Digital impact hammer systems

Enhancing efficiency and mitigating underwater noise pollution

This poster showcases a new MHU6000W hammer system that integrates SMART technologies to meet the demands of larger monopiles and deeper waters. Advanced monitoring and machine learning enable real-time performance analysis and predictive maintenance, reducing delays. Precision engineering minimizes underwater noise pollution, protecting marine ecosystems.

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Have any questions?
Scan the QR code now! Enter 'SMART Hammers' in the enquiry box, and our expert team will reach out to you.

Radar & proximity sensors

- Precise and continuous ram position monitoring
- Accurate energy derivation

Benefits

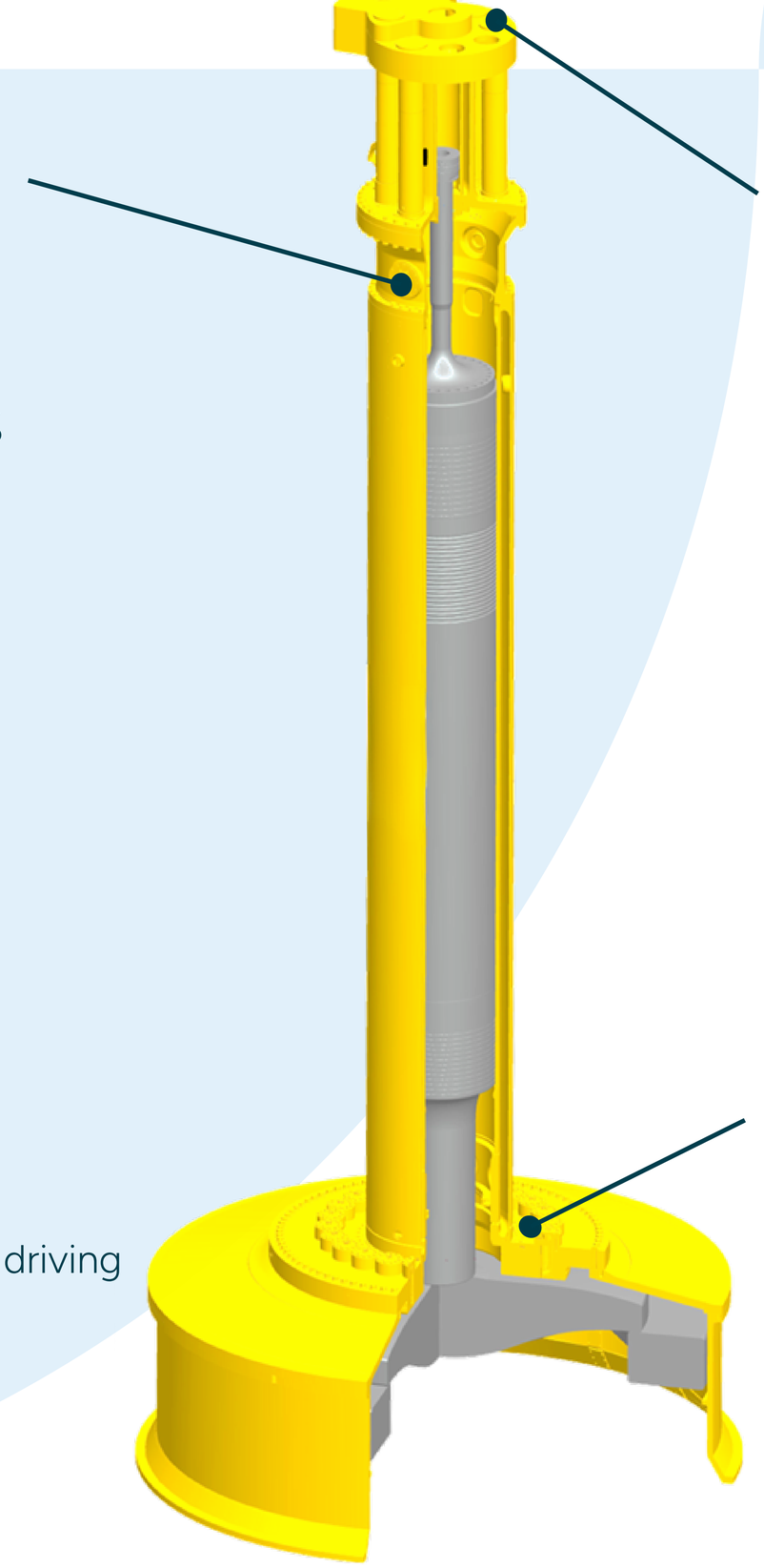
- Continuous energy setting from 2% to maximum
- More accurate data logging and quality assurance

MHC control & monitoring

- Real-time monitoring and control
- Advanced data logging
- User-friendly and intuitive HMI
- Remote access and diagnostics
- Predictive maintenance
- Compliance and reporting
- Integration with digital workflows

Benefits

- Greater control over operations
- Enhanced operational transparency
- Improved efficiency in offshore pile driving
- Optimized maintenance through predictive capabilities
- Streamlined compliance and reporting processes



Precision positioning
Global navigation satellite systems (GNSS)

- Real-time positioning data
- Precise tracking of pile driving operations
- Integration with MENCK's digital systems
- Accurate spatial awareness for operators
- Dynamic positioning support
- Logging-While-Driving (LWD)

Benefits

- Improved pile positioning and alignment
- Enhanced safety
- Increased operational efficiency
- Enhanced data logging for quality assurance
- Reduced errors

MHS: Horizontally system

- Precise pile flange horizontality
- Continuous data measurements
- Logging-While-Driving (LWD)
- Continuous data recording
- Redundancy to third-party survey

Benefits

- Improve installation accuracy
- Reduce rework and associated costs
- Enhance operational efficiency

Menck Data Acquisition System (MDAS)

Enhanced operational efficiency and reliability:

- The central storage and networking hub improves operational efficiency and reliability by providing seamless access to tools, remote support, and real-time data.
- It supports predictive maintenance, reducing unplanned downtime.

Enhanced network connectivity and system interoperability:

- Facilitates seamless integration with offshore vessel systems and third-party monitoring solutions.
- Enables real-time data synchronization between multiple autonomous data streams, improving overall system efficiency.

Predictive maintenance & troubleshooting:

- Anticipates potential failures using sensor data and historical trends, reducing unplanned downtime.
- Supports future digital enhancements, integrating AI-driven insights and advanced automation.
- Secure data handling ensures regulatory compliance and encrypted remote access.