

## DS616 Precision Dicing Saw



DS616 precision dicing machine uses DS-200 software control system with touch screen control so that the image alignment of workpiece is simple and convenient. The machine is equipped with high-power spindle and DD motor with higher accuracy that further enhance the dicing performance. DS616 is applicable to the cutting process of silicon, gallium arsenide, ceramic, glass, lithium niobate, alumina, quartz, sapphire, crystal and PCB in the application fields including diode, triode, MEMS, IC, LED, NTC, photovoltaic, medical device and scintillation crystal.

### Features

- Constantly monitor spindle air pressure, hydraulic pressure and current to reduce spindle damage
- Cutting scope available on request
- Available for 160mm × 160mm square plate
- Optional image automatic recognition function
- Optional NCS function (non-contact height measurement)
- Reasonable structure, easy maintenance, reducing fault
- High degree of automation

Specifications		
Configuration and performance	Workpiece size	Φ6"   ≤160mm x 160mm
	Groove depth	≤4mm
	Table flatness	±0.005mm/150mm
	Alignment system	70x straight light + ring light(210x optional)
Spindle	Revolution speed range	3000~40000 rpm
	Output power	1.5kW
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	≤0.003mm/5mm
	Index positioning accuracy	≤0.005mm/170mm
Z axis	Drive mode	Step motor
	Max. stroke	30mm
	Scale resolution	0.001mm
	Repeatability accuracy	0.002mm
Θ axis	Drive mode	DD motor
	Max. rotating angle	380°
	Angle resolution	0.0002°
Basic specification	Power supply	Single phase, AC220V±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°C, 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°C - 25°C), indoor humidity no more than 80% and no condensation.
- Keep cutting water 2°C above room temperature (fluctuations within ±1°C). Keep temperature of cooling water the same as 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, blower, heat generation equipment or oil mist generating parts.
- 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 any change in this publication without notice. The information provided is believed to be accurate and reliable as of this product sheet.



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