

# 60kV Electron Beam Welder

## CW MODEL



Modular, flexible design to enhance production capabilities



Suitable for thermally conductive materials



Ideal for welding medium-sized components



High-efficiency



## Equipment, Features and Options

### Standard Equipment

- > Air-conditioned electrical cabinet
- > Beam deflection patterns
- > Chamber viewing window
- > Directly heated cathode
- > eWon ethernet hub for remote diagnostics
- > Filament alignment jig
- > Function generator for application of welding patterns
- > High-quality HDMI camera, with adjustable cross hairs and video capability
- > Industrial PLC
- > Manual gun-slide  $\pm 32\text{mm}$
- > Mechanical and diffusion pumps for high-vacuum operation
- > PC-based HMI, with recipe storage and data logging
- > Separately pumped gun column (turbo-molecular)

### Advanced Features

- > Automatic focus and alignment
- > Automatic joint finder and imaging using back scattered electrons
- > CNC control
- > Dry vacuum pumps
- > Internal rotary tilt carousel
- > Mylar film protector
- > Recirculating water chiller
- > Special beam functions, including beam splitting

### Tooling Options

- > Chamber extensions
- > Custom tooling
- > External rotary manipulator
- > Indexing carousel
- > Internal rotary manipulator, tilt, and Z lift
- > Motorised gun-slide
- > Motorised run-out platform
- > Tail-stock
- > XY table



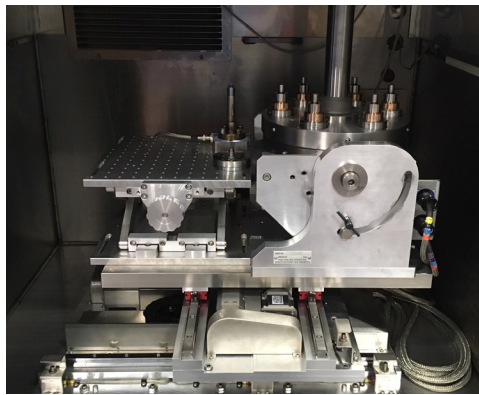
Heavy-duty gun column and HDMI camera



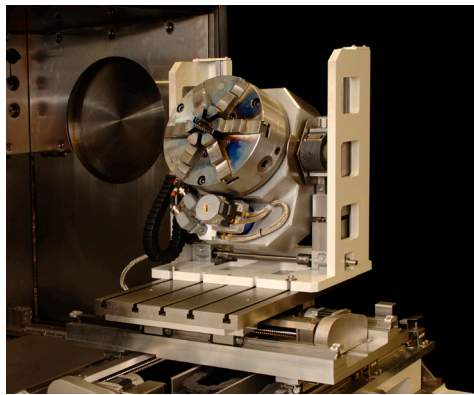
HMI with CNC control

# Specification

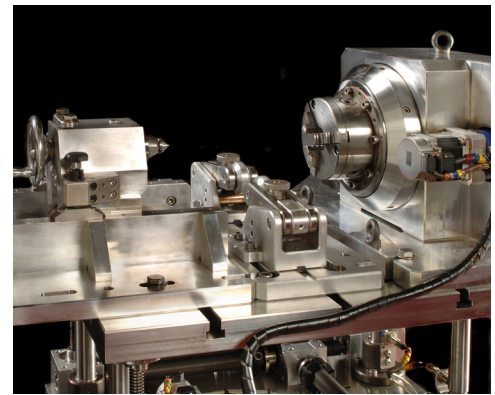
<b>Standard chamber sizes include</b> (Other sizes are available upon request)	450x450x450mm 610x610x610mm 1,000x750x800mm 1,100x1,100x1,100mm 1,400x1,000x1,250mm 2,250x1,250x1,400mm
<b>60kV beam power</b>	Standard up to 6kW (100mA at 60kV) Optional up to 15kW (250mA at 60kV)
<b>Gun vacuum</b>	10 <sup>-5</sup> mbar range
<b>Chamber vacuum</b>	10 <sup>-4</sup> mbar range
<b>Chamber pump down time</b> (to 10 <sup>-4</sup> mbar)	Dependent on chamber volume, pump specification and customer requirements



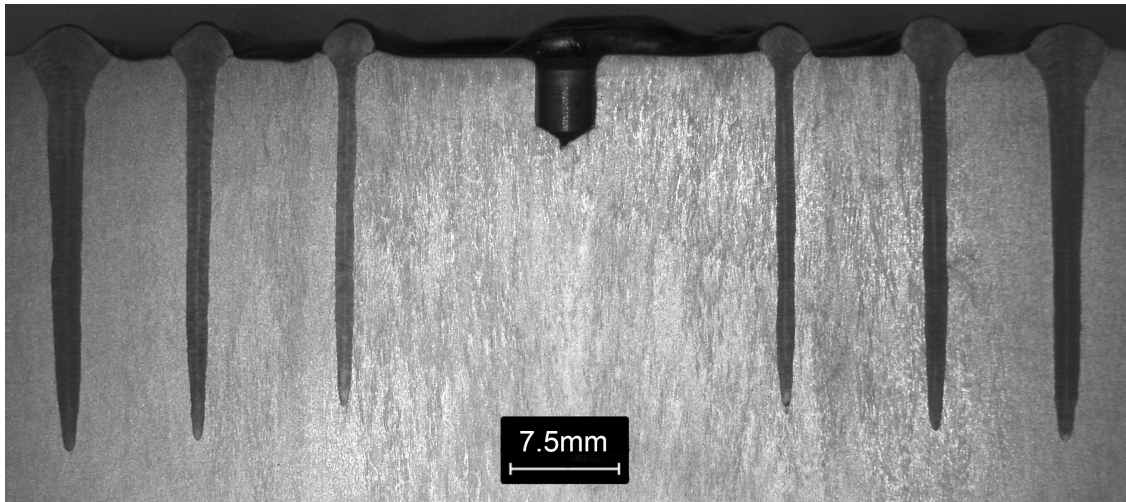
Manual scissor lift, indexing carousel, and beam probe



Rotary tilt with lift function



Custom tooling table with z-lift



60kV welds up to 250mA

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