



2016 Catalogue

 **major
science**

Innovative Life Sciences Tools

Shaker

MS Shaker

MS-NOR-30 / MS-NOR-3001

MS-NRC-30 / MS-NRC-3001

MS-NRK-30 / MS-NRK-3001

Three different shaking motions of MS Shaker series is provided for many general purpose shaking application in chemical and life sciences laboratories. The Orbital Shaker digitally controls clockwise and/or counter-clockwise orbits to create superb mixing efficiency. The Reciprocal Shaker features a horizontal (left to right) linear action to provide gentle to vigorous shaking motion. The Rocking Shaker provides a "12-degree" tilted angle rocking motion for variety of applications. All three models provides continuous or timed operation with integral electronic timer, LED display, audible signal for automatic switch-off timed control, interchangeable/stacking platforms. Reciprocal shaker can hold up to 15kg of weight whereas rocking and orbital shaker can hold up to 10kg(orbital) and 8kg(rocking), respectively.

For Anti-moisture model

The MS Anti-moisture Shaker series offers the same capabilities as our original MS shaker series with moisture protection coating. The moisture protection allows you to operate the shaker in cold-room or low temperature environment. An anti-moisture coating is applied on the electrical structure to minimize and prevent the forming of condensation when operating in & out of the cold room. Standard features and accessories from the MS shaker series apply to all three different models.



Heavy loading capacity (ex. MS-NRC-30)

Features

- Continuous one way orbital shaking or two ways clockwise/counter-clockwise orbital shaking
- Continuous or timed operation with auto shut-off
- Variable shaking speed, up to 200rpm
- Variety of accessories available
- Max. 17.6lb (8kg) loading capacity for MS-NRK-30
- Max. 22.0lb (10kg) loading capacity for MS-NOR-30
- Max. 33lb (15kg) loading capacity for MS-NRC-30
- Special anti-moisture coating allows smooth operation in cold room environment or CO₂ incubation
- Optional 30 x 30 cm platform available for your selection.



MS-NOR-30



MS-NRC-30



MS-NRK-30

FC CE



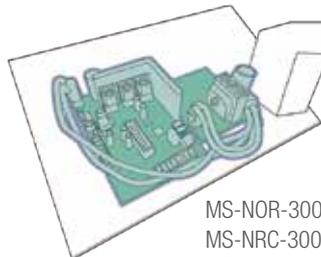
Variety of accessories available



Stacking platform



Maximum tilt angle 12° (MS-NRK-30)



MS-NOR-3001
MS-NRC-3001
MS-NRK-3001

Special coating allows anti-moisture for cold room operation

Platform capability of Flask Holders

| Flask | Max. set of flask holder | |
|--------|--------------------------|------------------------|
| | MS-NOR-30 | MS-NRC-30 MS-NRK-30 |
| 125ml | 12 | 12 |
| 250ml | 9 | 9 |
| 500ml | 5 | 5 |
| 1000ml | 4 | 4 |
| 2000ml | 1 | 2 |

*When operating with second-tier platform, max. loading capacity may change.



MW-SP



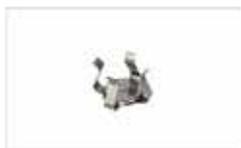
MS-P3030



MS-DIMPLED-30



MS-FLAT-30



MO-FH-125



MO-FH-250



MO-FH-500



MO-FH-1000



MO-FH-2000



PPL-04-SI-SI-200-3

Specifications

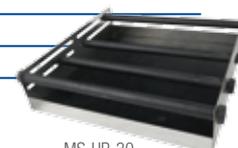
| Cat. No. | MS-NOR-30(MS-NOR-3001*) | MS-NRC-30(MS-NRC-3001*) | MS-NRK-30(MS-NRK-3001*) |
|--------------------------|---|------------------------------|-------------------------|
| Motion | Orbital | Reciprocal | Rocking |
| Moving feature | Orbital action in one direction or two directions | Steady moving motion at 5rpm | |
| Bi-directional shaking | 0.1~10 circle / 0.1 circle | N/A | |
| Maximum tilt angle | N/A | N/A | 12° |
| Maximum stroke length | 20mm | 20mm | N/A |
| Controller | Digital microprocessor controller | | |
| Speed/Inc. | 0 ~ 200rpm / 1rpm | 5 ~ 100rpm / 1rpm | |
| Timer | 9999 (min) with alarm / Continuous | | |
| Loading capacity | 22.0lb (10kg) | 33.0lb (15kg) | 17.6lb (8kg) |
| Motor | Stepping motor | DC brushless type | |
| Operating temperature | Ambient to 40°C | | |
| Platform dimension (WxL) | 1.18"x1.18" (30x30cm) | | |
| Platform material | Painted iron metal | | |
| Stacking platform | Yes | | |
| Dimension (WxLxH) | 11.81"x12.2"x5.12" (300x310x130mm) | | |
| Material | Flame retardant PC and painted iron metal bottom plates | | |
| Weight | Approx. 15.4lb (7.0kg) | | |
| Rated voltage | 110V / 220V (selectable) | | |

* Anti-moisture coating

Ordering Information

| Cat. No. | Product Description |
|--------------------|---|
| MS-NOR-30 | MS Orbital Shaker with 30x30cm platform with flat non-slip rubber mat, 110V / 220V |
| MS-NOR-3001 | MS Orbital Anti-moisture Shaker with 30x30cm platform with flat non-slip rubber mat, 110V / 220V |
| MS-NOR-30-FH125 | MS Orbital Shaker with 12x125ml flask holders |
| MS-NOR-30-FH250 | MS Orbital Shaker with 9x250ml flask holders |
| MS-NOR-30-FH500 | MS Orbital Shaker with 5x500ml flask holders |
| MS-NOR-30-FH1000 | MS Orbital Shaker with 4x1000ml flask holders |
| MS-NRC-30 | MS Reciprocal shaker with 30x30cm platform with flat non-slip rubber mat, 110V / 220V |
| MS-NRC-3001 | MS Reciprocal anti-moisture shaker with 30x30cm platform with flat non-slip rubber mat, 110V/220V |
| MS-NRC-30-FH125 | MS Reciprocal shaker with 12x125ml flask holders |
| MS-NRC-30-FH250 | MS Reciprocal shaker with 9x250ml flask holders |
| MS-NRC-30-FH500 | MS Reciprocal shaker with 5x500ml flask holders |
| MS-NRC-30-FH1000 | MS Reciprocal shaker with 4x1000ml flask holders |
| MS-NRK-30 | MS Rocking shaker with 30x30cm platform with flat non-slip rubber mat, 110V / 220V |
| MS-NRK-3001 | MS Rocking anti-moisture shaker with 30x30cm platform with flat non-slip rubber mat, 110V / 220V |
| MS-NRK-30-FH125 | MS Rocking shaker with 12x125ml flask holders |
| MS-NRK-30-FH250 | MS Rocking shaker with 9x250ml flask holders |
| MS-NRK-30-FH500 | MS Rocking shaker with 5x500ml flask holders |
| MS-NRK-30-FH1000 | MS Rocking shaker with 4x1000ml flask holders |
| MW-SP | Strip springs (pack of 2), 265mm |
| MS-P3030 | Additional 30x30cm platform with attachable 10cm pillars 8pcs and flat non-slip rubber mat |
| MS-DIMPLED-30 | 30x30cm dimpled mat |
| MS-FLAT-30 | Non-slip rubber mat 30x30cm |
| MO-FH-125 | 1x125ml flask holder without platform |
| MO-FH-250 | 1x250ml flask holder without platform |
| MO-FH-500 | 1x500ml flask holder without platform |
| MO-FH-1000 | 1x1000ml flask holder without platform |
| MO-FH-2000 | 1x2000ml flask holder without platform |
| PPL-04-SI-SI-200-3 | Sticky Pad 20x20cm |
| MS-UP-30 | Universal adjustable platform, 30x30cm (Maximum capacity: 2x2L flasks) |

*MS-UP-30 is compatible with MS-NRK, MS-NRC and MS-NOR series.



MS-UP-30

MS Waver Shaker

MW series

Waver Shaker offers optimal movement for the multiple stainings and washings involved in gel, blotting, microscopy and immunostaining applications. Its combination of vertical and horizontal orbital motion provides more rapid exchange of solvents and greater mixing efficiency.

Hybridization Water Bath is offered along with the Waver Shaker for wet hybridization, and it is even used as a shaking water bath. It is a digital controlled instrument equipped with a RS-232 port for data logging. It provides the temperature uniformity which hybridization processes requires.



Adjustable platform angle

Features

- Continuous or timed operation with automatic shut-off mechanism
- Variable shaking speed from 5 to 100rpm for mixing and washing action
- Two shaking movements in 2D or 3D
- Adjustable platform angle
- Interchangeable/stacking platform and extendable shelves available
- 33.0lb (15kg) loading capacity
- LED display for easy reading
- 4 digits red LED display
- High quality DC brushless motor
- Easy expandable shelf installation



MW-23



MW-WB

Hybridization Water Bath



MW-23-FH250



MW-23-FH500

Platform capability of Flask Holders

| Flask | Maxi set of flask holder |
|--------|--------------------------|
| 125ml | 9 / *12 |
| 250ml | 9 |
| 500ml | 9 |
| 1000ml | 1 / *5 |

*Customized Specification

Specification



MW-SP



MW-P3333



MW-DIMPLED



MW-FLAT



MW-SL



MO-FH-125



MO-FH-250



MO-FH-500



MO-FH-1000



PPL-04-SI-SI-200-3

| Cat. No. | MW-23 |
|--------------------------|--------------------------------------|
| Motion | Orbital and Nutation(2D or 3D) |
| Controller | Digital microprocessor controller |
| Speed/Inc. | 5 ~ 100rpm / 1rpm |
| Maximum tilt angle | 8° |
| Timer | 9999 (min) with alarm / Continuous |
| Loading capacity | 33.0lb (15kg) |
| Motor | DC brushless type |
| Operating temperature | Ambient to 40°C |
| Platform dimension (WxL) | 1.3"x1.3" (33x33cm) |
| Platform material | Painted iron alloy |
| Dimension (WxLxH) | 12.99"x17.72"x11.02" (330x450x280mm) |
| Material | Painted iron metal |
| Weight | Approx. 22.0lb (10kg) |
| Rated voltage | 110V / 220V (selectable) |

| Cat. No. | MW-WB |
|-------------------------------|--|
| Display | 4 Digital LED |
| Controller | Digital microprocessor controller |
| Bath temperature | Ambient to 95°C |
| Timer | 9999 (min) with alarm / Continuous |
| Bath tank material | 304 stainless steel |
| Bath inner dimensions (WxLxH) | 9.45"x10.63"x1.97" (240x270x50mm) |
| Bath capability | Approx. 0.74gal (2.8L) |
| Operating temperature | Ambient to 40°C |
| Dimension (WxLxH) | 11.81"x11.81"x11.42" (300x300x290mm) |
| Material | Painted iron metal |
| Lid material | Transparent acrylic material assembled with stainless steel construction |
| Data log | RS232 |
| Weight | Approx. 15.4lb (7.0kg) |
| Rated voltage | 110V / 220V |

Ordering Information

| Cat. No. | Product Description |
|--------------------|---|
| MW-23 | MS Waver Shaker with flat non-slip rubber mat, 110V / 220V |
| MW-23-FH250 | MS Waver Shaker with 9x250ml flask holders |
| MW-23-FH500 | MS Waver Shaker with 9x500ml flask holders |
| MW-WB-110/220 | Hybridization Water Bath |
| MW-23-WB-110/220 | MS Waver Shaker and Hybridization Water Bath |
| MW-SP | Strip springs (pack of 2), 265mm |
| MW-P3333 | Additional 33x33cm platform with flat non-slip rubber mat (with 8 of attachable 10cm or 20cm pillars) |
| MW-DIMPLED | 33x33cm dimpled mat |
| MW-FLAT | 33x33cm non-slip rubber mat |
| MW-SL | Supporting leg (pack of 4) |
| MO-FH-125 | 1x125ml flask holder without platform |
| MO-FH-250 | 1x250ml flask holder without platform |
| MO-FH-500 | 1x500ml flask holder without platform |
| MO-FH-1000 | 1x1000ml flask holder without platform |
| PPL-04-SI-SI-200-3 | Sticky Pad 20x20cm |



Adjustable platform angle for 3D movement.



2013 Catalogue

US Office

19959 Sea Gull Way
Saratoga, CA 95070 U.S.A.
T/ +1-408-366-9866
F/ +1-408-446-1107

Taiwan Office

No. 37, Wuquan 5th Road, Wugu Dist.,
New Taipei City 24888, Taiwan
T/ +886-2-2298-1055
F/ +886-2-2299-7871

India Office

No.12-13-104, St. No.3, Lane No.1,
Tarnaka, Secunderabad - 500017
Telengana, India
T/ +91-40-27001515
F/ +91-40-27001515