Royal ^{[®]IHC}

Measurements & Diagnostics Services

Accurate insight into the performance of your critical equipment

Improve equipment performance & reliability during the asset lifetime

Despite the increasing amount of remote data available, in some cases having an experienced specialist on board is the obvious way to gather vital measurement data, or investigate challenging technical problems.

That is why we have a dedicated team to bring the missing pieces of information ashore, enabling you to make more informed decisions about critical equipment to maximize performance and reliability.

Common challenges

There are a variety of situations where accurate and reliable measurement results are critical:

- Excessive noise and damaging vibrations
- Technical issues during commissioning
- Repeated failures of critical machinery
- Equipment condition assessment
- Insufficient evidence for a successful root cause analysis
- Verification of equipment performance against calculated baseline data during trials (FAT, HAT, SAT)
- R&D projects requiring data

Our approach: Tailored to your needs and goal oriented.

We listen carefully to your needs and propose a clear action plan in order to ensure clarity and efficiency.

Our approach is designed to minimise disruption to ongoing operations, resulting in cost savings for our customers.

We don't just record data for the sake of data collection, we measure to solve the problem.

We make your problem our challenge, our commitment goes beyond measurement and reporting. Together with our in-house specialists we can provide a turnkey solution if required.



Contact us at **MDS@royalihc.com**

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Worldwide measurement and diagnostic support since 1942

For analysis and troubleshooting, our team has the following techniques and skills:

Vibration analysis

- ISO 18436-2 certified vibration analysts
- Operating Deflection Shape & Modal Analysis to fine-tune FEM calculations for supporting structural dynamic engineering solutions
- Bearing & machinery condition
- Resonance measurements
- Transient / order tracking
- Temporary remote monitoring by standalone equipment

Shaft Torque & Power

- Use of strain gauges
- Workshop calibration of shaft G-modulus
- Temporary and permanent telemetry systems
- Torsional Vibration Analysis, TVC validation

IHC TMAS

• Torque Measurement and Alarming System developed by Royal IHC to protect critical dredging equipment such as the cutter drivetrain

Pump performance

- Flow rate via clamp-on ultrasonic and orifice flange
- Pump head via calibrated pressure sensors
- Cavitation properties NPSHR curve

Process signals

• Import of vessel sensor array and combination with specific temporary sensors for a wider range of analysis

Temperatures

- Thermography
- Real time thermocouple & RTD

Noise

- Measurements according to regulatory bodies such as IMO/BV/DNV/Etc.
- In-depth analysis of measurements

Troubleshooting

- Root cause analysis support
- Second opinions









Royal **"IHC** Creating the maritime future

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