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
### Specification

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

*Other sizes are available on request

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