

Magnetic hotplate stirrers are used for low viscosity liquids or solid mixing, widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals etc. DLAB provides different series, heating range covers from 120°C-550°C:



Magnetic Hotplate Stirrers:

Series	Model	Image	Stirring Position	Display	Work plate Size	Max. Heating Temp.	Max. stirring quantity[H ₂ O]	Page
550 series	MS7-H550-Pro		1	LCD	184x184mm	550°C	20L	P.58
	MS7-H550-S		1	LED	184x184mm	550°C	10L	P.58
380 series	MS-H380-Pro		1	LCD	140x140mm	380°C	20L	P.64
340 series	MS-H-Pro ^T (with timer)		1	LCD	φ135mm	340°C	20L	P.60
	MS-H-Pro ^A		1	LCD	φ135mm	340°C	20L	P.62
	MS-H-Pro ⁺		1	LCD	φ135mm	340°C	20L	P.60
	MS-H-S		1	Scale	φ135mm	340°C	20L	P.60
	MS-H340-S		4	LCD	φ135mm	340°C	10L for single position	P.65
280 series	MS-H280-Pro		1	LED	φ135mm	280°C	3L	P.63
120 series	MS-H-S10		10	Scale	180x450mm	120°C	0.4Lx10	P.66

Magnetic Stirrers:

Image	Model	Stirring Position	Display	Work plate Size	Max. Stirring Quantity[H ₂ O]	Page
	MS7-S	1	Scale	184x184mm	10L	P.71
	MS-S	1	Scale	φ135mm	20L	P.71
	MS6-Pro	1	LCD	140x140mm	5L	P.71
	MS-PA	1	LED	φ135mm	3L	P.72
	MS-PB	1	Scale	φ135mm	3L	P.72
	EcoStir-Square plate	1	Scale	120x115mm	1.5L	P.75
	EcoStir-Round plate	1	Scale	φ120mm	1.5L	P.74
	FlatSpin	1	--	φ90mm	0.8L	P.74
	MS-M-S10	10	Scale	180x450mm	0.4Lx10	P.73

Hotplate:

Image	Model	Display	Work plate Size	Max. Heating Temp.	Page
	HP550-S	LED	184x184mm	550°C	P.70
	HP380-Pro	LCD	140x140mm	380°C	P.70

Application guidance:

Notice: MS-H380-Pro, HP380-Pro & MS-H280-Pro are not available for chemical fields.

Fields		MS7-H550-Pro/ MS7-H550-S/ HP550-S	MS-H-Pro ^A / MS-H-Pro ^T / MS-H-Pro ⁺ / MS-H-S/ MS-H340-S	MS-H380-Pro/ HP380-Pro	MS-H280-Pro	MS-H-S10	Magnetic Stirrers (none heating models)
Pharmaceutical	Chemical Synthesis	■	■				
	Biochemical Drugs	■	■				
	Medicine Testing	■	■				
	Drug Formulation	■	■				
Chemical Industry	Petrochemical Industry	■	■				
	Inorganic Chemical Synthesis	■	■				
	Organic Chemical Synthesis	■	■				
	Daily Use Chemical Industry	■	■				
	Painting/Rubber/Plastic	■	■				
	Fertilizer/Pesticide	■	■				
Environmental	Water Quality Analysis					■	■
	Pesticide Residue Testing					■	■
	Chemical Pollution Analysis					■	■
Research & Education	Basic Chemical Experiments	■	■			■	■
	Material Analysis			■	■	■	■
	Liquid Mixing			■	■	■	■
	Chemical Synthesis	■	■				
Food Industry	Food Additive	■	■	■	■		
	Dairy Products	■	■	■	■		
	Nutrition Analysis	■	■	■	■		
Biological Engineering	Cell Culture						
	Biological Reagents		■	■	■	■	
	Biochemistry		■	■	■	■	

Overhead stirrers are used for middle or high viscosity samples mixing, widely used in chemical synthesis, pharmaceutical synthesis, physical and chemical analysis, petrochemical industries etc.

Overhead stirrers:

Image					
Models	OS20-Pro	OS20-S	OS40-Pro	OS40-S	OS70-Pro
Max. Stirring Quantity[H ₂ O]	20L	20L	40L	40L	70L
Constant Speed	YES	NO	YES	NO	YES
Display	LCD	LED	LCD	LED	LCD
Speed Range	50-2200rpm	50-2200rpm	50-2200rpm	50-2200rpm	50-1100rpm
Max. Torque	40N•cm	40N•cm	60N•cm	60N•cm	300N•cm
Viscosity Max.	10000mPa•s	10000mPa•s	50000mPa•s	50000mPa•s	100000mPa•s
Page	P.76	P.77	P.76	P.77	P.76

DLAB 550°C series magnetic stirrer is developed for demanding applications. It is widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals etc. Combining with glass ceramic work plate, brushless DC motor and external temperature sensor, the work plate temperature is optimized up to 550°C.



MS7-H550-Pro

LCD Digital Magnetic Hotplate Stirrer

Features

- LCD display for precise monitoring of speed and temperature
- Built-in PID controller ensures safe heating of the medium with overheating protection
- Max. heating plate temperature 550°C
- Glass ceramic work plate provides excellent chemical resistant performance and most efficient heat transfer
- External temperature control is possible by connecting the temperature sensor(PT1000) with an accuracy at $\pm 0.2^{\circ}\text{C}$
- Digital speed controlling, max. speed at 1500rpm
- Outstanding brushless DC motor enables more stirring power
- Two rotating knobs enable easy adjustment of speed and temperature
- The "HOT" warning will flash when the work plate temperature is above 50°C even when the hotplate is turned off
- Remote function provides PC control and data transmission

MS7-H550-S

LED Magnetic Hotplate Stirrer

Features

- LED display for precise monitoring of temperature
- A wide speed range of 0 to 1500rpm
- Max. Heating plate temperature 550°C
- External temperature control is possible by connecting the temperature sensor(PT1000) with accuracy at $\pm 0.2^{\circ}\text{C}$
- The "HOT" warning will flash if the work plate temperature is above 50°C





Overheating protection



External sensor



Wide range of accessories



Chemical resistance



Specifications

	MS7-H550-Pro	MS7-H550-S
Work plate Dimension [W x D]	184x184mm (7 inch)	184x184mm (7 inch)
Work plate material	Glass ceramic	Glass ceramic
Motor type	Brushless DC motor	Shaded pole motor
Stirring positions	1	1
Max. stirring quantity, [H ₂ O]	20L	10L
Max. magnetic bar[length]	80mm	80mm
Speed range	100-1500rpm resolution ±1rpm	0-1500rpm
Speed display	LCD	Scale
Temperature display	LCD	LED
Heating temperature range	Room Temp.-550°C, increment 1°C	Room temp.-550°C, increment 5°C
Temperature control accuracy	±1°C(<100°C) ±1%(>100°C)	±10°C
Overheating protection	580°C	580°C
Temperature display accuracy	±0.1°C	±1°C
External temperature sensor	PT1000 (accuracy ±0.2)	PT1000 (accuracy ±0.2)
"Hot" warning	50°C	50°C
Data connector	RS232	-
Protection class	IP21	IP21
Motor rating input	18W	15W
Motor rating output	10W	1.5W
Power	1050W	1030W
Heating output	1000W	1000W
Voltage	100-120/200-240V 50/60Hz	100-120/200-240V 50/60Hz
Dimension [WxDxH]	215x360x112mm	215x360x112mm
Weight	5.3kg	4.5kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH

D/LAB 340°C magnetic hotplate stirrers include all leading safety standards and features for superior ease of use and are cost-effective. They are widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals, etc.

MS-H-Pro^T LCD Digital Magnetic Hotplate Stirrer with Timer

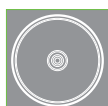
MS-H-Pro⁺ LCD Digital Magnetic Hotplate Stirrer

Features

- Brushless DC motor is maintenance free and explosion-proof
- Digital temperature control with max. temperature at 340°C
- Digital speed control with max. speed up to 1500rpm
- Max. stirring quantity of H₂O at 20L
- Safety circuits provide overheating protection
- The "HOT" warning will flash if the plate temperature is above 50°C even when the hotplate is turned off
- Wide range timer function from 1min to 99h59min(MS-H-Pro^T only)
- High-resolution LCD display shows actual temperatures and speed (MS-H-Pro^T displays the time also)
- External temperature control is possible by connecting the temperature sensor(PT 1000) with accuracy at ±0.2°C
- Stainless steel work plate with ceramic coating provides good chemical-resistant performance
- Remote function provides PC control and data transmission
- A wide variety of accessories are available



External sensor



Brushless DC motor



Wide range of accessories



RS232 connector



Chemical resistance

MS-H-S Magnetic Hotplate Stirrer

Features

- Maintenance free brushless DC motor
- Max. temperature to 340°C
- Stirring speed up to 1500 rpm
- Stainless steel work plate with ceramic coating provides good chemical-resistant performance
- Safety circuits provide overheating protection
- A wide variety of accessories are available





Specifications

	MS-H-PRO ⁺	MS-H-PRO ^T	MS-H-S
Work plate dimension	φ135mm(5 inch)	φ135mm(5 inch)	φ135mm(5 inch)
Work plate material	stainless steel cover with ceramic	stainless steel cover with ceramic	stainless steel cover with ceramic
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor
Stirring positions	1	1	1
Max. stirring quantity[H ₂ O]	20L	20L	20L
Max. magnetic bar[length]	80mm	80mm	80mm
Speed range	100-1500rpm resolution±1rpm	100-1500rpm resolution±1rpm	0-1500rpm resolution±1rpm
Speed display	LCD	LCD	Scale
Temperature display	LCD	LCD	Scale
Heating temperature range	Room temp.-340°C, increment 1°C	Room temp.-340°C, increment 1°C	Room temp.-340°C
Temperature control accuracy	±1°C(<100°C) ±1%(>100°C)	±1°C(<100°C) ±1%(>100°C)	-
Over temperature protection	420°C	420°C	420°C
Temperature display accuracy	±0.1°C	±0.1°C	±0.5°C
External temperature sensor	PT1000 (accuracy ±0.2)	PT1000 (accuracy ±0.2)	-
"Hot" warning	50°C	50°C	-
Timer function	-	1min to 99h 59min	-
Data connector	RS232	RS232	-
Protection class	IP42	IP42	IP42
Motor rating input	18W	18W	18W
Motor rating output	10W	10W	10W
Power	550W	550W	530W
Heating output	500W	500W	500W
Voltage	100-120/200-240V 50/60Hz	100-120/200-240V 50/60Hz	100-120/200-240V 50/60Hz
Dimension[WxDxH]	160×280×85mm	160×280×85mm	160×280×85mm
Weight	2.8kg	2.8kg	2.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH	5-40°C, 80%RH	5-40°C, 80%RH

DLAB new heating magnetic stirrer with aluminum work plate, is capable of rapid heating and stable heating as well as precise temperature control. Almost all leading safety standards and features are included for superior and are cost-effective. They are widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals, etc.

MS-H-Pro^A LCD Digital Magnetic Hotplate Stirrer

Features

- Digital control with max. temperature at 340°C, max. speed up to 1500rpm
- Aluminum alloy work plate with flat plane provides fast heating performance, and strong compatibility with various heating containers and heating blocks
- High-resolution LCD display shows actual temperatures and speed
- PID controller ensures a precise and steady heating process
- External temperature control is possible by connecting the temperature sensor(PT 1000) with accuracy at $\pm 0.2^{\circ}\text{C}$
- Brushless DC motor enables more powerful speed control.
- Three heating modes for selected (fast heating, standard heating and stable heating)
- Remote control function through RS232 interface provides PC control and data transmission



Security

- International safety certification: obtained the CE, CTÜVus, FCC and other product safety certifications issued by TUV Rheinland
- Safety circuits provide overheating protection
- The “HOT” warning will flash if the plate temperature is above 50°C even when the hotplate is turned off
- Brushless DC motor is maintenance free and explosion-proof
- Fully enclosed aluminum alloy housing with good heat dissipation performance and reliable protection capability



Specifications

	MS-H-Pro ^A
Work plate dimension	φ135mm(5inch)
Work plate material	Aluminum
Motor type	Brushless DC motor
Heating temperature range	Room temp.-340°C, increment 1°C
Temperature display accuracy	$\pm 0.1^{\circ}\text{C}$
Speed range	100-1500rpm resolution $\pm 1\text{rpm}$
Max. stirring quantity[H ₂ O]	20L
Speed display	LCD
Temperature display	LCD
Max. magnetic bar[length]	80mm
Temperature control accuracy	$\pm 1^{\circ}\text{C}(<100^{\circ}\text{C}) \pm 1\%(>100^{\circ}\text{C})$
External temperature sensor	PT1000 (accuracy $\pm 0.2^{\circ}\text{C}$)
Over temperature protection	420°C
"Hot" warning	50°C
Data connector	RS232
Protection class	IP21
Voltage	100~120/200-240V 50/60Hz
Heating power	600w
Power	650w
Motor rating input	18w
Motor rating output	10w
Dimension[WxDxH]	280×160×100mm
Weight	2.8kg
Permissible ambient temperature and humidity	5-40°C; 80%RH

DLAB MS-H280-Pro is a perfect device for handling small volume task on daily application, as a low temperature magnetic stirrer with max. temperature at 280°C.

MS-H280-Pro

LED Digital Magnetic Hotplate Stirrer

Features

- Digital temperature control with max. temperature up to 280°C
- Digital speed control with max. speed up to 1500rpm
- Stainless steel work plate with ceramic coating provides good chemical resistant performance
- External temperature control is possible by connecting the temperature sensor(PT1000) with an accuracy at $\pm 0.5^\circ\text{C}$
- LED display shows temperature and speed
- The "HOT" warning will flash when the work plate temperature is above 50°C even if the hotplate is turned off



External sensor



Wide range of accessories



Chemical resistance



LED display



Specifications

Work plate Dimension	φ135mm(5 inch)
Work plate material	stainless steel cover with ceramic
Motor type	Brushless DC motor
Stirring positions	1
Max. stirring quantity	3L
Max. magnetic bar[length]	50mm
Speed range	200-1500rpm
Speed display	LED
Temperature display	LED
Speed display resolution	$\pm 1\text{rpm}$
Heating temperature range	Room temp.-280, increment 1°C
Control accuracy of work plate	$\pm 1^\circ\text{C}(<100^\circ\text{C}) \pm 1\%(>100^\circ\text{C})$
Overheating protection	320°C
Temperature display accuracy	$\pm 1^\circ\text{C}$
External temperature sensor	PT1000 (accuracy $\pm 0.5^\circ\text{C}$)
"Hot" warning	50°C
Protection class	IP21
Motor rating input	5W
Motor rating output	3W
Power	515W
Heating output	500W
Voltage	100-120/200-240V 50/60Hz
Dimension[WxDxH]	150×260×100mm
Weight	1.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

MS-H280-Pro	
Work plate Dimension	φ135mm(5 inch)
Work plate material	stainless steel cover with ceramic
Motor type	Brushless DC motor
Stirring positions	1
Max. stirring quantity	3L
Max. magnetic bar[length]	50mm
Speed range	200-1500rpm
Speed display	LED
Temperature display	LED
Speed display resolution	$\pm 1\text{rpm}$
Heating temperature range	Room temp.-280, increment 1°C
Control accuracy of work plate	$\pm 1^\circ\text{C}(<100^\circ\text{C}) \pm 1\%(>100^\circ\text{C})$
Overheating protection	320°C
Temperature display accuracy	$\pm 1^\circ\text{C}$
External temperature sensor	PT1000 (accuracy $\pm 0.5^\circ\text{C}$)
"Hot" warning	50°C
Protection class	IP21
Motor rating input	5W
Motor rating output	3W
Power	515W
Heating output	500W
Voltage	100-120/200-240V 50/60Hz
Dimension[WxDxH]	150×260×100mm
Weight	1.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

MS-H380-Pro LCD Digital Magnetic Hotplate Stirrer

DLAB 380°C magnetic hotplate stirrers include all leading safety standards and is chemically-resistant with white ceramic work plate. They can be used in physical, chemical, analytical and biological laboratories.

Features

- Max. heating temperature is 380°C
- High resolution LCD displays actual temperature and speed.
- Brushless DC motor is maintenance free
- Aluminum cover with ceramic work plate, allows for immediate heat transfer
- External temperature control is possible with temperature sensor PT1000
- Digital temperature control with max. temperature at 380°C
- Digital speed control with max. speed up to 1500rpm
- Max. stirring quantity of H₂O at 5L



Specifications

MS-H380 Pro

Work plate Dimension	140x140mm
Work plate material	Aluminum cover with ceramic coating
Motor type	Brushless DC motor
Stirring positions	1
Max. stirring quantity[H ₂ O]	5L
Max. magnetic bar[length]	50mm
Speed range	200-1500rpm
Speed display	LCD
Temperature display	LCD
Heating temperature range	Room temp.+5°C - 380°C
Over heat Protection	420°C
Temperature display accuracy	±0.1°C
External temperature sensor	PT1000 (accuracy ±0.5°C)
Control accuracy of sensor	±20rpm
Protection class	IP21
Motor rating input	2.4W
Motor rating output	1.8W
Power	510W
Heating output	500W
Voltage	100-120/200-240V, 50/60Hz
Dimension [W x D x H]	320x180x108mm
Weight	2.2kg
Permissible ambient temperature and humidity	5-40°C 80%RH

MS-H340-S4

LCD 4-Channel Digital Magnetic Hotplate Stirrer



It is widely used in chemical synthesis, physical and chemical analysis, bio-pharmaceuticals etc.

Features

- Independent heating and stirring control
- LCD display shows actual temperatures and speed
- PID controller ensures a precise and steady heating process, Max. temperature up to 340°C
- Brushless DC motor enables more powerful speed control
- External temperature sensor(PT1000) with accuracy at 0.2°C
- Overheating protection temperature at 420°C
- Stainless steel work plate with ceramic coating provides good chemical-resistant performance
- A wide variety of accessories are available

Specifications

	MS-H340-S4
Work plate dimension	Φ135mm (5inch)
Plate material	Stainless steel with ceramic coating
Motor type	Brushless DC motor
Stirring positions	4
Max. stirring quantity of single position (H ₂ O)	10L
Max. magnetic bar	40mm
Speed range	200-1500rpm
Speed display	LCD
Temperature display	LCD
Control accuracy of sensor	±20rpm
Temperature range	25-340°C
Over temperature protection	420°C
Temperature display accuracy	±0.1°C
External temp. sensor	PT1000 (Accuracy±0.2°C)
IP Protection class	IP21
Motor rating input	1.8W×4
Power	515W×4
Heating Power	500W×4
Voltage	100-120V,60Hz; 200-240V,50 Hz
Dimensions[WxDxH]	698×270×128mm
Weight	9.5kg
Permissible ambient temperature	5~40°C
Permissible relative humidity	80%RH

MS-H-S10

10-Position Magnetic Hotplate Stirrer

Features

- Maintenance-free brushless DC motor
- Max speed 1100rpm
- Max.temperature 120°C
- Stainless steel work plate, covered with silicone cushion, provides the excellent performance of heating uniformity and skid resistance



Skid resistance



Multiple position



Brushless DC motor

Specifications

	MS-H-S10
Work plate dimension[W x D]	180x450mm
Work plate material	Stainless steel with silicone
Motor type	Brushless DC motor
Stirring positions	10
Max. stirring quantity	0.4Lx10
Max. magnetic bar[length]	40mm
Speed range	0-1100rpm
Speed display	scale
Temperature display	scale
Heating temperature range	Room temp.-120°C
Overheating protection	140°C
Protection class	IP42
Motor rating input	12W
Motor rating output	4W
Power	490W
Heating output	470W
Voltage	100-120/200-240V 50/60Hz
Dimension[WxDxH]	182x622x65mm
Weight	3.2kg
Permissible ambient temperature and humidity	5-40°C, 80%RH