

PELCO *easiGlow*[™]

FOR PRODUCT DETAILS AND COMPLETE SELECTIONS
www.tedpella.com

Glow Discharge Cleaning System; Optimized for TEM Grids



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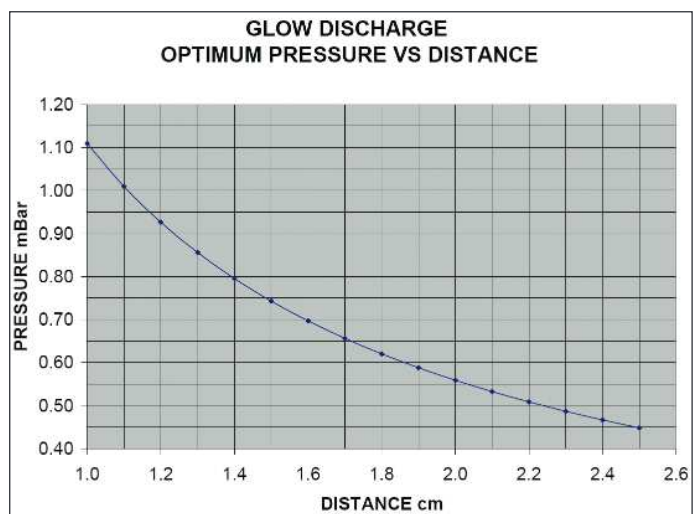


The PELCO easiGlow™ Glow Discharge Cleaning System is a compact, quick and easy-to-use standalone system. It is primarily designed for hydrophilization of TEM carbon support films which have the tendency to be hydrophobic. A glow discharge treatment with air will make the carbon film surface negatively charged (hydrophilic) which allows aqueous solution to spread easily.

With increasingly demanding imaging applications, using clean and consistent quality TEM grids and supports has become more important than ever. The PELCO easiGlow™ is an affordable and easy to operate glow discharge system for any TEM lab. The practical chamber size with its newly designed glow discharge head and adjustable stage with glass slide holder allows for easy loading and fast turnaround times. The system is fully microprocessor controlled and includes an intelligent touch screen device for operation and display of operation parameters. The PELCO easiGlow™ supports both hydrophilic and hydrophobic treatment with either negative or positive charge and includes two separately controlled gas inlets. The required vacuum level is set by an electronically controlled precision proportional valve. This novel approach eliminates manual setting with a needle valve. A soft venting procedure ensures that the TEM grids are not disturbed when the system is vented.

Glow Discharge Methods Supported:		
Surface Condition	Charge	Atmosphere
Hydrophilic	Negative	Air
Hydrophilic	Positive	Air (with subsequent magnesium acetate treatment)
Hydrophobic	Positive	Alkylamine
Hydrophobic	Negative	Methanol

Efficient glow discharge performance for the PELCO easiGlow™ with optimum pressure at given distance from sample to glow discharge head. >>>>



For one of the most common glow discharge applications, making TEM support films or grids hydrophilic using air, the PELCO easiGlow™ uses an automated and quick cycle with fully selectable parameters. The microprocessor controlled system also offers full manual control for all parameters and an advanced protocol programming feature for custom designed glow discharge applications. Parameters and protocols can be stored to facilitate consistent glow discharge results.

For those labs which need both hydrophilic and hydrophobic surface treatments on a regular basis, a dual glow discharge system is available to avoid cross contamination of the glow discharge chambers.

Since the optimized vacuum level for glow discharge procedures is in the range of 0.45 to 1.1 mbar, we offer the affordable GD4 dual stage rotary vacuum pump designed specifically for this pressure range.



ADVANTAGES OF THE PELCO EASIGLOW™ GLOW DISCHARGE SYSTEM

- Precise and easy vacuum setting
- Short cycle times
- Consistent results
- Auto, programmed and manual mode
- Intuitive touch screen for display and operation
- Supports hydrophilic/hydrophobic and negative/positive modes
- Affordable, compact, standalone system

www.tedpella.com/easiglow_html/91000.htm

GD4 ROTARY VACUUM PUMP SPECIFICATIONS

Pumping speed	4.3m ³ /hr, 72 l/min, 2.5 CFM @ 60Hz 3.6m ³ /hr, 60 l/min, 2.1 CFM @ 50Hz
Ultimate vacuum	1x10 ⁻² mbar
Vacuum connection	KF/NW16
Exhaust connection	KF/NW16

ORDERING INFORMATION

91000	PELCO easiGlow™ Glow Discharge Unit, each
91002	Dual Chamber PELCO easiGlow™ Glow Discharge Unit, each
91040	GD4 Vacuum Pumping System, 4.3m ³ /hr incl. Connection Kit, 115V, 60Hz, each
91040-230	GD4 Vacuum Pumping System, 3.6m ³ /hr incl. Connection Kit, 230V, 50/60Hz, each
91042	GD4 Vacuum System, 4.3m ³ /hr incl. Dual vacuum Connection Kit For Dual Chamber Glow Discharge System, 115V, 60Hz, each
91042-230	GD4 Vacuum System, 3.6m ³ /hr incl. Dual vacuum Connection Kit For Dual Chamber Glow Discharge System, 230V, 50/60Hz, each
91050	Replacement Glass Chamber with Sealed Top Plate, each
91000-2	Replacement Touch Screen Stylus, each
91051	Replacement O-ring for glow discharge chamber, pkg/2
91053	91050 Protective L-gasket, use with O-ring, each
91010-16	PELCO easiGlow™ Vacuum Connection Kit to KF16 Pump inlet, each
91010-25	PELCO easiGlow™ Vacuum Connection Kit to KF25 Pump inlet, each
9609	Exhaust filter for GD4 or GD7 Rotary Vacuum Pump, each
891-35	Ultragrade 19 Rotary Pump Oil for GD4, GD8 and GD7 Pumps, 1 ltr, each



Glow Discharge Cleaning System; Optimized for TEM Grids

TECHNICAL SPECIFICATIONS

Plasma Current.....	0-30 mA
HV Power Supply	30W Continuous Rating
Glow Discharge Head Polarity	User Selectable positive or negative
Process Platform	ø75mm with recess for 25 x 75mm slide
Glow Discharge Platform Height Control.....	1-25 mm
Preprocess Hold Timer	0-14411 seconds
Process Timer	1 - 900 seconds
Chamber Size.....	ø120 x 100mm H with sealed Delrin top plate
Process/Vent Gas Inlets	2 each ø6 mm barbed, individually user selectable for process, purge or vent
High Voltage Vacuum Interlocks.....	Dual hardware and software interlocked
Vacuum Control.....	Pirani Gauge, Readings from atmosphere to 0.01 mbar
Working Vacuum Range	1.1 - 0.20 mbar for optimal glow
System Control / Display	3" Touch Panel with LED backlight and 5 function keys
Operation Modes.....	Auto, Programmed (4 user programmed protocols) Manual/Diagnostics
Data Logging Capabilities.....	Step #, Vacuum (mbar), Current (mA), Voltage (V), and polarity, once per second
Instrument Size.....	305 L x 292 D x 230mm H (12" x 11.5" x 9")
Weight.....	6.26 kg (13.8 lbs.)
Pump, GD4 (optional)	337 L x 138 D x 244mm H (13.3" x 5.4" x 9.6")
Weight.....	11 kg (24 lbs.)
Laboratory Footprint with optional pump.....	381 W x 292 D x 330mm H (15" x 11.5" x 13")
Power Requirements.....	120V 60Hz 15A or 230V 50Hz 10A Service
Instrument Power Rating.....	100-240VAC 60/50Hz 60W Plus Pump, IEC Inlet
Optional Pump Power Rating.....	120/230V 60/50Hz 370 W (½ hp)
Vacuum Pump Minimum Requirements.....	2.5 m ³ /hr, 41 l/m, 1.65 CFM 0.03 mbar Ultimate Vacuum
Vacuum Pump Power Outlet on Instrument.....	8A max IEC Outlet
Vacuum Inlet.....	KF-16 flange
Communication Port.....	USB Outlet