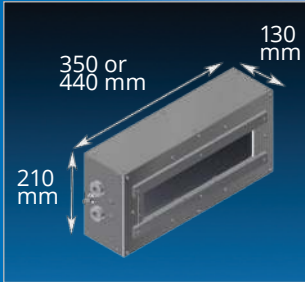




RF Linear Sources

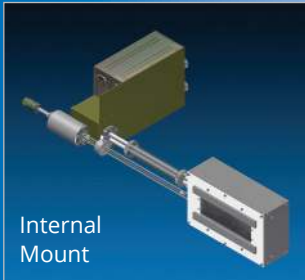
Our Linear ion beam sources are useful for in-line applications such as roll-to-roll or web coaters. The 6x30cm RF ion beam source can be equipped with either 6x30cm collimated graphite grids or 6x22cm shaped molybdenum grids, allowing greater process flexibility with a single ion source. Additionally, 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. We also offers a standard 6x22cm ion source with most of the same benefits, but constrained to 6x22cm molybdenum grids.

As with all RF ion sources, these can be run with both inert and reactive gases allowing a huge range of processes. With a maximum of 500mA and 1500V, these linear ion sources can handle both high-rate, high-throughput and precision assist or etch operations.



SPECIFICATIONS

Model	06X30RF 06X22RF
Beam Current	50 – 500mA
Beam Voltage	50 – 1500eV
Grid Materials	Molybdenum, Graphite
Water Cooling	Antenna Only
Weight	11.9 kg (26.5 lbs.)



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.

NOMINAL PERFORMANCE DATA - USING ARGON @ 20 SCCM

BEAM		ACCELERATOR		RF POWER		NEUTRALIZER
Voltage (V)	Current (mA)	Voltage (V)	Current (mA)	Forward (W)	Reflected (W)	Emission (mA)
100	250	600	11	387	3	375
250	300	500	15	435	4	450
500	300	400	13	485	3	525
1000	450	200	12	464	4	525
1250	500	200	12	453	4	525
1500	500	200	12	450	4	600
100-1500	100 floor	200	3	210	3	150

OPTIONS & ACCESSORIES

Ion Source	06X30RF 06X22RF	6x30cm Ion Source 6x22cm Ion Source	500mA / 1500V 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	505914A	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
6x30cm Divergent	504983A	Graphite	2-grid, Graphite, Divergent	Assist
25cm FP Convergent	505810A	Molybdenum	3-grid, 25cm FP, 6x22cm Linear, Convergent	Sputter Deposit
25cm FP Divergent	505809A	Molybdenum	3-grid, 25cm FP, 6x22cm Linear, Divergent	Assist