

150kV Electron Beam Welder

XW MODEL



Ideal for the welding of medium and large sized components



Suitable for electrically conductive materials



Modular, flexible design to enhance production capabilities



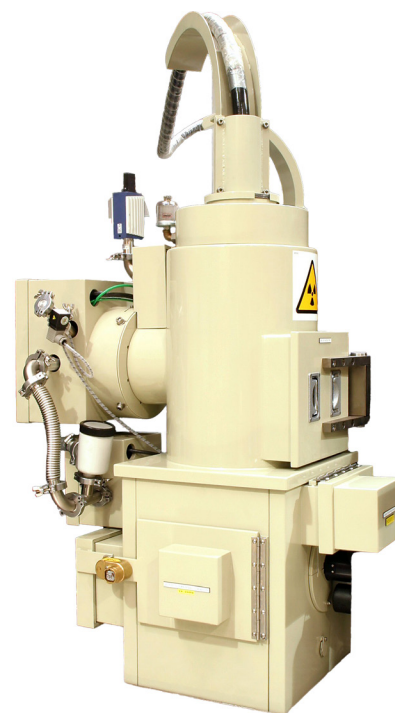
Equipment, Features and Options

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
- > 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
- > Chamber extensions
- > CNC control
- > Custom tooling
- > Dry vacuum pumps and cryo-coil
- > High-speed data logger
- > Horizontal gun mount
- > Indexing carousel
- > Internal rotary manipulator, tilt, and Z lift
- > Motorised gun-slide
- > Motorised run-out platform
- > Mylar film protector for CCTV
- > Recirculating water chiller
- > Special beam functions, including beam splitting
- > Tail-stock
- > Wire-feed
- > XY table



150kV gun column



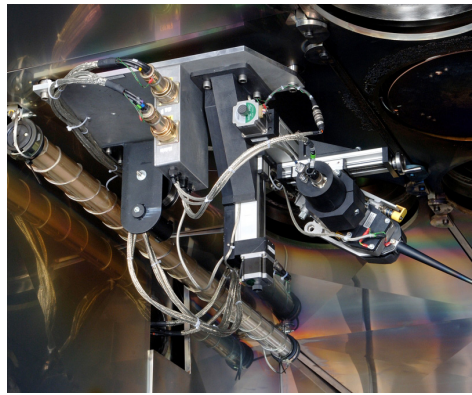
HMI with CNC control

Specification

Standard chamber sizes include (Other sizes are available upon request)	1,400x1,000x1,250mm 2,250x1,250x1,400mm 1,800x1,800x1,800mm 4,000x2,100x3,000mm
150kV beam power	Standard up to 6kW (40mA at 150kV) Optional up to 15kW (100mA at 150kV) and 30kW (200mA at 150kV)
Gun vacuum	10 ⁻⁵ mbar range
Chamber vacuum	10 ⁻⁴ mbar range
Chamber pump down time (To 10 ⁻⁴ mbar)	Dependent on chamber volume, pump specification and customer requirements



Five-axis manipulator
(X, Y, R, T, Z)



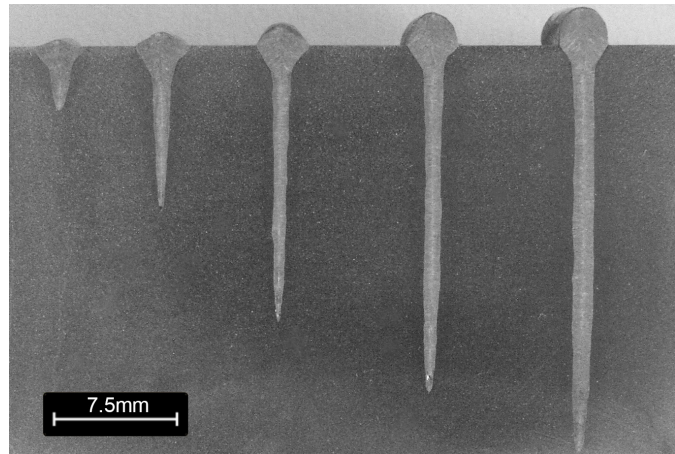
CNC controlled wire-feed



Rotary tilt headstock and tail-
stock fixed on an XY table

Advantages of 150kV systems:

- › Higher accelerating voltage allows the beam to travel a longer distance - up to 1,500mm to the work-piece from the inside of the chamber
- › Greater depth of focus compared to low-voltage 60kV machines
- › Less affected by external magnetic fields



150kV welds

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