



Features

- Max Power:** 5kW or 10kW
- Acceleration Voltage:** 4 – 10 kV
- Filament Current:** 50 A @ 10 VAC
- Beam Deflection:** 270° magnetic
- X Deflection / Y Deflection:** +/- 3 A (150Hz) / +/- 3 A (150Hz)
- Beam Diameter:** 3 mm (focused)
- Emission Current:** max 600 mA
- Working Pressure:** 10⁻³ mbar – 10⁻⁸ mbar
- Crucible Options:** (4), 8cc pockets or (6), 4cc pockets
- Sweep Patterns via M.A.P.S. controller:** 8 pre-defined, 99 user-defined
- Crucible Indexing:** Automatically via system software or M.A.P.S. controller
- M.A.P.S. Power Supply:** Solid State

Functionality

Electron beam evaporation sources include components that evaporate the base material through the use of a high energy electron beam, generating very high deposition rates. The electron beam is focused onto the target material through the use of a magnetic field, and bombardment of the electrons generates enough heat to evaporate a wide range of materials with very high melting points. Under regular e-beam evaporation, the chamber pressure is brought to as low a level as possible to prevent background gases from chemically reacting with the film or bulk evaporant. Under carefully controlled partial pressures of reactive gases, reactive e-beam evaporation can create films of a different chemical composition than that of the bulk material.

The basic configuration includes an electron beam source, hearth, and top cover, with accessory feedthroughs and power supply. Evaporation can be done directly from the hearth or with a crucible liner depending on the intended evaporation material.

Because of the ability to control deposition rate, low contamination, excellent material utilization, and very high deposition rates, electron beam evaporation is a very adaptable technique used in many thin film deposition applications.

- **Where Used:** PRO Line PVD 75
- **Recommended Applications:** High-throughput, thick insulating or conductive films, Lift-Off
- **Recommended Maintenance:** Crucible and Filament routine replacement
- **Installation Considerations:** Dedicated earth ground

Accessories

Power Supply:
KJLC M.A.P.S Power Supply

Sweep Controller:
KJLC M.A.P.S Controller

Compatible Crucibles:
(4) x 8cc pocket:
EVCEB-4

(6) x 4cc pocket:
EVCEB-22