Automatic Dicing Saw

DAD3350

Flexibility for diverse processing needs

Flexible design

Through the application of user-specified specifications, the DAD3350 is capable of handling a maximum of ø8" or 250 mm sq. workpieces. While the standard DAD3350 is equipped with a 1.8 kW spindle, by selecting a 2.2 kW high torque spindle (optional), hard and brittle materials such as silicon and ceramic can be processed. In addition, support for blades of up to ø5" can be added through user-specified specifications. Whether your material is ultra-thin to several millimeters thick, single wafer or multiply mounted (optional), straight cut or optical angle cut (optional), the DAD3350 can be customized for the needs of your application.

Process quality

The field proven bridge-type frame structure optimizes rigidity and stability. To reduce transient vibration the DAD3350 utilizes cast iron for the bridge-type frame for superior and consistent cut quality.

Machine utilization

With a return speed of 600 mm/s, theta speed of 180 degree/s, and Y-axis speed of 200 mm/s the DAD3350 spends more time cutting and less time preparing for the cut.

Process quality

The Graphical User Interface (GUI) operates via an LCD touch screen. While improving the ease of use, the GUI also features an on-screen real time display illustrating process details.

Process controls

• Auto alignment, auto focus, auto kerf check, and other image recognition functions have been installed to improve equipment productivity. In addition, the microscope includes an air blow mechanism and a lens shutter to prevent contamination. As an option, a low magnification microscope can be added for rough alignment.
• Through condition monitoring the processing conditions and various other statuses can be known at any given time.
• Advanced process control features can be added as options, including an on-screen cutting water management system for cutting water flow control.

LCD touch screen

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Small footprint

The bridge-type frame structure reduces the footprint while increasing performance. The front-mounted spindle is suspended from the bridge, which provides greater space for processing large area substrates.

Specifications

Specification		Unit	1.8kW	2.2kW
Workpiece size		-	φ 8″ (□250, φ 300mm/DPR)	
X-axis	Cutting range	mm	260	
	Cutting speed	mm/sec	0.1 - 600	
Y-axis	Cutting range	mm	260	
	Index step	mm	0.0001	
	Index positioning accuracy	mm	0.002/260 (Single error)0.002/5	
Z-axis	Max. stroke	mm	32.2	31.4
	Moving resolution	mm	0.00005	
	Repeatability accuracy	mm	0.001	
θ-axis	Max. rotating angle	deg	380	
Spindle	Output	kW	1.8, 2.2	
	Rated torque	N･m	0.29	0.7
	Revolution speed range	min^{-1}	6,000-60,000	3,000-30,000
Machine dimensions(W×D×H)		mm	900 × 1,050 × 1,800	
Machine weight		kg	Approx.1,200	

Environmental Conditions

- Use clean, oil-free air (dew point between -10 - -20 , residual oil: 0.1 ppm, and filtration rating: 0.01μm/99.5 % or more).
- Keep room temperature fluctuations within ±1℃ of the set value. (Set value should be between 20 - 25 ℃).
- Keep cutting water and cleaning water 2 ℃ above room temperature (fluctuations within ±1 ℃).
- 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.