

# High Purity Pfa Inert Gas Purge Device For Semiconductor Precursor Trace Analysis Nitrogen And Argon Compatible Purging System

Item Number: PL-CP429



## Introduction

Ultra-high purity PFA inert gas purging device for semiconductor precursor detection and trace analysis. Engineered for nitrogen or argon purging to prevent sample oxidation and contamination in critical laboratory workflows. Durable chemical-resistant construction for professional research.

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Application	Description	Key Benefit
Semiconductor Precursor Testing	Purging organometallic precursors with argon to prevent oxidation prior to ICP-MS analysis.	Ensures accurate characterization of ALD/CVD precursors.
IC Fabrication Quality Control	High-purity gas purging for trace metal analysis in process chemicals.	Lowers the detection limit by eliminating material-based contamination.
Battery Electrolyte Research	Protecting moisture-sensitive lithium battery components during solvent extraction and purging.	Maintains electrolyte stability for consistent electrochemical testing.
Catalyst Synthesis	Managing air-sensitive catalysts during the transition from synthesis to analysis.	Prevents catalyst poisoning by atmospheric oxygen or humidity.
Petrochemical Trace Analysis	Removing volatile fractions from complex hydrocarbon matrices using nitrogen displacement.	Excellent resistance to harsh sulfur-containing compounds and solvents.
Advanced Nanomaterials Prep	Maintaining an inert environment during the sample prep of functionalized nanoparticles.	Preserves surface chemistry and prevents unintended surface oxidation.
Specialty Gas Analysis	Serving as a high-purity interface for the sampling and analysis of high-purity electronic gases.	Prevents background noise from atmospheric leaks or material outgassing.

Feature	Specification Details (PL-CP429)
Core Material	Ultra-High Purity PFA (Perfluoroalkoxy)
Manufacturing Process	Precision CNC Machining / Custom Fabrication
Standard Capacity	30ml (Custom sizes available upon request)
Gas Compatibility	Nitrogen (N <sub>2</sub> ), Argon (Ar), Helium (He), and other inert gases
Chemical Resistance	Resistance to all common solvents, strong acids, and bases
Temperature Range	Fully customizable based on specific application temperature requirements
Pressure Rating	Design optimized for standard gas purging pressures (Customizable)
Connection Ports	Tailored to fit existing gas lines and analytical instrument interfaces
Cleaning Protocol	Compatible with acid-washing and high-purity cleaning procedures