Custom Function Generator

The custom function generator allows operators to create individual deflection patterns and store them for recall in a welding process in minutes. The system comes with a powerful interface that allows users to create any pattern easily and quickly, for example, a single pass 3-stage welding process - saving time and aiding the welding of difficult materials.

Beam Splitter Function Generator

Beam splitting is one of the best advantages of the electron beam: due to its low mass, it can move with such high-speed that it can be split into multiple places at once – improving weld quality and reducing process time. The CVE beam splitter function generator provides a user-friendly interface that allows you to easily set-up the beam splitting function. High-speed deflection allows beams to be split and perform multiple welds simultaneously.
The digital controller for the imaging system allows for instant engraving of text, numbers, QR codes, IP logos, and images, on part surfaces, performed with the electron beam.

Example automotive components engraved with DMX codes

Backscattered electron imaging used with the joint finder and mapping function can perform planetary welds to weld small circular parts using beam deflection.