

Application Bulletin

Aviation

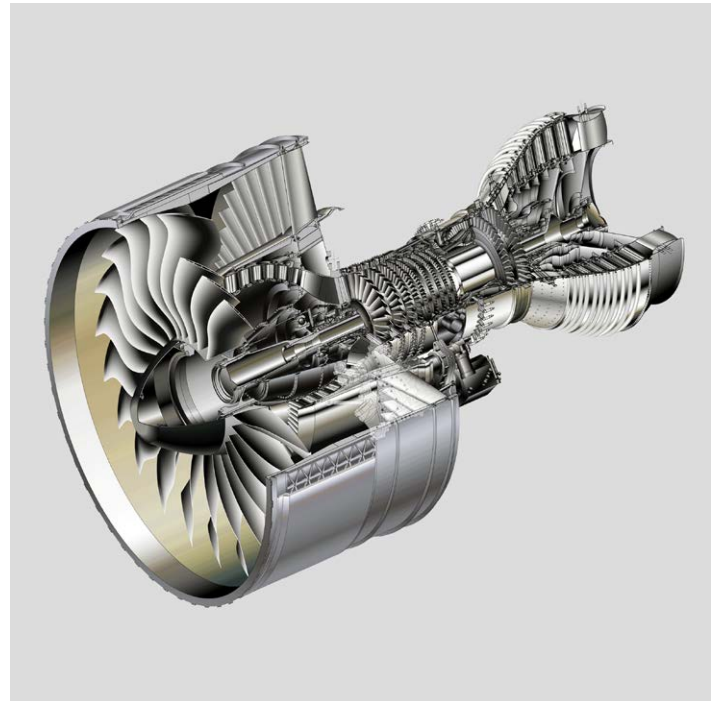
Power Plant – Activated Diffusion Brazing Repairs / Restoration

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 Oerlikon Metco Solution

Oerlikon Metco 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

		More Information
Amdry DF-4B	Ni-based with excellent oxidation and corrosion resistance; sluggish flow helps to encapsulate filler powders in braze deposits; recommended for Ni- or Co-based superalloy components	DSMB-0025
Amdry DF-6A	Co-free, high-temperature filler metal recommended for crack repair of most Ni-based superalloys	DSMB-0027
Amdry MM509B	Fine or coarse particle sizes available for restoration or crack repair of Co-based superalloy components	DSMB-0016
Amdry D-15	Ni-based ADB alloy; blend with Ni- or Co-based superalloy filler powders for maximum compatibility	DSMB-0028
Amdry superalloys	Select a superalloy filler material that is most compatible with the composition of the substrate	DSMB-0004

Information is subject to change without prior notice.