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 ±32mm
› 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

| **Standard chamber sizes include** (Other sizes are available upon request) | 450x450x450mm  
610x610x610mm  
1,000x750x800mm  
1,100x1,100x1,100mm  
1,400x1,000x1,250mm  
2,250x1,250x1,400mm |
|---|---|
| **60kV beam power** | Standard up to 6kW (100mA at 60kV)  
Optional up to 15kW (250mA at 60kV) |
| **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 |

---

**Manual scissor lift, indexing carousel, and beam probe**

**Rotary tilt with lift function**

**Custom tooling table with z-lift**

---

**USA**
Cambridge Vacuum Engineering Inc.  
Unit 7 630, Silver Street  
Agawam  
Massachusetts  
01001-0867  
United States of America  
+1 (413) 789 4600

E-mail: sales@camvaceng.com  
Web: www.camvaceng.com

**UK Headquarters**
Cambridge Vacuum Engineering  
Pembroke Avenue  
Waterbeach  
Cambridge  
CB25 9QX  
United Kingdom  
+44 (0) 1223 863481

**China**
Aquarium Technology (Beijing) Co. Ltd  
Suite 5, East Tower, 10th Floor  
B12 Jianguomenwai Avenue  
Beijing  
100022  
People’s Republic of China  
+86 (10) 512 25102

© Aquarius Technology Limited trading as Cambridge Vacuum Engineering