



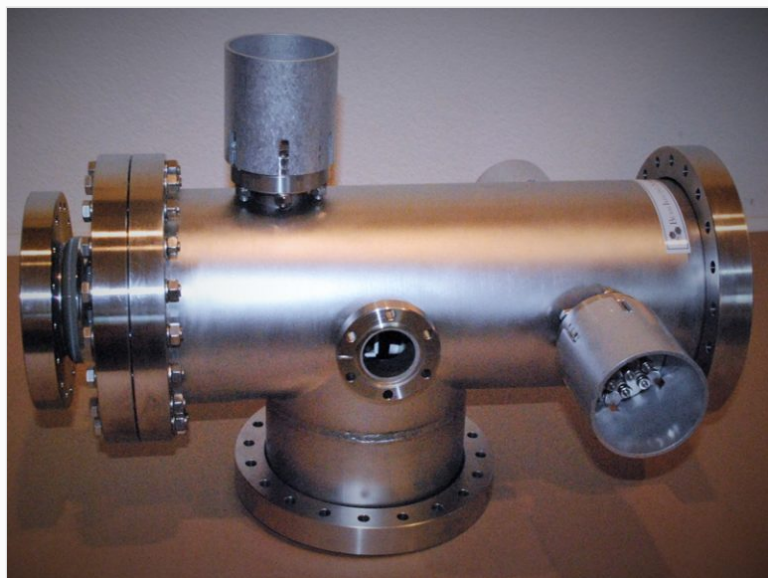
Ion Gun Systems

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Product Overview



Model G-2 bakeable ion gun with liquid cooled electromagnet.



Model G-1 non-bakeable ion gun.

Beam Imaging Solutions (BIS) has two Ion Gun systems to offer. Each Gun includes an ion source assembly, heat sink, acceleration and focusing system, vertical deflection plates, a 6" long velocity filter and a velocity filter guard ring control unit. Components are assembled in a vacuum housing fitted with a flange for mounting onto the customer's equipment. The guard ring control unit can be mounted into a standard 19" rack panel. Custom flanges and additional ports may be ordered if needed. When a beam decelerator is required with the gun, an adapter flange is included (model G-1-D and G-2-D Ion Guns). Beam Imaging also offers [control units \(E-series\)](#) for the above Ion Gun Systems. The control units include all power supplies needed to operate the Ion Gun as well as a cooling unit for the ion source and vacuum gauge controls. All Ion Beam Components are also available separately or in complete sets (ion source, heat sink, velocity filter, extraction and focus lens system). These complete sets are referred to as an Ion Beam Kit.

Ion Guns Model G-1 and G-1-D (non-bakeable)

The model G-1 can be operated in an energy range of 500 eV to 10 keV (with optional 20keV). If an ion beam energy less than 500 eV is required, we recommend using the model G-1-D, which includes the model 400 decelerator and can produce mass selected ion beams with energies as low as 1 eV. The vacuum housing of the model G-1 series is made of a polished stainless steel tube, 6” in diameter and approximately 19” long. The length includes the model 500 insulator-mounting flange. The total length of the G-1-D is 23 1/8” when used with the model 400 decelerator. Both Ion Gun housings are supplied with a 6” ID roughing port. The standard exit flange on the models G-1 and G-1-D are an 8” OD and 6” ID conflat flange. The model G-1-D, however, has a 2 3/4” exit flange when used with the decelerator. Both the model G-1 and G-1-D are good for vacuum use to 10⁻⁷ Torr and are not designed for bakeout.

Ion Guns Model G-2 and G-2-D (bakeable)

The G-2 and G-2-D Ion Guns are both designed to operate in the 500 eV to 10 keV (with optional 20keV) energy range. The G-2-D Ion Gun however, which has the optional model 400 decelerator, can be used down to 1 eV. There are two differences between the G-1 and G-2 series Ion Guns. The G-2 Ion Guns are designed to be bakeable to 200° C, for use with ultra-high vacuum (UHV) systems. The magnet coils on the velocity filter are encapsulated in a stainless steel jacket and are liquid cooled, thus allowing for higher currents and magnetic field strength. BIS recommends the CU-1 cooling unit for magnet and ion source cooling. The dimensions of the G-2 and G-2-D are the same as the G-1 and G-1-D respectively. Both the G-2 and G-2-D are designed to be good for a vacuum use to 10⁻⁹ Torr.

Related Products



Ion Gun Controllers

[Read more](#)

Services

Beam Imaging Solutions (BIS) is dedicated to new innovative imaging solutions for particle and photon (UV, X-ray) beams and offers a wide range of imaging products to fit your particular application and budget.

Our products range from stand-alone phosphor screens to high resolution beam imaging systems with 2-D and 3-D imaging capabilities. Beam Imaging Solutions also supplies ion beam equipment including ion gun systems, ion sources, ion beam deflectors, velocity (Wien) filters, faraday cups and decelerators.

[Read more..](#)

Contact Us

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