

Application Bulletin

Aviation

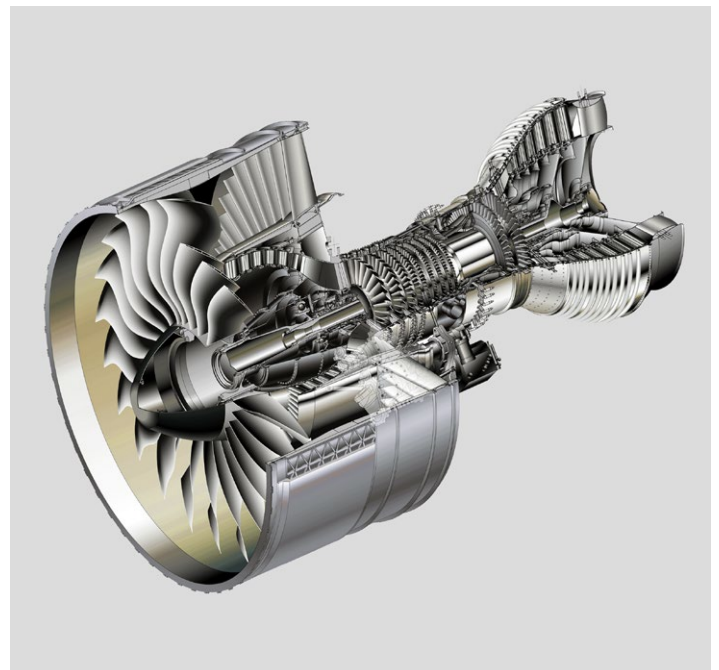
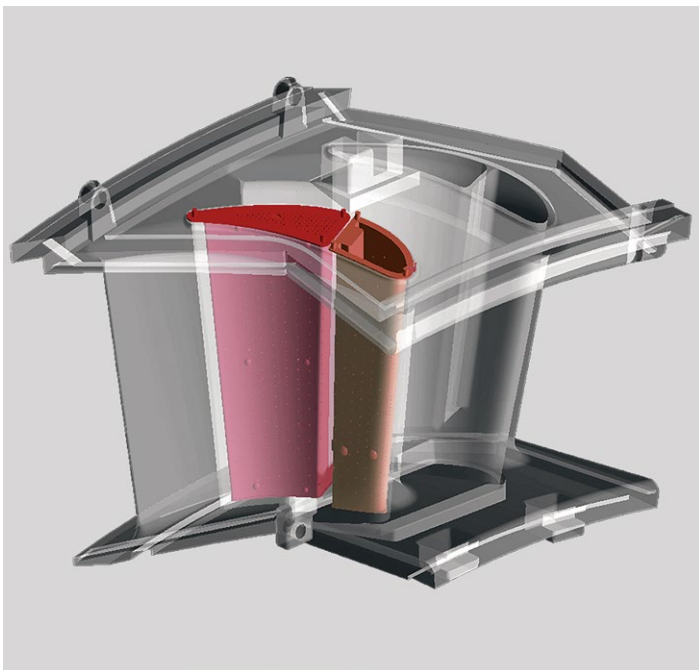
Power Plant – Activated Diffusion Brazing Repairs / Restoration

Flight and power gas turbine components, in particular hot section blades and vanes, can become damaged from high operating temperatures and thermal cycling, impingement from foreign objects or unintentional contact with other engine components. While these components can be very expensive to replace, they can often be repaired at a fraction of the new part cost using a specialized brazing technique called Activated Diffusion Brazing (ADB). This process is a proven method for healing cracks, gouges and cooling holes. Once braze repairs are made, the component can be re-machined to original dimensions.

The Metco Joining & Cladding Solution

Metco Joining & Cladding pairs up our high temperature ADB powders with our superalloy filler metal powders for compatibility with superalloy substrates to repair even very large defects.

- Purchase the braze alloy and superalloy pre-blended in specific ratios or separately to blend to your own ratios
- Available as powders, pastes or tapes to suit your chosen application method (paste and tape uses predetermined ratios of braze alloy and superalloy)
- Designed to braze at high temperatures so no remelt occurs in service
- Various powder particle size distributions are available to further tailor the actual repair or restoration to your needs.



Recommended Oerlikon Metco Products

Recommended Oerlikon Metco Products		More Information
Amdry DF-6A	Co-free, high-temperature filler metal recommended for crack repair of most Ni-based superalloys	DSM-0344
Amdry MM509B	Fine or coarse particle sizes available for restoration or crack repair of Co-based superalloy components	DSM-0339
Amdry D-15	Ni-based ADB alloy; blend with Ni- or Co-based superalloy filler powders for maximum compatibility	DSM-0345
Amdry superalloys	Select a superalloy filler material that is most compatible with the composition of the substrate	DSM-0239

Information is subject to change without prior notice.