



Innovative Power Transmission



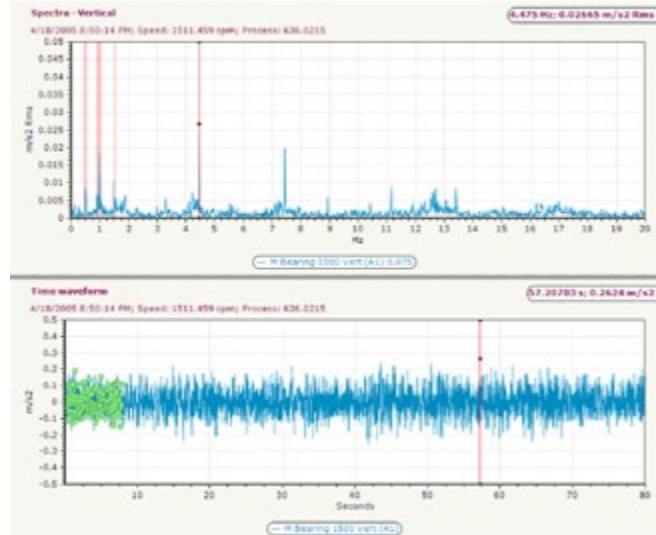
**RENK**  
VIBMONITOR

**Ship Propulsion Systems**  
Condition monitoring for increased availability

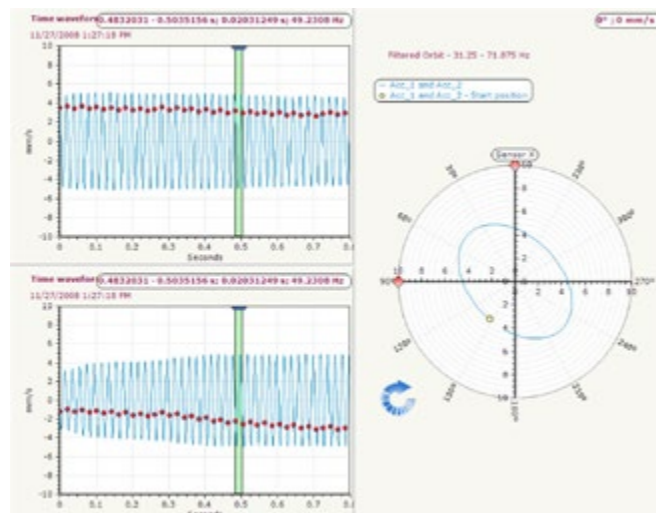
# Intelligent wear and condition monitoring with RENK expertise for greater availability and minimized life-cycle costs



Torque measurement application



Raw signal and spectra analysis



Orbit monitoring

## Decisive advantages

- Continuous condition monitoring
- Early detection due to automatic alert
- Projectable maintenance / extended maintenance intervals
- Efficient spare part management
- Integration into ship control system via standardized interface
- Intuitive handling and clear visualization
- Possible onsite trend and in-depth analysis
- Extended life-cycles
- Enhanced availability / reliability
- Reduced life-cycle costs
- Support by RENK expertise

## The philosophy

RENK VIB-Monitor is an extensive state-of-the-art condition monitoring system. Smart machine management supports the equipment operator, preventing damages and facilitates economical maintenance planning.

## Features

- RENK VIB-Monitor collects and saves data in predefined intervals or event-driven
- Interval storage with pre-trigger function
- Bidirectional data communication with external controller possible
- Intuitive visualization and analyzing software
- Fully automated and informative alerts with alert history
- Internal calculations for source finding
- Data transfer via external data storage
- Handling of different signals by extendable hardware
- Exact simultaneous data sampling in a frequency range between DC and 40 kHz

## What is the RENK VIB-Monitor able to do?

- Continuous observation of all major parameters of driver, couplings and gearboxes
- Recording, saving and analyzing with intuitive software
- Simple integration with standardized communication interface
- Support via extensive and intuitive visualization
- Optional support by clearly represented RENK reporting

## Monitoring range

- Antifriction and slide bearings
- Shaft
- Meshings
- Pumps
- Couplings
- Driving peripheries

## Monitored process parameter

- Shaft displacement
- Casing vibration
- Torque
- Speed
- Operating parameter
- Temperature
- Pressure

## Analysis tools

- Frequency spectra
- Envelope spectra
- Trend
- Orbit
- Polar plot
- Pretrigger
- Contour plot

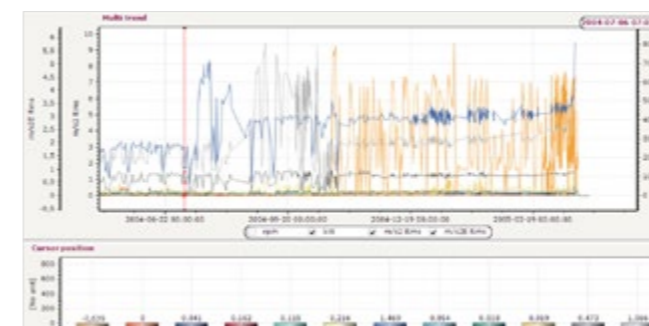
## Reporting

### Content

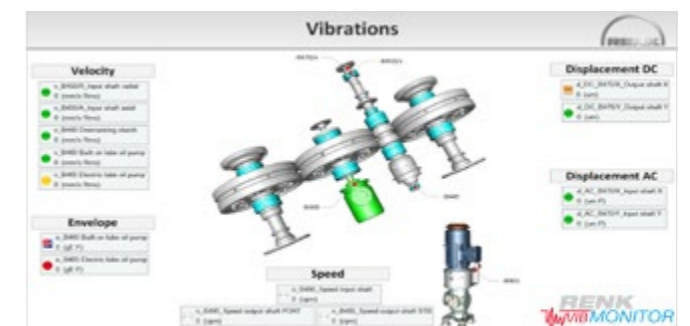
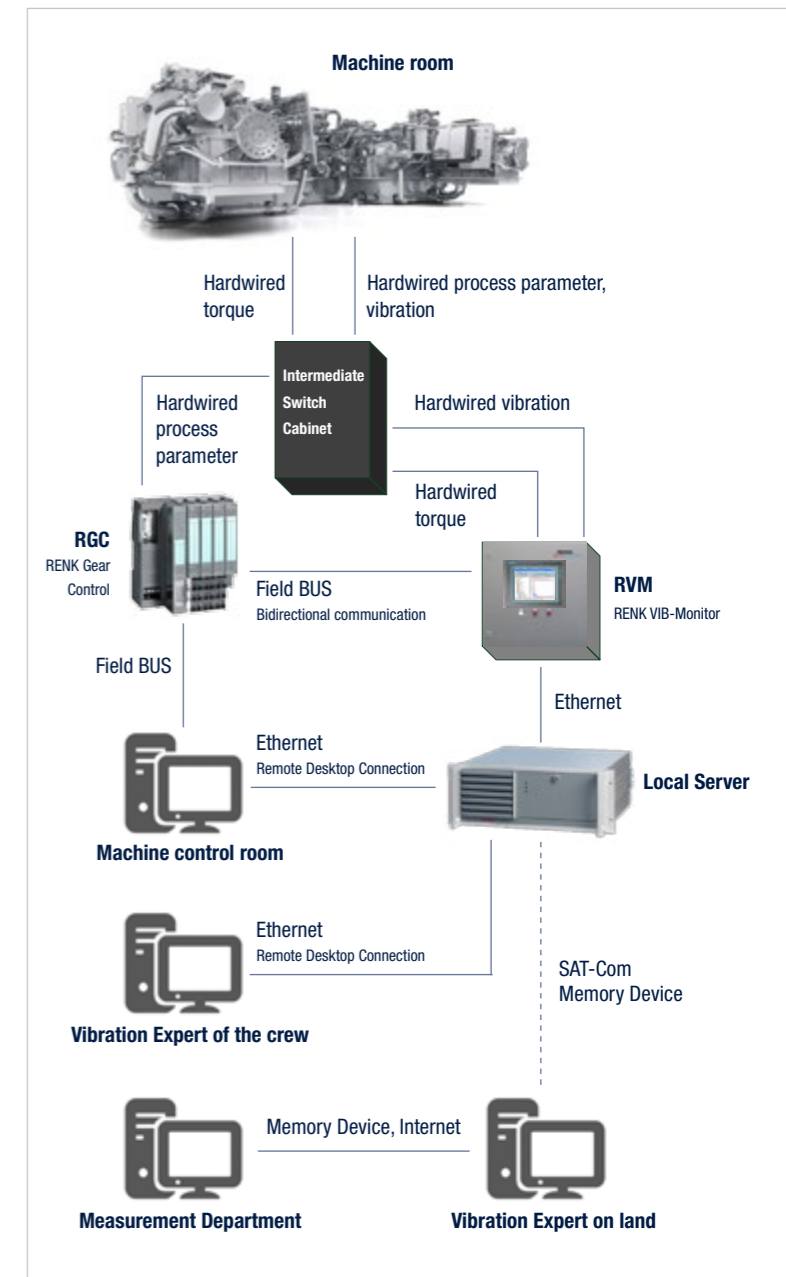
- Brief abstract about gearbox condition
- Measurement position overview with condition indication
- Trend measurement of bearing temperatures, shaft vibration, torque
- Gearbox vibration evaluation according to several measurement modes
- Vibration analysis of built-in and electrical pumps
- Diagnosis of all abnormalities and recommendations

### Features

- Invariable report structure due to easier understanding
- Widespread information of all measurements
- Analysis and explanation of all events
- Prediction for emerging damages (traffic light indication)
- Recommended approach



Multitrend observation



RVM visualization



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**RENK Aktiengesellschaft**

**Augsburg Plant**

Goegginger Str. 73

86159 Augsburg

Germany

Phone: +49 821 5700-0

Fax: +49 821 5700-460

Email: [info.augsburg@renk.biz](mailto:info.augsburg@renk.biz)

[www.renk-ag.com](http://www.renk-ag.com)