Orbital Shakers OS-3100, 220V/50Hz



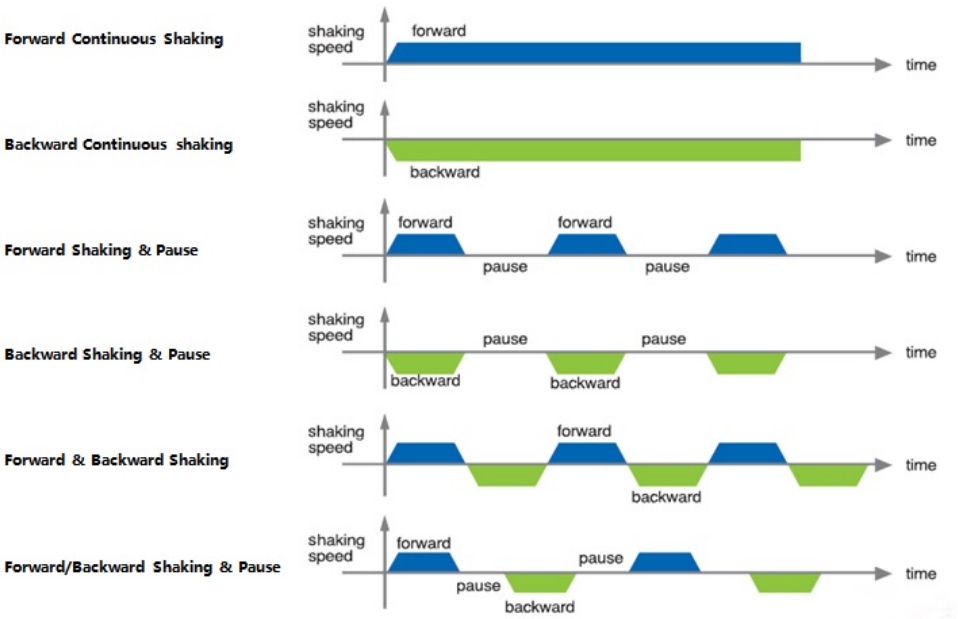
Reciprocating/Orbital Shaker OS-3100 provide two different shaking functions: back and forth, and orbital. Adjustable shaking speed and range. Timer function for maximum flexibility.

Iris orbital shakers feature a rectangular platform that moves in a circular motion to aerate samples. Additional features for all of these units include intuitive controls with a digital display, a robust construction in a compact, space-saving design and smooth running conditions with variable speeds. Our laboratory shakers allow for safe, efficient and easy-to-use operation while reproducing accurate, controlled speeds with every use.

- Two different shaking functions: back and forth, and orbital
- Adjustable shaking speed and range
- Timer function for maximum flexibility
- Corrosion resistant stainless steel housing
- Easy to clean and maintain
- Large mounting surface and big load capacity of up to 15 kg
- Ideal for vessels with more than 250 ml capacity, like round flasks, Erlenmeyer flasks, culture flasks, or culture bottles
- Widely used for bacterial cultures, fermentation, hybridization, biochemical reactions, enzyme or tissue research

Multi-function Shaking System:

The OS-3100 shaker's intensive multifunction shaking system surpasses all previous levels of experience! You can multi-set the shaking motions in maximum six ways of Forward/ Backward/ Pause/ Mix & match upon your various laboratory purposes.



Technical Specification:

Model	OS-3100
Display and Control	LED Digital Display / On-Touch Control
Vibration Style	Reciprocating / Orbital
Speed Adjustment Steps (rpm)	± 1
Platform Size (mm)	350 × 350
Shaker Controller	Microprocessor Digital LED
Shaking Throw (mm)	30 (Standard); 20, 40 (Optional)
Shaking Plate	350 × 350 mm
Max. Load (kg)	7.5
Timer	999 hr 59 min; Pause: Max. 99 min, Min. 1 min; Forward-and-backward: Max. 9 min 50 sec, Min. 10 sec
Material	Host: stainless steel Working Plate: Aluminium
Motor Input / Output power (W)	45 / 10
External Dimensions (WxDxH) mm	410 × 490 × 160 mm
Electrical Requirements	220V/50Hz
Catalogue No.	5401515-2

Technical Data:

Model	OS-3050		OS-3050R		OS-3100		OS-3150		OS-3200	
Display and Control	LED Digital Display / On-Touch Control		LED Digital Display / On-Touch Control		LED Digital Display / On-Touch Control		LED Digital Display / On-Touch Control		LED Digital Display / On-Touch Control	
Vibration Style	Orbital		Reciprocating		Orbital/Reciprocating		Orbital/Reciprocating		Orbital/Reciprocating	
Speed Range (rpm)	10 - 250		10 - 250		10 - 300		10 - 300		10 - 300	
Speed Accuracy (rpm)	±2 (at 100rpm)		±2 (at 100rpm)		±1rpm		±1rpm		±1rpm	
Amplitude of Vibration (mm)	20 (10 to 400rpm/14mm?10 to 500rpm/8mm Available)		20 (10 to 400rpm/14mm?10 to 500rpm/8mm Available)		30 (Standard); 20, 40 (Optional)		30 (Standard); 20, 40 (Optional)		30 (Standard); 20, 40 (Optional)	
Speed Adjustment Steps (rpm)	± 1		± 1		± 1		± 1		± 1	
Maximum Timer Length (min)	Delay On / Off Time : 1min to 999hr 59min Forward & Backward, Pause : 10sec to 59min 59 sec		Delay On / Off Time : 1min to 999hr 59min Forward & Backward, Pause : 10sec to 59min 59 sec		999 hr 59 min; Pause: Max. 99 min, Min. 1 min; Forward-and-backward: Max. 9 min 50 sec, Min. 10 sec		999 hr 59 min; Pause: Max. 99 min, Min. 1 min; Forward-and-backward: Max. 9 min 50 sec, Min. 10 sec		999 hr 59 min; Pause: Max. 99 min, Min. 1 min; Forward-and-backward: Max. 9 min 50 sec, Min. 10 sec	
Material	Host: stainless steel Working Plate: Aluminium		Host: stainless steel Working Plate: Aluminium		Host: stainless steel Working Plate: Aluminium		Host: stainless steel Working Plate: Aluminium		Host: stainless steel Working Plate: Aluminium	
Maximum Load (including clamps) (kg)	15		15		7.5		15		30	
Motor Input / Output power (W)					45 / 10		70 / 19		140 / 38	
Working Plate Dimension(W × D in mm)	320 × 260		320 × 260		350 × 350		450 × 450		755 × 481	
Outside Dimension(W × D × H in mm)	355x375x140(mm)		355x375x140(mm)		410 × 490 × 160		510 × 595 × 160		820 × 610 × 152	
Accessories	Carrier with Flexible Attachments , Carrier with Fixed Attachments, Carrier with Rubber Plate									
Gross Weight (kg)										
Shipping Weight (kg)										
Shipping Dimensions (mm)										
Electrical Requirements	110V/60Hz	220V/50Hz	220V/50Hz	220V/50Hz	110V/60Hz	220V/50Hz	110V/60Hz	220V/50Hz	110V/60Hz	220V/50Hz
Catalogue No.	5401505-1	5401505-2	5401510-1	5401510-2	5401515-1	5401515-2	5401520-1	5401520-2	5401525-1	5401525-2

Accessories:

<table>
<tr><th>Model</th><th>Image</th><th>Name</th><th>Details</th></tr>
<tr><td>54001A02</td><td></td><td>Sticky Plate 350 x 350 mm</td><td>The Sticky Plate can be loaded with any kind of vessel with a smooth base. Even at a speed of up to 350rpm the vessel sticks to the plate. Other vessels, like e.g. microtitre plates can be shaken on the Sticky Plate as well. However, only up to a speed of 220 rpm</td></tr>
<tr><td>54002A02</td><td></td><td>Universal Trays 350 x 350 mm</td><td>The Universal Trays employ a drilled grid for individual loadings of test tube holders, microtitre plates, and deep well plates.
<table>
<tr><th>Suitable for</th><th>OS-3050</th><th>OS-3100</th><th>OS-3150</th><th>OS-3200</th></tr>
<tr><td>Dimensions (W × D in mm)</td><td>320 x 260</td><td>350 x 350</td><td>450 x 450</td><td>755 x 481</td></tr>
<tr><td colspan="5">Max. Load of Beaker Holders (kg)</td></tr>
<tr><td>Beaker Volume</td><td></td><td></td><td></td><td></td></tr>
<tr><td>50 ml</td><td>21</td><td>36</td><td>55</td><td>99</td></tr>
<tr><td>100 ml</td><td>14</td><td>28</td><td>44</td><td>74</td></tr>
<tr><td>250 ml</td><td>8</td><td>13</td><td>24</td><td>39</td></tr>
<tr><td>300 ml</td><td>8</td><td>13</td><td>24</td><td>39</td></tr>
<tr><td>500 ml</td><td>5</td><td>10</td><td>16</td><td>25</td></tr>
<tr><td>1 L</td><td>3</td><td>5</td><td>8</td><td>14</td></tr>
<tr><td>2 L</td><td>1</td><td>4</td><td>5</td><td>9</td></tr>
<tr><td>2.8 L</td><td>1</td><td>2</td><td>4</td><td>6</td></tr>
<tr><td>4 L</td><td>-</td><td>1</td><td>2</td><td>4</td></tr>
<tr><td colspan="5">Max. Load of Separatory Funnel Holders (kg)</td></tr>
<tr><td>Separatory Funnel Volume</td><td></td><td></td><td></td><td></td></tr>
<tr><td>250 ml</td><td>4</td><td>4</td><td>6</td><td>11</td></tr>
<tr><td>500 ml</td><td>3</td><td>3</td><td>4</td><td>9</td></tr>
<tr><td>1 L</td><td>2</td><td>2</td><td>3</td><td>5</td></tr>
<tr><td>2 L</td><td>-</td><td>1</td><td>2</td><td>4</td></tr>
</table></td></tr>
<tr><td>54003A01</td><td></td><td>Deep Well Plates/Clamps for Beakers 50ml</td><td>Deep well plates/clamps made of stainless steel for beakers of different volumes.</td></tr>
<tr><td>54003A02</td><td></td><td>Deep Well Plates/Clamps for Beakers 100ml</td><td>Deep well plates/clamps made of stainless steel for beakers of different volumes.</td></tr>
<tr><td>54003A03</td><td></td><td>Deep Well Plates/Clamps for Beakers 250ml</td><td>Deep well plates/clamps made of stainless steel for beakers of different volumes.</td></tr>
<tr><td>54003A04</td><td></td><td>Deep Well Plates/Clamps for Beakers 300ml</td><td>Deep well plates/clamps made of stainless steel for beakers of different volumes.</td></tr>
<tr><td>54003A05</td><td></td><td>Deep Well Plates/Clamps for Beakers 500ml</td><td>Deep well plates/clamps made of stainless steel for beakers of different volumes.</td></tr>
<tr><td>54003A06</td><td></td><td>Deep Well Plates/Clamps for Beakers 1L</td><td>Deep well plates/clamps made of stainless steel for beakers of different volumes.</td></tr>
<tr><td>54003A07</td><td></td><td>Deep Well Plates/Clamps for Beakers 2L</td><td>Deep well plates/clamps made of stainless steel for beakers of different volumes.</td></tr>
</table>

Model	Image	Name	Details
54003A08		Deep Well Plates/Clamps for Beakers 2.8L	Deep well plates/clamps made of stainless steel for beakers of different volumes.
54003A09		Deep Well Plates/Clamps for Beakers 4L	Deep well plates/clamps made of stainless steel for beakers of different volumes.
54003A10		Deep Well Plates/Clamps for Beakers 6L	Deep well plates/clamps made of stainless steel for beakers of different volumes.
54004A01		Separatory Funnel Holders 250ml	Holders for separatory funnels of different sizes made of stainless steel.
54004A02		Separatory Funnel Holders 500ml	Holders for separatory funnels of different sizes made of stainless steel.
54004A03		Separatory Funnel Holders 1L	Holders for separatory funnels of different sizes made of stainless steel.
54004A04		Separatory Funnel Holders 2L	Holders for separatory funnels of different sizes made of stainless steel.
54005A01		Test Tube Holders - 86 test tubes 8 mm diameter	Holders for test tubes of different sizes and different quantities.
54005A02		Test Tube Holders - 86 test tubes 10 mm diameter	Holders for test tubes of different sizes and different quantities.
54005A03		Test Tube Holders - 58 test tubes 12 mm diameter	Holders for test tubes of different sizes and different quantities.
54005A04		Test Tube Holders - 58 test tubes 14 mm diameter	Holders for test tubes of different sizes and different quantities.

<table>
<tr><th>Model</th><th>Image</th><th>Name</th><th>Details</th></tr>
<tr><td>54005A05</td><td></td><td>Test Tube Holders - 32 test tubes 16 mm diameter</td><td>Holders for test tubes of different sizes and different quantities.</td></tr>
<tr><td>54005A06</td><td></td><td>Test Tube Holders - 19 test tubes 25 mm diameter</td><td>Holders for test tubes of different sizes and different quantities.</td></tr>
<tr><td>54005A07</td><td></td><td>Test Tube Holders - 10 test tubes 35 mm diameter</td><td>Holders for test tubes of different sizes and different quantities.</td></tr>
<tr><td>54006A02</td><td></td><td>Multi-Purpose Tray for Orbital Shakers OS-3100</td><td>The multi-purpose tray is made of stainless steel and can be used for a diverse range of unusual specifications.
<table>
<tr><td>Suitable for</td><td>OS-3050</td><td>OS-3100</td><td>OS-3150</td><td>OS-3200</td></tr>
<tr><td>Dimensions (W × D in mm)</td><td>320 x 260</td><td>350 x 350</td><td>450 x 450</td><td>755 x 481</td></tr>
<tr><td colspan="5">Max. Load of Beaker Holders (kg)</td></tr>
<tr><td>Beaker Volume</td><td></td><td></td><td></td><td></td></tr>
<tr><td>50 ml</td><td>12</td><td>16</td><td>25</td><td>40</td></tr>
<tr><td>100 ml</td><td>6</td><td>9</td><td>16</td><td>28</td></tr>
<tr><td>250 ml</td><td>3</td><td>4</td><td>9</td><td>15</td></tr>
<tr><td>300 ml</td><td>3</td><td>4</td><td>9</td><td>15</td></tr>
<tr><td>500 ml</td><td>3</td><td>4</td><td>5</td><td>10</td></tr>
<tr><td>1 L</td><td>2</td><td>2</td><td>4</td><td>8</td></tr>
<tr><td>2 L</td><td>-</td><td>1</td><td>2</td><td>4</td></tr>
<tr><td>2.8 L</td><td>-</td><td>1</td><td>2</td><td>4</td></tr>
</table></td></tr>
<tr><td>54007A02</td><td></td><td>Adjustable Bar Tray for Orbital Shakers OS-3100</td><td>Tray with adjustable bars for diverse and unconventional volumes.</td></tr>
<tr><td>54008A02</td><td></td><td>Rubber Surface Tray for Orbital Shakers OS-3100</td><td>Tray with adjustable bars for diverse and unconventional volumes.</td></tr>
<tr><td>54009A01</td><td></td><td>Multi-Pore Holders - Multi-Layer Holder for OS-3000 Series Orbital shakers</td><td>The multi-pore holders can be installed on the sticky plates or the universal trays. All holders can be installed on small pores and deeper holes In total, four different multi-pore holders are available:
1. Multi-Layer Holder
2. Single-Layer Single-Position Holder
3. Single-Layer Three-Position Holder
4. Single-Layer Four-Position Holder
<table>
<tr><td>Max. No. of Mountable Holders</td><td>Multi-Layer</td><td>Four-Position</td><td>Three-Position</td><td>Single-Position</td></tr>
<tr><td>OS-3050</td><td>4</td><td>-</td><td>1</td><td>6</td></tr>
<tr><td>OS-3100</td><td>6</td><td>-</td><td>2</td><td>8</td></tr>
<tr><td>OS-3150</td><td>10</td><td>2</td><td>3</td><td>15</td></tr>
<tr><td>OS-3200</td><td>16</td><td>3</td><td>5</td><td>25</td></tr>
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<tr><td>54009A02</td><td></td><td>Multi-Pore Holders - Single-Layer Single-Position Holder for OS-3000 Series Orbital shakers</td><td>The multi-pore holders can be installed on the sticky plates or the universal trays. All holders can be installed on small pores and deeper holes In total, four different multi-pore holders are available:
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<tr><td>OS-3100</td><td>6</td><td>-</td><td>2</td><td>8</td></tr>
<tr><td>OS-3150</td><td>10</td><td>2</td><td>3</td><td>15</td></tr>
<tr><td>OS-3200</td><td>16</td><td>3</td><td>5</td><td>25</td></tr>
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<tr><td>54009A03</td><td></td><td>Multi-Pore Holders - Single-Layer Three-Position Holder for OS-3000 Series Orbital shakers</td><td>The multi-pore holders can be installed on the sticky plates or the universal trays. All holders can be installed on small pores and deeper holes In total, four different multi-pore holders are available:
1. Multi-Layer Holder
2. Single-Layer Single-Position Holder
3. Single-Layer Three-Position Holder
4. Single-Layer Four-Position Holder
<table>
<tr><th>Max. No. of Mountable Holders</th><th>Multi-Layer</th><th>Four-Position</th><th>Three-Position</th><th>Single-Position</th></tr>
<tr><td>OS-3050</td><td>4</td><td>-</td><td>1</td><td>6</td></tr>
<tr><td>OS-3100</td><td>6</td><td>-</td><td>2</td><td>8</td></tr>
<tr><td>OS-3150</td><td>10</td><td>2</td><td>3</td><td>15</td></tr>
<tr><td>OS-3200</td><td>16</td><td>3</td><td>5</td><td>25</td></tr>
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<tr><td>54009A04</td><td></td><td>Multi-Pore Holders - Single-Layer Four-Position Holder for OS-3000 Series Orbital shakers</td><td>The multi-pore holders can be installed on the sticky plates or the universal trays. All holders can be installed on small pores and deeper holes In total, four different multi-pore holders are available:
1. Multi-Layer Holder
2. Single-Layer Single-Position Holder
3. Single-Layer Three-Position Holder
4. Single-Layer Four-Position Holder
<table>
<tr><th>Max. No. of Mountable Holders</th><th>Multi-Layer</th><th>Four-Position</th><th>Three-Position</th><th>Single-Position</th></tr>
<tr><td>OS-3050</td><td>4</td><td>-</td><td>1</td><td>6</td></tr>
<tr><td>OS-3100</td><td>6</td><td>-</td><td>2</td><td>8</td></tr>
<tr><td>OS-3150</td><td>10</td><td>2</td><td>3</td><td>15</td></tr>
<tr><td>OS-3200</td><td>16</td><td>3</td><td>5</td><td>25</td></tr>
</table></td></tr>
</table>



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