



Manufacturer of Ion Beam Equipment and Components

Below is a list of standard equipment, configurations and Part numbers that Plasma Process Group has listed for your reference. Key for these charts: **IBD** is ion beam deposition; **IBAD** is ion beam assisted deposition; **static** refers to a non-moving substrate.

Ion Beam Sources

SOURCE SIZE	SOURCE TYPE	PROCESS GAS	GRID TYPE	IBD	E-BEAM ASSIST	IBAD	SUBSTRATE CLEANING	MAGNETRON ASSIST	SUBSTRATE DIAMETER WITH PLANETARY	STATIC	WHAT THE SOURCE CAN BE USED FOR
3 cm	DC	Argon	Graphite	Yes	Yes	Yes	Yes	Yes	1"	1" or less	Etching, deposition, research
8 cm	DC	Argon	Graphite	Yes	Yes	Yes	Yes	No	1" - 6"	1" - 3"	Etching, deposition, research
11 cm	DC	Argon	Graphite	Yes	Yes	Yes	Yes	No	1" - 12"	1" - 6"	Etching, deposition, research
15 cm	DC	Argon	Graphite	Yes	Yes	Yes	Yes	No	1" - 16"	1" - 6"	Etching, deposition, research
12 cm	RF	Ar/O ₂	Moly	Yes	Yes	Yes	Yes	No	1" - 18"	1" - 8"	Deposition, IBAD, Production
16 cm	RF	Ar/O ₂	Moly	Yes	Yes	Yes	Yes	No	1" - 24"	1" - 12"	Deposition, IBAD, Production
6x22 cm	RF	Ar/O ₂	Moly	Yes	No	Yes	Yes	Yes	1" - 16"	1" - 8"	Etching, deposition assist, Substrate treatment and cleaning
6x30 cm	DC	Argon	Graphite	No	No	Yes	Yes	Yes	1" - 12"	1" - 12"	Etching, deposition assist, Substrate treatment and cleaning

Standard Grid Configuration

Grid Style	3 cm	8 cm	11 cm	15 cm	12 cm	16 cm	6 x 22 cm	6 x 30 cm
Collimated	Yes	Yes	Yes	Yes	n/a	n/a	n/a	Yes
Convergent	n/a	n/a	n/a	n/a	Yes	Yes	Yes	n/a
Divergent	n/a	n/a	n/a	n/a	Yes	Yes	Yes	n/a
1 focal point	n/a	n/a	n/a	n/a	Yes	Yes	Yes	n/a
3 focal point	n/a	n/a	n/a	n/a	No	Yes	n/a	n/a

DC graphite grids and source packages

	Type	Part # (Grid set only)	Source package part #	Recommended Power Supply
3 cm 2 grid	Standard	504680A	03DC05-PKG1	IBEAM 601
3 cm ITI style	Standard	504734A	Call	IBEAM 601
8 cm 2 grid	Standard	Call	08DC04-PKG1	IBEAM 601
11 cm 2 grid	Elliptical	504701A	Call	IBEAM 601
11 cm 2 grid	Standard	504198A	Call	IBEAM 601
11 cm 3 grid	Standard	504347D	Call	IBEAM 601
15 cm 2 grid	Elliptical	504511A	Call	IBEAM 601
15 cm 2 grid	Collimated	504431A	Call	IBEAM 601
15 cm 2 grid	Collimated	504548A	Call	IBEAM 601
6 x 30 cm 2 grid	Collimated	504761A	Call	IBEAM 601

RF molybdenum grids (3 grid assemblies) and packages

	Type	Part # (Grid assembly only)	Source package part #	Recommended Power Supply
12 cm standard Focal point	Convergent			
	130 cm	504149C	12RF08-PKG1	IBEAM 701
	130 cm w/8cm hole pattern	504391A	12RF08-PKG1	IBEAM 701
	25 cm	504660A	12RF08-PKG1	IBEAM 701
12 cm standard Focal point	Divergent			
	46 cm	504593A	12RF08-PKG1	IBEAM 701
	25 cm	504260A	12RF08-PKG1	IBEAM 701
16 cm standard 1 Focal point	Convergent			
	66 cm	504599A	16RF08-PKG1	IBEAM 701
	66 cm Titanium	504851A	16RF08-PKG1	IBEAM 701
16 cm standard 1 Focal point	Divergent			
	66 cm	504373B	16RF08-PKG1	IBEAM 701
16 cm standard Focal point	104/72 cm	504137A	16RF08-PKG1	IBEAM 701
16 cm 3 Focal point	104/72/40 cm	504296C	16RF08-PKG1	IBEAM 701
6 x 22 cm	Convergent	Call	Call	IBEAM 701
6 x 22 cm	Divergent	Call	Call	IBEAM 701

Rev 10/11