



DISCO

Kiru · Kezuru · Migaku Technologies



Automatic Dicing Saw **DAD322**

Evolution of the compact dicing saw default model



Realizes further productivity improvement based on inherited characteristics of the DAD321 dicing saw, which is being used worldwide.

Realizes a throughput improvement of approximately 15% (compared to the DAD321)
Improved machine responsiveness with the latest CPU board. Also, improved feed speed of the spindle axis by refining the axis mechanism.

Easier operation

Equipped with an auto alignment function, which has an established reputation in higher ranking models. Also, it employs a GUI to make screen operation easy.

Compact design

14% smaller footprint compared to the DAD321.



Automatic Dicing Saw DAD322



During manual alignment



During cut preparation

Enhanced new functions

Improved maintainability

- Employs a 1.5 kW air spindle common to the DAD3000 series. Also, equipped with a shaft lock function to enable easy blade replacement.
- Lower maintenance frequency and potential machine utilization improvement with the microscope lens shutter and scope blow functions.

Improved operability

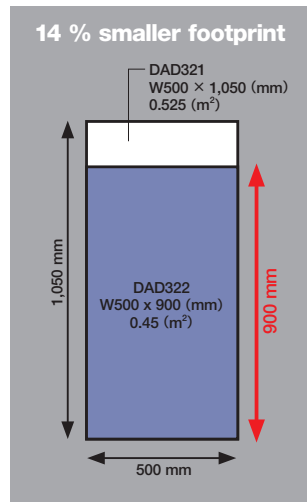
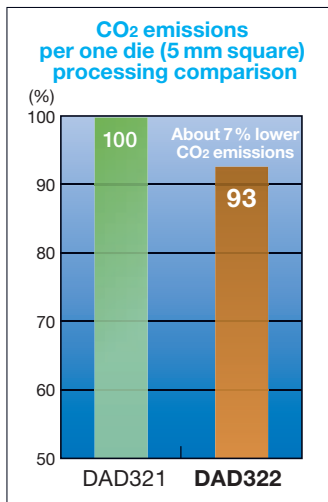
- Able to clearly confirm workpiece images with auto alignment, by employing a 10.4 inch high-resolution display panel. (Refer to the image of the above screen)

Environment-conscious design

- DISCO's first green procurement compliant product*. Includes six specific materials based on the EU RoHS Directive and does not include fifteen hazardous chemical substances.

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

- The DAD322 has 10 % lower power consumption and about 7 % lower CO₂ emissions per one die (5 mm square) processing, compared to the DAD321.
- Uses less materials (natural resource saving) (16 % lower weight compared to the DAD321).



DAD322 Specifications

Workpiece size		mm	ø6" (6"square)(*1)
X-axis	Cutting range	mm	160
	Transfer speed input range	mm/s	0.1 - 500
Y-axis	Cutting range	mm	162
	Index step	mm	0.0001
	Positioning accuracy	mm	0.005/160 (Single error) 0.003 or less/5
Z-axis	Max. stroke	mm	32.2 (for 2" blade)
	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	1.5 at 30,000 min ⁻¹
	Rated torque	Nm	0.48
	Revolution speed range	min ⁻¹	3,000 - 40,000
Applicable tape frame			2-6-1
Utilities	Power supply	v	200 - 240 V AC±10 %, 3-phase <small>For other than the above voltages, a transformer is necessary.</small>
	Power consumption		
	When processing	kW	0.5 (for reference)
	During warm-up	kW	0.3 (for reference)
	Max. power	kVA	3.2
	Air pressure	MPa	0.5 - 0.8
	Air max. consumption	L/min(ANR)	185
Cutting water, Cleaning 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
	Max. Consumption flow rate	L/min	1.5 at 0.3 MPa
	Exhaust duct capacity	m ³ /min	1.5
	Machine dimensions (W×D×H)	mm	500 × 900 × 1,600
	Machine weight	kg	Approx. 420 (without transformer for overseas use) Approx. 465 (with transformer for overseas use)

(*1) A special jig is required for this function.

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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