Automatic Joint Finding

The automatic joint finding feature works by mounting a detector in the chamber to collect backscattered electrons that the surface of the work-piece has reflected. When the beam scans across the joint, the intensity of electrons reaching the collector plate decreases and enables the system to determine the joint position to the free-falling beam - accurate to ±20 micron.

Teach and Replay

Automatic joint finding can be calibrated to perform offset correction through CNC movement of deflection in a teach and replay process, storing the deflection value and then recalling it during welding. By using a deflection value, rather than an average, it is extremely accurate and therefore useful for keeping the beam on parts with excessive run-out.

Real-Time Seam Tracking

The real-time seam tracking feature detects the joint line position just ahead of the weld pool and rapidly sweeps the weld beam across the seam at a sufficient speed to avoid melting. Accurate to ± 40 microns. Available upon application.