

# Monitoring and optimising gas turbines



## Helping to monitor and optimise the operation of gas turbines around the world

Sensors and machinery monitoring systems from Meggitt have been the choice of turbomachinery manufacturers for decades. We are proud to have worked with Ansaldo Energia – one of the world's largest producers of heavy-duty gas turbines – for many years to provide high-quality vibration sensors and machinery protection systems, including:

- > Dynamic pressure sensors
- > Proximity probes
- > High-temperature accelerometers
- > VM600 machinery protection system

## The challenge

In addition to the machinery protection system, Ansaldo was seeking new condition and combustion monitoring solutions to monitor its advanced technology gas turbines. Ansaldo required a system that could efficiently collect enough information to monitor the running of its turbines on power plants around the globe and help them assess the condition of their machines from their service diagnostic centre.

## The solution

After carefully assessing the client's needs, we provided a customised machinery monitoring solution that included:

- > A combustion and condition monitoring system in a single VM600 rack.
- > New VibroSight® condition monitoring software tailored to Ansaldo's needs, incorporating some specifically requested features.

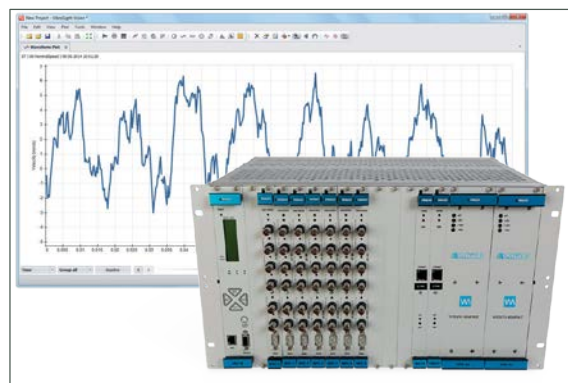
## The benefits

- > Meggitt's VM600 is a powerful system that protects and monitors the condition of the gas turbines. This single solution with common hardware and software is more convenient to use and easier to manage.
- > The solution assists Ansaldo in planning its long-term maintenance schedule. The VibroSight software suite has helped Ansaldo's maintenance personnel interpret trends in vibration and other parameters.
- > It also reduces the number of on-site interventions. This online condition monitoring system sends information directly to the diagnostic team that helps them:
  - > Avoid failures
  - > Optimise efficiency
  - > Extend machinery life, often by several years.
- > Our solutions have enabled Ansaldo to lower total emission levels from the turbines.

In addition to the use on its AE94.3 gas turbines, Ansaldo has also successfully deployed Meggitt's VM600 and VibroSight® solution on its AE94.2 turbines, and is planning to extend it to most of its existing fleet.

## Here to help

Meggitt designs and manufactures the complete monitoring measurement chain – sensors and related equipment, hardware and software. Our systems are installed in many of the world's largest power plants. To discuss how our solutions can work for you, email us at [energy@ch.meggitt](mailto:energy@ch.meggitt), call us on +41 26 407 11 11 or visit our website at [www.vibro-meter.com](http://www.vibro-meter.com)



VibroSight® software and a VM600 rack containing machinery protection cards and condition monitoring cards

## Meggitt Sensing Systems

### Our product competencies and services:

Avionics displays | Condition monitoring | Inertial sensors | Ignition systems | Motion and position sensors  
Performance sensing | Power systems | Sensors

Vibro-Meter®

**MEGGITT**  
smart engineering for  
extreme environments

201612\_CH\_Ansaldo



## At-a-glance

- › Ansaldo is one of the world's largest producers of heavy-duty gas turbines. Meggitt provided a single system solution –VM600 and VibroSight® – for vibration and combustion monitoring at a range of its installations. Meggitt is one of the few companies with a system that does both.
- › With our flexible approach, we customised our software and solutions for the company's particular needs.
- › Our system alerts an operator to any change in vibration levels, which allows Ansaldo to investigate further to determine the source and investigate potential problems.
- › Ansaldo is now planning to use Meggitt's VM600 and VibroSight® system on most of its turbines as part of its machinery monitoring programme.



### Contact

#### Meggitt Sensing Systems

Rte de Moncor 04, 1701 Fribourg, Switzerland

Tel: +41 26 407 11 11 | [energy@ch.meggitt.com](mailto:energy@ch.meggitt.com) | [www.vibro-meter.com](http://www.vibro-meter.com) | [www.meggitt.com](http://www.meggitt.com)

Copyright 2016 Meggitt Sensing Systems

## MEGGITT

smart engineering for  
extreme environments

201612\_CH\_Ansaldo