

Fully Automatic Dicing Saw DFD6361

Advanced performance for 300 mm dicing

Enhanced dicing throughput

The DFD6361 enhances throughput in two distinct ways. DISCO's facing dual design and a reduction in distance between the blades help to control total cut time, while high-magnification microscopes (standard) and non-contact setup sensors (option) for both Z1 and Z2 reduce the time required for non-dicing sequences, such as kerf check and blade setup.

Consistent cut quality

DFD6361 offers highly consistent and dependable cut quality through the new Synchro Spindle™ featuring superior radial rigidity. An atomizing nozzle cleaning mechanism can also be installed in the spinner unit as an option to effectively clean wafers after dicing (Patent no.3410385).



Improved usability

- The spindle shaft-lock feature and auto-open/close wheel cover make blade changes easy and quick.
- Condition monitoring functions relay processing status and key equipment information in real time.
- The cutting water flow rate controller is programmable via the touch-panel display and sets the flow rate for each process recipe.
- The easy-to-use graphical user interface is displayed on an adjustable touch-panel display.

Small footprint

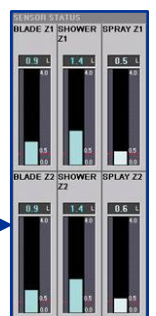
The bridge-type frame structure and improved wafer handling system contribute to the compact size and small footprint of the DFD6361.

Spindle lineup

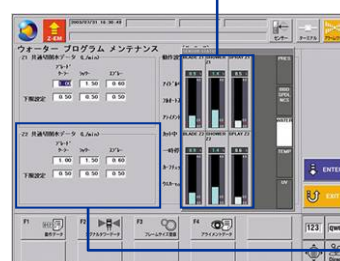
- The 1.2 kW spindle (standard) features superior rigidity.
- A center thrust design gives the 1.8 kW spindle (option, uses 2" blades) and the 2.2 kW spindle (option, uses 3" blades) extra rigidity for processing glass, ceramics, and other high processing load materials.



Adjustable LCD



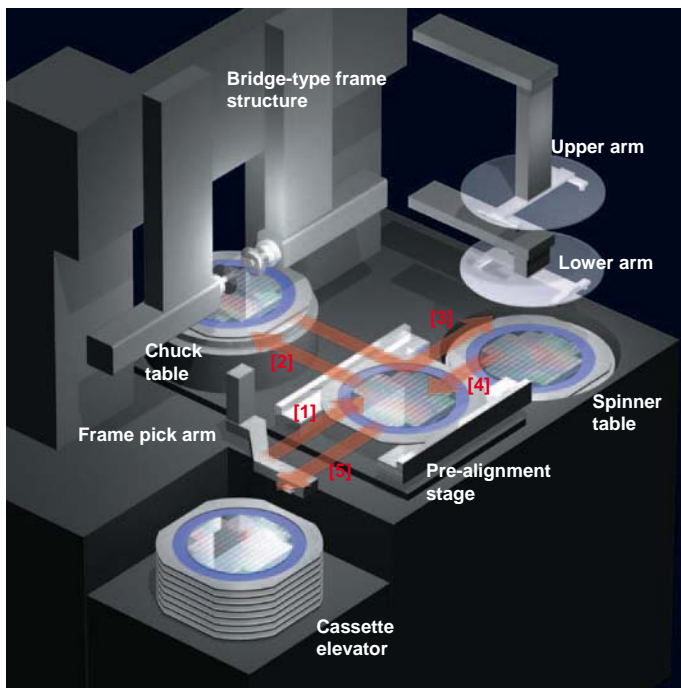
Condition monitor screen



LCD touch screen



Control screen



DFD6340 Operation flow

- [1] Frame pick arm moves the workpiece from the cassette to the pre-alignment stage →
- [2] After centering on the pre-alignment stage, the lower arm moves the workpiece to the chuck table → **table** → **cutting** →
- [3] Upper arm moves the workpiece to the spinner table → **cleaning and drying** →
- [4] Lower arm moves the workpiece to the pre-alignment stage →
- [5] Frame pick arm returns the workpiece to the cassette

Specifications

Specification		Unit	1.2, 1.8 kW	2.2 kW
Workpiece size		mm	φ 300	
X-axis	Cutting range	mm	310	
	Cutting speed	mm/sec	0.1 - 600	
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) 0.29(1.8 kW)	0.7
	Revolution speed range	min ⁻¹	6,000 - 60,000	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℃ of the set value. (Set value should be between 20 - 25 ℃).
- * Keep cutting water and cleaning water 2 ℃ above room temperature (fluctuations within ±1 ℃).
- * 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.