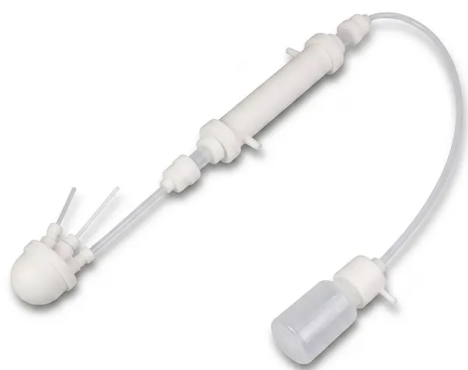


Custom Ptfе Condensation Reflux Apparatus With Serpentine Coil And Flask Collection System For Corrosive Chemical Processing

Item Number: PL-CP276



Introduction

High-performance custom PTFE condensation reflux apparatus designed for extreme chemical resistance. This integrated serpentine coil and flask system offers superior thermal stability and purity for advanced laboratory synthesis and industrial chemical processing applications. Contact us for bespoke solutions.

[Learn More](#)

Application	Description	Key Benefit
Trace Element Digestion	Refluxing environmental samples with concentrated mineral acids for heavy metal analysis.	Zero metal leaching from the PTFE body ensures analytical accuracy.
Pharmaceutical Synthesis	Large-scale synthesis of active pharmaceutical ingredients (APIs) involving corrosive catalysts.	High thermal stability and chemical resistance prevent equipment degradation.
Semiconductor Grade Chemicals	Purification and distillation of ultra-pure reagents used in wafer cleaning and etching.	Maintains PPT-level purity by eliminating surface interaction with the equipment.
Petrochemical Quality Control	Acidic digestion and reflux of crude oil samples to determine sulfur and nitrogen content.	Resists the aggressive chemical environment and high temperatures of heavy oils.
Battery Material Research	Synthesis of electrolyte components and cathode materials in fluorine-rich environments.	Impervious to hydrofluoric acid (HF) generated during chemical reactions.
Solvent Recovery	Efficient condensation and collection of high-purity organic solvents from reaction mixtures.	Serpentine coil design provides maximum recovery rates and energy efficiency.
Radioactive Isotope Processing	Safe handling and condensation of volatile radioactive tracers in specialized research.	Unbreakable construction provides a critical safety barrier against containment failure.

Feature	Specification Details	Model Reference
Core Material	High-Purity Virgin PTFE (PFA Optional)	PL-CP276
System Configuration	Boiling Flask + Serpentine Condenser + Collection Bottle	PL-CP276
Customization Status	Fully Customizable Dimensions and Volumes	PL-CP276
Flask Capacity Range	50mL to 5000mL+ (Bespoke Sizing Available)	PL-CP276
Temperature Range	-200°C to +260°C (-328°F to +500°F)	PL-CP276
Condenser Type	High-Surface Area Serpentine / Coil Geometry	PL-CP276
Connection Interfaces	Threaded (GL45/GL32), Flanged, or Standard Taper	PL-CP276
Pressure Rating	Atmospheric to Slight Vacuum (Custom Reinforcement Available)	PL-CP276
Wall Thickness	Heavy-duty, customizable for thermal insulation	PL-CP276
Chemical Compatibility	Universal (Except molten alkali metals and elemental fluorine)	PL-CP276

Application	Description	Key Benefit
Feature	Specification Details	Model Reference
Cooling Media	Water, Glycol, or Refrigerated Coolants	PL-CP276