

Machine Sentry[®]

Experience What's Possible

ADA[™] - the Automated Diagnostic Assistant



- **Fully Automated** - Compares multiple readings taken at a similar time on the asset to advise on potential faults present.
- **Built-in Vibration Analyst** - advises on common vibration problems (similar level to a Category II vibration analyst)
- **Recommends further actions** - identifies checks to be performed
 - **Additional support** for more complex analysis situations available from our expert analysts

ADA™ - Automated Diagnostic Assistant

Machine Sentry® contains ADA™ the Automated Diagnostic Assistant can predict stage 2, 3 and 4 bearing failure and detect a wide range of other common fault conditions, which would be detected by a category II vibration analyst, by using advanced algorithms which are included as standard.

The ADA™ algorithms have been developed by AVT Reliability® team of vibration experts who have used thousands of hours of vibration data coupled with field experience. ADA™ acts as an aide to the on-site maintenance team identifying potential causes for concern

Faults diagnosed include:

- Imbalance (couple, static, dynamic and overhung)
- Bent Shaft
- Resonance
- Parallel, Angular, or
- Complex Misalignment
- Cocked Bearing
- Structural, or Rotating Looseness
- Blade or Vane Pass Issues
- Soft Foot
- Cavitation
- Lack of Lubrication
- Gear Misalignment
- Gear Backlash / Eccentricity
- Gear Broken Tooth
- Gear Tooth Wear
- Bearing Stage 2, 3, or 4

ADA™ compares and evaluates multiple vibration measurements taken on an asset in a similar time window to better evaluate and differentiate between different failure modes.

Component Code: AVT-DEMO/CHEM/CT/CT-Phenol/18PU101/MOTOR
Organisation: AVT Demonstration
Site: Chemical Plant
Zone: Cooling Towers
Area: Cooling Tower 01
Asset: Pump 101
Component: Motor

Manufacturers:
Model Numbers:
Serial Numbers:

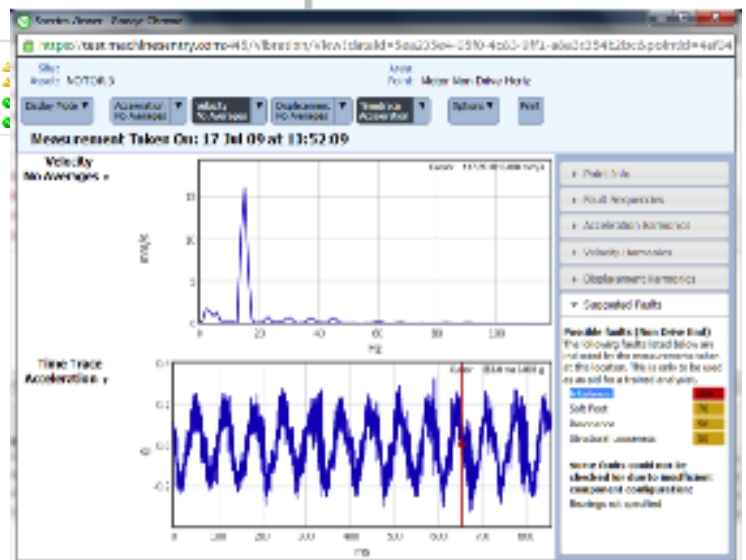
Component Type: Electric Motor
Speed:
Power:

Notes:
Link Ref: 32196

Latest Readings

Name	Last Taken	Readings
Visual Inspection	26/11/2015 10:18:57	Running
Motor Non Drive Horiz	26/11/2015 10:19:10	5.27 mm/s cvt
Motor Drive Vert	26/11/2015 10:46:10	2.39 mm/s cvt
Motor Drive Horiz	26/11/2015 10:46:35	6.91 mm/s cvt

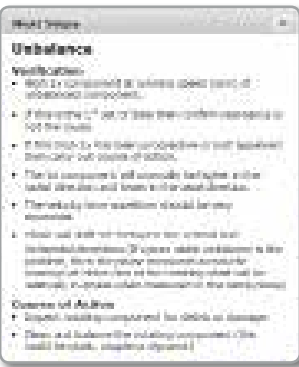
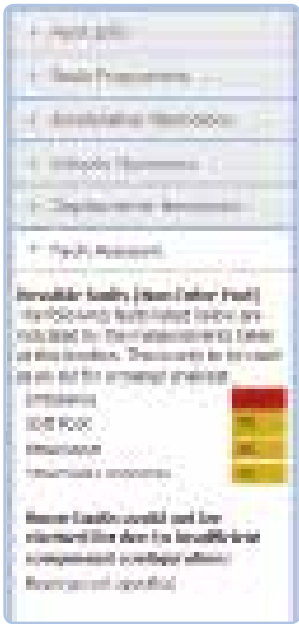
Machine Sentry® uses a combination of ISO standard velocity alarms, acceleration alarms and statistical alarms to highlight assets which are of concern.



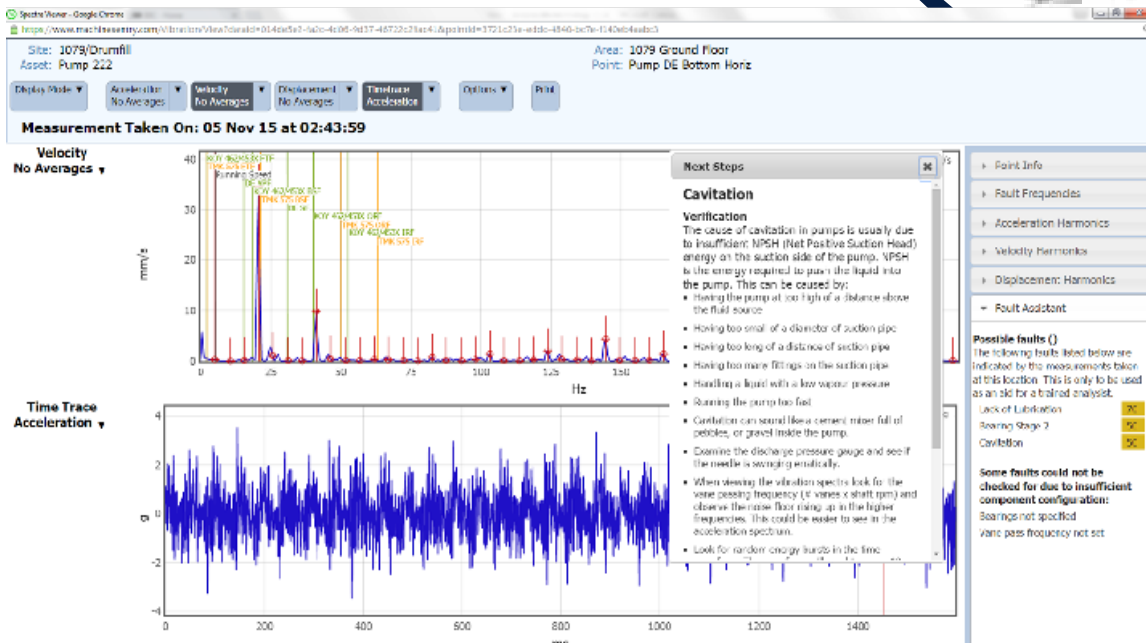
Having highlighted an issue the engineer can view more information of the potential fault using ADA™.

This tool examines multiple readings taken on the asset to assess the likelihood of faults being present. These readings are analyzed against our knowledge bank algorithms of failure symptoms

As well as helping the user diagnose potential faults, the assistant also suggests further verification steps which should be carried out to confirm the diagnosis.



“An expert at your fingertips”



Need extra assistance?

Analyst Support

For customers who do not employ experienced condition monitoring engineers, AVT Reliability® provide access to a large pool of condition monitoring experts. These experts can review clients' 0 data and deliver practical guidance that will improve plant reliability.



AVT RELIABILITY®

The comprehensive AVT Reliability® program covers Asset Integrity, Performance Monitoring, Training, Maintenance Consultancy and Total Pump Management / Products to industry. AVT Reliability® are certified to ISO 17359 and ISO 9001. Accredited by UKAS as a Machine Directive Notified body, and are ICML and BINDT members.

Distributed by:

.....

.....

.....

.....

.....

Proud members of the AES
Engineering Ltd group of companies
"passionate about reliability"



Head Office:
AVT Reliability Ltd
Unit 2, Easter Court, Europa Boulevard
Warrington, Cheshire, WA5 7ZB, UK
t: +44 (0)161 486 3737
e: info@avtreliability.com
www.avtreliability.com