



Fully Automatic Dicing Saw

DFD6362

Dicing saw for improved productivity with $\varnothing 300$ mm wafers

Realizes further productivity improvement with various new functions

Attains a throughput improvement of about 7% compared to existing equipment under the same conditions

- Realizes higher dual cut processing speed through a shortened distance between the spindles
- Improves processing feed speed of the X-axis by refining the axis mechanism
- Achieves higher speeds for the main handling unit by optimizing the parts used

Improves full cleaning capabilities

- Includes a wheel cover structure that is effective against particle adhesion based on water flow analysis in the vicinity of the processing area.
- Supports the installation of a chuck table water curtain (CTWC) and cutting area atomizing nozzle for specific workpieces.



Automatic Blade Changer (ABC) *optional function

Fully automates the blade replacement and pre-cut procedures after blade breakage and at the end of blade life and restarts processing, thus reducing operator workload.

Since it takes sixty seconds to replace a blade, the ABC leads to substantially shorter downtime. The equipment scans the 2D barcode on the backside of the blade containing information on the blade type, preventing potential human errors during blade replacement.

Advanced graphical operation software

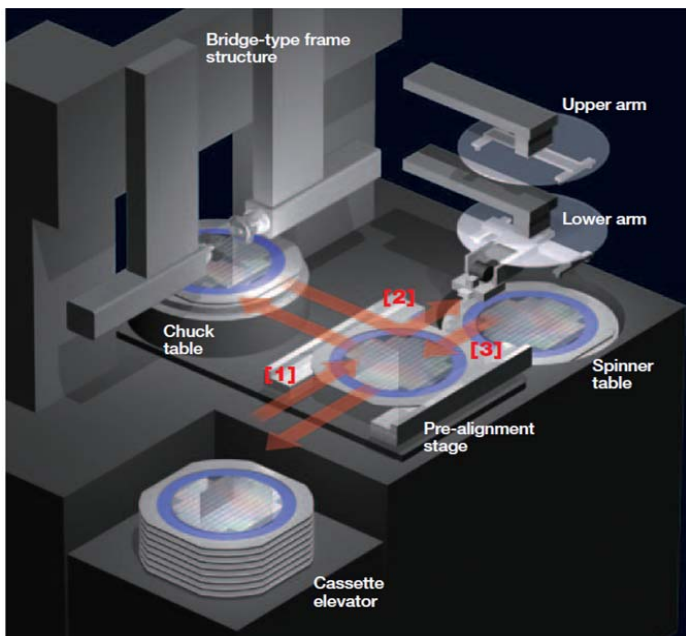
Realizes an improvement in operability by setting operation buttons on the same screen as the microscope picture, especially when performing operations such as the teach operation. Also, the software is able to display the equipment operation conditions in a clearer and more understandable way by graphically representing the equipment conditions.



ABC unit



Software ver.2.0 screen



DFD6362 Operation flow

- [1] Lower arm moves the workpiece from the cassette to the pre-alignment stage. Lower arm moves the workpiece to the chuck table → **cutting** →
- [2] Upper arm moves the workpiece to the spinner table → **cleaning & drying** →
- [3] Lower arm returns the workpiece to the cassette

Specifications

Specification		Unit	1.2, 1.8 kW, High-speed rotation	2.2 kW
Workpiece size		mm	φ 300	
X-axis	Cutting range	mm	310	
	Cutting speed	mm/sec	0.1 - 1,000	
Y1·Y2 -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 φ 2" blade)	14.9 (For φ 3" blade)
	Moving resolution	mm	0.00005	
	Repeatability accuracy	mm	0.001	
θ-axis	Max. rotating angle	deg	380	
Spindle	Rated torque	N·m	0.19 (1.2 kW, High-speed rotation) 0.286 (1.8 kW)	0.7
	Revolution speed range	min ⁻¹	6,000 - 60,000 (1.2 kW/1.8 kW) 20,000 - 80,000 (High-speed rotation)	3,000 - 30,000
Machine dimensions(W×D×H)		mm	1,200 × 1,550 × 1,800	
Machine weight		kg	Approx.2,050	

Environmental Conditions

- * Use clean, oil-free air (dew point between -10 - -20 , residual oil: 0.1 ppm, and 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 and cleaning water 2 °C above room temperature (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 pressures specified above are gauge pressures.
- * As the above specification may change due to technical modifications. Please confirm when placing your order.
- * For further information, please contact your local sales representative.