High Purity Pfa Water Cooled Micro Chromatography Column Corrosion Resistant High Temperature Thermal Condensation System

Item Number: PL-CP352

Introduction

Premium PFA micro chromatography column with integrated water-cooling jacket provides rapid condensation and exceptional chemical resistance. Engineered for high-purity trace analysis and corrosive chemical separation, ensuring zero contamination and long-term structural integrity in demanding laboratory environments.

Learn More

Application	Description	Key Benefit
Semiconductor Grade Acid Purification	Separation of trace metallic impurities from high-purity electronic grade acids using ion exchange.	Prevents leaching of boron, sodium, and heavy metals back into the sample.
Geochemical Isotope Analysis	Processing of geological samples for mass spectrometry, requiring the use of concentrated hydrofluoric acid.	Absolute resistance to HF attack while maintaining high thermal stability during digestion.
Radiopharmaceutical Production	Separation and purification of radioactive isotopes for medical diagnostic and therapeutic applications.	Radiation resistance and ease of decontamination due to non-stick surface properties.
Pharmaceutical Solvent Recovery	Condensing and recovering high-purity organic solvents from micro-scale reaction mixtures.	Rapid cooling efficiency prevents loss of volatile active pharmaceutical ingredients (APIs).
Environmental Trace Metal Detection	Pre-concentration of heavy metals from industrial wastewater or seawater samples prior to ICP-MS analysis.	Lowest possible detection limits due to the absence of material-based contamination.
Battery Material Research	Testing and separating components of advanced electrolytes and cathode materials in hydrothermal conditions.	Withstands high temperatures and pressures without loss of dimensional accuracy or sealing.

Parameter Category	Specification Details for PL-CP352
Model Identifier	PL-CP352
Core Material	High-Purity Perfluoroalkoxy (PFA)
Jacket Material	Integrated PFA Cooling Jacket
Thermal Range	Continuous service up to 260°C (500°F)
Chemical Resistance	Universal (Except molten alkali metals and fluorine at high temp)
Leaching Profile	Ultra-low trace metal and organic extractables
Condensation Method	Active water-cooled jacket (pumped circulation)
Internal Dimensions	Custom-fabricated to user specifications (length/ID)
Outer Dimensions	Customizable based on cooling volume requirements
Connection Types	Customizable (Standard threads, flare fittings, or NPT)
Transparency	Translucent for visual flow and resin monitoring

Application	Description	Key Benefit
Parameter Category	**Specification Details for PL-CP352**	
Fabrication Method	100% Precision CNC Machined	