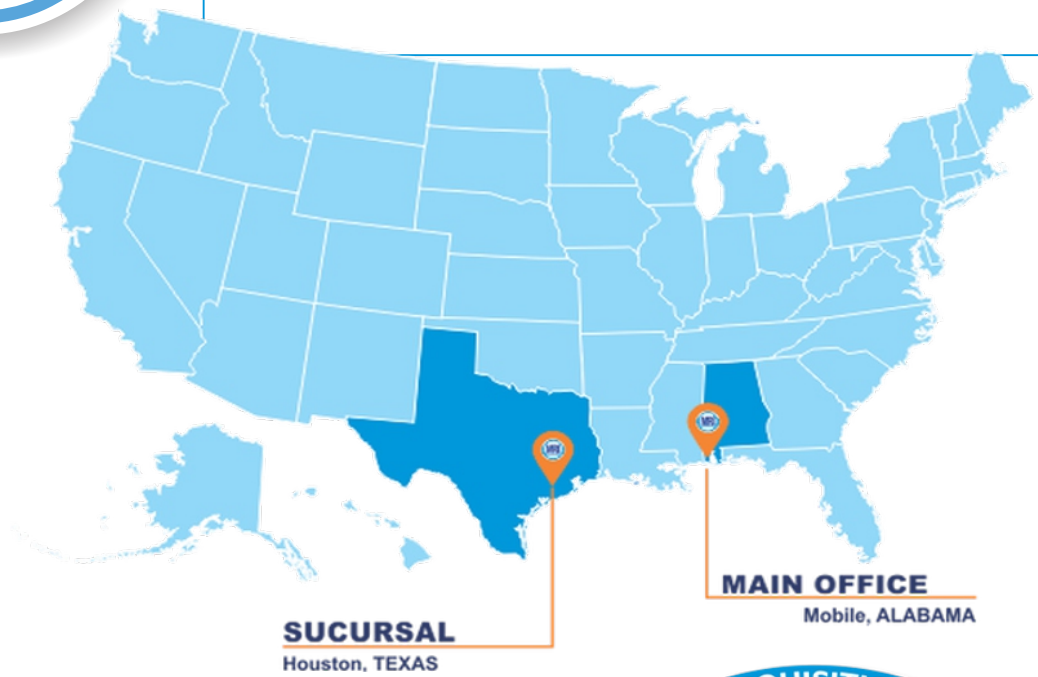




Machinery & Reliability Institute, LLC



We are an organization specialized in the provision of Technical Services, Consulting and Engineering services for the industry, that promotes and provides experiences, guides, practices, techniques, tools, technologies, models and methodologies for Reliability Engineering, Rotating Machinery Engineering and Maintenance for the universe of professionals of engineering and industry worldwide.



Scope of Services





CONDITION MONITORING

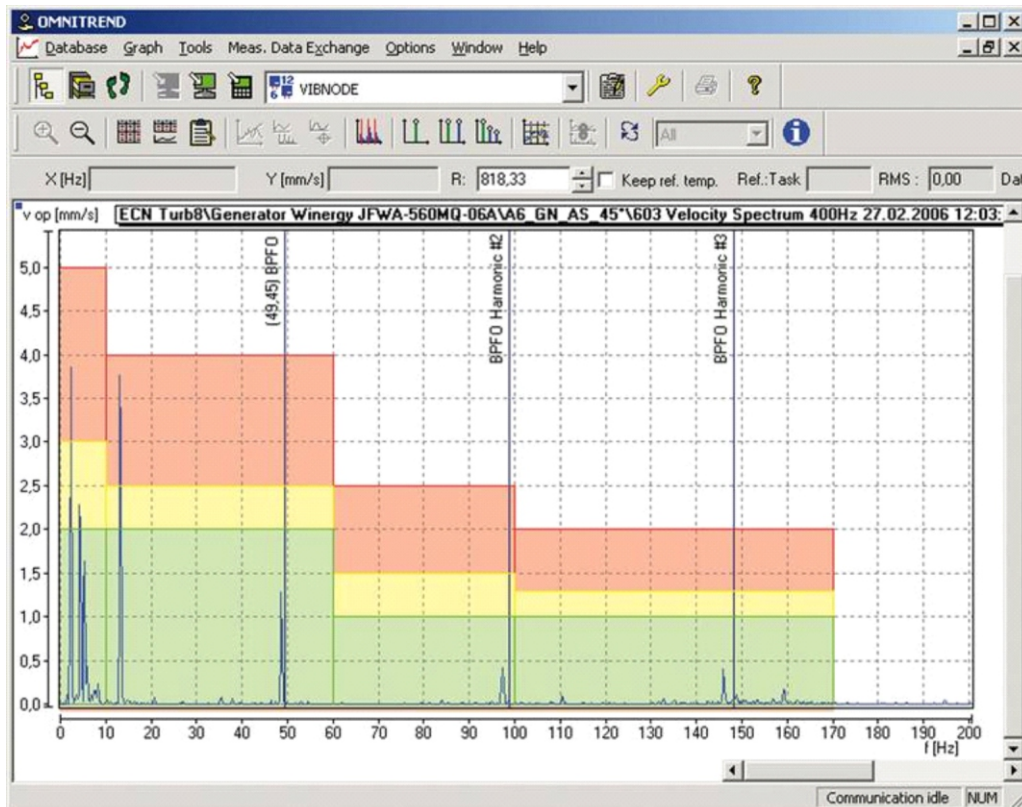
- Condition Monitoring Data Analysis
- Basic & Advanced Vibration Analysis
- Lubricant Analysis & Tribology
- Thermography Analysis. (Infrared Inspection)
- Ultrasound Analysis (Airborne Inspection)

REMOTE MONITORING

- CBM/PdM architecture development based on Hydraulic Institute and ISO Standards
- Advance Rotating Equipment Diagnostics used multiples CBM/NDE Techniques
- Mechanical condition trend forecast and prognostic

ADVANCED STUDIES

- Process and operational variables correlation analysis
- Failure prediction with Weibull Analysis
- PM & PdM Intervals Optimization with Bayesian Theorem





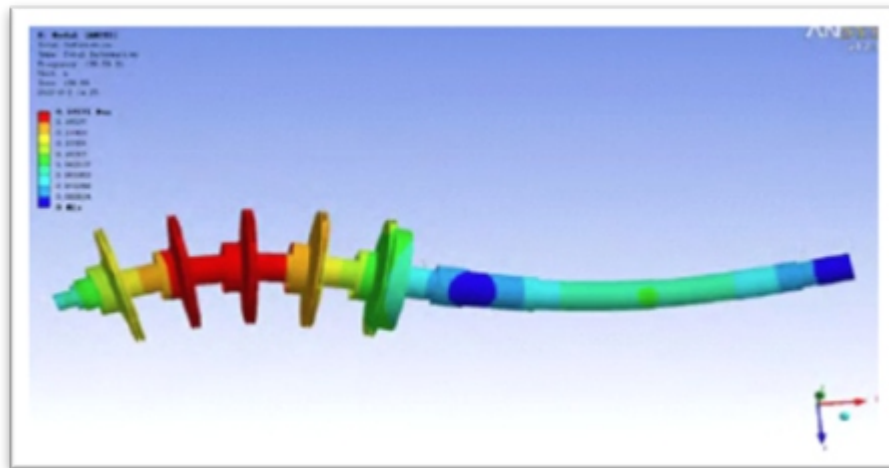
ROTATING EQUIPMENT ENGINEERING

- Rotating Equipment Selection and Application.
- Rotating Equipment Field Technical Services
- Pumping Systems Circuit Simulations.
- Pumping Systems Performance Analysis
- Reliability Operational Windows Development
- Energy Management Levels 1, 2 and 3 Assessment & Audit.



ADVANCED ENGINEERING ANALYSIS

- Theoretical Modal Analysis / Operating Deflection Shape (ODS)
- Finite Element Analysis (FEA)
- Rotodynamic Studies: Torsional and Lateral Analysis



Pumps - Gearboxes - Compressors - Blowers



Multiple Channel Vibration Data Collector & Analyzer



Portable Flow Meter



Tachometer



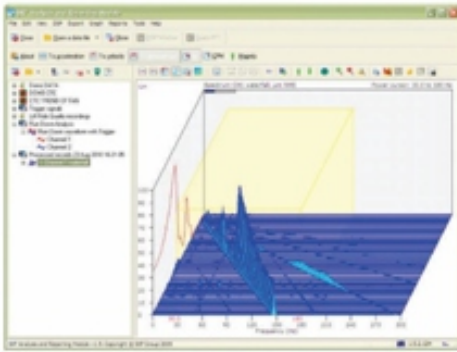
Infrared/Thermographic Camera



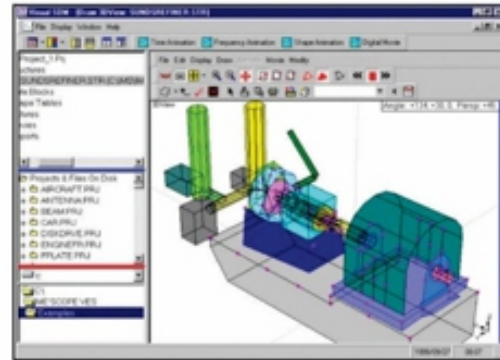
Ultrasound/Airborne Data Collector



Advance Vibration Analysis



Modal Analysis (ODS)



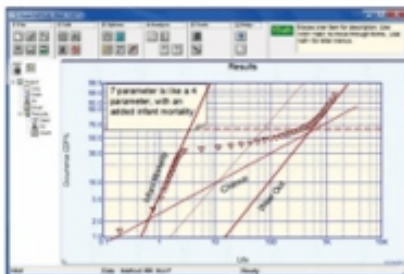
Pumping Systems Simulation and Pump Performance Analysis Software



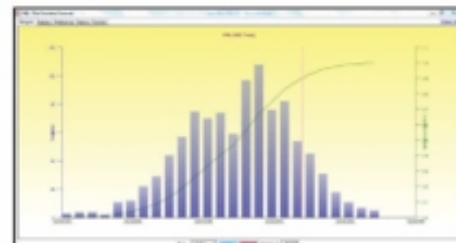
Root Cause Failure Analysis Software



Reliability/Weibull Analysis Software

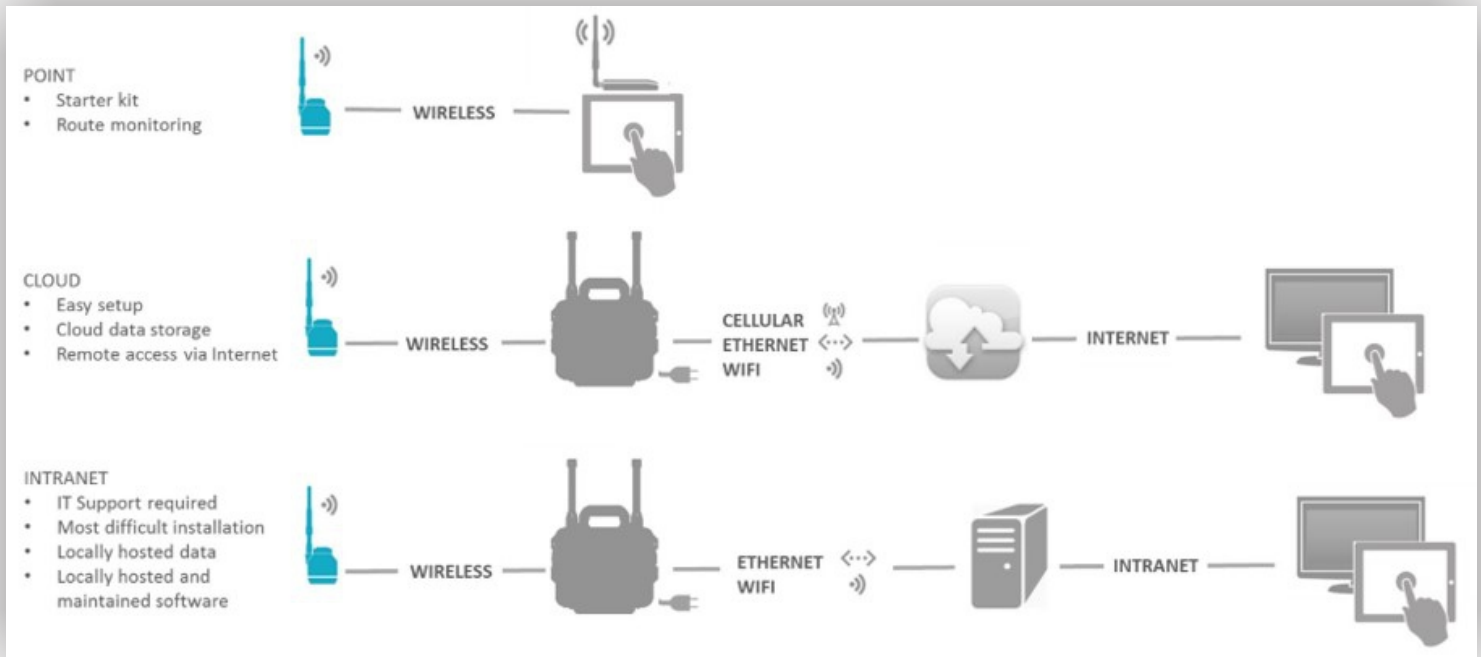


Process/Operational Variable Correlation Analysis



Wireless Condition Monitoring System Development and Support

Design, Installation, Startup and Continuing Technical Support





Wireless Condition Monitoring System Development and Support

Design, Installation, Startup and Continuing Technical Support

2 Channel Vibration & Temperature Sensor



Pressure Sensor



Base Station



Software

