Digital Solutions

Condition Monitoring System



Detect Earlier. Plan Better. Reduce Risk.

Product range

BENTEC Condition Monitoring System

Predict Top Drive Failures Earlier. Reduce Downtime. Plan Smarter.

The BENTEC Condition Monitoring System is a vibration-based diagnostic solution designed to continuously monitor, analyze and interpret Top Drive system conditions in real time.

By identifying wear, anomalies and developing faults long before failure occurs, it helps drilling contractors move from reactive troubleshooting to smarter, condition-based maintenance strategies that reduce downtime and improve operational reliability.

Applications

- Oil & gas
- Geothermal
- Land rigs
- Offshore platforms
- Top Drive systems

Early fault detection through continuous vibration and equipment health monitoring

- Real-time equipment diagnostics
- Predictive maintenance insights
- Reduced unplanned downtime

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Bold Engineering+Technology

sales@bentec.com bentec.com

Unplanned equipment failures during critical drilling operations can lead to significant downtime, operational disruption and increased maintenance cost

Operators are under growing pressure to:
- Reduce uncertainty around equipment condition
- Improve reliability and operational predictability
- Detect failures before they impact drilling operations
- Move away from reactive maintenance strategies

Without advanced condition monitoring systems:
- Equipment failures can occur without warning
- Troubleshooting becomes reactive and time-consuming
- Maintenance planning remains inefficient
- Critical failures can escalate into major operational events

- ✓ **Reduced unplanned downtime and NPT**
- ✓ **Earlier identification of developing failures**
- ✓ **More predictable maintenance planning**
- ✓ **Improved equipment reliability and asset life**
- ✓ **Smarter and more proactive maintenance strategies**

Why BENTEC?

More visibility. Earlier detection. Smarter maintenance.
The BENTEC Condition Monitoring System continuously monitors equipment condition using advanced vibration analysis, intelligent diagnostics and real-time data interpretation to detect wear and developing faults long before they become operational issues.

Integrated into the rigCARE™ ecosystem, it transforms hidden mechanical risks into actionable maintenance insights, helping operators prevent potential NPT, improve maintenance planning and extend equipment life.

It can be expanded with additional accelerometers, oil particle and moisture monitoring, oil temperature and pressure monitoring, advanced fleet dashboards, remote diagnostics support, and integration with customer maintenance systems to support more comprehensive equipment health monitoring and predictive maintenance strategies.

It combines advanced algorithms, AI-supported analytics and drilling equipment expertise to provide deeper, earlier and more reliable insight into equipment health.
- Real-time vibration-based condition monitoring
- Early fault and wear detection
- AI-supported diagnostic analytics
- Integrated cloud-based monitoring and reporting
- Supports predictive and condition-based maintenance strategies

Designed to deliver

- ✓ **Early NPT prevention**
  Identify developing equipment issues before they impact drilling operations
- ✓ **Smarter maintenance planning**
  Shift from reactive repairs to planned condition-based maintenance strategies
- ✓ **Increased equipment availability**
  Early intervention helps reduce failures and improve operational uptime
- ✓ **Improved operational visibility**
  Real-time monitoring provides greater insight into equipment health and performance trends
- ✓ **Reduced maintenance cost**
  Targeted maintenance actions help optimize resources and reduce unnecessary repairs
- ✓ **Better risk management**
  Improved diagnostics and trend analysis support more informed operational decisions

Proven performance

- ✓ **Field-proven condition monitoring for drilling equipment applications**
- ✓ **High-performance in harsh drilling environments and real-time operational conditions**



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Ready to improve equipment reliability and reduce downtime?
Speak to a BENTEC expert

sales@bentec.com bentec.com

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