Introduction

The Agilent Labware Stacker makes storing and dispensing microplates fast and easy. The Labware Stacker is a sophisticated device for dispensing and receiving microplates from robotic systems. An efficient modular unit, the Labware Stacker provides the compact size and speed demanded in today’s automated systems. The Labware Stacker features removable racks for convenient access to microplates. Its versatile design accommodates all types of microplates (including deep well microplates) as well as pipette tip boxes and pin tools. The Labware Stacker’s compact size allows for multiple stackers to be used in your system, increasing the speed and efficiency of your automated protocols.

Applications

1. Small footprint for space-limited labs
2. Ultra-compact storage and dispensing of tip boxes
3. Pin tools or up to 60 ANSI-compliant microplates
4. Automated systems using articulated arm robots
Features & Benefits

System Features

- **Standard Rack**
  Standard rack design allows convenient operator access for loading and unloading microplates. Top-load and front-load racks available in various sizes (contact Agilent).
- Deep well blocks are compatible with the Labware Stacker.
- Racks can also accommodate pipette tip boxes, pin tools, and filter microplates.

- **User Interface**
  The Labware Stacker is intended to be routinely used for automated runs controlled by platform software. If you are using the Agilent BioCel System, the platform software is Agilent VWorks Automation Control software. If you are running the Labware Stacker in a system developed by your own organization, the platform software will need to be custom written using a program such as C++ or Visual Basic and Agilent’s ActiveX software.

- **Rack Capacity**
  The following is a table of basic microplate types and their capacity in the Labware Stacker rack. This is a general guideline only. For rack capacity for specific microplate types, contact Agilent.

<table>
<thead>
<tr>
<th>Microplate Type</th>
<th>Standard Rack Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assay (without lid)</td>
<td>50</td>
</tr>
<tr>
<td>Assay (with lid)</td>
<td>42</td>
</tr>
<tr>
<td>Thermal cycling (no seal)</td>
<td>88</td>
</tr>
<tr>
<td>Tip box</td>
<td>11</td>
</tr>
<tr>
<td>Deep well (2.2 mL)</td>
<td>15</td>
</tr>
<tr>
<td>Deep well (1.2 mL)</td>
<td>24</td>
</tr>
</tbody>
</table>

Benefits

- **Small Footprint**
  Compact size allows for multiple stackers, increasing speed and efficiency.
- **Smart Design**
  Automatically checks for correct microplate type and orientation.
- **Variety of Storage Racks**
  Accommodates racks of different sizes and styles.

Specifications

**Electrical:** 100-240 VAC, 50/60 Hz, Operating AC Current 1.2A/120V or 72A/240V (typical), Inrush Current 20A/120V or 40A/240V (typical)

**Operating Temperature:** 4–40 °C; 10–90% RH, non-condensing

**Air:** 28 Lpm at 5.5 bar (<1 cfm at 80 psi)

**Software:** Includes ActiveX Control CD

**Interface:** RS-232 serial port with DB9 pin connector

**Rack Dimensions:** W 3.5 in x D 5.25 in x H 26.75 in (Standard Rack)

**Certification:** CE certified and built to meet UL standards

Dimensions

- Width: 20.3 cm [8 in]
- Depth: 22 cm [8.5 in]
- Height: 19 cm [7.5 in]
- Weight: 6.1 kg [13.5 lbs]

Note: Height does not include rack height.

For additional detailed information on labware racks, please see Agilent Labware Racks. PUB 5990-4089EN.