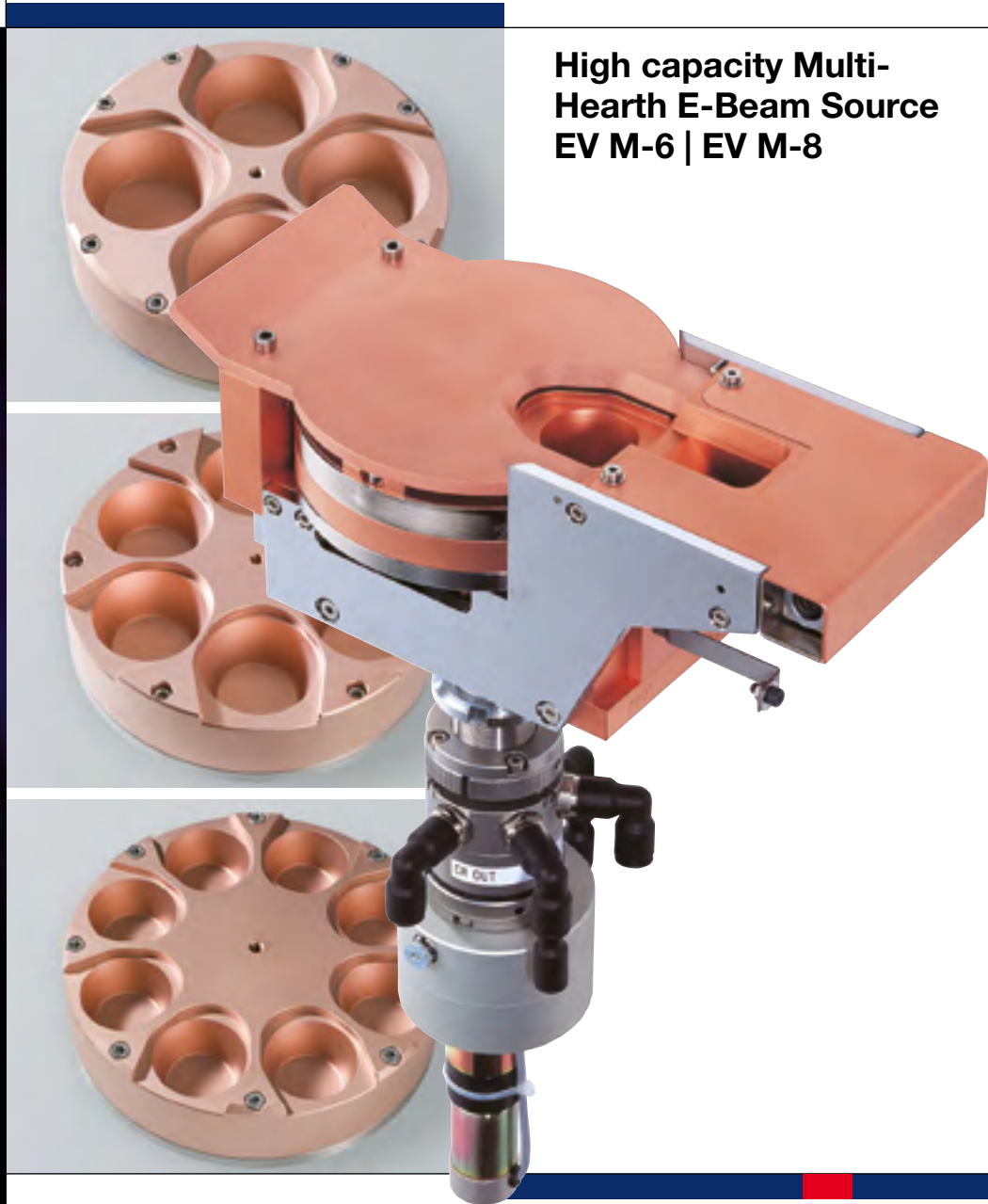




The EV M-6 and EV M-8 multi-hearth electron beam evaporators are specifically designed for applications requiring high deposition rates and effective material utilization. Typical applications are production coatings or laboratory-scale evaporations with a variety of different materials or with materials that require continuous pocket rotation. The sources offer unique technical features to enhance the reliability and repeatability needed in production environments.



## High capacity Multi-Hearth E-Beam Source EV M-6 | EV M-8

### Advantages/Benefits

- Directly cooled crucibles with large capacity
- Homogeneous material depletion
- Stable beam sweep at high beam deflection frequencies
- Eliminates water leakage into vacuum system
- No additional water feedthrough required
- Reduced maintenance and down-time
- Enhanced run-to-run repeatability
- Built-in hearth rotation with high positioning accuracy
- Non-interchangeable connections

# High capacity Multi-Hearth E-Beam Source EV M-6 | EV M-8

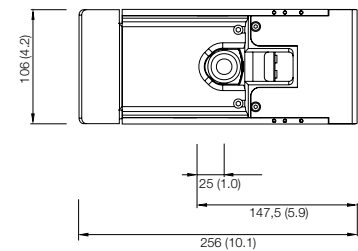
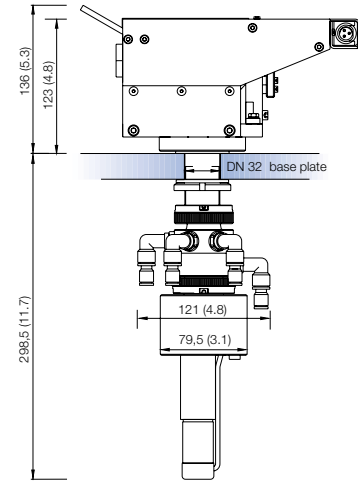
## Features

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



### ■ Technical Data EV M-6

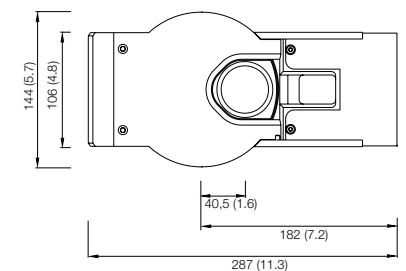
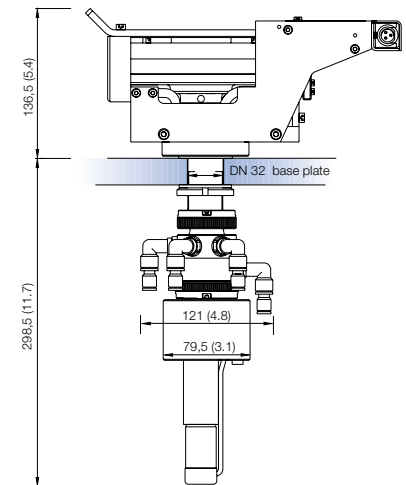
<b>Max. Power</b>	6 kW
<b>Acceleration Voltage</b>	4–10 kV
<b>Max. Filament Current</b>	50 A @10 VAC
<b>Primary Beam Deflection</b>	270 ° by permanent magnet
<b>Bake Out Temperature</b>	150 °C
<b>X-Deflection</b>	± 3 A (150 Hz)
<b>Y-Deflection</b>	± 3 A (150 Hz)
<b>Spot Size Diameter</b>	< 3 mm with no or minimal variation between front- and back side of pocket
<b>Max. Evaporation rate</b>	Al > 12.000 Å/min @ 6 kW (250 mm source – substrate distance)
<b>Min. Base Pressure</b>	10 <sup>-8</sup> mbar
<b>Cooling Water Requirements</b>	6 l/min
<b>Mounting Requirements</b>	32 mm base plate hole
<b>Weight</b>	12 kg (26,5 lb)
<b>Part-No.</b>	1-61 00 003



### ■ Technical Data EV M-8

<b>Max. Power</b>	10 kW
<b>Acceleration Voltage</b>	4–10 kV
<b>Max. Filament Current</b>	50 A @10 VAC
<b>Primary Beam Deflection</b>	270 ° by permanent magnet
<b>Bake Out Temperature</b>	150 °C
<b>X-Deflection</b>	± 3 A (150 Hz)
<b>Y-Deflection</b>	± 3 A (150 Hz)
<b>Spot Size Diameter</b>	< 3 mm with no or minimal variation between front- and back side of pocket
<b>Max. Evaporation rate</b>	Al > 25.000 Å/min @ 10 kW (250 mm source – substrate distance)
<b>Min. Base Pressure</b>	10 <sup>-8</sup> mbar
<b>Cooling Water Requirements</b>	8 l/min
<b>Mounting Requirements</b>	32 mm base plate hole
<b>Weight</b>	15 kg (33 lb)
<b>Part-No.</b>	1-61 00 003

Dimensions in mm (inch)



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