

## www.adt-co.com



Range & Solutions

## Full Dicing Solutions

Blades





Saws

Peripherals





# ADT DICING PERIPHERALS

ADT offers additional dicing peripheral equipment and accessories, such as auto wafer cleaner, water recycling system, spindle water chiller, semi-auto wafer mounting and more.



our image video

#### ADT'S DICING PERIPHERALS ADVANTAGES



Improve your process stability and accuracy



Reduce manufacturing expenses and conserve energy



Customized solutions for your specific needs



Gain a long lasting partnership and commitment

#### **PRODUCT GROUPS**



Complete set of solutions for water recirculation and process stabilization



Complete set of wafer mounting, cleaning and curing solutions

#### **QUALITY STANDARDS**





## **SOLUTION RANGE**

#### Wafer Cleaner

Designed for post-dicing workpiece cleaning and drying. Features a spinning chuck table and a rotating washing/drying arm



#### **Auto Wafer Mounter**

Engineered for the efficient, hands-free, rapid, uniform, and cost-effective mounting of workpieces onto tapes while maintaining high quality standards



#### **Manual Wafer Mounter**

Designed for manual mounting, supporting various tapes, frames, substrates, and irregular shapes in multi-panel configurations



**Dicing Saw** 



**UV Curing Systems** 

Designed for post-dicing UV tape curing to reduce the adhesive strength for ease of workpiece removal

#### Water Recycling System

Closed loop design features ultrafiltration level particles removal with temperature, pressure and flow control for optimized dicing process



### **Spindle Chiller**

Closed-loop design for a stable flow and temperature spindle cooling water supply to achieve high precision and cutting quality



#### **CO2 Injector** Designed to prevent particle adhesion and damage caused by ESD during the dicing process



# WATER TREATMENT SYSTEMS



Water Recycling System

Closed loop design for uniform cutting water supply. The system recycles drain water thru filtering, cooling and pumping to maintain required purification, temperature and flow levels for optimized dicing, cost-saving and environmental care.

#### **Features & Benefits**

- Water recirculation Reducing consumption by 95%
- Efficient cooling system Reducing power consumption
- Self-Cleaning filter Saving cost of maintenance
- Low environment impact
- Advanced User Interface (UI) for process monitoring and control

Flow capacity	Up to 20 L/min
Supply pressure	4.5 bar
Filtration level	0.02 µm
Circulation tank	80 Liter
Sediment tank	80 Liter
Water recycling	95% -99%
Temp. Setting range	10-25 °C
Stability	±1 °C
Cooling capacity	1600 W @ 20 °C
Gas (Refrigerant)	R-134A
Dimensions (W x D x H)	620 x 1280 x 1720
Weight (Empty/Full)	350/500

#### **Addable Options**

- Conductivity reading
- Surfactant dispenser
- Water deionization (DI) module
- Ultraviolet purification lamp





937 Spindle Chiller



Enhance your operational stability with an economical solution. Tailored for the closed-loop provision of spindle cooling water, this system ensures the maintenance of consistent, temperature-controlled water—an essential element in attaining exceptional levels of dicing precision and quality.

#### **Features & Benefits**

- Water circulation Reducing water consumption
- Precise control of water temperature Mitigating thermal expansion to achieve superior dicing accuracy.
- High pumping capacity Supporting up to 3 dicing saws simultaneously (low CoO)
- Touch panel LCD Easy operation
- Unique pumping technology Quiet operation, compact design and maintenance-free long life

Water flow capacity	Up to 21 L/min
Cooling capacity	1000 W @ 20°C
Setpoint range	8°C – 35°C
Temperature stability	+/-0.1°C
Dimensions (W x H x D)	360 x 590 x 560 mm
Approx. machine weight	58 kg

947, AB-47

CO<sub>2</sub> Injector



High quality processing, contamination-free devices ADT 947 CO2 Inline Injector is designed to eliminate particle adhesion and device damage caused by electrostatic effects. The units dissolve CO2 gas into de-ionized water (DI) used for dicing or cleaning processes, thus performing consistent control over an optimal level of resistivity.

#### **Features & Benefits**

- Online monitoring and alarms
- Resistivity target and range setting
- Resistivity / Conductivity units display
- Dicing Communication

	947	AB-47
Water capacity	3-10 liter/min	7-20 liter/min
Set point range	0.5 ΜΩ − 1 ΜΩ	
Line voltage	110/220 V 50 Hz or 60 Hz	
Machine dimensions (W x D x H)	190 x 446 x 365mm	190 x 492x 447mm
Approx. machine weight	10 kg	12 kg

#### **Options:**

- Extended resistivity range
- Alarm buzzer



# WAFER HANDLING SYSTEMS

967, 967L

Semi Auto Wafer Mounter



Crafted with the primary purpose of automatically affixing wafers onto tape, the ADT 967 Semi-Automatic Wafer Mounting System showcases a harmonious blend of intelligence and user-friendliness. This remarkable product holds significant value and is the ultimate selection for mounting during production processes.

#### **Features & Benefits**

- · Automatic- Controlled process, hands free operation
- Small footprint Tabletop design
- Quick and simple to use
- Minimal tape usage
- Flexible design supports a wide variety of tapes & frames
- Can be customized for multiple substrates (multi-panel) and irregular frames.

	967	967L
Supported tapes	Dicing Blue-tapes / UV tapes	
Max. workpiece size	200mm (8")	300mm (12")
Supported film frames	DTF 2-8-1 ; DTF 2-6-1 350-103 ; 350-104	DTF-2-12 SEMI-G74
Temp Controlled Chuck heater	< 65°c	
Roller pressure	1-6 bar (adjustable)	
Mounting time	25 sec.	35 sec.
Machine dimensions (WxDxH)	655 x 590 x 560 mm	791 x 706 x 557 mm
Approx. machine weight	65 kg	85 kg

#### **Options:**

- Non-Contact mounting
- · Electro-Static eliminator
- Rectangle frame support
- Auto frame size detector and cutter
- Top wafer surface lamination
- Communication and control features
- Special customized solutions

**977, 977** 

Streamlined and effective cleaning solutions to bolster your operations. The ADT 977 Wafer Cleaner Systems are meticulously crafted for the purpose of cleaning workpieces subsequent to the dicing process.



Equipped with adjustable rotating cleaning arm with atomizing or high pressure cleaning nozzles to cope with wide range of cleanliness requirements

#### Features & Benefits

- Atomizing/ High pressure cleaning
- Automatic lid closing
- Intuitive control panel
- Process monitoring
- Compact design
- Robust, vibration-free
- Environmentally friendly
- Programmable sequence control

	977	977L
Max. workpiece size Ø	Ø 8"	Ø 12" or 12"x12"
		square
Cleaning method	Atomizing cleaning / High pressure cleaning	
Number of recipes that	20	
can be saved		
Spinner velocity	200–3000 rpm	200–2500 rpm
range	200-3000 ipin	200-2300 1011
Machine dimensions	410 x 625 x 946 mm	570 x1250 x 1073 mm
(WxDxH)	410 X 023 X 940 IIIIII	370 X1230 X 107311111
Approx. machine weight	120 kg	200 kg

#### **Options:**

- CO2 injection
- · Water resistivity monitoring
- Ionizer
- Surfactant additional nozzle and tank
- Tape-less cleaning
- Built in exhaust blower
- Special customized solutions



# 955, 955L

UV Curing Systems



ADT UV Tape Curing Systems reduce the adhesive strength of all UVsensitive dicing tapes under controlled environment.

#### **Features & Benefits**

- Intuitive control panel
- Enable time control process
- Compact design
- Compliance with the highest safety standards
- Environmentally friendly

955 (8")	955L (12")
300 mm	400 mm
250 x 250 mm	Ø430 mm
365 nm	
6	18
510 x 450 x 120 mm	645 x 526 x 180 mm
20 kg	35 kg
	300 mm 250 x 250 mm 365 6 510 x 450 x 120 mm

#### **Options:**

- Anti-ozone nitrogen diffusion kit
- Alarm buzzer
- Frame shutter

# 966, 966L



Designed for manual mounting of workpieces on tapes. This system accommodates a wide range of dicing tape varieties and standard frames. It can be tailored to suit diverse substrates (including multi-panel setups) and unconventional frame shapes.

#### **Features & Benefits**

Uniform tape tension and bubble-free mounting

- Temperature-controlled chuck heater
- · Anti-static roller Reducing electrical charge
- Built-in vacuum holder
- UV back tape collector

	966	966L
Supported tapes	Dicing Blue-tapes / UV tapes	
Max. workpiece size	Ø 200 mm (8")	Ø 300 mm (12")
Supported film	DTF 2-8-1 ; DTF 2-6-1	DTF-2-12
frames	350-103 ; 350-104	SEMI-G74
Temp Controlled Chuck heater	< 65°c	
Machine dimensions (WxDxH)	420 x 860 x 370 mm	550 x 1000 x 310mm
Approx. machine weight	45 kg	60 kg

#### **Options:**

- Electro-Static eliminator
- Plastic frame support
- Rectangular frame support
- Custom chucks and tailor made solutions

# **ADT - Advanced Dicing Technologies**

ADT is a one stop shop with end-to-end research, development and production, specializing in the development and manufacturing of **dicing saws**, **blades and peripherals** for a wide variety of applications: silicon- based ICs, Package Singulation and hard material Microelectronic Components (MEC). Our R&D department is known for combining deep technological know-how, vast

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## Full Dicing Solutions



### ADT Worldwide

ADT offers a worldwide network of distributors, sales agents and independent representatives in Asia, USA and Europe, accompanied by a dedicated global service support team.





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