

Genco linear ion sources are available in lengths of 200-4700mm, and offer a robust means of modifying or pre-cleaning large area polymer and glass substrates prior to thin film deposition. Such a treatment improves adhesion and layer properties, and reduces variance.

#### **KEY FEATURES**

1. Low maintenance - carbon anodes to enhance ejector parts life
2. Carbon anodes prevent substrate contamination
3. Self-neutralised beam to avoid substrate charging and defects
4. Dedicated power supply package with automatic gas regulation for easy beam control
5. Activates surfaces to enhance adhesion of deposited film

# **LINEAR ION SOURCE**

# ION SOURCE

## APPLICATIONS

- Astronomical telescopes
- Display and optical coaters
- Functional coating on glass, plastic and ceramics
- DLC from the gas phase
- Tempering of coated glass



Based on the inverted magnetron principle, Gencoa linear ion sources produce a collimated plasma beam that lightly etches the substrate, burning off hydrocarbons and activating the surface to promote adhesion of the deposited film.

Unlike conventional technology, Gencoa's ion sources are assembled with a graphite anode and cathode, protecting the substrate from contamination and preventing erosion of source. The sources are indirectly cooled, minimizing maintenance of the source.

A typical operation involves using DC power supply with argon or argon/oxygen gas mixtures.

To optimize the performance of the sources, Gencoa have developed a dedicated voltage regulated power supply with integral gas flow control. The gas adjustment feedback loop control maintains the same current at all times – ensuring no variation in beam output.

An optional reactive gas injection arrangement to the side of the beam allows hydrocarbon gas injection without contaminating the inside of the source.

Linear ion sources can be assembled with a choice of mounting options.

## IM3000 POWER SUPPLY

To optimize performance, linear ion sources can be supplied with a dedicated voltage-regulated power supply with internal gas flow control. The gas adjustment feedback loop control maintains the same current at all times - ensuring no variation in beam output.

IM3000 SPECIFICATIONS	
UNIT	Rack 19" 4 HU
MAIN	400 VAC 3 Ph
VOLTAGE STRIKE	3 kV positive
NOMINAL VOLTAGE	2500 V/4 kW
SHORT CIRCUIT CURRENT	2 Amps
REGULATION MODE	Current (5 mA resolution)
OUTPUT CONNECTOR	FISHER HV female mod 105
MFC	2 channels analog 0/5 VDC
DISPLAY	Touch screen 240 x 128 pixel
INTERLOCK/REMOTE	9 pin D type
RS 232	9 pin D type
REGULATION MODE	Internal constant gas flow, or gas feedback (constant voltage), via external RS 232 or analog user port

## FURTHER INFORMATION

Contact: [sales@gencoa.com](mailto:sales@gencoa.com) or visit  
[www.gencoa.com/ion-source](http://www.gencoa.com/ion-source)

