



Fully Automatic Dicing Saw DFD6561

A space-saving solution for ø300 mm dicing

16% reduced footprint

The DFD6561 is equipped with a newly developed short spindle and an optimized bridge-type frame structure resulting in a 16% reduced footprint.

All maintenance can be performed from the front of the equipment, thus reducing the area needed for installation and maintenance areas by 20% (compared to the DFD6362). The DFD6561 is particularly ideal when installing multiple adjacent units.

Intuitive operation

The LCD panel allows touch operation of the alignment teach function. Important data, such as the equipment condition and mean time between assists (MTBA) is also displayed on screen, allowing the operator to easily confirm the status of the equipment. Onscreen error recovery assistance is also available.



Thorough options for particle prevention

Users can select optional particle prevention measures used in other models, such as the cut section atomizing nozzle and spinner atomizing nozzle. A chuck table water curtain, which prevents particle adhesion caused by wafer drying, is also available.

Concentrated maintenance area

All operations, from routine to maintenance, can be performed from the front of the equipment. The space reduction achieved in the DFD6561 allows 5 units to be lined up in a space which would only fit 4 units for the DFD6362 at a production facility.

New high-rigidity spindle

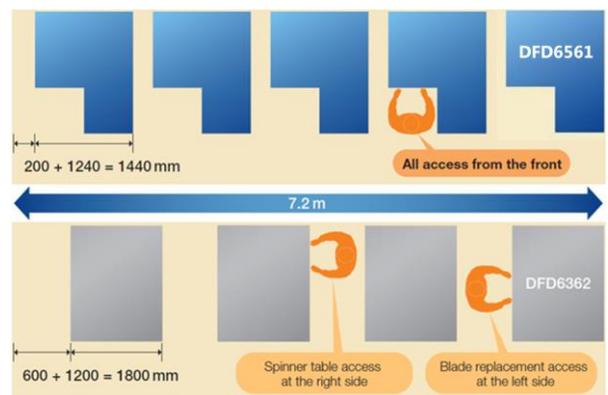
Equipped with a new high-rigidity spindle to achieve even higher processing stability.

Newly developed non-contact setup

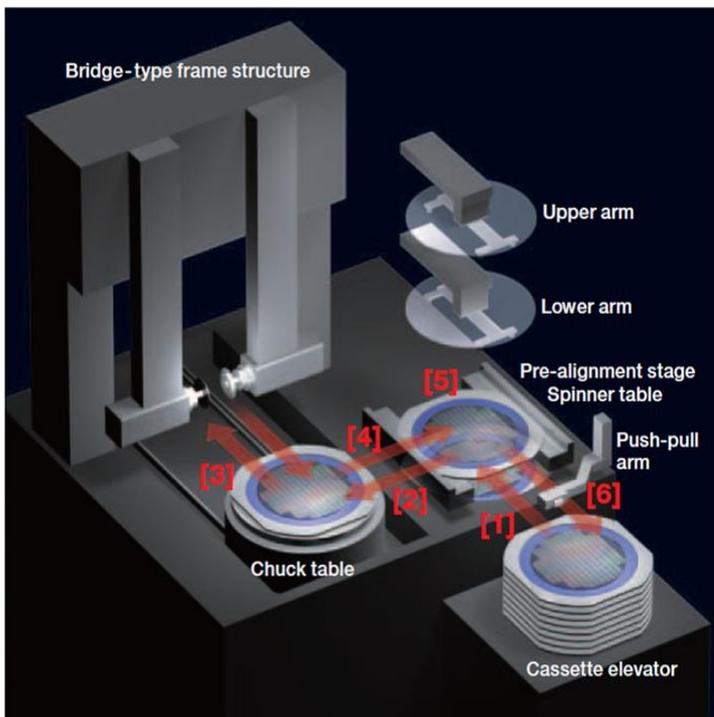
Equipped with a newly developed non-contact setup which measures the blade wear amount with high accuracy and speed.

Synchronized dicing axis (X, Y, and Z) control

Measures the height of the chuck table to which the wafer will be secured in advance and controls the blade cutting depth with high accuracy (user-specified).



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DFD6561 operation flow

- [1] Push-pull arm moves the workpiece from the cassette to the pre-alignment stage
- [2] After centering at the pre-alignment stage, the lower arm moves the workpiece to the chuck table.
- [3] **Cutting**
- [4] Upper arm moves the workpiece to the spinner table
- [5] **Cleaning and drying** – Lower arm moves the workpiece to the pre-alignment stage
- [6] Push-pull arm returns the workpiece to the cassette.

Specifications

Specification		Unit	1.8 kW	High speed (option)
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	14.2(For φ 2" blade)	
	Moving resolution	mm	0.0000002	
	Repeatability accuracy	mm	0.001	
θ-axis	Max. rotating angle	deg	380	
Spindle	Rated torque	N·m	0.29	0.19
	Revolution speed range	min ⁻¹	6,000 - 60,000	20,000 - 80,000
Machine dimensions(WxDxH)		mm	1,240 × 1,550 × 1,960	81mm convex (left side)
Machine weight		kg	Approx. 1,500	

Environmental Conditions

- Use clean, oil-free air (dew point between -10 - -20 , residual oil: 0.1 ppm, and filtration rating: 0.01μm/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..

* 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.

Scheduled sales start : October 2018