

8220

全自动双轴八寸划片机 8" Fully-automatic Dual Spindle Dicing System

GLTECH
光力科技

ADT
Advanced Dicing Technologies



ADT 8220是一款高效率、高精度、高性能、低使用成本的双轴（对向）全自动晶圆切割机。最大切割工件尺寸可达8英寸。ADT 8220 Dicing Saw has two facing spindles that can simultaneously dice wafers at high throughput. ADT 8220 is a high accuracy system that can dice product up to 8" in diameter, at high performances and low cost of operation.

规格 Configuration

- 刀片尺寸：2英寸
- Blade Size: 2"
- 最大工件尺寸：8英寸
- Workpiece Size: 8"

特征和优势 Features and Benefits

- 支持 1.8 KW或 2.2 KW大功率主轴（适用于更高要求的切割）
- 使用17英寸触摸显示屏，操作界面直观
- Spindles of 1.8 kW or 2.2 kW high power (for challenging applications)
- Intuitive operation interface using a large 17" touch screen monitor

广泛应用性 Leading Applications

- 硅材料晶圆 / 分立器件
- 碳化硅晶片
- MEMS产品
- SAW器件
- 玻璃材质晶圆
- 封装 (QFN, LED...)
- Silicon wafers / discrete devices
- Silicon carbide(SiC)
- MEMS
- SAW devices
- Glass wafer
- Packaging(QFN, LED...)

操作便利性 Ease of Use

ADT 8220系统使用最新开发的图形用户界面 (NUI)，17英寸触摸显示屏具有更好的灵活性和视觉效果。The 8220 operates with the ADT intuitive New graphic User Interface (NUI), and the monitor screen is a 17" touch-screens with better flexibility and visual effects.

其它重要特征 Other Key Features of Importance

- 切割效率高-大幅降低使用成本
- 空气主轴
- 快速自动对齐及切割定位，提高切割效率
- 高精度的自动刀痕检测及切割质量分析
- 切割过程数据记录和统计分析
- 更换刀片时锁定主轴，操作更快速、简便
- SECS / GEM通信标准
- 机器维护时可触及系统的任何区域，带来维护的便利性
- Highest Dicing Process Speeds - Lowest Cost
- Air spindle
- Fast automatic alignment and cut positioning for increased throughput
- Automatic Kerf check and quality analysis for maximum precision
- Process data logging and statistical analysis
- Fast & Simple Blade Change with a locking spindle shaft
- SECS / GEM platform ready
- Full access to any area of the system for easy maintenance access

8220 全自动双轴八寸划片机

8" Fully-automatic Dual Spindle Dicing System

规格 Specifications

机器型号	8220
工件尺寸	Ø 200 mm
主轴	对向式双主轴
额定扭矩	0.33 N · m (1.8kW)
最高回转速度	60,000 rpm
刀片尺寸	2英寸
Y1 / Y2轴	
驱动	伺服电机
控制系统	全闭环控制系统
单步步进量	0.1 µm
累计精度	≤ 2 µm / 210 mm
步进精度	≤ 2 µm / 5 mm
切割范围	210 mm
X轴	
驱动	伺服电机, 直线导轨, 超精密滚珠丝杠
进刀速度输入范围	0.1 – 1,000 mm/s
切割范围	210 mm
Z1 / Z2轴	
驱动	步进电机
分辨率	0.1 µm
重复精度	1.0 µm
最大行程	30 mm
θ 轴	
驱动	闭环控制, 直接驱动
重复精度	± 3 arc-sec
最大行程	380 deg
视觉系统	1倍和8倍高清光学相机 相机光源: LED (直光 & 斜光)
清洗台	自动清洗及干燥工件 100–2,000 rpm 标配二流体清洗功能, 可选配高压泵清洗
搬送部分	连续搬送 检测单元
标准功能	自动对齐 自动刀痕检测 自动Y方向校准
用户界面	触摸屏: 17 英寸 最新开发的图形用户界面 (NUI) 支持多种语言 Win10操作系统
可选配件	2.2 KW 大功率主轴, 最高转速: 60,000 rpm UV功能 自动修刀功能
动力规格	
电气	AC 380 V ,50/60 Hz, 三相电
空气	≥360 L/min (@ 5.5 bar)
主轴冷却水流量	4 L/min (@0.3 Mpa)
切割水流量	≥ 12 L/min
机器尺寸	
宽度 × 深度 × 高度	1,115 × 1,335 × 1,850 mm
重量	约 1,800 kg
环境条件	室温: 20°C–25°C (波动范围: ± 1°C) 湿度: 相对湿度小于70% (不冷凝) 切割水或主轴冷却水温度波动范围: ± 1°C 地面无震动

注: 机器规格如有更改, 恕不另行通知。

Machine Model	8220
Workpiece Size	Ø 200 mm
Spindle	Face to Face Dual Spindle
Torque	0.33 N · m (1.8kW)
Maximum Rotating Speed	60,000 rpm
Blade Size	2"
Y1 / Y2 Axis	
Drive	Servo motor
Control	Full closed loop control system
Single Step (Resolution)	0.1 µm
Cumulative Accuracy	≤ 2 µm / 210 mm
Indexing Accuracy	≤ 2 µm / 5 mm
Cutting range	210 mm
X Axis	
Drive	Servo motor, Linear guide and ultra-precision ball screw
Feed Rate Input Range	0.1 – 1,000 mm/s
Cutting range	210 mm
Z1 / Z2 Axis	
Drive	Step motor
Resolution	0.1 µm
Repeatability	1.0 µm
Max. stroke	30 mm
θ Axis	
Drive	Closed-loop, Direct-drive
Repeatability	± 3 arc-sec
Stroke	380 deg
Vision System	High Definition Optical Magnification from x1 and x8 , High bright LED illumination (direct & oblique)
Cleaning Station	Full rinse and dry cycle Spinning speed 100–2,000 rpm Cleaning Method Standard Spec Atomized / Option Spec High Pressure
Wafer Handling system	Slot to slot integrity Inspection drawer
Standard Features	Automatic alignment Automatic Kerf check Automatic Y offset correction
User interface	Touch screens: 17" monitor NUI (New Graphic User Interface) Multilanguage support Win10 OS
Options	High power spindle up to 2.2kw at 60 KRPM UV station Dress station
Utilities	
Electrical	380V AC, 50/60 Hz, three-phase
Air	≥360 L/min (@ 5.5 bar)
Spindle Coolant	4 L/min (@0.3 Mpa)
Cutting Water	≥ 12 L/min
Dimensions	
W × D × H	1,115 × 1,335 × 1,850 mm
Weight	About 1,800 kg
Environmental	Room Temperature: 20°C to 25°C ± 1°C Humidity: Less than 70% relative humidity (non-condensing) Cutting water / Spindle water Temperature ± 1°C Floor must be vibration free

Note: Specifications are subject to change without notice.