



DISCO

Kiru · Kezuru · Migaku Technologies

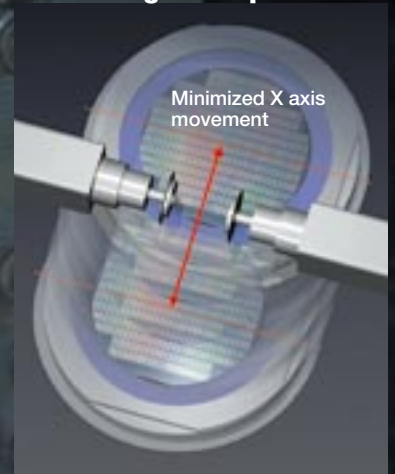


Automatic Dicing Saw **DAD3650**

Newly developed world's smallest class dual-spindle automatic dicing saw



Facing dual-spindle



World's smallest class footprint

The optimal design for a dual-spindle automatic dicing saw realizes the world's smallest class footprint, which is two thirds of the highly recognized DAD3350, single-spindle dicing saw for $\phi 8''$ wafers.

High throughput

The dual-spindle DAD3650 enables the dual cut, which dices a workpiece by two spindles simultaneously, thereby realizing up to twice* as high a throughput of the single-spindle dicer. This machine is more effective for small die devices whose processing of one workpiece takes more time.

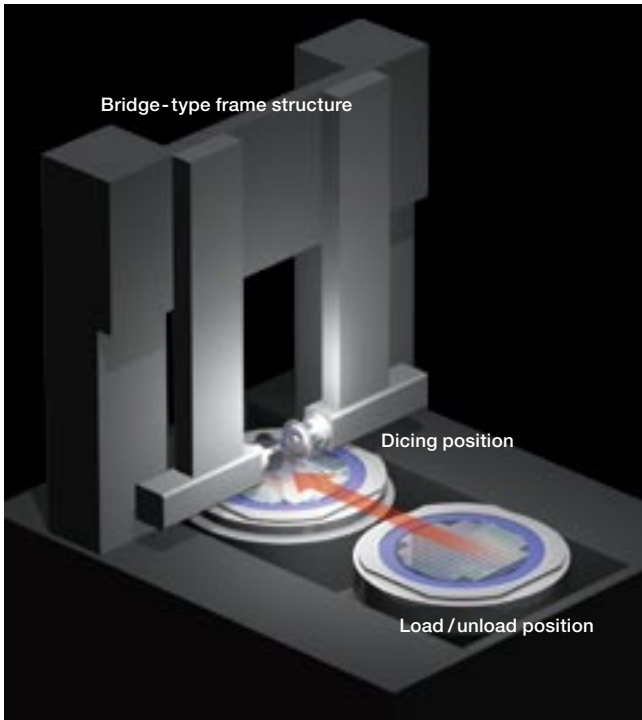
*Throughput varies depending on the workpiece size and processing parameters.

High processability

In spite of its small footprint, the DAD3650 can handle workpiece sizes up to $\phi 8''$ diameter and 250 mm square, the same as the DAD3350. Using the step cut, which dices in two stages by installing different blades on the two spindles, to improve processing quality, the DAD3650 can process various workpieces.



Automatic Dicing Saw DAD3650



Enhanced ease of use

- Has the DISCO original OS, which enjoys a good reputation for its high operability in the DAD322
- Reduces operator's stress by installing the auto alignment function as standard specification
- Realizes intuitive operation using 12.1-inch LCD touch panel and GUI (graphical user interface)

Environment-conscious design

The DAD3650 is a green procurement compliant product, not containing the 15 hazardous chemical substances listed in "List of DISCO Restricted Substances" including the six substances specified in the EU RoHS Directive.

* A green procurement compliant product refers to products that satisfy DISCO's green procurement standards and conforms to EU RoHS Directives.

DAD3650 Specifications

Workpiece Size	mm	ø8"/250 mm square
X-axis	Cutting range	mm 260
	Transfer speed input range	mm/s 0.1 ~ 1000
Y1-axis and Y2-axis	Cutting range	mm 260
	Index step	mm 0.0001
Z1-axis and Z2-axis	Positioning accuracy	mm 0.003/260 (Single error) 0.002 or less/5
	Max. stroke	mm 32.2 (for 2" blade)
Z1-axis and Z2-axis	Moving resolution	mm 0.00005
	Repeatability accuracy	mm 0.001
	Max. blade size	mm ø58
θ-axis	Max. rotating angle	deg 320
Spindle	Output	kW 1.8 at 60,000 min ⁻¹
	Rated torque	N·m 0.29
	Revolution speed range	min ⁻¹ 6,000 ~ 60,000
Applicable Tape Frame	-	2-8-1
Utilities	Power supply	kW 200 ~ 240 V AC±10 %, 3-phase For other than the above voltages, a transformer is necessary.
	Power consumption	-
	When processing	kW 2.1 (for reference)
	During warm-up	kW 2.0 (for reference)
	Air pressure	MPa 0.5 ~ 0.8
	Average air consumption during operation	L/min(ANR) 120.0 (for reference)
	Cutting water	-
	Water pressure	MPa 0.2 ~ 0.4
	Max. consumption flow rate	L/min 8
	Cooling water	-
	Water pressure	MPa 0.2 ~ 0.4
	Consumption flow rate	L/min 3.0 at 0.3 MPa
	Exhaust duct capacity	m ³ /min 2.5
	Machine dimensions (W×D×H)	mm 780 × 790 × 1,800
	Machine weight	kg Approx. 1,100 (without transformer for overseas use) Approx. 1,170 (with transformer for overseas use)



Measure screen

35 % smaller footprint

DAD3350 (0.95 m²)

DAD3650 (0.62 m²)



Cut preparation screen

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 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 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.



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