

Mechanical Condition Management

Benefits

- Optimal performance
- Well planned predictive maintenance
- Savings in maintenance
- Training of personnel

Mechanical condition management covers a variety of specialised tests, diagnostics and services that aims for the optimal performance of your equipment. On contractual basis, we take care of the whole range of condition management from planning to periodical measurements and expert services.

SERVICES FOR POWER PLANTS AND INDUSTRIAL FACILITIES

- Condition monitoring services
- Condition tests
- Expert services for problem solving and structural mechanics
- Guarantee and acceptance testing
- Services for balancing of rigid and flexible rotors
- Training

CONDITION MONITORING

We may assume the responsibility of the whole range of condition management by contractual basis. This covers planning of periodical measurements to expert analysis. We constantly develop condition management procedures and methods.

CONTRACTED CONDITION MONITORING SERVICES FOR POWER PLANTS AND INDUSTRIAL FACILITIES

- Complete range of condition monitoring services
- Analysis, diagnostics and prognostics services
- Machinery specific condition audits and studies
- Extensive problem solving and professional services
- Education and training for plant personnel
- Constant development of periodical practises and methods
- Estimation of forces acting on bearing blocks etc.

SERVICES FOR TURBINES AND GENERATORS

- Condition test (Diagnostic Test Run - DTR)
- Structural (vibration, strain) response under operational or simulated emergency conditions
- Thermal displacement
- Process parameters
- Fingerprints during commissioning
- Condition monitoring
- Periodical condition monitoring
- Balancing of major machinery on site
- Supervision of factory tests (e.g. turbine balancing)
- Education and training
- Expertise in condition monitoring systems and machine protection

TROUBLESHOOTING OF FATIGUE AND VIBRATION PROBLEMS

- Experimental modal analysis (EMA) using artificial or operational excitation to determine natural frequencies, mode shapes and damping
- Operational deflection shape (ODS) measurements and analysis to yield deformation patterns under operating loads
- Vibration, pressure, displacement, strain measurements etc. with process parameters
- Measurements in hostile environment (high temperatures, under water, radiation)
- Monitoring & analysis of structural responses
- Real-time analysis of structural response yielding time at level/peak valley/rain flow data for structural integrity analysis
- Measurement of torque and torsional vibration using telemetry systems
- Consultation services of structural mechanics
- Planning of structural modifications and damping to eliminate vibration problems.