"In-Situ" Experts
SUPERALLOYS ENGINEERING®

KSA Superalloys Engineering is an innovative mechanical works company that offers integrated industrial monitoring services and precision measurements. Advanced technology of in-situ vibration analysis, dynamic balancing and precise laser alignment is used on mechanical rotating systems & devices such as turbine rotors and pumps. The company is specialized in highly demanding maintenance projects and is fully equipped with the latest technology on machine element manufacturing tools and measurement devices.

The main target is the successful and complete handling of all possible maintenance situations:

- Preventive & predictive
- Pro-active and planned
- Based condition
- Break down & corrective

Our company experts are visiting “on-site” customer’s plant, to evaluate and provide detailed study and technical reports, to determine the appropriate maintenance & “real time” measurements methodology.

More particularly we provide:

- High precision laser alignment of machine train rotated systems, shafts / couplings / motors
- High precision laser alignment of multi-stage rotors, bores and body casings of turbines and engines
- Surface alignment of engine foundations with laser devices & micrometers
- Determination of bearing wear condition using vibration analysis - “In-situ” vibration analysis with periodical monitoring in high speed
- “In-situ” vibration analysis with periodical monitoring in high speed rotating systems and frequencies (Spectra, Orbit, Envelope, Coast up/down)
- “In-situ” dynamic balancing in 2-axes up to highest G quality.

Our measurement & monitoring techniques are applied “in-situ” where the equipment is installed, and “real-time”, during systems operation of:

- Pumps (centrifugal, vertical, immersed, multi-stage, etc)
- Fans and impellers
- Wind generators
- Steam and gas turbines multi-stage rotors and casings
- Compressors (reciprocating, centrifugal, etc)
- Electrical motors, couplings & motor gears
- Internal combustion engines – Diesel generators – Ship engines

In-situ dynamic balancing and misalignment control in big fans, impellers and high speed rotation equipment “real time”, during their operation

Alignment of multi stage systems & bearing housings in turbine and pump casings

Visualization of uniaxial misalignment and cylindricity divergence, in one or multi-stage line bores and bearing housings

Latest technology laser alignment, balancing & vibration analysis systems, using advanced software

Position alignment of vertical & horizontal pumps, with their couplings and stationary motors (machine train systems)

Advanced software for pro-active monitoring and spectra analysis with multiple possibilities of data processing

ADVANTAGES

• EXTENSION OF MACHINE LIFE TIME
• PRECISE MEASUREMENTS
• HIGH ALIGNMENT ACCURACY
• ELIMINATION OF DYNAMIC FORCES & STRESSES
• ADVANCED SOFTWARE DATA ANALYSIS
• REAL TIME RESULTS
• TECHNICAL REPORTS

KSA-SUPERALLOYS ENGINEERING
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