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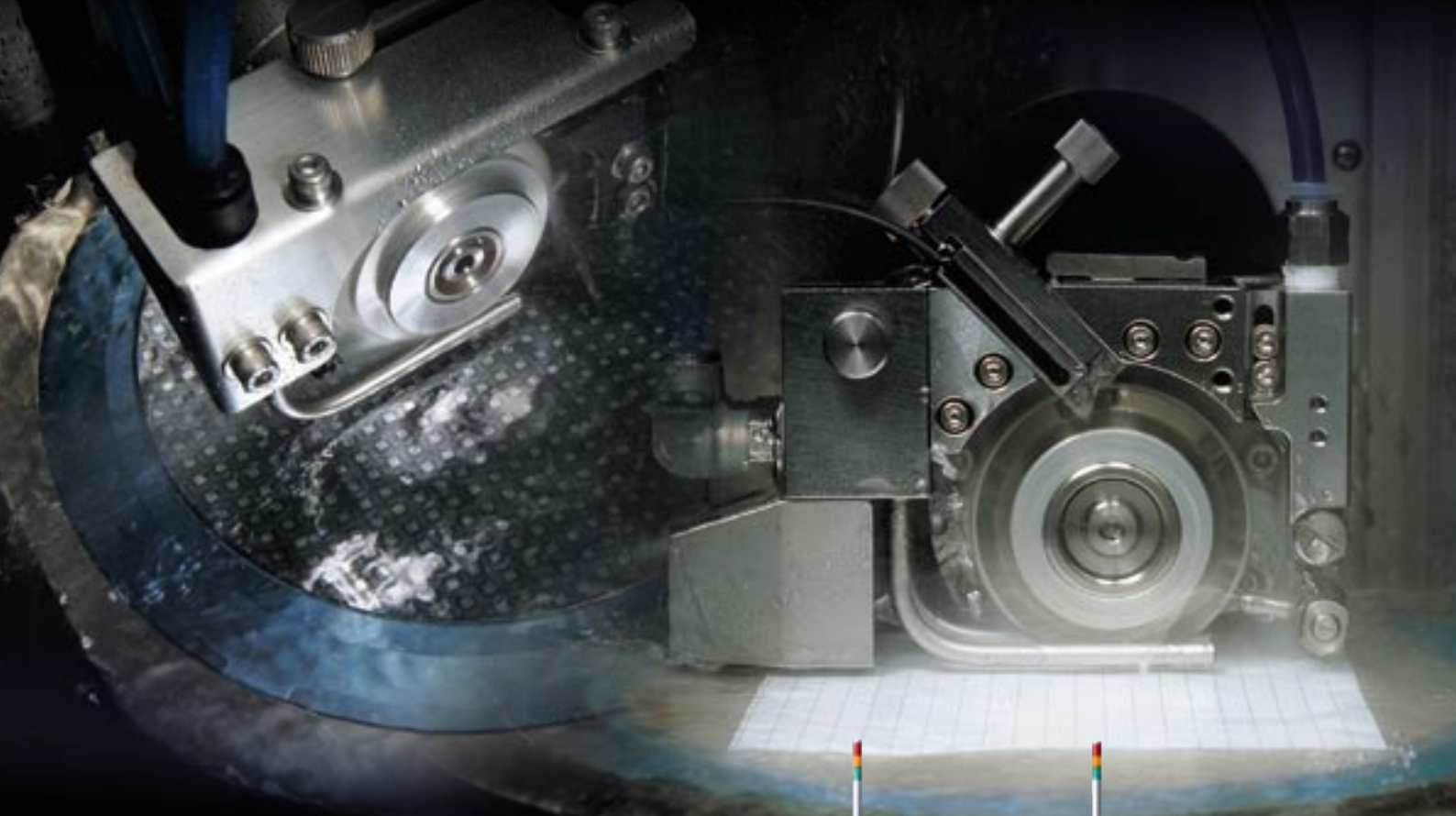
Kiru · Kezuru · Migaku Technologies



Automatic Dicing Saw

DAD3220/3230/3430

Compact Dicing Saw Lineup for 6" Wafers



Full Lineup Serves Wide Variety of Processing Needs

Building upon the worldwide success of the DAD300/500 Series single-spindle automatic dicing saws, the DAD3220/3230/3430 have been added to the 3000 Series for the processing of 6" round and 6" x 6" square workpieces. DAD3220, just 500 mm wide, helps conserve valuable cleanroom space. DAD3230, designed for high performance and expandability, is ideal for processing such electronic component materials as glasses and ceramics. DAD3430, designed for extra-high precision and process quality, cuts and grooves optical components, magnetic heads, and similar workpieces to extremely strict tolerances.

Improved Usability and Performance

Each model features an LCD touch panel with Graphical User Interface for easy and intuitive operation. In addition, all models include auto-alignment, auto-focus, and auto-kerf check functions for enhanced productivity. The newly developed 1.5 kW spindle, standard on each model, features a shaft lock function for easier blade changes. A reduced-expansion spindle (option) is made with special expansion-resistant materials for even greater precision during processing.



DAD3220

DAD3230/DAD3430



DAD3220/3230/3430



Control screen

Special Features of Each Model

- With a footprint approximately 14 % smaller than that of predecessor DAD321, DAD3220 is extremely compact.
- DAD3230 features an expandable design ideal for customization.
- DAD3430, based upon the DAD3230 design, is a high-precision dicing saw with an air slide on the X-axis.

Advanced Options

- The cutting water flow rate controller, programmable for each device data, helps prevent operator error while supporting a stable and consistent flow of cutting water. The macro microscope allows for a greater field of view and can improve usability during alignment.
- Overall machine layouts have also been improved, allowing either a transformer or UPS to be installed internally in the DAD3220, and both a transformer and UPS to be installed DAD3230 and DAD3430.



DAD3220

DAD3230

DAD3430

DAD3220/3230/3430 Specifications

		DAD3220	DAD3230	DAD3430
Workpiece Size		-	ø6", 6"square (*1)	6"square (*1) 220 x 160 mm (*2 optional)
X-axis	Cutting range	mm	160	220
	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 or less/160 (Single error)0.003 or less/5	0.0015 or less/160 (Single error)0.0005 or less/5
Z-axis	Max. stroke	mm	32.2 (for ø2"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	N·m	0.48	
	Revolution speed range	min ⁻¹	3,000 ~ 40,000	
Applicable Tape Frame		-	2-6-1	
Utilities	Power supply	-	200 ~ 240 V AC±10 %, 3-phase (50/60 Hz) For other than the above voltages, a transformer is necessary.	
Power consumption				
	When processing	kW	0.5 (for reference)	
	During warm-up	kW	0.4 (for reference)	
	Max. power	kVA	3.5	
	Air pressure	MPa	0.5 ~ 0.8	
	Air max. consumption	L/min(ANR)	170	200
Cutting water, Cleaning water				
	Water pressure	MPa	0.2 ~ 0.4	
	Max. consumption flow rate	L/min	0.2 ~ 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	1.5	2.5
	Machine dimensions (W x D x H)	mm	500 x 900 x 1,670	730 x 900 x 1,670
	Machine weight	kg	Approx. 550 (without transformer for overseas use) Approx. 600 (with transformer for overseas use)	Approx. 600 (without transformer for overseas use) Approx. 650 (with transformer for overseas use)

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

(*2) θ-axis rotating angle is limited.

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, 20 ~ 23 °C for DAD3430).
- 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.

