



KINTEK

Condensation & Reflux Apparatus Catalog

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



Custom Pfa Serpentine Straight Condenser Hf Resistant Reaction Device Laboratory Cooling Column

Item Number: PL-CP26



Introduction

Our custom PFA serpentine and straight condensers offer unparalleled chemical resistance for HF reaction devices and high-purity cooling columns, engineered from premium fluoropolymer for semiconductor and trace analysis applications requiring exceptional thermal stability and inertness in critical lab environments.

[Learn More](#)

Application	Description	Key Benefit
Semiconductor Etching	Condensing HF vapors during wafer cleaning and etching processes in cleanroom environments.	Absolute resistance to HF corrosion and ultra-low metallic leaching.
Trace Metal Analysis	Acid digestion and reflux of environmental or biological samples for ICP-MS preparation.	Eliminates background contamination from laboratory apparatus.
Acid Distillation	Purification of reagent-grade acids (nitric, hydrochloric, sulfuric) to ultra-high purity levels.	Maintains chemical integrity of the distillate at high temperatures.
Pharmaceutical Synthesis	Reflux and solvent recovery in the production of active pharmaceutical ingredients (APIs).	FDA-compliant material with excellent non-stick properties for easy sterilization.
Petrochemical Testing	Vapor condensation in the analysis of volatile hydrocarbons and aggressive catalysts.	High thermal stability and resistance to solvent-induced swelling.
Lithium-Ion Battery Research	Electrolyte formulation and testing involving highly reactive fluorine-based compounds.	Prevents moisture ingress and withstands aggressive electrochemical reagents.
Environmental Monitoring	Large-scale distillation of wastewater and soil extracts for the detection of persistent organic pollutants.	Durable construction for high-volume, continuous processing.

Parameter	Specification Detail for PL-CP26
Product Item Number	PL-CP26
Material Construction	High-Purity Perfluoroalkoxy (PFA)
Condenser Configurations	Serpentine (Coiled), Straight-Tube, or Bespoke Multi-Stage Designs
Maximum Operating Temperature	260°C (500°F)
Chemical Compatibility	Universal (Except molten alkali metals and fluorine at high temp)
Fabrication Method	End-to-end Custom CNC Machining and Thermal Forming
Customization Scope	Length, Diameter, Coil Pitch, Wall Thickness, and Fitting Types
Inlet/Outlet Connections	Customizable PFA Flare, Compression, or Threaded Fittings
Surface Finish	Smooth, Non-porous, Low-friction internal and external surfaces
Standard Compliance	Manufactured to meet high-purity industrial and laboratory standards



Kintek

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