



HORSBURGH & SCOTT

CONDITION MONITORING SERVICES

Prevent premature component wear and catastrophic failures of critical process equipment; condition assessment and dynamic modeling with the latest technology in real-time condition monitoring.



Sentry® VSA: Nema 12 enclosure with LCD Touch Screen display Sentry® Laptop System: fully portable; up to 16 input channels

Sentry® Integrated Condition Monitoring Hardware/Software Package:

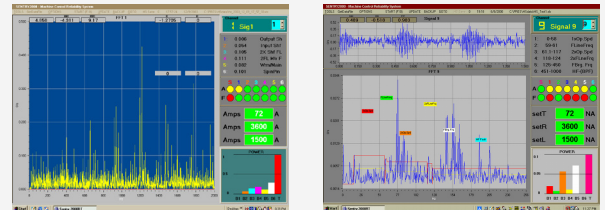
- Comprehensive and sophisticated tool that provides information and insight not available from conventional instrumentation
- Vibration signature analyses integrated with temperature, flow, level, pressure, speed, load, torque, and other variables; alarm notification and long-term trend analyses
- Whether you desire a shop-floor, Nema 12-enclosed system or a portable laptop unit, we can design a custom hardware/software package that meets your needs

Condition Monitoring and Vibration Analysis for Any Application:

- Assembly Lines
- Bearings
- Blowers & Fans
- Caster Mold Oscillator
- Compressors
- Conveyors/Material Transfer
- Gearboxes
- Generators & Motors
- Mill Stands
- Mining/Ore Processing
- Overhead Cranes
- Pinion Stands
- Pumps
- Rolling Mills
- Spindle Assemblies
- Turbine Blowers
- Wind Turbines

Route-Based or Continuous Remote Data Collection Services:

- Vibration Monitoring System Leasing
- On-Site Testing and Reporting
- Real-Time, Remote (Wireless/VPN)
- Motor, Electrical Diagnostics Monitoring
- Infrared Thermography
- Laser Alignment and Field Balancing
- Power Quality/Energy Efficiency Studies
- Ultra-Sonic Applications
- Motion Measurement
- Fluid Interface Detection
- Chatter Detection
- Vibration signature analyses integrated with temperature, flow, level, pressure, speed, load, torque, and other variables



For More Information Please Contact:

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COMPANY OVERVIEW

Manufacturing Capabilities:

- Gear cutting, including hobbing, shaping, Sykes herringbone, flycutting, Maag shaping (conventional and hardcutting), up to 7.3m
- Form grinders to 6m; AGMA class 14 with internal grinding to 3.5m OD
- Vertical turning to 15.2m with live spindle, shaft turning to 2m diameter, OD grinding to 1.8m diameter. Keyseating to 1.5m stroke with indexable table
- Large welded gear blanks to 6m diameter with furnace stress relieving
- Horizontal Boring Mills to 229mm spindles, 7 axis CNC floor mill with 6.1m index table



Heat Treat:

- New Aichelin carburizing and hardening line:
 - 2.0m diameter x 2.5m depth
 - 2.5m diameter x 2.0m depth
- New Saet CNC induction hardening machine up to 5.3m diameter
- Effective case depths for carburizing and induction hardening to 6.4mm
- Stress relieving of component weights to 100,000 lbs
- Process components to 50,000 lbs

Main Plant
5114 Hamilton Avenue
Cleveland, OH 44114
216.431.3900

Heat Treat Facility
4629 Hamilton Avenue
Cleveland, OH 44114
216.432.5804

Repair Center
1441 Chardon Road
Euclid, OH 44117
216.865.0550

Engineering and Quality Assurance:

- Engineering analysis and upgrades
- Reverse engineering
- Sophisticated tools and practices to follow rigorous standards, including AGMA, ISO 9001:2008, AASHTO and API
- Zeiss Coordinate Measuring Machine (4 x 4 x 2m)



Comprehensive Industrial Gearing Repair and Service:

- Engineering analysis, gearbox evaluations, reverse engineering
- Disassembly and reassembly
- Gear inspection
- Gearbox no-load spin testing
- Global field service
- Installation supervision
- Predictive and preventative maintenance
- Detailed borescope inspections
- Non-destructive testing
- Condition monitoring (vibration, torque, load, temperature, pressure, etc.)
- Real time, remote and networked
- Alarm notification
- Root cause analysis
- Condition assessment & dynamic modeling

Solutions for Many End Markets and Applications:

- Metals
- Mining
- Pumps
- Sugar
- Oil & Gas
- Wind Energy
- Tire & Rubber
- Power Generation
- Transportation
- Infrastructure
- General Industrial



www.horsburgh-scott.com