



# Stirring & Heating

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Labfirst Scientific Instruments (Shanghai) Co., Ltd.

# MICROSTIR 20PRO/ MICROSTIR 40PRO/ MICROSTIR 70PRO

## LCD Digital Overhead Stirrer

Lab1st overhead Stirrers are competent for most demanding tasks with guaranteed safety and performance. They are widely used in chemical synthesis, pharmaceutical synthesis, physical and chemical analysis, petrochemical industries, etc.













Specifications	MICROSTIR 20Pro	MICROSTIR 40Pro	MICROSTIR 70Pro
Max. stirring quantity[H <sub>2</sub> O]	20L	40L	70L
Speed range	50~2200rpm	50~2200rpm	50~1100rpm
Speed display accuracy	±3rpm	±3rpm	±10rpm
Time settings range	-	-	0~99h59min
Max. torque	40N·cm	60N·cm	300N·cm
Viscosity max.	10000mPa·s	50000mPa·s	100000mPa·s
Weight	2.8kg	2.8kg	3.2kg
Motor type	Brushless DC motor	Brushless DC motor	Brushless DC motor
Voltage,Frequency	100~240V, 50/60 Hz	100~240V, 50/60 Hz	100~240V, 50/60 Hz
Speed display	LCD	LCD	LCD
Torque display	LCD	LCD	LCD
Overload protection display	LCD	LCD	LCD
Chuck clamp range diameter	0.5~10mm	0.5~10mm	0.5~10mm
Motor input/output power	60W/50W	120W/100W	180W/160W
Power	70W	130W	200W
Dimension[WxHxD]	83 x 220 x 186mm	83 x 220 x 186mm	83 x 220 x 186mm
Protection class	IP21	IP21	IP21
Permissible ambient temperature and humidity	5~40°C,80%RH	5~40°C,80%RH	5~40°C,80%RH
Data interface	RS232	RS232	RS232

Lab1st overhead Stirrer provides a variety of stirring tools, such as impellers, paddles and blades:

<p><b>Propeller stirrer</b></p> <p>Shaft length: 40cm Stirrer diameter: 5cm Shaft diameter: Ø8mm Material: 316L stainless steel Standard stirring applications at medium and high speed</p> 	<p>Cat. No.920804</p>	<p><b>Paddle stirrer</b></p> <p>Shaft length: 40cm Stirrer diameter: 6.8cm Shaft diameter: Ø8mm Material: 316L stainless steel For gentle mixing at low and medium speeds</p> 	<p>Cat. No.920806</p>
<p><b>Straight stirrer</b></p> <p>Shaft length: 40cm Stirrer diameter: 6cm Shaft diameter: Ø8mm Material: 316L stainless steel For low viscosity media at medium and high speeds</p> 	<p>Cat. No.920805</p>	<p><b>Centrifugal stirrer</b></p> <p>Shaft length: 40cm Stirrer diameter: 9cm Shaft diameter: Ø8mm Material: 316L stainless steel Blades open while speeding. For narrow neck vessels at medium to high speed.</p> 	<p>Cat. No.920807</p>
<p><b>Propeller stirrer</b></p> <p>Shaft length: 35cm Stirrer diameter: 6.5cm Shaft diameter: Ø8mm Material: PTFE coated Standard stirring applications at medium and high speed</p> 	<p>Cat. No.920812</p>	<p><b>Paddle stirrer</b></p> <p>Shaft length: 35cm Stirrer diameter: 6.8cm Shaft diameter: Ø8mm Material: PTFE coated For gentle mixing at low and medium speeds</p> 	<p>Cat. No.920814</p>
<p><b>Straight stirrer</b></p> <p>Shaft length: 35cm Stirrer diameter: 7cm Shaft diameter: Ø8mm Material: PTFE coated For low viscosity media at medium and high speeds</p> 	<p>Cat. No.920813</p>	<p><b>Centrifugal stirrer</b></p> <p>Shaft length: 35cm Stirrer diameter: 8.5cm Shaft diameter: Ø8mm Material: PTFE coated Blades open while speeding. For narrow neck vessels at medium to high speed.</p> 	<p>Cat. No.920815</p>
<p><b>Grand propeller stirrer</b></p> <p>Shaft length: 60cm Stirrer diameter: 10cm Shaft diameter: Ø8mm Material: 316L stainless steel Standard stirring</p> 	<p>Cat. No. 920808</p>	<p><b>Grand paddle stirrer</b></p> <p>Shaft length: 60cm Stirrer diameter: 10cm Shaft diameter: Ø8mm Material: 316L stainless steel Gentle mixing for those stratify easily or sensitive to shear</p> 	<p>Cat. No.920810</p>
<p><b>Grand anchor stirrer</b></p> <p>Shaft length: 60cm Stirrer diameter: 10cm Shaft diameter: Ø8mm Material: 316L stainless steel Standard stirring or for those easily precipitate</p> 	<p>Cat. No. 920809</p>	<p><b>Grand dissolving stirrer</b></p> <p>Shaft length: 60cm Stirrer diameter: 10cm Shaft diameter: Ø8mm Material: 316L stainless steel Breaking down granules in the mixture with strong shear</p> 	<p>Cat. No.920811</p>
<p><b>Flat-blade stirrer</b></p> <p>Shaft length: 40cm Stirrer diameter: 6cm Shaft diameter: Ø8mm Material: 316L stainless steel Suitable for medium speed stirring, low viscosity and medium viscosity materials</p> 	<p>Cat. No. 920817</p>	<p><b>Anchor stirrer</b></p> <p>Shaft length: 40cm Stirrer diameter: 6cm Shaft diameter: Ø8mm Material: 316L stainless steel Suitable for low speed stirring, medium viscosity and high viscosity materials</p> 	<p>Cat. No.920819</p>
<p><b>Radial-flow stirrer</b></p> <p>Shaft length: 40cm Stirrer diameter: 5cm Shaft diameter: Ø8mm Material: 316L stainless steel Suitable for medium speed or high speed agitation, low viscosity or medium viscosity materials, recommended for the treatment of gas in liquid</p> 	<p>Cat. No. 920818</p>	<p><b>Spiral stirrer</b></p> <p>Shaft length: 40cm Stirrer diameter: 5cm Shaft diameter: Ø8mm Material: 316L stainless steel Suitable for medium speed or high speed agitation, medium viscosity and high viscosity materials, recommended for liquid homogenization or suspension treatment</p> 	<p>Cat. No. 920820</p>

Magnetic hotplate stirrers are used for low viscosity liquids or solid mixing, chemical synthesis, physical and chemical analysis, bio-pharmaceuticals etc. Lab1st 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 <sub>2</sub> O)
<b>Super HS series</b>	Super HS-10Pro		1	LCD	254X254mm	500°C	30L
	Super HS-7Pro		1	LCD	184x184mm	550°C	20L
	Super HS-7		1	LED	184x184mm	550°C	10L
<b>HS series</b>	HS-5		1	LCD	Ø135mm	340°C	20L
	HS-5+		1	LCD	Ø135mm	340°C	20L
	HS-5T		1	LCD	Ø135mm	340°C	20L
	HS-5S		1	Scale	Ø135mm	340°C	20L
<b>Basic IHSI series</b>	HS-5 basic 2		1	LCD	140x140mm	380°C	5L
	HS-5 basic		1	LED	Ø135mm	280°C	3L
<b>Multi-point series</b>	Multi-point HS-4		4	LCD	Ø135mm	340°C	3Lx4
	Multi-point HS-10		10	Scale	180x450mm	120°C	0.4Lx10

**Magnetic Stirrers:**

Image	Model	Stirring Position	Display	Work plate Size	Max. stirring quantity(H.0)
	Super MS-7S	1	Scale	184x184mm	10L
	MS-5S	1	Scale	Ø135mm	20L
	MS-5 basic 2	1	LCD	140x140mm	5L
	MS-5 basic	1	LED	Ø135mm	3L
	MS-5 basic B	1	Scale	Ø135mm	3L
	MiStir Square	1	Scale	120x115mm	1.5L
	MiStir	1	Scale	Ø120mm	1.5L
	MinThi	1	-	Ø90mm	0.8L
	Multi-point RO-15**	15	LCD	460x304mm	0.4Lx15
	Multi-point RO-10	10	Scale	180x450mm	0.4Lx10

**Hotplate:**

Image	Model	Display	Work plate Size	Max. Heating Temp.
	Super HP-10 Pro	LCD	254x254mm	500°C
	Super HP-7	LED	184x184mm	550°C
	HP-5 basic 2	LCD	140x140mm	380°C

\*\*Coming soon

**Application guidance:**

**Notice:** HS-5 basic 2, HP-5 basic 2 & HS-5 basic are not available for chemical fields.

Fields		Super HS-10Pro/ Super HS-7Pro/ Super HS-7/ Super HP-10Pro/ Super HP-7	HS-5/ HS-5T/ HS-5+/ HS-5S/ Multi-point HS-4	HS-5 basic 2/ HP-5 basic 2	HS-5 basic	Multi-point HS-10	Magnetic Stirrers (none heating models)
<b>Pharmaceutical</b>	Chemical Synthesis	■	■				
	Biochemical Drugs	■	■				
	Medicine Testing	■	■				
	Drug Formulation	■	■				
<b>Chemical Industry</b>	Petrochemical Industry	■	■				
	Inorganic Chemical Synthesis	■	■				
	Organic Chemical Synthesis	■	■				
	Daily Use Chemical Industry	■	■				
	Painting/Rubber/Plastic	■	■				
	Fertilizer/Pesticide	■	■				
<b>Environmental</b>	Water Quality Analysis				■	■	■
	Pesticide Residue Testing				■	■	■
	Chemical Pollution Analysis				■	■	■
<b>Research &amp; Education</b>	Basic Chemical Experiments	■	■		■	■	■
	Material Analysis			■	■	■	■
	Liquid Mixing			■	■	■	■
	Chemical Synthesis	■	■				
<b>Food Industry</b>	Food Additive	■	■	■	■		
	Dairy Products	■	■	■	■		
	Nutrition Analysis	■	■	■	■		
<b>Biological Engineering</b>	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:

<b>Models</b>					
<b>Models</b>	MICROSTIR 20Pro	MICROSTIR 20	MICROSTIR 40Pro	MICROSTIR 40	MICROSTIR 70Pro
<b>Max. Stirring Quantity(H<sub>2</sub>O)</b>	20L	20L	40L	40L	70L
<b>Constant Speed</b>	YES	NO	YES	NO	YES
<b>Display</b>	LCD	LED	LCD	LED	LCD
<b>Speed Range</b>	50–2200rpm	50–2200rpm	50–2200rpm	50–2200rpm	50–1100rpm
<b>Max. Torque</b>	40N · cm	40N · cm	60N · cm	60N · cm	300N · cm
<b>Viscosity Max.</b>	10000mPa · s	10000mPa · s	50000mPa · s	50000mPa · s	100000mPa · s