KINTEK

Magnetic Stirring Bars & Retrievers Catalog

Contact us for more catalogs of PTFE(Teflon) Products, Sample Preparation & Filtration, Reaction & Synthesis Equipment, High-Purity & Trace Analysis, Custom Machining Services, General Consumables & Seals, Electrochemistry & New Energy Testing, Basic Labware & Containers, Fluid Transfer, Tubing & Valves, etc.

KINTEK

COMPANY PROFILE

>>> About Us

From everyday basic labware (beakers, measuring cylinders, crucibles, dishes, reagent/wash bottles, centrifuge and digestion tubes), high-purity trace analysis instruments, and cleaning/storage tanks, to comprehensive fluid transfer components (tubing, fittings, valves), sample prep and filtration tools (separatory funnels, burettes, filters, pipettes, tweezers, spatulas), and general consumables (stirring bars, O-rings, gaskets, seal tapes, caps, septa), extending all the way to advanced derivative and reaction apparatus like standard or custom electrochemical cells, battery testing fixtures, electrode accessories, hydrothermal synthesis liners, microwave digestion vessels, microchannel reactors, and condensation/reflux devices, KINTEK manufactures virtually all imaginable laboratory supplies crafted from PTFE and PFA. Backed by end-to-end custom CNC fabrication, we are equipped to deliver absolutely everything from complex non-standard machined parts and bespoke laboratory setups to high-volume orders, maintaining an exclusive and absolute focus on high-performance fluoropolymer materials.

High Purity Pfa Sampling Ladle Custom Molded Ptfe Water Scoop Chemical Resistant Laboratory Dipper

Item Number: PL-CP187

Introduction

Optimize trace analysis with our custom PFA sampling ladles. Engineered for exceptional chemical resistance and ultra-low metal ion leaching, these bespoke tools provide pure sample integrity for semiconductor, pharmaceutical, and high-sensitivity industrial laboratory applications.

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Application	Description	Key Benefit
Semiconductor Wafer Cleaning	Transferring high-purity etching chemicals and cleaning solutions within cleanroom environments.	Prevents metal ion contamination critical for sub-micron manufacturing yield.
Environmental Trace Analysis	Sampling groundwater and industrial effluent for heavy metal detection and low-level pollutant monitoring.	Ensures sample integrity by eliminating background noise from container leaching.
Pharmaceutical API Synthesis	Handling aggressive reagents and catalysts during the production of active pharmaceutical ingredients.	FDA-compliant material purity and resistance to cross-contamination between batches.
Nuclear Chemistry	Sampling radioactive liquids and corrosive coolants in controlled laboratory settings.	Exceptional radiation resistance and chemical stability under extreme conditions.
Forensic Science	Collection and transfer of chemical evidence where the highest degree of purity is required for legal validation.	Non-reactive surface prevents the alteration of sensitive chemical markers.
Petrochemical Testing	Dipping and sampling refined fuels, additives, and refinery wastewater for quality control.	Resistance to aromatic hydrocarbons and complex organic solvent mixtures.
Battery Research	Handling electrolytes and aggressive chemical precursors in lithium-ion and next-generation battery testing.	Stability against the reactive salts and solvents used in high-performance battery chemistry.

Specification Category	Parameter Details for PL-CP187
Model Identification	PL-CP187 Series
Material Options	High-Purity PFA (Perfluoroalkoxy) or PTFE (Polytetrafluoroethylene)
Volume Capacity	Fully Customizable (Commonly 50ml, 100ml, 250ml, 500ml, 1000ml+)
Handle Length	Customizable to suit specific tank or drum depths
Handle Diameter	Adjustable for ergonomic grip or mounting requirements
Operating Temperature	-200°C to +260°C
Chemical Resistance	Universal (Except molten alkali metals and fluorine at high pressure)
Surface Finish	High-precision CNC machined or injection-molded smooth finish
Trace Metal Content	<1 ppb for critical elements (Material Grade Dependent)
Fabrication Method	End-to-end custom CNC fabrication or custom mold injection

High Purity Ptfe Syringe Sampling Barrel Customizable Corrosion Resistant Teflon Labware

Item Number: PL-CP59

Introduction

Precision engineered PTFE sampling syringes provide absolute chemical inertness and ultra low background levels for critical trace analysis applications featuring fully customizable dimensions and volumes to meet specific laboratory or industrial process requirements for aggressive fluid handling.

Learn More

Application	Description	Key Benefit
Trace Metal Analysis	Sampling of ultra-pure acids and reagents for ICP-OES and ICP-MS analysis in geochemistry and environmental labs.	Eliminates metallic contamination from the sampling vessel.
Semiconductor Processing	Handling of wet etching chemicals and high-purity solvents used in wafer fabrication and cleaning processes.	Resists aggressive HF and prevents particulate generation.
Pharmaceutical Synthesis	Precision dosing of reactive intermediates and catalysts in sterile or chemically sensitive drug development.	FDA-compliant material with zero leachables for purity.
Battery Research	Transferring corrosive electrolytes and lithium-ion battery components during cell assembly and testing.	Chemical resistance to highly reactive electrolyte salts.
Cryogenic Sampling	Volumetric measurement and transfer of liquefied gases or samples stored at ultra-low temperatures.	Maintains ductility and sealing at cryogenic levels.
Petrochemical Testing	Analysis of high-temperature oil samples and corrosive additives in refinery quality control laboratories.	High thermal resistance and broad solvent compatibility.
Automated Liquid Handling	Integration as a high-durability syringe component within custom robotic sampling or titration platforms.	Reduces maintenance downtime due to low-wear surfaces.
Environmental Monitoring	Collection of field samples from contaminated sites involving unknown or highly acidic industrial runoff.	Ensures sample integrity regardless of the chemical matrix.

Feature	Specification Details (Model PL-CP59)
Model Identifier	PL-CP59
Primary Material	High-Purity Virgin PTFE (Polytetrafluoroethylene)
Nominal Volume	10ml (Standard) / Fully Customizable upon request
Fabrication Method	Precision CNC Machined from solid fluoropolymer stock
Operating Temperature	-200°C to +260°C (-328°F to +500°F)
Chemical Compatibility	Universal (All acids, bases, solvents, and oxidizers)
Surface Finish	Smooth, low-porosity machined surface
Background Level	Ultra-low trace element background suitable for PPT-level analysis
Connection Ports	Customizable (Options include Luer-Lock, NPT threads, or Plain Tip)

Application	Description	Key Benefit
Feature	**Specification Details (Model PL-CP59)**	
Dimensions	Custom-to-Order (Internal Diameter, Outer Diameter, and Stroke Length)	
Seal Type	Precision-machined PTFE-to-PTFE interference seal	
Autoclavability	Fully autoclavable and sterilizable for biological applications	

High Purity Ptfe Deep Layer Sampler 22Ml Corrosion Resistant Customizable Fluoropolymer Sampling Bucket With Handle

Item Number: PL-CP384

Introduction

Engineered for high-purity fluid extraction, this customizable PTFE deep layer sampler ensures zero contamination and extreme chemical resistance in harsh industrial environments, featuring a precision-machined bucket with a secure handle for reliable deep-level sampling in corrosive chemical processing.

Learn More

Application	Description	Key Benefit
Semiconductor Manufacturing	Sampling of high-purity etching chemicals and photoresist solvents during the wafer fabrication process.	Prevents metallic ion contamination in ultra-clean environments.
Petrochemical Analysis	Extraction of crude oil or refined fuel samples from storage tanks at specific depth intervals.	Resistance to hydrocarbons and volatile organic compounds.
Pharmaceutical Processing	Retrieval of active pharmaceutical ingredients (APIs) from reaction vessels during synthesis.	Ensures zero leaching and maintains biological sample integrity.
Environmental Monitoring	Deep-water sampling in acidic or alkaline wastewater treatment facilities and tailings ponds.	Corrosion-proof performance in harsh outdoor industrial sites.
Battery Research	Sampling of electrolytes and corrosive chemical mixtures within hydrothermal synthesis or test cells.	Stable performance in high-temperature and reactive environments.
Acid and Alkali Production	Monitoring concentration levels in bulk storage of sulfuric, hydrochloric, or nitric acids.	Total immunity to corrosion, extending the lifespan of the tool.
Food and Beverage	Testing for impurities in large-scale storage vats of acidic or oily food-grade products.	Non-toxic, easy-to-clean surface meets strict hygiene standards.

Specification	Detail for PL-CP384
Model Item Number	PL-CP384
Material Construction	100% Virgin PTFE (Polytetrafluoroethylene)
Nominal Capacity	22ml (Fully customizable upon request)
Configuration Type	Cylindrical bucket with integrated lifting handle
Temperature Resistance Range	-200°C to +260°C (-328°F to +500°F)
Chemical Compatibility	Universal resistance (except molten alkali metals and elemental fluorine)
Customization Options	Depth-specific handle lengths, varied volumes, and specialized lid closures
Fabrication Method	End-to-end custom CNC machining for high precision
Surface Porosity	Non-porous, hydrophobic surface finish
Sterilization Compatibility	Autoclavable; compatible with ETO and chemical sterilization

Ptfe Ultrapure Liquid Sampler Corrosion Resistant Acid Sampling Tool For 200L Reactors Custom Fluoropolymer Sampling Device

Item Number: PL-CP418

Introduction

Engineered for high-purity laboratory environments, this PTFE ultrapure liquid sampler provides exceptional corrosion resistance for acid extraction in 200L reactors. Fully customizable dimensions ensure seamless integration with complex industrial setups while maintaining absolute material integrity and sample purity.

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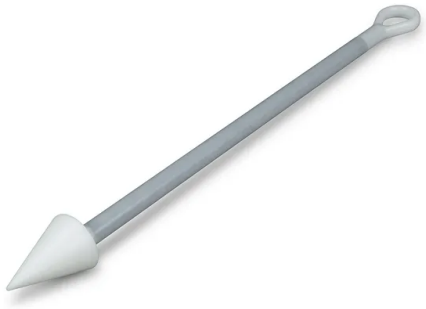
Application	Description	Key Benefit
Semiconductor Etchant Sampling	Extracting high-purity etching acids from bulk storage or reaction tanks for quality control testing.	Prevents metallic contamination that could ruin wafer yields.
Battery Material Synthesis	Monitoring the composition of electrolytes and slurry mixtures in 200L pilot-scale reactors.	Resists aggressive organic solvents and lithium salts.
Trace Metal Analysis	Sampling concentrated nitric or perchloric acid used in the digestion of environmental or industrial solids.	Ensures no leaching of ions from the sampler walls into the specimen.
Pharmaceutical API Production	Safely withdrawing samples of intermediate reaction fluids containing corrosive catalysts and solvents.	Absolute chemical compatibility ensures no side reactions or impurities.
Petrochemical Quality Lab	Routine sampling of strong acids used in catalytic processes and refining operations.	Exceptional durability against long-term exposure to hydrocarbons and acids.
Hydrothermal Synthesis Support	Extracting samples from high-pressure, high-temperature reaction environments where standard materials fail.	Maintains mechanical properties at elevated temperatures and pressures.

Feature	Specification Details for PL-CP418
Model Identification	PL-CP418 Series
Primary Material	High-Purity Polytetrafluoroethylene (PTFE)
Secondary Material Options	PFA (Perfluoroalkoxy) available upon request
Reactor Compatibility	Optimized for 200L vessels (customizable for other sizes)
Total Length	Custom-engineered based on reactor depth and port location
Tube Diameter	Fully customizable to meet flow rate and port clearance requirements
Temperature Range	-200°C to +260°C (-328°F to +500°F)
Chemical Resistance	Universal resistance to acids, bases, and organic solvents
Surface Finish	Smooth, CNC-machined non-porous surface
Leaching Profile	Negligible metal ion and organic carbon leaching

Application	Description	Key Benefit
Feature	**Specification Details for PL-CP418**	
Customization Options	Length, handle style, tip design, and adapter threading	
Manufacturing Process	Full CNC machining from solid fluoropolymer stock	

High Purity Ptfe Solid Sampler Stainless Steel Reinforced Handle Pointed Tip Corrosion Resistant Lab Sampling Tool

Item Number: PL-CP150



Introduction

Heavy-duty PTFE solid sampler featuring corrosion-resistant stainless steel core and pointed tip. Engineered for high-purity chemical sampling in demanding laboratory environments, this customizable tool ensures zero contamination and exceptional durability for professional industrial and scientific procurement teams.

Learn More

Application	Description	Key Benefit
Pharmaceutical API Sampling	Extraction of active pharmaceutical ingredients from bulk storage containers for quality control testing.	Prevents metallic contamination and ensures sample purity.
Battery Material Production	Sampling of high-purity cathode or anode powders such as lithium or cobalt compounds.	Resists abrasion and chemical reaction with sensitive battery precursors.
Petrochemical Analysis	Retrieval of solid catalysts or polymer resins from processing lines and storage tanks.	High rigidity allows for penetration into dense or viscous industrial materials.
Environmental Soil Testing	Collection of soil or sediment samples suspected of containing aggressive hazardous waste or acidic leachates.	Durability in field conditions paired with complete chemical inertness.
Specialty Chemical Manufacturing	Routine quality checks of corrosive solid salts, flakes, or crystals during the production cycle.	Long-term resistance to concentrated acids and strong oxidizing agents.
Food Grade Ingredient Sampling	Handling of acidic or alkaline food powders and additives in a sterile, non-reactive environment.	Easy to clean and compliant with strict hygiene and material safety standards.
Forensic Laboratory Analysis	Precision collection of solid evidence or unknown substances that require a non-reactive tool.	Prevents forensic cross-contamination and preserves the chemical signature of the sample.

Feature	Specification Details (Item Number: PL-CP150)
Model Identifier	PL-CP150 Series
Exterior Material	High-Purity Virgin PTFE (Polytetrafluoroethylene)
Internal Reinforcement	Industrial-Grade Corrosion-Resistant Stainless Steel Rod
Tip Configuration	Precision-Machined Sharp Pointed Tip
Total Length	Customizable per client requirements (Typical ranges 300mm to 1500mm)
Shaft Diameter	Customizable (Typical diameters 10mm to 30mm)
Temperature Range	-200°C to +260°C (Consistent Performance)
Chemical Resistance	Universal resistance to almost all chemicals, solvents, and corrosives
Surface Finish	High-polish, non-stick, low-friction
Fabrication Method	Precision CNC Machined for exact tolerances
Customization Options	Variable lengths, tip styles, handle types, and integrated depth markings

Custom Ptfe Pharmaceutical Sampling Scoop Low Leaching Cylindrical Chemical Powder Sampler Zero Contamination High Purity Laboratory Shovel

Item Number: PL-CP263

Introduction

Premium custom PTFE sampling scoops engineered for high-purity pharmaceutical and chemical applications. These ultra-pure, low-leaching tools ensure zero contamination during material transfer, offering exceptional chemical resistance and non-stick performance for demanding industrial sampling and critical laboratory testing research processes.

Learn More

Application	Description	Key Benefit
Pharmaceutical API Sampling	Collection of Active Pharmaceutical Ingredients during various stages of synthesis and quality control.	Prevents cross-contamination and ensures no metallic leaching into medical-grade compounds.
Trace Metal Analysis	Preparation and handling of samples for environmental monitoring or high-purity chemical testing.	Maintains ultra-low blank values for accurate detection of trace elements via ICP-MS.
Battery Material Research	Transferring sensitive electrolyte powders and lithium-based compounds in controlled environments.	Non-reactive surface prevents contamination that could affect electrochemical performance.
Corrosive Chemical Handling	Manual sampling of concentrated hydrofluoric acid, sulfuric acid, or aggressive alkaline solutions.	Total resistance to chemical attack, protecting the operator and the sample integrity.
Semiconductor Cleanroom Use	Handling of ultra-pure chemical precursors and cleaning agents in wafer fabrication facilities.	Zero particle shedding and low outgassing maintain the strict cleanliness standards of cleanroom environments.
Medical Device Manufacturing	Dispensing bio-compatible resins or handling small components during the manufacturing process.	Virgin PTFE ensures no toxicity or biocompatibility risks are introduced to medical products.
Food and Flavor Industry	Sampling of concentrated essences, oils, and additives that require high-purity handling.	FDA-compliant material properties ensure no flavor carryover or contamination.

Feature	Specification Details (Model PL-CP263 Series)
Model Identifier	PL-CP263 (Custom Configurable)
Material Composition	100% Virgin PTFE (Polytetrafluoroethylene)
Purity Grade	Trace Analysis / Pharmaceutical Grade
Operating Temperature Range	-200°C to +260°C (-328°F to +500°F)
Chemical Resistance	Universal (Except molten alkali metals and fluorine gas at high temp)
Surface Finish	High-precision CNC Machined / Ultra-Smooth
Dissolution / Leaching	Zero detectable organic or metallic leaching
Coefficient of Friction	0.05 to 0.10
Dielectric Strength	>18 kV/mm

Application	Description	Key Benefit
Feature	**Specification Details (Model PL-CP263 Series)**	
Customization Options	Scoop diameter, handle length, cylindrical volume, tip geometry	
Dimensions	Custom manufactured to client specifications	
Design Type	Cylindrical scoop, tapered shovel, or bespoke sampling head	

High Temperature Resistant Ptfe Solid Sampler Corrosion Resistant Non Leaching Reusable Biopharmaceutical White Powder Sampling Device

Item Number: PL-CP332

Introduction

High-performance PTFE solid sampler engineered for biopharmaceutical trace analysis. This corrosion-resistant, reusable, and non-leaching sampling tool ensures sample integrity across extreme temperatures. Customizable designs available to meet specific industrial laboratory requirements for sterile, contamination-free powder and solid collection.

Learn More

Application	Description	Key Benefit
Biopharmaceutical API Sampling	Collection of active pharmaceutical ingredients from sterile bulk containers for quality testing.	Prevents leaching of impurities into high-value medical compounds.
Petrochemical Powder Analysis	Extracting granular catalysts or chemical powders from high-temperature reaction streams.	Maintains structural integrity under extreme heat and chemical stress.
Trace Metal Detection	Sampling of solid reagents for use in environmental or semiconductor laboratory analysis.	Guaranteed zero-metal contamination for accurate ppb-level detection.
Fine Chemical Production	Routine monitoring of solid intermediates during multi-stage synthesis processes.	Universal resistance to aggressive solvents and corrosive solids.
Food and Beverage Testing	Hygienic sampling of dry ingredients and additives in a controlled production environment.	FDA-compliant material ensures no flavor transfer or toxic leaching.
Cryogenic Material Handling	Retrieving solid samples from liquid nitrogen or ultra-low temperature storage units.	Remains ductile and crack-resistant at sub-zero temperatures.
Hazardous Waste Characterization	Safe collection of unknown solid waste samples for environmental regulatory compliance.	Protects the sample and the operator from reactive chemical degradation.
Battery Material Research	Handling of sensitive electrolyte salts and lithium-based powder compounds in dry rooms.	High purity prevents contamination of sensitive electrochemical components.

Specification Parameter	Details for PL-CP332 Series
Model Number	PL-CP332
Primary Material	High-Purity Virgin Polytetrafluoroethylene (PTFE)
Color	Natural Opaque White
Chemical Compatibility	pH 0-14 (Universal resistance except for molten alkali metals)
Temperature Range	-200°C to +260°C (-328°F to +500°F)
Surface Porosity	Non-porous, smooth-bore CNC finish
Sterilization Methods	Autoclave, ETO, Gamma Radiation, or Chemical Wipe-down
Design Format	Customizable (Solid rod, scoop, or hollow-core designs available)

Application	Description	Key Benefit
Specification Parameter	**Details for PL-CP332 Series**	
Shaft Length	Customized Product - Manufactured to user-defined length	
Sampling Volume	Customized Product - Tailored to specific volume requirements	
Outer Diameter	Customized Product - Engineered to fit specific port sizes	
Fabrication Method	End-to-end custom CNC machining for non-standard geometries	

Custom Ptfe 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)

Application	Description	Key Benefit
Feature	**Specification Details (PL-CP84 Series)**	
Attachment Type	Custom handles, eyelets, or integrated rigging loops	
Cleaning Protocol	Compatible with acid washing and steam sterilization	

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