Automatic Dicing Saw

DAD324

World’s smallest* footprint and improved functionality

Support for a variety of applications from semiconductor wafers to electronic parts

Support for workpieces as large as 6-inch square wafers
Incorporation of the Y-axis scale specification (option) enables high accuracy index control
Equipped with a high torque 2.0 kW spindle as a standard feature
The DAD324 is highly versatile with support for glass, ceramics and other difficult-to-cut materials. In addition, 1.8 kW spindle (max revolutions: 60,000 min⁻¹) is also selectable as an option.

High productivity

With the implementation of a high performance MCU, the speed of software operation and operation response times have been improved.

Built-in PC

- Communication control operations (option)

Improved measurement accuracy and reduced measurement time using a new NCS (Non-Contact Setup) sensor.
Servo motors introduced for all axes (X, Y, and Z)
- Maximum return speed for each axis:
  X-axis: 800 mm/s, Y-axis: 200 mm/s,

World’s smallest footprint*

Compact design with a width of 490 mm

he reduced profile contributes towards a large increase in terms of productivity per unit area, especially when multiple.

* Investigated internally

Ease of operation

- XIS (Extended Interface System)
  Operation buttons are consolidated on the microscope screen.
- Wafer mapping
  The processing status is displayed visually in the same way as fully automatic equipment.
- Log viewer
  Analog data is displayed in a graph and equipment data is more easily visualized.
- Help viewer
  Troubleshooting is displayed when an error occurs to achieve quick and accurate recovery support.
- Automatic alignment
- Automatic kerf check

◆Operation interface

XIS
Wafer Mapping
Log Viewer
Help Viewer
**Automatic Dicing Saw**

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workpiece size</td>
<td>-</td>
<td>φ6” (□6” DPR)</td>
</tr>
<tr>
<td>X-axis Cutting range</td>
<td>mm</td>
<td>160</td>
</tr>
<tr>
<td>X-axis Cutting speed</td>
<td>mm/sec</td>
<td>0.1 ~ 800</td>
</tr>
<tr>
<td>Y-axis Cutting range</td>
<td>mm</td>
<td>162</td>
</tr>
<tr>
<td>Y-axis Index step</td>
<td>mm</td>
<td>0.0001</td>
</tr>
<tr>
<td>Y-axis Index positioning accuracy</td>
<td>mm</td>
<td>0.005/160 (Single error)0.003/5</td>
</tr>
<tr>
<td>Z-axis Max. stroke</td>
<td>mm</td>
<td>32.2</td>
</tr>
<tr>
<td>Z-axis Moving resolution</td>
<td>mm</td>
<td>0.00002</td>
</tr>
<tr>
<td>Z-axis Repeatability accuracy</td>
<td>mm</td>
<td>0.001</td>
</tr>
<tr>
<td>θ-axis Max. rotating angle</td>
<td>deg</td>
<td>320</td>
</tr>
<tr>
<td>Spindle Output</td>
<td>kW</td>
<td>2.0 at 40,000 min-1</td>
</tr>
<tr>
<td>Spindle Rated torque</td>
<td>N·m</td>
<td>0.48</td>
</tr>
<tr>
<td>Spindle Revolution speed range</td>
<td>min⁻¹</td>
<td>3,000 ~ 40,000</td>
</tr>
<tr>
<td>Machine dimensions (W × D × H)</td>
<td>mm</td>
<td>490 × 870 × 1,670</td>
</tr>
<tr>
<td>Machine weight</td>
<td>kg</td>
<td>Approx. 420</td>
</tr>
</tbody>
</table>

**Environmental Conditions**

- Use clean, oil-free air (dew point between -10 ~ -20 °C, residual oil: 0.1 ppm, and filtration rating: 0.01 µm/99.5 % or more).
- Keep room temperature fluctuations within ±1 °C of the set value. (Set value should be between 20 ~ 25 °C).
- Keep cutting water and cleaning water 2 °C above room temperature (fluctuations within ±1 °C).
- The machines should be used in an environment, free from external vibration. Do not install machine near a ventilation opening, heat generation equipment or oil mist generating parts.
- This machine uses water. In case of water leakage, please install the machine on the floor with sufficient waterproofing and drainage treatments.
- All pressures specified above are gauge pressures.
- As the above specification may change due to technical modifications. Please confirm when placing your order.
- For further information, please contact your local sales representative.

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