



DISCO

Kiru · Kezuru · Migaku Technologies



Automatic Dicing Saw **DAD3350**

Flexibility for diverse processing needs



Flexible Design

The DAD3350 (maximum workpiece size $\varnothing 8''$ [standard], 250 mm square [optional]) has been designed to process a wide variety of materials with either a 1.8 kW spindle (standard; supports 2" blades) or 2.2 kW high-torque spindle (optional; supports 3"-5" blades). Whether your material is ultra-thin to several millimeters thick, single wafer or multiple panel (optional), straight cut or optical angle cut (optional), the DAD3350 can be customized for your applications needs.

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 resulting in superior and consistent cut quality.

Machine Utilization

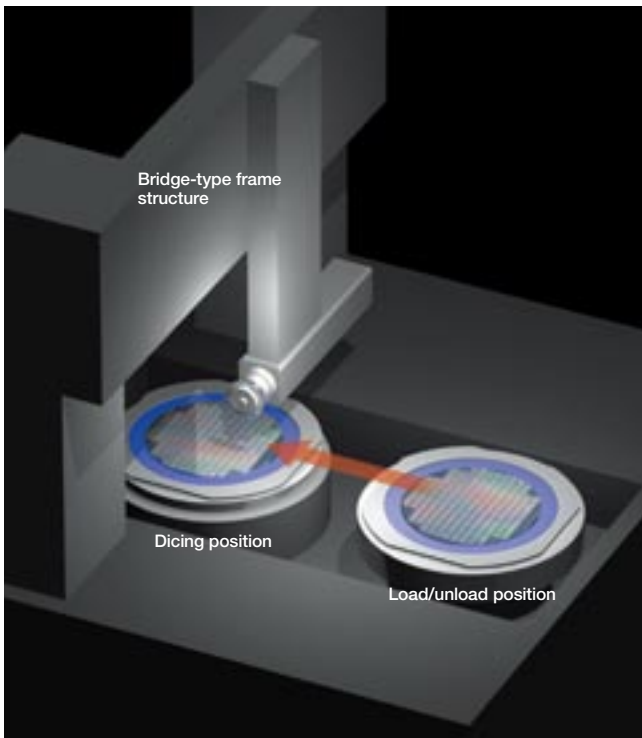
With a return speed of 600 mm/s, theta speed of 180 degree/s, and Y-axis speed of 200 mm/s the DAD3350 spends more time cutting and less time preparing to cut.

Operation

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



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Process Controls

Auto alignment, auto focus, and auto kerf check features - all standard - directly improve productivity. In addition, the microscope includes a positive air pressure mechanism and a lens shutter to prevent contamination. The DAD3350 also includes advanced process control features such as a cutting water flow control and spindle current monitoring to support process analysis. As an option, a dual-magnification microscope is available to help reduce alignment times.

Small Footprint

The bridge-type frame structure reduces footprint while increasing performance. Suspended from the bridge is a front-mounted spindle, which provides greater space to process large area substrates.



LCD touch screen

11 % smaller footprint

DAD341 (1.07 m²)

DAD3350 (0.945 m²)

DAD3350 Specifications

Spindle	-	1.8 kW	2.2 kW (option)
Workpiece Size	-	Max. $\phi 8"$ Max. 250 mm square (*1)	
X-axis	Cutting range	mm	260
	Max. cutting speed	mm/s	600
Y-axis	Cutting range	mm	260
	Index step	mm	0.0001
	Positioning accuracy	mm	0.003 or less/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
	Max. blade size(*2)	mm	$\phi 58$ $\phi 127^{*2}$
θ-axis	Max. rotating angle	deg.	380
Spindle	Output	kW	1.8 at 60,000 min ⁻¹ 2.2 at 30,000 min ⁻¹
	Rated torque	N·m	0.29 0.7
	Revolution speed range	min ⁻¹	6,000 ~ 60,000 3,000 ~ 30,000
Applicable Tape Frame	-	2-8-1	
Utilities	Power supply	-	200 ~ 240 V AC \pm 10 %, 3-phase (50/60 Hz) For other than the above voltages, a transformer is necessary.
	Power consumption	-	-
	When processing	kW	0.9 (for reference)
	During warm-up	kW	0.8 (for reference)
	When idling (in standby)	kW	0.3 (for reference)
	Max. power	kVA	When 1.8 kW spindle installed: 4.9 When 2.2 kW spindle installed: 4.5
	Air pressure	MPa	0.5 ~ 0.8
	Air max. consumption	L/min(ANR)	200
	Cutting water	-	-
	Water pressure	MPa	0.2 ~ 0.4
	Max. consumption flow rate	L/min	4.0
	Cooling water	-	-
	Water pressure	MPa	0.2 ~ 0.4
	Consumption flow rate	L/min	1.5 at 0.3 MPa
	Exhaust duct capacity	m ³ /min	5.0
	Machine dimensions (W x D x H)	mm	900 x 1,050 x 1,800
	Machine weight	kg	Approx. 1,200 (without transformer for overseas use) Approx. 1,270 (with transformer for overseas use)

(*1) A special jig is required for this function.
(*2) When selecting optional specification.

Environmental conditions

- Use clean, oil-free air at a dew point of -15 °C or less. (Use a residual oil: 0.1 ppm. Filtration rating: 0.01 μ m/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 2 °C above room temperature (fluctuations within ± 1 °C).
- Keep spindle cooling water the same as room temperature between 20 ~ 25 °C (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 the pressures are described using a gauge pressure.

* The above specifications may change due to technical modifications. Please confirm when placing your order.

* For further information please contact your local sales representatives.