

60kV Electron Beam Welder

STRIP AND BATCH MODELS



Continuous strip or batch systems



Suitable for bi or tri metallic welding



High-efficiency



Equipment, Features and Options

Standard Equipment

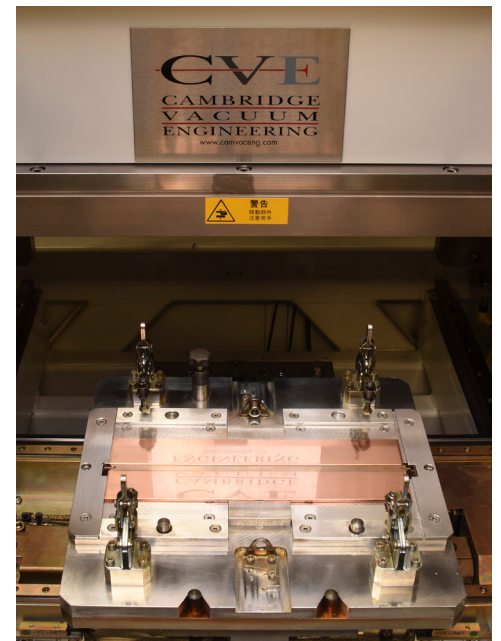
- › Automatic filament heating
- › Beam deflection patterns and function generator
- › Directly heated cathode with high-intensity beam for low distortion
- › Ethernet hub for remote diagnostics
- › High-quality HDMI camera and vision systems
- › Industrial PLC with PC-based HMI for recipe storage and data logging
- › Interchangeable PTFE seals accommodating various strip sizes (continuous strip system)
- › Multiple vacuum chambers (continuous strip system)
- › Separately pumped gun column (a second gun and power supply used on the continuous strip system)
- › Strip alignment system to ensure parts remain in

contact (continuous strip system)

- › Quick release tooling with repeatable positioning (batch system)
- › X-table for part manipulation (batch system)

Advanced Features and Options

- › Automatic beam alignment
- › Automatic joint finding option for up to two joints simultaneously
- › High-speed deflection coil option for split beam welding
- › Light guard protection of the loading area
- › Manually operated jig for rapid, accurate clamping of parts (batch system)
- › MES and industry 4.0 compatibility



Tooling (batch system)



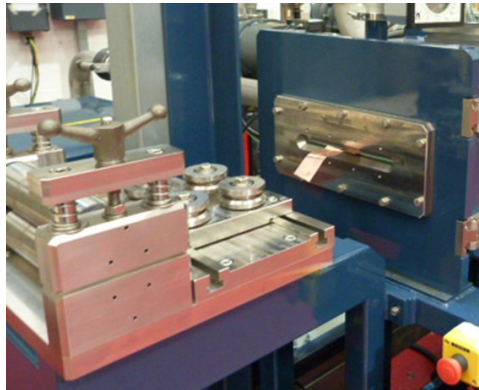
Example weld and part

Specification

	Continuous Strip System	Batch System
Maximum number of strips weldable	3	3
Strip dimensions* Length Combined width Thickness	N/A 170mm 3mm	250mm 170mm 3mm
Cycle time/weld speed**	0.3m/s	30s + weld process time
60kV beam power	Standard 15kW	Standard 6kW (167mA at 60kV) Optional 10kW (250mA at 60kV)
Gun vacuum	10 ⁻⁵ mbar range	10 ⁻⁵ mbar range
Chamber vacuum	10 ⁻² mbar range	10 ⁻² mbar range

*Other sizes are available on request

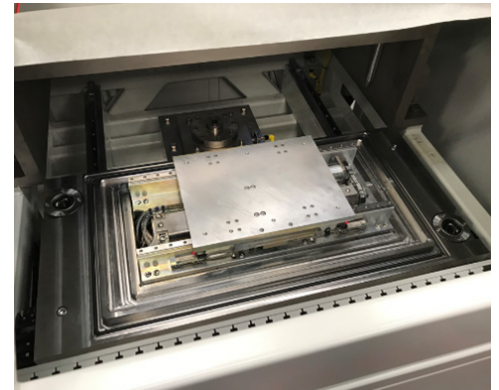
**Time as a guide only - faster speeds may be possible



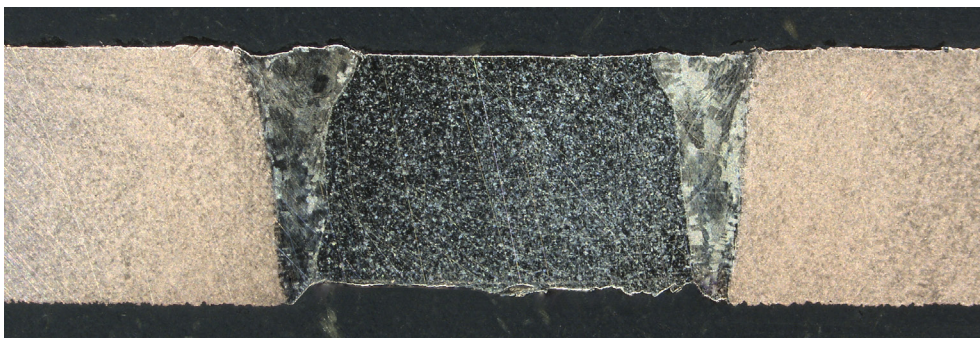
Strip alignment
(Continuous strip system)



Continuous strip system



Tooling
(Batch system)



Weld cross-section

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