Symphony Plus’ Condition Monitoring products allow you to gather valuable data from your plant’s rotating assets to ensure safety of personnel and assess the overall health and condition of your machinery.

Key benefits
- Reduce and eliminate costly machine failures
- Simplify data mining and analysis
- Increase availability
- Improve performance
- Ensure safety of plant personnel

Overview
Modern reliability studies have shown that, in the absence of a dominant age based failure mode, approximately two thirds (~66%) of all machine failures actually occur randomly. This means that the majority of machine failures in a plant may be attributed to some cause other than normal wear out conditions.

The ability to recognize signs of abnormality in the operation of critical equipment is imperative to any proactive maintenance program. At ABB, we recognize that plant personnel possess the greatest amount of knowledge and experience regarding the behavior of their plant’s rotating machinery. Our system provides valuable information to quickly assess the health of the plant equipment.

Our solution provides customers with a system that simplifies the user interface, performs time saving reduction of data, identifies significant or undesirable changes in machine condition and produces the necessary information for plant personnel to leverage their own expertise.

The latest in condition monitoring technology
MCM800 is ABB’s latest technology in proactive condition monitoring, adding supervisory functions to both proprietary and open architecture systems.

MCM800 provides a complete set of functions designed to address the monitoring and protection needs for rotating machinery:
- Vibration: displacement, velocity and acceleration
- Eccentricity
- Thrust (rotor) position
- Differential (relative) expansion
- Case (absolute) expansion

Symphony Plus’ Condition Monitoring products suit the power and process industries needs and have been installed on all types of rotating machinery at numerous sites around the world.
Universal module
Cost effective – one module does it all
MCM800’s single module design provides four independently configurable channels which accept inputs from most industry standard transducers as well as analog (4-20mA) inputs. The processor based design makes it easily programmable for unique applications that would otherwise require custom or specialty modules.

Flexibility & scalability
MCM800 interfaces with many different applications
MCM800 supports stand-alone applications as well as fully integrated systems. As a fully integrated system these modules may also be applied in a remote configuration to reduce field wiring from the monitored machinery. Eliminating the need for a special rack and backplane makes the MCM800 cost effective for both large and small applications. Using an industry standard 35mm DIN rail mounting system, the MCM800 may be placed strategically in commonly used instrument housings. Use of industry standard power supplies and communication interfaces further reduces the total cost of ownership through reduced spare parts inventory.

Graphical analysis software
Redesigning graphical analysis
Analyst™ is ABB’s graphical analysis software application that provides specialized plots for assessing the condition of the monitored rotating machinery. The application uses various plot types to present the historical vibration data and selected unit parameters to the vibration expert, so that significant patterns and trends can be quickly recognized. This allows the user to identify problems or changes in the condition of rotating machinery assets so that they may be addressed before adversely affecting operations.

Proven experience
ABB’s Condition Monitoring products leverage the expertise that has been developed over the last 35 years. Combining experience, innovation, industry experts and an extensive knowledge base allows ABB to provide best-in-class condition monitoring products.

Symphony Plus, ABB’s total plant automation for the power and water industry
With decades of worldwide experience, ABB optimizes performance, improves reliability, enhances efficiency and minimizes environmental impact. Combining in-depth process knowledge with an extensive automation and electrical portfolio, this expertise has been successfully deployed in thousands of demanding applications.

Symphony™ Plus represents the new generation of the field-proven Symphony family of control systems with over 6,500 systems installed worldwide. Through ABB’s “Evolution without obsolescence” life cycle policy, we continue to provide enhancements with graceful evolution to newer technology with power and water specific products and applications.

Symphony Plus – simple, scalable, seamless, secure.

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