

Square Ptfе Wafer Cleaning Basket Fluoropolymer Semiconductor Etching Rack Custom Silicon Wafer Carrier

Item Number: PL-CP89



Introduction

Optimize semiconductor wet bench processes with our custom square PTFE wafer cleaning baskets. Engineered for extreme chemical resistance and high-purity handling, these fluoropolymer carriers offer superior durability and precision for critical silicon wafer etching and cleaning.

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Application	Description	Key Benefit
Silicon Wafer Etching	Substrate immersion in acidic etchants to remove surface layers or create specific textures.	Exceptional resistance to HF and Nitric acid mixtures.
Solar Cell Cleaning	Multi-stage cleaning of large-format square photovoltaic wafers before doping or coating.	High-volume handling capacity with minimal breakage.
MEMS Processing	Handling of micro-electromechanical systems during critical chemical release steps.	High-purity environment prevents microscopic contamination.
Ultrasonic Cleaning	Use within ultrasonic baths to remove sub-micron particulates from precision optics or electronics.	Damping properties protect delicate parts from vibration damage.
Trace Metal Analysis	Preparation and cleaning of labware in high-purity acid baths for analytical chemistry.	Lowest possible background interference for PPB-level detection.
LED Substrate Handling	Support for sapphire or silicon carbide wafers through aggressive cleaning and rinsing cycles.	Long-term reliability in high-temperature chemical processes.
Chemical Storage & Transport	Safe containment of sensitive substrates during transit between cleanroom modules.	Non-reactive surfaces protect wafer surface chemistry.
Laboratory Research	Custom-sized carrier for experimental material processing in university and R&D labs.	Adaptable design to fit non-standard experimental setups.

Specification Category	Parameter Details for PL-CP89
Model Identification	PL-CP89
Standard Dimensions	249mm x 249mm (Square Configuration)
Material Composition	100% High-Purity PTFE (Polytetrafluoroethylene)
Chemical Compatibility	Universal (Except molten alkali metals and elemental fluorine)
Temperature Range	-200°C to +260°C (-328°F to +500°F)
Fabrication Method	Full CNC Machining from solid billet
Wafer Capacity	Fully Customizable (Variable slot count and pitch)
Slot Width	Precision Machined (Customizable to wafer thickness)
Drainage Features	Integrated base and side flow ports for fluid exchange
Handle Options	Optional detachable or integrated PTFE handles available

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Surface Finish	Smooth, non-porous machined finish to prevent particle entrapment	
Compliance	RoHS Compliant, FDA grade raw materials	