

Customizable Graphite Electrode Clamp PTFE Coated Corrosion Resistant

Item Number: PL-JM03



Introduction

High-performance graphite electrode clamp with interchangeable sample holders and PTFE coating for superior corrosion resistance. Customizable length and clamping width ensure fit for diverse electrochemical applications. Excellent conductivity and robust construction deliver reliable performance in demanding lab environments.

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Application	Description	Key Benefit
Corrosion Inhibitor Screening	Utilized in weight loss and electrochemical tests to hold metal coupons in inhibited acid solutions for efficiency evaluation.	PTFE coating prevents false readings from clamp corrosion, ensuring inhibitor performance is measured accurately.
Lithium-ion Battery R&D	Positions anode or cathode films within glovebox-integrated cells for charge-discharge and cyclic voltammetry tests.	Interchangeable plates minimize cross-contamination between material batches, critical for research purity.
Electrochemical Sensor Development	Secures functionalized electrodes during potentiometric or amperometric sensor prototyping.	Adjustable clamping pressure protects fragile surfaces while maintaining excellent electrical contact.
Electrodeposition Process Optimization	Serves as a robust cathode contact in custom plating reactors for studying deposit morphology and throwing power.	Chemically inert body eliminates background contamination, enabling clear interpretation of plating kinetics.
Materials Corrosion Education	Used in academic laboratories to demonstrate galvanic corrosion principles with varied metal pairs.	Quick sample change and durable design withstand frequent student use, reducing equipment damage.
Electrochemical Impedance Spectroscopy (EIS)	Holds coated metal panels for impedance analysis in evaluating coating performance.	Low and stable contact impedance ensures accurate EIS spectra without artifacts from the clamp.
Water Electrolysis Component Testing	Secures catalyst-coated membranes or porous transport layers in membrane electrode assembly tests.	Customizable dimensions fit diverse electrolyzer hardware; PTFE resists degradation from oxygen evolution environments.

Specification	Detail
Model Number	PP-JM03
Clamp Material	High-purity graphite
Coating	PTFE (polytetrafluoroethylene) full coverage
Overall Length	80 mm (standard); customization available
Graphite Terminal Post Diameter	10 mm
Maximum Sample Thickness	2 mm (custom clamping widths available upon request)
Sample Plate Features	Interchangeable, replaceable
Electrical Conductivity	High, low resistivity
Corrosion Resistance	Excellent in most laboratory acids, bases, and solvents
Recommended Operating Temperature	Room temperature (approx. 25°C)

Specification	Detail
Customization Options	Length, clamping width, terminal size, and other dimensions
Maintenance	Easy disassembly for cleaning and plate replacement