

# High Purity Corrosion Resistant Pfa Reaction Vessel With Ptfе Holder And Integrated Sampling Tube For Trace Analysis

Item Number: PL-CP122



## Introduction

Engineering-grade PFA reaction tanks with PTFE holders ensure zero metal leaching for trace analysis. These customizable, corrosion-resistant systems offer exceptional chemical inertness for demanding laboratory applications involving strong acids, bases, and high-purity fluid sampling and transfer.

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Application	Description	Key Benefit
Graphene Oxide (GO) Synthesis	Handling concentrated oxidizing acids and potassium permanganate during the Hummers' method.	Total resistance to strong oxidants and high-temperature acid washing.
Trace Metal Analysis	Preparation and digestion of samples for semiconductor or environmental testing.	Eliminates background noise from heavy metal leaching (Pb, Cd, Hg, etc.).
Photocathode Etching	Operation within acidic or alkaline electrolytes for stability and kinetic testing.	Prevents ion release from vessel walls, ensuring objective catalytic data.
Petroleum Wastewater Research	Analysis of complex refinery effluents containing corrosive hydrocarbons and salts.	Maintains purity in the presence of aggressive organic and inorganic compounds.
ZIF-8 Composite Synthesis	High-purity environment for the creation of metal-organic frameworks and GO composites.	Protects chemical purity and extends the service life of reaction consumables.
Trace Analysis Fluid Transfer	High-purity sampling and delivery of reagents in analytical instrumentation.	5ml PFA tube ensures precision without introducing plasticizers or metals.
Acid Washing of Nanomaterials	Removing impurities from carbon nanotubes or other nanomaterials using strong mineral acids.	High thermal stability and chemical inertness during prolonged refluxing.

Feature	Specification for PL-CP122
<b>Core Material (Tank)</b>	High-purity, transparent PFA (Perfluoroalkoxy)
<b>Support Material (Holder)</b>	Virgin PTFE (Polytetrafluoroethylene)
<b>Sampling Tube Material</b>	Laboratory-grade PFA
<b>Sampling Tube Volume</b>	5ml (Standard) / Customizable to specific requirements
<b>Vessel Capacity</b>	Fully Customizable (e.g., 5ml, 10ml, 25ml, 50ml, etc.)
<b>Holder Design</b>	Custom CNC machined to fit specific lab racks or stirrers
<b>Operating Temperature</b>	-200°C to +260°C
<b>Chemical Compatibility</b>	Universal (pH 0-14), resistant to HF, H2SO4, NaOH
<b>Heavy Metal Content</b>	Below detection limits (Trace analysis grade)
<b>Cleaning Protocol</b>	Compatible with acid steam cleaning and autoclaving
<b>Fabrication Method</b>	Precision CNC Machining and Thermal Forming