Innovative Ultrasonic Shot Peening
Fatigue Life Improvement & Stress Corrosion Resistance

Benefits
• Increased Fatigue Life
• Increased Service Life
• Allows Higher Stress Levels
• Complex Geometry Compatible
• Enables Lighter Design

Features
• The System Is Portable
• Many IN-SITU Possibilities
• Treatment Times Reduced by:
  • Reducing/Eliminating Masking or Bagging
  • Disassembly Not Required
  • FOD Issues Eliminated
• Process is Completely Controllable
• Treatment Repeatability is Guaranteed
Stressonic® Technology “How It Works”

- **Central Unit**
- **Emitter**
- **Boosters**
- **Sonotrode**
- **Chamber**
- **Media**
- **Part to be treated**

1. The Central Unit digitally generates a sine wave at an ultrasonic frequency.
2. A Piezo-electrical emitter converts this signal to a mechanical signal which is then amplified by a series of boosters and the sonotrode.
3. The media receives energy from the sonotrode vibration, and is thrown at the part to be treated inside a hermetically sealed chamber.
4. The Omni-directional pattern of the media inside the chamber ensures uniform peening coverage of the part.

Proven Applications

**Airframe Components**

- Main and Tail Rotor Blades
- Flight Control Subcomponents
- Complex Geometry Adaptation

**Ground Turbines**

- Blade Roots and Airfoils
- Bearings
- Dovetails IN-SITU Without Disassembly

**Aero Engines**

- Blade Roots and Airfoils
- Fan Blisks
- Disk Bores, Sides and Dovetails

For additional Information please contact:
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