

Custom Pfa Micro Column Rack And Ptfе Machined Storage Solutions For Trace Analysis

Item Number: PL-CP246



Introduction

Engineered for high-purity laboratory environments, this custom PFA micro column rack and PTFE machined solution provides unmatched corrosion resistance and ultra-low metal background levels for critical trace analysis, sample preparation, and aggressive chemical storage applications.

[Learn More](#)

Application	Description	Key Benefit
Semiconductor Trace Analysis	Holding micro-columns and PFA vials during wafer cleaning or etch-rate testing.	Eliminates metallic ion leaching even in the presence of concentrated HF.
Geochemistry Isotope Analysis	Supporting ion-exchange columns for sample purification prior to thermal ionization mass spectrometry.	Ultra-low metal background ensures high-precision isotopic ratios.
Pharmaceutical Synthesis	Organizing reaction tubes and columns during the synthesis of aggressive active pharmaceutical ingredients.	High thermal and chemical resistance ensures no reaction with catalysts.
Environmental Monitoring	Secure storage and handling of digestion vessels used for heavy metal analysis in water or soil samples.	Exceptional durability against repeated exposure to hot concentrated acids.
Battery Material Research	Custom fixtures for electrolyte immersion and electrode testing in corrosive liquid environments.	Electrochemical inertness and resistance to volatile organic carbonates.
Petrochemical Quality Control	Support for specialized filtration and separation units used in testing sulfur and heavy metal content.	Total resistance to organic solvents and ease of thorough decontamination.
Nuclear Medicine	Handling and storage of radiopharmaceuticals and acidic precursors in shielded cells.	Resistance to radiation-induced embrittlement and ease of remote cleaning.

Specification Parameter	Details for Item Number: PL-CP246
Material Options	High-Purity Virgin PTFE (Polytetrafluoroethylene) or PFA (Perfluoroalkoxy)
Fabrication Process	Custom Precision CNC Machining / Turning / Milling
Customization Scope	Dimensions, hole patterns, tier counts, and specialized mounting features
Chemical Resistance	Universal (Except molten alkali metals and elemental fluorine)
Operating Temperature Range	-200°C to +260°C (-328°F to +500°F)
Surface Purity	Low-background trace metal grade
Surface Finish	Ra < 0.8 μm (Standard) / Polished options available
Coefficient of Friction	0.05 to 0.10 (Static)
Water Absorption	< 0.01% (ASTM D570)
Compliance Capabilities	FDA, USP Class VI, and RoHS compliant materials available
Dimensional Tolerances	Per custom engineering drawing specifications