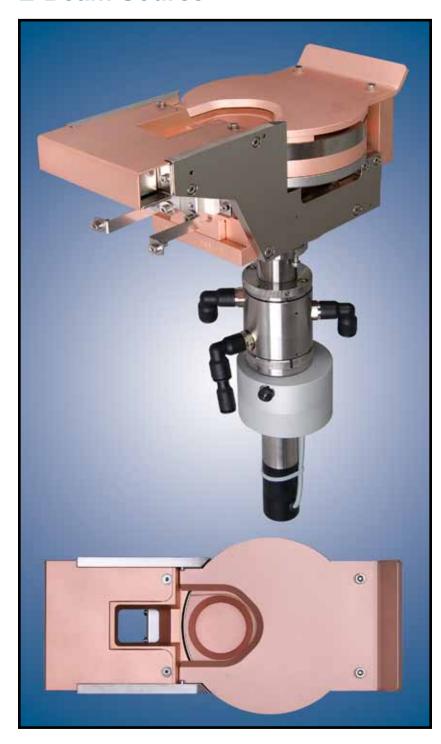
## KL-8

# High Capacity Multi-Hearth E-Beam Source



## Kurt J. Lesker®

## PROCESS EQUIPMENT DIVISION

### **Applications**

 Designed for optical, electronic and high rate deposition processes

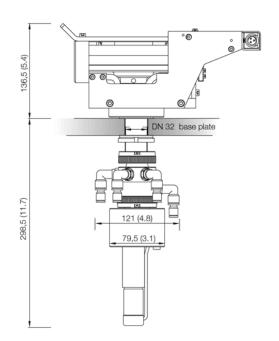
#### **Features**

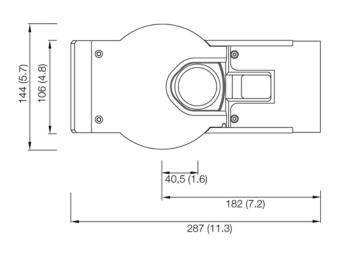
- Small beam spot regardeless of position in pocket
- Low inductance x- and y-coils with dynamic defocusing capability
- · Modular design
- · No dynamic water-vacuum interface
- Integrated coaxial water feedthrough or hearth & source body cooling
- · Long filament lifetime
- · Reproducible & guick filament fixture
- · Hearth positioning using optical encoder
- · Plug-in connector for magnet leads

#### **Benefits**

- Directly cooled interchangeable crucibles with large capacities
- Homogeneous material depletion
- Stable beam sweep at high beam deflection frequencies
- Eliminates water leakage into vacuum system
- Full integration requires only 3x32mm holes
- · Reduced maintenance and down-time
- · Enhanced run-to-run repeatability
- Builti-in hearth rotation with high positioning accuracy
- Fool proof non-interchangeable electrical connections

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Dimensions Approximate: Shown in MM and (Inches)

## **Specifications**

Max. Power	10 kW
Acceleration Voltage	4-10 kV
Max. Filament Current	50 A @ 10 VAC
Primary Beam Deflection (by permanent magnet)	270°
Bake Out Temperature	150°C
X-Deflection	± 3 A (150 Hz)
Y-Deflection	± 3 A (150 Hz)
Spot Size Diameter	<3 mm with no or minimal variation between front- and back side of pocket
Max. Evaporation Rate Depending on hearth configuration up to:	AI > 25,000 Å/min @ 10 kW (250 mm source - substrate distance)
Typical Operating Pressure Range	7.5 <sup>-4</sup> Torr (1 x 10 <sup>-3</sup> mbar) to 7.5 x 10 <sup>-9</sup> Torr (1 x 10 <sup>-8</sup> mbar)
Cooling Water Requirements	8 l/min
Mounting Requirements (base plate hole)	32 mm
Compatible Crucible Sizes	4 x 35 cc, 6 x 20 cc, 8 x 12 cc (custom configurations on request)
Weight	15 kg (33 lb)

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