



# 2017 Equipment Catalog



## *Do More with OHAUS*

From stirrers to shakers, lifts to clamps, the newly expanded OHAUS portfolio is filled with products perfect for life science applications, giving you countless opportunities to maximize your reach in your customer's laboratories. Don't limit yourself to just measurement—Do More!



***Ingeniously Practical***

***EMEA***



## Equipping Every Corner of the Lab

As a company that's focused on meeting the demands of our growing customer base, we have made a natural progression to extend our expertise to every corner of the laboratory with the introduction of our laboratory equipment. We now offer a complete portfolio manufactured to deliver efficiency and precision in the laboratory. Our expanded portfolio of laboratory essentials now includes centrifuges, shakers, vortex mixers, hotplate-stirrers, dry block heaters, clamps and lab supports.

From idea generation and conception, through engineering design and manufacture, to service and ultimate disposal—we manage the entire lifecycle of our products. As a valued dealer, you can **Do More With OHAUS**—order all your weighing products and laboratory equipment from one trusted supplier, and have access to one source for product design, sales and marketing support, procurement and service, and product disposal.



## Laboratory Equipment

- **Increasing Efficiency in the Laboratory**

Efficiency is at the heart of every product that we design. Our products are designed for intuitive operation with Man-Machine Interfaces (MMI) which allow for minimal setup and training.

- **Ensuring Operator Safety**

While streamlining laboratory work, we're also committed to ensuring operator safety. All our products are regulatory-listed for safety with a nationally recognized testing lab, and electrical laboratory equipment is tested 100% prior to shipping.

- **Emphasis on Quality Control**

Our products are designed and developed in accordance with ISO 9001 Quality System—a Failure Mode & Effects Design (FMEA) process for design and process control, and computer modeling for design provides advanced simulation and analysis.

- **High-Quality at an Affordable Price**

Similar to our weighing portfolio, our laboratory equipment offer durability and reliability at an affordable price point. Our products undergo the Highly Accelerated Life Test (HALT) during the engineering development process to ensure that they meet reliability standards.

- **Flexibility to Accommodate a Range of Applications**

Our products feature multiple levels of functionality within each category, and are available in various capacities to suit your application and budget.

## Why Partner with Our Lab Equipment Portfolio?

- **A Trusted Brand in the Lab**

OHAUS is among the most trusted brands in laboratories and is synonymous with quality, reliability and durability at an affordable price point. We are an established supplier of weighing products and laboratory equipment with American roots.

- **The OHAUS Business Model**

OHAUS is committed to the business model of selling through distribution rather than directly to end users. We actively market OHAUS products to generate thousands of leads that we deliver to our dealers every year. Working with OHAUS means more than representing an outstanding portfolio; it's also about being supported by a strong brand and team—every step of the way.

- **Grow Your Revenues with Cross-Selling Opportunities**

One of the greatest benefits of partnering with our new portfolio is that you already have an established laboratory customer base that's looking to purchase additional laboratory essentials (similar to what our new portfolio offers.) The new products would also help you to attract new customers who are looking for laboratory equipment, and offer more cross-selling opportunities.

- **Global Customer Service & Technical Support Expertise**

No matter where in the world you are located, you can rely on our expert customer service and technical support teams to provide quick solutions to any product or service-related questions.

# Contents

<b>Open Air Shakers</b> .....	<b>1</b>	<b>Dry Block Heaters</b> .....	<b>67</b>
<i>Open Air Shakers Selection Guide</i> .....	2	<b>Dry Block Heaters</b> .....	68
<b>Light Duty Orbital Shakers</b> .....	4	<b>2 Block Dry Block Heaters</b>	
<b>Extreme Environment Shakers</b> .....	8	<b>with Lid</b> .....	73
<b>Heavy Duty Orbital Shakers</b> .....	10	<b>Hotplates &amp; Stirrers</b> .....	<b>78</b>
<b>Rocking &amp; Waving Shakers</b> .....	17	<b>Mini Hotplates &amp; Stirrers</b> .....	79
<b>Reciprocating Shakers</b> .....	22	<b>LabJaws Clamps &amp; Supports</b> .....	<b>81</b>
<b>Incubating &amp;</b>		<b>Multi-Purpose Clamps</b> .....	82
<b>Incubating Cooling Shakers</b> .....	<b>25</b>	<b>Specialty Clamps</b> .....	88
<i>Incubating &amp; Incubating Cooling Selection Guide</i> .....	26	<b>Connectors &amp; Holders</b> .....	94
<b>Incubating Cooling Thermal Shakers</b> .....	28	<b>Rods, Frames, &amp; Supports</b> .....	98
<b>Incubating Light Duty Orbital Shakers</b> .....	31	<b>Flow Control Clamps</b> .....	111
<b>Incubating Cooling Orbital Shakers</b> .....	34	<b>Misc. Non-Electrical Products</b> .....	113
<b>Incubating Rocking &amp; Waving Shakers</b> .....	38	<b>What is in a Model Number</b> .....	<b>115</b>
<b>Open Air and Incubating &amp; Incubating Cooling Shakers</b>			
<b>Accessories</b> .....	41		
<b>Vortex Mixers</b> .....	<b>50</b>		
<b>Mini Vortex Mixers</b> .....	51		
<b>Heavy-Duty Vortex Mixers</b> .....	56		
<b>Microplate Vortex Mixers</b> .....	59		
<b>Multi-Tube Vortex Mixers</b> .....	63		

# *Open Air Shakers*



*Light Duty Orbital Shakers  
Extreme Environment Shakers  
Heavy Duty Orbital Shakers  
Rocking & Waving Shakers  
Reciprocating Shakers*

# Open Air Shakers Selection Guide



Product Family	Light Duty Orbital Shaker	Light Duty Orbital Shaker	Light Duty Orbital Shaker	Light Duty Orbital Shaker
Model	SHLD0415AL	SHLD0403DG	SHLD0415DG	SHLDMP03DG
Speed Range	40 to 300 rpm	100 to 1200 rpm	40 to 300 rpm	100 to 1200 rpm
Timer	N/A	1 second to 160 hours	1 second to 160 hours	1 second to 160 hours
Motion	Orbital	Orbital	Orbital	Orbital
Orbit	15 mm	3 mm	15 mm	3 mm
Max Weight Capacity	3.6 kg	3.6 kg	3.6 kg	4 microplates / 2 micro-tube racks
Audible Alarm	—	●	●	●
Load Sensor	—	—	—	—
Motor Type	Brushless DC Motor	Brushless DC Motor	Brushless DC Motor	Brushless DC Motor
CO <sub>2</sub> Environment	●	●	●	●
Overload Protection	—	●	●	●
User Calibration (Speed)	—	—	—	—
RS232 Interface	—	—	—	—
Included Tray (L × W)	29.9 × 22.2 cm	29.9 × 22.2 cm	29.9 × 22.2 cm	27.9 × 19.7 cm
Tray / Platform Options (L × W)	N/A	Adjustable Platform	Adjustable Platform	N/A



Product Family	Extreme Environment Shaker	Heavy Duty Shaker	Heavy Duty Shaker	Heavy Duty Shaker
Model	SHEX1619DG	SHHD1619AL	SHHD1619DG	SHHD2325AL
Speed Range	15 to 500 rpm	25 to 500 rpm	15 to 500 rpm	25 to 500 rpm
Timer	1 second to 160 hours	1 to 120 minutes	1 second to 160 hours	1 to 120 minutes
Motion	Orbital	Orbital	Orbital	Orbital
Orbit	19 mm	19 mm	19 mm	25 mm
Max Weight Capacity	16 kg	16 kg	16 kg	22.7 kg
Audible Alarm	●	—	●	—
Load Sensor	●	—	●	—
Motor Type	Brushless DC Motor	Brushless DC Motor	Brushless DC Motor	Brushless DC Motor
CO <sub>2</sub> Environment	●	●	●	●
Overload Protection	●	—	●	—
User Calibration (Speed)	●	—	●	—
RS232 Interface	●	—	●	—
Included Tray (L × W)	27.9 × 33 cm	27.9 × 33 cm	27.9 × 33 cm	45.7 × 61 cm
Tray / Platform Options (L × W)	27.9 × 33 cm, 33 × 33 cm, 45.7 × 45.7 cm, 45.7 × 61 cm Adjustable Platform Separatory Funnel Platform	27.9 × 33 cm, 33 × 33 cm, 45.7 × 45.7 cm, 45.7 × 61 cm Adjustable Platform Separatory Funnel Platform	27.9 × 33 cm, 33 × 33 cm, 45.7 × 45.7 cm, 45.7 × 61 cm Adjustable Platform Separatory Funnel Platform	45.7 × 61 cm, 45.7 × 76.2 cm Adjustable Platform Large Vessel Carrier Platform

● Yes

# Open Air Shakers



Product Family	Heavy Duty Orbital Shaker	Heavy Duty Orbital Shaker	Heavy Duty Orbital Shaker	Heavy Duty Orbital Shaker	Heavy Duty Orbital Shaker
Model	SHHD2325DG	SHHD4525DG	SHHD4550DG	SHHD6825DG	SHHD6850DG
Speed Range	20 to 500 rpm	15 to 500 rpm	15 to 300 rpm	15 to 500 rpm	15 to 300 rpm
Timer	1 second to 160 hours	1 second to 160 hours	1 second to 160 hours	1 second to 160 hours	1 second to 160 hours
Motion	Orbital	Orbital	Orbital	Orbital	Orbital
Orbit	25 mm	25 mm	51 mm	25 mm	51 mm
Max Weight Capacity	22.7 kg	45.4 kg	45.4 kg	68 kg	68 kg
Audible Alarm	●	●	●	●	●
Load Sensor	●	●	●	●	●
Motor Type	Brushless DC Motor	Brushless DC Motor	Brushless DC Motor	Brushless DC Motor	Brushless DC Motor
CO <sub>2</sub> Environment	●	●	●	●	●
Overload Protection	●	●	●	●	●
User Calibration (Speed)	●	●	●	●	●
RS232 Interface	●	●	●	●	●
Included Tray (L × W)	45.7 × 61 cm	61 × 61 cm	61 × 61 cm	61 × 91 cm	61 × 91 cm
Tray / Platform Options (L × W)	45.7 × 61 cm, 45.7 × 76.2 cm Adjustable Platform Large Vessel Carrier Platform	61 × 61 cm Large Vessel Carrier Platform	61 × 61 cm Large Vessel Carrier Platform	61 × 91 cm Large Vessel Carrier Platform	61 × 91 cm Large Vessel Carrier Platform



Product Family	Rocking Shaker	Rocking Shaker	Waving Shaker	Waving Shaker	Reciprocating Shaker
Model	SHRK04DG	SHRK07AL1	SHWV02DG	SHWV02AL	SHRC0719DG
Speed Range	1 to 50 rpm*	1 to 75 rpm*	1 to 30 rpm*	1 to 75 rpm*	20 to 300 rpm
Timer	1 second to 160 hours	1 minute to 120 minutes	1 second to 160 hours	1 minute to 120 minutes	1 second to 160 hours
Motion	Rocking	Rocking	Waving	Waving	Reciprocating
Orbit	Tilt Angle: 0 to 15°	Tilt Angle: 0 to 15°	Tilt Angle: 0 to 20° *	Tilt Angle: 0 to 16°	Stroke: 19 mm
Max Weight Capacity	4.5 kg**	7.3 kg**	2.3 kg**	2.3 kg**	6.8 kg
Audible Alarm	●	—	●	—	●
Load Sensor	—	—	—	—	●
Motor Type	Stepper Motor	Stepper Motor	Stepper Motor	Stepper Motor	Brushless DC Motor
CO <sub>2</sub> Environment	●	—	●	—	●
Overload Protection	●	—	●	—	●
User Calibration (Speed)	—	—	—	—	●
RS232 Interface	—	—	—	—	●
Included Tray (L × W)	32.4 × 25.4 cm	35.6 × 27.9 cm	29.9 × 22.2 cm	35.6 × 27.9 cm	27.9 × 33 cm
Tray / Platform Options (L × W)	Stacking Tray	Stacking Tray	Stacking Tray	—	27.9 × 33 cm, 33 × 33 cm, 45.7 × 45.7 cm, 45.7 × 61 cm Separatory Funnel Platform

● Yes \* Maximum speed/tilt angle may vary with heavy or unbalanced loads. \*\* Centered on tray.

# Light Duty Orbital Shakers



Light Duty Shakers are designed for applications with loads under 3.6 kg. Choose from two orbits and speed ranges to optimize your sample mix. Microprocessor-controlled and available as an analog model with basic speed control, two digital models which include a non-slip mat that can be removed to mount flask clamps and tube racks directly onto the tray, and a digital Microplate Shaker model which can hold up to 4 microplates or 2 microtube racks.

- Microprocessor-Controlled for Consistent Shaking Action
- Triple Eccentric Drive Provides Reliable Service and Continuous Duty Operation
- Safety Features Include Speed Ramping and Overload Protection



## Light Duty Orbital Shakers

- Variable speed microprocessor control
- Low profile design
- 15 mm orbit

The OHAUS Light Duty Analog Shaker is an economical shaker designed for educational labs or basic shaking applications.

### Operating Features:

**Low Profile Design:** Takes up less space and easily fits into most hoods and incubators.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**Adjustment Knob:** Basic speed knob with dial settings from 1 to 10.

### Safety Features:

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from 0 to 40°C, maximum 80% relative humidity, non-condensing.

### Applications:

Blotting techniques, staining/destaining, and general shaking procedures.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Units are also supplied with an 29.9 × 22.2 cm non-skid rubber mat.



Specifications	
Speed Range	40 to 300 rpm
Orbit	15 mm
Maximum Weight Capacity	3.6 kg
Tray Material	Aluminum
Tray Dimensions (L × W)	29.9 × 22.2 cm
Overall Dimensions (L × W × H)	41.3 × 254 × 10.2 cm
Ship Weight	11.3 kg

Description	Model	Item Number
Analog Light Duty Orbital Shaker	SHLD0415AL	30391893

# Open Air Shakers

## Light Duty Orbital Shakers

- General purpose shaker
- LED displays for speed and time
- 3 mm or 15 mm orbit

The OHAUS Digital Light Duty Orbital Shaker is ideal for a wide variety of shaking applications. Tray includes a non-skid rubber mat. Remove the mat to mount a variety of optional flask clamps or test tube racks directly onto the tray.

### Operating Features:

**Low Profile Design:** Takes up less space and easily fits into most hoods and incubators.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Units can be run in cold rooms, incubators, and CO<sub>2</sub> environments.

SHLD0403DG: -10 to 60°C

SHLD0415DG: -10 to 40°C

Maximum 80% relative humidity, non-condensing.

### Applications:

Cell cultures, immunoassays, and protein studies.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Units are also supplied with an 29.9 × 22.2 cm non-skid rubber mat.



Specifications		
Speed Range	SHLD0403DG SHLD0415DG	100 to 1200 rpm 40 to 300 rpm
Speed Accuracy		+/-2% above 100 rpm +/-2 rpm below 100 rpm
Timer		1 second to 160 hours
Orbit	SHLD0403DG SHLD0415DG	3 mm 15 mm
Maximum Weight Capacity		3.6 kg
Tray Material		Aluminum
Tray Dimensions (L × W)		29.9 × 22.2 cm
Overall Dimensions (L × W × H)		41.3 × 25.4 × 10.2 cm
Ship Weight		11.3 kg

Description	Model	Item Number
Digital Light Duty Orbital Shaker 3 mm Orbit	SHLD0403DG	30391900
Digital Light Duty Orbital Shaker 15 mm Orbit	SHLD0415DG	30391914

## Light Duty Orbital Shakers

- Holds up to 4 microplates or 2 micro-tube racks
- Accepts deep well plates
- Timer with audible alarm

The OHAUS Microplate Shaker is ideal for immunoassays and general microplate shaking, and is designed to be used in a variety of environmental conditions.

### Operating Features:

**Low Profile Design:** Takes up less space and easily fits into most hoods and incubators. Base offers durability and added stability.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view all settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°C, maximum 80% relative humidity, non-condensing.

### Applications:

ELISA assays and DNA studies.

### Ordering Information:

Units include a detachable, 3-wire cord and plug.



Specifications	
Speed Range	100 to 1200 rpm
Speed Accuracy	± 2%
Timer	1 second to 160 hours
Orbit	3 mm
Maximum Weight Capacity	4 microplates or 2 micro-tube racks
Tray Material	Aluminum
Tray Dimensions (L x W)	27.9 x 19.7 cm
Overall Dimensions (L x W x H)	41.3 x 25.4 x 10.2 cm
Ship Weight	11.3 kg

Description	Model	Item Number
Light Duty Microplate Shaker	SHLDMP03DG	30391907

# Extreme Environment Shakers



Ideal for applications that require CO<sub>2</sub> and humidity for optimal cell growth, our Extreme Environment Shakers are designed for use in extreme environments such as CO<sub>2</sub> incubators. A remote controller (that magnetically attaches to the outside of most incubators) allows for external control of settings, and the shaker base is placed inside of the incubator. Microprocessor control ensures consistent shaking while safely ramping to the set speed.

- Patented Accu-Drive Shaking System Ensures Accuracy and Speed Control
- Control Settings Externally without Disturbing the Incubator Atmosphere
- Touchpad Control With Independent LED Displays for Speed and Time

## Extreme Environment Shakers

- Designed for use in CO<sub>2</sub> Incubators
- Can withstand extreme environments up to 100% humidity
- Remote controller magnetically attaches to most incubators

The OHAUS Extreme Environment Orbital Shaker is designed for a wide range of applications including cell cultures that require CO<sub>2</sub> and humidity for optimal cell growth. The microprocessor control provides consistent uniform shaking while safely ramping to the set speed.

### Operating Features:

**Accu-Drive Shaking System:** The exclusive patented Accu-Drive Shaking System delivers exceptional speed control, accuracy, and durability. The shaking system continuously monitors shaking speed and maintains set-point, even under changing loads. When unit is set to a speed above 100 rpm, the speed accuracy is  $\pm 1\%$  of set speed. When set under 100 rpm, speed accuracy is  $\pm 1$  rpm.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**Remote Controller:** The control module is designed to sit outside of the incubator. Settings can be easily viewed or changed from outside of the incubator without disturbing the incubator's atmosphere. The thin ribbon cable is 1.68 m long and easily passes underneath an incubator door via incubator's utility port. Controller magnetically attaches to most incubator doors or can sit on a lab bench.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**RS232 Interface:** Provides two-way communication for data logging and unit control.

**Speed Calibration Mode:** Allows user to automatically recalibrate speed display.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero. Alarm has optional mute function which can be set from the touch pad control.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°C, up to 100% humidity.

### Applications:

Cell cultures, solubility studies, and extraction procedures.

### Ordering Information:

Unit includes a detachable, 3-wire cord and plug. Unit is also supplied with an 27.9 x 33 cm non-skid rubber mat.



Specifications		
Speed Range	15 to 500 rpm	
Speed Accuracy	above 100 rpm $\pm 1\%$ of set speed below 100 rpm $\pm 1$ rpm	
Timer	1 second to 160 hours	
Orbit	19 mm	
Maximum Weight Capacity	16 kg	
Tray Material	Aluminum	
Tray Dimensions (L x W)	27.9 x 33 cm	
Overall Dimensions (L x W x H)	Shaker	29.4 x 35.5 x 14.9 cm
	Remote	15.0 x 35.6 x 11.2 cm
Ship Weight	22.2 kg	

Description	Model	Item Number
Extreme Environment Shaker	SHEX1619DG	30391816

# Heavy Duty Orbital Shakers



With load capacities from 16 to 68 kg and over 70 accessory options, OHAUS Heavy Duty Shakers are designed to handle a range of applications. Available as analog or digital models with microprocessor control to provide variable speed and consistent shaking, while ramping to the set speed. Microprocessor displays the last set-point and will restart if power is interrupted. Built-in tray and non-slip rubber mat included with all models.

- Patented Accu-Drive Shaking System Ensures Accuracy and Speed Control
- Touchpad Control With Independent LED Displays for Speed/Time on Digital Models
- Safety Features Include Speed Ramping and Load Sensor

## Heavy Duty Orbital Shaker

- Microprocessor controls
- Continuous or timed operation
- 16 kg weight capacity

The OHAUS 16 kg Capacity Analog Heavy Duty Orbital Shaker is designed for a wide range of applications that require basic shaking control. Shaker provides reproducible motion that is evenly distributed throughout the entire surface of the tray.

### Operating Features:

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. The shaker will automatically restart after a power interruption.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**Adjustment Knobs:** Basic speed and time knobs with dial settings from 1 to 10.

### Safety Features:

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from 0 to 40°C, maximum 80% relative humidity, non-condensing.

### Applications:

Bacterial suspensions, staining/destaining, and general mixing.

### Ordering Information:

Unit includes a detachable, 3-wire cord and plug. Unit is also supplied with an 27.9 × 33 cm non-skid rubber mat.



Specifications	
Speed Range	25 to 500 rpm
Timer	1 minute to 120 minutes
Orbit	19 mm
Maximum Weight Capacity	16 kg
Tray Material	Aluminum
Tray Dimensions (L × W)	27.9 × 33 cm
Overall Dimensions (L × W × H)	41.3 × 35.5 × 14.9 cm
Ship Weight	22.2 kg

Description	Model	Item Number
16 kg Capacity Analog Heavy Duty Orbital Shaker	SHHD1619AL	30391802

# Open Air Shakers

## Heavy Duty Orbital Shaker

- Exceptional speed control, accuracy and durability
- LED displays for speed and time
- Calibration mode for speed

The OHAUS 16 kg Capacity Digital Heavy Duty Orbital Shaker is designed for a wide range of applications, including cell cultures, that require accurate and repeatable results. The microprocessor control provides consistent uniform shaking while safely ramping to the set speed.

### Operating Features:

**Accu-Drive Shaking System:** The exclusive patented Accu-Drive Shaking System delivers exceptional speed control, accuracy, and durability. The shaking system continuously monitors shaking speed and maintains set-point, even under changing loads. When unit is set to a speed above 100 rpm, the speed accuracy is  $\pm 1\%$  of set speed. When set under 100 rpm, speed accuracy is  $\pm 1$  rpm.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**RS232 Interface:** Provides two-way communication for data logging and unit control.

**Speed Calibration Mode:** Allows user to automatically recalibrate speed display.

### Safety Features:

**Load Sensor:** A built-in load sensor detects unbalanced conditions and automatically reduces rpm to a safe speed to protect samples.

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero. Alarm has optional mute function which can be set from the touch pad control.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°C, maximum 80% relative humidity, non-condensing.

### Applications:

Cell cultures, solubility studies, and extraction procedures.

### Ordering Information:

Unit includes a detachable, 3-wire cord and plug. Unit is also supplied with an 27.9 x 33 cm non-skid rubber mat.



Specifications	
Speed Range	15 to 500 rpm
Speed Accuracy	above 100 rpm $\pm 1\%$ of set speed below 100 rpm $\pm 1$ rpm
Timer	1 second to 160 hours
Orbit	19 mm orbit
Maximum Weight Capacity	16 kg
Tray Material	Aluminum
Tray Dimensions (L x W)	27.9 x 33 cm
Overall Dimensions (L x W x H)	41.3 x 35.5 x 14.9 cm
Ship Weight	22.2 kg

Description	Model	Item Number
16 kg Capacity Digital Heavy Duty Orbital	SHHD1619DG	30391811



## Heavy Duty Orbital Shaker

- Microprocessor controls
- Continuous or timed operation
- 22.7 kg weight capacity



The OHAUS Analog 23 kg Capacity Heavy Duty Orbital Shaker is designed for applications with heavy duty loads. Shaker provides reproducible motion that is evenly distributed throughout the entire surface of the tray.

### Operating Features:

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. The shaker will automatically restart after a power interruption.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**Adjustment Knobs:** Basic speed and time knobs with dial settings from 1 to 10.

### Safety Features:

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from 0 to 40°C, maximum 80% relative humidity, non-condensing.

### Applications:

Bacterial suspensions, staining/destaining, and general mixing.

### Ordering Information:

Units include a 3-wire cord and plug. Units are also supplied with an 45.7 × 61 cm non-skid rubber mat.



Specifications	
Speed Range	25 to 500 rpm
Timer	1 minute to 120 minutes
Orbit	25 mm
Maximum Weight Capacity	22.7 kg
Tray Material	Aluminum
Tray Dimensions	45.7 × 61 cm
Overall Dimensions (L × W × H)	61.0 × 67.8 × 14.9 cm
Ship Weight	49.5 kg

Description	Model	Item Number
23 kg Capacity Analog Heavy Duty Orbital Shaker	SHHD2325AL	30391837

# Open Air Shakers

## Heavy Duty Orbital Shaker

- Patented Accu-Drive Shaking System
- LED displays for speed and time
- 22.7 kg weight capacity



The OHAUS Digital 23 kg Capacity Heavy Duty Orbital Shaker is designed for a wide range of applications with larger or heavier loads that require accurate and repeatable results.

### Operating Features:

**Accu-Drive Shaking System:** The exclusive patented Accu-Drive Shaking System delivers exceptional speed control, accuracy, and durability. The shaking system continuously monitors shaking speed and maintains set-point, even under changing loads. When unit is set to a speed above 100 rpm, the speed accuracy is  $\pm 1\%$  of set speed. When set under 100 rpm, speed accuracy is  $\pm 1$  rpm.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**RS232 Interface:** Provides two-way communication for data logging and unit control.

**Speed Calibration Mode:** Allows user to automatically recalibrate speed display.

### Safety Features:

**Load Sensor:** A built-in load sensor detects unbalanced conditions and automatically reduces rpm to a safe speed to protect samples.

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero. Alarm has optional mute function which can be set from the touch pad control.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°C, maximum 80% relative humidity, non-condensing.

### Applications:

Cell cultures, solubility studies, and extraction procedures.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Units are also supplied with an 45.7 × 61 cm non-skid rubber mat.



Specifications	
Speed Range	20 to 500 rpm
Speed Accuracy	above 100 rpm $\pm 1\%$ of set speed below 100 rpm $\pm 1$ rpm
Timer	1 second to 160 hours
Orbit	25 mm
Maximum Weight Capacity	22.7 kg
Tray Material	Aluminum
Tray Dimensions	45.7 × 61 cm
Overall Dimensions (L × W × H)	61.0 × 67.8 × 14.9 cm
Ship Weight	49.5 kg

Description	Model	Item Number
23 kg Capacity Digital Heavy Duty Orbital Shaker	SHHD2325DG	30391844

## Heavy Duty Orbital Shaker

- Patented Accu-Drive Shaking System
- 45.4 kg weight capacity
- Available with either 25 mm or 51 mm orbit



The OHAUS Digital 45 kg Capacity Orbital Shaker is a large capacity shaker. They have a more powerful drive mechanism and larger orbits for optimal shaking of large vessels.

### Operating Features:

**Accu-Drive Shaking System:** The exclusive patented Shaking System delivers exceptional speed control, accuracy, and durability. The shaking system continuously monitors shaking speed and maintains set-point, even under changing loads. When unit is set to a speed above 100 rpm, the speed accuracy is  $\pm 1\%$  of set speed. When set under 100 rpm, speed accuracy is  $\pm 1$  rpm.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**RS232 Interface:** Provides two-way communication for data logging and unit control.

**Speed Calibration Mode:** Allows user to automatically recalibrate speed display.

### Safety Features:

**Load Sensor:** A built-in load sensor detects unbalanced conditions and automatically reduces rpm to a safe speed to protect samples.

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero. Alarm has optional mute function which can be set from the touch pad control.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Units can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°C, maximum 80% relative humidity, non-condensing.

### Applications:

Cell cultures, solubility studies, and extraction procedures.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Units are also supplied with a 61 x 61 cm non-skid rubber mat.



Specifications	
Speed Range	SHHD4525DG 15 to 500 rpm SHHD4550DG 15 to 300 rpm
Speed Accuracy	above 100 rpm $\pm 1\%$ of set speed below 100 rpm $\pm 1$ rpm
Timer	1 second to 160 hours
Orbit	SHHD4525DG 25 mm SHHD4550DG 51 mm
Maximum Weight Capacity	45.4 kg
Tray Material	Aluminum
Tray Dimensions (L x W)	61 x 61 cm
Overall Dimensions (L x W x H)	72.9 x 67.8 x 17.0 cm
Ship Weight	90.8 kg

Description	Model	Item Number
45 kg Capacity Digital Heavy Duty Orbital Shaker 25 mm Orbit	SHHD4525DG	30391865
45 kg Capacity Digital Heavy Duty Orbital Shaker 51 mm Orbit	SHHD4550DG	30391872

# Open Air Shakers

## Heavy Duty Orbital Shaker

- Patented Accu-Drive Shaking System
- Available with either 25 mm or 51 mm orbit
- Calibration mode for speed



The OHAUS Digital 68 kg Capacity Orbital Shakers is the largest capacity shakers designed for the heaviest of loads. They have the most powerful drive mechanism of all the shakers and large orbits for optimal shaking of larger vessels.

### Operating Features:

**Accu-Drive Shaking System:** The exclusive patented Accu-Drive Shaking System delivers exceptional speed control, accuracy, and durability. The system continuously monitors shaking speed and maintains set-point, even under changing loads. When unit is set to a speed above 100 rpm, the speed accuracy is  $\pm 1\%$  of set speed. When set under 100 rpm, speed accuracy is  $\pm 1$  rpm.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**RS232 Interface:** Provides two-way communication for data logging and unit control.

**Speed Calibration Mode:** Allows user to automatically recalibrate speed display.

### Safety Features:

**Load Sensor:** A built-in load sensor detects unbalanced conditions and automatically reduces rpm to a safe speed to protect samples.

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero. Alarm has optional mute function which can be set from the touch pad control.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Units can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°C, maximum 80% relative humidity, non-condensing.

### Applications:

Cell cultures, solubility studies, and extraction procedures.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Units are also supplied with a 61 x 91 cm non-skid rubber mat.



Specifications	
Speed Range	SHHD6825DG 15 to 500 rpm SHHD6850DG 15 to 300 rpm
Speed Accuracy	above 100 rpm $\pm 1\%$ of set speed below 100 rpm $\pm 1$ rpm
Timer	1 second to 160 hours
Orbit	SHHD6825DG 25 mm SHHD6850DG 51 mm
Maximum Weight Capacity	68 kg
Tray Material	Aluminum
Tray Dimensions (L x W)	61 x 91 cm
Overall Dimensions (L x W x H)	74.4 x 91.4 x 17.0 cm
Ship Weight	104.4 kg

Description	Model	Item Number
68 kg Capacity Digital Heavy Duty Orbital Shaker 25 mm Orbit	SHHD6825DG	30391879
68 kg Capacity Digital Heavy Duty Orbital Shaker 51 mm Orbit	SHHD6850DG	30391886

# Rocking & Waving Shakers



OHAUS Rocking and Waving Shakers are designed for use in a range of lab applications in a variety of environmental conditions. Rocking Shakers provide a seesaw-like motion, while Waving Shakers offer a smooth, low-foaming, 3D wave motion for precise speed control. Available in microprocessor-controlled digital models and more economical analog models. All models include a non-slip mat, and most models are available with a stacking tray option.

- Microprocessor Control Provides Precise Control
- Tilt Angle and Speed Adjustments Can Be Made While Unit Is Running
- Safety Features Include Speed Ramping and Overload Protection

# Open Air Shakers

## Rocking & Waving Shakers

- Variable control for speed, tilt and time
- 7.3 kg capacity
- Two-tier model doubles workable capacity

The OHAUS Analog Rocking Shaker is an easy and economical option for all of your rocking needs. The Rocking Shaker is ideal for cell culture and blotting applications and is designed to be used in a variety of environmental conditions. Rocker is supplied with an 35.6 × 27.9 cm non-skid rubber mat.

### Operating Features:

**Low Profile Design:** Takes up less bench space and fits into most hoods and incubators. Two-tier option increases the capacity with the same footprint and provides a 8.9 cm clearance between platforms. Cast aluminum base offers durability and added stability

**Microprocessor Control:** The microprocessor control provides tilt adjustment which allows user to easily adjust rocking angle from 0 to 15° while unit is operating. Smooth speed control with low speed rocking motion.

**Independent Control Knobs:** Independent control knobs for speed, tilt, and time, allow for easy adjustments.

### Safety Features:

**Overload Protection:** Audible signal will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Timer:** Timer will automatically stop rocking motion when timer reaches zero.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

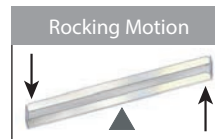
Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°C, maximum 80% relative humidity, non-condensing.

### Applications:

Staining and destaining gels, hybridization procedures, hematology, and blotting techniques.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Units are also supplied with a 35.6 × 27.9 cm non-skid rubber mat. Two-tier models include a 2<sup>nd</sup> tray, non-skid mat and hardware.



Specifications		
Speed Range	1 to 75 rpm*	
Tilt Angle	0 to 15°*	
Timer	1 minute to 120 minutes	
Maximum Weight Capacity	7.3 kg**	
Tray Material	Aluminum	
Tray Dimensions (L × W)	35.6 × 27.9 cm	
Overall Dimensions (L × W × H)	1 Tier	42.5 27.9 14.0 cm
	2 Tier	42.5 × 27.9 × 24.1 cm
Ship Weight	7 kg	

\* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

\*\* Centered on tray.

Description	Model	Item Number
Analog Rocking Shaker 1 Tier	SHRK07AL1	30391954
Analog Rocking Shaker 2 Tier	SHRK07AL2	30391961

## Rocking & Waving Shakers

- Electronic tilt adjustment from 0 to 15° while unit is operating
- Displays for speed, tilt angle and time
- Timer with audible alarm

The OHAUS Digital Rocking Shaker is ideal for cell culture work and is designed to be used in a variety of environmental conditions.

### Operating Features:

**Low Profile Design:** Takes up less space and easily fits into most hoods and incubators. Cast aluminum base offers durability and added stability.

**Microprocessor Control:** The microprocessor control provides electronic tilt angle adjustment which allows user to easily adjust rocking angle from 0 to 15° while unit is operating. Precise speed control provides smooth, low-speed rocking motion down to 1 rpm.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and tilt angle, and time allow operator to view all settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°C, maximum 80% relative humidity, non-condensing.

### Applications:

Staining and destaining gels, hybridization procedures, hematology, and blotting techniques.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Units are also supplied with a 32.4 × 25.4 cm non-skid rubber mat.



Specifications	
Speed Range	1 to 50 rpm*
Speed Accuracy	± 1 rpm
Tilt Angle	0 to 15°*
Timer	1 second to 160 hours
Maximum Weight Capacity	4.5 kg**
Tray Material	Aluminum
Tray Dimensions (L × W)	32.4 × 25.4 cm
Overall Dimensions (L × W × H)	42.5 × 25.4 × 14.0 cm
Ship Weight	7 kg

\* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

\*\* Centered on tray.

Description	Model	Item Number
Digital Rocking Shaker 1 Tier	SHRK04DG	30391989

# Open Air Shakers

## Rocking & Waving Shakers

- Variable control for speed, tilt and time
- 2.3 kg capacity
- Large 35.6 × 27.9 cm tray

The OHAUS Analog Waving Shakers are an easy and economical option for all of your waving needs. Ideal for cell culture and blotting applications, and is designed to be used in a variety of environmental conditions.

### Operating Features:

**Low Profile Design:** Takes up less space and easily fits into most hoods and incubators. Cast aluminum base offers durability and added stability.

**Microprocessor Control:** Provides tilt adjustment which allows user to easily adjust waving angle from 0 to 16° while unit is operating. Smooth speed control with low speed waving motion.

**Independent Control Knobs:** Independent control knobs for speed, tilt and time allow for easy adjustments.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Timer:** Timer, if engaged, will automatically stop waving motion when timer reaches zero.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and environments from -10 to 60°C, maximum 80% relative humidity, non-condensing.

### Applications:

Staining and destaining gels, hybridization procedures, hematology, and blotting techniques.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Units are also supplied with a 35.6 × 27.9 cm non-skid rubber mat.



Specifications	
Speed Range	1 to 75 rpm*
Tilt Angle	0 to 16°*
Timer	1 minute to 120 minutes
Maximum Weight Capacity	2.3 kg**
Tray Material	Aluminum
Tray Dimensions (L × W)	35.6 × 27.9 cm
Overall Dimensions (L × W × H)	42.5 × 27.9 × 16.5 cm
Ship Weight	7 kg

\* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

\*\* Centered on tray.

Description	Model	Item Number
Analog Waving Shaker	SHWV02AL	30391968



## Rocking & Waving Shakers

- Electronic tilt adjustment from 0 to 20° while unit is operating
- Displays for speed and tilt angle, and time
- Timer with audible alarm

The OHAUS Digital Waving Shaker provides precise speed control and a smooth, low foaming, three dimensional, “wave” motion. Ideal for use in a wide range of laboratory applications and designed to be used in a variety of environmental conditions. Tray includes a non-skid rubber mat that is suitable for holding Petri dishes.

### Operating Features:

**Low Profile Design:** Takes up less space and easily fits into most hoods and incubators. Cast aluminum base offers durability and added stability.

**Microprocessor Control:** The microprocessor control provides electronic tilt angle adjustment which allows user to easily adjust waving angle from 0 to 20° while unit is operating. Precise speed control provides smooth, low-speed waving motion down to 1 rpm.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and tilt angle, and time allow operator to view all settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last settings, even after power has been turned off.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°, maximum 80% relative humidity, non-condensing.

### Applications:

Blood samples, DNA extractions, blotting techniques, and general mixing of various size tubes.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Units are also supplied with an 29.9 × 22.2 cm non-skid rubber mat.



Specifications	
Speed Range	1 to 30 rpm*
Speed Accuracy	± 1 rpm
Tilt Angle	0 to 20°*
Timer	1 second to 160 hours
Maximum Weight Capacity	2.3 kg**
Tray Material	Aluminum
Tray Dimensions (L × W)	29.9 × 22.2 cm
Overall Dimensions (L × W × H)	41.3 × 25.4 × 16.5 cm
Ship Weight	7.3 kg

\* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

\*\* Centered on tray.

Description	Model	Item Number
Digital Waving Shaker	SHWV02DG	30391949

# Reciprocating Shakers



OHAUS Reciprocating Shakers are designed for a range of applications including cell cultures and extraction procedures that require accurate, repeatable results. Our shakers are microprocessor-controlled to provide consistent, uniform shaking action. The back-and-forth reciprocating motion has a 19 mm stroke length. Permanently lubricated ball bearings & maintenance-free, brushless DC motor provide reliable service and continuous duty operation.

- Touchpad Control With Independent LED Displays for Speed and Time
- Safety Features Include Speed Ramping and Load Sensor
- Overload Protection System Detects Obstructions and Tray Overloading

## Reciprocating Shakers

- Exceptional speed control, accuracy and durability
- LED displays for speed and time
- Calibration mode for speed

The OHAUS Digital Reciprocating Shakers are designed for a wide range of applications, including cell cultures, that require accurate and repeatable results. The microprocessor control provides consistent uniform shaking while safely ramping to the set speed.

### Operating Features:

The shaking system in both models continuously monitors shaking speed and maintains set-point, even under changing loads. When unit is set to a speed above 100 rpm, the speed accuracy is  $\pm 1\%$  of set speed. When set under 100 rpm, speed accuracy is  $\pm 1$  rpm.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**Single Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**RS232 Interface:** Provides two-way communication for data logging and unit control.

**Speed Calibration Mode:** Allows user to automatically recalibrate speed display.

### Safety Features:

**Load Sensor:** A built-in load sensor detects unbalanced conditions and automatically reduces rpm to a safe speed to protect samples.

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero. Alarm has optional mute function which can be set from the touch pad control.

**Spill-Resistant Design:** Channels fluids away from internal components.

### Operating Conditions:

Unit can be run in cold rooms, incubators, and CO<sub>2</sub> environments from -10 to 60°C, maximum 80% relative humidity, non-condensing.

### Applications:

Cell cultures, solubility studies, and extraction procedures.

### Ordering Information:

Unit includes a detachable, 3-wire cord and plug. Unit is also supplied with an 27.9 x 33 cm non-skid rubber mat.



Specifications	
Speed Range	20 to 300 rpm
Speed Accuracy	above 100 rpm $\pm 1\%$ of set speed below 100 rpm $\pm 1$ rpm
Timer	1 second to 160 hours
Stroke	19 mm
Maximum Weight Capacity	6.8 kg
Tray Material	Aluminum
Tray Dimensions (L x W)	27.9 x 33 cm
Overall Dimensions (L x W x H)	41.3 x 35.5 x 14.6 cm
Ship Weight	22.2 kg

Description	Model	Item Number
Digital Reciprocating Shaker	SHRC0719DG	30391830



# *Incubating & Incubating Cooling Shakers*



*Incubating Cooling Thermal Shakers  
Incubating Light Duty Orbital Shakers  
Incubating Rocking & Waving Shakers*

# Incubating & Incubating Cooling Selection Guide



Product Family	Incubating Cooling Thermal Shakers	Incubating Light Duty Orbital Shaker	Incubating Light Duty Orbital Shakers
Model	ISTHBLCTS (Heat/Cool) ISTHBLHTS (Heat)	ISLD04HDG	ISLDMPHDG ISLDMPHDGL (Opaque Lid)
Temperature Range	17 below ambient to 100°C / ambient +4 to 100°C	Ambient +5° to 65°C	Ambient +5° to 65°C
Speed Range	300 to 3000 rpm	100 to 1200 rpm	100 to 1200 rpm
Timer	1 minute to 99 hours, 59 min	1 second to 160 hours	1 second to 160 hours
Motion	Orbital	Orbital	Orbital
Orbit	3 mm	3 mm	3 mm
Max Weight Capacity	1 Block	3.6 kg	4 Microplates / 2 Micro-Tube Racks
Audible Alarm	●	●	●
Load Sensor	●	—	—
Drive System	—	Triple Eccentric	Triple Eccentric
Motor Type	Brushless DC Motor	Brushless DC Motor	Brushless DC Motor
Set-Point Retention	● Displays Last Setting	● Displays Last Setting	● Displays Last Setting
Restart/Power Out	●	●	●
Ramp to Speed	●	●	●
Temperature Overshoot Protection	●	—	—
Overload Protection	●	●	●
User Calibration (Temperature)	●	●	●
User Calibration (Speed)	●	—	—
Interface	USB	—	—
Overall Dimensions (L × W × H)	26 × 24.8 × 13.2 cm	43.2 × 27.9 × 26.7 cm	43.2 × 27.9 × 19.7 cm
Included Tray (L × W)	N/A	27.9 × 19.7 cm	27.9 × 19.7 cm
Platform Options (L × W)	N/A	N/A	N/A



Yes

\* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

\*\* Centered on tray.

# Incubating & Incubating Cooling Selection Guide



Product Family	Incubating Cooling Light Duty Orbital Shaker	Incubating Rocking Shaker	Incubating Waving Shaker
Model	ISICMBCDG	ISRK04HDG	ISWW02HDG
Temperature Range	10°C Below Ambient to 65°C	Ambient +5° to 65°C	Ambient +5° to 65°C
Speed Range	100 to 1200 rpm	1 to 50 rpm	1 to 30 rpm
Timer	1 second to 160 hours	1 second to 160 hours	1 second to 160 hours
Motion	Orbital	Rocking	Waving
Orbit	3 mm	Tilt Angle: 0 to 15° *	Tilt Angle: 0 to 20° *
Max Weight Capacity	2 Microplates 2 Modular Blocks	4.5 kg**	2.3 kg**
Audible Alarm	●	●	—
Load Sensor	—	—	—
Drive System	Triple Eccentric	Cable	Cable
Motor Type	Brushless DC Motor	Stepper Motor	Stepper Motor
Set-Point Retention	● Displays Last Setting	● Displays Last Setting	● Displays Last Setting
Restart/Power Out	●	●	—
Ramp to Speed	●	●	—
Temperature Overshoot Protection	—	—	—
Overload Protection	●	●	—
User Calibration (Temperature)	—	—	—
User Calibration (Speed)	—	—	—
Interface	—	—	—
Overall Dimensions (L × W × H)	45.5 × 27.9 × 26.7 cm	43.2 × 27.9 × 26.7 cm	43.2 × 27.9 × 26.7 cm
Included Tray (L × W)	N/A	25.4 × 19.1 cm	23.5 × 18.4 cm
Platform Options (L × W)	N/A	N/A	N/A



Yes

\* Maximum speed/tilt angle may vary with heavy or unbalanced loads.  
\*\* Centered on tray.

# Incubating Cooling Thermal Shakers



Thermal Shakers are designed for applications that require consistent and precise high-speed shaking with temp. control to 100°C. With heating & shaking capabilities, our shakers use interchangeable blocks to accommodate tubes & microplates. Intuitive LCD touchscreen allows the user to save & track progress of 5 user-defined programs, each with 5 individual steps. Enhanced electronics provide dependable temp. settings across the operating range.

- Program Control for Five, 5-Step Programs
- Enhanced Electronics Provide Accurate Temperatures Across the Range
- Store and Transfer Data Easily with the Multi-Functional USB



## Incubating Cooling Thermal Shakers

- 4.3" color LCD touch screen display provides an intuitive interface
- Rapid heating, cooling and high speed shaking ability
- Internal memory stores five separate 5-step programs, unlimited with USB

The OHAUS Thermal Shakers and Cooling Thermal Shakers are designed for applications that require consistent and precise results. With heating, cooling and shaking capabilities. These shakers use interchangeable blocks to accommodate a wide variety of tubes and microplates. The easy-to-use, 4.3", color, LCD touch screen allows the user to save and visibly track progress through the live status bar for five user defined programs, each with five individual steps. The unit's enhanced electronics and dual temperature sensors provide accurate, dependable temperature settings across the operating range.

### Operating Features:

**Low Profile Design:** The low profile design minimizes the unit's footprint on the bench.

**LCD Touch Screen:** Enables faster setting of temperature, speed, and time which can all be viewed at once. Display features on-screen help topics with operational tips available in six languages. Touch screen is compatible with rubber gloves used in labs. USB port can transfer information to a flash drive for data logging, program storage and software updates.

**Program Control:** Program control capabilities allow user programmable operation for automated use and memory. Storage for five separate 5-step programs, or unlimited number of programs with the use of the USB.

**Temperature ramp rate:** Adjustable temperature ramp rate feature separately defines the heating and cooling rate in increments of 0.5°C/min.

**Single Point Calibration Mode:** For maximum temperature accuracy, the single point calibration procedure allows the user to calibrate up to 6 different user defined temperatures.

**Pulse Mode Feature:** The unit is equipped with a pulse mode feature for quick vortex applications.

### Safety Features:

**Cool Touch Housing:** Constructed from a high-quality, heat and chemical resistant polymer. The unit's housing remains cool to the touch throughout normal operating temperatures.

**Maximum Temperature Limiting Function:** Ensures the temperature will not exceed preset limits, allowing the user control of temperature sensitive samples.

**Hot Top Indicator:** A hot top warning light will illuminate when the temperature reaches 40°C, and will remain lit until the unit is sufficiently cooled.

**Audible Alarm:** In timed mode, an alarm will sound when the time reaches zero or set-point temperature is reached. Additionally, the heat function will automatically shut off if the unit recognizes an internal issue.

### Operating Conditions:

Unit can operate in conditions from 5 to 35°C, maximum 80% relative humidity, non-condensing.



### Applications:

Cell cultures, DNA, RNA, and protein studies.

### Ordering Information

Unit includes a detachable, 3-wire cord and plug. Unit is also supplied with a 1.5 mL block, clear rack, and cover.

Specifications	
Temperature Range	
Thermal Shaker	4°C above ambient to 100°C
Cooling Thermal Shaker	17°C below ambient to 100°C
Temperature Accuracy	
Thermal Shaker	± 1°C between 20°C and 45°C ± 2°C above 45°C
Cooling Thermal Shaker	± 0.5°C between 20°C and 45°C ± 2°C below 20°C and above 45°C
Speed Range	300 to 3000 rpm
Speed Accuracy	± 2%
Timer	1 minute to 99 hours, 59 minutes
Orbit	3 mm
Cooling Rate	above ambient 2-3°C/min below ambient 0.5-1.0°C/min
Heating Rate	5°C/min
Overall Dimensions (L x W x H)	26 x 24.8 x 13.2 cm
Ship Weight	5.4 kg

Description	Model	Item Number
Thermal Shaker	ISTHBLHTS	30392005
Cooling Thermal Shaker	ISTHBLCTS	30391998

## Incubating Cooling Thermal Shakers Modular Blocks



### Microplate Block

Sample Type	Well Size	Well Depth	Dimensions (L x W x H)	Item Number
Microplate Thermal Block with Lid	10.7 x 7.1 x 0.25 cm	2.30 cm	11.9 x 16.3 x 7.6 cm	30400126

Sample Type	Well Diameter	Well Depth	Dimensions (L x W x H)	Item Number
384 Well Plate Thermal Block with Lid	0.40 cm	0.81 cm	11.9 x 16.3 x 7.6 cm	30400127
0.2 mL PCR Plate Thermal Block with Lid	0.64 cm	1.27 cm	11.9 x 16.3 x 7.6 cm	30400128

### Tube Blocks

Sample Type	No. of Wells	Well Diameter	Well Depth	Dimensions (L x W x H)	Item Number
0.5 mL Microtubes*	30	0.79 cm	2.46 cm	10.2 x 14.2 x 4.6 cm	30400129
1.5 mL Microtubes*	24	1.11 cm	3.53 cm	10.2 x 14.2 x 5.3 cm	30400130
2.0 mL Microtubes*	24	1.15 cm	3.53 cm	10.2 x 14.2 x 5.3 cm	30400131
5-7 mL Tubes	24	1.20 cm	3.61 cm	10.2 x 14.2 x 5.6 cm	30400132

\* Supplied with clear rack and cover

### Racks and Covers

Description	Item Number
Rack For 30 X 0.5 mL Tube Block	30400250
Rack For 24X1.5 / 24X2.0 mL Tube Blocks	30400251
Cover For 0.5mL/1.5mL/2.0mL Tube Blocks	30400252

### Cryo Tube Block

Sample Type	No. of Wells	Well Diameter	Well Depth	Dimensions (L x W x H)	Item Number
2.0 mL Cryo Tubes	24	1.26 cm	3.6 cm	10.2 x 14.2 x 5.6 cm	30400133

### Conical Tube Blocks

Sample Type	No. of Wells	Well Diameter	Well Depth	Dimensions (L x W x H)	Item Number
5 mL Eppendorf Tube Block	9	1.68 cm	4.9 cm	10.4 x 14.5 x 7.1 cm	30400134
15 mL Conical Tubes	9	1.73 cm	10.44 cm	10.7 x 14.7 x 12.7 cm	30400135
50 mL Conical Tubes	4	3.0 cm	10.09 cm	10.2 x 14.5 x 12.2 cm	30400136

# *Incubating Light Duty Orbital Shakers*



OHAUS Incubating Light Duty Shakers are designed to incubate samples from 10° below ambient to 65°C depending on the model. The Incubating Mini Shaker has an 3.6 kg capacity while the Incubating Microplate Shaker can hold up to four standard or deep well plates. Incubating-Cooling Mini Shaker is designed to hold two microplates or two optional modular tube blocks. All models feature LED displays with touchpad controls.

- Microprocessor-Controlled for Consistent Shaking Action
- Triple Eccentric Drive Provides Reliable Service and Continuous Duty
- Safety Features Include Speed Ramping and Overload Protection

# Incubating & Incubating Cooling Shakers

## Incubating Light Duty Orbital Shakers

- LED displays for temperature, speed and time
- Timer with audible alarm
- Calibration mode for temperature

The OHAUS Incubating Light Duty Orbital Shakers are designed to heat and shake a variety of samples.

### Operating Features:

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**PID Temperature Controller:** Maintains precise temperature control from ambient +5°C to 65°C. Easy-to-use controls allow users to adjust temperature in 1°C increments.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for temperature, speed and time allow operator to view all settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**Temperature Calibration Mode:** Allows user to calibrate unit to an external temperature device.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero.

**Caution Hot Indicator:** Symbol illuminates when the temperature of the air in the chamber reaches 40°C and remains lit until temperature cools down.

**Spill-Resistant Design:** Channels fluids away from internal components.

**Polycarbonate Lid:** Permits viewing of samples without disturbing internal temperature.

### Operating Conditions:

Unit can be run in conditions from 5 to 40°C, maximum 80% relative humidity, non-condensing.

### Applications:

Cell cultures, bacterial suspensions, and hybridizations.

### Ordering Information:

Unit includes a detachable, 3-wire cord and plug.



Specifications	
Temperature Range	Ambient +5°C to 65°C
Temperature Uniformity	± 0.5°C at 37°C
Speed Range	100 to 1200 rpm
Speed Accuracy	± 2% of set speed
Timer	1 second to 160 hours
Orbit	3 mm
Maximum Weight Capacity	3.6 kg
Tray Material	Aluminum
Tray Dimensions (L × W)	27.9 × 19.7 cm
Interior Dimensions (L × W × H)	28.7 × 21.1 × 14.5 cm
Overall Dimensions (L × W × H)	43.2 × 27.9 × 27 cm
Ship Weight	13.6 kg

Description	Model	Item Number
Incubating Light Duty Orbital Shaker	ISLD04HDG	30391919

## Incubating Light Duty Orbital Shakers

- LED displays for temperature, speed and time
- Timer with audible alarm
- Available with opaque lid for light sensitive samples

The OHAUS Incubating Microplate Shakers are optimized for shaking microplates, deep-well plates, or micro-tubes.

### Operating Features:

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**PID Temperature Controller:** Maintains precise temperature control from ambient +5°C to 65°C. Easy-to-use controls allow users to adjust temperature in 1°C increments.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for temperature, speed, and time allow operator to view all settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**Temperature Calibration Mode:** Allows user to calibrate unit to an external temperature device.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero.

**Caution Hot Indicator:** Symbol illuminates when the temperature of the air in the chamber reaches 40°C and remains lit until temperature cools down.

**Spill-Resistant Design:** Channels fluids away from internal components.

**Polycarbonate Lid:** Clear lid permits viewing of samples without disturbing internal temperature. Opaque lid prohibits light exposure to light sensitive samples.

### Operating Conditions:

Unit can be run in conditions from 5 to 40°C, maximum 80% relative humidity, non-condensing.

### Applications:

Immunoassays and hybridizations.

### Ordering Information:

Units include a detachable, 3-wire cord and plug.



Specifications	
Temperature Range	Ambient +5°C to 65°C
Temperature Uniformity	± 0.5°C at 37°C
Speed Range	100 to 1200 rpm
Speed Accuracy	± 2%
Timer	1 second to 160 hours
Orbit	3 mm
Maximum Weight Capacity	4 microplates or 2 micro-tube racks
Tray Material	Aluminum
Tray Dimensions (L x W)	27.9 x 19.7 cm
Overall Dimensions (L x W x H)	43.2 x 27.9 x 19.7 cm
Ship Weight	13.6 kg

Description	Model	Item Number
Incubating Microplate Shaker	ISLDMPHDG	30391933
Incubating Microplate Shaker with Opaque Lid	ISLDMPHDGL	30391926

# Incubating Cooling Orbital Shakers



OHAUS Incubating Cooling Orbital Shakers are designed to incubate samples from 10°C below ambient to 65°C. Incubating Cooling Mini Shaker is designed to hold two microplates or two optional modular tube blocks in a variety of configurations. All models feature touchpad controls with easy-to-read, independent LED displays for temperature, speed and time. Microprocessor control provides consistent uniform shaking action.

- Microprocessor-Controlled for Consistent Shaking Action
- Triple Eccentric Drive Provides Reliable Service and Continuous Duty
- Safety Features Include Speed Ramping and Overload Protection

## Incubating Cooling Orbital Shakers

- Heats to 65°C and cools to 10°C below ambient
- LED displays for temperature, speed and time
- Calibration mode for temperature

The OHAUS Incubating/Cooling Orbital Shaker is microplate ready without the need for any additional accessories. Optional modular blocks can accommodate micro-tubes, centrifuge tubes, vials, or culture tubes. Unit holds microplates or modular blocks with a 12.7 cm tall interior capacity. Ideal for analyses that require a stable, controlled temperature.

### Operating Features:

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform shaking action. Microprocessor will display last set-point and will restart if power is interrupted.

**PID Temperature Controller:** Maintains precise temperature control from 10°C below ambient to 65°C. Easy-to-use controls allow users to adjust temperature in 1°C increments.

**Triple Eccentric Drive:** Permanently lubricated ball bearings and maintenance free, brushless DC motor provide reliable service and continuous duty operation.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for temperature, speed, and time allow operator to view all settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**Temperature Calibration Mode:** Allows user to calibrate unit to an external temperature device.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero. Alarm has optional mute function which can be set from the touch pad control.

**Caution Hot Indicator:** Symbol illuminates when the temperature of the air in the chamber reaches 40°C and remains lit until temperature cools down.

**Spill-Resistant Design:** Channels fluids away from internal components.

**Polycarbonate Lid:** Permits viewing of samples without disturbing internal temperature.

### Operating Conditions:

Unit can be run in conditions from 5 to 40°C, maximum 80% relative humidity, non-condensing.

### Applications:

Cell and bacterial cultures, hybridizations, and enzyme reactions.

### Ordering Information:

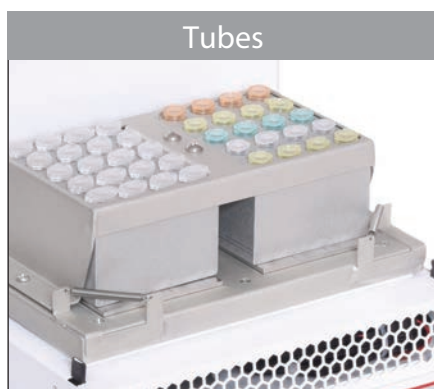
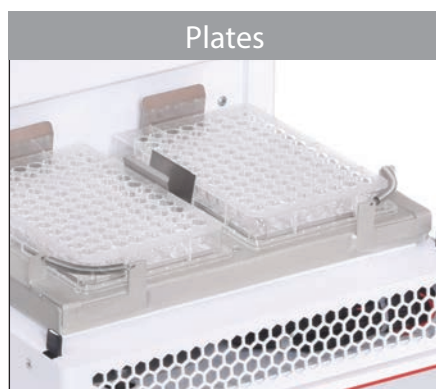
Unit includes a detachable, 3-wire cord and plug. Units are also supplied with an adapter bracket to hold optional modular blocks. See page 36-37 for block options.



Specifications	
Temperature Range	10°C below ambient to 65°C
Temperature Uniformity	± 0.5°C at 37°C
Speed Range using Microplates	100 to 1200 rpm
Speed Range using Modular Blocks	100 to 600 rpm
Speed Accuracy	± 2%
Timer	1 second to 160 hours
Orbit	3 mm
Maximum Weight Capacity	2 microplates or 2 modular blocks
Overall Dimensions (L × W × H)	45.5 × 27.9 × 26.7 cm
Ship Weight	15.4 kg

Description	Model	Item Number
Incubating Cooling Light Duty Shaker	ISICMBCDG	30391940

## Incubating Light Duty Orbital Shakers Modular Blocks



### Modular Blocks

Modular Blocks are constructed from a solid anodized aluminum block. The close contact of tubes to block walls allow for maximum temperature transfer.

**Block dimensions (L × W × H):** 9.5 × 7.6 × 5.1 cm

**Applications:** Cell cultures, hybridizations, and extraction procedures

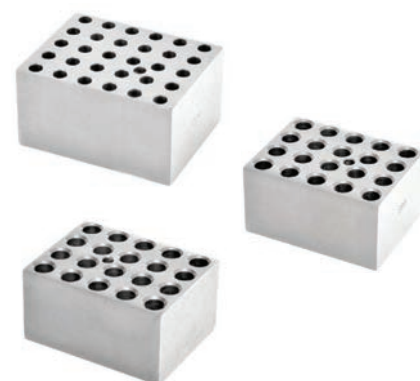
**OHAUS modular blocks also fit in the OHAUS Dry Block Heaters.**

Constructed of anodized aluminum, this material is ideal for its temperature conducting and corrosion resistant properties.

### Microcentrifuge Tube Blocks

#### Single block

Sample Type	No. of Wells	Well Diameter	Well Depth	Item Number
0.5 mL tube	30	7.9 mm	27.6 mm	30400157
1.5 mL tube	20	11.1 mm	39.1 mm	30400159
2 mL tube	20	11.5 mm	38.1 mm	30400191



### Conical-Bottom Centrifuge Tube Blocks

#### Single block

Sample Type	No. of Wells	Well Diameter	Well Depth	Item Number
15 mL tube	12	17.1 mm	44.5 mm	30400172
50 mL tube	5	29.0 mm	47.6 mm	30400168





# Incubating Light Duty Orbital Shakers Modular Blocks

## Standard Test Tube Blocks

### Single block

Sample Type	No. of Wells	Well Diameter	Well Depth	Item Number
6 mm tube	30	8.3 mm	48.4 mm	30400158
10 mm tube	24	10.7 mm	48.4 mm	30400151
12/13 mm tube	20	13.9 mm	48.4 mm	30400152



## Combination Blocks

### Single block

These blocks have been designed for variable sized samples.

Sample Type	No. of Wells	Well Diameter	Well Depth	Item Number
<b>Test Tube Combination</b>				
6 mm	6	8.3 mm	48.4 mm	30400156
12/13 mm	5	13.8 mm	48.4 mm	
25 mm	3	26.2 mm	48.4 mm	
<b>Centrifuge Tube Combination</b>				
1.5 mL	4	11.1 mm	39.1 mm	30400193
15 mL	3	17.1 mm	44.5 mm	
50 mL	2	29.0 mm	47.6 mm	
<b>Micro-Tube Combination</b>				
0.5 mL	6	7.9 mm	27.6 mm	30400194
1.5 mL	10	11.1 mm	39.1 mm	
2 mL	5	11.5 mm	38.1 mm	



## Vial Blocks

### Single block

Designed for sample/serum and scintillation vials.

Sample Type	No. of Wells	Well Diameter	Well Depth	Item Number
12 mm vial	20	12.7 mm	30 mm	30400182
15 mm vial	20	15.8 mm	35 mm	30400183
16 mm vial	15	16.4 mm	45 mm	30400190
17 mm vial	12	17.8 mm	45 mm	30400184
19 mm vial	12	19.7 mm	45 mm	30400185
21 mm vial	9	21.7 mm	45 mm	30400186
23 mm vial	8	23.8 mm	45 mm	30400187
25 mm vial	8	25.8 mm	45 mm	30400188
28 mm vial	6	28.8 mm	45 mm	30400189



# Incubating Rocking & Waving Shakers



OHAUS Incubating Rocking and Waving Shakers are designed to incubate samples from 5°C above ambient to 65°C to provide accurate and repeatable results. Rocking shakers provide a see-saw like motion, while waving shakers offer a smooth, low-foaming three-dimensional “wave” motion. All models feature LED displays with touchpad controls. Both models include safety features that protect both the user and samples.

- Independent LEDs and Touchpad Control for Temperature, Speed/Tilt Angle and Time
- Microprocessor Control with PID Temperature Control for Precise Control
- Electronic Tilt Adjustment While Unit Is Operating

## Incubating Rocking & Waving Shakers

- Electronic tilt adjustment from 0 to 15° while unit is operating
- LED displays for temperature, speed and tilt angle, and time
- Timer with audible alarm

The OHAUS Incubating Rocking Shaker combines smooth rocking motion and general purpose incubation in one compact bench top unit.

### Operating Features:

**Microprocessor Control:** The microprocessor control provides electronic tilt angle adjustment which allows user to easily adjust rocking angle from 0 to 15° while unit is operating. Precise speed control provides smooth, low-speed rocking motion down to 1 rpm.

**PID Temperature Controller:** Maintains precise temperature control from ambient +5°C to 65°C. Easy-to-use controls allow users to adjust temperature in 1°C increments.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for temperature, speed and tilt angle, and time allow operator to view all settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero.

**Caution Hot Indicator:** Symbol illuminates when the temperature of the air in the chamber reaches 40°C and remains lit until temperature cools down.

**Spill-Resistant Design:** Channels fluids away from internal components.

**Polycarbonate Lid:** Permits viewing of samples without disturbing internal temperature.

### Operating Conditions:

Unit can be run in conditions from 5 to 40°C, maximum 80% relative humidity, non-condensing.

### Applications:

Cell cultures, staining and destaining gels, hybridization procedures, and blotting techniques.

### Ordering Information:

Unit includes a detachable, 3-wire cord and plug.



Specifications	
Temperature Range	Ambient +5°C to 65°C
Temperature Uniformity	± 0.5°C at 37°C
Speed Range	1 to 50 rpm *
Speed Accuracy	± 1 rpm
Tilt Angle	0 to 15° *
Timer	1 second to 160 hours
Maximum Weight Capacity	4.5 kg **
Tray Material	Aluminum
Tray Dimensions (L × W)	25.4 × 19.1 cm
Interior Dimensions (L × W × H)	27.3 × 19.7 × 9.7 cm
Overall Dimensions (L × W × H)	43.2 × 27.9 × 26.7 cm
Ship Weight	10 kg

\* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

\*\* Centered on tray.

Description	Model	Item Number
Incubating Rocking Shaker	ISRK04HDG	30391975

# Incubating & Incubating Cooling Shakers

## Incubating Rocking & Waving Shakers

- Electronic tilt adjustment from 0 to 20° while unit is operating
- LED displays for temperature, speed and tilt angle, and time
- Timer with audible alarm

The OHAUS Incubating Waving Shaker combines the unique vertical and horizontal “wave” motion with general purpose incubation in one compact bench top unit.

### Operating Features:

**Microprocessor Control:** The microprocessor control provides electronic tilt angle adjustment which allows user to easily adjust waving angle from 0 to 20° while unit is operating. Precise speed control provides smooth, low-speed waving motion down to 1 rpm.

**PID Temperature Controller:** Maintains precise temperature control from ambient +5°C to 65°C. Easy-to-use controls allow users to adjust temperature in 1°C increments..

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for temperature, speed and tilt angle, and time allow operator to view all settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

### Safety Features:

**Overload Protection:** Audible and visual signals will activate when system detects an obstruction or overload of the tray.

**Speed Ramping Feature:** Slowly increases speed to desired set-point to avoid splashing.

**Audible Alarm:** In timed mode, alarm will sound when the time reaches zero.

**Caution Hot Indicator:** Symbol illuminates when the temperature of the air in the chamber reaches 40°C and remains lit until temperature cools down.

**Spill-Resistant Design:** Channels fluids away from internal components.

**Polycarbonate Lid:** Permits viewing of samples without disturbing internal temperature.

### Operating Conditions:

Unit can be run in conditions from 5 to 40°C, maximum 80% relative humidity, non-condensing.

### Applications:

Cell cultures, hybridization procedures, and blotting techniques.

### Ordering Information:

Unit includes a detachable, 3-wire cord and plug.



Specifications	
Temperature Range	Ambient +5°C to 65°C
Temperature Uniformity	± 0.5°C at 37°C
Speed Range	1 to 30 rpm *
Speed Accuracy	± 1 rpm
Tilt Angle	0 to 20° *
Timer	1 second to 160 hours
Maximum Weight Capacity	2.3 kg **
Tray Material	Aluminum
Tray Dimensions (L × W)	23.5 × 18.4 cm
Interior Dimensions (L × W × H)	27.3 × 19.7 × 8.6 cm
Overall Dimensions (L × W × H)	43.2 × 27.9 × 26.7 cm
Ship Weight	10 kg

\* Maximum speed/tilt angle may vary with heavy or unbalanced loads.

\*\* Centered on tray.

Description	Model	Item Number
Incubating Waving Shaker	ISWV02HDG	30391982

# Open Air and Incubating & Incubating Cooling Shakers Accessories

## Universal Platforms

Allows for mounting of flask clamps, test tube racks, and bottle clamps. Platform slides over top of included tray and is tightened with adjustment screws. Optional accessories screw directly into mounting point openings. The two-tier braces allow stacking of platforms with a 25.4 cm clearance (available for select sizes). An optional non-skid rubber mat can be placed on the platform for an added non-slip surface. The platform is constructed of type 304 stainless steel.



Description	Used on Shakers	Item Number
27.9 × 33 cm Universal Platform	Analog/Digital 16 kg Shakers and Reciprocating Shakers	30400052
33 × 33 cm Universal Platform	Analog/Digital 16 kg Shakers and Reciprocating Shakers	30400053
45.7 × 45.7 cm Universal Platform*	Analog/Digital 16 kg Shakers and Reciprocating Shakers**	30400054
45.7 × 61 cm Universal Platform*	Analog/Digital 16 kg & 23 kg Shakers** and Reciprocating Shakers**	30400056
61 × 61 cm Universal Platform	Digital 45 kg Shakers	30400057
45.7 × 76.2 cm Universal Platform*	Analog/Digital 23 kg Shakers	30400058
61 × 91.4 cm Universal Platform	Digital 68 kg Shakers	30400059
Two-Tier Braces (set of 4)	Analog/Digital 16 kg & 23 kg Shakers	30400051

## Rubber Mats

Description	Used on Shakers	Item Number
11 × 13" (27.9 × 33 cm) Rubber Mat	Analog/Digital 16 kg Shakers and Reciprocating Shakers	30400060
33 × 33 cm Rubber Mat	Analog/Digital 16 kg Shakers and Reciprocating Shakers	30400061
45.7 × 45.7 cm Rubber Mat	Analog/Digital 16 kg Shakers and Reciprocating Shakers	30400062
18 × 24" (45.7 × 61 cm) Rubber Mat	Analog/Digital 16 kg Shakers, Reciprocating Shakers and Analog Digital 23kg Shakers	30400063
61 × 61 cm Rubber Mat	Digital 45 kg Shakers	30400064
61 × 91.4 cm Rubber Mat	Digital 68 kg Shakers	30400065

## Culture Platforms

Ideal for slow speed applications; Petri dishes, culture flasks, and other flat bottom, low profile vessels. The two-tier braces (available for both sizes) allow stacking of platforms with a 25.4 cm clearance. The platform is constructed of type 304 stainless steel. The platform has a non-skid rubber surface.



Description	Used on Shakers	Item Number
45.7 × 45.7 cm Culture Platform*	Analog/Digital 16 kg Shakers* and Reciprocating Shakers**	30400066
45.7 × 61 cm Culture Platform*	Analog/Digital 16 kg* & 23 kg Shakers and Reciprocating Shakers**	30400067
Two-Tier Braces (set of 4)	Analog/Digital 16 kg & 23 kg Shakers	30400051

\* Two-tier ready

\*\*Stacking of platforms is not recommended for Reciprocating Shaker

# Accessories

## Open Air and Incubating & Incubating Cooling Shakers Accessories

### Dedicated Platforms

Pre-mounted flask clamps for maximum utilization of platform space for flasks of all one size. The two-tier braces allow stacking of platforms with a clearance (available for select sizes). Platform is constructed of type 304 stainless steel. Flask clamps are constructed of PVC. Ideal for polycarbonate flasks.



Description	Flask Capacity	Used on Shakers	Item Number
33 × 33 cm Dedicated Platform / 125 mL Flask Clamp	16	Analog/Digital 16 kg Shakers and Reciprocating Shakers	30400075
33 × 33 cm Dedicated Platform / 250 mL Flask Clamp	12	Analog/Digital 16 kg Shakers and Reciprocating Shakers	30400076
33 × 33 cm Dedicated Platform / 500 mL Flask Clamp	8	Analog/Digital 16 kg Shakers and Reciprocating Shakers	30400077
33 × 33 cm Dedicated Platform / 1 L Flask Clamp	4	Analog/Digital 16 kg Shakers and Reciprocating Shakers	30400078
45.7 × 45.7 cm Dedicated Platform / 125 mL Flask Clamp*	27	Analog/Digital 16 kg Shakers and Reciprocating Shakers **	30400079
45.7 × 45.7 cm Dedicated Platform / 250 mL Flask Clamp*	20	Analog/Digital 16 kg Shakers and Reciprocating Shakers **	30400080
45.7 × 45.7 cm Dedicated Platform / 500 mL Flask Clamp*	13	Analog/Digital 16 kg Shakers and Reciprocating Shakers **	30400081
45.7 × 45.7 cm Dedicated Platform / 1 L Flask Clamp	9	Analog/Digital 16 kg Shakers and Reciprocating Shakers **	30400082
Two-Tier Braces (set of 4)		Analog/Digital 16 kg Shakers	30400051

### Adjustable Platforms

Adjustable clamping bars accommodate various vessel types. Constructed of stainless steel. The base tray has a non-skid rubber surface.



Description	Bar Size	Overall Dimensions	Used on Shakers	Item Number
2-bar Adjustable Platform	21.8 cm	21.8 × 29.7 cm	Digital 4 kg Shakers	30400121
4-bar Adjustable Platform	45.7 cm	45.7 × 45.7 cm	Analog/ Digital 16 kg shakers	30400068
4-bar Adjustable Platform	45.7 cm	45.7 × 61 cm	Analog/ Digital 23 kg shakers	30400069

### Replacement Parts

Description	Used with Platforms	Item Number
21.8 cm Adjustable Bar (with Mounting Hardware)	30400121	30400122
45.7 cm Adjustable Bar (with Mounting Hardware)	30400068 & 3040069	30400073

\* Two-tier ready

\*\*Stacking of platforms is not recommended for Reciprocating Shaker

# Open Air and Incubating & Incubating Cooling Shakers Accessories

## Large Vessel Carrier Platforms

Ideal for large sample containers like carboys, jugs, and bottles. The platforms' high side walls secure samples, has a heavy-duty design and is constructed of stainless steel. The base tray has a non-skid rubber surface.

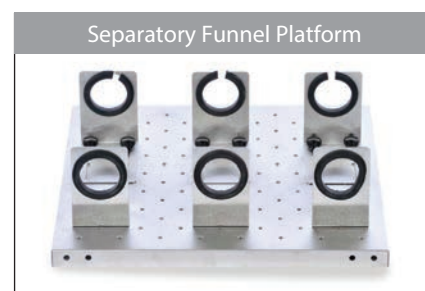


Description	Bar Size	Overall Dimensions (L x W x H)	Used on Shakers	Item Number
4-bar Large Vessel Carrier Platform	45.7 cm	76.4 x 45.9 x 35.3 cm	Analog/Digital 23 kg Shakers	30400070
4-bar Large Vessel Carrier Platform	61 cm	61.9 x 61.7 x 36.0 cm	Digital 45 kg Shakers	30400071
5-bar Large Vessel Carrier Platform	61 cm	93.7 x 61.7 x 36.0 cm	Digital 68 kg Shakers	30400072

Replacement Part	Used with Carrier	Item Number
45.7 cm adjustable bar (with mounting hardware)	30400070	30400073
61 cm adjustable bar (with mounting hardware)	30400071 & 30400072	30400074

## Separatory Funnel Platform

Holds 3 funnels at once on a 45.7 x 45.7 cm platform. Platform can accommodate 500 mL to 2 L separatory funnels and is constructed of stainless steel. Includes platform, clamps and hardware to secure 3 funnels.



Description	Used on Shakers	Item Number
45.7 cm adjustable bar (with mounting hardware)	Analog/Digital 16 kg Shakers and Reciprocating Shakers	30400083

## Microplate Clamp

Can hold one standard microplate or deep-well plate. Constructed of type 304 stainless steel.

Platform Capacities for Microplate Clamps		
Platform Size	Platform Item Number	Microplate Clamps
27.9 x 33 cm	30400052	4
33 x 33 cm	30400053	6
45.7 x 45.7 cm	30400054	12
45.7 x 61 cm	30400056	18
45.7 x 76.2 cm	30400057	21
61 x 61 cm	30400058	24
61 x 91.4 cm	30400059	36



Description	Used on Shakers	Item Number
Microplate Clamp	Analog/Digital 16 kg, 23 kg, 45 kg, & 68 kg Shakers	30400104

# Accessories

## Open Air and Incubating & Incubating Cooling Shakers Accessories

### Universal Harness

Attaches to tray to secure low profile plates.

Description	Used on Shakers	Item Number
Universal Harness	Digital 4 kg Open Air Orbital Shakers	30400123



### Dimpled Mat

Designed to hold centrifuge tubes, vials, culture tubes, and micro-tubes securely in place. Mat can easily be removed for cleaning and transporting of tubes from bench to tray.

Description	Used on Shakers	Item Number
Dimpled Mat, 32.4 × 25.4 cm	Digital Rocking Shaker	30400140
Dimpled Mat, 29.9 × 22.2 cm	Digital Waving Shaker	30400142
Dimpled Mat, 25.4 × 19.1 cm	Incubating Rocking Shaker	30400141
Dimpled Mat, 23.5 × 18.4 cm	Incubating Waving Shaker	30400143
Dimpled Mat, 29.9 × 22.2 cm	Open Air 4 kg Orbital Shaker	30400124
Dimpled Mat, 35.6 × 27.9 cm	Analog Rocking & Waving Shaker	30400144



### Stacking Tray

Easily attaches to the units' included tray to add a second tier for higher capacity applications. Second tier tray mounts 8.9 cm above lower tray. The tray includes hardware and a rubber mat.

Description	Used on Shakers	Item Number
Stacking Tray, 32.4 × 25.4 cm	Digital Rocking Shaker	30400137
Stacking Tray, 29.9 × 22.2 cm	Digital Waving Shaker	30400138
Stacking Tray, 35.6 × 27.9 cm	Analog Rocking Shaker	30400139



### Dilution Cup Tray

Constructed of type 304 stainless steel. Holds 24 × 28 mm dilution vials.

Description	Used on Unit	Item Number
Dilution Cup Tray	Digital 4 kg Open Air Orbital Shakers	30400125



### Micro-Tube Rack

Optional 1.5 to 2 mL Micro-Tube Rack attaches to tray to hold up to 70 × 1.5 mL or 2 mL micro-tubes. Tray can accommodate up to 2 micro-tube racks.

Description	Used on Unit	Item Number
Micro-Tube Rack	Digital Open Air and Incubating Microplate Shaker	30400114





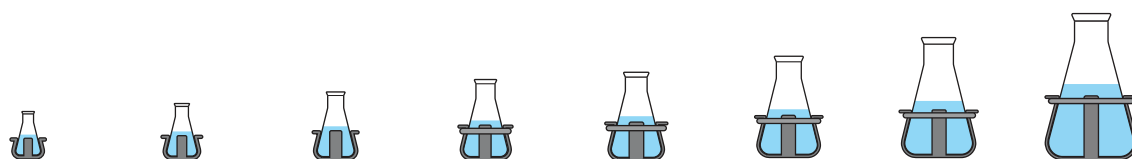
*This page was left blank intentionally.*

# Accessories

## Open Air and Incubating & Incubating Cooling Shakers Accessories

### Stainless Steel Flask Clamps

Designed to hold Erlenmeyer flasks from 10 mL to 6 L. Constructed of type 302 and 304 stainless steel. Includes hardware for easy attachment to platforms. Flask clamps 50 mL and higher are supplied with a spring to hold the flask in place. The 2.8 L clamp is designed to hold a Fernbach flask. Media bottle clamps feature the same details as flask clamps.



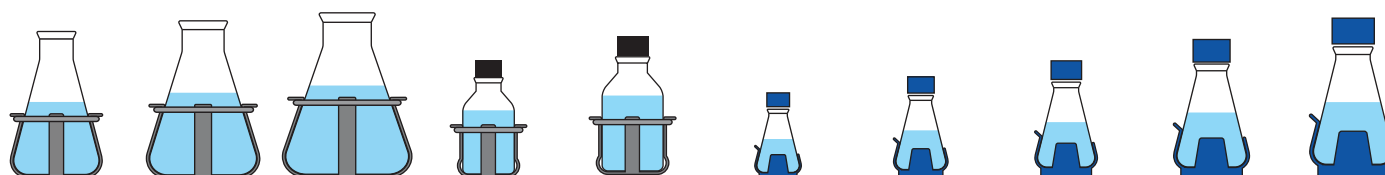
Clamp Style	10 mL Erlenmeyer Flask Clamp	25 mL Erlenmeyer Flask Clamp	50 mL Erlenmeyer Flask Clamp	125 mL Erlenmeyer Flask Clamp	250 mL Erlenmeyer Flask Clamp	500 mL Erlenmeyer Flask Clamp	1 L Erlenmeyer Flask Clamp	2 L Erlenmeyer Flask Clamp
Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Item Number	30400084	30400085	30400086	30400087	30400088	30400089	30400090	30400091
Tray or Platform	Number of Flask Clamps per Tray or Platform							
29.9 × 22.2 cm Open Air Digital 4 kg Shakers	35	20	15	12	6	4	N/A	N/A
27.9 × 19.7 cm Incubating 4 kg Shakers	35	20	12	8	5	N/A	N/A	N/A
27.9 × 33 cm								
Analog/Digital 16 kg Shakers	60	25	13	10	9	7	4	N/A
Digital Reciprocating Shakers	60	25	13	10	9	7	4	N/A
33 × 33 cm								
Analog/Digital 16 kg Shakers	60	30	15	12	12	8	4	3
Digital Reciprocating Shakers	60	30	15	12	12	8	4	3
45.7 × 45.7 cm								
Analog/Digital 16 kg Shakers	113	64	32	20	20	13	8	5
Digital Reciprocating Shakers	113	64	32	20	20	13	8	5
45.7 × 61 cm								
Analog/Digital 16 kg Shakers	158	88	44	28	28	20	12	6
Digital Reciprocating Shakers	158	88	44	28	28	20	12	6
Analog/Digital 23 kg Shakers	158	88	44	28	28	20	12	6
45.7 × 76.2 cm								
Analog/Digital 23 kg Shakers	203	112	56	36	36	26	15	8
61 × 61 cm								
Digital 45 kg Shakers	221	121	61	41	41	25	16	9
61 × 91.4 cm								
Digital 63 kg Shakers	336	160	94	61	64	40	24	14

\*All units require a universal platform for mounting flask clamps or test tube racks with the exception of the digital open air and incubating 4 kg shakers

# Open Air and Incubating & Incubating Cooling Shakers Accessories

## PVC Flask Clamps

Constructed of one piece, molded PVC. Autoclavable. Will not scratch or mark flask like other clamps. Includes hardware for easy attachment to universal platforms. The attachment and removal of flasks is quick and easy. Ideal for polycarbonate flasks.



2.8 L & 3 L Fernbach Flask Clamp	4 L Erlenmeyer Flask Clamp	5 L & 6 L Erlenmeyer Flask Clamp	500 mL Media Bottle Clamp	1 L Media Bottle Clamp	125 mL Erlenmeyer Flask Clamp	250 mL Erlenmeyer Flask Clamp	500 mL Erlenmeyer Flask Clamp	1 L Erlenmeyer Flask Clamp	2 L Erlenmeyer Flask Clamp
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	PVC	PVC	PVC	PVC	PVC
2.8L-30400092 3L-30400093	30400094	5 L-30400095 6 L-30400096	30400097	30400098	30400099	30400100	30400101	30400102	30400103
Number of Flask Clamps per Tray or Platform									
N/A	N/A	N/A	3	N/A	12	6	4	N/A	N/A
N/A	N/A	N/A	N/A	N/A	8	4	N/A	N/A	N/A
N/A	N/A	N/A	5	2	10	8	5	2	N/A
N/A	N/A	N/A	5	2	10	8	5	2	N/A
1	1	1	6	5	12	10	6	4	3
1	1	1	6	5	12	10	6	4	3
2	4	2	16	10	20	18	12	8	4
2	4	2	16	10	20	18	12	8	4
3	4	3	20	13	28	25	16	10	6
3	4	3	20	13	28	25	16	10	6
3	4	3	20	13	28	25	16	10	6
3	6	4	28	18	36	33	20	14	8
5	5	5	25	18	41	35	24	13	9
7	9	7	40	30	61	55	38	22	13

# Accessories

## Open Air and Incubating & Incubating Cooling Shakers Accessories

### Test Tube Racks

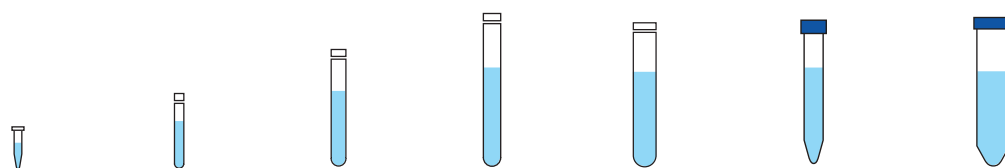
#### Half Size, Stationary

Racks constructed of PVC coated steel. Includes hardware for easy attachment to platforms.

#### Dimensions:

12.7 × 17.8 × 10.2 cm / Micro-Tube Rack: 4.3 cm H.

Test Tube Racks Half-Size, Stationary



Test Tube Style	1.5 to 2 mL Micro-Tube Rack Half Size, Stationary	10 to 13 mm Test Tube Rack Half Size, Stationary	14 to 16 mm Test Tube Rack Half Size, Stationary	18 to 20 mm Test Tube Rack Half Size, Stationary	22 to 25 mm Test Tube Rack Half Size, Stationary	15 mL Centrifuge Tube Rack Half Size, Stationary	50 mL Centrifuge Tube Rack Half Size, Stationary
Tube Capacity	70	63	48	35	24	35	12
Item Number	30400114	30400115	30400116	30400117	30400118	30400119	30400120
Tray or Platform	Number of Test Tube Racks per Tray or Platform						
29.9 × 22.2 cm Digital Open Air 4 kg Shakers	2	2	2	2	2	2	2
27.9 × 19.7 cm Incubating 4 kg Shakers	2	1	1	N/A	N/A	1	1
Digital Open Air 4 kg Shakers	2	N/A	N/A	N/A	N/A	N/A	N/A
Incubating Microplate Shakers	2	N/A	N/A	N/A	N/A	N/A	N/A
27.9 × 33 cm Analog/Digital 16 kg Shakers	2	2	2	2	2	2	2
Digital Reciprocating Shakers	2	2	2	2	2	2	2
33 cm × 33 cm Analog/Digital 16 kg Shakers	2	2	2	2	2	2	2
Digital Reciprocating Shakers	2	2	2	2	2	2	2
45.7 × 45.7 cm Analog/Digital 16 kg Shaker	4	4	4	4	4	4	4
Digital Reciprocating Shakers	4	4	4	4	4	4	4
45.7 × 61 cm Analog/Digital 16 kg Shakers	6	6	6	6	6	6	6
Digital Reciprocating Shakers	6	6	6	6	6	6	6
Analog/Digital 23 kg Shakers	6	6	6	6	6	6	6
45.7 × 76.2 cm Analog/Digital 23 kg Shakers	8	8	8	8	8	8	8
61 × 61 cm Digital 45 kg Shakers	8	8	8	8	8	8	8
61 × 91.4 cm Digital 63 kg Shakers	7	7	7	7	7	7	7

\* All units require a universal platform for mounting flask clamps or test tube racks with the exception of the digital open air and incubating 4 kg shakers

# Open Air and Incubating & Incubating Cooling Shakers

## Accessories

### Test Tube Racks

#### Full Size, Stationary

Racks constructed of PVC coated steel. Includes hardware for easy attachment to platforms.

#### Dimensions

9.5 × 41.9 × 10.2 cm

#### Full Size, Pivoting

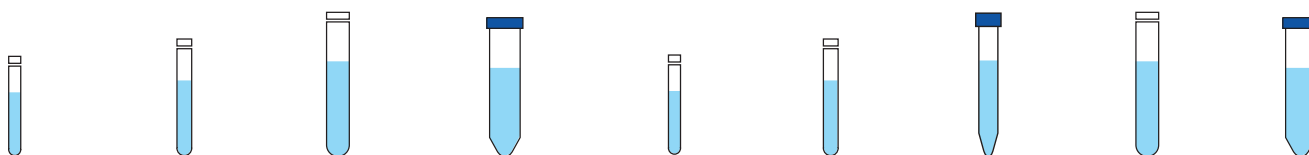
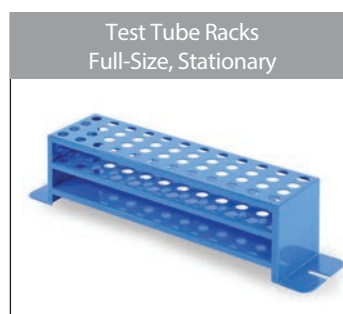
Has adjustable angle, custom tilt. Stainless steel holder includes removable plastic rack. Rack is easily removed to transport from work area to shaker.

#### Inside pivoting rack dimensions:

12.9 × 27.4 × 9.9 cm

#### Outside stationary rack dimensions:

12.7 × 27.6 × 12.7 cm



10 to 14 mm Test Tube Rack	16 to 20 mm Test Tube Rack	21 to 25 mm Test Tube Rack	50 mL Centrifuge Tube Rack	13 mm Test Tube Rack	16 mm Test Tube Rack	20 mm Test Tube Rack	25 mm Tube Rack	30 mm Tube Rack
Full Size, Stationary	Full Size, Stationary	Full Size Stationary	Full Size, Stationary	Full Size, Pivoting	Full Size, Pivoting	Full Size, Pivoting	Full Size, Pivoting	Full Size, Pivoting
48	33	21	17	90	60	40	24	21
30400110	30400111	30400112	30400113	30400105	30400106	30400107	30400108	30400109

#### Number of Test Tube Racks per Tray or Platform

N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	1	1	1	1	1
N/A	N/A	N/A	N/A	1	1	1	1	1
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	5	5	5	3	3	3	3	3
5	5	5	5	3	3	3	3	3
5	5	5	5	3	3	3	3	3
6	6	6	6	4	4	4	4	4
7	7	7	7	4	4	4	4	4
5	5	5	5	6	6	6	6	6

# *Vortex Mixers*



*Mini Vortex Mixers*  
*Heavy-Duty Vortex Mixers*  
*Microplate Vortex Mixers*  
*Multi-Tube Vortex Mixers*

# Mini Vortex Mixers



Four Mini Vortex Mixer models for gentle to high-speed mixing are available. Analog model offers variable speed control, and digital model allows input of the exact speed and time to achieve reproducible results. Pulsing model features a unique pulse action that reduces heat generation, while providing more effective mixing and cell disruption. Fixed speed model offers one-touch, high-speed mixing.

- Select from Two Modes of Operation—Touch or Continuous
- Variable Speed Models Offer Low RPM Start Up to High-Speed Mixing
- Fixed Speed Models Provide Full RPM for Vigorous Mixing

# Vortex Mixers

## Mini Vortex Mixers

- Sturdy design
- Fixed high speed mixing
- Touch mode operation

Built sturdy to provide stable and reliable vortexing action. Starts mixing when the cup head is pressed down. Speed is fixed at full rpm to provide vigorous vortexing of samples.

### Operating Conditions:

Unit can be run in conditions from 4 to 40°C, 20% to 85% relative humidity, non-condensing.

### Ordering Information:

Units include a 3-wire cord and plug. Includes both cup head and 7.6 cm head with cover.

### This product includes:

Description	Item Number
Cup Head	30400235
7.6 cm Head	30400236
7.6 cm Rubber Head Cover	30400237



Description	Model	Item Number
Fixed Speed Vortex Mixer	VXMNFS	30392110

- Sturdy design
- Variable, analog speed control
- Continuous or touch mode operation

Built sturdy to provide stable and reliable vortexing action. Control allows low rpm startup for gentle shaking or high speed mixing for vigorous vortexing of samples. Two modes of operation; continuous mode when using accessory attachments or touch mode which activates mixing when depressing the cup head.

### Operating Conditions:

Unit can be run in conditions from 4 to 40°C, 20% to 85% relative humidity, non-condensing.

### Ordering Information:

Units include a 3-wire cord and plug. Includes both cup head and 7.6 cm head with cover. Additional accessories can be found on pages 54-55.

### This product includes:

Description	Item Number
Cup Head	30400235
7.6 cm Head	30400236
7.6 cm Rubber Head Cover	30400237



Description	Model	Item Number
Analog Vortex Mixer	VXMNAL	30392117



Specifications	
Speed Range 230V	2500 rpm
Orbit	4.9 mm
Controls	None
Duty Rating	Intermittent duty
Dimensions (L x W x H)	21.1 x 12.2 x 16.5 cm
Ship Weight	4.5 kg



Specifications	
Speed Range* 230V	500 to 2500 rpm
Orbit	4.9 mm
Controls	Auto/Off/On Rocker Switch, Speed Knob: Variable 1 to 10 Dial Marks
Duty Rating	Intermittent duty
Dimensions (L x W x H)	21.1 x 12.2 x 16.5 cm
Ship Weight	4.5 kg

\* Maximum speed will vary depending on accessory used.



## Mini Vortex Mixers

- Sturdy design
- LED displays for speed and time
- Continuous or touch mode operation

Built sturdy to provide stable and reliable vortexing action. Ideal for applications that demand repeatable results. Microprocessor control maintains set speed for strong, consistent mixing action. Timer will display elapsed time or, when programmed to user defined time limit, the unit will shut off when time reaches zero. Two modes of operation; continuous mode when using accessory attachments or touch mode which activates mixing when depressing the cup head.

### Operating Conditions:

Unit can be run in conditions from 4 to 40°C, 20% to 85% relative humidity, non-condensing.

### Ordering Information:

Units include a 3-wire cord and plug. Includes both cup head and 7.6 cm head with cover. Additional accessories can be found on pages 54-55.

### This product includes:

Description	Item Number
Cup Head	30400235
7.6 cm Head	30400236
7.6 cm Rubber Head Cover	30400237



Description	Model	Item Number
Digital Vortex Mixer	VXMNDG	30392124



Specifications	
Speed Range* 230V	300 to 2500 rpm
Timer	1 second to 160 hours
Orbit	4.9 mm
Controls	Auto/Standby/On Rocker Switch, LED Displays for Speed/Time, Up/Down Buttons for Set-Point Control
Duty Rating	Intermittent duty
Dimensions (L x W x H)	21.1 x 12.2 x 16.5 cm
Ship Weight	4.5 kg

\* Maximum speed will vary depending on accessory used.

- Sturdy design
- LED displays for time and speed
- Glass bead cell disruption/homogenization

Built sturdy to provide stable and reliable vortexing action. Powerful pulsing vortex action produces excellent cell disruption for glass bead procedures. Capable of complete cell disruption of samples in only minutes. Unique pulsing action reduces heat generation while providing more effective mixing and disruption. Displayed time counts up during continuous operation and counts down during timed runs.

### Operating Conditions:

Unit can be run in conditions from 4 to 40°C, 20% to 85% relative humidity, non-condensing.

### Ordering Information:

Units include a 3-wire cord and plug. Includes cup head, 7.6 cm head with cover, and an easy-to-load 1.5 mL to 2 mL Micro-Tube Holder. Holder has a built-in cup head. Additional accessories can be found on pages 54-55.

### This product includes:

Description	Item Number
Cup Head	30400235
7.6 cm Head	30400236
7.6 cm Rubber Head Cover	30400237
Stainless Steel Tube Holder	30400206



Description	Model	Item Number
Pulsing Vortex Mixer	VXMNPS	30392131



Specifications	
Speed Range* 230V	500 to 2500 rpm
Timer	1 second to 160 hours
Orbit	2.5 mm
Controls	Auto/Standby/On Rocker Switch, LED Displays for Speed/Time, Up/Down Buttons for Set-Point Control Pulse Button
Duty Rating	Intermittent duty
Dimensions (L x W x H)	21.1 x 12.2 x 16.5 cm
Ship Weight	4.5 kg

\* Maximum speed will vary depending on accessory used.

# Accessories

## Mini Vortex Mixer Accessories

### Micro-Tube Holder

Mixes (48) 0.25 to 2 mL micro-tubes.  
Requires Insert Retainer.

Description	Item Number
Micro-Tube Holder (2 pack)	30400232
Insert Retainer	30400227



### 9 to 13 mm Tube Holder

Ideal for mixing 5 mL culture tubes and micro-vials.  
Requires Insert Retainer.

Description	Item Number
9 to 13 mm Tube Holder (2 pack)	30400229
Insert Retainer	30400227



### 14 to 19 mm Tube Holder

Ideal for mixing up to (8) 15 mL centrifuge tubes.  
Requires Insert Retainer.

Description	Item Number
14 to 19 mm Tube Holder (2 pack)	30400230
Insert Retainer	30400227



### 20 to 25 mm Tube Holder

Ideal for mixing up to (8) 50 mL centrifuge tubes.  
Requires Insert Retainer

Description	Item Number
20 to 25 mm Tube Holder (2 pack)	30400231
Insert Retainer	30400227



### Vessel Harness

Mixes Erlenmeyer flasks and media bottles.  
Requires Insert Retainer.

Description	Item Number
Vessel Harness (2 pack)	30400228
Insert Retainer	30400227



### Cup Head

Designed for mixing 1 tube at a time.

Description	Item Number
Cup Head	30400235



### 7.6 cm Rubber Head Cover and 7.6 cm Head

Designed for mixing irregular shaped objects.

Description	Item Number
7.6 cm Rubber Head Cover	30400237
7.6 cm Head	30400236
7.6 cm Head with Rubber Cover	30400196



### Microplate Holder

Ideal for mixing 96-well plates or deep well blocks.  
Requires Insert Retainer.

Description	Item Number
Microplate Holder (2 pack)	30400233
Insert Retainer	30400227



### Flat Foam Insert

Ideal for custom applications. Can be cut or drilled to fit your specifications. Requires Insert Retainer.

Description	Item Number
Flat Foam Insert (2 pack)	30400234
Insert Retainer	30400227



### Microwell Kit with Retainer

Includes:  
• 2 Microplate Holders  
• 1 Insert Retainer

Description	Item Number
Microwell Kit with Retainer	30400199



### Microtube Kit with /Retainer

Includes:  
• 2 Micro-Tube Holders  
• 1 Insert Retainer

Description	Item Number
Microtube Kit with /Retainer	30400200



### Foam Insert Variety Pack

Includes:  
• (1) 9 to 13 mm Tube Holder  
• (1) 14 to 19 mm Tube Holder  
• (1) 20 to 25 mm Tube Holder  
• 1 Flat Foam Insert

Description	Item Number
Foam Insert Variety Pack	30400201



### Micro-Tube and Microplate Holder Kit

Includes:  
• 1 Micro-Tube Holder  
• 1 Microplate Holder  
• 1 Insert Retainer

Description	Item Number
Micro-Tube & Microplate Holder Kit	30400198



### Tube Holder Kit

Includes:  
• (1) 9 to 13 mm Tube Holder  
• (1) 14 to 19 mm Tube Holder  
• (1) 20 to 25 mm Tube Holder  
• 1 Flat Foam Insert  
• 2 Vessel Harnesses  
• 1 Insert Retainer

Description	Item Number
Tube Holder Kit	30400197



OHAUS Vortex Mixer accessories are interchangeable with other manufacturers' models.

## Mini Vortex Mixer Accessories

### Single Tube Holder

Single tube, hands free mixing. Easily attaches to the top of any Vortex Mixer with the use of a strong magnetic base. Accepts tubes from 6.4 to 11.4 cm in length. Minimum tube diameter of 19 mm.

Description	Item Number
Single Tube Holder	30400202



### Adapter for Vortex-Genie® Mixer\*

Adapter plate easily adheres to the Vortex-Genie® Mixer housing so Single Tube Holder (sold separately) can be attached.



Description	Item Number
Adapter plate	30400203

\*The Vortex-Genie® Mixer is a registered trademark of Scientific Industries, Inc.

### Single Tube Holder Accessories

(Requires Single Tube Holder)

#### 0.5 mL Micro-Tube Holder

Mixes (24) 0.5 mL micro-tubes.  
For use with Single Tube Holder.

Description	Item Number
Micro-Tube Holder (0.5 mL)	30400204



#### 1.5 mL to 2.0 mL Micro-Tube Holder

Mixes (18) 1.5 to 2 mL micro-tubes.  
For use with Single Tube Holder.

Description	Item Number
Microtube Holder (1.5 mL to 2.0 mL)	30400205



### Ampule Tube Holder

Mixes up to 4 storage vials and test tubes.

Description	Item Number
15 to 17 mm Ampule Tube Holder	30400207
10 to 17 mm Ampule Tube Holder	30400208



### Stainless Steel Microtube Holder

Mixes up to (12) 1.5 to 5 mL tubes.  
Stainless steel construction.

Description	Item Number
Microtube Holder	30400206



# Heavy-Duty Vortex Mixers



Heavy-Duty Vortex Mixers feature a heavy-duty design and efficient motor to permit continuous duty operation, and the ability to handle accessory components over the entire speed range. Analog variable speed models or microprocessor-controlled digital models offer exact speed control when applications demand repeatable results. A wide range of accessories are available for microtubes, microplates and a variety of tube sizes from 0.5 to 50 ml.

- Accessory Adapter's Unique Mode of Attachment Allows for Secure Mixing
- Touchpad Control & Independent LED Displays for Speed/Time on Digital Models
- Variable Speed Analog Model Offers an Economical Alternative to Digital Model

## Heavy-Duty Vortex Mixers

- Designed for continuous duty
- LED displays for speed and time
- Includes foam insert for 1.5 mL to 2.0 mL microtubes

The OHAUS Digital Heavy-Duty Vortex Mixer is ideal for applications that demand repeatable results. Mixer features touchpad controls and LED displays for accurate speed (rpm) and time (minutes and seconds) results. The heavy-duty design and efficient motor allow this mixer to operate in continuous duty and handle all accessories over the entire speed range. Choose from two modes of operation: "Touch" mode for mixing tubes when cup head or Universal Holder with cover is depressed, or "On" mode when using any of the accessory attachments for continuous operation. Microprocessor control maintains set speed for strong, consistent mixing action. Timer will display elapsed time or, when programmed to user defined time limits, the unit will shut off when time reaches zero.

### Operating Features:

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform mixing action.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

### Operating Conditions:

Unit can be run in conditions from 4 to 40°C, 20% to 85% relative humidity, non-condensing.

### Ordering Information:

Mixer includes a cup head, universal holder with cover, foam microtube insert for (38) 1.5 to 2.0 mL microtubes, and a detachable, 3-wire cord and specified plug. Additional accessories can be found on page 62.

### This product includes:

Description	Item Number
Cup Head	30400210
Universal Holder	30400226
Universal Holder Cover	30400225
Foam Insert (1.5 to 2.0 microtubes)	30400217



Specifications	
Speed Range	On Mode 300 to 2500 rpm Touch Mode 300 to 3500 rpm
Timer	1 second to 160 hours
Orbit	4.9 mm
Controls	Touch/Standby/On Rocker Switch, LED Displays for Speed/Time, Up/Down Buttons for Set-Point Control
Capacity	1.1 kg
Duty Rating	Continuous duty
Dimensions (L x W x H)	24.1 x 16.8 x 16 cm
Ship Weight	6.8 kg

Description	Model	Item Number
Digital Heavy Duty Vortex Mixer	VXHDDG	30392136

# Vortex Mixers

## Heavy-Duty Vortex Mixers

- Designed for continuous duty
- Includes foam insert for 1.5 mL to 2.0 mL microtubes
- Heavy-duty design

The OHAUS Analog Heavy-Duty Vortex Mixer is a variable speed analog mixer that is designed for continuous duty. The heavy-duty design and efficient motor allow this mixer to operate in continuous duty and handle all accessories over the entire speed range. Choose from two modes of operation: "Touch" mode for mixing tubes when cup head or Universal Holder with cover is depressed, or "On" mode when using any of the accessory attachments for continuous operation.

### Operating Conditions:

Unit can be run in conditions from 4 to 40°C, 20% to 85% relative humidity, non-condensing.

### Ordering Information:

Mixer includes a cup head, universal holder with cover, foam microtube insert for (38) 1.5 to 2.0 mL microtubes, and a detachable, 3-wire cord and specified plug. Additional accessories can be found on page 62.

### This product includes:

Description	Item Number
Cup Head	30400210
Universal Holder	30400226
Universal Holder Cover	30400225
Foam Insert (1.5 to 2.0 microtubes)	30400217



Specifications		
Speed Range	On Mode Touch Mode	300 to 2500 rpm 300 to 3500 rpm
Orbit		4.9 mm
Controls		Analog
Capacity		1.1 kg
Duty Rating		Continuous duty
Dimensions (L x W x H)		24.1 x 16.8 x 16 cm
Ship Weight		6.8 kg



Description	Model	Item Number
Analog Heavy Duty Vortex Mixer	VXHDAL	30392141

# Microplate Vortex Mixers



Microplate Vortex Mixers are designed specifically for continuous duty throughout the speed range. Analog variable speed models or microprocessor-controlled digital models offer exact speed control for applications that demand repeatable results. The high-speed and small orbit of these mixers make them optimal for effectively mixing microplates. Cup head for mixing single tubes is also included.

- Microplate Adapter's Unique Mode of Attachment Allows for Secure Mixing
- Touchpad Control & Independent LED Displays for Speed/Time on Digital Models
- Variable Speed Analog Model Offers an Economical Alternative to Digital Model

# Vortex Mixers

## Microplate Vortex Mixers

- Designed for continuous duty
- Designed for shaking microplates or tubes
- LED displays for speed and time

The OHAUS Digital Microplate Vortex Mixer is ideal for applications that demand repeatable results. Mixer features touchpad controls and LED displays for accurate speed (rpm) and time (minutes and seconds) results. Microprocessor control maintains set speed for strong, consistent mixing action. Timer will display elapsed time or, when programmed to a user defined time limit, the unit will shut off when time reaches zero. Choose from two modes of operation: "Touch" mode which activates mixing when cup head is depressed, or "On" mode when using the microplate attachments for continuous operation.

### Operating Features:

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform mixing action.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

### Operating Conditions:

Unit can be run in conditions from 4 to 40°C, 20% to 85% relative humidity, non-condensing.

### Ordering Information:

Mixer includes a cup head, single microplate holder, and a detachable, 3-wire cord and specified plug. Accessories that can be used on the Microplate Vortex Mixer are cup head, single microplate holder and double microplate holder. Additional accessories can be found on page 62.

### This product includes:

Description	Item Number
Cup Head	30400210
Microplate Holder (Single)	30400215



Specifications	
Speed Range	300 to 2500 rpm
On Mode	300 to 2500 rpm
Touch Mode	300 to 3500 rpm
Timer	1 second to 160 hours
Orbit	3.5 mm
Controls	Touch/Standby/On Rocker Switch, LED Displays for Speed/Time, Up/Down Buttons for Set-Point Control
Capacity	2 microplates
Duty Rating	Continuous duty
Dimensions (L x W x H)	26.7 x 13.7 x 11.4 cm
Ship Weight	5.4 kg

Description	Model	Item Number
Digital Microplate Vortex Mixer	VXMPDG	30392150



## Microplate Vortex Mixers

- Designed for continuous duty
- Designed for shaking microplates or tubes
- Optional double microplate holder available

The OHAUS Analog Microplate Vortex Mixer is a variable speed analog mixer that is designed for continuous duty. The high speed and small orbit is optimal for effectively mixing microplates. Choose from two modes of operation: "Touch" mode which activates mixing when cup head is depressed, or "On" mode when using the microplate attachments for continuous operation.

### Operating Conditions:

Unit can be run in conditions from 4 to 40°C, 20% to 85% relative humidity, non-condensing.

### Ordering Information:

Mixer includes a cup head, single microplate holder, and a detachable, 3-wire cord and specified plug. Accessories that can be used on the Microplate Vortex Mixer are cup head, single microplate holder and double microplate holder. Additional accessories can be found on page 62.

### This product includes:

Description	Item Number
Cup Head	30400210
Microplate Holder (Single)	30400215



Specifications		
Speed Range	On Mode Touch Mode	300 to 2500 rpm 300 to 3500 rpm
Orbit		3.5 mm
Controls		Analog
Capacity		2 microplates
Duty Rating		Continuous duty
Dimensions (L x W x H)		26.7 x 13.7 x 11.4 cm
Ship Weight		5.4 kg

Description	Model	Item Number
Analog Microplate Vortex Mixer	VXMPAL	30392155

# Vortex Mixers

## Microplate Vortex Mixer Accessories

### Foam Insert for 0.5 mL Microtubes

Foam insert holds (52) 0.5 mL microtubes.  
Requires Universal Holder.

Description	Item Number
0.5 mL microtubes	30400216
Universal Holder	30400226



### Foam Insert for 1.5 to 2.0 mL Microtubes

Foam insert holds (38) 1.5 to 2.0 mL microtubes.  
Requires Universal Holder.

Description	Item Number
1.5 to 2.0 mL microtubes	30400217
Universal Holder	30400226



### Foam Insert for 12-13 mm Test Tubes

Foam insert holds (34) 12-13 mm diameter test tubes.  
Requires Universal Holder.

Description	Item Number
12-13 mm test tubes	30400220
Universal Holder	30400226



### Foam Insert for 15-18 mm Test Tubes

Foam insert holds (20) 15-18 mm diameter test tubes.  
Ideal for 15 mL centrifuge tubes.  
Requires Universal Holder.

Description	Item Number
15-18 mm test tubes	30400221
Universal Holder	30400226



### Foam Insert for 19-21 mm Test Tubes

Foam insert holds (18) 19-21 mm diameter test tubes.  
Requires Universal Holder.

Description	Item Number
19-21 mm test tubes	30400222
Universal Holder	30400226



### Foam Insert for 22-25 mm Test Tubes

Foam insert holds (13) 22-25 mm diameter test tubes.  
Requires Universal Holder.

Description	Item Number
22-25 mm test tubes	30400223
Universal Holder	30400226



### Foam Insert for 26-29 mm Test Tubes

Foam insert holds (4) 26-29 mm diameter test tubes. Ideal for 50 mL centrifuge tubes. Requires Universal Holder.

Description	Item Number
26-29 mm test tubes	30400224
Universal Holder	30400226



### Single Tube Holder

Single tube, hands free mixing designed to fit on the Heavy-Duty Vortex Mixer. Easily attached to the top of mixer and is magnetically secured. Accepts tubes from 6.4-11.4 cm. Minimum tube diameter 19 mm

Description	Item Number
Single Holder	30400219



### Cup Head\*

Designed for mixing 1 tube at a time.

Description	Item Number
Cup Head	30400210



### Small Vessel Holder

Rubber holder secures 125 and 250 mL Erlenmeyer flasks. Vessel holder also includes a grip mat. Requires Universal Holder.

Description	Item Number
Small Vessel Holder	30400218
Universal Holder	30400226



### Large Vessel Holder

Rubber holder secures 500 and 1000 mL Erlenmeyer flasks. Vessel holder also includes a grip mat. Requires Universal Holder.

Description	Item Number
Large Vessel Holder	30400211
Universal Holder	30400226



### Microplate Holder (Single)\*

Designed to hold one standard microplate.

Description	Item Number
Single Holder	30400215



### Microplate Holder (Double)\*

Designed to hold two standard microplates.

Description	Item Number
Double Holder	30400213



### Microplate Holder (Quad)

Designed to hold four standard microplates.

Description	Item Number
Quad Holder	30400214



### Stackable Microplate Holder Four

Designed to maximize the capacity of the Heavy-Duty Vortex Mixer to eight microplates by stacking the tray on top of the four plate holder.

Description	Item Number
Stackable Holder	30400212



### Flat Foam Insert

Ideal for custom applications. Can be cut or drilled to fit your specifications. Requires Universal Holder.

Description	Item Number
Flat Foam Insert	30400209
Universal Holder	30400226



### Universal Holder & Cover

Replacement for items supplied with Heavy-Duty Vortex Mixer. Cover allows for mixing irregularly shaped objects.

Description	Item Number
Universal Holder	30400226
Universal Holder Cover	30400225



\*Unless noted with an asterisk (\*), for use on Heavy-Duty Vortex only.

# Multi-Tube Vortex Mixers



Multi-Tube Vortexers are ideal for high throughput sample processing. Interchangeable foam racks for vortexing tubes from 10 to 29 mm in diameter available. Vortexing action is created by securing the top of the sample in place while allowing the bottom to rotate freely in a 3.6 mm orbit. Suction cup feet reduce motion and prevent sliding on work surface. Analog & digital models, both microprocessor-controlled and run in continuous or timed mode.

- Digital Models Ideal for Applications that Require Accuracy and Repeatability
- Pulsing Mode on Digital Models to Enhance Vortexing Action
- Analog Model Offers an Economical Alternative When Exact Speed/Time Not Required

# Vortex Mixers

## Multi-Tube Vortex Mixers

- Process up to 50 samples at a time
- Continuous or timed operation
- Includes foam rack for 12 mm tubes

Conveniently angled front panel features rocker switch for run, time and standby modes.

### Operating Features:

One piece, stainless steel housing design optimizes clean-ups. Ideal for applications requiring accuracy and repeatability. The stainless steel one piece housing design is conducive to keeping your vortexer clean and free from contaminants.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform mixing action.

**Adjustment Knobs:** Basic speed and time knobs with 1 to 10 dial markings.

### Operating Conditions:

Unit can be run in conditions from 4 to 40°C, 20% to 85% relative humidity, non-condensing.

### Applications:

Suspensions, high throughput testing in clinical, environmental, and chemistry labs.

### Ordering Information:

Unit includes a detachable, 3-wire cord and plug. Unit is also supplied with a Tray Pad Set for support and one 12 mm Test Tube Foam Rack (30400239). Additional accessories can be found on page 66.



Specifications	
Speed Range*	1200 to 2400 rpm
Timer	0 to 60 seconds
Orbit	3.6 mm
Maximum Weight Capacity	4.5 kg
Duty Rating	Continuous duty
Tray Dimensions (L x W)	18.4 x 31.1 cm
Overall Dimensions (L x W x H)	24.1 x 38.4 x 40.6 cm
Ship Weight	19.1 kg

\* Maximum speed will vary depending on load.

Description	Model	Item Number
Analog Multi-Tube Vortexer	VXMTAL	30392166

## Multi-Tube Vortex Mixers

- Process up to 50 samples at a time
- LED displays for speed and time
- Pulsing mode

Ideal for applications requiring accuracy and repeatability.

### Operating Features:

One piece, stainless steel housing design optimizes clean-ups. Ideal for applications requiring accuracy and repeatability. The stainless steel one piece housing design is conducive to keeping your vortexer clean and free from contaminants.

**Microprocessor Control:** The variable speed microprocessor control provides consistent uniform mixing action.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for speed and time allow operator to view both settings at once. Provides repeatable and accurate results every time and is easily visible across lab benches. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**Pulsing Mode:** Programmable pulsing mode allows user to adjust the pulse-on and pulse-off times between 1 and 59 seconds in 1 second intervals. This feature enhances the vortex action by creating a more vigorous mix.

### Operating Conditions:

Unit can be run in conditions from 4 to 40°C, 20% to 85% relative humidity, non-condensing.

### Applications:

Suspensions, high throughput testing in clinical, environmental, and chemistry labs.

### Ordering Information:

Unit includes a detachable, 3-wire cord and plug. Unit is also supplied with a Tray Pad Set for support and one 12 mm Test Tube Foam Rack (30400239). Additional accessories can be found on page 66.



Specifications	
Speed Range*	500 to 2500 rpm
Speed Accuracy	± 25 rpm
Timer	1 second to 160 hours
Orbit	3.6 mm
Maximum Weight Capacity	4.5 kg
Duty Rating	Continuous duty
Tray Dimensions (L x W)	18.4 x 31.1 cm
Overall Dimensions (L x W x H)	24.1 x 38.4 x 40.6 cm
Ship Weight	19.1 kg

\* Maximum speed will vary depending on load.

Description	Model	Item Number
Digital Multi-Tube Vortexer	VXMTDG	30392173

# Accessories

## Multi-Tube Vortexer Accessories

### Foam Test Tube Racks

Description	Tube Capacity	Color	Dimensions (L x W x H)	Item Number
10 mm Test Tube Foam Rack	50	Gray	14 x 24.1 x 5.1 cm	30400238
12 mm Test Tube Foam Rack	50	Blue	14 x 24.1 x 5.1 cm	30400239
13 mm Test Tube Foam Rack	50	Yellow	14 x 24.1 x 5.1 cm	30400240
16 mm Test Tube Foam Rack (for 15 mL centrifuge tubes)	50	Green	14 x 24.1 x 5.1 cm	30400241
25 mm Test Tube Foam Rack	28	White	14 x 24.1 x 5.1 cm	30400243
29 mm Test Tube Foam Rack (for 50 mL centrifuge tubes)	15	Red	14 x 24.1 x 5.1 cm	30400242
Replacement Tray Pad Set (upper & lower)	N/A	Gray	17.8 x 30.5 x 2.5 cm	30400245



### Post Extension Kit

Adds 15.2 cm to the post of the Multi-Tube Vortex Mixer to accommodate tubes up to 25.4 cm tall.

Description	Item Number
Post Extension Kit	30400244



# *Dry Block Heaters*



*Dry Block Heaters*  
*2 Block Dry Block Heaters with Lid*

# Dry Block Heaters



Multi-purpose Dry Block Heaters are ideal for applications that require temperature stability. The close tube-to-block contact enables maximum heat retention, resulting in efficient heating. High-wattage, constant-temp. analog models are an economical option, while digital models offer exceptional temp. uniformity & stability for applications that require repeatable results. Units hold optional interchangeable modular blocks with over 40 options.

- Delivering Exceptional Temperature Stability and Uniformity
- Accurate and Fast Sample Heating with PID Microprocessor Temperature Control (Digital Models)
- Digital Models can be Calibrated to an External Temperature Device



## Dry Block Heaters

- Exceptional temperature uniformity and stability
- Optional external temperature probe
- Holds interchangeable modular blocks

Designed for applications that require repeatable results and superior temperature stability. These multi-purpose units are ideal for incubation and activation of cultures, enzyme reactions, immunoassays, melting/boiling points, and a wide variety of other laboratory procedures. Integral support rod holder with locking knob accepts optional External Temperature Probe Kit. Optional External Temperature Probe Kit monitors actual block or sample temperature. Each of the five models accepts separate interchangeable modular blocks, accommodating various tube sizes from 0.2 mL micro-tubes to 50 mL centrifuge tubes. Each block has a thermometer well for measuring block temperature. Efficient heating due to close tube-and-block contact for maximum heat retention. Heaters require OHAUS modular heating blocks for operation. Modular blocks are sold separately (see pages 75–77).

### Operating Features:

**Microprocessor Control:** PID temperature control, with optional external RTD probe, offers a temperature stability as low as  $\pm 0.1^\circ\text{C}$  with a temperature uniformity as low as  $\pm 0.1^\circ\text{C}$ . Samples are heated to temperature quickly and accurately. Temperature is adjusted in  $\pm 0.1^\circ\text{C}$  increments.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for temperature, and time. Provides repeatable and accurate results every time and is easily visible across lab benches. Shows set-point and actual temperature. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**Temperature Calibration Mode:** Allows user to calibrate unit to an external temperature device.

### Safety Features:

**Caution Hot Indicator:** Hot warning symbol light is illuminated when the temperature is above  $40^\circ\text{C}$ .

**Overshoot Protection:** If the unit exceeds the set temperature by  $10^\circ\text{C}$  the unit will automatically stop heating.

**Audible Alarm:** In timed mode, alarm will sound when time reaches zero and when unit reaches set-point temperature.

**CAUTION!** To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.

### Operating Conditions:

Units can be run in conditions from 18 to  $33^\circ\text{C}$ , 20% to 80% relative humidity, non-condensing.



### Applications:

Denaturing proteins, DNA applications, ELISA and other immunoassay studies.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Modular blocks are sold separately (see pages 75-77).

Size	Temperature Range	Temperature Stability @ $37^\circ\text{C}$	Uniformity Within the Block @ $37^\circ\text{C}$	Uniformity Across Similar Blocks @ $37^\circ\text{C}$	Heat-Up Time to $100^\circ\text{C}$
1 block	Ambient $+5^\circ\text{C}$ to $120^\circ\text{C}$	230 volt units: $\pm 0.2^\circ\text{C}$	230 volt units: $\pm 0.2^\circ\text{C}$	N/A	45 minutes
2 block				$\pm 0.1^\circ\text{C}$	50 minutes
4 block				$\pm 0.2^\circ\text{C}$	60 minutes
6 block				$\pm 0.3^\circ\text{C}$	65 minutes

# Dry Block Heaters

## Dry Block Heaters

### Advanced Dry Block Heaters

Block Capacity	Dimensions (L × W × H)	Model	Item Number
1	31.5 × 20.3 × 8.9 cm	HB1DG	30392061
2	39.1 × 20.3 × 8.9 cm	HB2DG	30392082
4	42.9 × 20.3 × 8.9 cm	HB4DG	30392089
6	53.1 × 20.3 × 8.9 cm	HB6DG	30392096

### External Temperature Probe Kit

Enables the unit to read actual block or sample temperature and display that temperature on the control panel. The optional External Temperature Probe Kit includes a stainless steel RTD PT100 probe, 45.7 cm stainless steel support rod, thermometer/temperature probe extension clamp and hook connector. The PT100 RTD probe is designed to fit perfectly in to the thermometer well of each modular block.



Description	Item Number
Optional External Temperature Probe Kit	30400246



## Dry Block Heaters

- Multi-purpose use
- Holds interchangeable modular blocks
- Analog controls

High wattage, constant-temperature Dry Block Heaters are economical, versatile and compact. These multi-purpose units are ideal for incubation and activation of cultures, enzyme reactions, immunoassays, melting/boiling points and a wide variety of other laboratory procedures. Each of the five models accept separate interchangeable modular blocks, accommodating various sample enclosures such as micro-tubes, centrifuge tubes, vials, microplates, and PCR strips or tubes. Each block has a thermometer well for measuring block temperature. Anodized aluminum modular blocks provide superior temperature stability and heat transfer. Heaters require OHAUS modular heating blocks for operation. Modular blocks are sold separately (see pages 75-77).



### Operating Features:

High wattage, constant-temperature Dry Block Heaters are economical, versatile and compact.

**Microprocessor Control:** PID temperature controller maintains precise temperature control. Samples are heated to temperature quickly and accurately.

**Adjustment Knobs:** Dual temperature control knobs with dial markings from 1 to 10 for low temperature and high temperature adjustments. Low range knob adjusts from ambient to 100°C and high range knob adjusts from 75°C to 150°C.

**CAUTION!** To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.

### Operating Conditions:

Units can be run in conditions from 18 to 33°C, 20% to 80% relative humidity, non-condensing.

### Applications:

Coagulation and RH Studies.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. Modular blocks are sold separately (see pages 75-77).

Size	Temperature Range	Uniformity Within the Block @ 37°C	Temperature Stability @ 37°C	Uniformity Across Similar Blocks @ 37°C	Heat-Up Time to 100°C
1 block	Low Range: Ambient +5°C to 100°C  High Range: 75°C to 150°C	230 volt units: ± 0.2°C	230 volt units: ± 1.5°C	N/A	45 minutes
2 block			230 volt units: ± 2.0°C	± 0.1°C	50 minutes
4 block			230 volt units: ± 2.5°C	± 0.2°C	70 minutes
6 block			± 0.3°C	75 minutes	

## Dry Block Heaters

### Dry Block Heaters

#### Standard Dry Block Heaters

Block Capacity	Dimensions (L × W × H)	Model	Item Number
1	31.5 × 20.3 × 8.9 cm	HB1AL	30392047
2	39.1 × 20.3 × 8.9 cm	HB2AL	30392054
4	42.9 × 20.3 × 8.9 cm	HB4AL	30392068
6	53.1 × 20.3 × 8.9 cm	HB6AL	30392075

# 2 Block Dry Block Heaters with Lid



Multi-purpose Dry Block Heaters are ideal for applications that require temperature stability. The close tube-to-block contact enables maximum heat retention, resulting in efficient heating. High-wattage, constant-temp. Digital models offer exceptional temp. uniformity & stability for applications that require repeatable results. Units hold optional interchangeable modular blocks with over 40 options.

- Delivering Exceptional Temperature Stability and Uniformity
- Heated Lid Model Reduces Condensation on Lids to Maintain Sample Integrity
- Calibrate to an External Temperature Device with Temperature Calibration Mode

# Dry Block Heaters

## 2 Block Dry Block Heater with Lid

- Exceptional uniformity, stability, and regulation of temperature
- Heated lid reduces condensation on sample lids
- Optional external temperature probe

OHAUS Digital Dry Block Heater with Heated Lid are designed for applications that require repeatable results and superior temperature stability. These multi-purpose units are ideal for isothermal incubation, enzyme reactions, immunoassays, nucleic acid denaturation and a wide variety of other laboratory procedures. Integral support rod holder with locking knob accepts optional External Temperature Probe Kit. Optional External Temperature Probe Kit monitors actual block or sample temperature. Block heater accepts one microplate block or two separate interchangeable modular blocks, accommodating various tube sizes from 0.2 mL micro-tubes to test tubes or vials up to 85 mm in height. Each block has a thermometer well for measuring block temperature. Efficient heating due to close tube-and-block contact with a low density design for exceptional temperature uniformity. The heated lid helps to regulate the temperature and reduce the amount of condensation on sample lids. Heaters require OHAUS modular heating blocks for operation. Modular blocks are sold separately (see pages 75-77).

### Operating Features:

**Microprocessor Control:** PID temperature control, with optional external RTD probe, offers a temperature stability as low as  $\pm 0.1^\circ\text{C}$  with a temperature uniformity as low as  $\pm 0.1^\circ\text{C}$ . Samples are heated to temperature quickly and accurately. Temperature is adjusted in  $\pm 0.1^\circ\text{C}$  increments.

**LED Display:** Touch pad controls with easy-to-read, independent LED displays for temperature, and time. Provides repeatable and accurate results every time and is easily visible across lab benches. Shows set-point and actual temperature. Timer will display elapsed time or, when programmed to user defined limit, will shut off unit when time reaches zero. Display will show last used settings, even after power has been turned off.

**Temperature Calibration Mode:** Allows user to calibrate unit to an external temperature device.

### Safety Features:

**Caution Hot Indicator:** Hot warning symbol light is illuminated when the temperature is above  $40^\circ\text{C}$ .

**Overshoot Protection:** If the unit exceeds the set temperature by  $10^\circ\text{C}$  the unit will automatically stop heating.

**Audible Alarm:** In timed mode, alarm will sound when time reaches zero and when unit reaches set-point temperature.

**CAUTION!** To avoid possible electrical hazard, do not fill well or block opening with water or other fluids. Unit is designed as a dry bath/incubator.



### Operating Conditions:

Units can be run in environments from  $18$  to  $33^\circ\text{C}$  ( $64$  to  $91^\circ\text{F}$ ),  $20\%$  to  $80\%$  relative humidity, non-condensing.

### Applications:

Isothermal incubation, enzyme reactions, immunoassays and nucleic acid denaturation and a wide variety of other laboratory procedures.

### Ordering Information:

Units include a detachable, 3-wire cord and plug. For optional temperature probe kits see page 68. Modular blocks sold separately (see pages 75-77).

Size	Temperature Range	Temperature Stability @ $37^\circ\text{C}$	Uniformity Within the Block @ $37^\circ\text{C}$	Uniformity Across Similar Blocks @ $37^\circ\text{C}$	Heat-Up Time to $100^\circ\text{C}$
2 block	Ambient $+5^\circ\text{C}$ to $100^\circ\text{C}$	230 volt units: $\pm 0.2^\circ\text{C}$	230 volt units: $\pm 0.2^\circ\text{C}$	$\pm 0.2^\circ\text{C}$	50 minutes

Block Capacity	Dimensions (L x W x H)	Model	Item Number
2	$39.1 \times 20.3 \times 17.8$ cm	HB2DGHL	30392103

# Accessories

## Modular Blocks & Accessories

Modular blocks are constructed from a solid anodized aluminum block\*. The close contact of tubes-to-block walls allow for maximum heat retention. Each block has a thermometer well for measuring block temperature.

**CAUTION!** To avoid possible electrical hazard, do not fill well or block with water or other fluids. Units are designed as a dry bath/incubator.

**Single block dimensions** (L × W × H): 9.5 × 7.6 × 5.1 cm

**Double block dimensions** (L × W × H): 15.2 × 9.5 × 5.7 cm

### Microcentrifuge Tube Blocks

#### Single block

Brand/Sample Type	No. of Wells	Well Dia.	Well Depth	Item Number
0.5 mL Tube	30	7.9 mm	27.6 mm	30400157
1.5 mL Tube	20	11.1 mm	39.1 mm	30400159
1.5 mL Eppendorf™ Tube	20	11.5 mm	36.9 mm	30400162
2 mL Eppendorf™ Tube	20	11.5 mm	38.1 mm	30400191
2 mL Corning™ Tube	20	10.9 mm	38.1 mm	30400192

### Titer Plate Block

#### Double block

Fits 2/4/6 block Dry Block Heaters. Ideal for 96-well or 384-well titer plates. Recessed well for better stability, flat surface good for flat and round bottom plates.

Sample Type	Well Depth	Item Number
Titer Plate	13.5 mm	30400164

### Conical-Bottom Centrifuge Tube Blocks

Single/Sample Type	No. of Wells	Well Dia.	Well Depth	Item Number
15 mL Tube	12	17.1 mm	44.5 mm	30400172
50 mL Tube	5	29.0 mm	47.6 mm	30400168

### Standard Test Tube Blocks

Single/Sample Type	No. of Wells	Well Dia.	Well Depth	Item Number
6 mm Tube	30	8.3 mm	48.4 mm	30400158
10 mm Tube	24	10.7 mm	48.4 mm	30400151
12/13 mm Tube	20	13.9 mm	48.4 mm	30400152
12/13 mm Tube	16	13.9 mm	48.4 mm	30400165
15/16 mm Tube	12	17.5 mm	48.4 mm	30400153
17/18 mm Tube	12	19.1 mm	48.4 mm	30400195
20 mm Tube	8	21.0 mm	48.4 mm	30400154
25 mm Tube	6	26.2 mm	48.4 mm	30400155
35 mm Tube	4	35.0 mm	47.6 mm	30400167



\* Block color subject to change

# Accessories

## Modular Blocks\* & Accessories

### Combination Blocks

#### Single block

These blocks have been designed for variable sized samples.

Sample Type		No. of Wells	Well Dia.	Well Depth	Item Number
Test Tube Combination	6 mm	6	8.3 mm	48.4 mm	30400156
	12/13 mm	5	13.8 mm	48.4 mm	
	25 mm	3	26.2 mm	48.4 mm	
Centrifuge Tube Combination	1.5 mL	4	11.1 mm	39.1 mm	30400193
	15 mL	3	17.1 mm	44.5 mm	
	50 mL	2	29.0 mm	47.6 mm	
Micro-Tube Combination	0.5 mL	6	7.9 mm	27.6 mm	30400194
	1.5 mL	10	11.1 mm	39.1 mm	
	2 mL	5	11.5 mm	38.1 mm	

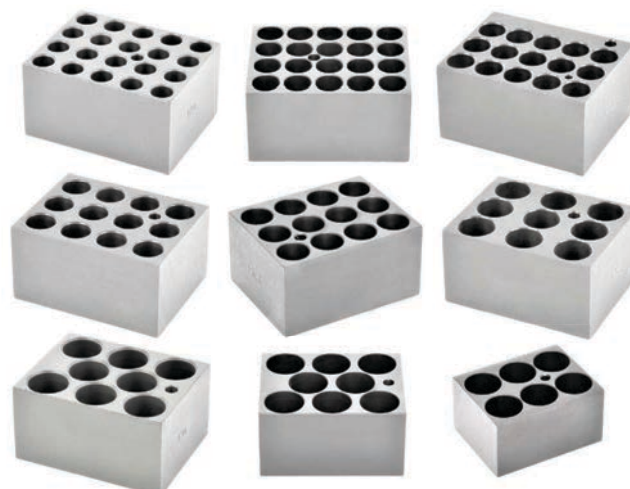


### Vial Blocks

#### Single block

Designed for sample/serum and scintillation vials.

Sample Type	No. of Wells	Well Dia.	Well Depth	Item Number
12 mm Vial	20	12.7 mm	30 mm	30400182
15 mm Vial	20	15.8 mm	35 mm	30400183
16 mm Vial	15	16.4 mm	45 mm	30400190
17 mm Vial	12	17.8 mm	45 mm	30400184
19 mm Vial	12	19.7 mm	45 mm	30400185
21 mm Vial	9	21.7 mm	45 mm	30400186
23 mm Vial	8	23.8 mm	45 mm	30400187
25 mm Vial	8	25.8 mm	45 mm	30400188
28 mm Vial	6	28.8 mm	45 mm	30400189



### PCR—Plate, Tube, Strip Blocks

#### Single and double block

Tapered tube wells for 0.2 mL tubes. Spaced for easy access and removal.

Sample Type	Block Size	No. of Wells	Well Dia.	Well Depth	Item Number
96-well PCR Plate	Double	96	6.4 mm	15.5 mm	30400171
10 × 8 Tube Strips	Single	80	6.4 mm	15.5 mm	30400169
Individual Tubes	Single	64	6.4 mm	20.2 mm	30400170



### Cuvette Block

#### Single block

Two parallel slots fit 6 cuvettes in each slot, side-by-side.

Sample Type	No. of Wells	Well Depth	Item Number
(12) 12.5 mm Cuvettes	2	25.4 mm	30400161



\* Block color subject to change



# Accessories

## Modular Blocks\* & Accessories

### Solid Blocks

#### Single and double block

For use as a low-temperature hotplate, slide drying, or for custom drilling to make a custom block.

Block Size	Dimensions (L × W × H)	Item Number
Single	9.5 × 7.6 × 5.1 cm	30400160
Double	15.2 × 9.5 × 5.7 cm	30400166



### Stainless Steel Sand Baths

Ideal for irregular vessels. Stainless steel construction for superior corrosion resistance. Designed to hold sand, stainless steel shot or non-volatile fluids.

For Unit	Dimensions (L × W × H)	Item Number
1 Block Dry Block Heater	9.5 × 7.6 × 6.4 cm	30400173
2 Block Dry Block Heater	9.5 × 14.9 × 6.4 cm	30400174
4 Block Dry Block Heater	14.7 × 19.1 × 6.4 cm	30400175
6 Block Dry Block Heater	14.7 × 28.7 × 6.4 cm	30400176



Accessories	Item Number
Sand, 0.45 kg	30400177
Stainless Steel Shot, 0.45 kg	30400178

### Low Temperature Covers

Plexiglass cover reduces air flow for additional temperature stability in low-temperature applications. Two sides are open 6.4 mm.

Block Size	Dimensions (L × W × H)	Item Number
2 Block Cover	16.5 × 16.5 × 4.1 cm	30400179
4 Block Cover	21.6 × 21.6 × 4.1 cm	30400180
6 Block Cover	31.8 × 21.6 × 4.1 cm	30400181



\* Block color subject to change

# *Hotplates & Stirrers*



## *Mini Hotplates & Stirrers*

# Mini Hotplates & Stirrers



OHAUS Mini hotplates and stirrers are rugged, compact units that can heat and stir up to 1000 ml of water. These are ideal for educational and other lab environments that require consistent heating and stirring. Powerful heater reaches maximum temperature in minutes. Models include Hotplates, Stirrers, Hotplate-Stirrers, Fixed Temperature Hotplates and Auto Stirrers. All models feature a 10.2 × 10.2 cm, easy-to-clean ceramic top plate and cool-touch housing.

- Chemical-Resistant, Easy-to-Clean Ceramic Top Plate
- Constructed of Cool-Touch, Chemical-Resistant Housing
- Equipped with a Built-In Support Rod Holder

# Hotplates & Stirrers

## Mini Hotplates & Stirrers

- New ergonomic design
- Hotplates & Hotplate-Stirrers boil 300 mL of water in 18 minutes
- Ideal for educational labs
- Built in support rod holder

The OHAUS Basic Mini Hotplates, Stirrers, and Hotplate-Stirrers are rugged, compact units that heat and stir up to 1000 mL of liquid. Ceramic tops feature a chemical resistant white reflective top plate that is easy to clean. Bi-metallic thermostat offers reliable temperature control. Powerful heater reaches maximum temperature in only minutes. Powerful motor and magnet deliver reliable and consistent stirring. Compact design saves bench space. Built-in support rod holder with locking knob accepts optional Support Rod and Clamp Kit.

**Basic Mini Fixed Temperature Hotplate** features an illuminated rocker switch to activate the preset fixed temperature of 500°C.

**Basic Mini Auto-Stirrer** is automatically activated by the minimum weight of a beaker or flask and will stop stirring when mixing vessel is removed.

### Operating Features:

**Adjustment Knobs:** Basic speed and temperature control knobs with dial markings from 1 to 10.

### Operating Conditions:

Units can be run in conditions from 5 to 40°C, 20% to 85% relative humidity, non-condensing.

### Applications:

Academia and basic chemistry.

### Ordering Information:

Units include a 3-wire cord and plug. Stirrers and Hotplate-Stirrers are supplied with a 3.8 cm PTFE coated stir bar.



Specifications	
Temperature Range	to 500°C*
Speed Range	100 to 1200 rpm
Maximum Capacity (H <sub>2</sub> O)	1000 mL
Top Plate Dimensions (Dia.)	10.2 × 10.2 cm
Overall Dimensions (L × W × H)	20.1 × 15.2 × 12.7 cm
Ship Weight	1.8 kg

\* Fixed Temperature Hotplate has a fixed temperature of 500°C.

### Basic Mini Hotplates

Description	Model	Item Number
Basic Mini Hotplate	HSMNHP4CAL	30392012
Basic Mini Fixed Temperature Hotplate	HSMNHP4CFT	30392033



### Basic Mini Stirrers

Description	Model	Item Number
Basic Mini Stirrer	HSMNST4CAL	30392019
Basic Mini Auto-Stirrer	HSMNAS4CAL	30392040



### Basic Mini Hotplate-Stirrers

Description	Model	Item Number
Basic Mini Hotplate-Stirrer	HSMNHS4CAL	30392026



# *LabJaws Clamps & Supports*



*Multi Purpose Clamps  
Specialty Clamps  
Connectors and Holders  
Rods, Frames, and Supports  
Flow Control Clamps  
Misc. Non-Electrical Products*

# Multi-Purpose Clamps



Our Multi-Purpose Clamps are designed to securely grip and position laboratory apparatus. Extension arms with a 360° rotation allow placement of apparatus at various distances from lab-frame without compromising experiment integrity. Swivel & fixed position clamps hold apparatus near the lab-frame or stand, and have a built-in integral holder for attaching to lab-frames or apparatus. Available as single or dual-adjust in zinc or stainless steel.

- Choice of Zinc or Stainless Steel to Best Suit Your Application
- 2 and 3-Prong Construction Allows for Securely Holding Glassware and Apparatus
- Greater Flexibility Over a Wider Range of Motion with Dual Prong Adjustment

## Multi-Purpose Clamps

### UltraJaws Heavy-Duty Clamps

- Large grip adjustment range
- Single or dual adjust
- Available in three sizes; small, medium, and large
- Nickel-plated zinc

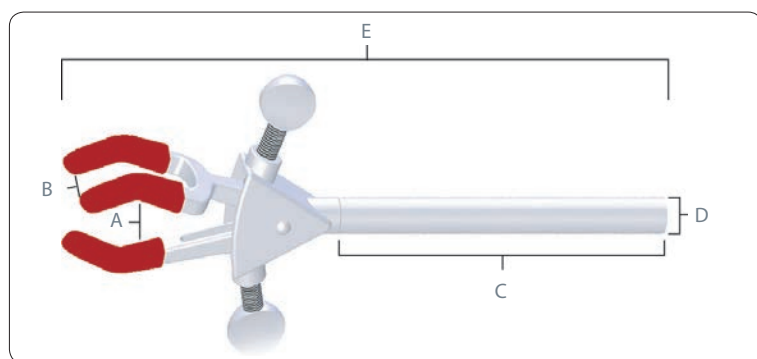
Our patented multi-purpose UltraJaws Heavy-Duty Clamps feature an innovative closed yoke construction that minimizes contamination and corrosion of internal components. The unique design enables secure gripping and positioning with added strength and durability.

Available in both single and dual prong adjustment, prongs open gradually to maximize grip size without binding. Both designs feature precise pressure regulation when gripping glassware surfaces to reduce the chance of breakage. UltraJaws clamps are constructed with extension rods for easy attachment to lab-frames and other apparatus. Supplied with non-slip vinyl sleeves and, for temperatures above 100°C, fiberglass covers.

The prong height of the UltraJaws Heavy-Duty Clamps make them ideal for use in holding and securing glassware with precision ground glass joints. The chart details which UltraJaws Clamps are recommended.

**NOTE:** An additional holder must be purchased in order to attach clamps to frames or other apparatus.

See the Connectors & Holders section of this catalog, pages 94-97.



### Ground Glass Joint Reference Chart

Clamp	Joint Size
Small Dual Adjust	10/30, 12/30, 14/20, 19/22, 24/40, 29/42, 34/45
Medium Dual Adjust	14/40, 19/38
Large Dual Adjust	45/50

### 3-Prong Single Adjust Clamps

Size	(A) Min. to Max Grip Size	(B) Prong Width	(C) Arm Length	(D) Arm Dia.	(E) Overall Length	Item Number
Small	0 to 23 mm	6 mm	102 mm	8 mm	162 mm	30392254
Medium	0 to 50 mm	19 mm	127 mm	11 mm	229 mm	30392252
Large	0 to 72 mm	29 mm	127 mm	11 mm	260 mm	30392250

### 3-Prong Dual Adjust Clamps

Size	(A) Min. to Max Grip Size	(B) Prong Width	(C) Arm Length	(D) Arm Dia.	(E) Overall Length	Item Number
Small	0 to 32 mm	6 mm	102 mm	8 mm	152 mm	30392253
Medium	0 to 70 mm	19 mm	127 mm	11 mm	222 mm	30392251
Large	0 to 103 mm	29 mm	127 mm	11 mm	260 mm	30392249

### Single Adjust Clamps



### Dual Adjust Clamps



# LabJaws Clamps & Supports

## Multi-Purpose Clamps

### Heavy-Duty Tapered Clamps

Heavy-Duty, 4-prong, dual adjust tapered clamps are designed to hold large vessels with ground glass joint necks. Clamps are constructed with extension rods for easy attachment to lab-frames and other apparatus. Nickel-plated zinc construction.

**NOTE:** An additional holder must be purchased in order to attach clamps to frames or other apparatus.

See the Connectors & Holders section of this catalog, pages 94-97.



30392194



30392193

Size	Joint Size	Prong Width	Arm Length	Arm Dia.	Overall Length	Item Number
Small	24/40 mm	16 mm	229 mm	13 mm	356 mm	30392193
Large	34/45 mm	19 mm	229 mm	13 mm	381 mm	30392194

## Multi-Purpose Clamps

- Stainless steel, electro-polished finish
- Large dual adjustment range
- Available in three sizes; small, medium, and large

These durable, multi-purpose clamps are made entirely of stainless steel with an electro-polished finish and offer excellent chemical resistance and overall strength. The versatile 3-prong design secures various lab apparatus such as jointed glassware, columns, flasks, and tubes. Dual prong adjustments offer a wide range of motion. Long stainless steel extension arm offers easy positioning and depth adjustment. Autoclavable. Supplied with non-slip vinyl sleeves and, for temperatures above 100°C, fiberglass covers.

**NOTE:** An additional holder must be purchased in order to attach clamps to frames or other apparatus.

See the Connectors & Holders section of this catalog, pages 94-97.



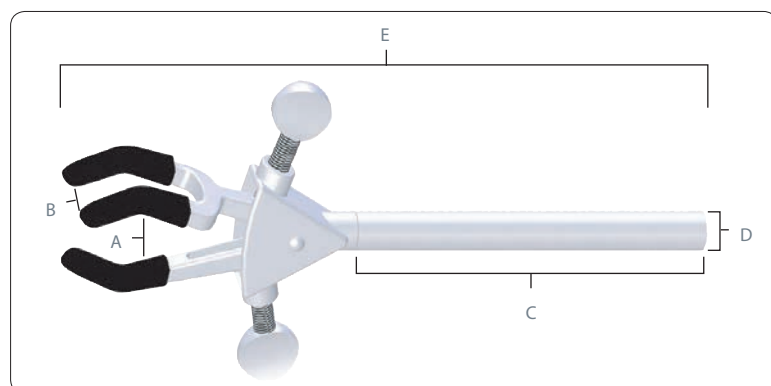
30392352



30392353



30392354



### 3-Prong Stainless Steel Dual Adjust Clamps

Size	(A) Min. to Max Grip Size	(B) Prong Width	(C) Arm Length	(D) Arm Dia.	(E) Overall Length	Item Number
Small	0 to 48 mm	13 mm	102 mm	10 mm	172 mm	30392354
Medium	0 to 69 mm	19 mm	127 mm	13 mm	229 mm	30392353
Large	0 to 102 mm	29 mm	127 mm	13 mm	273 mm	30392352



## Multi-Purpose Clamps

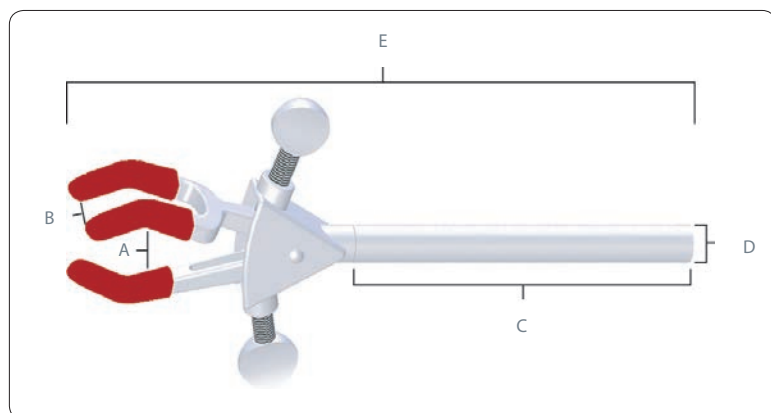
### 3-Prong Multi-Purpose Clamps

- Large grip adjustment range
- 3-prong construction
- Single or dual adjust
- Nickel-plated zinc

Designed to securely hold every type of laboratory glassware and apparatus. Long, seamless nickel-plated brass tubing attaches clamp head securely and offers easy positioning in the deepest fume hoods. Clamps are constructed with round extension arms, which allow the clamps to be rotated 360°. Extension arms also allow placement of apparatus at various distances from lab-frames without compromising the integrity of your experiment. Supplied with non-slip vinyl sleeves and, for temperatures above 100°C, fiberglass covers.

**NOTE:** An additional holder must be purchased in order to attach clamps to frames or other apparatus.

See the Connectors & Holders section of this catalog, pages 94-97.



### 3-Prong Single Adjust Clamps

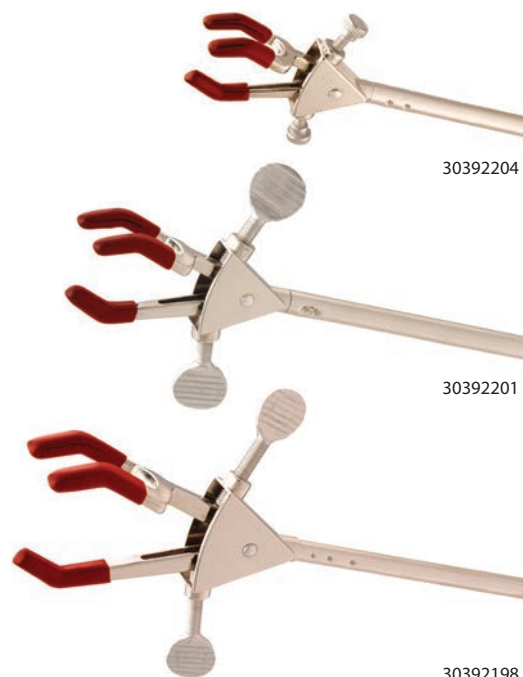


30392205

30392203

30392200

### 3-Prong Dual Adjust Clamps



30392204

30392201

30392198

### 3-Prong Single Adjust Clamps

Size	(A) Min. to Max Grip Size	(B) Prong Width	(C) Arm Length	(D) Arm Dia.	(E) Overall Length	Item Number
Small	0 to 39 mm	11 mm	102 mm	8 mm	160 mm	30392205
Medium	0 to 71 mm	19 mm	127 mm	11 mm	218 mm	30392203
Large	0 to 108 mm	29 mm	127 mm	11 mm	248 mm	30392200

### 3-Prong Dual Adjust Clamps

Size	(A) Min. to Max Grip Size	(B) Prong Width	(C) Arm Length	(D) Arm Dia.	(E) Overall Length	Item Number
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

# LabJaws Clamps & Supports

## Multi-Purpose Clamps

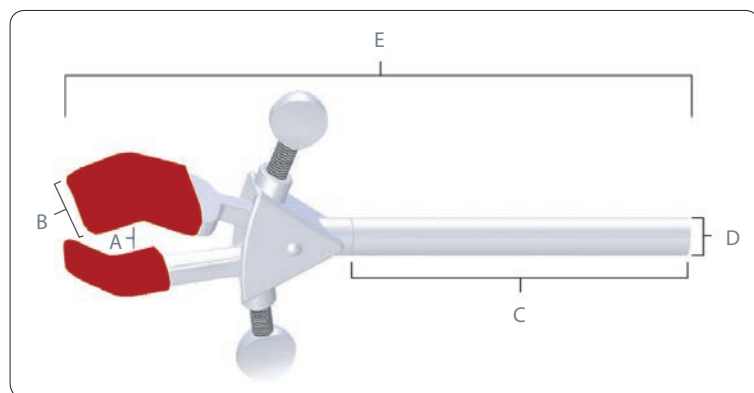
### 2-Prong Multi-Purpose Clamps

- Stainless steel electro-polished finish or nickel-plated zinc
- Large grip adjustment range
- 2-prong construction
- Single or dual adjust

Designed to securely hold laboratory glassware and apparatus. Extension arm attaches clamp head securely and offers easy positioning in the deepest fume hoods. Clamps are constructed with round extension arms, which allow the clamps to be rotated 360°. Extension arms also allow placement of apparatus at various distances from lab-frames without compromising the integrity of your experiment. Stainless steel clamps are electro-polished and made entirely of stainless steel. They offer exceptional chemical resistance and are autoclavable. Nickel-plated zinc offers a clamp with a high tensile strength at an economical price. Supplied with non-slip vinyl sleeves and, for temperatures above 100°C, fiberglass covers.

**NOTE:** An additional holder must be purchased in order to attach clamps to frames or other apparatus.

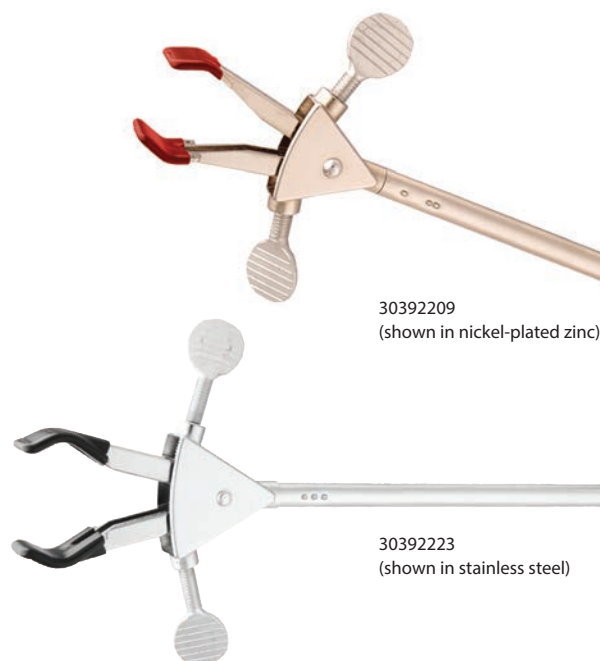
See the Connectors & Holders section of this catalog, pages 94-97.



### 2-Prong Single Adjust Clamps



### 2-Prong Dual Adjust Clamps



### 2-Prong Single Adjust Clamps

Material	Size	(A) Min. to Max Grip Size	(B) Prong Width	(C) Arm Length	(D) Arm Dia.	(E) Overall Length	Item Number
Nickel-plated zinc	Medium	0 to 78 mm	23 mm	127 mm	11 mm	216 mm	30392208
Nickel-plated zinc	Large	0 to 92 mm	23 mm	127 mm	11 mm	229 mm	30392206

### 2-Prong Dual Adjust Clamps

Material	Size	(A) Min. to Max Grip Size	(B) Prong Width	(C) Arm Length	(D) Arm Dia.	(E) Overall Length	Item Number
Stainless steel	Medium	0 to 75 mm	23 mm	127 mm	11 mm	229 mm	30392220
Nickle-plated zinc	Medium	0 to 75 mm	23 mm	127 mm)	11 mm	229 mm	30392209
Stainless steel	Large	0 to 95 mm	23 mm	127 mm	11 mm	248 mm	30392223
Nickle-plated zinc	Large	0 to 95 mm	23 mm	127 mm	11 mm	248 mm	30392207

## Multi-Purpose Clamps

### Swivel Clamps

Used to hold apparatus near the lab-frame. Unlike extension clamps, the swivel clamps have an integral holder for attaching to a lab-frame or other apparatus. Built-in holder grips rods up to 19 mm in diameter and is adjustable for forward or reverse-facing adjustment screws. Shaft wing-nut allows the holding angle of the swivel clamp to adjust through 360° of rotation and can be locked in place once desired position is achieved. Stainless steel electro-polished finish or nickel-plated zinc construction. Supplied with non-slip vinyl sleeves and, for temperatures above 100°C, fiberglass covers.



Material	Description	Size	Min. to Max. Grip Size	Prong Width	Overall Length	Item Number
Stainless steel	2-Prong Single Adjust	Medium	0 to 76 mm	23 mm	163 mm	30392226
Nickel-plated zinc	2-Prong Single Adjust	Medium	0 to 76 mm	23 mm	163 mm	30392215
Nickel-plated zinc	2-Prong Single Adjust	Large	0 to 95 mm	23 mm	180 mm	30392216
Stainless steel	3-Prong Dual Adjust	Medium	0 to 69 mm	20 mm	178 mm	30392225
Nickel-plated zinc	3-Prong Dual Adjust	Medium	0 to 69 mm	20 mm	178 mm	30392214

### Fixed-Position Clamps

Used to hold apparatus near the lab-frame where no adjustment is required after set-up. Built-in holder grips rods up to 19 mm in diameter Fixed-Position Clamps have an integral holder but can be rotated after attachment to a lab-frame or other apparatus. Available in 2-prong or 3-prong. Stainless steel electro-polished finish or nickel-plated zinc construction. Supplied with non-slip vinyl sleeves and, for temperatures above 100°C, fiberglass covers.



Material	Description	Size	Min. to Max. Grip Size	Prong Width	Overall Length	Item Number
Stainless steel	2-Prong Single Adjust	Medium	0 to 77 mm	23 mm	133 mm	30392230
Nickel-plated zinc	2-Prong Single Adjust	Medium	0 to 77 mm	23 mm	133 mm	30392218
Stainless steel	3-Prong Dual Adjust	Medium	0 to 69 mm	20 mm	146 mm	30392229
Nickel-plated zinc	3-Prong Dual Adjust	Medium	0 to 69 mm	20 mm	146 mm	30392217

# Specialty Clamps



LabJaws Specialty Clamps hold large, cylindrical or irregular-shaped glassware to lab-frames and rods, sturdily yet gently. Designed to accommodate vessels of varying diameters, and with extension arms that allow 360° rotation, these clamps offer flexibility for lab use. Choose from a range of specialty clamps—including chain clamps, double buret holders & column clamps to suit your application. Available in stainless steel, zinc and aluminum.

- Choose the Material That Best Suits Your Application
- Chain Clamps Offer Quick & Secure Slip-On Chain Connection With Adjustable Knob
- Double Buret Clamps Securely Hold Burets from Micro to 100 mL Capacity

## Specialty Clamps

### Thermometer Swivel Clamp

Holds glass tubes and thermometers 114 mm from support rod. Clamp features safety adjust spring plate jaws that adjust to any angle with locking wing-nut. Built-in holder grips rods up to 19 mm in diameter. Lightweight, rust, and corrosion-resistant. Nickel-plated construction.

Min. to Max. Grip Size	Overall Length	Item Number
6 to 8 mm	159 mm	30392238



### Thermometer / Thermocouple Extension Clamp

Lightweight clamp holds glass tubing, thermometers or thermocouples up to 178 mm from support rod. Tightening wing-nut applies tension to the nickel-plated jaws.

NOTE: An additional holder must be purchased in order to attach clamps to frames or other apparatus.

See the Connectors & Holders section of this catalog, pages 94-97.

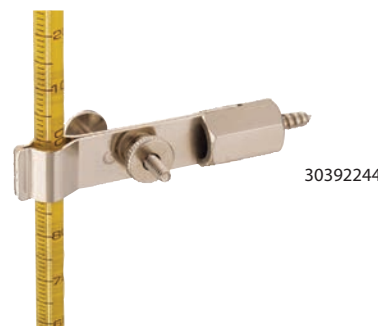
Min. to Max. Grip Size	Ext Arm Length	Arm Dia.	Overall Length	Item Number
6 to 12 mm	127 mm	11 mm	210 mm	30392239



### Wall Clamp

Ideal for securing fermentation tubes, burets or other small objects to walls where no frames are available. Integral self-tapping screw secures clamp to wall. Nickel-plated construction.

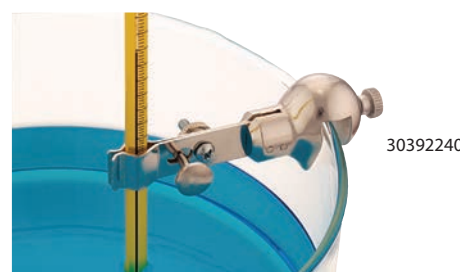
Min. to Max. Grip Size	Overall Length	Item Number
5 to 10 mm	80 mm	30392244



### Water Bath Clamps

Holds a variety of apparatus, including glass tubes and thermometers onto glass water bath walls. Built-in holder grips walls of varying thickness, up to 9 mm. Knurled thumbscrew tightens jaws to hold objects firmly. Nickel-plated zinc construction. Large water bath clamp is supplied with non-slip vinyl sleeves and, for temperatures above 100°C, fiberglass covers.

Size	Min. to Max. Grip Size	Prong Width	Overall Length	Item Number
Small	5 to 10 mm	N/A	89 mm	30392240
Large	0 to 46 mm	11 mm	117 mm	30392241



# LabJaws Clamps & Supports

## Specialty Clamps

For the items listed below an additional holder must be purchased in order to attach clamps to frames or other apparatus. See the Connectors & Holders section of this catalog, pages 92-95.

### Chain Clamps

Holds large round or irregular shaped objects firmly, yet gently, to lab-frames and rods. Quick and secure slip-on chain connection with large, easy-to-turn adjusting knob. Extension arm allows user to vary distance from the frame. Available as stainless steel clamp, constructed entirely of stainless steel with electro-polished finish or nickel-plated zinc clamp with strong, chromed-brass chain.

#### Stainless Steel

Size	Min. to Max. Dia.	Ext. Arm Length	Arm Dia.	Overall Length	Item Number
Large-5	35 to 280 mm	127 mm	13 mm	206 mm	30392224

#### Nickel-Plated Zinc

Size	Min. to Max. Dia.	Ext. Arm Length	Arm Dia.	Overall Length	Item Number
Small	35 to 170 mm	127 mm	13 mm	188 mm	30392235
Large-5	35 to 280 mm	127 mm	13 mm	206 mm	30392259
Large-12	35 to 280 mm	305 mm	13 mm	384 mm	30392260



30392224  
(shown in stainless steel)

### Column Clamps

These sturdy, easily adjusted, multi-purpose clamps are ideal for holding large cylindrical glassware and similar objects. A large, flat thumbscrew/worm-drive permits maximum tightening or removal in minimum time. Clamp is constructed of corrosion-resistant stainless steel. Ideal for chromatography columns.

Size	Min. to Max. Dia.	Ext. Arm Length	Arm Dia.	Overall Length	Item Number
Small	65 to 89 mm	211 mm	11 mm	282 mm	30392314
Medium	91 to 114 mm	211 mm	11 mm	315 mm	30392315
Large	64 to 140 mm	211 mm	11 mm	338 mm	30392316
X-Large	92 to 165 mm	211 mm	11 mm	368 mm	30392317



30392316

### Nester Extension Clamps

Securely holds large or small glass distillation columns and odd-shaped glassware. Constructed of stainless steel with strong, chromed-brass band and chain.

Min. to Max. Dia.	Ext. Arm Length	Arm Dia.	Overall Length	Item Number
50 to 102 mm	152 mm	10 mm	262 mm	30392318



30392318

### PVC Coated Open Extension Rings

Ideal for supporting funnels, round bottom flasks, reaction vessels, and other apparatus that require lower support. Opening in PVC coated aluminum ring allows for easy removal of sample container. PVC coating protects glassware. Long extension arm permits depth adjustment of the open ring from the lab-frame or ring stand.

Ring Dia.	Ext. Arm Length	Arm Dia.	Overall Length	Item Number
76 mm	254 mm	9 mm	328 mm	30392346
102 mm	305 mm	9 mm	404 mm	30392347
127 mm	305 mm	11 mm	427 mm	30392348



30392347

### Open Rings

Lightweight rings mount funnels, boiling flasks, and other irregular shaped objects to lab-frames. Open ring section allows items to pass in and out of support area easily, reducing risk of breakage. Aluminum construction.

Ring Dia.	Ext. Arm Length	Arm Dia.	Overall Length	Item Number
76 mm	58 mm	9 mm	132 mm	30392343
102 mm	58 mm	9 mm	158 mm	30392344
127 mm	61 mm	11 mm	183 mm	30392345



30392345

## Specialty Clamps

### Buret Holders

Stainless steel electro-polished finish or nickel-plated zinc construction. Double Buret Clamp holds any size buret from micro to 100 mL capacity. Simply compress the scissor-like mechanism, insert buret and gently release to grip. Numbers and graduation on buret remain easy to read. For height adjustments, recompress mechanism and slide buret up or down and gently release. Clamp unit with built-in reinforced hook connector attaches to optional standard support rod. Adjusting nut faces forward for easy use. Stainless steel or aluminum support rod attaches to optional porcelain base.

**Support Rod** (Dia. × L): 13 × 578 mm

**Porcelain Base** (L × W × H): 178 × 330 × 25 mm

#### Stainless Steel

Description	Item Number
Double Buret Clamp (only)	30392227
Support Rod (only)	30392233
Support Stand with Rod	30392232
Double Buret Clamp & Support Stand with Rod (complete)	30392231

#### Nickel-Plated Zinc

Description	Item Number
Double Buret Clamp (only)	30392234
Support Stand with Rod	30392312
Double Buret Clamp & Support Stand with Rod (complete)	30392313



30392231  
(shown in stainless steel)

### Kettle Clamps

Holds flask and cover together firmly. Three insulated spring-activated clamping arms. Stainless steel springs. For use on reaction kettles.

Flask Size	Inside Dia.	Item Number
500 mL, 1000 mL	125 mm	30392365
2000 mL, 3000 mL, 4000 mL	142 mm	30392366

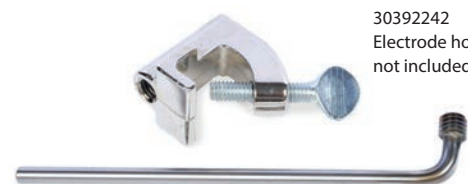


30392365

### Electrode Support Clamp

Permits suspension of electrodes over beaker for potentiometric titrations. Holds any electrode clamp at desired level. Built-in nickel-plated zinc holder grips rods up to 19 mm in diameter.

Overall Length	Item Number
178 mm	30392242



30392242  
Electrode holder  
not included

### Suspension Clamp

Holds thermometers, potash bulbs or drying tubes 114 mm from support rod. Machine tapered, nickel-plated brass hook won't bend, rust, or corrode. Built-in holder grips rods up to 19 mm in diameter.

Overall Length	Item Number
137 mm	30392243



30392243

30392237

### Support Clamp

Supports electrolysis apparatus, glass rods or tubing at any angle. Arms are nickel-plated brass with vinyl coating. Easily supports cylindrical objects up to 19 mm in diameter. Built-in holder grips rods up to 19 mm in diameter.

Overall Length	Prong Width	Item Number
152 mm	25 mm	30392237

# LabJaws Clamps & Supports

## Specialty Clamps

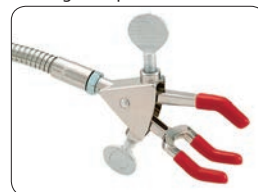
Ultra Flex Support Systems have unique flexible arms that are extremely versatile and can be placed in virtually any position or angle. Ultra Flex comes in three different systems; base plate, lab-frame connector, and bench clamp. Each system includes a 2-Prong Clamp Head, 3-Prong Clamp Head, Spring Clamp Head, nickel-plated flex arm in 305 mm or 457 mm length, and utility wrench. 2-prong and 3-prong clamp heads also supplied with non-slip vinyl sleeves and, for temperatures above 100°C, fiberglass covers.

Arm Length	Ultra Flex 12 Ultra Flex 18	305 mm 457 mm
Arm Diameter		13 mm
Max. Grip Size	2-Prong Clamp Head 3-Prong Clamp Head Spring Clamp Head	75 mm 69 mm 13 mm

2-Prong Clamp Head



3-Prong Clamp Head



Spring Clamp Head



### Ultra Flex Support System with Base Plate

OHAUS Ultra Flex Support System with Base Plate is constructed of all metal and designed with a stable, painted steel base plate with chemical resistant black finish that fits easily on bench tops or in fume hoods. Base plate measures 127 × 127 × 12.7 mm.

Description	Item Number
Ultra Flex 12 with Base Plate	30400011
Ultra Flex 18 with Base Plate	30400014



### Ultra Flex Support System with Lab-Frame Connector

Ultra Flex Support System with Lab-Frame Connector securely attaches to support stands, lab-frames, or any support rod up to 19 mm in diameter. Ideal for use in fume hoods. Lab-frame connector is made of cast alloy.

Description	Item Number
Ultra Flex 12 with Lab-Frame Connector	30400013
Ultra Flex 18 with Lab-Frame Connector	30400016



### Ultra Flex Support System with Bench Clamp

Ultra Flex Support System with Bench Clamp easily attaches to the side of your lab bench or counter top, which helps utilize more space in your lab. Bench clamp is constructed of aluminum.

Description	Item Number
Ultra Flex 12 with Bench Clamp	30400012
Ultra Flex 18 with Bench Clamp	30400015





## Specialty Clamps

### Bench Clamp

Aluminum bracket with arm fastens quickly and firmly to any convenient shelf. Accepts 13 mm rods vertically and horizontally, to which ordinary rings and clamps attach, leaving bench surface clear for apparatus.

Clamp Opening	Depth of Grip	Overall Length	Item Number
43 mm	51 mm	197 mm	30392311



30392311

### Thumbscrew Knob

Thumbscrew tightening knob features a 32 mm slot in the center of a nylon disc that will accept thumbscrews supplied with the LabJaws and UltraJaws Multi-Purpose Clamps, excluding the stainless steel version. Makes tightening of clamps easier on the hands and wrists.

Overall Diameter	Thumbscrew Slot	Item Number
64 mm	32 mm	30392192



30392192

### Double Jaw Utility Clamp

Swivels 360° and locks securely in desired position. These 2-prong clamps have a medium and a large clamp on each end. Nickel-plated zinc construction. Supplied with non-slip vinyl sleeves and, for temperatures above 100°C, fiberglass covers.



30392236

Description	Min. to Max. Grip Size	Prong Width	Overall Length	Item Number
Medium 2-Prong	0 to 76 mm	23 mm	222 mm	30392236

# Connectors & Holders



LabJaws offers a range of holders and connectors to customize the attachment of clamps to lab-frames at specific angles and diameters. Holders are used to attach clamps to lab-frames and support rods in order to secure apparatus. Connectors are used to join lab-frames and rods in the same plane or at 90° angles, utilizing set screws which allow for individual adjustment of each rod location.

- Three Materials to Choose From to Best Suit Your Needs
- Select Holders Based on the Diameter of the Clamp and Lab-Frame or Support Rod
- Versatile Range of Connectors for Easy Assembly of Rods

## Connectors & Holders

### Regular Holder

Stainless steel electro-polished finish or nickel-plated zinc construction. Ideal for holding clamps to lab-frames. Use wherever clamping at 90° is required.

Material	Min. to Max. Grip Size	Item Number
Stainless steel	0 to 18 mm	30392219
Nickel-plated zinc	0 to 18 mm	30392197



30392219  
(shown in stainless steel)



30392197  
(shown in nickel-plated zinc)

### Jumbo Holder

Stainless steel electro-polished finish or aluminum construction. Ideal for holding clamps to lab-frames or ring stands.

Material	Min. to Max. Grip Size	Item Number
Stainless steel	0 to 21 mm	30392357
Aluminum	0 to 21 mm	30392196



30392357  
(shown in stainless steel)



30392196  
(shown in aluminum)

### Heavy-Duty Holder

For mounting stirrers and other apparatus. Holder is constructed of strong aluminum alloy; fitted with oversized knobs for very secure positioning. Rods supported on 102 mm long surface to avoid vibration and wobble.

Material	Min. to Max. Grip Size	Item Number
Aluminum	6 to 24 mm	30400045



30400045

### Swivel Holder

Two rod holders with center swivel capacity allow tilting of clamps at any angle in parallel planes. Outside adjustment screw allows close proximity between items being held. Stainless steel electro-polished or nickel-plated zinc construction.

Material	Min. to Max. Grip Size	Item Number
Stainless steel	0 to 19 mm	30392228
Nickel-plated zinc	0 to 19 mm	30392213



30392228  
(shown in stainless steel)



30392213  
(shown in nickel-plated zinc)

### All-Position Clamp Holder

Surpasses standard holding capabilities. The all-position clamp holder permits adjustment at any angle in any plane. Holders are set at 90° to each other, connected by a 90° connector, allowing 360° rotation. Nickel-plated zinc construction.

Material	Min. to Max. Grip Size	Item Number
Nickel-plated zinc	0 to 19 mm	30392248



30392248

### Clamp Holder

Clamp is ideal for gripping 2 rods at 90°. Oversized thumbscrews make securing rods fast and easy.

Material	Min. to Max. Grip Size	Overall Length	Item Number
Aluminum	0 to 17 mm	70 mm	30392195



30392195

# LabJaws Clamps & Supports

## Connectors & Holders

### Hook Connector

Stainless steel electro-polished finish or nickel-plated zinc construction. Simple, versatile, and easy-to-use. Hook connectors allow one-handed assembly of two components with one adjustment screw.

Material	Min. to Max. Grip Size	Item Number
Stainless steel	0 to 13 mm	30392358
Nickel-plated zinc	0 to 13 mm	30392258



30392358  
(shown in stainless steel)



30392258  
(shown in nickel-plated zinc)

### End-to-End Connector

Extend the length of lab-frame rods. Strong aluminum alloy connector permits end-to-end joining of rods. Precision boring of connector ensures perfect alignment of rods. Corrosion resistant. Comes with two set screws.

Material	Min. to Max. Grip Size	Item Number
Aluminum	0 to 13 mm	30392264



30392264

### Rod End Connector

Holds rods firmly at 90°. Use when semi-permanent installations are required. Comes with two set screws and is precision bored for close fit. Stainless steel electro-polished finish or nickel-plated zinc construction.

Material	Min. to Max. Grip Size	Item Number
Stainless steel	0 to 13 mm	30392222
Nickel-plated zinc	0 to 13 mm	30392256



30392222  
(shown in stainless steel)



30392256  
(shown in nickel-plated zinc)

### S-Connector

Stainless steel electro-polished finish or nickel-plated zinc construction. Clamp is ideal for constructing lab-frames or other supports requiring the connection of two perpendicular rods. Clamp connects two 13 mm rods at a 90° angle and features separate adjustment screws for each rod location.

Material	Min. to Max. Grip Size	Item Number
Stainless steel	0 to 13 mm	30392355
Nickel-plated zinc	0 to 13 mm	30392257



30392355  
(shown in stainless steel)



30392257  
(shown in nickel-plated zinc)

### Frame Connector (Pack of 12)

Improved contour delivers simplicity and strength. Angled adjustment screws allow easy set-up and prevents misalignment. Smooth, rounded surfaces are easy-to-clean. Small size maximizes lab-frame space. Bright dipped aluminum finish sealed with silicon for maximum protection against corrosion.

Material	Min. to Max. Grip Size	Item Number
Aluminum	0 to 13 mm	30392255



30392255

## Connectors & Holders

### Universal Stirrer Mounting Bracket

Use to mount stirrers and other devices to lab-frames. Aluminum mounting bracket with attachment screws.

Max. Weight Mounted	Min. to Max. Grip Size	Item Number
2.27 kg	0 to 20 mm	30392265

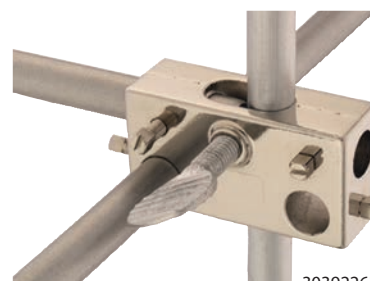


30392265

### Multi-Rod Connector

Maximum adjustment capability within one connector. Two adjustment rods fit into the oval hole in the connector, preventing turning when tightened. Side and front 13 mm holes allow creation of a variety of configurations. Nickel-plated zinc construction.

Min. to Max. Rod Size	Item Number
0 to 13 mm	30392262



30392262

### Wrench

Special adjusting wrench is for use with lab-frame items with set screws.

Length	Item Number
79 mm	30392270

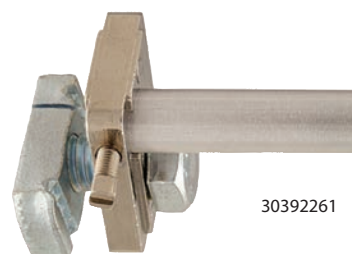


30392270

### Channel Connector

Special connector fastens lab-frame rod to steel 41 mm channels. Loosen the connector and slide up or down for easy adjustment of rod position.

Dimensions	Item Number
33 x 40 mm	30392261



30392261

### Horizontal Mounting Bars with Coupler

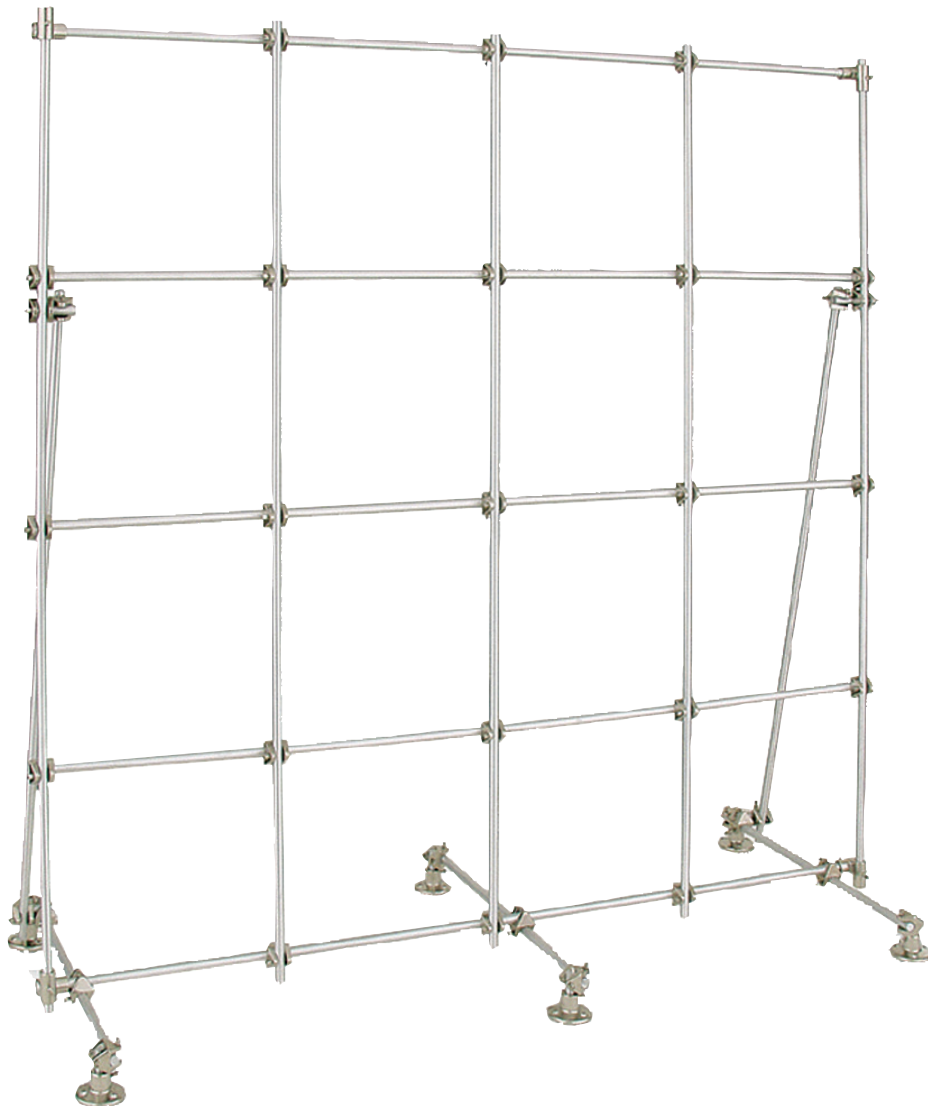
Threaded end for direct installation into channels. Comes with spring coupler for use in steel 41 mm channels. Locking nut included. Use with steel channel frames.

Bar Length	Item Number
51 mm	30392266
102 mm	30392267
152 mm	30392268
203 mm	30392269



30392268

# Rods, Frames, & Supports



LabJaws offers the largest selection of Lab-Frame Kits, Lab-Lifts, Rods and Support Stands in the industry to hold glassware safely. Whether you're looking for a standard lab-frame or a customizable set-up, we have options to fit any space or application. Select from 14 pre-configured lab-frame kits (connectors and feet included) to rods which can be purchased individually and combined with LabJaws accessories to build a customized frame.

- Choose from Stainless Steel and Aluminum Options to Best Suit Your Application
- Range of Pre-Configured Lab-Frame Kits and Customizable Rods for Your Lab Space
- Lab-Lifts Provide Exceptional Stability to Hold Items at Varying Heights

## Rods, Frames, & Supports

### Lab Frame Foot

Stainless steel electro-polished finish or nickel-plated zinc construction. Strong, durable lab-frame foot is designed for mounting lab-frames permanently to bench tops, fume hoods, walls, and floors. Spilled fluids roll right off the smooth body contour, minimizing contamination and easing clean-ups. Features a set screw and includes three 19 mm mounting screws.

Material	Min. to Max. Grip Size	Dimensions (Dia. × H)	Item Number
Stainless steel	0 to 13 mm	58 × 32 mm	30392356
Nickel-plated zinc	0 to 13 mm	58 × 32 mm	30392263



30392356  
(shown in stainless steel)

### Frame Rods

Everything you need to customize a lab-frame to your laboratory space. Quality construction throughout. Frame rods are available in many lengths and materials.

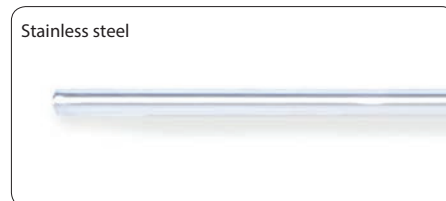
#### Aluminum

Center-less ground for a precise fit. These hard aluminum rods provide a smooth fit with lab-frames. Corrosion resistant with chamfered ends for easy location.

#### Stainless Steel

Heavy-duty, top-of-the-line rods provide maximum strength and durability. Constructed of 303 stainless steel.

Rod Diameter	Rod Length	Aluminum Item Number	Stainless Steel Item Number
13 mm	41 mm	30392271	30392293
13 mm	51 mm	30392272	30392294
13 mm	152 mm	30392273	30392295
13 mm	305 mm	30392274	30392296
13 mm	457 mm	30392275	30392297
13 mm	610 mm	30392276	30392298
13 mm	914 mm	30392277	30392299
13 mm	1219 mm	30392278	30392300
13 mm	1524 mm	30392279	30392301
13 mm	1829 mm	30392280	30392302
13 mm	2438 mm	30392281	30392303



# LabJaws Clamps & Supports

## Rods, Frames, & Supports

LabJaws offers the widest choice of standard lab frames available, plus the accessories to custom-fit any laboratory with the right frame for the job. Standard Lab-Frame sets are available in five sizes. Options of traditional center-less ground aluminum, non-corroding fiberglass, or tough stainless steel rods are available. Nickel-plated zinc connectors and lab-frame feet are standard with all kits.

### Small Lab-Frame

Vertical mounting, great for glassware set-ups in small laboratories or where space is limited. Frame measures 610 × 610 mm. Base is 457 mm wide for stability. Base may be permanently mounted to bench top with screws (included).

#### Components:

- (8) 51 mm Rods
- (2) 457 mm Rods
- (8) 610 mm Rods
- (18) S-Connectors
- (4) Rod End Connectors
- (4) Lab-Frame Feet



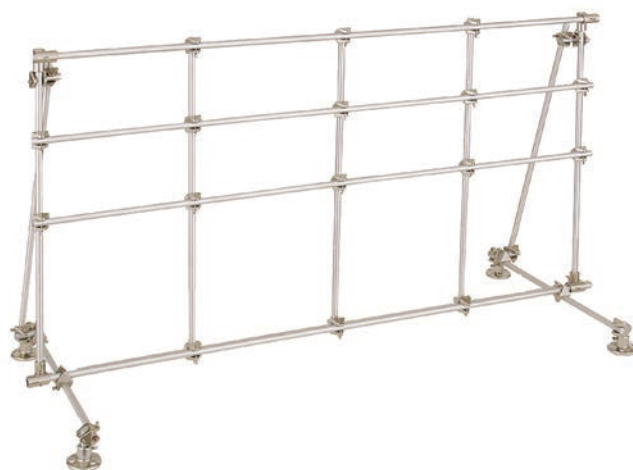
Frame Dimensions	Base Dimensions	Aluminum Item Number	Stainless Steel Item Number
61 × 61 cm	457 mm wide	30392304	30392323

### Medium Lab-Frame

Horizontal or vertical mounting, convenient for distillation or general set-up. Frame measures 610 × 1219 mm. Base is 457 mm wide for stability.

#### Components:

- (8) 51 mm Rods
- (2) 457 mm Rods
- (7) 610 mm Rods
- (4) 1219 mm Rods
- (35) S-Connectors
- (4) Rod End Connectors
- (4) Lab-Frame Feet



Frame Dimensions	Base Dimensions	Aluminum Item Number	Stainless Steel Item Number
610 × 1219 mm	457 mm wide	30392305	30392324



## Rods, Frames, & Supports

### Large Lab-Frame

This 1219 × 1219 mm frame is ideal for complex glassware set-ups. Base is 457 mm wide for stability.

#### Components:

- (10) 51 mm Rods
- (3) 457 mm Rods
- (2) 914 mm Rods
- (10) 1219 mm Rods
- (38) S-Connectors
- (4) Rod End Connectors
- (6) Lab-Frame Feet



Frame Dimensions	Base Dimensions	Aluminum Item Number	Stainless Steel Item Number
1219 × 1219 mm	457 mm wide	30392306	30392325

### Extra-Large Lab-Frame

Versatile, adaptable Extra-Large Lab-Frame measures 1219 × 1829 mm and may be used either horizontally or vertically.

#### Components:

- (6) 51 mm rods
- (6) 305 mm rods
- (2) 610 mm rods
- (7) 1219 mm rods
- (5) 1829 mm rods
- (45) S-Connectors
- (4) Rod End Connectors
- (8) Lab-Frame Feet



Frame Dimensions	Aluminum Item Number	Stainless Steel Item Number
1219 × 1829 mm	30392307	30392326

# LabJaws Clamps & Supports

## Rods, Frames, & Supports

### Heavy-Duty Lab-Frame

Floor mounted, free-standing unit is specifically designed for heavy-duty work such as pilot plant set-ups. Outside frame is constructed of a strong, but lightweight steel channel. Interior lattice uses a horizontal channel connector; one end accommodates the rod, the other end fits into the channel and locks tightly with a bolt. Loosen the bolt, and the connector slides easily along the channel track for simple lattice adjustment. Entire apparatus is supported on sturdy, counter-weighted cast iron feet, which may be bolted to the floor for added stability required in top-heavy installations.

#### Components:

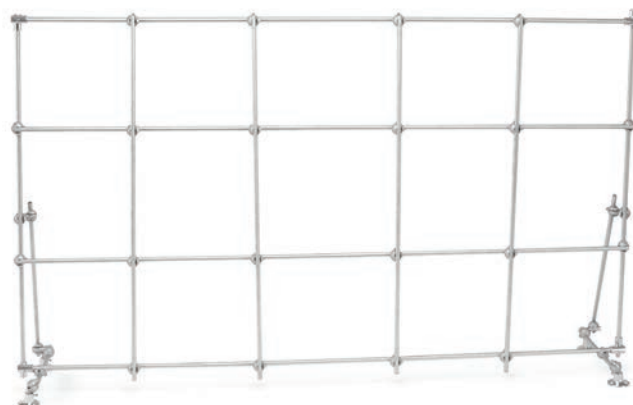
- (5) 1219 mm rods
- (3) 1829 mm rods
- (15) S-Connectors
- (16) Channel Connectors
- (24) Clamping Nuts
- (2) 551 mm Cast Iron Feet
- (1) Frame Kit
- (1) Wrench



Frame Dimensions	Overall Dimensions	Aluminum Item Number	Stainless Steel Item Number
1219 × 1829 mm	1905 × 1829 mm	30392309	30392328

### Fume Hood Kits

Choose from four kits specifically designed to fit within laboratory fume hoods. All components are constructed of stainless steel with the exception of the Frame Connectors which are made of aluminum with a silicon finish.



1.22 m Fume Hood Kit	1.52 m Fume Hood Kit	1.83 m Fume Hood Kit	2.44 m Fume Hood Kit								
<b>Components:</b> <ul style="list-style-type: none"> <li>• (8) 51 mm rods</li> <li>• (2) 305 mm rods</li> <li>• (2) 457 mm rods</li> <li>• (4) 914 mm rods</li> <li>• (4) 965 mm rods</li> <li>• (30) Frame Connectors</li> <li>• (4) Rod End Connectors</li> <li>• (4) Lab-Frame Feet</li> </ul> Frame: 914 × 965 mm Base: 305 mm wide	<b>Components:</b> <ul style="list-style-type: none"> <li>• (8) 51 mm rods</li> <li>• (2) 305 mm rods</li> <li>• (2) 457 mm rods</li> <li>• (5) 914 mm rods</li> <li>• (4) 1270 mm rods</li> <li>• (34) Frame Connectors</li> <li>• (4) Rod End Connectors</li> <li>• (4) Lab-Frame Feet</li> </ul> Frame: 914 × 1270 mm Base: 305 mm wide	<b>Components:</b> <ul style="list-style-type: none"> <li>• (8) 51 mm rods</li> <li>• (2) 305 mm rods</li> <li>• (2) 457 mm rods</li> <li>• (6) 914 mm rods</li> <li>• (4) 1575 mm rods</li> <li>• (38) Frame Connectors</li> <li>• (4) Rod End Connectors</li> <li>• (4) Lab-Frame Feet</li> </ul> Frame: 914 × 1575 mm Base: 305 mm wide	<b>Components:</b> <ul style="list-style-type: none"> <li>• (10) 51 mm rods</li> <li>• (3) 305 mm rods</li> <li>• (2) 457 mm rods</li> <li>• (8) 914 mm rods</li> <li>• (4) 2184 mm rods</li> <li>• (45) Frame Connectors</li> <li>• (4) Rod End Connectors</li> <li>• (6) Lab-Frame Feet</li> </ul> Frame: 914 × 2184 mm Base: 305 mm wide								
<table border="1"> <tr> <th>Item Number</th> <td>30392329</td> </tr> </table>	Item Number	30392329	<table border="1"> <tr> <th>Item Number</th> <td>30392330</td> </tr> </table>	Item Number	30392330	<table border="1"> <tr> <th>Item Number</th> <td>30392331</td> </tr> </table>	Item Number	30392331	<table border="1"> <tr> <th>Item Number</th> <td>30392332</td> </tr> </table>	Item Number	30392332
Item Number	30392329										
Item Number	30392330										
Item Number	30392331										
Item Number	30392332										

## Rods, Frames, & Supports

### Support Stands

Support Stands are made entirely of 303 stainless steel. They have a durable base that can accommodate vessels up to 457 mm in diameter within the "U". The base area is 451 mm across × 267 mm deep overall. The stainless steel support rod is 16 mm in diameter and is screwed to the support base. Two additional threaded holes in the base legs accommodate rods, enabling the stand to support two mixers. The "U" shape of the base should be turned from the mixing apparatus when the two outside rods are in use. This balances the weight, preventing the base from tipping.

Description	Item Number
Support Stand with 584 mm Rod	30400030
Support Stand with 711 mm Rod	30400031
Support Stand with 914 mm Rod	30400032
Support Stand with 1016 mm Rod	30400033
Support Stand with 1219 mm Rod	30400034
Support Stand with 1524 mm Rod	30400035



Support Stand

### Support Stand Stabilizer Knobs

Support Stand Stabilizer Knobs can be added to the two additional threaded holes in the base legs to secure the stand to a bench top.

Description	Item Number
Support Stand Stabilizer Knobs (2 per pack)	30400044



Support Stand Stabilizer Knobs

### Heavy-Duty Support Stands

Heavy-Duty Support Stands have a four point cast iron base with stainless steel support rod. They are designed to accommodate vessels up to 30.5 cm in diameter to sit close to the support rod. They have rubber cushions on each of the four corners. The base area is 41.9 cm across × 30.5 cm deep overall. They are ideal for Heavy-Duty Mixers, page 56-58.

Description	Item Number
Heavy-Duty Support Stand with 457 mm Rod	30392334
Heavy-Duty Support Stand with 584 mm Rod	30392335
Heavy-Duty Support Stand with 711 mm Rod	30392336
Heavy-Duty Support Stand with 914 mm Rod	30392337
Heavy-Duty Support Stand with 1016 mm Rod	30392338
Heavy-Duty Support Stand with 1219 mm Rod	30392339
Heavy-Duty Support Stand with 1524 mm Rod	30392340



Heavy-Duty Support Stand

### Replacement Support Rods

Description	Diameter	Item Number
457 mm Stainless Steel Rod	16 mm	30400036
584 mm Stainless Steel Rod	16 mm	30400037
711 mm Stainless Steel Rod	16 mm	30400038
914 mm Stainless Steel Rod	16 mm	30400039
1016 mm Stainless Steel Rod	16 mm	30400040
1219 mm Stainless Steel Rod	16 mm	30400041
1524 mm Stainless Steel Rod	16 mm	30400042



Replacement Support Rods

# LabJaws Clamps & Supports

## Rods, Frames, & Supports

### Cast Iron Support Stands

Cast iron support stand bases are constructed with black enamel finish for chemical resistance and durability. All bases feature a built-in support rod holder with locking knob that accepts a 13 mm diameter support rod. U-shaped base features three built-in support rod holders and accommodates vessels up to 127 mm in diameter.

**NOTE:** Support rods are not included.

### Rectangular Base Support Stand, Cast Iron

Description	Dimensions	Item Number
Rectangular Base (only)	102 × 152 mm	30392359
Rectangular Base (only)	127 × 203 mm	30392360
Rectangular Base (only)	152 × 229 mm	30392361
Rectangular Base (only)	203 × 254 mm	30392362



### Tripod Base Support Stand, Cast Iron

Description	Overall Footprint Diameter	Item Number
Tripod Base (only)	375 mm	30392363



### U-Shaped Base Support Stand, Cast Iron

Description	Dimensions	Item Number
U-Shaped Base (only)	178 × 178 mm	30392364



### Aluminum Support Rods

Description	Diameter	Item Number
305 mm Aluminum Rod	13 mm	30392274
457 mm Aluminum Rod	13 mm	30392275
610 mm Aluminum Rod	13 mm	30392276
914 mm Aluminum Rod	13 mm	30392277



### Stainless Steel Support Rods

Description	Diameter	Item Number
305 mm Stainless Steel Rod	13 mm	30392296
457 mm Stainless Steel Rod	13 mm	30392297
610 mm Stainless Steel Rod	13 mm	30392298
914 mm Stainless Steel Rod	13 mm	30392299



## Rods, Frames, & Supports

### Round Support Plate

Aluminum plate supports beakers, mantles and petri dishes. Fits standard lab-frames using connectors or holders, shown on pages 94-97.

Description	Distance from Rod	Item Number
152 mm	66 mm	30392342



### Support Plates

Designed to hold hotplates, stirrers, hotplate-stirrers, and other apparatus to lab-frames or ring stands. Aluminum construction offers strength and durability. Support plates include a non-skid rubber mat and a built-in holder that grips rods up to 19 mm in diameter.

Size	Plate Dimensions	Distance from Rod	Item Number
Small	241 × 165 mm	48 mm	30392349
Medium	324 × 229 mm	48 mm	30392350
Large	400 × 305 mm	48 mm	30392351



# LabJaws Clamps & Supports

## Rods, Frames, & Supports

### OHAUS Aluminum Lab-Lifts

- Exceptional stability and durability
- Aluminum construction
- Three convenient sizes

Aluminum Lab-Lifts provide stable height adjustment for various items in the lab such as flasks, baths, and small equipment. Top and bottom decks are constructed of anodized aluminum. Internal supports and drive screws are constructed of stainless steel. Oversized sure-grip adjustment knobs provide smooth and accurate height adjustment. Lab-Lifts accept optional Support Rod Kit which mounts to the upper deck.

Deck Size	Min. to Max. Height	Max. Load*	Item Number
102 × 102 mm	64 to 127 mm	29.94 kg	30400007
152 × 152 mm	76 to 248 mm	59.87 kg	30400008
203 × 203 mm	76 to 248 mm	79.83 kg	30400009
254 × 254 mm	89 to 330 mm	84.37 kg	30400010

\*NOTE: Maximum load rating represents static weight only. Static weight is the amount a unit can hold, not lift.



### OPTIONAL ACCESSORIES

#### 432 mm Support Rod Kit

Ideal for creating an adjustable support stand for mounting various items such as thermometer clamps, temperature probes, flask and column clamps. This kit allows you to mount a 432 mm threaded vertical support rod to the upper deck of a 152 × 152 mm, 203 × 203 mm, 254 × 254 mm, 305 × 305 mm or 406 × 406 mm Lab-Lift by screwing the rod into the pre-drilled hole.

#### 432 mm Support Rod Kit includes:

- 25 - 432 mm Stainless Steel Rod
- 1 - Jam Nut
- 1 - Flat Washer



Description	Rod Diameter	Item Number
432 mm Support Rod Kit	13 mm	30400050

## Rods, Frames, & Supports

### OHAUS Heavy-Duty Lab-Lifts

- Stainless steel construction
- Seven convenient sizes to choose from
- Autoclavable and chemical resistant

These Heavy-Duty, Stainless Steel Lab-Lifts are ultra-stable lifting platforms with exceptional strength and durability. Constructed of stainless steel, Lab-Lifts are designed for use in extreme environments and high load applications. Equipped with oversized, sure-grip adjustment knobs that provide extra leverage for easy height adjustments. Durable construction allows lifts to be autoclaved or chemically cleaned. Ideal for use in fume hoods or bench tops and holds a variety of items such as glassware, hotplates, baths, and magnetic stirrers.

Deck Size	Min. to Max. Height	Max. Load*	Item Number
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

\*NOTE: Maximum load rating represents static weight only. Static weight is the amount a unit can hold, not lift.



#### OPTIONAL ACCESSORIES

### 432 mm Support Rod Kit

Ideal for creating an adjustable support stand for mounting various items such as thermometer clamps, temperature probes, flask and column clamps. This kit allows you to mount a 432 mm threaded vertical support rod to the upper deck of a 152 × 152 mm, 203 × 203 mm, 254 × 254 mm, 305 × 305 mm or 406 × 406 mm Lab-Lift by screwing the rod into the pre-drilled hole.

#### 432 mm Support Rod Kit includes:

- 25 - 432 mm Stainless Steel Rod
- 1 - Jam Nut
- 1 - Flat Washer



Description	Rod Diameter	Item Number
432 mm Support Rod Kit	13 mm	30400050

### Ratchet Tool

Designed to add extra leverage to your 305 × 305 mm or 406 × 406 mm Lab-Lift. This recommended Ratchet Tool easily attaches to the actuating rod to allow easy, accurate adjustments.

Description	Item Number
Ratchet Tool	30400049



# LabJaws Clamps & Supports

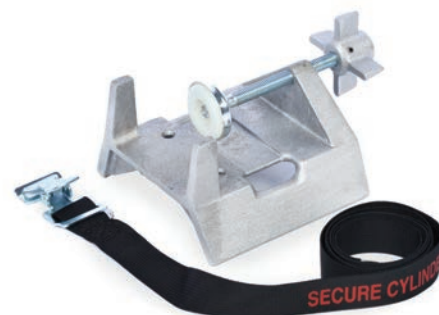
## Rods, Frames, & Supports

### Cylinder Bench Clamps

Rugged cast aluminum clamps safely secure gas cylinders to benches, tables or other flat surfaces up to 64 mm thick. The 25 mm wide, 1372 mm long nylon strap features a nickel-plated, non-slip spring catch and buckle for easy adjustment around cylinders from 102 to 356 mm in diameter. Models 711 and 716 available with or without a "Secure Cylinder" safety message strap.

#### Model 711 Bench Clamp

This bench clamp has a large tightening handle for mounting to any flat surface up to 64 mm thick. A nylon pad prevents damage to the bench or table surface. Two tapered mounting screw holes are provided for permanent attachment to bench-top.

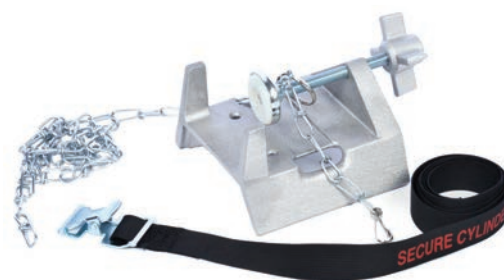
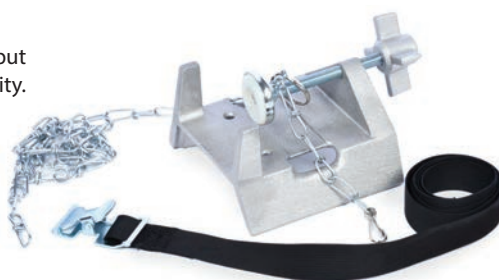


safety message strap

Description	Dimensions L x W x H (closed)	Cylinder Diameter	Item Number
Model 711 Bench Clamp with Strap	83 x 133 x 165 mm	102 to 356 mm	30400020
Model 711 Bench Clamp with Safety Message Strap	83 x 133 x 165 mm	102 to 356 mm	30400021

#### Model 716 Bench Clamp

This bench clamp is similar to Model 711, but includes a sturdy safety chain for extra security. Chain measures 1245 mm.



safety message strap

Description	Dimensions L x W x H (closed)	Cylinder Diameter	Item Number
Model 716 Bench Clamp with Strap & Chain	83 x 133 x 165 mm	102 to 356 mm	30400026
Model 716 Bench Clamp with Safety Message Strap & Chain	83 x 133 x 165 mm	102 to 356 mm	30400027

#### Model 712 Heavy-Duty Bench Clamp

This bench clamp has two screw clamps to tighten for extra firm mounting to any flat surface up to 45 mm thick with a 32 mm overhang. Especially convenient for temporary storage situations. Rugged cast aluminum bench clamp features a 25 mm wide, 1372 mm long nylon strap with nickel-plated, non-slip spring catch buckle to hold cylinders from 102 to 356 mm in diameter. This clamp is not available with a safety message strap.



Description	Dimensions L x W x H (closed)	Cylinder Diameter	Item Number
Model 712 Heavy-Duty Bench Clamp with Strap	83 x 152 x 114 mm	102 to 356 mm	30400022



## Rods, Frames, & Supports

### Model 715 Wall Bracket

Cylinder wall-mount brackets are constructed of cast aluminum and contoured to allow cylinders to fit firmly along the support edge. Recessed screw holes at each side of the bracket allow for easy wall mounting. Features a 25 mm wide, 1372 mm long nylon strap with nickel-plated, non-slip spring catch and buckle for fast, easy adjustment. Available with or without a "Secure Cylinder" safety message strap. For cylinders from 102 to 356 mm in diameter.



Description	Dimensions L x W x H	Cylinder Diameter	Item Number
Model 715 Wall Bracket with Strap	48 x 206 x 118 mm	102 to 356 mm	30400024
Model 715 Wall Bracket with Safety Message Strap	48 x 206 x 118 mm	102 to 356 mm	30400025

### Model 717 Wall Bracket

This wall bracket is similar to Model 715, but includes a sturdy safety chain for extra security. Chain measures 1245 mm.



Description	Dimensions L x W x H	Cylinder Diameter	Item Number
Model 717 Wall Bracket with Strap & Chain	48 x 206 x 118 mm	102 to 356 mm	30400028
Model 717 Wall Bracket with Safety Message Strap & Chain	48 x 206 x 118 mm	102 to 356 mm	30400029

# LabJaws Clamps & Supports

## Rods, Frames, & Supports

### Model 701 PVC Coated Stand

The PVC coated stand has a flat bottom support so it can't "ride up" on the cylinder. Includes an adjustable 25 mm wide, 1372 mm long nylon strap with nickel-plated, non-slip spring catch and buckle for fast, easy adjustment to keep the cylinder safely in place against upper support bar. Lower support bar stops cylinder shift. The PVC coating prevents marring of the cylinder surface. This clamp is not available with a safety message strap.



Description	Dimensions L x W x H	Cylinder Diameter	Item Number
Model 701 PVC Coated Stand	438 x 438 x 273 mm	178 x 254 mm	30400017

### Model 703 Stand

This cast aluminum stand hinges open and has 4 thumbscrews to tightly grip cylinders from 203 to 229 mm in diameter.



Description	Dimensions (Dia. x H)	Cylinder Diameter	Item Number
Model 703 Stand	464 x 152 mm	203 x 229 mm	30400018

### Model 704 Adjustable Stand

Heavy-duty, cast aluminum stand with adjustable "L" brackets hold cylinders from 152 to 235 mm in diameter. Hinges open for installation without lifting the cylinder or disturbing connections. Prevents accidental tipping. Hinges open for easy, no-lifting installation.



Description	Dimensions (Dia. x H)	Cylinder Diameter	Item Number
Model 704 Adjustable Stand	470 x 191 mm	152 x 235 mm	30400019

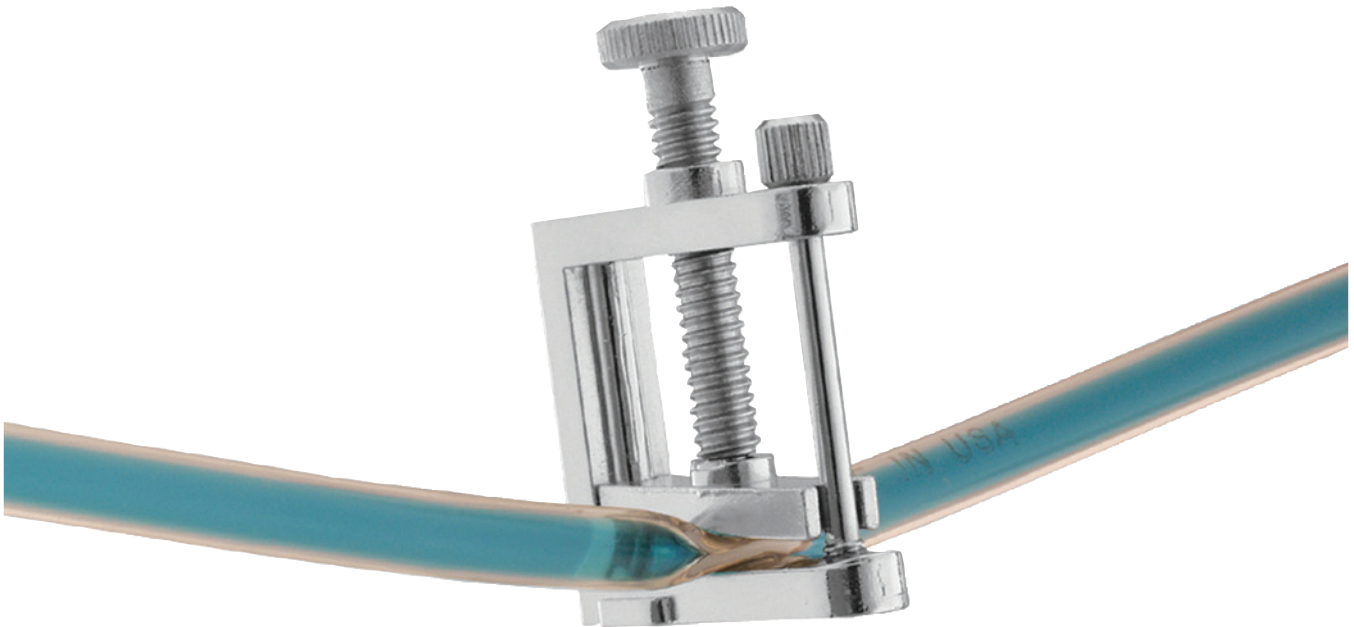
### Model 713 Portable Stand

This cast iron portable cylinder stand offers a sturdy cylinder stand and a convenient cylinder dolly all-in-one. This cylinder stand is designed in two interlocking halves and can be installed without lifting the tank. Built-in rubber wheels for easy mobility. Three thumbscrews tightly grip cylinder.



Description	Dimensions (Dia. x H)	Cylinder Diameter	Item Number
Model 713 Portable Stand	394 x 76 mm	178 x 235 mm	30400023

# Flow Control Clamps



Depend on LabJaws Flow Control Clamps for regulating or interrupting fluid flow. Our Hosecocks feature an adjustment screw with an oversized head which allows for one-hand operation. Pinchcocks are designed to quickly start-and-stop flow with a simple squeeze operation, providing complete closure without damaging the tubing. Select from four hosecock and three pinchcock models designed for a range of applications—from routine to heavy-duty.

- Choose from Four Models of Hosecocks Based on the Diameter of Your Tubing
- Stainless Steel Hosecocks—Ideal for Cleanrooms and Corrosive Environments
- Three Pinchcock Models for Regular to Heavy-Duty Start-and-Stop Flow Operation

# LabJaws Clamps & Supports

## Flow Control Clamps

LabJaws flow control devices offer selection and quality. They are finely machined to deliver accurate regulation or interruption of fluid flow. Every flow control device resists corrosion and rust. Hosecocks offer easy one-hand operation. Convex bearing surfaces and rounded edges protect tubing. Pinchcocks are designed to quickly start and stop flow and provide complete closure without damaging tubing. Operated with a simple squeeze. Nickel-plated construction (unless otherwise noted).

### Regular Hosecock

Adjustment screw with oversized head for accurate regulation. Built-in side lugs for foot mounting. Tubing retainer screw.

#### Stainless Steel

Min. to Max. Grip	Dimensions (W × H - open)	Item Number
0 to 17 mm	37 × 62 mm	30392221

#### Nickel-Plated Zinc

Min. to Max. Grip	Dimensions (W × H - open)	Item Number
0 to 17 mm	37 × 62 mm	30392210

### Heavy-Duty Hosecock

Large hand wheel for ease of flow adjustment. Unique design offers unparalleled control. Works well with heavy cut nylon braided tubing.

Min. to Max. Grip	Dimensions (W × H - open)	Item Number
0 to 29 mm	57 × 106 mm	30392310

### Hosecock Extension Clamp

Similar to regular hosecock but with 145 mm bottom mounted extension rod for attachment to frames and rods.

Min. to Max. Grip	Arm Length	Arm Dia.	Overall Length	Item Number
0 to 17 mm	145 mm	8 mm	175 mm	30392212

### Hosecock Foot

Add this option to Regular Hosecock (30392210 or 30392221) for bench or table mounting. Includes two mounting screws.

Diameter	Item Number
27 mm	30392211

### Regular Pinchcock

For routine stop/start flow operation.

Min. to Max. Grip	Clamp Height	Item Number
0 to 12 mm	47 mm	30392245

### Variable Flow Pinchcock

For precise flow adjustment and duplication of flow rates.

Min. to Max. Grip	Clamp Height	Item Number
0 to 13 mm	47 mm	30392247

### Heavy-Duty Pinchcock

Equipped with heavy-duty spring for tough jobs. Ensures complete closure.

Min. to Max. Grip	Clamp Height	Item Number
0 to 11 mm	48 mm	30392246



# Misc. Non-Electrical Products



From microbiological colony preparation to histology staining, LabJaws offers a range of products for efficient lab work. Hand-operated, cast iron Inoculating Turntables enable rapid, uniform spreading of bacterial and yeast colonies. Slide Staining Racks designed to fit over a tray or sink are ideal for a variety of histology staining applications. Our product offering also includes AirEjectors which provide rapid air removal within seconds.

- Hand-Operated Inoculating Turntables Enable Smooth Rotation for Spreading Cultures
- Slide Staining Racks Designed to Fit Easily Over a Tray, Dish or Sink
- AirEjector Provides Rapid Air Removal

# LabJaws Clamps & Supports

## Misc. Non-Electrical Products

### Inoculating Turntables

OHAUS hand-operated inoculating turntables produce almost concentric circles of bacterial colonies that are evenly distributed across petri dishes. Cast iron turntables are coated with gray baked acrylic enamel.

The 76 mm high, small turntable accommodates 100 mm petri dishes. It has a tripod base to bring work approximately to eye level. It has a center disk covered with non-skid rubber lining.

The large turntable accommodates 100 mm or 150 mm petri dishes. It has a height of only 32 mm ideal for steadying a forearm on the work surface while plating. The large turntable contains two circular sections. The top section has a raised gripper lip as well as a recessed center disk covered with non-skid rubber lining.

Description	Dimensions (Dia. × H)	Item Number
Small Turntable	114 × 77 mm	30400046
Large Turntable	150 × 32 mm	30400047



### Slide Staining Rack

Constructed of stainless steel, the OHAUS Slide Staining Rack will resist corrosion under normal use. Adjustable to fit trays or sinks up to 533 mm inside.

Description	Dimensions (L × W)	Item Number
Slide Staining Rack	603 × 89 mm	30400048



### Airejector

Rapid air removal evacuates 1 liter of air to 711 mm of vacuum in 30 seconds. Works with compressed air sources to 60 psi. Nickel-plated construction.

Description	Length	Item Number
Airejector	140 mm	30392367



# What is in a Model Number?

## Open Air Shakers



SHHD1619DG = Heavy Duty Open Air Shaker with 16 kg capacity, 19 mm orbit and digital controls					
SH	LD	MP	03	DG	
Type	Family	Capacity	Orbit*	Front Panel Control	Tiers**
SH = Open Air Shakers	LD = Light Duty*** EX = Extreme Environment HD = Heavy Duty**** RK = Rocking WV = Waving RC = Reciprocating	02 = 2 kg 04 = 4 kg 07 = 7 kg 16 = 16 kg 23 = 23 kg 45 = 45 kg 68 = 68 kg MP = Microplates	Orbit (mm): 03 = 3 mm 15 = 15 mm 19 = 19 mm 25 = 25 mm 50 = 50 mm	AL = Analog DG = Digital	1 = 1 2 = 2
*Not applicable to RK and WV families **Analog Rockers Only		***LD models can handle samples up to 3.6 kg or 4 microplates or 2 micro-tube racks ****HD models can handle heavier samples and are available from 16 up to 68 kg			

## Incubating & Incubating Cooling Shakers



ISTHBLHTS = Incubating Cooling Thermal Shaker with block, heats only and touch screen controls					
IS	LD	04	H	DG	
Type	Family	Capacity	Temperature Control	Front Panel Control	Opaque Lid Only
IS = Incubating Shakers	IC = Incubating/Cooling TH = Thermal Shakers HD = Heavy Duty** LD = Light Duty* RK = Rocking WV = Waving	02 = 2 kg 04 = 4 kg 16 = 16 kg 23 = 23 kg BL = Thermal Shaker Blocks MP = Microplate or Modular Blocks MP = Microplates	C = Heats & Cools H = Heat Only	DG = Digital TS = Touch Screen	L = Light Sensitive Samples
			*LD models can handle samples up to 3.6 kg or 4 microplates or 2 micro-tube racks **HD models can handle heavier samples and are available from 16 kg up to 23 kg		

## Vortex Mixers



VXMNAL = Mini Vortex Mixer with analog control			
VX	MN	AL	
Type	Family	Front Panel Control	
VX = Vortex Mixer	MN = Mini* HD = Heavy Duty** MP = Microplate MT = Multitube	AL = Analog DG = Digital FS = Fixed Speed PS = Pulsing	*Mini models have an intermittent duty rating for short term mixing and are limited to speeds below ~900 rpm when used with optional accessories **HD models have a continuous duty rating for mixing samples when used with optional accessories throughout the entire speed range for extended periods of time

## Dry Block Heaters



HB1AL = 1 Block Heater with analog controls			
HB	1	AL	
Type	Family	Front Panel Control	Units with Lids Only
HB = Heat-blocks	1 = 1 Block Well 2 = 2 Block Well 4 = 4 Block Well 6 = 6 Block Well	AL = Analog DG = Digital	HL = Heated Lid version LD = Lid (non-heated)

## Hotplates & Stirrers



HSMNHS4CAL = Mini Hotplate Stirrer with 10 x 10 cm ceramic plate and analog controls					
HS	MN	HS	4	C	AL
Type	Family	Function	Top Plate Size	Top Plate Material	Front Panel Control
HS = Hotplate Stirrer	MN = Mini	AS = Auto Stirrer HP = Hotplate HS = Hotplate Stirrer ST = Stirrer	4= 10 x 10 cm / 4 x 4 inch	C = Ceramic	AL = Analog FT = Fixed Temperature



## OHAUS Corporation

Headquartered in Parsippany, NJ, OHAUS Corporation manufactures an extensive line of high-precision electronic and mechanical balances and scales that meet the weighing needs of virtually every industry. We are a global leader in the laboratory, industrial, and education channels as well as a host of specialty markets, including the food preparation, pharmacy and jewelry industries. An ISO 9001:2008 manufacturer, OHAUS products are precise, reliable and affordable, and are backed by industry-leading customer support. For additional information, contact OHAUS Corporation or visit [www.ohaus.com](http://www.ohaus.com).



OHAUS Europe GmbH  
Im Langacher 44  
8606 Greifensee  
Switzerland  
Email: [ssc@ohaus.com](mailto:ssc@ohaus.com)  
Email: [tsc@ohaus.com](mailto:tsc@ohaus.com)  
[www.ohaus.com](http://www.ohaus.com)  
**CH16D321**

*Ingeniously Practical*