



INGESYS **CMS** is a rotary machine condition monitoring system. The system monitors the vibrational levels in the rotary machine's key components and is able to determine its condition, anticipating the appearance of functional anomalies. Furthermore, INGESYS **CMS** is a support tool for long-term maintenance plans since it provides information on the condition of the turbine's components, making it possible to reduce maintenance costs to a minimum.

Preventive Control for Rotary Machines



Wear and tear itself on rotary machines significantly increases the level of vibration, resulting in functioning conditions outside the range of values considered to be normal. Studying the progress of the machine's condition over time facilitates the detection of anomalies in the rotary machine's behaviour, thus making it possible to anticipate and prevent these elements breaking unexpectedly through preventive maintenance.

The system is based on the CMS IC3394 treatment module and offers two possible solutions in terms of its application:

- Specific CMS solution (system dedicated exclusively to CMS functionality).
- Module which can be built into the INGESYS IC3 PLC, providing CMS functionality to the existing control system.

In both cases, advanced analysis of signals is carried out using the system software's specific libraries.

The INGESYS@CMS Tool Suite, a powerful configuration, data reading, display and analysis tool, allows you to simply and easily parameterise the system and monitor both the signals and their characteristic values.

Technical Features

- Analysis of vibrations in realtime
- Temporary signal and FFT amplitude spectra
- Envelope signal and FFT envelope spectra
- Order analysis
- Frequency selective characteristic values: RMS, Average, Minimum, Peak Value, Peak-to-Peak Value, Crest Factor, Angular Delta
- Storage of turbine operating conditions

Advantages

- Preventive maintenance
- Supervision of measurement components status
- Easy system integration
- Remote configuration and access
- Advanced on board data storage
- Advanced alerts and alarms log
- Open system control

Hardware features

Modular system:
Up to 4 acquisition modules (each module includes 8 accelerometer channels, 2 fast incremental counters for tachometers, 4 analog input signals for measurements, 8 digital input/output signals and 1 SSI channel)

INGESYS CMS Tool Suite

