Ptfe Silicon Wafer Holder For Acid Etching And Cleaning Process 2 4 6 8 Inch Customizable High Temperature Resistant

Item Number: PL-CP158

Introduction

High-purity PTFE silicon wafer holders engineered for extreme acid etching and cleaning processes. Optimized for 2 to 8 inch wafers, these robust customizable carriers ensure contamination-free handling and thermal stability in the most demanding semiconductor fabrication environments for B2B procurement.

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Application	Description	Key Benefit
Semiconductor Etching	Handling wafers in concentrated HF or BOE (Buffered Oxide Etch) solutions to remove dielectric layers.	Exceptional resistance to aggressive acids ensures long-term carrier durability.
RCA Cleaning Processes	Utilizing SC-1 and SC-2 solutions at high temperatures to remove organic and metallic contaminants.	High thermal stability prevents deformation during high-temperature oxidative baths.
Photovoltaic Cell Production	Texturing and cleaning of silicon wafers during the manufacturing of high-efficiency solar cells.	Robust design handles high-volume industrial throughput with consistent reliability.
MEMS Fabrication	Securely holding substrates during complex deep-reactive ion etching and wet release processes.	Precision-machined slots protect delicate micromechanical structures from contact damage.
Piranha Etch Cleaning	Processing wafers in a mixture of sulfuric acid and hydrogen peroxide to strip heavy organics.	Materials are immune to strong oxidative attacks, preventing equipment degradation.
Nanotechnology Research	Specialized handling of custom substrates in experimental chemical vapor deposition or liquid phase processing.	Full customization allows for non-standard wafer sizes and unique geometry support.
Optoelectronics Assembly	Cleaning of sapphire or GaAs wafers prior to epitaxial growth or thin-film deposition.	Purity of the PTFE material eliminates the risk of trace metal interference in optical devices.

Specification Category	Parameter Details for PL-CP158	Availability/Options
Model Series	PL-CP158 Silicon Wafer Carrier	Standard and Custom Designs
Primary Material	High-Purity PTFE (Polytetrafluoroethylene)	PFA Options Available Upon Request
Compatible Wafer Sizes	2 inch, 4 inch, 6 inch, 8 inch	Fully Customizable to any diameter
Slot Configuration	Capacity and pitch are defined per project	Customized per user specification
Temperature Range	Operational from cryogenic levels to 260°C	Process-dependent customization
Chemical Resistance	Full range of acids, bases, and solvents	Universal chemical compatibility
Fabrication Method	5-Axis CNC Precision Machining	Bespoke geometry available
Drainage Features	Customizable bottom/side drainage ports	Optimized for specific bath flow rates
Handle Design	Detachable or integrated manual/robotic handles	Customized for tool compatibility
Purity Grade	Trace analysis and semiconductor grade	Certified high-purity materials