

SMALL FRAME ELECTRON BEAM SOURCES

ITL Vacuum Components offer top of the line electron beam sources manufactured by Island e-beam LLC. These are used within the physical vapor deposition (PVD) industry, including applications in optics, micro-electronics, medical, metallurgical and telecommunications.

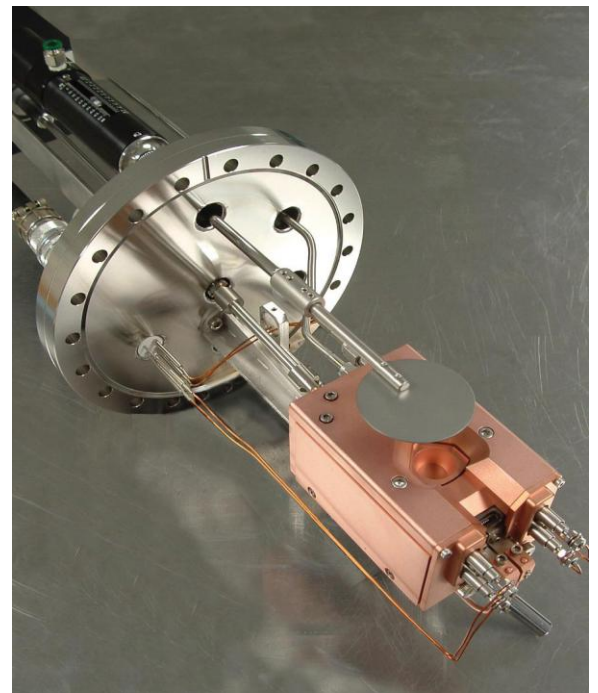
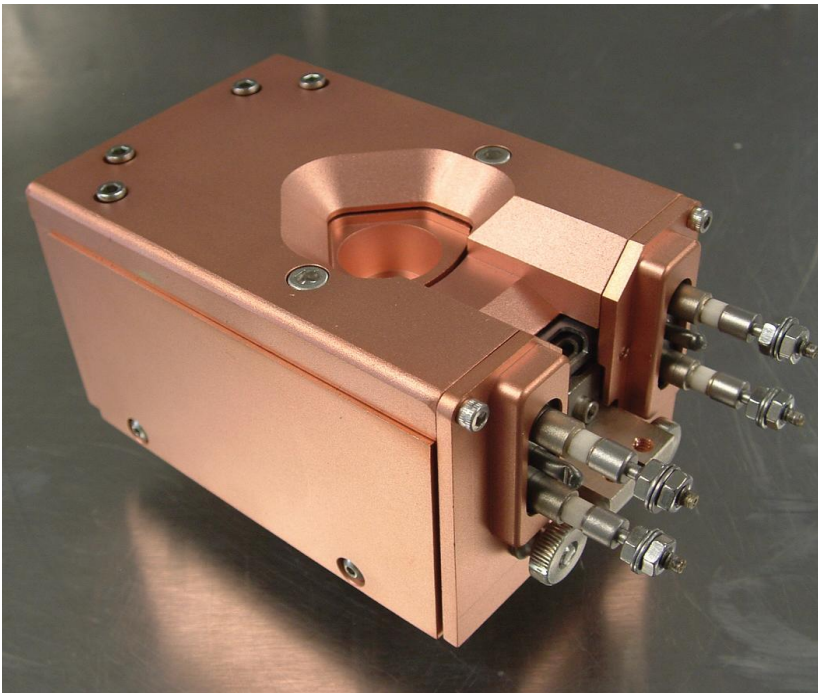
With 3 standard frame sizes available and many pocket sizes to choose from, this brand offers powerful, fully tested electron beam sources to suit most applications.

Our sources come standard with direct water cooled crucibles, helping produce a uniform source temperature. Resulting in stable deposition rates, versus an indirect water cooled source.

Each source has a modular plug in designed emitter assembly for ease of maintenance, made with high temperature materials and long life filaments for reduced down time.

We also offer any of these 3 frame size sources in a “turnkey” flange mounted assembly, that includes all feedthroughs for water/power/sweep/pocket rotation/shutter.

Please feel free to contact us to discuss your requirements



Features

Emitter Assembly

- 270 degree arc emitter module
- Modular plug in design
- Consistent electrostatic field
- Long life anode and deflection shield
- Easy filament replacement
- Only one ceramic insulator
- Open cathode design
- Increased emission

Electromagnetic sweep coil assembly

- Based on Helmholtz design principle producing a very uniform magnetic field
- Reduced tunnelling
- Potted cores for increased dielectric strength and thermal conductance

Magnetic Field Assembly

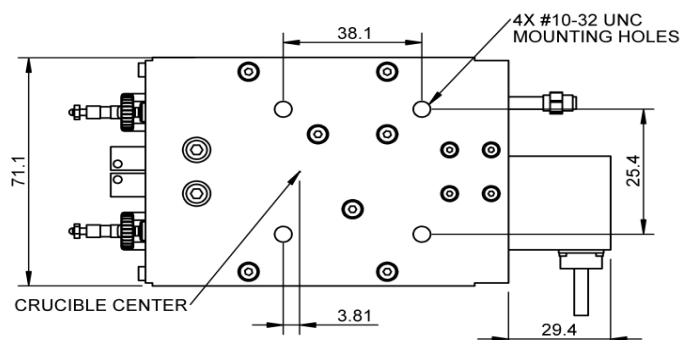
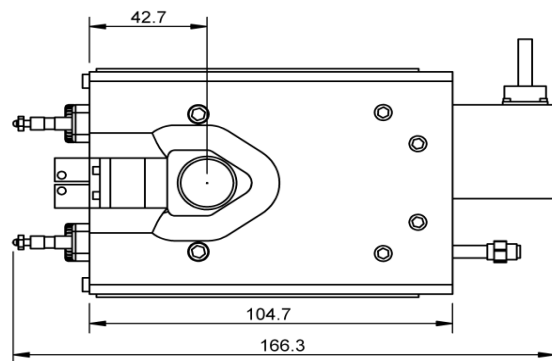
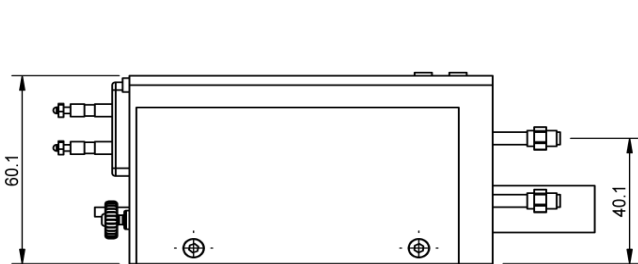
- Permanent magnets AlNiCo
- No pole pieces
- Uniform magnetic field lines
- Reliable beam shape in any location
- Beam remains vertical to melt....no beam curl

Crucible assembly

- Direct cooled pockets to help maintain stable evaporation rates
- Higher power ratings over indirect cooled sources
- Different configurations available (see options)

Specifications

Frame size	Small
Source type	HV Rotary Pocket
Max power	3kW
Accelerating voltage	6kV to 10kV
Filament	12VAC
XY sweep	0-50hz @1.0amp
Beam spot size	3-4mm
Materials	HV Compatible
Vacuum rating	2x10E-8 Torr
Water flow	0.50gpm
Dimensions	L-166mm x W-71mm x H-60mm
Weight	2.7kg



Standard Configurations

4x2cc