Automated handling and storage of plates and tip boxes.

PlateStak™ Automated Microplate Handler

The PlateStak device is an automated microplate handler that stores, delivers and restores up to 100 standard microplates, 30 deep well plates or 24 RoboRack tip boxes and addresses the need for increased capacity, higher sample throughput in automated workflows. It easily integrates with liquid handing or robotic workstations and automates the handling and storage of microplates and RoboRack™ tip boxes. Controlled by just a serial cable and featuring an onboard controller and multiple sensors, the PlateStak ensures precision and accuracy in delivering and monitoring microplate and tip box positions.

- Expand capacity of liquid handler by 100 standard microplates, 30 deep well plates or 24 RoboRack tip boxes
- Quick and flexible plate and tip box transfer
- Support cherry picking
- Easy device integration

For research use only. Not for use in diagnostic procedures.
Overview

The PlateStak device utilizes a bi-directional conveyor that can transport microplates or tip boxes from one storage rack to another or to specific programmable locations on the extended conveyor, aka diving board. The diving board, which extends out from the PlateStak automated microplate handler, provides easy access to microplates on the working deck of the liquid handler workstation.

Expand capacity of liquid handler

- Every PlateStak includes 2 racks.
- Each rack can hold up to 50 SBS standard microplates, 15 deep well microplates, or 12 RoboRack tip boxes.
- Different plate types and tip boxes can be mixed within a rack for walk-away automation.

Quick, flexible plate and tip box transfer

- With a 10-second cycle time, the PlateStak can quickly feed microplates and tips to a variety of instruments.
- Adding the de-lidding option enables lidding and de-lidding of microplates only.
- The dual diving board PlateStak can shuttle microplates to either side of the PlateStak and thus, between two different liquid handlers or other devices.

Support cherry picking

- OPTIONAL: Barcode reader on the platestak reads the barcode label on short or long side of each 96 or 384 plate and transfers it to the pipetting area
- After the cherry-picking pipette steps are done, the PlateStak automated microplate handler up-stacks that plate and down-stacks the following one.

Easy device integration

- With a JANUS® G3 workstation, up to four PlateStak systems can be integrated for unattended feeding of up to 400 standard microplates, 120 deep well plates or 96 RoboRack tip boxes, or combination of different plate types and tip boxes.
- With the Janus G3 workstation, both the Varispout or MDT heads can pipette directly into the microplate while it is on the diving board of the PlateStak. This eliminates the need for an external gripper or robot to move plates.

Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS156283</td>
<td>Single Diving Board PlateStak</td>
<td>32 in.</td>
<td>(81.3 cm)</td>
<td></td>
<td>40 lbs</td>
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<td></td>
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<td></td>
<td>6.875 in. (17.46 cm)</td>
<td>(18 kg)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>without cassette 33 in. (83.8 cm)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>with stacker cassette.</td>
<td>(2 kg)</td>
</tr>
<tr>
<td>CLS156605</td>
<td>Single Extend Diving Board</td>
<td>40 in.</td>
<td>(101.6 cm)</td>
<td>11.5 in.</td>
<td>48 lbs</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>(29.2 cm)</td>
<td>(22 kg)</td>
</tr>
<tr>
<td>CLS156284</td>
<td>Dual Diving Board</td>
<td>45 in.</td>
<td>(114.3 cm)</td>
<td></td>
<td>44 lbs</td>
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<td></td>
<td>4 lbs (18 kg)</td>
<td>(20 kg)</td>
</tr>
</tbody>
</table>

Specifications

- Voltage: 100-240 VAC 50/60 Hz +10%
- Overvoltage Category: 2
- Pollution Degree: 2
- Class: I
- Fuse Rating: (2) 1A Time Delay 250VAC 5x20mm Glass
- Power: 85 Watts
- Temperature: 68 to 90°F (15 to 32°C)
- Humidity: 5 to 95% relative humidity, non-condensing (for indoor use)
- Altitude: To be used under 6500 ft (2000 meters). Consult factory for higher altitudes.