Ptfe Bubble Absorption Bottle For Solid Waste Gas Detection And Hydrogen Chloride Sampling

Item Number: PL-CP213

Introduction

Optimize solid waste gas monitoring with this high-purity PTFE bubble absorption bottle designed for hydrogen chloride sampling. Its chemically inert construction ensures contaminant-free results and seamless integration with membrane filter holders for high-precision environmental analysis.

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Application	Description	Key Benefit
Solid Waste Incineration	Monitoring of flue gases for hydrogen chloride and other acidic pollutants to ensure compliance with environmental regulations.	Corrosion resistance against hot, acidic gases ensures long-term equipment survival.
Hazardous Waste Analysis	Collection of volatile organic and inorganic compounds from hazardous material processing plants for chemical characterization.	Prevents cross-contamination and ensures sample purity through total chemical inertness.
Stack Emission Testing	Field sampling of industrial exhaust streams to measure the efficiency of scrubbing systems and emission control units.	Robust construction withstands the physical and chemical demands of outdoor industrial environments.
Trace Metal Analysis	Absorption of gas-phase metals and precursors where the absence of leaching from the container is vital for accuracy.	High-purity PTFE prevents the introduction of trace contaminants during the sampling process.
Pharmaceutical Synthesis	Capturing corrosive gaseous byproducts from reactor vessels during the production of complex organic intermediates.	Protects laboratory personnel and equipment while ensuring the recovery of valuable reactants.
Semiconductor Gas Monitoring	Detection of high-purity process gases and cleaning agents used in cleanroom manufacturing environments.	Maintains the extreme purity levels required for semiconductor manufacturing standards.
Acid Gas Neutralization Studies	Evaluating the performance of various neutralizing agents in a controlled laboratory bubbling setup.	Allows for precise control of gas flow and liquid contact time for repeatable experimental data.

Parameter	Specification for PL-CP213	Customization Availability
Standard Capacity	75ml (Nominal)	Custom volumes from 10ml to 5000ml available
Material	Virgin Polytetrafluoroethylene (PTFE)	PFA, Modified PTFE, or PVDF options
Operating Temperature	-200°C to +260°C	Enhanced high-temp variants on request
Sealing Mechanism	Precision-threaded cap with PTFE gasket	O-ring seals (FKM/EPDM) or tapered joints
Inlet/Outlet Ports	Customizable for 1/4", 1/8", or metric tubing	NPT, Luer Lock, or Flanged connections
Bubbler Stem Design	Straight or Fritted	Custom pore sizes for gas diffusion control
Filter Compatibility	Pairable with standard membrane filter holders	Integrated filter housings or bespoke adapters
Wall Thickness	Heavy-duty industrial grade	Reinforced or thin-walled versions for specific thermal needs
Internal Finish	< 0.1 µm Ra (Super Smooth)	Electropolished-equivalent fluoropolymer finish