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DISCO

Fully Automatic Dicing Saw

DFD6363

Flagship model for ø300 mm wafers with high process extensibility

Supports various applications

Supports both frame and wafer transferring*

- Supports multiple types of cassette; standard wafer cassettes (ø200 mm / ø300 mm) and FOUP cassettes
- Supports various processes including full cut and half cut with only one unit DFD6363.
- Reduces the number of size conversions and prevents size conversion errors.

ABC (Auto Blade Changer)*

- Minimizes the equipment downtime by automatically detecting the end of blade life and performing operations from blade replacement to processing recovery in fully automatic operation.
- Prevents potential human errors during blade replacement required for a change of workpieces to be processed.
- Improves traceability.





ABC unit

Basic function improvements

- Improved usability through a 19-inch monitor and highly visible GUI.
- Contributes to reduced processing time by optimizing axis operation through multiple-axis synchronized control.
- Improves productivity using a new NCS (Non-Contact Setup)* sensor.
- Achieves stable processing through the installation of a newly-developed 1.8 kW spindle (60,000 min-1).

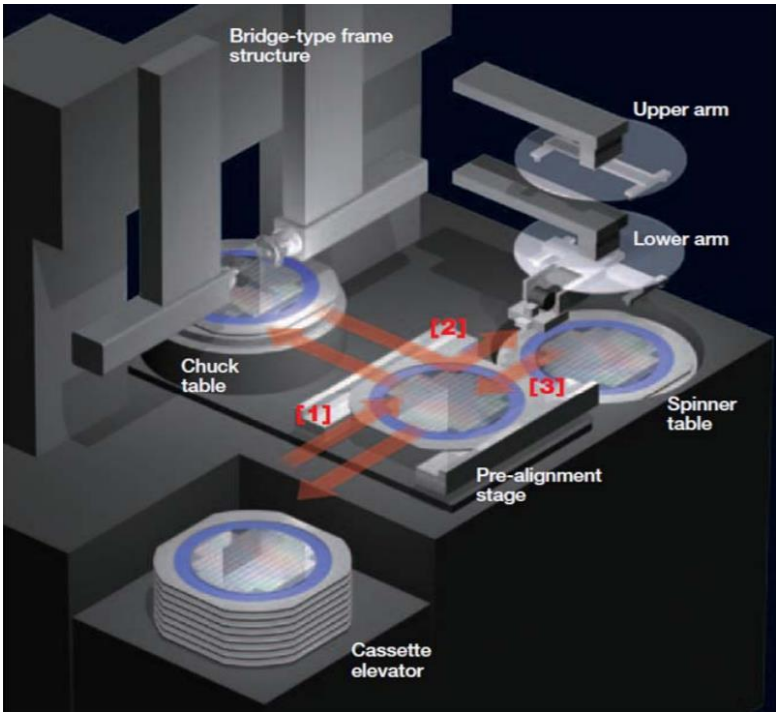
*Option



19-inch monitor (1280 x 1024 px)

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Operation flow

[1] The lower arm retrieves the workpiece from the cassette. Centering is performed at the pre-alignment stage. The lower arm moves the workpiece to the chuck table. → Cutting →

[2] The upper arm moves the workpiece to the spinner table. → Cleaning and drying →

[3] The lower arm returns the workpiece to the cassette.

Specifications

Specification		Unit	1.8 kW, High-speed rotation	2.2 kW
Max. workpiece size		-	ø300	
X-axis	Cutting range	mm	310	
	Cutting speed	mm/s	0.1 – 1,000	
Y-axis	Cutting range	mm	310	
	Index step	mm	0.0001	
	Index positioning accuracy	mm	0.002/310 (Single error) 0.002/5	
Z-axis	Max. stroke	Mm	14.7 (For ø2” blade)	14.9 (For ø3” blade)
	Moving resolution	mm	0.0000002	
	Repeatability accuracy	mm	0.001	
θ-axis	Max. rotation angle	deg	380	
Spindle	Rated torque	N・m	0.29 (1.8 kW) 0.19 (High-speed rotation)	0.7
	Revolution speed range	min^{-1}	6,000 – 60,000 (1.8kW) 20,000 – 80,000 (High-speed rotation)	3,000 – 30,000
Machine dimensions	(W x D x H)	mm	1,200 x 1,550 x 1,800	
Machine weight		kg	Approx. 1,800	

■Environmental conditions

• Use clean, oil-free air at a dew point of -10 – -20°C or less (Residual oil: 0.1 ppm. Filtration rating: 0.01 µm / 99.5 % or more).

• Keep room temperature within ±1°C of the specified value. (Specified value should be between 20 – 25°C.)

• Keep cutting water 2°C above room temperature (fluctuations within 1°C).

• Machines should be used in an environment free from external vibration. Do not install machines near a ventilation opening, heat generating equipment, or oil mist generating parts.

• This machine uses water. Due to the risk of water leakage, please install the machine on a floor with sufficient waterproofing and drainage measures.

*All the pressures are described using 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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