

Аналоговые мешалки HP-200, ST-200, SHP-200, ST-200-LS, портативные ST-200-P, трехпозиционные ST-200-MP, с питанием от батареи, мини, нагревательные плиты HP-200-AR

Технические характеристики

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Cole-Parmer® SHP-200 Series Undergrad Stirring Hot Plate Kits



Offers accurate temperature control and overheating protection

- Compact, stackable design takes up less benchtop and storage space
- Hot warning light remains on even when unplugged
- Built with tough aluminum casing for longevity
- Designed to prevent accidental spillage on control panel
- BioCote® antimicrobial protection is built in for a cleaner, more hygienic product





These kits feature a stirring hot plate designed with microprocessor-controlled dual thermocouples, providing you an accurate temperature control and protection from overheating. Powerful magnets and motor provide you with stirring speeds of up to 2000 rpm and mixing capability of up to 15 L of liquid. The square plate design allows you flexibility of vessel sizes and combinations.





To keep you safe, a “hot” warning light flashes whenever the plate surface temperature is above 50 °C and continues to flash until the temperature drops below 50 °C, even when unplugged.

These stirring hot plates feature BioCote® antimicrobial protection which reduces the presence of odor and stain causing microbes such as bacteria, mold, and fungi on the product surface by up to 99.99%.

All the stirring hot plates include an integral fitting for a retort rod and allow the retort base to slide underneath. For convenience and power saving, the units are built with a standard mains switch. To achieve accurate sample temperature control up to 200 °C (392 °F), the temperature controller can be connected to the unit and held in place with the probe holder and support rod, which are all included in the kit.

•

Compare item	Max Temperature (°C)	Power (VAC)	Description
<div data-bbox="124 253 256 376"></div> <div data-bbox="256 253 571 286">EW-04807-89</div> <div data-bbox="124 421 140 432">—</div>	450	230	SHP-200-C Undergrad Analog Stirring Hot Plate and TC-200D Temperature Controller Kit, 230 VAC
<div data-bbox="124 689 256 813"></div> <div data-bbox="256 689 571 723">EW-04807-93</div> <div data-bbox="124 857 140 869">—</div>	450	120	SHP-200-C Undergrad Analog Stirring Hot Plate and TC-200D Temperature Controller Kit, 120 VAC
<div data-bbox="124 1126 256 1249"></div> <div data-bbox="256 1126 571 1160">EW-04807-94</div> <div data-bbox="124 1294 140 1305">—</div>	325	230	SHP-200-S Undergrad Analog Stirring Hot Plate and TC-200D Temperature Controller Kit, 230 VAC
<div data-bbox="124 1563 256 1686"></div> <div data-bbox="256 1563 571 1597">EW-04807-95</div> <div data-bbox="124 1731 140 1742">—</div>	325	120	SHP-200-S Undergrad Analog Stirring Hot Plate and TC-200D Temperature Controller Kit, 120 VAC


Compare item	Max Temperature (°C)	Power (VAC)	Description
 EW-04807-96 —	450	230	SHP-200D-C Undergrad Digital Stirring Hot Plate and TC-200D Temperature Controller Kit, 230 VAC
 EW-04807-97 —	450	120	SHP-200D-C Undergrad Digital Stirring Hot Plate and TC-200D Temperature Controller Kit, 120 VAC
 EW-04807-98 —	325	230	SHP-200D-S Undergrad Digital Stirring Hot Plate and TC-200D Temperature Controller Kit, 230 VAC
 EW-04807-99 —	325	120	SHP-200D-S Undergrad Digital Stirring Hot Plate and TC-200D Temperature Controller Kit, 120 VAC

Cole-Parmer® ST-200 Series Multiposition Stirrers



Versatile—perform different mixing applications at the same time

- Each stirring position is individually controlled
 - Capable of stirring solutions from 100 to 1500 rpm
 - Designed to keep spills away from the electronics
 - Solid ceramic top offers excellent corrosion and chemical resistance
- These analog multiposition stirrers offer more versatility than single-position stirrers. Stirring positions are individually controlled so you can perform different mixing applications simultaneously. Each stirrer position can stir solutions from 100 to 1500 rpm. The solid ceramic top surface is corrosion and chemical resistant, is easy to clean, and measures 30.5 x 30.5 cm (12" x 12").

Compare item	Max Stirring Volume per position (Liters)	No. Of Stirring Positions	Power (VAC)
<div>EW-51450-21</div>	0.8	5	120

Compare item	Max Stirring Volume per position (Liters)	No. Of Stirring Positions	Power (VAC)
<div>EW-51450-23</div> <div>—</div>	0.5	9	120
<div>EW-51450-26</div> <div>—</div>	0.8	5	230
<div>EW-51450-28</div> <div>—</div>	0.5	9	230



 **Cole-Parmer®**

STIRRERS AND STIRRING HOT PLATES

STATE-OF-THE-ART DESIGN,
SUPERIOR PERFORMANCE



Cole-Parmer® Stirrers & Stirring Hot Plates

MINI-STIRRER

This compact stirrer offers a wider speed range than the competition at a more reasonable price. Ideal for most general mixing applications. Low-profile design is suited for areas with height restrictions.

- Small yet powerful-stirs liquids up to 2000 rpm
- Easy-to-clean, chemical-resistant nylon top
- Tough, stable Hytrel® base
- Compact size saves on benchtop space
- Handles up to 1 L of liquid
- Includes a 5/8" x 1/8" stir bar



MAGNETIC STIRRERS AND STIRRING HOT PLATES

New

Use this stirrer for all of your stirring applications-from gentle agitation to vigorous churning.

- All the features of competitive products for hundreds of dollars less!
- Unique U-shaped magnet holds stir bar tight
- Permanently lubricated, brushless drive provides long, trouble-free operation
- Cast-aluminum body is designed for stability and water resistance
- Milled aluminum top provides superior temperature uniformity and durability
- Stirring hot plates available with aluminum or ceramic top plates-choose ceramic for higher temperatures
- Corrosion-resistant ceramic top is mounted in a cast-aluminum frame for cooler edges
- Hot plate heats to 932° F (500° C) in approximately 2 minutes

*High quality!
Economically priced!*



Cole-Parmer® Stirrers & Stirring Hot Plates

BATTERY-POWERED MAGNETIC STIRRER

This stirrer is compact and portable-perfect for field analysis, or anywhere you need vigorous sample stirring. Suitable for use inside incubators, fume hoods, or glove boxes.

- Tough, compact, and lightweight
- Eliminate the need for cumbersome extension cords-take this unit anywhere!
- Stepless speed control up to 700 rpm
- Epoxy-coated metal case minimizes corrosion for long life
- Operates on two 9 V batteries
- Maximum 2.5-L stirring capacity



MULTIPOSITION STIRRERS AND STIRRING HOT PLATES

More versatile than single-position models. Each stirring position is individually controlled to perform different mixing applications simultaneously-ideal for multi-sample processing.



- Available in 5- or 9-position models
- Easy-to-clean ceramic top is resistant to acid and alkali
- Stirring hot plates can be set to heat only, stir only, or heat and stir simultaneously
- Top plate will heat quickly and not warp or buckle
- Temperature control can be set to Hi, Low, or Off with a total of 10 divisions
- Accommodates a top plate load of 20 lbs!
- Suitable for solubility and immiscibility studies

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or contact your local dealer.



**FREE TECHNICAL
APPLICATIONS ASSISTANCE!**

PERFORMANCE SPECIFICATIONS

Temperature range:

Models 04803-01, -03: 120 to 700° F (49 to 371° C)

Models 04803-05, -07: 120 to 842° F (49 to 450° C)

Models 51450-70, -72, -75, -77: 212 to 752° F (100 to 400° C)

Catalog number	No. of positions	Top plate		Overall dimensions (W x H x D)	Speed range			Power
		Dimensions	Materials					
Mini-stirrer								
ML-04807-10	1	4 1/8" x 3 1/4" x 4 1/4"	Nylon	5 1/2" x 2 1/2" x 5 1/2"	350 to 2000 rpm	1 L	115 VAC, 60 Hz	No
Battery-powered magnetic stirrer								
ML-04804-01	1	3 3/4" x 3 3/4"	Metal	3 3/4" x 2 1/4" x 3 3/4"	200 to 700 rpm	2.5 L	Battery	—
Magnetic stirrers								
ML-04802-01	1	6" x 6"	Aluminum	6" x 4 1/2" x 6"	100 to 1500 rpm	2.5 L	115 VAC, 60 Hz	No
ML-04802-03							230 VAC, 50 Hz	Yes
Magnetic stirring hot plates								
ML-04803-01	1	6" x 6"	Aluminum	6" x 4 1/2" x 6"	100 to 1500 rpm	2.5 L	115 VAC, 60 Hz	No
ML-04803-03							230 VAC, 50 Hz	Yes
ML-04803-05	1	6" x 6"	Ceramic				115 VAC, 60 Hz	No
ML-04803-07							230 VAC, 50 Hz	Yes
Multiposition stirrers								
ML-51450-20	5	10' x 10'	Ceramic	10 1/2' x 6 1/2' x 15'	100 to 1200 rpm	800 ml per position	120 VAC, 50/60 Hz	No
ML-51450-25							230 VAC, 50/60 Hz	
ML-51450-22	9				400 ml per position	120 VAC, 50/60 Hz		
ML-51450-27			230 VAC, 50/60 Hz					
Multiposition stirring hot plates								
ML-51450-70	5	10 x 10'	Ceramic	10 1/2' x 6 1/2' x 15'	100 to 1200 rpm	800 ml per position	120 VAC, 50/60 Hz	No
ML-51450-75							230 VAC, 50/60 Hz	
ML-51450-72	9				400 ml per position	120 VAC, 50/60 Hz		
ML-51450-77			230 VAC, 50/60 Hz					

What's included:

Power cord with plug; battery-powered model includes two 9 V batteries.

**For our complete selection of
Stir Bars, click link below.**



Installation and Operating Instructions

Cole-Parmer®

ST-200 Analog Multi-Position Stirrers and SHP-200 Stirring Hot Plates

Models 51450-21, 23, 26, 28, 71, 73, 76, 78



CE:

1 Introduction

Congratulations on your purchase of a Cole-Parmer Multi-Position Stirrer or Stirring Hot Plate. You will find it easy to use and to maintain. Please read the instructions to insure that you receive the maximum benefit from it.

11 Warranty

Cole-Parmer warrants this unit to be free from defects in material and workmanship for a period of one year from the date of purchase. If repair or adjustment is necessary within the one year period, and has not been the result of abuse or misuse, please return the unit, freight prepaid to us or the dealer from whom you purchased the unit, and correction will be made without charge. Out of warranty products will be repaired on a charge basis. **Be sure to fill in and return the warranty registration card.**

111 Return of Items

Authorization must be obtained before returning items for any reason. When applying for authorization, please include data regarding the reason the items are to be returned. For your protection, items must be carefully packed to prevent damage in shipment and insured against possible damage or loss. Cole-Parmer will not be liable for damage resulting from careless or insufficient packing. A 15% restocking charge will be made on all unauthorized returns. **Note:** Cole-Parmer reserves the right to make improvements in design, construction and appearance without notice.

M. Labels and Symbols

There are various labels on the body of these units. Listed below are the labels and their Meanings.



Attention. The instruction manual is to be consulted for further information.
Attention. Lire ce manuel pour des informations complémentaires.



Warning. Hot surface. Attention. Surface chaude.



Ground or earth connections. Connexion a la terre.

V. Cautions

Heater Plate Surface

The HS15 and HS19 units are capable of temperatures in excess of 450 °C at the plate surface. Touching the heated surface will cause severe burns. **USE EXTREME CAUTION AT ALL TIMES.** Never leave your hot plate accessible to others while it is hot. Never touch the heater surface unless you are absolutely certain that it is cool.

NOTE: DO NOT INSTALL THIS UNIT CLOSER THAN SIX (6) INCHES (15.24 CM) TO A WALL OF COMBUSTIBLE MATERIAL. ALSO, THIS UNIT IS NOT FOR USE WITH FLAMMABLE LIQUIDS. NE PAS INSTALLER A MOINS DE 152 mm (6 PO) D'UNE PAROI EN MATERIAU COMBUSTIBLE.

Remember that the plate surface is ceramic glass. It is very rugged, but it can be broken if heavy metal objects are dropped on it. Try not to use sample containers that overlap the edges of the heater plate. The reflected heat may damage the silicon adhesive holding the heater plate in its cast aluminum frame.

Stirrers

Each stirrer position is capable of stirring solutions well beyond 1500 rpm. Stirring a sample rapidly can cause solutions to splash out of a vessel onto the surfaces around the unit including the user. Additionally, stirring too rapidly can cause the stir bar to break loose from the stirrer magnet and rattle around the vessel causing the vessel to walk off the heater plate surface and to spill the solution. The stirrers are open-loop. That means that there is no feedback circuit to maintain a constant stirring speed. As solutions heat, they often become less viscous causing the stirrer to run more rapidly. Always check the stirrer to be sure it is set at the speed you require to mix a solution safely.

The **5-position** stirrers can hold **5-800ml glass beakers** or other vessels of about that diameter. There are stirrer positions in the middle of the heater top and toward the four corners of the heater top. The **9-position** stirrers can hold **9-500ml glass beakers** or other vessels of about that diameter. There are stirrer positions in the middle, the four corners and the spaces between the four corners. They will appear in rows of three across the heater surface.

Electrical

These units are made in models that operate at 115 or 230 volts AC 10%. Be certain that your voltage matches the unit. Check the voltage on the bottom label for the voltage setting on the unit. Be certain to use a three-wire, properly grounded AC input. Take the normal care and precautions one would use with any electrical appliance. Be careful to keep the AC line cord away from the heater plate surface. **Be certain to use a line cord of the same type and rating as the one supplied with the unit.**

The unit is fused. The fuse is in a drawer in the AC power module on the rear of the unit. If the unit will not heat or stir, the fuse may be open. The fuse can be checked by removing the AC line cord from the AC power input module, and removing the fuse drawer from its holder. To remove the drawer, use a small, straight screw driver and pry open the drawer. Note how it comes out so that it may be replaced easily. Replace with fuses of the same value as installed by the manufacturer. The fuse value will be on the fuse label next to the fuse module. **Caution. If fuses blow repeatedly, contact your dealer or the manufacturer. Attention. Si les fusibles sautent de manière répétitive, contacter votre distributeur habituel ou le fabricant.**

VI. Set-Up Parameters and Instructions

These units are very simple to use. Follow the instructions below for installation.

Note: The IPX (Index of Protection) rating for this unit is Oas specified by the manufacturer:

Set Up Parameters

1. Ambient operating temperature range is from 5 °C to 40 °C.
2. Maximum altitude of operation should not exceed 2000 meters.
3. Maximum ambient operating relative humidity should not exceed 80% at 31 °C decreasing linearly to 50% relative humidity at 40 °C.

Set Up Instructions

1. Place the unit on a level, dry bench or surface.
2. Plug the unit into a properly grounded, three-wire outlet of proper voltage.
3. The power is supplied to the heater and stirrer separately through their individual controls.

Note: Do not use this equipment in any manner not specified by the manufacturer.

Note: Ne pas utiliser cet équipement si vous ne pouvez pas respecter les conditions d'utilisation spécifiées par le fabricant.

Environmental Information

1. This unit is for installation category 11
2. This unit is rated pollution degree 2.
3. For the pollution category for decommissioning these units, check local code requirements. This unit carries a WEE label. What this means is that the unit cannot be thrown in the trash. It contains materials that require disposal in a proper disposal site like those for computers and other electronic equipment.

VII. Controls and Indicator Lamps

Heater Control and Indicator Lamp

The heater control is tied to the indicator lamp next to it. When the control is activated, the lamp will illuminate. The control itself has an OFF position and two quick set positions: H and LO. Between high and low there is about 270° of rotation about the bottom of the dial that is infinite, that is, smooth and without detents.

The low setting will heat the plate surface to about 100°C. The high setting will heat the plate surface to about 450°C depending upon your local input line voltage. Any setting in between is attainable by turning the dial between LO and H about the bottom axis of the dial.

Stirrer Controls

The stirrer controls have no indicator lamp. The controls have an OFF detent fully counter-clockwise. When turning the dial clockwise the off detent will click and the control will be active. As the control is turned clockwise, the stirrer will increase in speed.

On the **5-position** stirrer the middle knob/control is for the center stirrer on the heater top. The top 2 knobs/controls are for the back two stirrer positions. The bottom 2 knobs/controls are for the two positions closest to the front of the unit.

On the **9-position** stirrer, the pattern of stirrer controls is from the lower right to the upper left in 3 slanted rows. The right row of knobs/controls from bottom to top is for the stirrer positions on the right side of the heater top from front to back. The center row of knobs/controls from bottom to top is for the middle stirrer positions from front to back. The left row of controls/knobs from bottom to top is for the left side of the heater top from front to back.

Note: The stirrer will have a dead zone for about the first 90° of rotation. The stirrer will not start to run in this zone. That is because the stirrer motor will start to run more freely as it heats and breaks-in. This will cause the stirrer to run faster until the motor warms-up. Leaving this dead zone allows the user to turn-down the speed of the stirrer as the stirrer motor warms-up. Be certain to observe the stirrer for a while after initial setting to avoid having the stirrer motor run too rapidly.



5-position stirring hot plate

9-position stirring hot plate

VIII. Cleaning and Maintenance

This unit is subject to splashes and spills. Be sure to clean all spills quickly. The adhesive that holds the ceramic glass heater surface is a silicone-based adhesive that may be attacked or discolored by acids or bases. Quick clean up of spills will prevent damage. Wipe spills with a soft cloth or paper towel. If a cleaning solution is necessary, use a mild soap or detergent solution and a soft cloth. **Be sure not to use solvents. They could damage the paint and labels.**

Cleaning the glass heater top is equally simple. Use any slightly abrasive cleaner used on glass surfaces and a paper towel or soft cloth.

CAUTION: DO NOT ATTEMPT TO CLEAN THE HEATER SURFACE WHEN IT IS HOT. BURNS COULD OCCUR.

PRECAUTION D'EMPLOI: NE PAS NETTOYER LA SURFACE DE LA PLAQUE LORSQU'ELLE EST CHAUDE POUR EVITER TOUTE BRULURE ACCIDENTELLE.

Maintenance

There is no preventative maintenance required on these units other than to keep them clean. All components are solid state and will work until they fail. If they fail, they can be replaced easily. A simple inspection should be done whenever the unit is to be used. This simple inspection should include:

1. Checking that the AC cord is not frayed or burned.
2. Checking that the unit is not dirty to a point where proper performance is impaired.
3. Be certain to store the unit properly; when not in use, in an area that will not have items placed on top of the unit, and covered in a way that will keep dirt and other foreign bodies out of the unit.

Spare and Consumable Parts

There are very few spare or consumable parts necessary. A simple list is below.

Part Number	Description
730-0001	Power Cord, US
730-0006	Power Cord, German (European)
730-0008	Power Cord, UK
730-0004	Power Cord, Italian
730-0005	Power Cord, Australian
380-0003	Fuse, 8 amp, 125 volt
380-0005	Fuse, 4 amp, 250 volt

IX ADDITIONAL SYMBOLS

The following are additional symbols found on the labels of the instrument.

Symbol	Description
V	Voltage
~	Alternating Current
A	Current
Hz	Frequency
W	Power
F	Fast Acting Fuse

Trash can with line across it WEE label. Do not throw the unit in the trash for disposal.

ST-200 Stirrers



For Product Information

SHP-200 Hot Plate Stirrers



For Product Information

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Cole-Parmer®

Cole-Parmer® Stirrer Multiposition, ST-200-MP

- Three independently controlled stirring positions
- Powerful magnets for strong magnetic coupling
- Stainless steel top plate





Cole-Parmer® Stirrer Multiposition, ST-200-MP

A space saving and economical unit with three independent stirring positions in a footprint only 600 x 270mm. Easily accommodates 3 x 2 litre beakers. The stainless steel top plate is robust and, unlike aluminium, does not produce eddy currents and so ensures a very powerful coupling and stirring action. Powerful magnets and motor give stirring speed up to 1500rpm and volumes up to 15 litres *. Supplied complete with 3 x 25mm PTFE coated stir bars.

Technical Specification

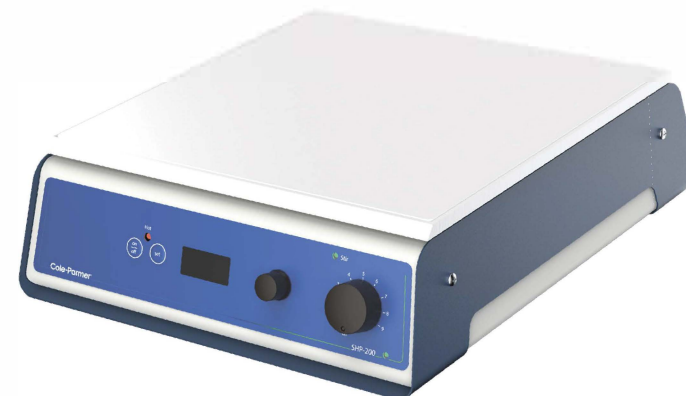
Specification	ST-200-MP
Plate material	Stainless steel
Plate dimensions, mm	550 x 210
Speed range, rpm	100 to 1500
Dimensions, mm (w x d x h)	606 x 268 x 94
Net weight, kg	7
Electrical supply	230V, 50Hz, 150W
IP Rating	31

Ordering Information

Description	Ordering Number	Series No.	Model No.	Legacy Sku.
Stirrer, magnetic, 3 position and Allen key	51400-02	ST-200	ST-200-MP	5B161-3
Retort rod bracket	04805-96	ST-200	N/A	SR3
Retort rod, 600mm x 12mm diameter.	04805-91	ST-200	N/A	SR1

HP-200, SHP-200 Series Large Capacity Hot Plates and Stirrers

- 30 x 30 *cm* (12 x 12 ins), and 30 x 50 *cm* (12 x 20 ins)
- Digital and Infrared
- Choice of plate material
- All units incorporate the latest technology, microprocessor controlled, dual thermocouples to ensure accurate temperature control and over temperature protection
- Biocote® anti-microbial protection
- LED temperature indicator
- The hot warning light remains active even when switched off, but still connected to the mains supply.
- Now includes a 120 VAC variant across the range
- 3-year warranty



Hotplate Stirrer SHP-200D-L-C



Hotplate Stirrer HP-200D-XL-C

HP-200 Series Large Capacity Hot Plates - Digital

Features:

- Digital setting and control of plate temperature
- Accurate temperature control by microprocessor
- Choice of top plate material
 - glass ceramic - provides excellent chemical resistance, high plate temperatures, easy to clean
 - aluminum/silicon alloy - rapid heating and even temperature distribution across whole plate
- Large square plate area ideal for heating one large vessel or several smaller ones
 - 30 x 50 cm can accommodate up to 30 x 100 ml beakers
- The hot warning light remains active even when switched off, but still connected to the mains supply.
- 30 x 30 cm (12 x 12 ins)
 - 04807-66-67 - ceramic, max temp 450 °C
 - 04804-80-81 - aluminum, max temp 300 °C
- 30 x 50 cm (12 x 20 ins)
 - 04807-70 - ceramic, max temp 375 °C
 - 04807-82-83 - aluminum, max temp 300 °C



HP-200D-L-S
230V: 04807-80
120V: 04807-81



HP-200D-XL-S
230V: 04807-82
120V: 04807-83



HP-200D-L-C
230V: 04807-66
120V: 04807-67



HP-200D-XL-C
230V: 04807-70



HP-200-IR-L
230V: 04807-84
120V: 04807-85

HP-200 Series Large Capacity Hot Plates - Infrared

Features:

- Easy to use temperature control dial
- Infrared heater is efficient and saves time and energy
 - even plate temperatures and uniform heating conditions
- Ideal for heating large volumes of liquid
- Chemically resistant ceramic top
 - Max temp 450 °C
- The hot warning light remains active even when switched off, but still connected to the mains supply.
- 30 x 30 cm (12 x 12 ins)



ST-200-L-S
230V: 04807-74
120V: 04807-75

ST-200 Series Large Capacity Stirrers

Features:

- Easy to use temperature control dial
- Powerful magnetic drive with electronic feed-back speed control accurately maintains the set speed
- Powerful magnets for strong magnetic coupling
- Speed range -100-600 rpm
- Easily stirs up to 30 liters
- Robust, durable construction with stainless steel top
- 30 x 30 cm (12 x 12 ins)

SHP-200 Large Capacity Stirrer/Hot Plates - Digital



SHP-200D-L-C
230V: 04807-76
120V: 04807-77



SHP-200D-L-S
230V: 04807-78
120V: 04807-79

Features:

- Easy to use temperature and stirring control dials
- Choice of top plate material
 - glass ceramic - provides excellent chemical resistance, high plate temperatures, easy to clean
 - aluminum/silicon alloy - rapid heating and even temperature distribution across whole plate
- Large square plate area ideal for handling large vessel
- Powerful stirring action - volumes up to 15 Liters
- Independent safety circuit to protect against overheating
- The hot warning light remains active even when switched off, but still connected to the mains supply.
- 30 x 30 cm (12 x 12 ins)
 - 04807-76-77 - ceramic, max temp 450 °C, stirring 100 -1500 rpm
 - 04807-78-79 - aluminum, max temp 300 °C, stirring 100 -1500 rpm



SHP-200-IR-L
230V: 04807-86
120V: 04807-87

SHP-200 Series Large Capacity Stirrer/Hot Plates - Infrared

Features:

- Easy to use temperature control dial
- Powerful magnetic drive with electronic feed-back speed control accurately maintains the set speed
- Powerful magnets for strong magnetic coupling - stirring 100 -1500 rpm
- Easily stirs up to 30 liters
- Chemically resistant ceramic top - max temp 450 °C
- 30 x 30 cm (12 x 12 ins)

Specifications

Model no.	HP-200D-L-C	HP-200D-L-S	HP-200D-XL-C	HP-200D-XL-S	ST-200-L-S	SHP-200D-L-C	SHP-200D-L-S	HP-200-IR-L	SHP-200-IR-L
Plate material	Glass ceramic	Al/Si alloy	Glass ceramic	Al/Si alloy	Stainless steel	Glass ceramic	Al / Si alloy	-	-
Plate dimensions	30 x 30 cm	30x30cm	30 x 50 cm	30 x 50 cm	30x30cm	30 x 30 cm	30 x 30 cm	30x30 cm	30 x 30 cm
Heated area, mm	20 x 2 cm	30x30cm	25 x 45 cm	30 x 50 cm	-	20x20 cm	30 x 30 cm	14 cm diameter	14 cm diameter
Heater power	1200W	600W	2250W	1500W	-	1200W	600W	900W	900W
Max. plate temp	450 °C	300 °C	375 °C	300 °C	-	450 °C	300 °C	-	-
Speed range	-	-	-	-	100x600 rpm	100 to 1500 rpm	100 to 1500 rpm	-	100 to 1500 rpm
Max.stirring capacity	-	-	-	-	30 L	15 L	15 L	-	-
Dimensions [W x H x D]	32 x 12 x 37 cm	32 x 12 x 37 cm	56 x 13 x 36 cm	56 x 13 x 36 cm	32.8 x 10.3 x 36.9 cm	30 x 10.5 x 36.5 cm	30 x 10.5 x 36.5 cm	30 x 10.5 x 36.5 cm	30 x 10.5 x 36.5 cm
Net weight, kg	6	6	12	12	5	7	7	4	4
Electricity supply	120 VAC, 60 Hz 230 VAC 50/60 Hz	120 VAC, 60 Hz 230 VAC 50/60 Hz	230 VAC, 50 Hz	120 VAC, 60 Hz 230 VAC 50/60 Hz	120 VAC, 60 Hz 230 VAC 50/60 Hz	120 VAC, 60 Hz 230 VAC 50/60 Hz	120 VAC, 60 Hz 230 VAC 50/60 Hz	120 VAC, 60 Hz 230 VAC 50/60 Hz	120 VAC, 60 Hz 230 VAC 50/60 Hz
P rating	IP31	IP31	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Warranty	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years

Ordering Information

Description	Item no.	Series no.	Model no.	LegacySKU
Ceramic, Digital, 30x30 cm Hotplate, 230 VAC	04807-66	HP-200	HP-200D-L-C	CB300
Ceramic, Digital, 30x30 cm Hotplate, 120 VAC	04807-67	HP-200	HP-200D-L-C-120	CB300/120V/60
Ceramic, Digital, 30x50 cm Hotplate, 230 VAC	04807-70	HP-200	HP-200D-XL-C	CB500
Metal, Analog, 30x30 cm Stirrer, 230VAC	04807-74	ST-200	ST-200-L-S	S8301
Metal, Analog, 30x30 cm Stirrer, 120VAC	04807-75	ST-200	ST-200-L-S-120	S8301/120V/60
Ceramic, Digital, 30x30 cm Hotplate/Stirrer, 230 VAC	04807-76	SHP-200	SHP-200D-L-C	CB302
Ceramic, Digital, 30x30 cm Hotplate/Stirrer, 120 VAC	04807-77	SHP-200	SHP-200D-L-C-120	CB302/120V/60
Metal, Digital, 30x30 cm Hotplate/Stirrer, 230 VAC	04807-78	SHP-200	SHP-200D-L-S	S8302
Metal, Digital, 30x30 cm Hotplate/Stirrer, 120 VAC	04807-79	SHP-200	SHP-200D-L-S-120	S8302/120V/60
Metal, Digital, 30x30 cm Hotplate, 230VAC	04807-80	HP-200D	HP-200D-L-S	SD300

Ordering Information - continued

Description	Item no.	Series no.	Model no.	LegacySKU
Metal, Digital, 30x30 cm Hotplate, 120VAC	04807-81	HP-200D	HP-200D-L-S-120	SD300/120V/60
Metal, Digital, 30x50 cm Hotplate, 230VAC	04807-82	HP-200D	HP-200D-XL-S	5D500
Metal, Digital, 30x50 cm Hotplate, 120VAC	04807-83	HP-200D	HP-200D-XL-S-120	SD500/120V/6
Infrared Hotplate, 30x30 cm, 230VAC	04807-84	HP-200	HP-200-IR-L	CR300
Infrared Hotplate, 30x30 cm, 120VAC	04807-85	HP-200	HP-200-IR-L-120	CR300/120V/60
Infrared Hotplate/Stirrer, 30x30 cm, 230 VAC	04807-86	SHP-200	SHP-200-IR-L	CR302
Infrared Hotplate/Stirrer, 30x30 cm, 120 VAC	04807-87	SHP-200	SHP-200-IR-L-120	CR302/120V/60

Cole-Parmer®

Cole-Parmer® Hot Plate, acid resistant, HP-200

- A completely new concept in hot plates
- PTFE construction with glass ceramic plate for exceptional resistance to chemical attack
- Ideal for acid digestions or trace metal analysis
- Separate control box connected with a PTFE coated lead



HP-200 Hot Plate



HP-200 Hot Plate



Technical Specification

Specification	HP-200-AR
Plate material	Glass ceramic
Body material	PTFE
Plate dimensions, mm	300 x 300
Heated area, mm	200 x 200
Heater power, W	900
Max. plate temperature, °C	400
Hotplate dimensions, mm, (w x d x h)	320 x 360 x 60
Control unit dimensions, mm, (w x d x h)	150 x 160 x 65
Net weight, kg	11
Electrical supply	230V, 50-60Hz
IP Rating	43 (Plate) & 30 (Control)

Cole-Parmer® Hot Plate,
acid resistant, HP-200

Cole-Parmer® A heated glass ceramic plate mounted in a block of pure PTFE creates a powerful hotplate which is almost impervious to chemical attack, even by concentrated acids.

When boiling acid solutions the HP-200 is unaffected by the fumes and splashes which eventually destroy conventional hotplates. The chemical inertness of the PTFE body and ceramic top plate also means that much more aggressive cleaning agents can be used. For example, if all traces of metal must be removed, this hotplate can be washed with concentrated nitric acid!

The separate temperature controller is connected to the hotplate via a 2 metre PTFE coated lead. This allows the hotplate to be located in a fume cupboard and the controller kept outside, well away from the corrosive environment. The controller is also fitted with a "Hot" warning light that will flash whenever the plate temperature of the hotplate is above 50°C and it will continue to operate when the hotplate is turned off and connected to the electricity supply.

The hotplate has a large 30x30cm square heated area so is ideal for heating either one large vessel or several smaller ones.

Ordering Information

Description	Ordering Number	Series No.	Model No.	Legacy Sku.
Cole-Parmer® Hotplate, acid resistant, including control unit	04801-08	HP-200	HP-200-AR	CP300

Cole-Parmer®

Cole-Parmer® Portable Magnetic Stirrer, ST-200

- Battery powered or mains supply
- Tough, compact and light weight
- Variable speed up to 1300rpm





Cole-Parmer® Portable Magnetic Stirrer, ST-200

Cole-Parmer® ST-200 portable, magnetic stirrer, powered by long life batteries or mains power this rugged little unit can be used almost anywhere. Ideal for use inside incubators, glove boxes or in the field.

Housed in a tough, chemically resistant ABS case and supplied complete with batteries. Operating indicator will dim when batteries run low.

Technical Specification

Specification	ST-200
Max speed, rpm	1300
Capacity, litres H ₂ O	1.5
Dimensions, mm (w x d x h)	150 x 160 x 70
Net weight, kg	1.3
Electricity supply	4 x alkaline batteries or 230V, 50Hz
Battery type	1.5V, size D, IEC No. LR20
Battery life	600 hours continuous use
IP rating	41

Ordering Information

Description	Ordering Number	Series No.	Model No.	Legacy Sku.
Portable magnetic stirrer complete with 4 x LR20 batteries and 25mm PTFE stir bar	04801-05	ST-200	ST-200-P	SM27
Mains adapter, 9V a.c. for 230V, 50Hz supply with UK plug	04801-69	ST-200	N/A	SM27/1
Mains adapter, 9V a.c. for 230V, 50Hz supply with European 2 pin plug	04801-71	ST-200	N/A	SM27/2
Car battery adapter, 12V, Fitted with standard car cigarette/cigar plug	04801-73	ST-200	N/A	SM27/3

Cole-Parmer®

Cole-Parmer® Mini Stirrer, ST-100

- Lightweight stirrer
- Capable of stirring up to 1L
- Universal power adaptor
- BioCote antimicrobial protection





Cole-Parmer® Mini Stirrer, ST-100

The Cole-Parmer® Mini Stirrer, ST100 is a powerful magnetic stirrer, capable of stirring up to 1 litre, the stirring speed is adjustable up to 2,000rpm. The unit is made from robust polypropylene with a chemically resistant polycarbonate top.

Technical Specification

Specification	ST-100
Capacity, Litres	1
Speed, rpm	350 to 2,000
Weight,g	500
Dimensions, w x d x h, (mm)	143x143 x 66
Electrical supply	120-230V, 50-60Hz
IPRating	IPX1

Ordering Information

Description	Ordering Number	Series No.	Model No.	Legacy Sku.
Stuart mini stirrer	04801-19	ST-100	ST-100	SM5/STUART



Cole-Parmer® Hot Plates, Stirrers & Hot Plate Stirrers - HP-200, ST-200 and SHP-200

- The range of Undergrad hotplates includes dedicated hotplates, stirrers, and combination hotplate stirrer models
- Available in a choice of coated metal or ceramic tops.
- Allows flexibility of vessel sizes and combinations; e.g. four 250ml beakers can easily fit on the hotplate surface at the same time
- BioCote® Antimicrobial Protection included on all products



Hot Plate Stirrer SHP-200

HP-200-S



ST-200-S



SHP-200-S



SHP-200D-S



HP-200-C



ST-200-C



SHP-200-C



SHP-200D-C



Cole-Parmer® Hot Plates, Stirrers & Hot Plate Stirrers - HP-200, ST-200 and SHP-200

Safety In Design

For safety, all units are designed to direct spills away from the user controls. For greater convenience and power saving, units are built with a standard mains switch (excluding stir only models). All units are incorporated with microprocessor-controlled dual thermocouples to ensure accurate temperature control and protection from overheating.

Power in Performance

Powerful magnets and motors allow remarkable stirring speeds (up to 2000 rpm) and mixing of large volumes of liquids (up to 15 L).

Temperature Controller

All hotplate models are compatible with the Stuart HP-200/SHP-200 temperature controller. Together with your Undergrad hotplate, the temperature controller ensures accurate temperature control of aqueous or oil based samples, up to a maximum of 200 °C. The HP-200/SHP-200 temperature controller is automatically detected when plugged in.

Protected by BioCote®

BioCote® utilises silver ion, copper, zinc and organic additives to provide built-in antimicrobial protection; so the Cole-Parmer Stuart range can support a safer and more hygienic laboratory environment. By reducing levels of bacteria, mould and fungi, your BioCote protected piece of equipment can help reduce the risk of cross-contamination and consequently disease transmission within the lab.

Temperature Controller HP-200/SHP-200



Technical Specification - Hotplate Stirrer

Hotplates

Stirrers

Specification	SHP-200 S	SHP-200-S	SHP-200 C	SHP-200D-C	HP-200 S	HP-200 C	ST-200-S	ST-200-C
Plate material	Coated Aluminium/Silicon	Coated Aluminium/Silicon	Glass Ceramic	Glass Ceramic	Coated Aluminium/Silicon	Glass Ceramic	Stainless Steel	Glass Ceramic
Plate dimensions mm	150 x150	150x150	150x150	150x150	150x150	150x150	150x150	150x150
Heated area mm	150x150	150x150	120 x120	120x120	150x150	120 x120	-	-
Heater power, watt	700	700	500	500	700	500	-	-
Max plate temp °C	325	325	450	450	325	450	-	-
Stirrer speed rpm	100- 2000	100-2000	100- 2000	100-2000	-	-	100-2000	-
Max stirring capacity L	15	15	15	15	-	-	15	-
Compatible with SCT2	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Control accuracy w/ SCT2, °C	±0.5	±0.5	±0.5	±0.5	±1 °C	±1 °C	-	-
Dimensions (w x d x h), mm	180 x 255 x 122	180 x 255 x 122	180 x 255 x 122	180 x 255 x 122	180 x 255 x 122	180 x 255 x 122	180 x 255 x 122	180 x 255 x 122
Net weight, kg	31	31	31	31	2.5	2.5	2.4	2.4
Power,watt	750	750	550	550	700	500	50	50
Electrical supply	120V, 60Hz or 230V, 50Hz,	120V, 60Hz or 230V, 50Hz,	120V, 60Hz or 230V, 50Hz,	120V, 60Hz or 230V, 50Hz,	120V, 60Hz or 230V, 50Hz,	120V, 60Hz or 230V, 50Hz,	120V, 60Hz or 230V, 50Hz,	120V, 60Hz or 230V, 50Hz,
IP rating	32	32	32	32	32	32	32	32
Digital display version	N	y	N	y	-	-	-	-

Ordering Information

Description	Ordering Number	Model No.
Stirrer/hotplate, ceramic plate, 230V / 50Hz	04807-58	SHP-200-C
Stirrer/hotplate, ceramic plate, 120V / 60Hz	04807-59	SHP-200-C-120
Digital Stirrer/hotplate, ceramic plate, 230V / 50Hz	04807-62	SHP-200D-C
Digital Stirrer/hotplate, ceramic plate, 120V / 60Hz	04807-63	SHP-200D-C-120
Stirrer/hotplate, coated aluminium plate, 230V / 50Hz	04807-60	SHP-200-S
Stirrer/hotplate, coated aluminium plate, 120V / 60Hz	04807-61	SHP-200-S-120
Digital Stirrer/hotplate, coated aluminium plate, 230V / 50Hz	04807-64	SHP-200D-S
Digital Stirrer/hotplate, coated aluminium plate, 120V / 60Hz	04807-65	SHP-200D-S-120
Hotplate, ceramic plate, 230V / 50Hz	04807-50	HP-200-C
Hotplate, ceramic plate, 120V / 60Hz	04807-51	HP-200-C-120
Hotplate, coated aluminium plate, 230V / 50Hz	04807-52	HP-200-S

Ordering Information

Description	Ordering Number	Model No.
Hotplate, coated aluminium plate, 120V / 60Hz	04807-53	HP-200-S-120
Stirrer, ceramic plate, 230V / 50Hz	04807-54	ST-200-C
Stirrer, ceramic plate, 120V / 60Hz	04807-55	ST-200-C-120
Stirrer, stainless steel plate, 230V / 50Hz	04807-56	ST-200-S
Stirrer, stainless steel plate, 120V / 60Hz	04807-57	ST-200-S-120
Temperature Controller	04807-90	HP-200/SHP-200
Retort rod, 600 x 12 mm diameter	04805-91	HP-200/SHP-200
Probe holder for rod	04807-91	HP-200/SHP-200
PTFE coated temperature probe	04805-93	HP-200/SHP-200



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