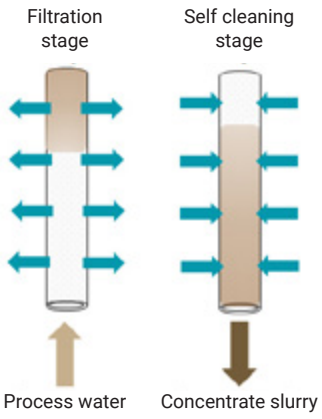
Peripherals

AR-927

Water Recycling System

The AR-927 Water Recycling System by ADT is a high-performance, closed-loop solution specifically engineered for dicing saw operations. Utilizing ultra-filtration technology, the system delivers thorough water purification, ensuring consistently clean water throughout the cutting process, which not only improves cutting precision but also prolongs equipment life. Designed to reduce water waste, the AR-927 recycles water within the system, significantly lowering consumption and supporting sustainable manufacturing practices.

Reversable operation



This system features a self-cleaning mechanism that uses reverse operation to automatically flush out contaminants, ensuring uninterrupted operation without manual intervention. Its single-phase design, combined with low power usage due to the closed-loop design, makes it energy-efficient and cost-effective.

System Highlights

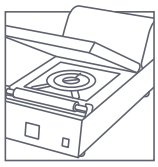
- Flow capacity up to 20 LPM
- Self-cleaning filter module
- Filtration level < 0.02 µm
- Water pressure control
- Animated process and real time indications
- Data collection and system performance monitoring
- Auto water fill compensation
- Auto drain selection
- Single phase 208-220V, 50/60 Hz

Additionally, the AR-927 is equipped with an automatic water compensation feature that continually monitors and adjusts water levels to maintain optimal conditions, further enhancing system reliability and reducing the need for operator oversight.

With its compact footprint and easy integration into existing workflows, the AR-927 not only maximizes productivity but also offers an eco-friendly approach to water management in semiconductor manufacturing. Ideal for high-precision dicing processes, this advanced system helps reduce operating costs while ensuring top-tier performance and environmental sustainability.

AR-927: Advanced water recycling for the dicing process — enhancing efficiency while protecting our planet.

ADT
Advanced Dicing Technologies



AR-927 Water Recycling System

User Interface Data

PLC Operator Panel	
Display size	7.5” color touch screen
User control	Setup and manual activation
Indications	Animated process error and alarms
Log	Machine manual and automatic actions, warnings and errors
Temp control	Displays target and actual temp on screen
Light tower	Green, yellow, red, buzzer
Power Cut off	EMO - Emergency push button

Specifications

Machine Flow Capacity	Up to 20 L/min
Supply pressure	3.5 – 5.5 bar
Filtration level	0.02 µm
Circulation tank	80 Liter
Sediment tank	80 Liter
Water recycling	95%
Set Range	8 – 25°C
Temp stability	±1 °C
Cooling capacity	1600 W @ 20 °C
Heat Transfer method	Water to Refrigerant SS plate heat exchanger
Gas (Refrigerant)	R-134A
Control method	PID

Dimensions and weight

Dimensions (WxDxH)	620 x 1280 x 1720 mm
Weight (Empty/Full)	350/500 Kg

Configurable options

- Build in chiller module & temperature control
- DI water module
- Additive dosing kit
- Conductivity monitoring
- UV purification kit

Typical applications, materials

- Silicon Wafers, Ceramic substrates
- sapphire, alumina, glass
- Ultrasound sensors (PZT)
- Optical components (IR filters, PLC splitters)
- MEMS device wafers

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