

■ PELCO easiGlow™ Glow Discharge Cleaning System *Optimized for cleaning TEM grids*



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 a 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.

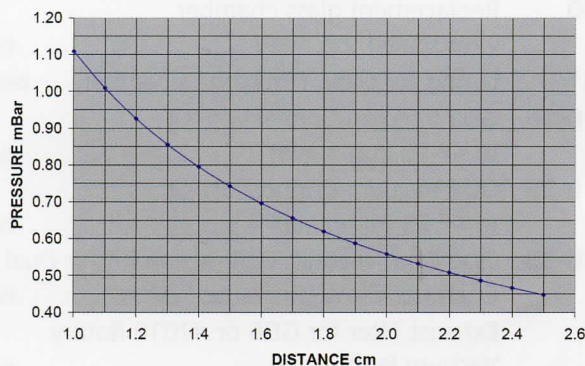
The practical chamber size with its newly designed glow discharge head and adjustable stage with glass slide holder allows for easy loading and fast turnaround times. The system is fully microprocessor controlled and includes an intelligent touch screen device for control and display of operation parameters. 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 gentle venting procedure ensures that the TEM grids are not disturbed when the system is vented.

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. Open the shipping box, plug it in, and you can start!

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

**GLOW DISCHARGE
OPTIMUM PRESSURE VS DISTANCE**



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



For those labs which need both hydrophilic and hydrophobic surface treatments on a regular base, a dual glow discharge system is available to avoid cross contamination of the glow discharge chambers. Hydrophobic surfaces are preferable when organic solvents are used.

Since the optimized vacuum level for glow discharge procedures is in the range of 0.45 to 1.1 mbar, we offer the affordable GD6 dual stage rotary vacuum pump designed for this pressure range.

Advantages of the PELCO easiGlow™ 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
- L-Gasket protects glass jar at base

■ PELCO easiGlow™ Glow Discharge Cleaning System *continued*

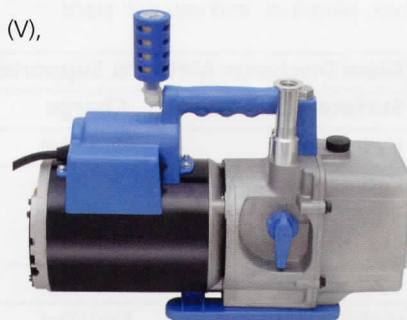
Specifications of the PELCO easiGlow™ Glow Discharge System:

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 time	0-4 hrs
Process time	1-15 minutes
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, ranging 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
Instrument size	305 L x 292 D x 230mm H (12" x 11-½" x 9")
Weight	6.26 kg (13.8 lbs.)
Laboratory footprint with optional pump	381 W x 292 D x 330mm H (15" x 11-½" x 13")
Power requirements	120V 60Hz, 15A or 230V 50Hz, 10A
Instrument power rating	100-240VAC 60/50Hz 60W Plus Pump, IEC Inlet
Optional pump power rating	120/230V 60/50Hz 250 W (⅓ hp)
Vacuum pump minimum requirements	2.9m³/hr, 48 l/min, 1.73 CFM @ 60Hz .30 mbar Ultimate Vacuum
Ultimate vacuum	2.5m³/hr, 41 l/min, 1.65 CFM @ 50Hz .30 mbar Ultimate Vacuum
Vacuum pump power outlet on instrument	8A max IEC Outlet
Vacuum inlet	KF 16 flange
Data logging capabilities	Step #, Vacuum (mbar), Current (mA), Voltage (V), and polarity, once per second
Communication port	USB Outlet



GD6 Rotary Vacuum Specifications:

Pumping speed	6.9m³/hr, 110 l/min, 4 CFM @ 60Hz 5.6m³/hr, 93 l/min, 3.8 CFM @ 50Hz
Ultimate vacuum	0.27 mbar
Vacuum connection	KF 16
Exhaust connection	Compatible with ¼" NPT Thread



Ordering Information

91000	PELCO easiGlow™ Glow Discharge Unit . .each	91050	Replacement glass chamber with sealed top plateeach
91002	Dual Chamber PELCO easiGlow™ Glow Discharge Uniteach	91051	O-ring for Glow Discharge Chamber . . .pkg/2
91010	GD6 Vacuum System, 6.9m³/hr including Connection Kit, 115V, 60Hzeach	91010-16	GD6 Vacuum Connection Kit to KF 16 Pump inleteach
91010-230	GD6 Vacuum System, 5.6m³/hr including Connection Kit, 230V, 50/60Hzeach	91010-25	GD6 Vacuum Connection Kit to KF 25 Pump inleteach
91012	GD6 Vacuum System, 6.9m³/hr including Dual Vacuum Connection Kit For Dual Chamber Glow Discharge System, 115Veach	91010-30	GD6 Dual Vacuum Connection Kit for Dual Chamber Glow Discharge Systemeach
91012-230	GD6 Vacuum System, 5.6m³/hr including Dual Vacuum Connection Kit For Dual Chamber Glow Discharge System, 230Veach	9609	Exhaust filter for GD6 or #7010 Rotary Vacuum Pumpeach
		91010-10	H-Grade 15 Oil for GD6 Rotary Pump, 1 Qt.each