

## Trended – Condition-Oriented Maintenance with Remote Control Monitoring and Database Administration



Service Industrial Hydraulics

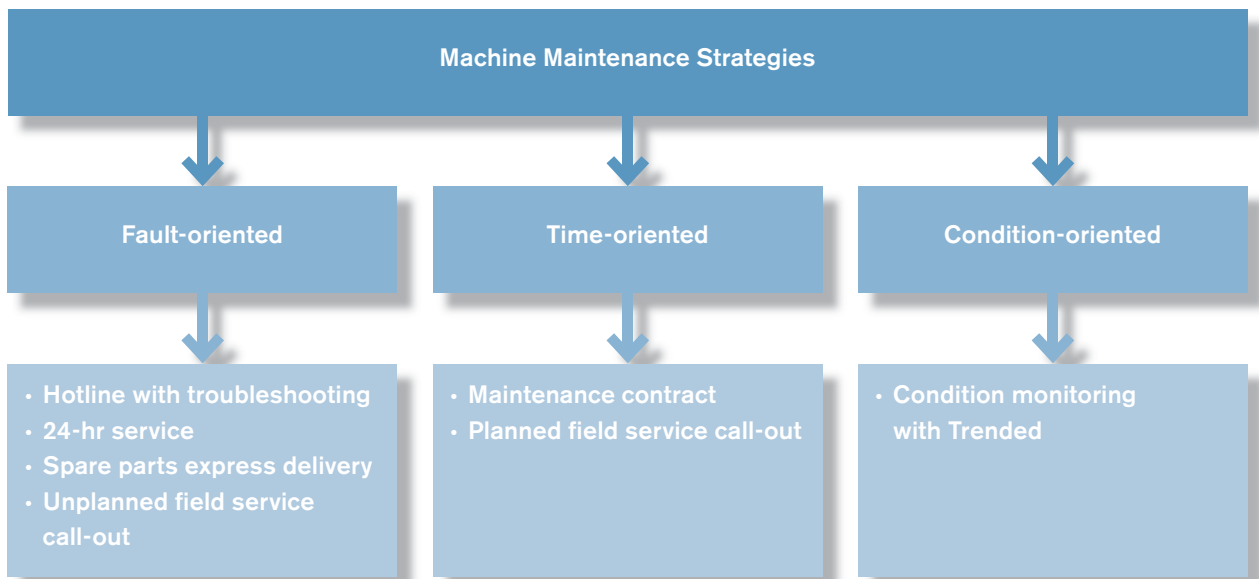




## Timing Makes the Difference

Modern production processes demand modern maintenance methods. The aim is trouble-free and reliable production processes. As your partner, Rexroth can provide the appropriate service concept for every requirement,

ranging from versatile one-off service contracts or combined services, right through to a complete maintenance contract. You are the one to determine which service or services you require.



## Maintenance Only When Required

**Trended is a Rexroth tool for condition-oriented machine maintenance. It permits monitoring of machine and system data so as to enable maintenance**

**measures to be undertaken at the most appropriate time and without interrupting the production process.**

Trended is a data administration service with a data structure designed especially for long-term recording of system values. When evaluated, these figures allow an accurate prognosis of both the current and future operating conditions of components.

Urgent alarm signals, as well as long-term maintenance plans, can be generated by the system, depending on the parameters set. These can then be made available by text messaging (SMS) or via the Internet – around the clock and worldwide. Depending on the sensor technology selected, the system is not necessarily limited to simply monitoring the hydraulics. Other process values can also be incorporated into the data collection and evaluation on a cross-technology basis.



# Data Acquisition Using Trended by Various Methods

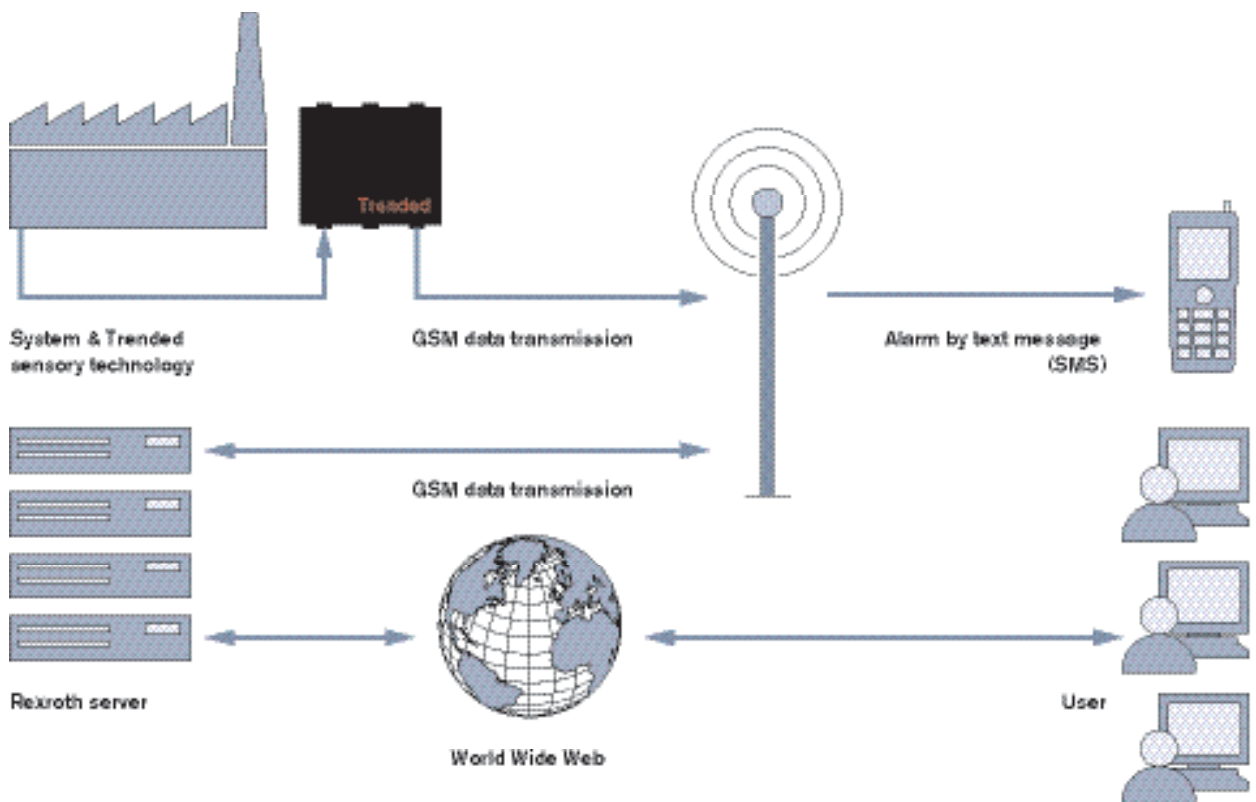
## Examples of applications:

### Remote monitoring of:

- Oil temperature, oil cleanliness grade and oil level
- Condition of filter elements
- Housing pressure
- Suction pressure
- Operating time

The recorded data is captured by means of sensors and collated on a data acquisition system built onto the machine.

This information is then transmitted regularly by GSM (Global System for Mobile Communications, mobile radio network) to the database station.



## The Database: Acquisition, Archiving and Evaluation

### The database:

- Data capture via SMS packages
  - Archiving (data collation)
  - Evaluation:
    - Freely-configurable
    - Definition of limiting values
- Initiation of messages
  - Production of reports
  - Call-up of machine and system dokumentation

On-site measurements, which are undertaken either by the customer, Rexroth personnel or a third party and can be accessed via the Internet and stored on the website.

Recording of important events (Event Journal):

- Oil changes
- Replacement of filter element
- Replacement of components
- Breakdown of components
- Recording of alarm messages

A web-based user interface permits access of data from any Internet access point around the world. Data security is guaranteed by the use of the secure https format.

Furthermore, access is controlled by a customer-specific login page. In addition to the check for irregularities the data is used to determine operating trends. It is on this basis that maintenance activities can be planned.



# Condition-Oriented Maintenance with Trended – Your Definitive Advantage

With Trended from Rexroth you can maintain your systems and installations functionally secure, enabling you to optimize your process sequences and thus increase productivity. It helps you

to recognize and prevent faults and breakdowns at an early stage. This way your machine idle times will be reduced and production will be smooth and trouble-free.



	Fault-oriented	Time-oriented	Condition-oriented
+	<ul style="list-style-type: none"> <li>Utilization of service life</li> </ul>	<ul style="list-style-type: none"> <li>Minimal subsequent damage</li> <li>Planned idle times</li> </ul>	<ul style="list-style-type: none"> <li>Utilization of service life</li> <li>Maintenance only when required</li> <li>No unplanned interruptions</li> <li>High machine availability</li> <li>No subsequent damage</li> <li>Activities can be planned</li> <li>Product safety</li> <li>minimal stock of spare parts</li> </ul>
-	<ul style="list-style-type: none"> <li>Serious subsequent damage</li> <li>24-hr on-call reserve</li> <li>High spare parts requirement</li> <li>Long, unplanned idle times</li> </ul>	<ul style="list-style-type: none"> <li>Replacement of intact components</li> <li>Remaining service life not utilized</li> </ul>	<ul style="list-style-type: none"> <li>Initial investment for Trended</li> </ul>



### **Services from Rexroth help you along**

Which technical services are the right ones for you? Why not ask us? Our experienced employees will tell you exactly what is appropriate for you and, above all, what is economical: one-off service contracts to precisely complement your own, combined services, which reduce your personnel and administration costs decisively or a complete maintenance contract, which gives you the space that you need to enable you to concentrate on your core business activities. Whatever you decide upon: Technical services from Rexroth will increase the availability of your systems, they will improve the quality of your products as well as reducing your costs. So how can we help you?

### **Give us a call!**

You can reach us  
Monday to Friday  
from 0800 hrs to 1700 hrs at  
Phone: 905-735-0510  
Fax: 905-735-5646

### **The Drive & Control Company**

Rexroth offers a unique and comprehensive range of products and services across technologies in its five fields of technology and service areas.

### **Intelligent hydraulics in new dimensions**

At Rexroth you can select from the world's largest standard product range in the field of hydraulics, application-specific and customized special system solutions of high quality. With advanced micro-electronics Rexroth has made hydraulics even more powerful. Benefit from our application specialists' expertise – from engineering to hand-over of turnkey systems. Thanks to the use of hydraulic drive and control technology from Rexroth you will be more competitive than ever.

Electric Drives and Controls  
Hydraulics  
Linear Motion and Assembly Technologies  
Pneumatics  
Service



### **Rely on service across technologies**

Rexroth integrates all services for the entire product spectrum in the field of factory and industrial automation into a single organization: from immediate support, spare parts service, field and repair service, retrofit/modernization through to training.

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