High Purity Ptfe Gravity Leaching System For Trace Analysis And Pure Water Filtration

Item Number: PL-CP119

Introduction

Optimize your laboratory trace analysis with this high-purity PTFE gravity leaching system. Engineered for maximum chemical resistance and zero-leach performance, this customizable unit ensures contaminant-free fluid transfer and precision purification across demanding industrial and ultra-pure chemical environments.

Learn More

Application	Description	Key Benefit
Trace Element Analysis	Leaching of soil, mineral, or waste samples to detect minute concentrations of heavy metals.	Zero background noise from the vessel material ensures analytical accuracy.
Semiconductor Cleaning	Gravity-fed delivery of ultra-pure acids and solvents for wafer cleaning and etching processes.	Prevents metallic ion contamination which is critical for semiconductor yield.
Pharmaceutical Synthesis	Filtration and purification of active pharmaceutical ingredients (APIs) in aggressive solvent environments.	Compliance with high-purity standards and resistance to reactive organic solvents.
Battery Material Testing	Testing the solubility and stability of lithium-ion battery components in electrolyte solutions.	Withstands corrosive electrolytes without degrading or altering the chemical profile.
Desalination Research	Small-scale gravity filtration for testing membrane efficiency and brine concentration profiles.	Long-term resistance to high-chloride environments and oxidative stress.
Environmental Monitoring	Collection and filtration of stack gases or wastewater samples for regulatory compliance testing.	Ensures samples remain representative of the source without chemical interaction.
Acid Purification	Purification of reagent-grade acids through slow-gravity distillation or multi-stage filtration.	Maintains the highest acid purity levels for subsequent laboratory applications.

Specification Category	Parameter	Detail / Value for PL-CP119
Model Identification	Item Number	PL-CP119
Material Properties	Primary Material	High-Purity Polytetrafluoroethylene (PTFE)
	Specific Gravity	2.10 - 2.20 g/cc
	Melting Point	327°C (621°F)
	Water Absorption (24hr)	0.01%
	Coefficient of Friction	0.110
Mechanical Data	Tensile Strength	2990 - 4970 psi
	Flexural Strength	2490 psi
	Hardness (Shore D)	55D
	Dielectric Constant	2.1

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Design Parameters	Capacity	**Customizable** (Bespoke to user requirements)
	Dimensions	**Customizable** (CNC-machined to specification)
	Flow Mechanism	Self-Gravity Leaching / Atmospheric Pressure
	Connection Interfaces	PTFE Flanges, Threaded Ports, or Compression Fittings
Thermal Limits	Heat Deflection Temp (66 psi)	120°C (248°F)
	Maximum Continuous Service	260°C
Chemical Resistance	Acids / Bases / Solvents	Universal Resistance (except molten alkali metals)