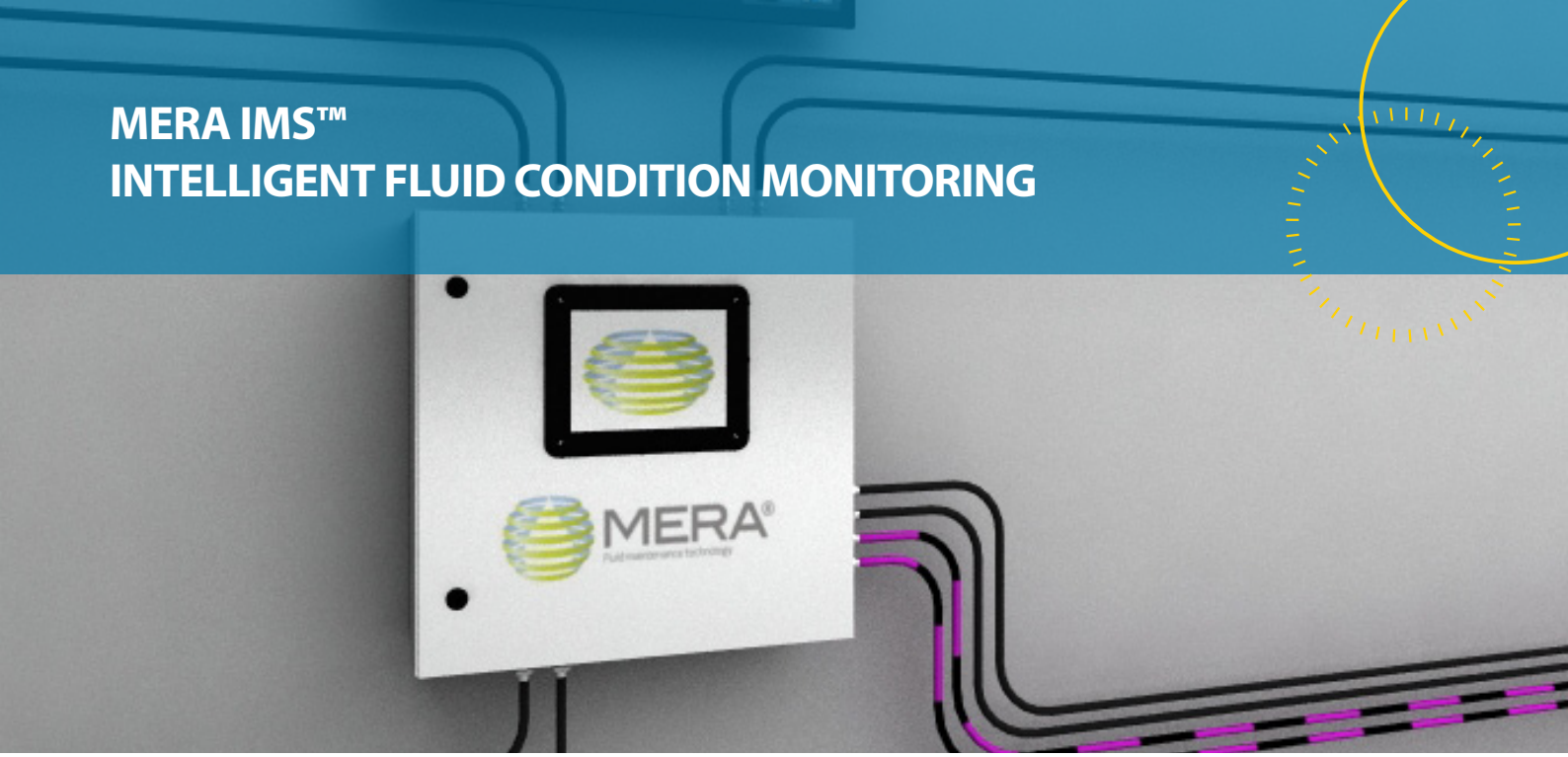
MERA IMS™
INTELLIGENT FLUID CONDITION MONITORING



Delivering real time Condition Based Monitoring(CBM) technologies that reduce hydraulic asset maintenance costs and optimise performance

Across a wide range of industry sectors the challenge remains the same - how to manage the integrity of assets, lower operating cost, improve equipment availability and yet reduce risk.

In response to this challenge a number of industries (e.g. air, automotive, IT) have moved away from traditional run to fail and preventative/scheduled maintenance concepts. Instead they have adopted condition based and predictive approaches to maintenance which monitor the health of sub-systems to identify problems before they affect system performance.

IMS™ Hydraulic Condition Monitoring

The MERA IMS™ has harnessed this concept , offering technology for condition monitoring of hydraulic assets, utilising predictive condition data algorithms to optimise asset maintenance and performance.

Unlike conventional instrumentation for oil quality monitoring, the IMS is based on a software database/SQL and hardware architecture. This makes it possible to process data from multiple sensors, which provide high resolution data, to determine a system condition baseline/fingerprint.

How it works

Using system specific software profiles (e.g. crane, module handling, drilling, ring line, winch, etc.) the condition state can be monitored to a high degree of accuracy for each specific system.

With sensors taking readings every 10 seconds, the IMS embedded software exports plain text and colour code condition status to provide an easy to understand live output screen onsite and/or at a remote location.

Additionally, users can access all logged historical data for investigation purposes.

Design & Integration

The IMS hardware is designed as modules including a control cabinet (HUB), reservoir sensor module (RSM) and a component condition sensor (CCS). This design allows for several modules and sensors to be attached to one IMS Hub.

IMS can integrate into any existing IAS/Cyber/Control solution. It is highly scalable and expandable due to easy to integrate hardware enabling all hydraulic assets to be monitored by the IMS as a complete condition monitoring platform.

- Uses field proven technology
- Delivers live performance of critical hydraulic systems
- Displays performance on easy to understand user interface onsite and/or remotely
- Improved maintenance planning through condition based maintenance outputs
- Delivers onsite and remote equipment performance warnings
- Highly scaleable and easy to integrate

MERA®

hydrasun

MERA IMS™
INTELLIGENT FLUID CONDITION MONITORING

Compatability

MERA IMS™ is compatable with a range of hydraulic fluids including:

- Hydraulic oils
- Gear oils
- Water glycol based fluids

Range of Use

Given its versatility the IMS can be used across a variety of hydraulic equipment and can be installed at time of manufacture or retrofitted on to existing equipment such as:

- HPUs
- Drilling related hydraulic systems
- Cranes and winches
- Subsea module handling systems
- Station keep/propulsion
- Tension/motion compensation systems
- Mooring systems
- Transport systems
- Gearboxes
- Drives & pumps
- Hydraulic applications in general

Key Benefits

Cost Reduction

- Prevents unnecessary maintenance
- Effective maintenance scheduling and execution
- Reduced working capital and inventory requirements
- Better supplier, procurement and warranty management

Increased Productivity

- Avoids equipment downtime from unecessary equipment maintenance
- Increased asset utlisation through real time diagnostics
- Improved capacity management
- Aligned goals between maintenance and operations

Risk Reduction

- Compliance with health & safety
- Reduced risk through real time condition monitoring
- Audit trails for maintenance and operations activities
- Managed corporate standards

Strategic Positioning

- Improved information and analytics aid efficient business execution
- Strong and flexible foundation to support future growth
- Improved supply chain integration
- Improved user interface leads to better technology adoption

"Condition Based Maintenance (CBM) can reduce operational and maintenance costs by 30%"

Norwegian Oil & Gas Association

HYDF024 - AUG16

For further information on MERA IMS™ contact:

Hydrasun
Gateway Business Park
Moss Road,
Aberdeen
AB12 3GQ

Tel: +44 (0) 1224 618618
E-mail: info@hydrasun.com
www.hydrasun.com

MERA® hydrasun