

# INTELLINOVA

condition monitoring the intelligent way



**SPM**







## Your Uptime is Our Business

Condition monitoring is our only business, and with nearly fifty years of knowledge and expertise, we are passionate about what we do. The power of our innovations enable our customers to tap into the potential of the world's most efficient condition monitoring technologies.

### Total solutions provider

With a strong customer focus, SPM Instrument exclusively develops and markets all the technology to measure, analyze and present condition data from complex machinery. We are a total solutions provider, offering a complete line of measuring techniques and high performance products for condition monitoring of industrial machinery.

In addition to advanced measuring technologies, the extensive SPM product line covers everything from transducers, transmitters and cabling to power-packed instrumentation and software. Our training facility SPM Academy offers standardized courses and customized training for all levels of staff involved in condition monitoring, enabling them to be fully proficient and continuously update their knowledge of our products and technologies. Through our partnership with Mobius Institute, SPM Academy provides accredited Vibration Analyst CAT I, II, III courses according to ISO (18436-2/3).





## Intellinova – Reliability at Work

With the Intellinova online system, our unique condition monitoring technologies can be fully utilized to successfully provide earlier warning of mechanical problems than any other monitoring technology – and for more rotating equipment than ever.

### Making it happen

In most industries, securing machinery uptime is essential to meet increasing demands on productivity and competitiveness. To maximize return on investment for high-cost or critical equipment, maximum reliability is a must.

Intellinova is a family of online condition monitoring systems where unique HD monitoring technologies and high-performance digital hardware are combined to ensure the earliest possible warning of deteriorating condition in critical assets.

Easy to install, integrate and operate, Intellinova gives advance warning of emerging mechanical problems in rotating machinery. The system keeps constant watch over your equipment, automatically monitoring important condition parameters, thus enabling the maintenance department to intervene before failure occurs and to service machines at just the right time.



## **Uncompromising Performance, Exceptional Flexibility**

The Intellinova family of online systems does not compromise between flexibility and performance, nor between efficiency and economy. Offering a range of versions to meet any demand, there is an Intellinova online monitoring solution to fit every budget.

### **Condition monitoring as it should be**

The most prominent feature of Intellinova is its high-performance characteristics. The system takes advantage of the latest in digital technology for supreme processing power and optimal data management. The entire range of Intellinova units supports the ultra-efficient HD monitoring technologies, providing unmatched forewarning times.

Intellinova offers an outstanding variety of powerful and highly effective functions to ensure that readings and alarms are relevant and accurate, thus facilitating confident assessment on machine condition. The failure process of rolling element bearings can be clearly observed and closely monitored throughout each stage of development. In spectrums and time signals with an outstanding level of detail, the source of vibration and other problems can be narrowed down to a specific machine part with great certainty.





## Versatile and Powerful

Intellinova offers exceptional flexibility. No matter what the technical requirements are, Intellinova can be tailored into the ultimate condition monitoring solution for every piece of production-critical equipment in your plant.

### A new world of condition monitoring opportunities

This very powerful and versatile system is a perfect fit for the most difficult-to-monitor applications where condition monitoring is complicated by process-related disturbances, such as in the mining and steel industry, as well as more straightforward applications.

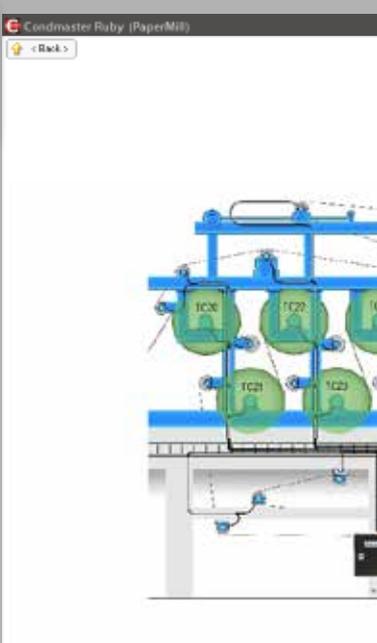
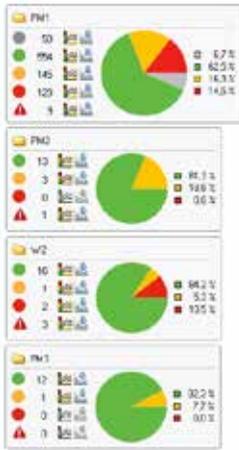
The capacity to utilize and combine the most sophisticated measuring and visualization technologies available ensures that even the most complex machines can be monitored effectively. Complicating circumstances such as time-critical data acquisition and ultra-low or variable RPMs are efficiently handled through parallel measurement and sophisticated, patented digital algorithms.

Intellinova includes units suitable for remote or otherwise inaccessible equipment. Rugged industrial enclosures and mechanically robust installation ensure that Intellinova stands up to tough conditions, including all Ex/ATEX zones.





Visualize equipment and its mechanical condition in a top-down perspective.



## Profitable Maintenance – It’s About Time

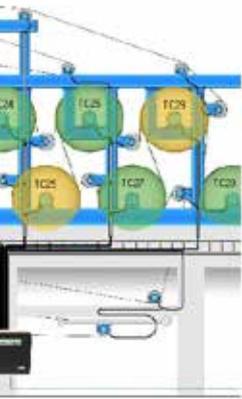
When downtime can cost significant amounts per hour in production and quality losses, reliability is everything and failure is not an option. HD condition monitoring technologies provide the answers you want, when you want them – well in time to optimize maintenance plans based on reliable condition data.

### Transform your maintenance planning

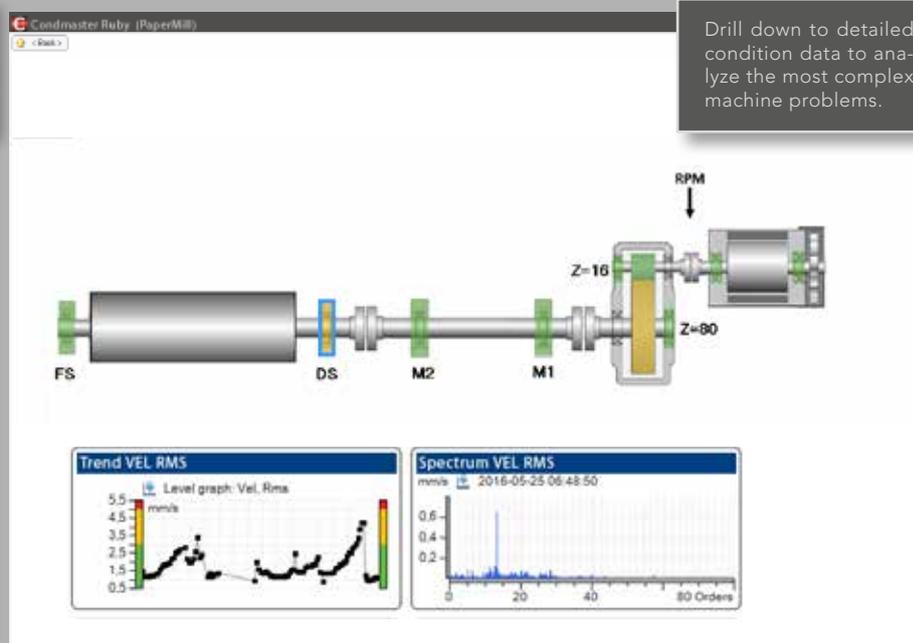
In proactive and predictive maintenance, early warning is the name of the game. Having sufficient time to plan replacements or overhauls can make or break maintenance budgets. The choice of monitoring technology can be the difference between getting several months or just a few short weeks to plan. Providing considerable extra time – weeks and even months more – to optimize maintenance plans, HD condition monitoring is the dynamite technology for ultimate impact on reliability and profitability.

The patented HD technology provides incomparable forewarning times, thus maximizing the planning horizon for maintenance and repairs. HD technologies bring predictive maintenance and root cause analysis to a new level of precision and accuracy – and a new level of confidence to maintenance engineers. Armed with accurate, timely and detailed condition data, the maintenance department has the power to significantly reduce the amount spent on maintenance.

Perfect overview and control of critical assets enables optimization of maintenance schedules.



Drill down to detailed condition data to analyze the most complex machine problems.



## Complex Applications Require Exceptional Solutions

Knowing that availability is a top priority, we made sure that HD condition monitoring technologies can be applied to almost any piece of equipment. The sensitivity and wide application range of these technologies make the Intellinova online system ideal for more industrial machinery than ever.

### The ultimate technology for the toughest problems

Intellinova with HD technology redefines the results you can expect from condition monitoring of low-speed and complex machinery. When it comes to detecting the very earliest signs of gear and bearing damage and identifying the source with one-of-a-kind accuracy, HD technologies overcome the limitations of conventional monitoring methods in terms of handling low and varying shaft speeds, dynamic range, clarity, and difficulties in pinpointing fault conditions. Reliable condition measurement with extreme sensitivity and unrivaled clarity is delivered from below 0.1 RPM and upwards.

Cleverly engineered and patented digital signal processing algorithms extract and enhance the signals of interest from dominant, overall machinery signals. Providing crystal clear insights into the condition status of your production-critical machines, HD technology enables you to extract more value from your condition monitoring program.

## Scalability and Cost Effectiveness

Intellinova is a complete online condition monitoring solution offering efficiency, economy and effectiveness all in one. Clever design solutions ensure a reliable and maintenance friendly system.

### Optimal economy with powerful combinations

The impact of a well-implemented condition monitoring system can be dramatic. With operational efficiency and cost effectiveness in mind, we designed a rugged system, made for rough industrial environments and long-term use.

The entire Intellinova family fully supports our HD technologies, providing incomparable forewarning time – an important factor in maintenance profitability. The possibility to combine these uniquely effective technologies in a single system, capable of detecting a wide range of machine problems, gives optimal economy.

For optimal return on investment, the system can be used to retrofit online systems, utilizing installed sensors, connectors, and cabling. Alternatively, existent sensors can be replaced with dual technology accelerometers, combining the HD condition monitoring technologies in a single sensor.

### Flexible scalability for every plant

Compatible with other SPM online and portable condition monitoring solutions, Intellinova is designed for easy integration and virtually unlimited scalability. Any number of independently working Intellinova units may be installed to communicate either with separate databases or a single, systemwide database. Modular design ensures flexibility in hardware and software configuration as well as economical upgrade opportunities.









## Condition Monitoring on Your Terms

Implementing Intellinova with integration to other control systems is easy. The reward is readily accessible and accurate condition information, delivered how and where you want it.

### Multiple communication modes

Intellinova can operate as a stand-alone solution, but also offers a host of options to seamlessly integrate with other SPM instrumentation or third-party systems, thus enabling continuous monitoring of relevant condition and process parameters in a single system.

Communication and data distribution options include:

- OPC™ data transfer to any OPC compliant application, continuously or upon request
- Ethernet via TCP/IP to existing local area networks (LAN)
- Modbus communication integrates with PLCs
- Wireless transmission on measuring point or system level
- Web interface supplies access to detailed condition information via Internet
- Alarm export to e.g. CMMS systems as text files or SQL database tables
- SMS text messaging to cell phones
- E-mail





## Powerful Software for Overview and In-Depth Analysis

At the heart of an SPM condition monitoring solution is the powerful Condmaster software, containing the expert knowledge needed to evaluate machine condition. The software provides timely reporting of condition data, ensuring that managers can stay up-to-date on the health of critical assets.

### Full flexibility and modular functionality

Condmaster is a comprehensive analysis, diagnostics and troubleshooting software communicating with all SPM Ethernet compatible online systems as well as portable instruments for condition monitoring. This feature-rich software has a user-friendly interface with powerful graphical functions enabling users to easily navigate from overview to detailed condition data. It offers a flexible measuring point register, full support for all HD monitoring technologies, sophisticated analysis tools and alarm management, and extensive language support. Green-yellow-red color coding applied at every level, from plant to individual measuring point, enables fast overview.

The software is modular and system functionality can be tailored to specific organizational requirements and personal preference.



