Custom Ptfe Wafer Handling Rack Corrosion Resistant High Temperature Semiconductor Polysilicon Processing Stand

Item Number: PL-CP287

Introduction

Premium custom PTFE wafer stands engineered for extreme chemical environments and high-temperature semiconductor processing. These corrosion-resistant carriers ensure high-purity handling, low-friction operation, and exceptional durability for critical polysilicon, photovoltaic, and advanced electronics manufacturing workflows.

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Application	Description	Key Benefit
Silicon Wafer Etching	Securely holding silicon wafers during immersion in aggressive hydrofluoric and nitric acid mixtures.	Exceptional acid resistance and zero contamination.
RCA Cleaning Process	Used as a carrier in multi-step cleaning sequences involving ammonia and hydrogen peroxide.	Resists degradation from strong oxidizing agents.
Solar Cell Production	Supporting photovoltaic substrates during doping and surface texturing processes in the solar industry.	High thermal stability and chemical inertness.
Polysilicon Ingot Handling	Managing the placement of high-purity polysilicon pieces during purification and analysis.	Prevents metal ion leaching and surface contact damage.
Trace Analysis Labware	Serving as a specialized rack for storage and transport of high-purity samples in analytical chemistry.	Ensures the highest level of sample integrity and purity.
Semiconductor Wet Bench	Integration into automated wet processing systems for high-volume substrate cleaning and rinsing.	Low friction facilitates smooth automated handling.
Electroplating Fixtures	Acting as a non-conductive, chemically resistant support during precision electrodeposition processes.	Electrical insulation combined with chemical stability.

Parameter	Specification Detail
Product Identification	PL-CP287
Base Material	High-Purity Polytetrafluoroethylene (PTFE)
Manufacturing Process	Precision CNC Machining / Custom Fabrication
Customization Availability	Fully Bespoke to User Specifications
Temperature Range	-200°C to +260°C
Chemical Compatibility	Universal (Inert to most acids, bases, and solvents)
Surface Finish	High-smoothness, non-stick, hydrophobic
Slot Configuration	Customizable width, depth, and pitch
Load Capacity	Tailored to substrate density and quantity
Contamination Control	Metal-free, additive-free construction
Dimensions	Custom engineered per customer requirement