

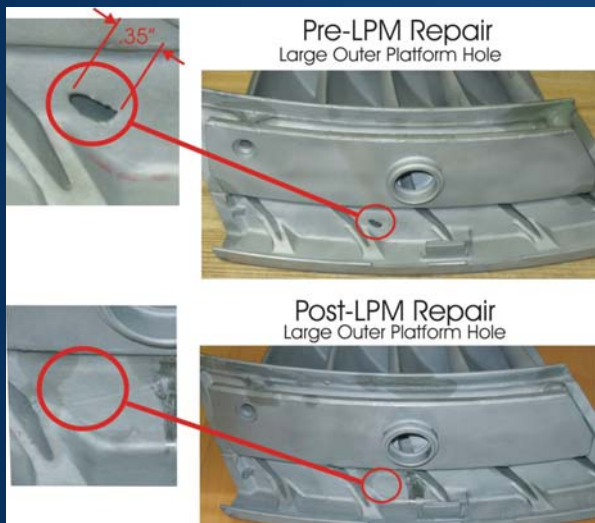
# CF6-80A Stage 1 LPT Vane

## Advanced Repairs available only from Liburdi Turbine Services

The problem – Thin inner and outer shroud wall due to hot gas erosion and airfoil cracks due to hot gas and compromised thin walls.

### DER Repair Scope:

- Advance LPM repair of airfoil cracks and large platform voids un-repairable by any other vendor.
- Replacement of T800 wear coat on forward outer rail
- Replacement of Inner and Outer Plenum Covers



### Advantages Over Diffusion Braze Repair.

- Damaged material is removed by grinding which is more reliable than chemical cleaning processes to penetrate and remove oxides in cracks prior to brazing. Removal of all oxides and damaged material is assured.
- Relatively large volumes of LPM™ material can be used to reliably fill the prepared areas. Build-ups of .250" (6.4mm) are achieved in a single application
- Brazing is limited to fine shallow crack openings and must rely on capillary action to penetrate the full crack depth.
- Build-up of worn surfaces is accomplished with LPM™ applied in flexible tape form. LPM™ tapes produce controlled thickness build-ups to restore eroded airfoils and trailing edges without the use of coupons or inserts.
- LPM™ can be exposed to multiple high temperature heat treatments or repair cycles.
- Very low boron content of LPM™ compared to braze results in excellent hot corrosion resistance and full compatibility with conventional coating systems.

### Advantages Over Weld Repair.

- Nickel alloy components are repaired with matching LPM™ alloy for strength approaching the original component. Strength far exceeds conventional weld filler such as IN3625.
- Cobalt alloy components can be repaired with matching LPM™ or alternatively with nickel based LPM™ alloy for strength exceeding the original component.
- Able to repair crack sensitive superalloys without the heat affected zone cracks experienced with welding.
- Able to repair structural areas of vane segments without the localized distortion and strain cracks associated with welding.

### Liburdi Turbine Services

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