140 mm (e φ 300 mm SPECIFICATIONS 6



Model	16RF08					
Beam Current	100 – 1000mA					
Beam Voltage	100 – 1500eV					
Grid Materials	Molybdenum, Graphite, Titanium					
Water Cooling	Antenna and Shroud					
Weight	7.7 kg (17 lbs.)					

Flange Mount



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Internal
Mount
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AINTERNAL MOUNT

Using an Internal Mount configuration places the ion source loosely inside the vacuum chamber, allowing angular (pointing) adjustment to suit process needs. The maximum distance from the RF vacuum feedthrough for this configuration is 18-inches. This option allows some freedom of location of the ion source and the ability to use multiple smaller feedthroughs instead of one large feedthrough. The standard flanges for this configuration are three 2.75 inch Conflat. Other flange combinations are available. The RF Matching Network mounts directly to the RF feedthrough.

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FLANGE/EXTENSION MOUNT

16cm Source

Our 16cm RF ion beam source is an industry workhorse, serving as the dominant deposition source in ion beam deposition (IBD) systems around the world. With an output capacity of 600mA, 800mA, or even 1000mA this dynamic and versatile source can satisfy a huge array of needs in deposition and large-scale Ion assist processes. Available with standard molybdenum, collimated graphite, or titanium grids, this source can be used in almost any type of contamination-sensitive ion beam process. This 16cm source can even be equipped with modulators allowing it to be used in metal deposition and etch processes, an operational regime normally challenging for RF ion beam. The source provides a 16cm ion beam which is then shaped by the choice of grids. Convergent, divergent, collimated, and even multi-focal point grids are available with this source. Please refer to the grid selection table below.

The Flange and Extension Mount options for this ion source offer fixed positioning for maximum process repeatability. The Flange Mount places the source directly against the flange using the smallest amount of space, while the Extension Mount stands off the flange with fixed posts. The minimum flange size for these options is a 16.5-inch Conflat. These packages include a high-voltage cover on the atmosphere side of the flange to which the RF Matching Network mounts directly. Also provided are connection points for cooling water, source gas, and DC bias.

BEAM ACCELERATOR RF POWER NEUTRALIZER Voltage (V) Current (mA) Voltage (V) Current (mA) Forward (W) Reflected (W) Emission (mA) 250 300 550 11 199 0 450 500 300 400 8 193 0 450 750 450 300 17 266 0 675 1000 600 350 18 347 1 900 1250 600 250 15 352 2 900 1250 800 400 24 485 4 1200 150 100 floor 200 ~3 -94 1 150 OPTIONS & ACCESSORIES Eastandard lon Source Required for 800mA configuration Includes Vacuum Feedthrougha and 1000MA configuration 104902A Extension Mount Includes Vacuum Feedthrougha and vacuum-side connections to source for RF Power, DC bias, cooling 504903A Internal Mount Redio frequency – requires a mounti	NOMINAL PERFORMANCE DATA - USING ARGON @ 18 SCCM										
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