



Fully Automatic Dicing Saw DFD6340

Standard dual spindle dicing saw

Maximized throughput

The DFD63400 features a facing dual-spindle configuration with a shorter distance between blades, which improves throughput by up to 30 % for step/bevel cut and 40 % for dual cut when compared with parallel dual spindle dicing saws.

Small footprint

By employing a new high-rigidity, bridge-type frame structure, the DFD6340 has the smallest footprint of any 8" saw in its class.

Lower air and energy consumption

Utilizing the latest in conservation technology, the energy and air consumption of the DFD6340 has been reduced by 33 % and 24 % respectively when compared to the previous generation of saws.

Consistent cut quality

The DFD6340 offers consistent cut quality with the adoption of a Synchro Spindle™ featuring superior radial rigidity. An atomizing nozzle cleaning mechanism can also be included in the spinner unit as an option to effectively clean wafers after dicing (Patent no. 3410385).



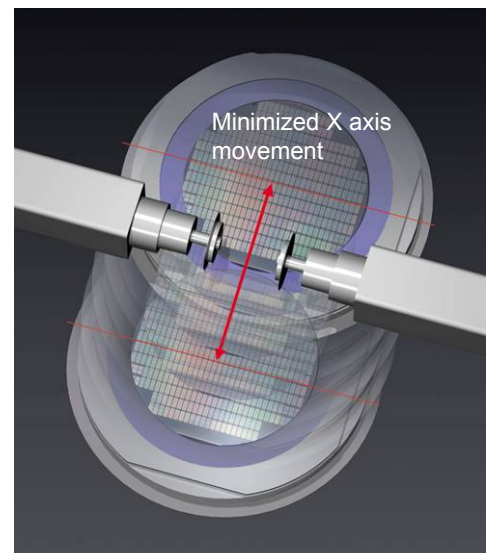
Cost of ownership improvements

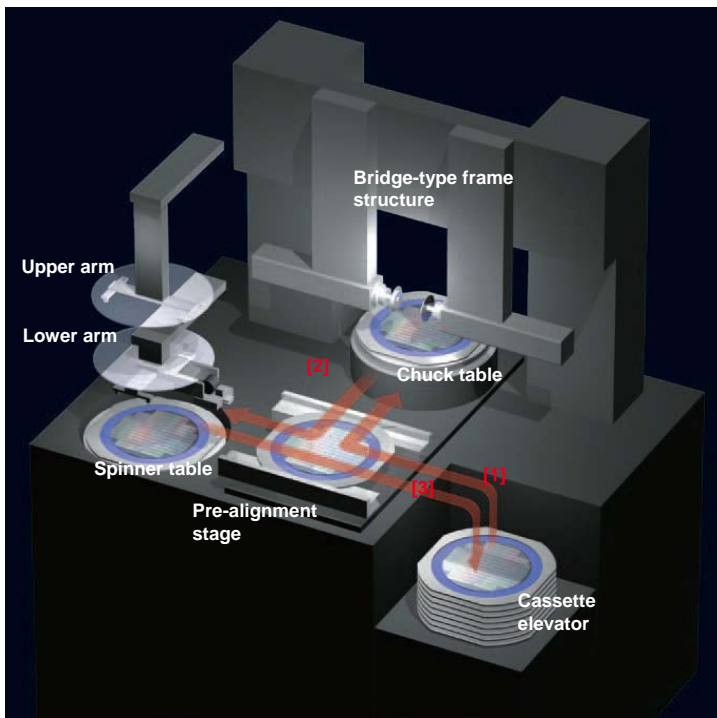
- **Shorter set up time - two NCS sensors**

Two Non-Contact Setup sensors, one each for Z1 & Z2, enables increased throughput.

- **Shorter kerf check time - two microscopes**

A dedicated high-magnification microscope for each spindle allows for simultaneous kerf checking for increased throughput.





DFD6340 Operation flow

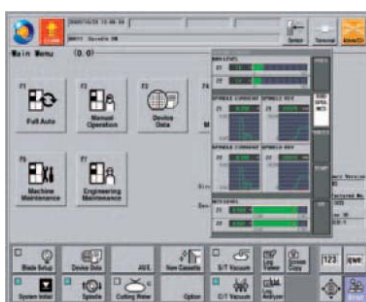
- [1] Lower arm moves the workpiece from the cassette to the pre-alignment stage. Lower arm moves the workpiece to the chuck table → **cutting** →
- [2] Upper arm moves the workpiece to the spinner table → **cleaning & drying** →
- [3] Lower arm returns the workpiece to the cassette

Process stability - cutting water flow control

- Cutting water flow is controlled by the recipe.
- Water flow is consistently maintained, aiding process stability.

Easy operation

The DFD6340 utilizes an adjustable LCD touch screen graphical user interface making operation and maintenance intuitive and easy. The inclusion of an inspection stage allows for the removal and checking of wafers after dicing during fully automatic operation.



LCD touch screen



Adjustable LCD

Specifications		1.2, 1.8 kW	2.2 kW
Workpiece size	Unit	φ 8"	
X-axis	Cutting range	210	
	Cutting speed	0.1 - 600	
Y1·Y2 -axis	Cutting range	210	
	Index step	0.0001	
	Index positioning accuracy	0.003/210 (Single error)0.002/5	
Z-axis	Max. stroke	19.22 (For φ 2" blade)	19.9 (For φ 3" blade)
	Moving	0.00005	
	Repeatability accuracy	0.001	
θ-axis	Max. rotating angle	380	
Spindle	Rated torque	0.19(1.2 kW) 0.29(1.8 kW)	0.7
	Revolution speed range	6,000 - 60,000	3,000 - 30,000
Machine dimensions (W×D×H)	mm	1,180 × 1,110 × 1,850	
Machine weight	kg	Approx.1,600	

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.