Ptfe Condensation Reflux And Gas Collection Apparatus For Corrosive Biochemical Processing Customizable High Temperature System

Item Number: PL-CP280

Introduction

High-performance PTFE condensation reflux and gas collection apparatus designed for corrosive biochemical processing. This customizable system offers superior thermal stability and chemical inertness, ensuring reliable performance in demanding laboratory environments where standard materials fail.

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Application	Description	Key Benefit
Pharmaceutical Synthesis	Used for the refluxing of active pharmaceutical ingredients (APIs) in the presence of strong organic solvents and catalysts.	Ensures zero metal ion contamination and high-purity output.
Petrochemical Analysis	Facilitates the distillation and gas collection of volatile hydrocarbon fractions during refining research.	Maintains seal integrity under high-heat conditions and hydrocarbon exposure.
Semiconductor Grade Chemicals	Employed in the purification and gas-phase handling of ultra-high purity etchants and cleaning agents.	Prevents trace element leaching, preserving the integrity of sub-micron processes.
Polymer Research	Supports the synthesis of specialized polymers where precise control of gaseous byproducts and reflux temperature is critical.	High temperature resistance and non-stick surfaces prevent polymer buildup.
Environmental Testing	Used for the digestion and gas-phase capture of environmental samples containing heavy metals and corrosive acids.	Complete corrosion resistance against aggressive acid digestion mixtures.
Biochemical Material Processing	Handles the extraction and concentration of delicate biochemical compounds in controlled environments.	Biologically inert surfaces prevent denaturation or contamination of sensitive samples.

Feature	Specification for PL-CP280
Base Material	High-Purity PTFE (Polytetrafluoroethylene) / PFA options available
Temperature Range	Custom tailored to application (Up to 260°C based on configuration)
Chemical Compatibility	Universal (All acids, bases, solvents)
Condensation Path	Customizable length and internal diameter
Gas Collection Interface	Customizable port types (Threaded, Flanged, or Barb)
Sealing Technology	Precision-machined interference fit or O-ring sealed (Customizable)
Dimensional Standards	Custom CNC fabrication according to user blueprints or specifications
Pressure Rating	Designed for ambient or vacuum conditions (Custom pressure ratings available)
Component Integration	Compatible with standard laboratory sensors and heating mantles