

15 Position Customizable Microwave Digestion Vessel Rack

High Purity Ptfе Pfa Non Stick Laboratory Sample Preparation System

Item Number: PL-CP354



Introduction

Optimize laboratory throughput with this high-purity 15-position microwave digestion vessel rack. Engineered from premium non-stick fluoropolymers, our customizable solutions ensure contamination-free sample preparation for demanding trace analysis applications and high-volume industrial research workflows today.

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Application	Description	Key Benefit
Environmental Analysis	Digestion of soil, sediment, and sludge samples for heavy metal detection via ICP-MS.	Zero background interference from the rack material.
Food Safety Testing	Processing of diverse food matrices to monitor for pesticide residues and nutritional minerals.	High-throughput 15-position layout speeds up batch testing.
Pharmaceutical Research	Acid digestion of active pharmaceutical ingredients (APIs) for purity verification and quality control.	Superior chemical resistance to concentrated mineral acids.
Petrochemical Analysis	Sample preparation of oils, polymers, and catalysts for elemental composition analysis.	Maintains structural integrity in high-temperature environments.
Electronic Waste Recovery	Decomposition of PCB components and semiconductor materials to reclaim precious metals.	Durable construction survives aggressive aqua regia digestion.
Clinical Toxicology	Preparation of biological samples like blood or tissue for trace element screening.	Non-stick surfaces ensure easy decontamination between runs.
Mining and Geochemistry	High-pressure digestion of rock and ore samples for mineral exploration and assaying.	Precision fitment prevents vessel failure under high pressure.

Specification Category	Parameter Details for PL-CP354
Model Identifier	PL-CP354 Series
Configuration	15-Position Circular or Grid Layout (Customizable)
Primary Materials	High-Purity PTFE (Polytetrafluoroethylene) or PFA (Perfluoroalkoxy)
Surface Finish	Ultra-Smooth / Non-Stick Finished Surface
Chemical Compatibility	Universal Resistance (HF, HCl, HNO ₃ , H ₂ SO ₄ , Aqua Regia)
Temperature Range	Operational up to 260°C (Material dependent)
Vessel Compatibility	Custom bored slots to match proprietary or standard digestion vessels
Component Inclusions	Support Rack, Integrated Vessel Slots, Optional Custom Caps/Stoppers
Fabrication Method	Full CNC Machining from solid billet stock (no molded seams)

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Customization Options	Slot Diameter, Pitch, Base Thickness, Handle Integration, Weight Optimization	