

## DS613 Precision Dicing Saw



DS613 precision dicing machine uses DS-200 software control system, touch screen control and GUI interface so that the image alignment of workpiece is simple and convenient. DS613 has stable performance and low failure rate. DS613 is applicable to the cutting process of silicon, PCB, EMC, ceramic, glass, lithium niobate, quartz, sapphire, GaAs and crystal.

### Features

- Self-check and alarm function of height measurement system
- Database management of workpiece and cutting blade
- Two-way blade lifting for cutting
- Graphic alignment function
- Real-time display and early warning of blade edge exposure

Specifications		
Configuration and performance	Workpiece size	$\Phi 6'' \mid \leq 160\text{mm} \times 160\text{mm}$
	Groove depth	$\leq 4\text{mm}$ or customize
	Table flatness	$\pm 0.005\text{mm}/100\text{mm}$
	Alignment system	70x straight light + ring light(210x optional)
Spindle	Revolution speed range	3000~40000 rpm
	Output power	1.25kW
X axis	Drive mode	Servo motor
	Max. stroke	240mm
	Stroke resolution	0.001mm
	Feed speed range	0.1~400mm/s
Y axis	Drive mode	Step motor + grating closed-loop control system
	Max. stroke	170mm
	Stroke resolution	0.0005mm
	Single-step positioning accuracy	$\leq 0.003\text{mm}/5\text{mm}$
	Index positioning accuracy	$\leq 0.005\text{mm}/170\text{mm}$
Z axis	Drive mode	Step motor
	Max. stroke	30mm
	Stroke resolution	0.001mm
	Repeatability accuracy	0.002mm
$\Theta$ axis	Drive mode	Servo motor
	Max. rotating angle	360°
	Angle resolution	0.0005°
Basic specification	Power supply	Single phase, AC220V $\pm$ 10%
	Power consumption	0.8kW (processing)
		0.7kW (warming up)



Compressed air	Pressure: 0.55~0.8Mpa; average flow rate: 350L/min
Cleaning water	Pressure: 0.2~0.4Mpa; flow rate: 3.0L/min
Cooling water	Pressure: 0.2~0.4Mpa; flow rate: 1.5L/min
Exhaust air rate	2m <sup>3</sup> /min (ANR)
Overall dimensions W×D×H	665mm×850mm×1650 mm
Weight	500kg

### Environmental Conditions

- Use clean, oil-free air (dew point below -15, residual oil: 0.1 ppm, and filtration rating: 0.01μm/99.5 % or more).
- Keep room temperature fluctuations within  $\pm 1^{\circ}\text{C}$  of the set value (Set value should be between  $20^{\circ}\text{C}$  -  $25^{\circ}\text{C}$ ), indoor humidity no more than 80% and no condensation.
- Keep cutting water and cleaning water  $2^{\circ}\text{C}$  above room temperature (fluctuations within  $\pm 1^{\circ}\text{C}$ ). Keep temperature of cooling water the same as room temperature.
- 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.
- Please follow the product manual of our company.

Wotian reserves the right to make changes to any product in this publication without notice. The information we supply is believed to be accurate and reliable as of this printing.



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