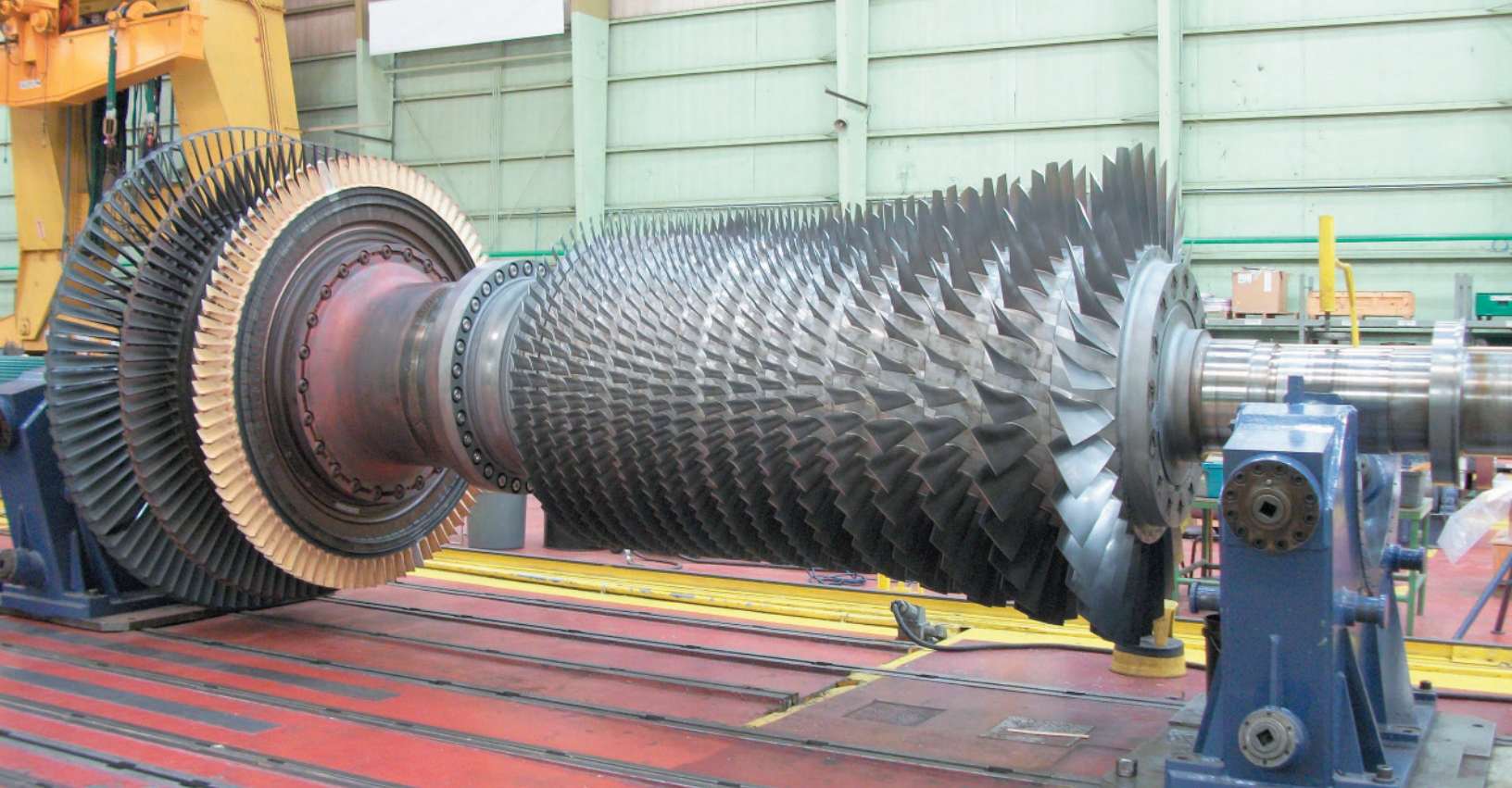




www.psm.com

PSM Rotor Management Solutions

PSM offers customers a rotor management solution that capitalizes on PSM's engineering expertise, using full 3D steady state and transient analysis models, and a portfolio of rotor and blading design upgrades.

PSM services Frames GE & SW/MHI 501F/701F, 7FA/9FA, 6B, 7B/E, 9E
We offer the following capabilities:

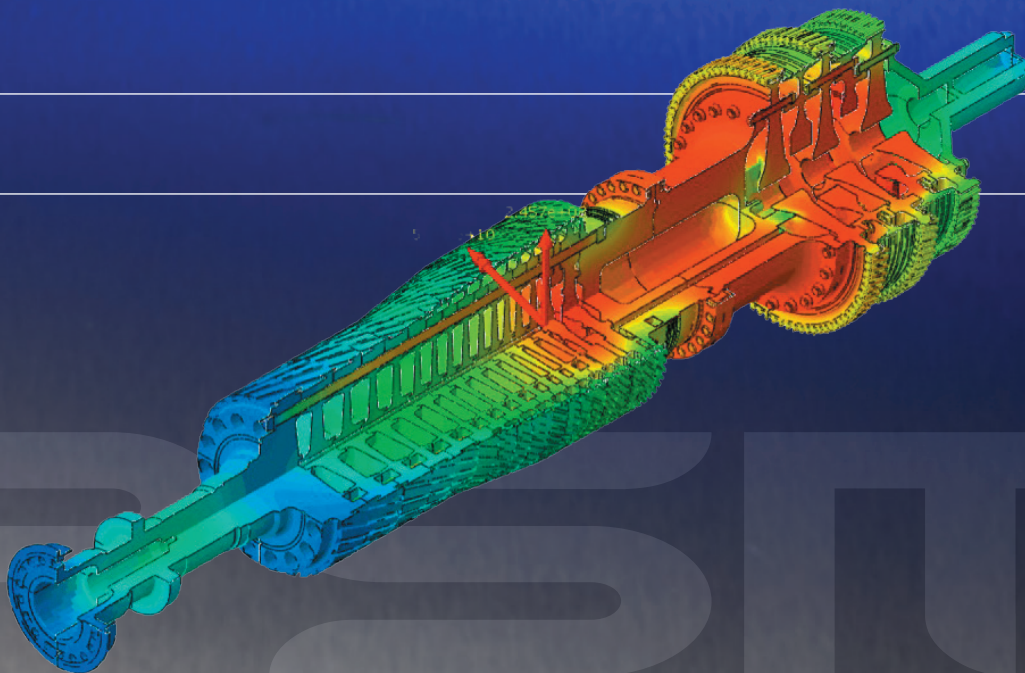
- + Unstack, deblade and restack with tip grind of new blades
- + Complete rotor structural analysis to support repairs
- + Own design blading with reliability improvements (501F, 701F, 7FA, 9FA)
- + Compressor clocking optimization
- + Specialized curvic coupling inspection technique
- + Blade slot crack blending
- + Patch ring repairs
- + RO retention plug modification
- + Compressor thru-bolt inspection by ATS

Example Design Solutions Available

- + PSM replacement spindle bolt design addresses observed failure in 501F fleet.
- + Solution includes change to bolt and nut as well as assembly procedure.
- + Belly band improvements include material change, wear coupling, installation procedure, and redundancy against cooling air leakage.
- + PSM's Compressor Wheel 0 (CWO) incorporates a new dovetail profile to reduce stresses in the known crack location. The recontoured dovetail is an example of a LifeMod that can be applied at repair to CWO's not exhibiting cracks.
- + In-situ blend/polish/peen of first turbine disk cooling slot, with additional life-enhancing solutions available upon full destack.



The **Proven** Alternative

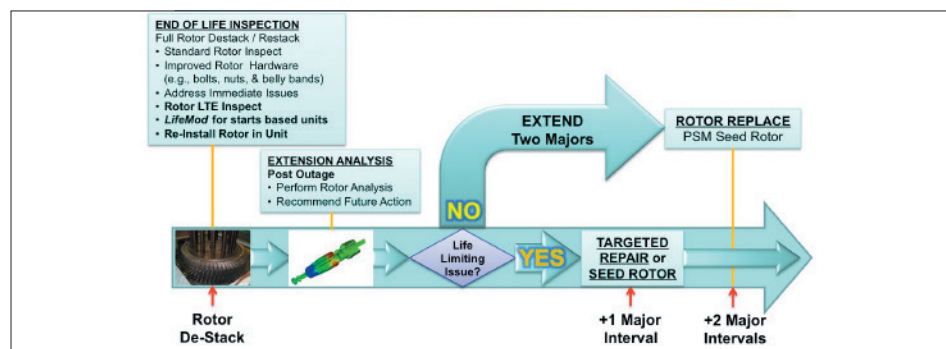
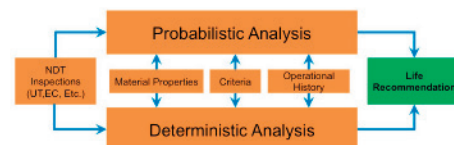


Rotor Lifetime Extension (LTE)

PSM's Rotor LTE program can extend the useful lifetime of your rotor. With the advancements in computing power, material properties, fracture mechanic methodologies, and inspection techniques, it is now possible to assess the potential to run rotors beyond their original published limits. Rotor LTE is enabled by:

- + Advanced non-destructive inspection techniques, utilized to detect surface and volume flaws
- + Full rotor material characterization
- + Full 3D Finite Element Analysis (FEA) models for thermal & structural analysis
- + Inspection results and operational history fed back to the FEA Model

Any problematic flaws identified are analyzed, and a report detailing the predicted remaining rotor capability is generated, empowering owners to make informed decisions about their rotor assets. Optional rotor modifications can be applied called *LifeMod's*, that are designed to extend rotor lifetime in known life limiting locations.



Contact your PSM Sales Representative for more information.
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