

Custom Ptfе Deep Water Sampler Corrosion Resistant Low Background Teflon Sampling Bucket

Item Number: PL-CP84



Introduction

Engineered for high-purity trace analysis, this custom PTFE deep water sampler provides exceptional chemical resistance and ultra-low background levels. Our bespoke fluoropolymer buckets ensure contamination-free sampling in demanding marine and industrial environments. Contact KINTEK for custom solutions.

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Application	Description	Key Benefit
Marine Trace Metal Research	Collection of seawater samples at various depths for the analysis of mercury, lead, and other trace elements.	Contamination-free sampling for ppt-level accuracy.
Industrial Chemical Monitoring	Extracting samples from bulk storage tanks containing concentrated sulfuric or nitric acids for quality control.	Zero corrosion and long-term sampler durability.
Groundwater Environmental Audit	Sampling deep boreholes and monitoring wells to detect chemical plumes or mineral concentrations.	High purity and chemical inertness in varying pH levels.
Nuclear Power Waste Analysis	Retrieval of liquid samples from cooling systems or waste treatment tanks requiring radiation and chemical resistance.	Exceptional material stability in harsh radioactive environments.
Pharmaceutical Purity Testing	Sampling of high-purity active pharmaceutical ingredients (APIs) or ultrapure water systems.	Non-leaching surfaces prevent contamination of sensitive batches.
Deep-Lake Limnology	Studying the vertical chemical stratification of freshwater lakes and deep reservoirs.	Reliable sealing ensures depth-specific sample integrity.
Petrochemical Process Sampling	Drawing samples from high-temperature reaction vessels containing aggressive organic solvents.	Thermal stability and universal solvent resistance.
Ocean Acidification Studies	Long-term monitoring of seawater pH and carbonate chemistry in coastal and offshore stations.	Material inertness prevents alteration of sample pH values.

Feature	Specification Details (PL-CP84 Series)
Model Identifier	PL-CP84 (Custom Series)
Base Material	100% High-Purity Virgin PTFE (Polytetrafluoroethylene)
Fabrication Method	Full Custom CNC Machining and Precision Turning
Volume Capacity	Customizable (Standard ranges from 100mL to 10L+)
Inner Diameter	Specified per customer requirements (Customizable)
Wall Thickness	Heavy-duty design (Customizable based on depth requirements)
Operating Temperature	-200°C to +260°C (-328°F to +500°F)
Chemical Compatibility	Universal (Resistant to acids, bases, solvents, and fuels)
Surface Finish	High-precision smooth finish (Ra ≤ 0.4 μm available)
Closure System	Customizable (Gravity cap, threaded lid, or valve-actuated)

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Attachment Type	Custom handles, eyelets, or integrated rigging loops	
Cleaning Protocol	Compatible with acid washing and steam sterilization	