



Automatic Dicing Saw

DAD3351/3361

Highly expandability to support various processing needs

Supports a wide range of applications

DAD3351/3361 is a semi-automatic dicing saw. DAD3351 supports ϕ 8-inch workpieces, while DAD3361 supports ϕ 300 mm workpieces*.

Includes a high output 1.8 kW spindle as standard.

Also, using a high torque, high rigidity 2.2 kW spindle (optional), difficult-to-process materials including silicon and ceramics can be processed. Supports blades up to ϕ 5 inches with user-specified specification. In addition, the multi-alignment function is available as an option.

* Supports jig tables with ϕ 395 mm or smaller circumscribed circles.

Stable processing quality

Adopted high bridge-type frame structure and moved the spindle support structure forward to minimize the effects of thermal expansion and vibration, providing a more stable processing point. In addition, a spindle temperature sensor was installed for temperature monitoring.

Reduced processing time and improved throughput

Adoption of servo motors for all axes improved shaft speed while the optimizing control parameters. This improved throughput by reducing processing time (DAD3351: Approx. 5%, DAD3361: Approx.2% [compared to existing equipment]).



DAD3351

Improved functions and operation

- New non-contact setup (optional)
Shortens blade height measurement time by 74%. Measurement accuracy is improved for more stable processing quality.
- Microscope optimization
Adopted CMOS digital camera
Supports three-channel switching in the ring illumination lighting direction for improved kerf check visual confirmation.
- Supports SECS/GEM (Optional)

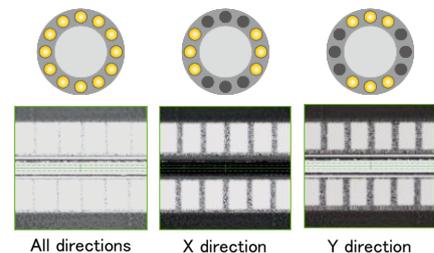
Easy operation

- XIS (Extended Interface System)
Operation buttons consolidated on microscope screens
- Wafer mapping
Graphic processing condition display similar to full automation equipment.
- Log viewer
Graphic analog data display and equipment data visualization
- Help viewer
Displays instructions when error occurs for quick, accurate recovery.

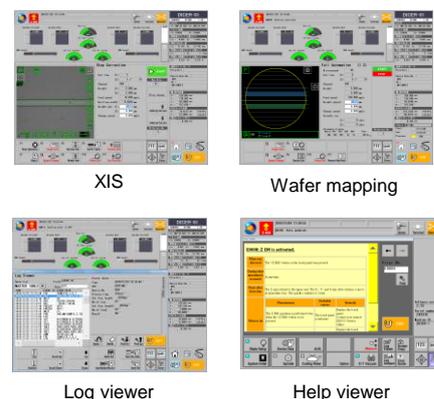
High maintainability

- Improved dust-prevention measures for all axes
Effective for materials including ceramics where contamination is likely to damage the shaft.

◆ Ring light three-channel switching specification

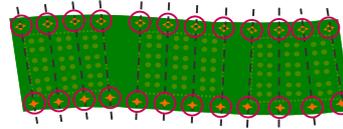


◆ Operating Interface

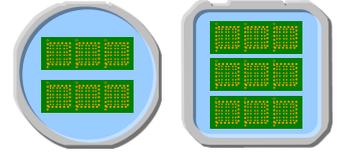


Measurement alignment

Enables highly accurate processing by performing multiple point alignments for materials with irregular expansion and contraction including resin substrates.



Measurement alignment



Multi-mounted workpiece processing

Multi-mounted workpiece processing

Allows multiple package substrates to be attached to one tape frame for processing (Maximum: 16 workpieces).

Specifications			DAD3351		DAD3361	
Specifications	Unit	1.8kW	2.2kW (option※)	1.8kW	2.2kW (option※)	
Max. workpiece size	-	ø8 inch		φ300 mm (Support jig tables with ø395 mm smaller circumscribed circles.)		
X axis	Cutting range	260		310		
	Cutting speed	0.1 - 1,000				
Y axis	Cutting range	260		310		
	Index step	0.0001				
	Positioning accuracy	Within 0.002/260		Within 0.002/310		
		(Single-step error) Within 0.002/5				
Z axis	Max. stroke	31.2	31.4	31.2	31.4	
	Movement resolution	0.0000002 (0.2 nm)				
	Repeatability accuracy	0.001				
Θ axis	Max. rotation angle	320° Θ axis rotation specification 380° (option)				
Spindle	Rated torque	0.29	0.7	0.29	0.7	
	Revolution speed range	6,000 - 60,000	3,000 - 30,000	6,000 - 60,000	3,000 - 30,000	
Machine dimensions (W × D × H)		880 × 1,000 × 1,800				
Machine dry mass		Approx1,100				

■ Environmental conditions

- Use clean, oil-free air at a dew point of -15 °C or less. (Use a residual oil: 0.1 mg/m³ or less. 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).
- Use grinding water and cleaning water at room temperature +0 - 2 °C (fluctuation range: within 2 °C in one hour). For cooling water, use water controlled at 1 °C in relation to the grinding water.
- 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.