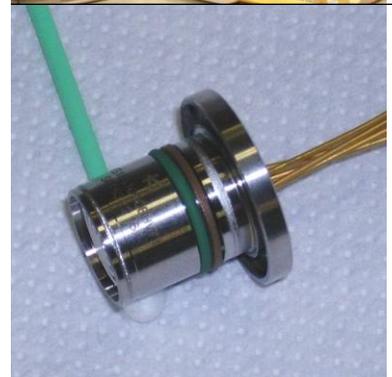
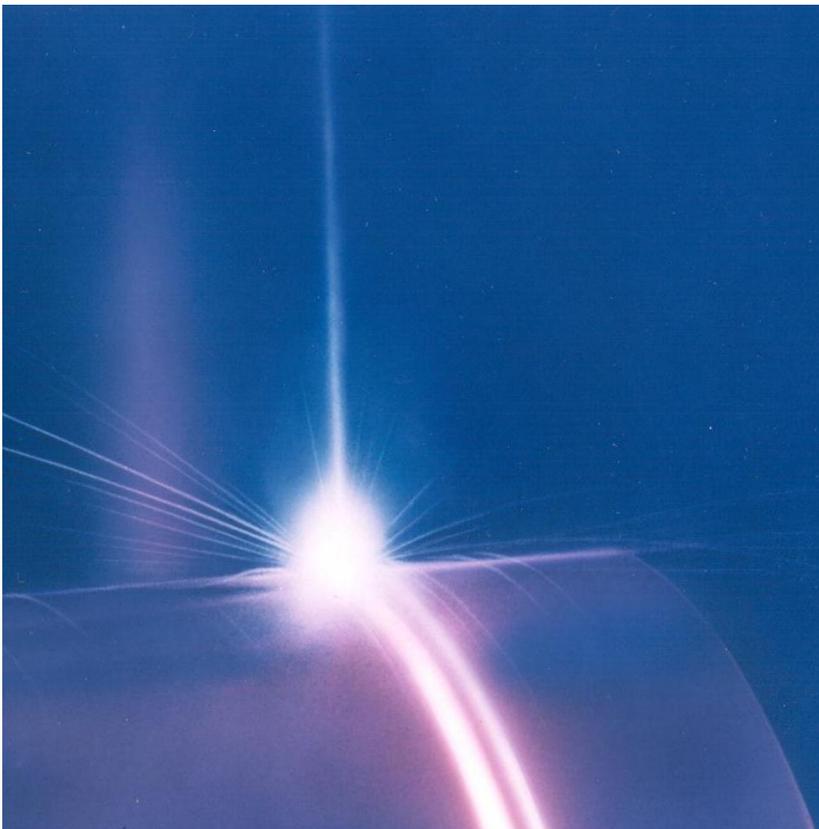


Electron Beam Welding

From prototype to mass production

Heat Treatment
Sintering (MIM)
Brazing
Thermal Spraying
Electron Beam Welding

Engineering



Welding with outstanding properties

Customer benefit:

In comparison to conventional welding techniques electron beam welding (EBW) offers new perspectives in terms of material combination, part geometry, welding depth, thermal affection and production costs.

The high energy concentration enables welding of all metals, even the very high melting ones, as well as welding of different materials like steel and bronze or difficult to weld steel grades, like quenched and tempered steels.

The possibility to join critical, dissimilar materials or combinations of components with walls of very differing thicknesses opens new functional and economical opportunities in designing of components or entire parts.

Advantages:

- minimal energy consumption and low distortion due to limited heat introduction.
- vacuum process results in oxidation free joints and surfaces.
- welding depths from 0,02 mm up to over 100 mm possible.
- weldability of complex shaped parts with walls of differing thicknesses.
- broad range of material combinations
- fast welding speeds and low process costs

Application areas:

aerospace, power plants (land based gas turbines), medical industry, plant and process equipment manufacturing, automotive industry, sensor technique, vacuum components

Our services:

Our specialists will support you already during design phase in finding new functional and economical solutions by employing electron beam technology.

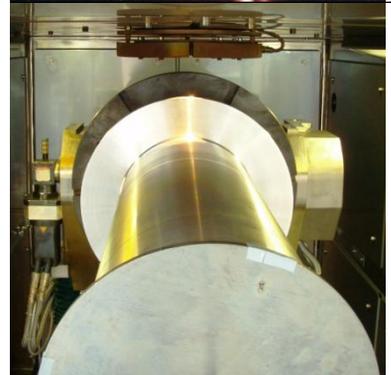
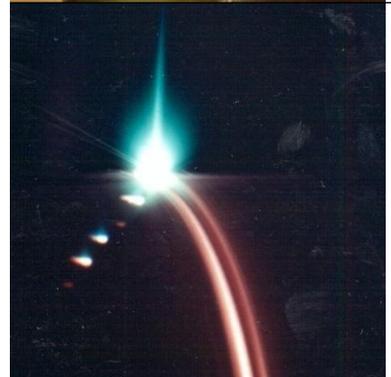
Besides EBW additional services can be offered like post welding heat treatment, thermal spraying, brazing and metallographic investigations.

Together with network partners we extend our service portfolio by services machining and welding joint inspection as x-ray, liquid fluorescent penetrant testing, etc.

Approvals for aerospace (**Nadcap**) are available.



Electron beam welding (EBW) is characterized by a very low heat introduction. As a result welding seams are narrow and component distortion is minimized. Full process documentation makes EBW first choice for welding of aircraft parts.




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