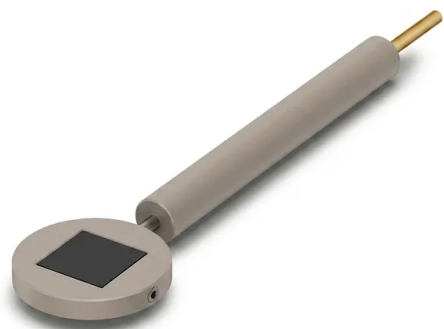


# Glassy Carbon Sheet And Graphite Sheet Electrode Holder Clamp For Electrochemical Cell Testing

Item Number: PL-DJ44



## Introduction

This premium glassy carbon and graphite sheet electrode holder features a chemical-resistant PEEK body, 99.99% pure platinum contacts, and a standard 6mm rod, ensuring exceptionally stable, highly reproducible, and contamination-free electrical connectivity during demanding laboratory electrochemical research analyses.

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Application	Description	Key Benefit
<b>Electrocatalyst Characterization</b>	Evaluating hydrogen evolution (HER) and oxygen evolution (OER) catalysts deposited on glassy carbon substrates within acid or alkaline media.	Provides an inert, stable electrical connection that eliminates baseline noise and prevents sample detachment during vigorous gas evolution.
<b>Energy Storage and Battery Research</b>	Screening active materials, binder formulations, and conductive additives on graphite sheet current collectors for lithium-ion and sodium-ion systems.	Ensures uniform contact pressure and accurate active surface area exposure, resulting in repeatable capacity and rate-capability measurements.
<b>Corrosion and Passivation Analysis</b>	Securing metallic alloy sheets or coated specimens in aggressive saline or acidic test cells for potentiodynamic polarization testing.	Prevents crevice corrosion at the clamping interface through secure sealing, ensuring only the intended active surface area is exposed to the corrosive electrolyte.
<b>Electrochemical Biosensor Development</b>	Mounting functionalized or chemically modified glassy carbon electrodes to detect trace biomolecules, environmental pollutants, or pharmaceutical agents.	Maintains high electrical sensitivity and reproducible contact geometry, allowing for low detection limits and high calibration curve linearity.
<b>Controlled Electrodeposition and Electroplating</b>	Depositing thin metallic, oxide, or polymer films onto conductive substrates under precise current or potential control.	Delivers uniform current density distribution across the substrate surface, resulting in homogeneous film thickness and structure.
<b>Photoelectrochemical (PEC) Water Splitting</b>	Holding thin-film semiconductor photoanodes or photocathodes under direct light illumination in customized photo-cells.	Offers a compact, non-obstructive profile that allows maximum light exposure to the active area while protecting the electrical contact from electrolyte exposure.

Specification Parameter	Standard Configuration	Material & Design Options
<b>Model / Item Number</b>	PL-DJ44	Base product code for all configurations
<b>Base Body Material</b>	High-Performance PEEK (Polyetheretherketone)	Polytetrafluoroethylene (PTFE), Stainless Steel, Copper, Titanium
<b>Conductive Contact Metal</b>	Platinum (Pt) - 99.99% Ultra-Pure	Gold (Au), Glassy Carbon, Custom conductive alloys
<b>Electrode Rod Diameter</b>	6.0 mm	Custom diameters available upon request
<b>Compatible Specimen Types</b>	Glassy Carbon Sheets, Graphite Sheets, Metal Foils	Adaptable to customized planar samples
<b>Standard Specimen Size</b>	10 mm x 10 mm	Supports custom sample thicknesses up to 2.5 mm
<b>Manufacturing Process</b>	Monolithic CNC machining from solid stock	High-tolerance precision turning and milling
<b>Contact Resistance</b>	< 0.1 Ohms (with Platinum contact)	Highly dependent on selected contact metal
<b>Max. Operating Temperature</b>	250°C (PEEK body)	260°C (PTFE body), >300°C (Metal bodies)
<b>Chemical Compatibility</b>	Universal (resistant to standard acids, bases, organics)	Specific compatibility determined by body/contact selection

Specification Parameter	Standard Configuration	Material & Design Options
<b>Clamping Mechanism</b>	Manual threaded compression clamp	Tool-free, quick-release structural lock