

Component Repair Technology

Product Sheet

Restoration

Microstructural Restoration is achieved using a combination of material specific heat-treatments. Operation induced thermal stresses are relieved, ensuring the substrate alloy is in the optimum condition for repair, then returned to an "as-new" condition for return to service.

Evaluation

In-depth Metallurgical Evaluations (Destructive Tests) are performed on representative components to establish:

- Extent of microstructural degradation (Gamma Prime agglomeration, carbide degeneration, creep void formation etc)
- Depth of surface degradation (hot corrosion, inter-granular attack (IGA), alloy depletion etc)
- Suitability for repair, recommended repair requirements to achieve a suitable condition for life extension

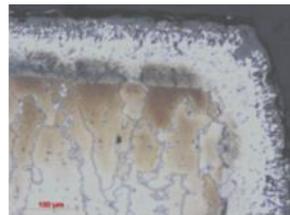
Processing

Whether it be a mechanical (machining, planishing) or thermal (welding, brazing, coating etc) processing requirement, EthosEnergy have developed an extensive suite of fully validated, robust specifications that ensure all parts are controlled and processed to the same consistent level of excellence.

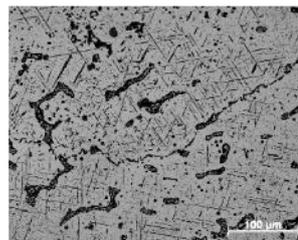
Innovation

As industry technology continues to evolve in an attempt to push the boundaries of power and efficiency, repair methods that were once considered "cutting edge" become more and more dated and unsuitable.

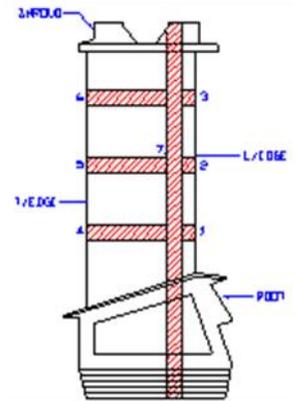
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Surface degradation and grain boundary degeneration



Extreme Carbide Embrittlement



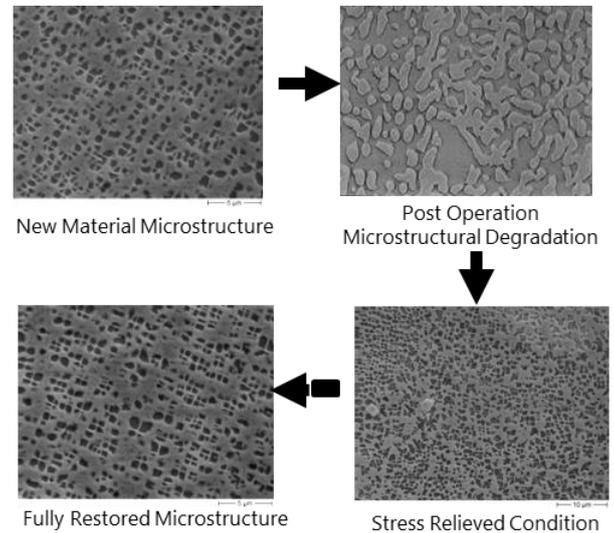
Reliability

A specialist component repair Engineering and Inspection team, an extensive suite of fully validated specifications covering almost every Gas Turbine component, worksopes specific to individual customer needs, and a select, tightly controlled supply chain network, give the confidence that all EthosEnergy refurbished components are processed to the same consistent, robust and reliable standard.

Adaptability

One of the key differences between processing new and used parts is the ever-varying and unpredictable condition of parts due to age, operational life etc.

EthosEnergy offers multiple repair scope levels and options, from a basic clean to extremely complex thermal and dimensional restoration techniques that can be tailored to suit the individual requirements of each customer and component condition.



EthosEnergy is a leading independent service provider of rotating equipment services and solutions to the power, oil & gas and industrial markets. Globally, these services include facility operations & maintenance; design, manufacture and application of engineered components, upgrades and re-rates; repair, overhaul and optimization of gas and steam turbines, generators, pumps, compressors and transformers; delivery of gas turbines and generators, and supply of overhauled and warranted equipment on a FAST TRACK basis.