

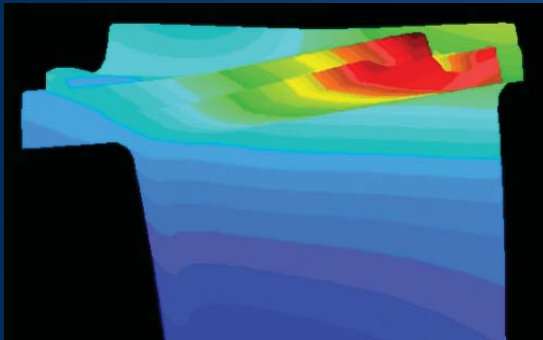
GE Frame 6B 7EA 9E

Advanced Repairs available only from Liburdi Turbine Services

The Liburdi Advanced Repair Program offers:

- Extended Reliable Service Life
- Reduced Maintenance Expenses
- Upgraded Components that Eliminate Design Deficiencies

The Advanced Repair Program developed by Liburdi has been proven in power generation applications around the world. These repairs, available only from Liburdi Turbine Services, fully restore critical turbine components at a fraction of the cost of new replacement parts; maintaining or improving component integrity while creating significant savings for the operator.



Advanced Repairs for Frame 6B 7EA 9E Buckets

Stage 1 Buckets – Life Extended to 100,000+ Hours

- Full coating strip – internal and external coatings
- FSR® Full Solution Rejuvenation® heat treatment process - restores alloy strength
- Re-coat external and internal – MCrAlY plus over aluminizing coating
- Proven over 100,000 hours reliable service for fleets

Stage 2 Buckets – Upgraded and Life Extended to 100,000+ Hours

- High strength LPM® Process – restores shroud lift and twist distortion
- FSR® Full Solution Rejuvenation® heat treatment process - restores alloy strength
- Airfoil aluminide coating upgrade - extends service life

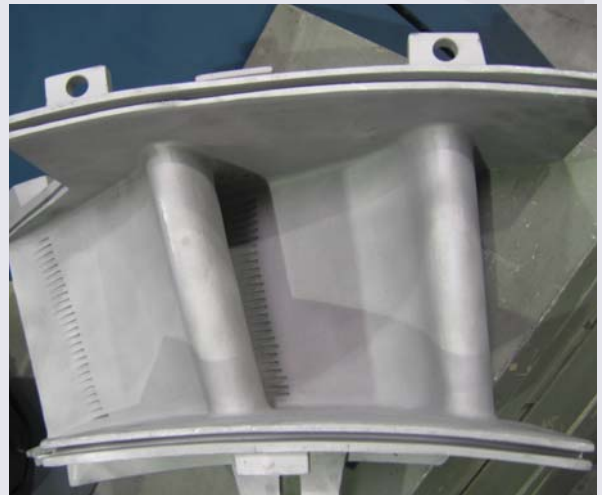
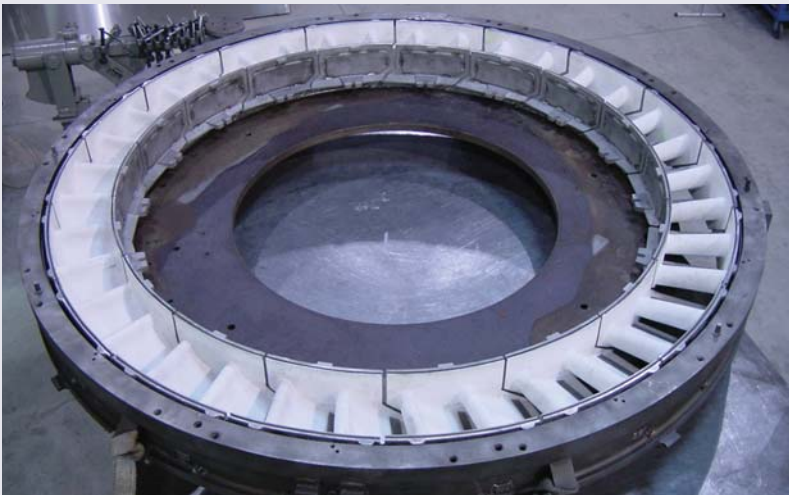
Bucket Upgrades for Frame 7EA to Increase Power and Efficiency

- Applied as retrofit upgrade - avoids new parts purchase
- Tip modifications on Stage 1 - yield ½ MW increase and improved oxidation resistance
- Shroud modifications on Stage 2 - yield ½ MW increase

Advanced Repairs for Frame 6B 7EA 9E Nozzles

Stage 1 Nozzles – Extended Life Repairs

- High strength LPM® process for heavy crack repairs – outperforms conventional welding
- LPM® re-construction of trailing edge wall thickness
- LPM® re-construction - re-establishes critical throat dimensions
- Advanced MCrAlY coatings and TBC coating upgrade available



Stage 2 Nozzles – Extended Life Repairs

- High strength LPM® process for heavy crack repairs - outperforms conventional welding
- Precision machining - restores distortion and downstream lean
- Advanced aluminide coating upgrade available

LPM® Powder Metallurgy is a unique process developed and patented by Liburdi Engineering Limited. It is a high strength superalloy alternative to welding and diffusion brazing, and as such has been used extensively with a proven track record for over a decade for Industrial and Aircraft gas turbine components - for both advanced repairs and new part manufacturing. LPM® re-construction techniques strengthen critical high stress areas, and permit precise control when restoring airfoil wall thickness and throat area harmonics.

Liburdi's extensive experience with heat treatment processes, combined with its unique stripping and coating capabilities, ensures that every repaired component meets or exceeds the original equipment performance and durability requirements in future service.

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