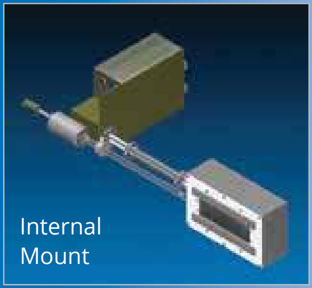
RF Linear Sources

Our Linear ion beam sources are useful for in-line applications such as roll-to-roll or web coaters. The sources can be equiped with graphite or molybdenum grids. Additionally, the gas, RF antenna cooling water, and DC connections have been placed on the side of the ion source instead of the rear giving the ion source more placement flexibility inside the chamber.

As with all RF ion sources, these can be run with both inert and reactive gases allowing a wide range of processes. Check out the specification table below to determine which source size works for your application. We offer a 6x30cm and a 6x50cm.

SPECIFICATIONS

Model	06X30RF Linear	06x50RF Linear
Beam Current	50 – 500mA	100 - 900mA
Beam Voltage	50 – 1500eV	100 - 1250eV
Grid Materials	Molybdenum, Graphite	Graphite
Water Cooling	Antenna and source body	Antenna and source body
Weight	12 kg (26.5 lbs)	25 kg (55 lbs)
Size	440 x 210 x 130mm	615 x 210 x 160mm



INTERNAL MOUNT ▲

Plasma Process Group RF Linear ion sources are typically installed with an Internal Mount configuration. The maximum distance from the RF vacuum feedthrough is 18-inches. The standard flanges for this configuration are two 2.75 inch Conflat. Other flange combinations are available. The RF Matching Network mounts directly to the RF feedthrough.

6X50 CM NOMINAL PERFORMANCE DATA - USING ARGON @ 27 SCCM

BEAM		ACCELERATOR		RF POWER		NEUTRALIZER
Voltage (V)	**Current (mA)**	**Voltage (V)**	**Current (mA)**	**Forward (W)**	**Reflected (W)**	**Emission (mA)**
250	300	650	45	318	1	450
500	300	500	43	311	1	450
750	500	500	64	465	1	750
1000	600	125	53	571	1	900
1250	600	125	46	554	2	750
1250	900	150	65	850	2	1125
100-1500	100 floor	200	15-30	150	0	150

OPTIONS & ACCESSORIES

Ion Source	06X30RF	6x30cm Ion Source	500mA / 1500V Limits
	06X50RF	6x50cm Ion Source	900mA / 1250V Limits
Interface Kits	505890A	Internal Mount	Includes two 2¾″ CF Vacuum Feedthroughs and vacuum-side connections to source for RF Power, DC bias, and gas
Neutralizer	504424B	RFN	Radio frequency – requires a mounting flange
Common Neutralizer Flanges	504854A	2¾″ CF RFN Flange	Each flange has a RFN matching network.
	504891A	4.5″ CF RFN Flange	
	504855A	6″ CF RFN Flange	
Power Supply	IBEAM 703-1 series		RF Power, DC Bias, Control, and RFN Operation
RF Matching	505914Ex	Source RF	Includes Matching Network & Controller for source
Cable Kits	505752A	I-Beam 703 Cable Kit for non-IBOX configurations	
Adapter Box	IBOX-104		Adapts connections to an Ion-Tech style configuration

GRID OPTIONS

6x30 Collimated	504761A	Graphite	2-grid, Graphite, Collimated	Etch
6x30 Divergent	504983A	Graphite	2-grid, Graphite, Divergent	Assist
6x22 Convergent	504750A	Molybdenum	3-grid, 25cm FP, Convergent	Sputter Deposit
6x22 Divergent	505779A	Molybdenum	3-grid, 25cm FP, Divergent	Assist
6x50 Collimated	507662A	Graphite	3-grid, Graphite, Collimated	Assist

Plasma Process Group

Since its founding in 2003, Plasma Process Group has consistently provided the highest quality service and equipment to the ion beam industry. We offer innovative new designs and industry standard products compatible with legacy equipment.

EQUIPMENT

We provide a wide array of ion beam products ranging from stand alone ion beam source and power supply packages. The ion beam sources we offer include both radio frequency RF and filament-driven DC styles. Our I-BEAM Power Supply family provides reliable operation for the most demanding production environments. Our ion beam grid assemblies, or ion optics, are constructed from molybdenum, graphite, or titanium and are available in a variety of shapes and sizes. We also carry a healthy assortment of spare parts including discharge chambers, insulators and many other items to keep your source running.

CUSTOMER SERVICE & SUPPORT

Whether in research or production, Plasma Process Group is committed to providing the best support in the industry. Help is always just a call or email away. Our staff has decades of hands on experience using ion beam sources and sputter deposition systems. We are happy to share our expertise and assist you with your application.

CONTACT US

Contact us today for all of your ion beam needs — *simple ion beam solutions.*

plasma process group

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