Artesis

AMT Pro

Rotating Equipment Tester without Sensors

A Paradigm Shift in Condition Monitoring
AMT Pro

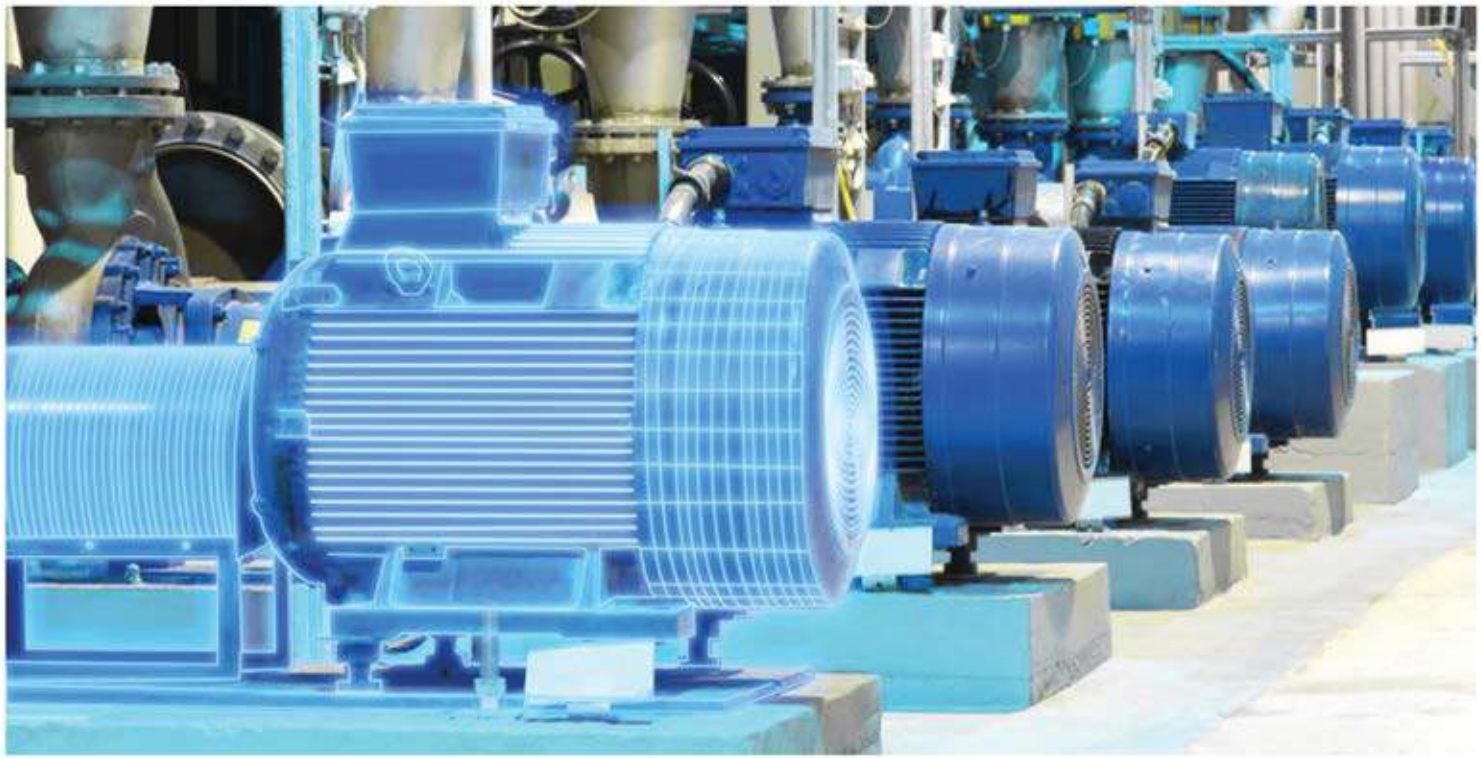
Artesis AMT Pro is a portable motor driven equipment test system which automatically generates a condition assessment report indicating existing electrical mechanical and operational faults, time to failure information, recommended corrective actions, and effects of faults on energy efficiency.

Powered by its patented machine learning algorithm and 10 million motor datasets, this unique instrument is capable of monitoring three phase AC motors and generators as well as driven equipment of all sizes and power levels to provide clear, unambiguous indications when the performance of a motor driven equipment begins to degrade.

- No sensor installation
- Monitor anything same way
- Test motors from MCC panel
- Acess to hard to reach and hazardous applications
- Live motor condition testing with AR Plug

- Fault detection on motor, drive train and driven equipment
- Automated spectrum analysis with immediate report
- No in depth training required
  Comprehensive fault coverage
- Energy efficieny and time to failure information
- Cloud integration to IOT platform

Asset Management and **Energy Efficiency Toolkit**



Key Benefits

- Decrease on maintenance cost
- Productivity increase
- Equipment life extension
- Energy saving
- Improved process safety

Sectors

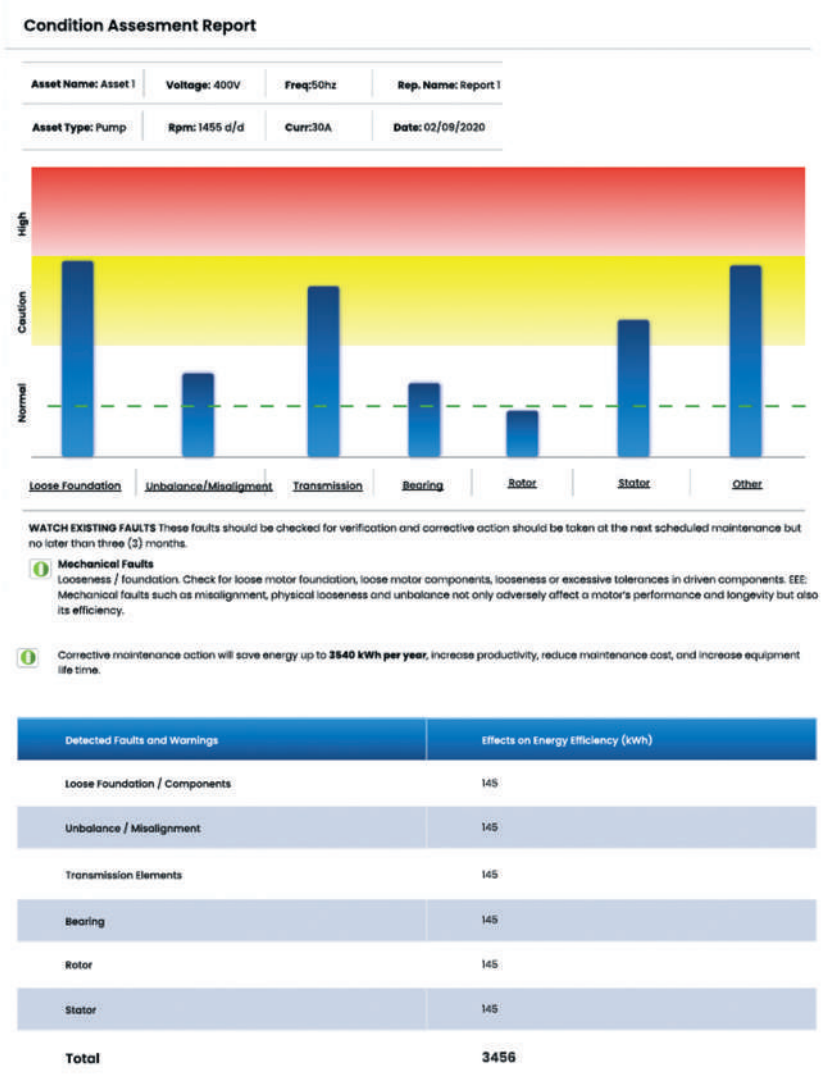
- Oil & Gas
- Energy
- Cement
- Metal
- Pharmaceutical
- Automotive
- Water
- Transportation
- Food & Beverages
- Buildings

Applications

- Compressors
- Fans
- Pumps
- Conveyors
- Generators
- Motor Driven Equipment

AMT Pro Features
Condition Assesment Report

AMT Pro is compatible with 3 phase AC motors of fixed and variable speed and generators. Utilizing Artesis' revolutionary Model Based Voltage and Current analysis, AMT Pro offers comprehensive fault detection capability covering electrical, mechanical and process related faults.



Condition Assesment Report

Asset Name: Asset 1	**Voltage:** 400V	**Freq:**50hz	**Rep. Name:** Report 1
Asset Type: Pump	**Rpm:** 1455 d/d	**Curr:**30A	**Date:** 02/09/2020

WATCH EXISTING FAULTS These faults should be checked for verification and corrective action should be taken at the next scheduled maintenance but no later than three (3) months.

Mechanical Faults
Looseness / foundation. Check for loose motor foundation, loose motor components, looseness or excessive tolerances in driven components. EEE: Mechanical faults such as misalignment, physical looseness and unbalance not only adversely affect a motor's performance and longevity but also its efficiency.

Corrective maintenance action will save energy up to **3540 kWh per year**, increase productivity, reduce maintenance cost, and increase equipment life time.

Detected Faults and Warnings	Effects on Energy Efficiency (kWh)
Loose Foundation / Components	145
Unbalance / Misalignment	145
Transmission Elements	145
Bearing	145
Rotor	145
Stator	145
Total	**3456**

Watch AMT Pro Video

Fault Coverage

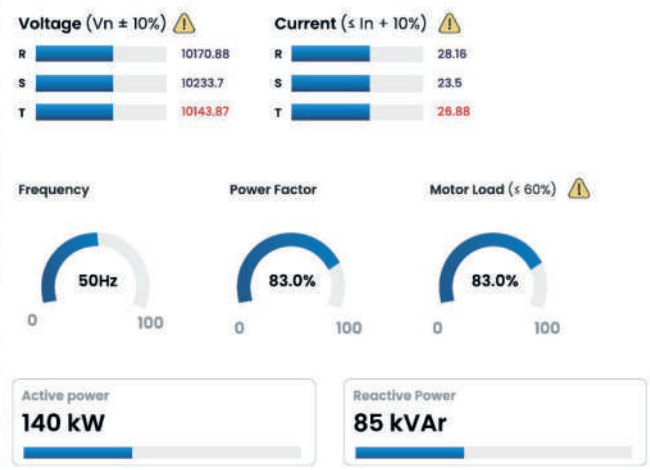
- Loose foundation/ components
- Unbalance/misalignment/coupling
- Transmission faults
- Driven equipment faults
- Bearing faults
- Rotor faults
- Stator/insulation faults

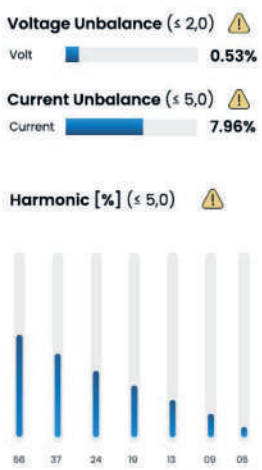
Process Faults

- High energy consumption
- Low efficiency
- Cavitation in pumps
- Flow turbulence in fans, blowers
- Filter and heat exchanger fouling
- Lubrication
- Oversize/undersize motors

AMT Pro Features
Condition Assesment Report

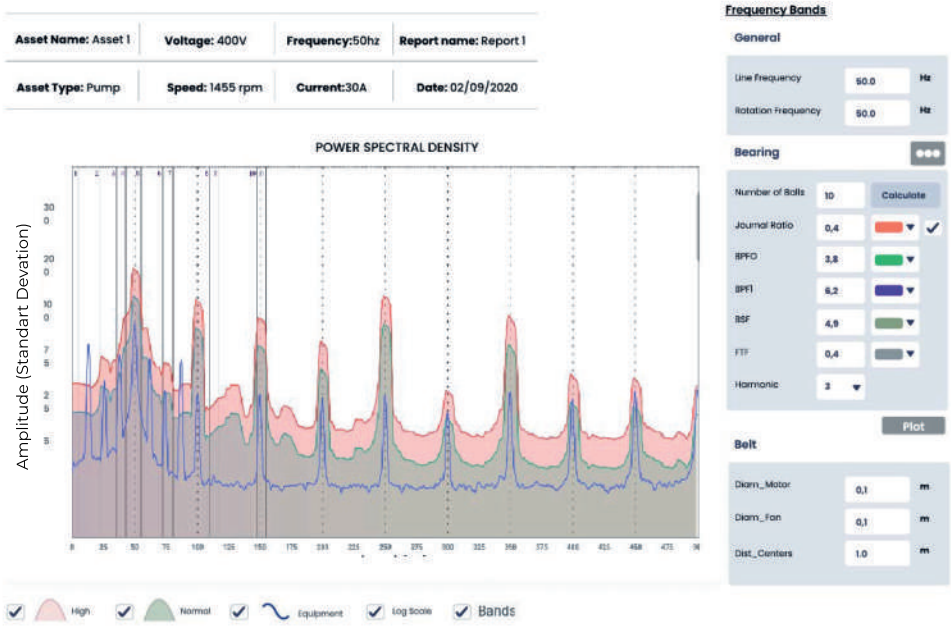
Condition Assesment Report





Electrical Parameter

- Vr, Vs and Vt
- Ir, Is and It
- Frequency
- Voltage Unbalance
- Current Unbalance
- Motor Load
- Power Factor
- Active Power
- Reactive Power
- Total and odd harmonics



Electrical parameters are compared with standard reference values and indiciating electrical faults as well as power quality issues.

PSD (Power spectral density waveform tools offer advanced level of use for root cause analysis.

Test results simultenously sync to secure cloud based server allowing access to the reports on an IOT platform.

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