

High Purity Pfa Sampling Scoop Custom Fluoropolymer Water Ladle Organic Solvent Resistant Dipper

Item Number: PL-CP401



Introduction

Optimize trace analysis with our custom PFA sampling scoops. Engineered for extreme chemical resistance and zero contamination, these high-purity fluoropolymer dippers ensure sample integrity in semiconductor, environmental, and laboratory workflows through bespoke precision CNC fabrication and molding.

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Application	Description	Key Benefit
Semiconductor Acid Sampling	Extracting high-purity etching acids (HF, HCl) from bulk storage for quality control testing.	Prevents metallic contamination critical for wafer yield.
Geothermal Fluid Analysis	Collecting high-temperature mineral-rich water samples from geothermal vents or industrial heat exchangers.	Maintains integrity at extreme temperatures and pressures.
Trace Metal Environmental Research	Field sampling of seawater or freshwater in remote locations for isotopic and baseline data.	Shatterproof durability and zero leaching of trace elements.
Pharmaceutical API Synthesis	Handling reactive intermediates and aggressive organic solvents in sterile or high-purity reactor environments.	Exceptional chemical compatibility and non-reactive surfaces.
Battery Electrolyte Testing	Sampling lithium-ion battery electrolytes which are sensitive to moisture and metallic impurities.	Protects electrolyte purity from vessel-induced contamination.
Petrochemical Quality Control	Dipping into storage tanks for high-purity volatile organic compounds (VOCs).	Prevents adsorption of volatile analytes onto container walls.
Cryogenic Liquid Transfer	Sampling liquid nitrogen or other liquefied gases for laboratory or industrial cooling applications.	Remains ductile and functional at sub-zero temperatures.

Parameter Category	Specification Details for PL-CP401
Product Item Number	PL-CP401 (Custom Series)
Primary Material	100% High-Purity Perfluoroalkoxy (PFA)
Fabrication Method	Custom CNC Machining or Injection Molding
Scoop Capacity/Volume	Fully Customizable (e.g., 50mL to 2000mL+)
Handle Length	Custom Reach (e.g., 100mm to 1500mm+)
Handle Diameter	Adjustable based on ergonomic or structural requirements
Operating Temperature Range	-200°C to +260°C (-328°F to +500°F)
Chemical Resistance	Universal (Except molten alkali metals and elemental fluorine at high pressure)
Surface Finish	High-precision smooth finish to prevent sample residue
Trace Element Background	Sub-ppb levels (Application dependent)

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Attachment Options	Integrated fixed handle, threaded detachable handle, or reinforced grip	
Dimensions	Custom per client technical drawing or specification sheet	