High Purity Ptfe Overflow Pickling Tank Integrated Seamless Polytetrafluoroethylene Laboratory Cleaning Sink

Item Number: PL-CP32

Introduction

Engineering high-purity PTFE overflow tanks with integrated seamless construction for aggressive chemical pickling. These durable weld-free sinks ensure zero leakage and superior chemical resistance for demanding semiconductor and industrial laboratory applications.

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Application	Description	Key Benefit
Semiconductor Wafer Etching	High-purity acid baths for removing thin films and oxide layers from silicon wafers.	Zero trace metal contamination and precise bath concentration control.
Solar Cell Texturing	Large-scale chemical treatment of solar grade silicon to enhance light absorption properties.	Chemical resistance to aggressive texturing agents and long-term durability.
Precision Metal Pickling	Removal of surface impurities and scale from aerospace and medical-grade specialty alloys.	Withstands concentrated acid mixtures without structural degradation.
Trace Analysis Preparation	Cleaning of laboratory glassware and sensors in a constant-flow high-purity acid environment.	Ultra-low background noise and prevention of analyte adsorption.
Pharmaceutical Cleaning	Sterilization and cleaning of high-purity components using aggressive sanitizing agents.	Smooth, non-porous surfaces prevent bacterial growth and chemical retention.
Battery Research	Testing of electrode materials in corrosive electrolytes for lithium-ion and flow battery development.	Complete chemical isolation and prevention of electrolyte-induced leakage.
Electroplating Baths	Providing a stable, non-reactive vessel for specialty gold or platinum plating processes.	Eliminates electrochemical interference from tank materials.
Chemical Storage	Long-term containment of ultra-pure reagents that require zero contact with metallic or glass surfaces.	Preservation of reagent grade over extended storage periods.

Feature	Specification Details (Model: PL-CP32)
Base Material	100% Virgin High-Purity PTFE (Polytetrafluoroethylene)
Manufacturing Method	Integrated One-Piece CNC Machining (Seamless/No-Weld)
Operating Temperature Range	-200°C to +260°C (-328°F to +500°F)
Chemical Resistance	Universal resistance (except molten alkali metals and elemental fluorine)
Design Type	Internal/External Integrated Overflow System
Wall Thickness	Standard 10mm to 30mm (Fully Customizable)
Surface Finish	High-precision smooth finish (Ra < 0.8 µm available)
Dimensional Capacity	Custom-built from small lab scales to large industrial volumes
Port Configurations	Optional PFA/PTFE threaded ports, flange connections, or overflow weirs
Certification	Material safety and purity compliance for cleanroom use

Application	Description	Key Benefit
Feature	**Specification Details (Model: PL-CP32)**	
Customization Options	Dimensions, wall thickness, lid design, internal baffles, and sensor mounts	