WiseStir® & WiseTherm®

Wisd LABORATORY INSTRUMENTS

Hotplates & Stirrers

- Smart Design of Body made by Aluminum Die-Casting
- Ceramic Coated Plate-Chemical/Acid Resistance
- Superior Temperature Uniformity : Less than 10% on the Plate at Ambient Temperature
- User's Self -Compensation Function : to Control Difference between Real Temp. and Indicated Temp. (±20,0℃) (Digital Model)
- Patented Jog-Shuttle Control system and Digital LCD with Back-light (Digital Model)

- Digital Compact Hotplate Stirrer ..... P. 73
- Digital Hotplate Stirrer ..... P. 72
- Digital Precise Hotplate ..... P. 69
- Large Digital Hotplate ..... P. 68
- Premium Hotplate ..... P. 67
- Premium Hotplate Stirrer ..... P. 70
- Premium Compact Hotplate Stirrers ..... P. 71
- Systematic Multi-Hotplate Stirrers ..... P. 74

Digital Hotplate Stirrers

Compact & Round Plate Type Hotplate Stirrers

Analog Hotplate Stirrer

MSH-20D-Set

MSH-20A

Digital Hotplate

MSH-55A
- Anodized plate

MSH-50D-Set
- Ceramic-coated plate

HP-20D

"witeg" *WiseTherm® HP-20A/HP-30A* Premium Hotplate, Ceramic-Coated Plate, up to 380℃

Built-in Linearity PWM Controller, High Temp. Uniformity, 180×180- or 260×260-mm Plate, CE Certified

- **Excellent for Sample Drying and Most General Lab Heating Applications**
- **Superior Temperature Uniformity : Less than 10% on the Plate at Ambient Temperature**
- **CE Certified**

* Excellent for Sample Drying and most General lab Heating Applications
* Smart Design of Body made by Aluminum Die-Casting (HP-20A)
* Superior Temperature Uniformity : Less than 10% on the Plate at Ambient Temperature
* Superior Linearity for Temperature Control by Specially Designed Control Circuitry (PWM control)
* Ceramic Coated Plate - Chemical / Acid Resistance

180×180mm Plate-type Hotplate "HP-20A"

260×260mm Plate-type Hotplate "HP-30A"

Specification

Plate Size(mm) & Models		180×180mm Plate-type "HP-20A"	260×260mm Plate-type "HP-30A"
Material	Body	Powder Coated Aluminum	Powder Coated Steel
	Plate	Ceramic Coated Aluminum (Chemical / Acid Resistance, Easy to Clean)	
Temp. Range & Uniformity		Max. 380℃Temp., High Uniformity : Difference 10% less	
Heating Power/Consumption		600 W	1,2 kW
Controller		Superior Linearity PWM Controller	
Permissible Temp. & RH %		Ambient +5 ~ 50℃, 85% RH	
Dimension & Weight		206×307×h99mm, 2,8kg	286×387×h99mm, 3,3kg
Packing Size & Gross Weight		400×280×h200mm, 5 kg	430×320×200hmm, 5 kg
Power plug type		Hybrid E+F	
Power Supply*		AC 230V, 1N~, 50/60Hz	

* Other Specifications are available upon Customer's Request.

Ordering Information

With 180×180mm Plate-type, "HP-20A" Hotplates

DH.WHP03120 Hotplate, **230V, "HP-20A"**

With 260×260mm Plate-type, "HP-30A" Hotplates

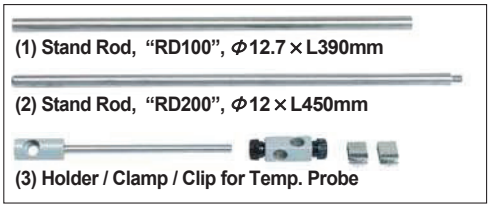
DH.WHP03121 Hotplate, **230V, "HP-30A"**

Optional Stand Rod & Holder/Clamp

DH.WHP503011 (1) Stand Rod, **"RD100",** Stainless Steel, none screw
Φ12.7×L390mm, for **HP-30A/30D, MSH-30A/30D**

DH.WHP503036 (2) Stand Rod, **"RD200",** Stainless Steel, 1.5p screw
Φ12×L450mm, for **HP-20A/20D, MSH-20A/20D, MSH-50A/55A,MSH-50D/55D** and **SMHS**

DH.WHP503012 (3) Holder / Clamp / Clip, **"CL220",** for Temp. Probe

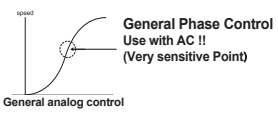


※ You will find matching beakers and flasks in our general catalogue at following pages : 33, 34, 293–296.

※ You will find matching stirring bars in our general catalogue at following pages : 362, 363.

Specialized Features

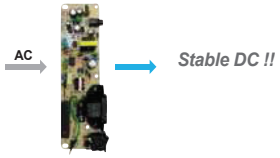
High Stability in Very Low & High-Temperature



Realize *Stable & Easy to Use!*

Long Life Power & Mechanism!

SMPS (Switching Mode Power Supply)
Use with Safety & Regular DC !!



SSR (Solid State Relay)-Non Contact
No Electronic Harm!
Realize *Long Life Cycle!*

Articles	Cat. No	Description

"witeg" *WiseTherm® HP-LP* Large Digital Hotplate, Ceramic-Coated or Al-anodized Plate, up to 350℃

Built-in Digital PID Controller or Digital Remote Controller, Superior Temp. Uniformity, Back Light LCD, 310×620mm Plate

Large Digital Hotplate, with Built-in Digital PID Controller, Ceramic-Coated Plate-type "HPLP-C-P"

Large Digital Hotplate, Digital Remote Controller, Black Al-anodized Plate-type "HPLP-A-R"

- **Superior Temperature Uniformity : Less than 10% on the Plate at Ambient Temperature**
- **Patented Jog-Shuttle Control System and Back-Light LCD Display**
- **CE Certified**
- **Digital PID Controller**

* Excellent for Sample Drying and most General lab Heating Applications
* Large Heating Area : Ideal for TLC Plate Heating and Surface Heating in Electronic Industries
* Superior Temperature Uniformity : Less than 10% on the Plate at Ambient Temperature
* Ceramic Coated Plate -Chemical /Acid Prevention (HPLP-C-P, HPLP-C-R)
* Black Al-anodized Plate - Scratch Resistance (HPLP-A-P, HPLP-A-R)
* The Remote Controller Cable helps to place the Controller away from the Hotplate up to 1.5m distance
* Maximum Temperature of 350℃

Specification

Models	"HPLP-C-P"	"HPLP-A-P"	"HPLP-C-R"	"HPLP-A-R"
Controller	Built-in Digital PID Controller		Digital Remote Controller	
Plate Surface	Ceramic	Al-anodized	Ceramic	Al-anodized
Plate Size	310×620mm			
Temp. Range & Accuracy	Max. 350℃, ±0,3℃ at Set Temperature			
Temp. Resolution	0,1 ℃-Display, 0,5 ℃-Control 0,1℃			
Temp. Uniformity	Specially Designed Heating Module : Temp. Difference 10% less			
Heating Power/Consumption	2kW			
Timer & Alarm	99hr 59min (with Continuous run.), Error status & Timer-end			
Display	Digital LCD Display with Back-Light Function			
Permissible Temp. & RH %	Ambient +5 ~ 50℃, 85% RH			
Dimension & Weight	670×360 ×h150mm, 16kg			
Packing Size & Gross Weight	750×430×h220mm, 18 kg			
Power plug type	Hybrid E+F			
Power Supply*	AC 230V, 1N~, 50/60Hz			

* Other Specifications are available upon Customer's Request.

Ordering Information

Large Digital Hotplate, with Built-in Digital PID Controller

DH.WHP03024 Ceramic-Coated Plate-type, **230V, "HPLP-C-P"**
DH.WHP03027 Black Al-anodized Plate-type, **230V, "HPLP-A-P"**

Large Digital Hotplate, with Digital Remote Controller

DH.WHP03025 Ceramic-Coated Plate-type, **230V, "HPLP-C-R"**
DH.WHP03028 Black Al-anodized Plate-type, **230V, "HPLP-A-R"**

"witeg" *WiseTherm® HP-D* Digital Precise Hotplate, Ceramic-Coated Plate, up to 380℃, ±0,3℃ with Digital Feedback Control System, Back Light LCD display, 180×180mm– or 260×260mm–Plate

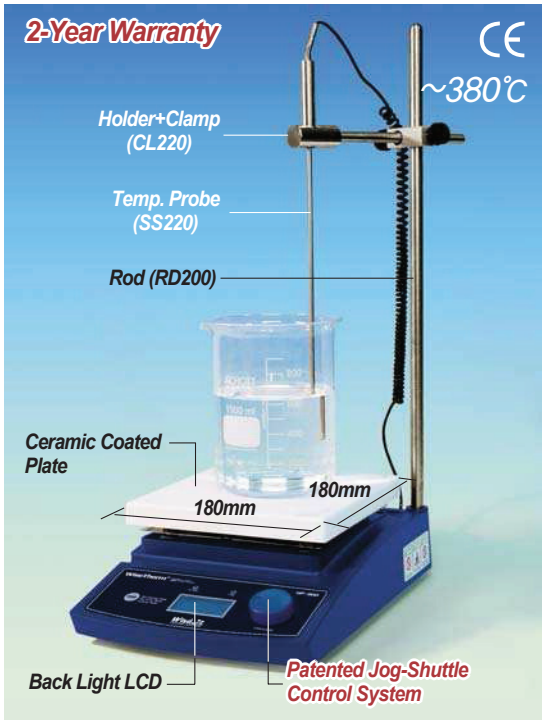
■ **Patented Jog-Shuttle Control System** ■ **CE Certified**

* Excellent for most General Lab Heating Applications
* Digital Feedback Control by High-Performance Microprocessor
* Smart Design of Body made by Aluminum Die-Casting (HP-20D)
* Ceramic Coated Plate-Chemical/Acid Resistance
* Superior Temperature Uniformity : less than 10% on the Plate at Ambient Temperature
* Accurate Temp. Control of the Sample in the Vessel using PT100 Sensor (optional)
* Digital LCD Display with Back-Light Function
* Locking Mode for Experimental Safety Supported (Input to Jog Shuttle can be disabled)
* User's Self-Compensation Function : to Control Difference between Real Temp. and Indicated Temp. (±20,0℃)

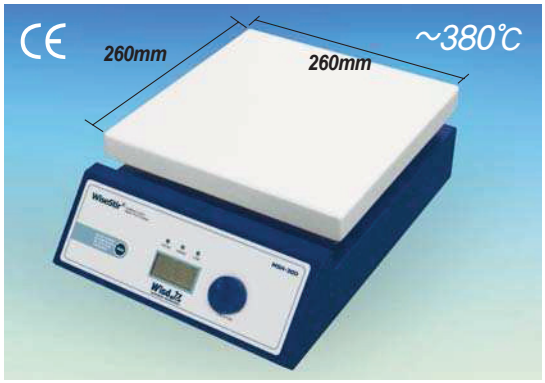
Specification

Plate Size(mm) & Models		180×180mm Plate-type "HP-20D"	260×260mm Plate-type "HP-30D"
Material	Body	Powder Coated Aluminum	Powder Coated Steel
	Plate	Ceramic Coated Aluminum (Chemical / Acid Resistance, Easy to Clean)	
Temp. Range & Accuracy		Max. 380℃, ±0,3℃ at Set Temperature(Over 70℃)	
Temp. Resolution		0,1 ℃-Display, 0,5 ℃-Control	
Temp. Uniformity		Specially Designed Heating Module : Temp. Difference 10% less	
Heating Power/Consumption		600 W	1,2 kW
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end	
Display		Digital LCD Display with Back-Light Function	
Controller		Digital Feedback Controller with Jog Shuttle Switch (Turn + Push)	
Safety Circuit		Over Temp. Protection	
Permissible Temp. & RH %		Ambient +5 ~ 50℃, 85% RH	
Dimension & Weight		206×307×h99mm, 2,8kg	286×387×h99mm, 3,2kg
Packing Size & Gross Weight		400×280×h200mm, 5 kg	430×320×h200hmm, 5 kg
Power plug type		Hybrid E+F	
Power Supply*		AC 230V, 1N~, 50/60Hz	

* Other Specifications are available upon Customer's Request.



180×180mm Plate-type Digital Precise Hotplate "HP-20D" Package-set



180×180mm Plate-type Digital Precise Hotplate "HP-30D" Unit only

Ordering Information

* **"HP-20D"**Package-set : Complete with ① Hotplate Unit ② : **"SS200"** PT100 External / Direct Contact Temp. Probe, ③ **"RD200"** Stainless steel Support Rod Φ12×L450mm ④ **"CL220"**Holder + Clamp for External Temp. Probe
* **"HP-30D"**Package-set : Complete with ① Hotplate Unit ② : **"SS100"** PT100 External / Direct Contact Temp. Probe, ③ **"RD100"** Stainless steel Support Rod Φ12×L450mm ④ **"CL220"**Holder + Clamp for External Temp. Probe

With 180×180mm Plate-type, "HP-20D" Package-set & Unit

DH.WHP03021 180×180mm Plate-type, **Package-set, 230V**
DH.WHP03020 , **Unit** only, **230V**

With 260×260mm Plate-type, "HP-30D" Package-set & Unit

DH.WHP03023 260×260mm Plate-type, **Package-set, 230V**
DH.WHP03022 , **Unit** only, **230V**

Additional Function Accessories

DH.WHP503020 (1) External / Direct Contact Temp. Probe, **"SS100"**, PT100, for **HP-30D, MSH-30D** and **SMHS** Probe Φ4×L250mm, Cable L190cm

DH.WHP503021 (2) External / Direct Contact Temp. Probe, **"SS110"**, PT100, **Teflon Coated**, for **HP-30D, MSH-30D, SMHS** Probe Φ4×L250mm, Cable L190cm

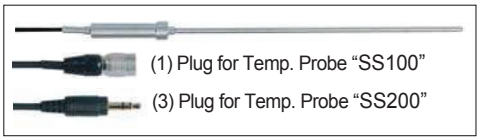
DH.WHP503030 (3) External / Direct Contact Temp. Probe, **"SS200"**, PT100, for **HP-20D, MSH-20D** Probe Φ4×L250mm, Cable L190cm

DH.WHP503031 (4) External / Direct Contact Temp. Probe, **"SS210"**, PT100, **Teflon Coated**, for **HP-20D, MSH-20D** Probe Φ4×L250mm, Cable L190cm

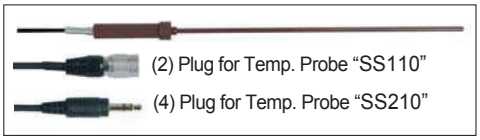
DH.WHP503011 (5) Stand Rod, **"RD100"**, Stainless Steel, Φ12,7×L450mm for **HP-30A/30D, MSH-30A/30D,** none Screw

DH.WHP503036 (6) Stand Rod, **"RD200"**, Stainless Steel, Φ12×L450mm for **HP-20A/20D, MSH-20A/20D, MSH-50A/55A, MSH-50D/55D** and **SMHS,** Screw

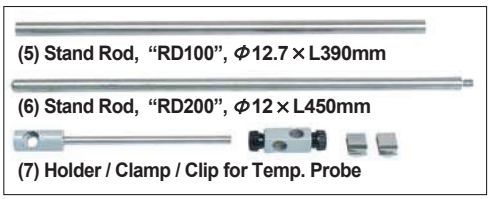
DH.WHP503012 (7) Holder/ Clamp / Clip, **"CL220"**, for Temp. Probe



External/Direct Contact Temp. Probe



External/Direct Contact Temp. Probe, Teflon Coated



※ You will find matching beakers and flasks in our general catalogue at following pages : 33, 34, 293–296.

Articles	Cat. No	Description

"witeg" *WiseStir® MSH-A* Premium Hotplate Stirrer, Ceramic-Coated Plate, up to 380℃, 1.500 rpm

Built-in Linearity PWM Controller, Superior Temperature Uniformity, Precise Control of Temp. & RPM, 180×180mm or 260×260mm

180×180mm Plate-type Hotplate Stirrer "MSH-20A"

260×260mm Plate-type Hotplate Stirrer "MSH-30A"

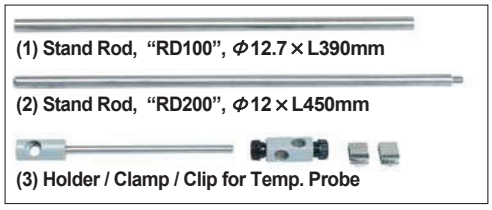
- **Superior Temperature Uniformity : Less than 10% on the Plate at Ambient Temperature**
- **Superior Linearity for Temperature Control & Stirring Speed**
- **Ceramic Coated Plate-Chemical / Acid Resistance**
- **CE Certified**

* Excellent for Sample Drying and most General Lab Heating Applications
* Superior Temperature Uniformity : Less than 10% on the Plate at Ambient Temperature
* Superior Linearity for Temperature Control & Stirring Speed by Specially Designed Control Circuitry.(PWM Control)
* Smart Design of Body made by Aluminum Die-Casting (MSH-20A)
* Ceramic Coated Plate-Chemical/Acid Resistance
* Maximum Temperature of 380℃

Specification

Model		180×180mm Plate-type "MSH-20A"	260×260mm Plate-type "MSH-30A"
Material	Body	Powder Coated Aluminum	Powder Coated Steel
	Plate	Ceramic Coated Aluminum (Chemical / Acid Resistance, Easy to Clean)	
Stirring Capa. & Motor Rating		Max. 20 Lit., 9 / 4 W	
Speed Range		Max. 1.500 rpm	
Temp. Range		Max. 380℃	
Temp. Uniformity		Specially Designed Heating Module : Temp. Difference 10% less	
Heating Power/Consumption		600W	1,2 kW
Controller		Superior Linearity PWM Controller	
Stirring Bar		3cm bar-included, Usable : up to 5cm bar	
Permissible Temp. & RH %		Ambient +5 ~ 50℃, 85% RH	
Dimension & Weight		206×307×h99mm, 2,8kg	286×387×h99mm, 3,3kg
Packing Size & Gross Weight		400×280×h200mm, 5 kg	430×320×h200mm, 5 kg
Power plug type		Hybrid E+F	
Power Supply*		AC 230V, 1N~, 50/60Hz	

* Other Specifications are available upon Customer's Request.



Ordering Information

With 180×180mm Plate-type Hotplate Stirrer, "MSH-20A"

DH.WMH03120 180×180mm Plate-type, **230V,** with stir bar

With 260×260mm Plate-type Hotplate Stirrer, "MSH-30A"

DH.WMH03121 260×260mm Plate-type, **230V,** with stir bar

Optional Stand Rod & Holder/Clamp

DH.WHP503011 (1) Stand Rod, **"RD100",** Stainless Steel, none screw Φ12.7×L390mm, for **HP-30A / 30D, MSH-30A/30D**

DH.WHP503036 (2) Stand Rod, **"RD200",** Stainless Steel, 1.5p screw, Φ12×L450mm, for **HP-20A / 20D, MSH-20A/20D, MSH-50A/55A,MSH-50D / 55D** and **SMHS**

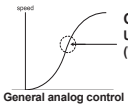
DH.WHP503012 (3) Holder / Clamp / Clip, **"CL220",** for Temp. Probe

※ You will find matching beakers and flasks in our general catalogue at following pages : 33, 34, 293–296.

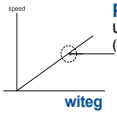
※ You will find matching stirring bars in our general catalogue at following pages : 362, 363.

Specialized Features

High Stability in Very Low & High-Temperature



General Phase Control
Use with AC !!
(Very sensitive Point)

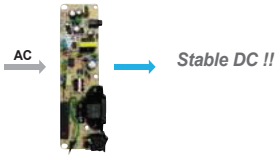


PWM Control
Use with DC !!
(Super linearity)

Realize *Stable & Easy to Use!*

Long Life Power & Mechanism!

SMPS (Switching Mode Power Supply)
Use with Safety & Regular DC !!



SSR (Solid State Relay)-Non Contact
No Electronic Harm!
Realize *Long Life Cycle!*

"witeg" *WiseStir® MSH-50A* Premium Compact Hotplate Stirrer, Round-Type Plate, Φ 135 mm

Ceramic Coated or Anodized Plate, Superior Temperature Uniformity, Precise Control of Temp. & RPM, up to 380 ℃, 1.500 rpm

- **Superior Temperature Uniformity : Less than 10 % on the Plate at Ambient Temperature**
- **Superior Linearity for the Control of Temperature & Stirring Speed**
- **Ceramic Coated Plate (MSH-50A) for Chemical/Acid Resistance or Anodized Plate (MSH-55A) for Scratch Prevention**
- **CE Certified**

* Excellent for Sample Drying and most General Lab Heating Applications.
* Superior Temperature Uniformity : Less than 10 % on the Plate at Ambient Temperature.
* Superior Linearity for Temperature Control & Stirring Speed by Specially Designed Control Circuitry. (PWM Control)
* Smart Design of Body made by Aluminum Die-Casting.
* Ceramic Coated Plate (MSH-50A) for Chemical/Acid Resistance or Anodized Plate (MSH-55A) for Scratch Prevention.
* Maximum Temperature of 400 ℃

Premium Compact Hotplate Stirrer,
Round Type & Anodized Plate (MSH-55A)

Premium Compact Hotplate Stirrer,
Round Type & Ceramic-Coated Plate (MSH-50A)

Specification

Models	Ceramic Coated Aluminum Plate "MSH-50A"	Black Anodized Aluminum Plate "MSH-55A"
Features	**Good Resistance of Chemicals & Acid, Easy to Clean**	**Prevention of Crack or Chip, and More Even Heating Surface**
Plate Size(mm)	Φ135	
Stirring Capa. & Motor Rating	Max. 20 Lit.(H_2O), 9/4W	
Speed Range	**Max.** 1.500 rpm	
Temp. Range	Max. 400 ℃ (Over 70℃)	
Temp. Uniformity	Specially Designed Heating Module : Temp. Difference 10% less	
Heating Power/Consumption	400 W	
Controller	Digital Feedback Controller with Jog Shuttle Switch (Turn+Push)	
Stirring Bar	3cm bar-included, Usable : up to 5cm bar	
Permissible Temp. & RH %	Ambient +5 ~ 50℃, 85% RH	
Dimension & Weight	w160 × d280 × h95mm, 2,3kg	
Packing Size & Gross Weight	w400 × d280 × h200mm, 4 kg	
Power plug type	Hybrid E+F	
Power Supply*	AC 230V, 1N~, 50/60Hz	

* Other Specifications are available upon Customer's Request.

Ordering Information

With Ceramic Coated Plate, "MSH-50A" Package-set & Unit

DH.WMH03150 Hotplate Stirrer, **MSH-50A,** Φ 135 mm, Ceramic Coated Plate, 0~1.500 rpm, to 380 ℃

With Black Al-anodized Plate, "MSH-55A" Package-set & Unit

DH.WMH03155 Hotplate Stirrer, **MSH-55A,** Φ 135 mm, Anodized Plate, 0~1.500 rpm, to 380 ℃

Additional Function Accessories

DH.WHP503036 Stand Rod, **RD200,** Stainless Steel, Φ 12 × L 450 mm, for **HP-20A / 20D, MSH-20A / 20D MSH-50A/55A, MSH-50D / 55D** and **SMHS**

DH.WHP503012 Holder + Clamp, **CL220,** for Temperature Sensor

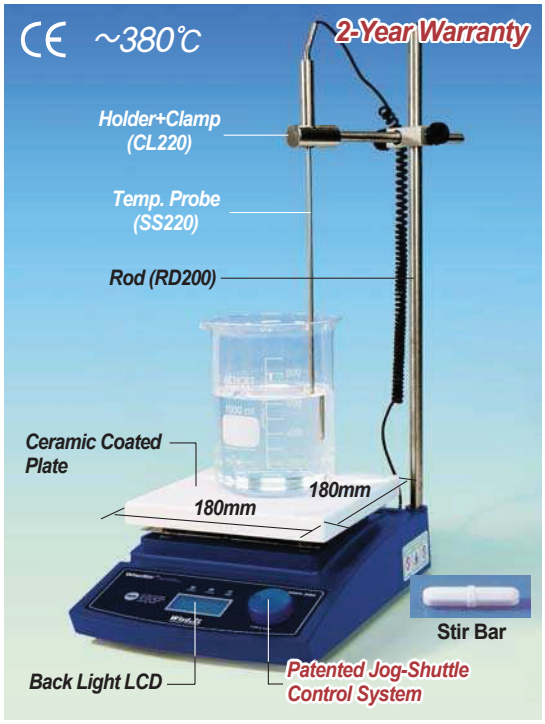
※ You will find matching beakers and flasks in our general catalogue at following pages : 33, 34, 293-296.

※ You will find matching stirring bars in our general catalogue at following pages : 362, 363.

Articles	Cat. No	Description

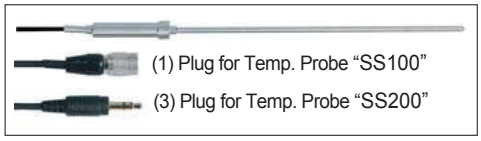
"witeg" *WiseStir® MSH-D* Digital Hotplate Stirrer, Ceramic-Coated Plate, up to 380℃, ±0,3℃

with Digital Feedback Control, Accurate Temp. Control, 180×180mm- or 260×260mm-Plate, 80 ~ 1.500 rpm

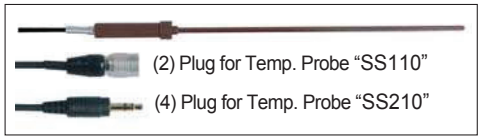


180×180mm Plate-type Digital Precise Hotplate "MSH-20D" Package-set

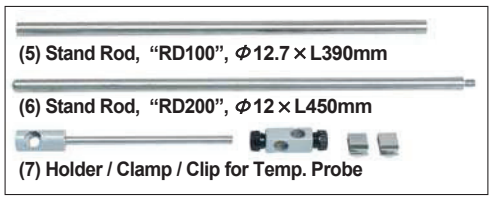
180×180mm Plate-type Digital Precise Hotplate "MSH-30D" Unit only



External/Direct Contact Temp. Probe



External/Direct Contact Temp. Probe, Teflon Coated



- **Digital Feedback Control by High-Performance Microprocessor**
- **Patented Jog-Shuttle Control System** ■ **CE Certified**

* Excellent for Sample Drying and most General Lab Heating Applications
* User's Self-Compensation Function : to Control Difference between Real Temp. and Indicated Temp. (±20,0℃)
* Accurate Temp. Control of the Sample in the Vessel using PT100 Sensor (optional)
* Storage Function for the set Values : Temp. and Timer
* Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)
* Superior Temperature Uniformity : less than10% on the Plate at Ambient Temperature

Specification

Model		180×180mm Plate-type "MSH-20D"	260×260mm Plate-type "MSH-30D"
Material	Body	Powder Coated Aluminum	Powder Coated Steel
	Plate	Ceramic Coated Aluminum (Chemical / Acid Resistance, Easy to Clean)	
Stirring Capa. & Motor Rating		Max. 20 Lit., 9 / 4 W	
Speed & Control Resolution		80 ~ 1.500 rpm, 5 rpm	
Temp. Range & Accuracy		Max. 380℃, ±0,3℃ at Set Temperature(Over 70℃)	
Temp. Resolution		0,1 ℃-Display, 0,5 ℃-Control	
Temp. Uniformity		Specially Designed Heating Module : Temp. Difference 10% less	
Heating Power/Consumption		600W	1,2 kW
Timer & Alarm		99hr 59min (with Continuous run.), Error status & Timer-end	
Display		Digital LCD Display with Back-Light Function	
Controller		Digital Feedback Controller with Jog Shuttle Switch (Turn+Push)	
Stirring Bar		3cm bar-included, Usable : up to 5cm bar	
Safety Circuit		Over Temp. Protection	
Permissible Temp. & RH %		Ambient +5 ~ 50℃, 85% RH	
Dimension & Weight		206×307×h99mm, 3,3kg	286×387×h99mm, 3,5kg
Packing Size & Gross Weight		400×280×h200mm, 5 kg	430×320×h200mm, 5 kg
Power plug type		Hybrid E+F	
Power Supply*		AC 230V, 1N~, 50/60Hz	

* Other Specifications are available upon Customer's Request.

Ordering Information

* **"MSH-20D"**Package-set : Complete with ① Hotplate Stirrer Unit, ② : **"SS200"** PT100 External / Direct Contact Temp. Probe, ③ **"RD200"** Stainless steel Support Rod Φ12×L450mm ④ **"CL220"** Holder + Clamp for External Temp. Probe
* **"MSH-30D"**Package-set : Complete with ① Hotplate Stirrer Unit, ② : **"SS100"** PT100 External / Direct Contact Temp. Probe, ③ **"RD100"** Stainless steel Support Rod Φ12×L450mm ④ **"CL220"**Holder + Clamp for External Temp. Probe

With 180×180mm Plate-type, "MSH-20D" Package-set & Unit

DH.WMH03021 180×180mm Plate-type, **Package-set, 230V**
DH.WMH03020 , **Unit** only, **230V,** with stir bar

With 260×260mm Plate-type, "MSH-30D" Package-set & Unit

DH.WMH03023 260×260mm Plate-type, **Package-set, 230V**
DH.WMH03022 , **Unit** only, **230V,** with stir bar

Additional Function Accessories

DH.WHP503020 (1) External / Direct Contact Temp. Probe, **"SS100",** PT100, for **HP-30D, MSH-30D** and **SMHS** Probe Φ4×L250mm, Cable L190cm

DH.WHP503021 (2) External / Direct Contact Temp. Probe, **"SS110",** PT100, **Teflon Coated**, for **HP-30D, MSH-30D**, **SMHS** Probe Φ4×L250mm, Cable L190cm

DH.WHP503030 (3) External / Direct Contact Temp. Probe, **"SS200",** PT100, for **HP-20D, MSH-20D**, Probe Φ4×L250mm, Cable L190cm

DH.WHP503031 (4) External / Direct Contact Temp. Probe, **"SS210",** PT100, **Teflon Coated**, for **HP-20D, MSH-20D** Probe Φ4×L250mm, Cable L190cm

DH.WHP503011 (5) Stand Rod, **"RD100",** Stainless Steel, Φ12,7×L390mm for **HP-30A/30D, MSH-30A / 30D,** none Screw

DH.WHP503036 (6) Stand Rod, **"RD200",** Stainless Steel, Φ12×L450mm for **HP-20A / 20D, MSH-20A / 20D, MSH-50A / 55A, MSH-50D / 55D** and **SMHS,** 1,5p Screw

DH.WHP503012 (7) Holder/Clamp/Clip, **"CL220",** for Temp. Probe

※ You will find matching beakers and flasks in our general catalogue at following pages : 33, 34, 293-296.
※ You will find matching stirring bars in our general catalogue at following pages : 362, 363.

"witeg" *WiseStir® MSH-50D* Digital Compact Hotplate Stirrer, Round-type Plate, Φ 135㎜

with Ceramic Coated or Al-anodized Plate, Digital Feedback Control, Back Light LCD, up to 400℃, ±0,3℃, 80 ~ 1.500 rpm

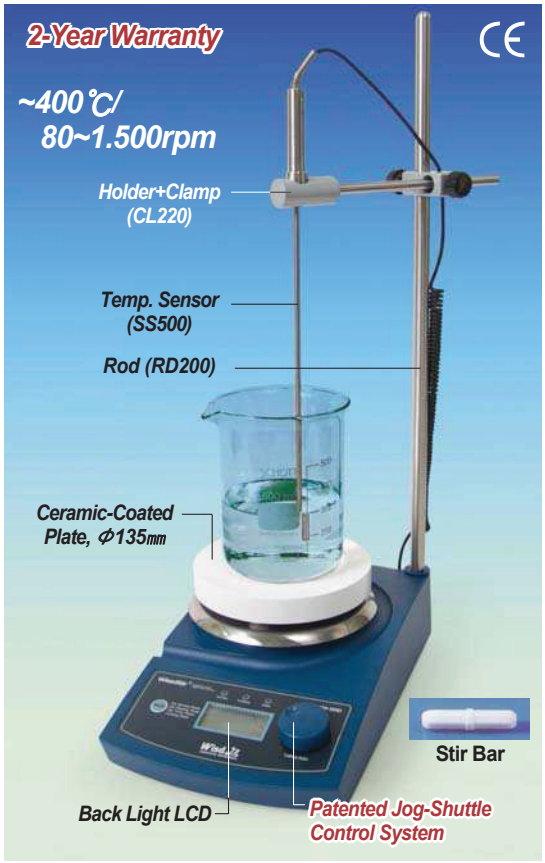
- **Digital Feedback Control by High-Performance Microprocessor**
- **Choice of Models with Ceramic Coated Aluminum Plate (MSH-50D) for Chemical/Acid Resistance and Easy to Clean, or Anodized Aluminum Plate (MSH-55D) for Prevention of Crack/Chip and More Even Heating Surface**
- **Patented Jog-Shuttle Control System**
- **CE Certified**

* Excellent for Mixing and most General Lab Heating Applications.
* Accurate Temp. Control of the Sample in the Vessel using PT100 Sensor (optional).
* User's Self-Compensation Function :
  To Control Difference between Real Temp. and Indicated Temp. (±20,0℃).
* Smart Design of Body made by Aluminum Die-Casting, Powder Coated.
* Storage Function for the set Values : RPM, Temp. and Timer.
* Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled).

Specification

Models	Ceramic Coated Aluminum Plate "MSH-50D"	Black Anodized Aluminum Plate "MSH-55D"
Features	Good Resistance of Chemicals & Acid, Easy to Clean	Prevention of Crack or Chip, and More Even Heating Surface
Plate Size(mm)	Φ135	
Stirring Capa. & Motor Rating	Max. 20 Lit.(H_2O), 9/4W	
Speed & Control Resolution	80 ~ 1.500 rpm, 5 rpm	
Temp. Range & Accuracy	Max. 400 ℃, ±0,3℃ at Set Temp.(Over 70℃)	
Temp. Resolution	0,1 ℃-Display, 0,5 ℃-Control	
Temp. Uniformity	Specially Designed Heating Module : Temp. Difference 10% less	
Heating Power/Consumption	400 W	
Timer & Alarm	99hr 59min (with Continuous run.), Error status & Timer-end	
Display	Digital LCD Display with Back-Light Function	
Controller	Digital Feedback Controller with Jog Shuttle Switch (Turn+Push)	
Stirring Bar	3cm bar-included, Usable : up to 5cm bar	
Safety Circuit	Over Temp. Protection, Auto-off : 420 ℃ Over	
Permissible Temp. & RH %	Ambient +5 ~ 50℃, 85% RH	
Dimension & Weight	w160 × d280 × h95mm, 2,3kg	
Packing Size & Gross Weight	w400 × d280 × h200mm, 4 kg	
Power plug type	Hybrid E+F	
Power Supply*	AC 230V, 1N~, 50/60Hz	

* Other Specifications are available upon Customer's Request.



Ceramic Coated Plate-type : Package-set "MSH-50D"

Black Al-anodized Plate-type : Unit only "MSH-55D"

Ordering Information

* Package-Set : Complete with (1) Hotplate Stirrer Unit with 3cm Stirrer Bar, (2) **"SS500"** PT100 External / Direct Contact Temp. Probe, (3) **"RD200"** Stainless steel Support Rod Φ12 × L450mm, and (4) **"CL220"** Holder + Clamp for External Temp. Probe

With Ceramic Coated Plate, "MSH-50D" Package-set & Unit

DH.WMH03051 Ceramic Plate-type, **Package-set**, **230V**
DH.WMH03050 , **Unit** only, **230V,** with stir bar

With Black Al-anodized Plate, "MSH-55D" Package-set & Unit

DH.WMH03056 Al-anodized Plate-type, **Package-set**, **230V**
DH.WMH03055 , **Unit** only, **230V,** with stir bar

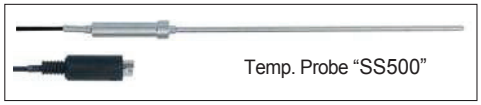
Additional Function Accessories

DH.WHP503060 (1) Direct Contact Temp. Probe, **SS500, PT100**, for **MSH50D/55D**
Probe Φ4 × L250mm, Cable L190cm

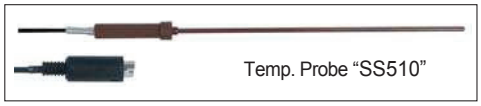
DH.WHP503061 (2) Direct Contact **Teflon Coated** Temp. Probe, **SS510**
PT100, for **MSH50D/55D,** Probe Φ4 × L250mm, Cable L190cm

DH.WHP503036 (3) Stand Rod, **"RD200",** Stainless Steel, Φ12 × L450mm
for **HP-20A / 20D, MSH-20A / 20D, MSH-50A / 55A, MSH-50D / 55D** and **SMHS,** Screw

DH.WHP503012 (4) Holder/Clamp/Clip, **"CL220",** for Temp. Probe



(1) External/Direct Contact Temp. Probe



(2) External/Direct Contact Temp. Probe, Teflon Coated

※ You will find matching beakers and flasks in our general catalogue at following pages : 33, 34, 293-296.

※ You will find matching stirring bars in our general catalogue at following pages : 362, 363.

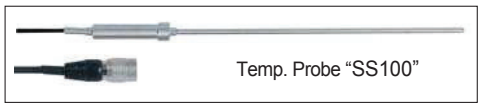
Articles	Cat. No	Description

"witeg" *WiseStir® SMHS* Systematic Multi-Hotplate Stirrers, 3- or 6- Places, Ceramic-Coated Plates with Digital Feedback Control, Independent Heating & Stirring Control, Back Light LCD, , up to 350℃, 80~1.500 rpm

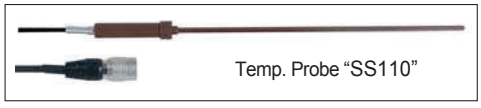
3×1 Plates-type Multi-Hotplate Stirrer "SMHS-3"

3×2 Plates-type Multi-Hotplate Stirrer "SMHS-6"

※ 3 Rear Hotplate Stirrer SMHS-6 have 3 Ports available to connect External Temp. Probe



(1) External/Direct Contact Temp. Probe



(2) External/Direct Contact Temp. Probe, Teflon Coated

- **Excellent for Multi-use and wide range Sample Testing**
- **Patented Jog-Shuttle Control System**
- **CE Certified**

* Systemized 3- and 6-Hotplate Stirrer
* Independent Heating and Stirring Control
* Digital Feedback Control by High-Performance Microprocessor
* Ceramic Coated Plate-Chemical/Acid Resistance
* Maximum Temperature of 350℃ with ±0,3℃ Control Accuracy
* Accurate Temp. Control of the Sample in the Vessel using PT100 Sensor (Optional)
* Digital LCD Display with Back-Light Function
* Digital Timer Function Included : 99 hr 59 min
* Storage Function for the Set Values : Temperature, RPM and Timer
* Locking Mode for Experimental Safety Supported

Specification

Number of Plates, Models	3×1 Plates-type "SMHS-3"	3×2 Plates-type "SMHS-6"
Material	Plate : Ceramic Coated Aluminum, Body : Powder Coated Steel	
Plate Size(mm)	140×140	
Stirring Capa. & Motor Rating	Max. 20 Lit.(H_2O), 9/4W×3	Max. 20 Lit.(H_2O), 9/4W×6
Speed & Control Resolution	80 ~ 1.500 rpm, 5 rpm	
Temp. Range & Accuracy	Max. 350 ℃, ±0,3℃ at Set Temp.(Over 70℃)	
Temp. Resolution	0,1 ℃-Display, 0,5 ℃-Control	
Temp. Uniformity	Specially Designed Heating Module : Temp. Difference 10% less	
Heating Power/Consumption	400 W×3 Plates	400 W×6 Plates
Timer & Alarm	99hr 59min (with Continuous run.), Error status & Timer-end	
Display	Digital LCD Display with Back-Light Function	
Controller	Digital Feedback Controller with Jog Shuttle Switch (Turn+Push)	
Stirring Bar	3cm bar-included, Usable : up to 5cm bar	
Permissible Temp. & RH %	Ambient +5 ~ 50℃, 85% RH	
Dimension & Weight	510×240×h100mm, 10kg	510×410×h180mm, 18kg
Packing Size & Gross Weight	540×330×h170mm, 10kg	570×540×h230mm, 18kg
Power plug type	Hybrid E+F	
Power Supply*	AC 230V, 1N~, 50/60Hz	

* **Other Specifications are available upon Customer's Request.**

Ordering Information

3 × 1 Plates-type Multi-Hotplate Stirrers "SMHS-3", with Cord /Plug

DH.WMH03503 3×1 Plate-type, **230V, "SMHS-3",** with stir bar

3 × 2 Plates-type Multi-Hotplate Stirrers "SMHS-6", with Cable

DH.WMH03506 3×2 Plate-type, **230V, "SMHS-6",** with stir bar

※ 3 Rear Hotplate Stirrer SMHS-6 have 3 Ports available to connect External Temp. Probe.

Additional Function Accessories

DH.WHP503020 (1) External / Direct Contact Temperature Sensor, **"SS100", PT100,** for **HP-30D, MSH-30D** and **SMHS** Probe Φ4×L250mm, Cable L190cm

DH.WHP503021 (2) External / Direct Contact Temperature Sensor, **"SS110", PT100, Teflon Coated,** for **HP-30D, MSH-30D, SMHS** Probe Φ4×L250mm, Cable L190cm

DH.WHP503036 (3) Stand Rod, **"RD200",** Stainless Steel, Φ12×L450mm for **HP-20A/20D, MSH-20A/20D, MSH-50A/55A, MSH-50D/55D** and **SMHS,** 1,5p Screw

DH.WHP503012 (4) Holder / Clamp / Clip, **"CL220",** for Temp. Probe

※ You will find matching beakers and flasks in our general catalogue at following pages : 33, 34, 293-296.

※ You will find matching stirring bars in our general catalogue at following pages : 362, 363.