

8020 SERIES

Fully Automatic Twin Dicing System



ADT = *Dicing*
Advanced Dicing Technologies

ADT 8020 Dicing Saw has two facing spindles that can simultaneously dice wafers at high throughput. ADT 8020 is a high accuracy system that can dice product up to 8" in diameter, at high performances and low cost of operation.

Configuration

- Spindle: 2"-3"
- Size: 8"

Features and Benefits

- Flexibility - Supports Hub and Hubless blades up to 3" O.D
- Spindles of 1.8 kW or 2.4 kW high power (for challenging applications)
- Superior vision system with continuous zoom magnification
- Intuitive operation interface using a large 19" touch screen monitor

Ease of Use

The 8020 operates with the ADT intuitive New graphic User Interface (NUI), and includes two touch-screens: a 19" monitor for the main screen and a 17" monitor maintenance screen. The maintenance screen assist with performing system setup procedures, blade change and some basic maintenance operations.

Other Key Features of Importance

- Highest Dicing Process Speeds – Lowest Cost
- Air bearing feed axis (X)
- Fast automatic alignment and cut positioning for increased throughput
- Automatic Kerf inspection 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

Leading Applications

- Silicon wafers / discrete devices
- Silicon carbide (SiC)
- MEMS
- SAW devices
- Glass wafer
- Packaging (QFN, LED...)

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Specifications

Machine Model	8020
Workpiece Size	Ø 8"
Spindle	Two facing spindles Max. 60,000 rpm / 1.2 KW
Blade Size	2" - 3"
Y1 / Y2 Axis Drive Control Resolution Cumulative Accuracy Indexing Accuracy Cutting range	Ball bearing lead screw Linear encoder for each Y axis 0.1 µm 1.5 µm 1.0 µm 210 mm
X Axis Drive Feed rate Cutting range	Air Slide Ball bearing lead screw Up to 600 mm/sec 210 mm
Z1 / Z2 Axis Drive Resolution Repeatability Max. stroke	Ball bearing lead screw 0.2 µm 1.0 µm 30 mm (for 2.188" blade OD)
θ Axis Drive Repeatability Stroke	Closed-loop, Direct-drive 4 arc-sec 350
Vision System	USB3 camera, High bright LED illumination (vertical & oblique)
Cleaning Station Spinning speed Cleaning Methode	Full rinse and dry cycle 100-2,000 rpm Atomized cleaning capabilities
Wafer Handling system	Slot to slot integrity Inspection drawer
Standard Features	Automatic alignment Automatic Cut verify Automatic Kerf inspection Automatic Y offset correction
User Interface	2 touch screens: 19" monitor as main screen and 17" monitor for maintenance NUI (New Graphic User Interface) Multilanguage support Win7 OS
Options	BBD (Broken Blade Detector) High power spindle up to 2.4KW or 1.8KW at 60 KRPM Barcode reader UV station USB3 camera with Continuous Digital Magnification from x70 to x290 Dress station Dress cassette ESD Kit High Definition Optics Geometric Model Finder (GMF) Dicing Floor Management (SECS/GEM) Customization
Utilities Electrical Air Spindel Coolant (per spindle) Cutting water (per spindle)	200-240 VAC, 50/60 Hz, single phase 500 L/min @ 5.5 bar 1.1 L/min Up to 3 L/min
Dimensions WxDxH Weight	1,015 mm X 1,460 mm X 1,820 mm 1300 kg
Environmental	Room Temperature: 20 C to 25 C ± 1 C (77 F ± 1.8 F) Humidity: Less than 70% relative humidity (non-condensing) Cutting water / Spindle Water Temperature ± 1 C (± 1.8 F) Floor must be vibration free

Note: Specifications are subject to change without notice.



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