

Mining

Oil & Gas

Civil Engineering &  
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# Technology made safe and transparent

Condition Monitoring



# Diagnosis in an active plant

**Additional costs and effort, not to mention the risk of production loss, are often the consequence of unexpected technical failures. In the interest of avoiding events like this, DMT developed a special maintenance tool, which has been industrially approved for over 20 years.**

Petrochemische  
Major oil refinery



The condition monitoring system devised by DMT examines structure-borne sound data in real time, compares the current condition with the ideal status and thus clarifies the current wear level in the machinery involved. Impending damage or potential system failures are recognized early on. We develop and supply systems to measure and evaluate the information, giving operators of industrial plants an overview of the current equipment status.

Which components is it actually worth monitoring?

Which are relevant to your processes?

We work closely with the customer to define surveillance concepts in line with real needs. Once these concepts are implemented, inspection intervals can be flexibly adjusted to suit prevailing requirements, unnecessary repairs can be avoided, and plants achieve maximum service lives. Investments in new machines can more readily be planned and scheduled. At the same time, the risk of sudden and complete shutdown is minimized.

## System technology – Matured in practical use

Our systems, thanks to their modular design, can be used in any of a number of ways. If, apart from our high-end standard designs, you should require a special technique customized to meet a specific situation, then we can develop the appropriate technical solution and match the hardware and software to the prevailing environment.

This is also true for deployment in adverse environments and in areas subject to explosion hazard. We carry out basic engineering, deliver all the equipment and supervise commissioning.

## Pooling advantages through early detection

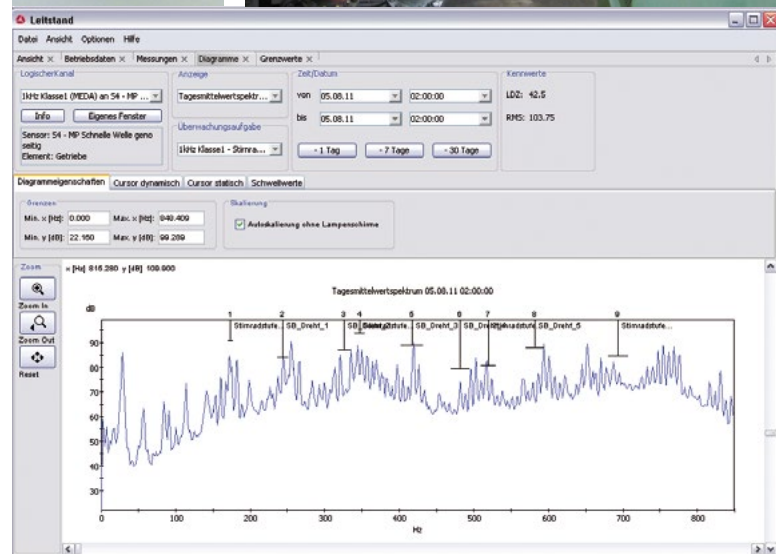
Thanks to in-depth diagnosis, risks of damage can quickly be determined while the plant is on line. Our customers thus have the advance notice needed to procure needed replacement parts in good time. Advantages: Maintaining a stock of spare parts and deploying maintenance personnel are both simplified while, on the other hand, unforeseen shutdowns can be avoided. Our contribution to condition-oriented maintenance has proven its value in practice. Not only does it support operational management. It also boosts efficiency and economy. Machine service lives and maintenance intervals are both extended.

## Forward-looking planning for reliable operation

Our strategy is based on detecting trends in machinery status. Components are monitored at defined intervals and for selected operating parameters.

Tell-tale changes in the operating status are registered and taken into consideration for the assessments. Our systems then derive trend analyses and the forecasts based on this information.

This makes failure times predictable. Machine components need be changed out only when there is no allowance left for wear.



Here DMT status monitoring serves as the interface between incoming data streams and the resultant activities. The responsible persons see relevant status values in an easily understood, intuitive graphic-interface system using “stop light” signals. The system will automatically report that individual components are moving out of the acceptable range and that technical intervention is required.

Pictures above:  
Application example  
Online Condition  
Monitoring of pumps

Picture bottom:  
Selective Component  
Monitoring

# We offer optimal results and cost efficiency



## Services

- Condition monitoring with measurement and Evaluation systems for structure-borne sound
- Open for integration in control system
- Configuration and planning of measurement systems (engineering, measurement strategy, parameterization)
- Technical implementation (hardware, configuration, commissioning)
- Training
- Maintenance and service

## Benefits

- Maximum system availability
- Reduction of downtimes and production loss
- Optimisation of maintenance costs
- Avoiding secondary damage
- Increasing occupational safety and reliability
- Automated status logging
- Generating logs used for guarantee purposes

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