racks, plates, and sample holders without the need for an extra adapter.
- 2 Would you like to save time by taking the guesswork out of determining optimum speed and time for your sample processing?**  
The OHAUS HT Lysing Homogenizer provides five preset programs, optimized for speed and time for the most common samples, including bacteria, fungi, plant and animal tissue.
- 3 Are you worried the weight capacity of your samples may be problematic, as many competitor models do not list their capacity by weight?**  
The OHAUS HT Lysing Homogenizer has a weight capacity of 300 grams.
- 4 Do you need an easy way to organize the various types of grinding tubes?**  
The OHAUS Lysing Tubes are color coded to help you identify the tubes. The easy-access, dispenser-style box is clearly labeled so you can ensure you are using the right tubes for your application.

Model	HOHTDG
Speed Range	300 to 1600 rpm (1 rpm increments)
Motion	Reciprocal, 31 mm
Timer	1 second to 10 minutes (1 second increments)
Capacity	1 deep well plate, 4 microplates, or any sample matrix that can fit in the 10.2 x 12.7 x 6.4 cm adjustable holder
Maximum Capacity	300 g
Working Environment	5 °C–40 °C, 20%–85% RH, non-condensing
Dimensions (L x W x H)	44.6 x 28.6 x 51.8 cm
Item No.	30391396

	Tube Color	Sample Type	Tube Size	Speed	Time	Item No.
Program 1	White	Bacteria	2 mL	1 500 rpm	5 Minutes	30391402
	Yellow	Yeast				30391404
	Blue	Fungi				30391405
	Orange	Soft Sample				30391406
Program 2	Red	Animal Tissue	2 mL	1 500 rpm	2 Minutes	30391409
Program 3	Green	Plant Material and Seeds	2 mL	1 300 rpm	3 Minutes	30391408
Program 4	Brown	Soil and, Environmental, Samples	2 mL	1 500 rpm	4 Minutes	30391410
Program 5		Cryogenically, Frozen Samples	2 mL	1 600 rpm	1 Minutes	





# HOLD IT



3-Prong Dual Adjust Clamp



Clamp

Lab-lift

Lab-frame

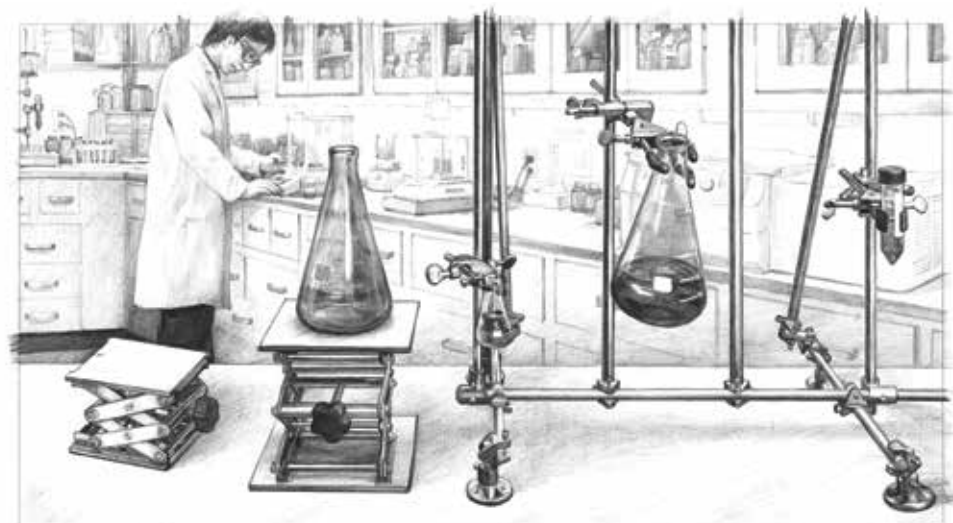
## LabJaws Clamps and Supports

LabJaws Clamps are designed to securely grip and position laboratory apparatus.

LabJaws offers the largest selection of Lab-Frame Kits, Lab-Lifts, Rods, Support Stands & Connectors in the industry to safely hold labware. Perfect for life science applications such as chromatography, distillations, titrations, fume hood applications, and more.

## Top questions to ask

- 1 Do you need to use clamps at high temperatures?**  
Utility clamps are supplied with vinyl and fiberglass sleeves/finger covers. The fiberglass covers are designed for applications above 100 °C.
- 2 Are your clamps corroding from exposure to caustic chemicals?**  
The OHAUS LabJaws line offers 20 of the most popular clamps in premium stainless steel which provide exceptional chemical resistance.
- 3 Are you performing titrations with burets?**  
The OHAUS LabJaws clamp line has multiple options for holding burets. Buret stands that include a double buret clamp, support rod and base are available or can be ordered individually. Alternately, fixed position clamps with built-in holders can be used on a support stand.
- 4 Are you looking for a lab-frame to fit in a specific area?**  
OHAUS offers pre-configured kits in 5 sizes. Also, kits for the 4 most common size fume hoods are available.
- 5 Are you looking for a lab-frame set up but not finding one to fit your needs?**  
If the kits are not what you are looking for, we can aid you in selecting the right rod lengths, connectors and other components based on your specifications.
- 6 Do you need to hold small appliances at varying heights?**  
OHAUS offers several options. Lab-lifts are designed to support (not raise) various loads based on size. Support plates, available in various sizes, can be secured to a lab-frame or stand.
- 7 What is the weight of your sample that you will be supporting or holding?**  
While we do not rate our clamps and supports by weight capacity, the OHAUS LabJaws line offers heavy-duty versions of support stands. Cast iron bases offer additional stability compared to the regular stainless steel support stands.



# HOLD IT



Small 30392204



Medium 30392201



Large 30392198

## 3-Prong Dual Adjust Clamps

Size	Min. to Max Grip Size	Prong Width	Arm Length	Arm Dia.	Overall Length	Item No.
Small	0 to 46 mm	11 mm	102 mm	8 mm	168 mm	30392204
Medium	0 to 69 mm	19 mm	127 mm	11 mm	229 mm	30392201
Medium (extended)	0 to 69 mm	19 mm	305 mm	13 mm	406 mm	30392202
Large	0 to 105 mm	29 mm	127 mm	11 mm	273 mm	30392198
Large (extended)	0 to 105 mm	29 mm	305 mm	13 mm	451 mm	30392199



30400002



30400003



30400004

## LabJaws Lifts

Deck Size	Min. to Max. Height	Max. Load	Item No.
76 × 76 mm	64 to 127 mm	45,36 kg	30400000
102 × 102 mm	64 to 127 mm	45,36 kg	30400001
152 × 152 mm	76 to 248 mm	60,33 kg	30400002
203 × 203 mm	76 to 248 mm	102,97 kg	30400003
254 × 254 mm	89 to 330 mm	112,04 kg	30400004
305 × 305 mm	102 to 495 mm	45,36 kg	30400005
406 × 406 mm	102 to 495 mm	45,36 kg	30400006

## LabJaws Frames

Frame Dimensions	Base Dimensions	Aluminium Item No.	Stainless Steel Item No.
610 × 610 mm	457 mm wide	30392304	30392323
610 × 1219 mm	457 mm wide	30392305	30392324
1219 × 1219 mm	457 mm wide	30392306	30392325
1219 × 1829 mm	—	30392307	30392326



Medium Lab-Frame 30392324



## OHAUS Corporation

Headquartered in Parsippany, New Jersey, OHAUS Corporation is a global leader in manufacturing an extensive line of weighing products, laboratory equipment and analytical instruments that meet and surpass the weighing and measurement needs of a broad range of industries, including laboratory, industrial, educational, food preparation and retail markets. An ISO 9001:2015 manufacturer, OHAUS develops products that are precise, reliable, affordable and backed by industry-leading customer support.

*Ingeniously Practical*

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