

60kV Electron Beam Welder

ECO MODEL



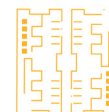
Modular, flexible design to enhance production capabilities



Small footprint area for economical space solutions



Ideal for welding small-to-medium-sized components



High-efficiency



Equipment, Features and Options

Standard Equipment

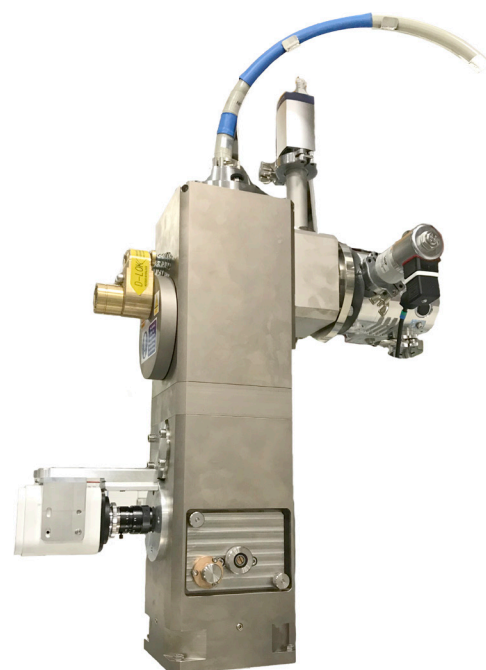
- > Air-conditioned electrical cabinet
- > Beam deflection patterns
- > Chamber viewing window
- > Directly heated cathode
- > eWon ethernet hub for remote diagnostics
- > External rotary manipulator
- > Filament alignment jig
- > Function generator for application of welding patterns
- > High-quality 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

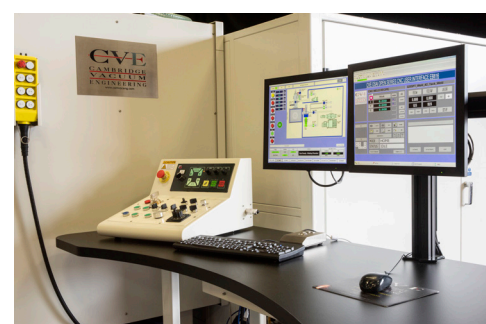
- > Automatic focus and alignment
- > Automatic joint finder and imaging using back scattered electrons
- > Bino optics
- > CNC control
- > Dry vacuum pumps
- > Larger, motorised gun-slides (PLC controlled)
- > Recirculating water chiller
- > Special beam functions, including beam splitting

Tooling Options

- > Chamber extensions
- > Custom tooling
- > Indexing carousel
- > Internal rotary manipulator and tilt
- > Tail-stock
- > XY table



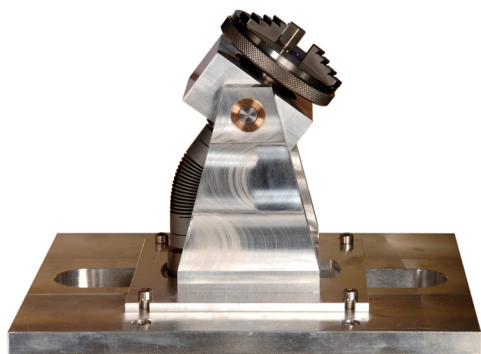
D60LN gun column and HDMI camera



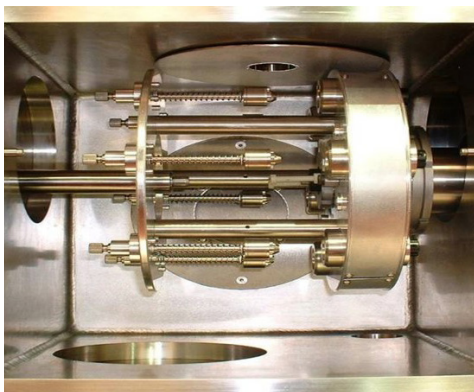
HMI with CNC control

Specification

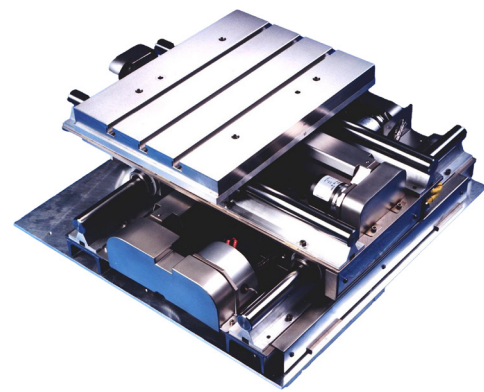
Standard chamber sizes include (Other sizes are available upon request)	300x300x300mm 355x355x355mm 450x450x450mm 610x610x610mm
60kV beam power	Standard up to 4kW (60mA at 60kV) Optional up to 6kW (100mA at 60kV)
Gun vacuum	10 ⁻⁵ mbar range
Chamber vacuum	10 ⁻⁴ mbar range
Chamber pump down time (to 10 ⁻⁴ mbar)	30-120s Dependent on pump specification, chamber size and customer requirements
Weld depth at 760mm per minute (at 4kW)	Stainless steel = 15mm



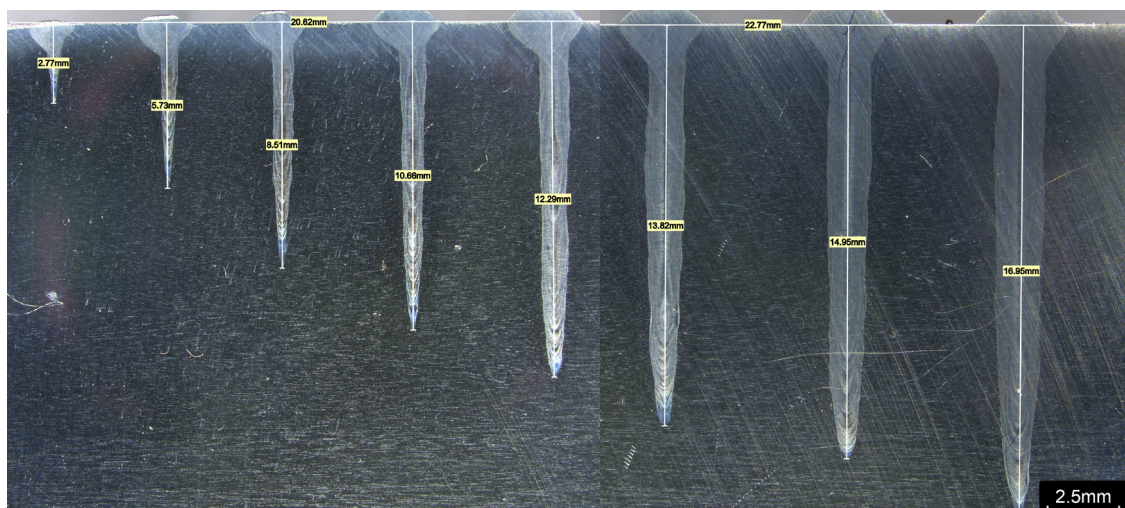
Rotary table



Internal carousel



XY table



60kV welds from 10-80mA in 10mA increments

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