

D-160

Handheld Homogenizer

Features

- Portable, lightweight with ergonomic design ideal for manual operations
- Processing volumes from 0.1-50mL or 1-250mL
- Variable speed from 8,000 to 32,000 rpm
- 316L stainless steel shafts are fully autoclavable
- Interchangeable shafts for easy dismantling and cleaning

Applications

Designed for rapidly homogenize, emulsify, suspend and disrupt biological samples like tissue of animal, bacteria, yeast, plant samples, etc. in liquids. Ideal for samples from 0.1mL to 250mL depending on shaft chosen.



| Specifications | D-160 |
|--|--------------------------------------|
| Speed range | 8000-32000rpm |
| Max linear velocity | 6.3m/sec or 14m/sec |
| Speed level | 10 stage |
| Working volume [H ₂ O] | 0.1-50mL (Dispersing shaft DS-160/5) |
| | 1-250mL (Dispersing shaft DS-160/10) |
| Max. viscosity | 5,000mPas |
| Material of Dispersing Shaft | SS 316L stainless steel, PTFE |
| Noise | 72 dB(A) |
| Protection class | IP20 |
| Voltage, Frequency | 110-120V/60Hz |
| | 220-240V/50-60Hz |
| Power | 160W |
| Motor Type | AC carbon brush motor |
| Dimension [WxDxH] | 45mm x 55mm x 190mm |
| Weight | 0.54 kg |
| Permissible ambient temperature and humidity | 0-40°C, 85%RH |

MS7-H550-Pro

**LCD Digital Magnetic Hotplate Stirrer
With 7 Inch Ceramic Plate**

MS7-H550-S

**LED Magnetic Hotplate Stirrer
With 7 Inch Ceramic Plate**



Features

- LCD displays actual temperature & speed
- Built-in PID controller ensures safe heating of the medium with overheating protection
- Maximum heating plate temperature up to 550°C
- Glass ceramic work plate is resistant to corrosion and is easy to clean
- External temperature control is possible by connecting temperature sensor(PT1000) with an accuracy of $\pm 0.2^{\circ}\text{C}$
- Digital speed control with maximum range of 1500rpm
- Outstanding brushless DC motor offers more stirring power
- Two knobs enable easy adjustment of speed and temperature
- "HOT" warning flashes when work plate temperature is above 50°C even when hotplate is turned off
- Remote function provides PC control and data transmission

MS7-H550-Pro

**LCD Digital Magnetic Hotplate Stirrer
With 7 Inch Ceramic Plate**

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NEW

MS10-H500-Pro

**LCD Digital Magnetic Hotplate Stirrer
With 10 Inch Ceramic Plate**



Features

- Large volume: Up to 30L of liquid on 10-inch hot plate with powerful magnetic stirring
- Glass ceramic work plate provides excellent chemical resistant performance and most efficient heat transfer
- LCD display for precise monitoring of speed and temperature. External temperature control is possible by connecting the temperature sensor (PT1000) with an accuracy at $\pm 0.2^{\circ}\text{C}$
- Digital speed control of 100 ~ 1500rpm
- Max. heating plate temperature 500°C
- The "HOT" warning will flash when the work plate temperature is above 50°C even when the hotplate is turned off
- Data connector: The SD card records the instrument's running data in real time.
- Timing function: the running time of the instrument can be set.

MS-H380-Pro

LCD Digital Magnetic Hotplate Stirrer

Features

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



MS-H280-Pro

LED Digital Magnetic Hotplate Stirrer

DLAB MS-H280-Pro is a perfect hotplate stirrer for handling small volume task and daily applications, with maximum temperature of 280°C

Features

- Digital temperature control with maximum temperature up to 280°C
- Digital speed control with maximum speed up to 1500rpm
- Stainless steel with ceramic coating work plate provides high chemical resistant performance
- External temperature control is possible by connecting temperature sensor(PT1000) with an accuracy at $\pm 0.2^{\circ}\text{C}$
- LED display shows temperature and stirring speed
- "HOT" warning flashes if work plate temperature is above 50°C

MS-H-PRO^A

LCD Digital Magnetic Hotplate Stirrer

Three heating models for selecting (fast heating, standard heating and stable heating)

MS-H-PRO⁺

LCD Digital Magnetic Hotplate Stirrer

MS-H-Pro^T

LCD Digital Magnetic Hotplate Stirrer with Timer

MS-H-S

Analog Magnetic Hotplate stirrer



Features

- Brushless DC motor is maintenance free and explosion-proof
- Digital temperature control up to 340°C
- Digital speed control up to 1500rpm
- Maximum stirring quantity of H₂O is 20L
- Safety circuits provide overheating protection
- "HOT" warning flashes if plate temperature is above 50°C even when hotplate is turned off
- Wide range timer function from 1 min to 99h 59min (MS-H-Pro^T only)
- High-resolution LCD display shows actual temperatures and speed (MS-H-Pro^T displays the time)
- External temperature control is possible by connecting the temperature sensor (PT 1000) with accuracy at ±0.2°C
- Work plate with ceramic coating provides good chemical-resistant performance
- Remote function provides PC control and data transmission
- Wide variety of accessories available to choose

Security

- International safety certification: CE, CTÜVus, FCC and other product safety cert, certifications issued by TUV Rheinland
- Safety circuits provide overheating protection
- "HOT" warning flashes if the work plate temperature is above 50°C
- Brushless DC motor is maintenance free and explosion-proof
- Fully enclosed aluminum alloy housing with good heat dissipation performance and reliable protection capability



External sensor



RS232 connector



Wide range of accessories



Chemical resistance



Brushless DC motor

MX-M

Microplate Mixer

Features

- Wide range of speed from 0 to 1,500 rpm (Double microplate: 0–1,000 rpm)
- Excellent performance with electronic speed control
- High speed and effective mixing for microplates
- With adapters for most popular vessels and microtiter plates
- Used for various mixing applications with optional adapters
- Maintenance-free brushless DC motor



Applications

DLAB Microplate Mixer is used for holding single or double microplates. The footprint of MX-M Microplate Mixer occupies less bench space and makes the storage easier. It is widely used in life sciences including microbiology, cell and molecular biology, immunology and biotechnology



Brushless DC motor








Wide range of accessories

DLAB mixers range can be divided into different series as per mixing speed, working mode, load capacity etc:

| Series | Image | Model | Speed Range | Working mode | Capacity | Page |
|--------------------|---|------------|--------------------|--|--|-------|
| Vortex Mixer |  | MX-S | 0-3000rpm | Orbital (touch + continuous modes) | - | p.103 |
| |  | MX-F | 3000rpm (fixed) | Orbital (touch + continuous modes) | - | p.105 |
| |  | MX-E | 3000rpm (fixed) | Orbital (touch mode) | - | p.106 |
| Cell disruptor |  | MX-C | 0-3000rpm | Orbital (touch + continuous modes) | 8x2mL | p.107 |
| Microplate Mixer |  | MX-M | 0-1500rpm | Orbital (continuous mode) | 0.5Kg | p.108 |
| Disk Rotator |  | MX-RD-Pro | 10-70rpm | 360° rolling (timer + continuous) | 60x1.5mL, 16x15mL, 8x50mL, (available for 3 layers) | p.110 |
| Rotisserie Rotator |  | MX-RL-Pro | 10-70rpm | 360° rolling (timer + continuous) | 48x1.5mL, 24x15mL, 24x50mL | p.111 |
| Disk Rotator |  | MX-RD-E | 0-80rpm | 360° rolling (continuous) | 48x2mL, 16x15mL, 8x50mL | p.113 |
| Rotisserie Rotator |  | MX-RL-E | 0-80rpm | 360° rolling (continuous) | 32x2mL, 20x15mL, 16x50mL | p.114 |
| Rocking Rotator |  | SK-R30S-E | 0-30rpm | 30 ± 3° rocking (continuous) | 10x10mL, 4x50mL | p.115 |
| | | SK-R30L-E | 0-30rpm | 30 ± 3° rocking (continuous) | 16x10mL 6x50mL | p.115 |
| | | SK-R30D-E | 0-30rpm | 40 ± 3° rocking (continuous) | 32x10mL, 12x50mL | p.115 |
| Roller Mixer |  | MX-T6-Pro | 0-70rpm | 360° rocking&rolling (timer + continuous) | 4Kg | p.116 |
| |  | MX-T6-S/S+ | 0-70rpm | 360° rocking&rolling (continuous) | 4Kg | p.116 |

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.

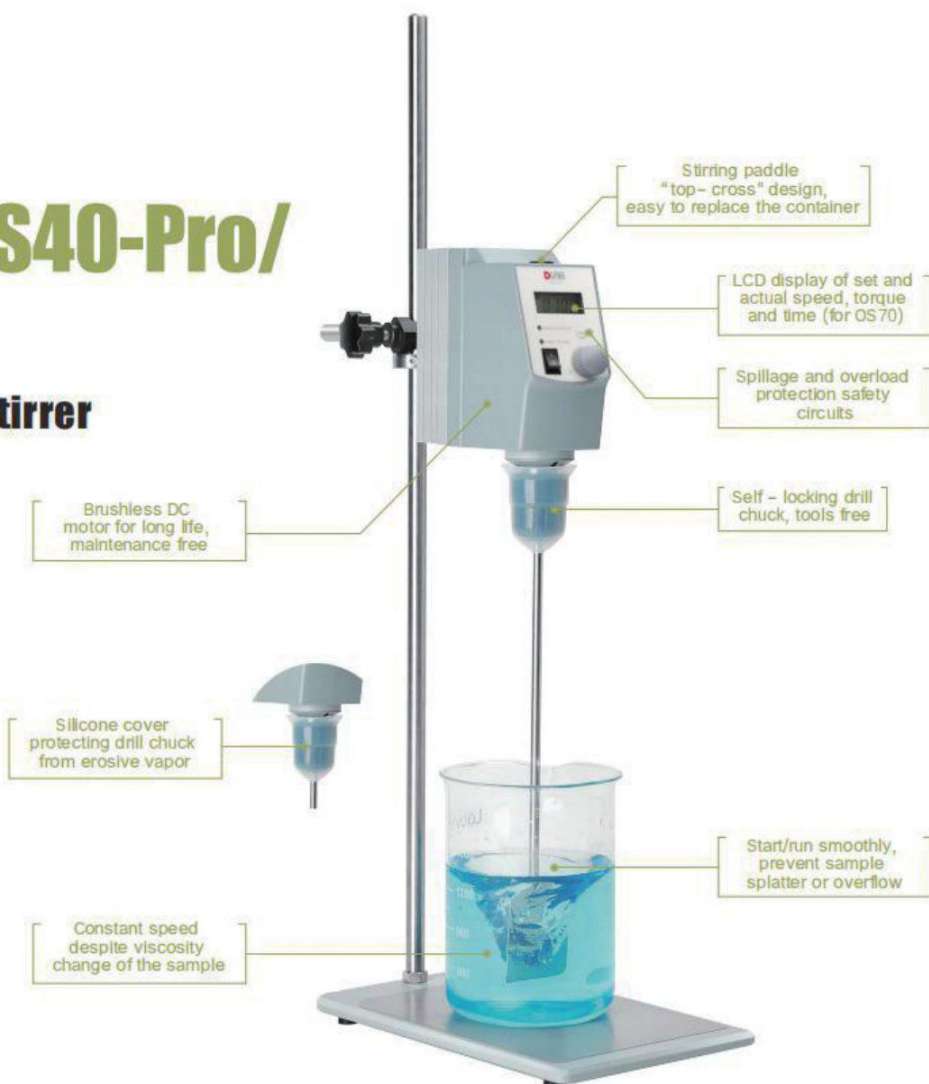
Overhead stirrers:

| | | | | | |
|---|---|---|---|---|---|
| Models |  |  |  |  |  |
| Models | OS20-Pro | OS20-S | OS40-Pro | OS40-S | OS70-Pro |
| Max. Stirring Quantity(H₂O) | 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.68 | P.69 | P.68 | P.69 | P.68 |

OS20-Pro/OS40-Pro/ OS70-Pro

LCD Digital Overhead Stirrer

DLAB 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 | OS20-Pro | OS40-Pro | OS70-Pro |
|--|--------------------|--------------------|--------------------|
| Max. stirring quantity[H ₂ 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℃,80%RH | 5~40℃,80%RH | 5~40℃,80%RH |
| Data interface | RS232 | RS232 | RS232 |