



Sensotek

Smart Sensing Solutions

RMS
RELIABILITY MAINTENANCE SOLUTIONS

Sensotek Tau[®] Construction/Mining System

Sensotek Tau[®] provides innovative machine health monitoring for industrial applications. Tau combines a proprietary means of transmitting data with professional software and robust hardware for wireless condition monitoring analysis.



SCREENING



CRUSHING



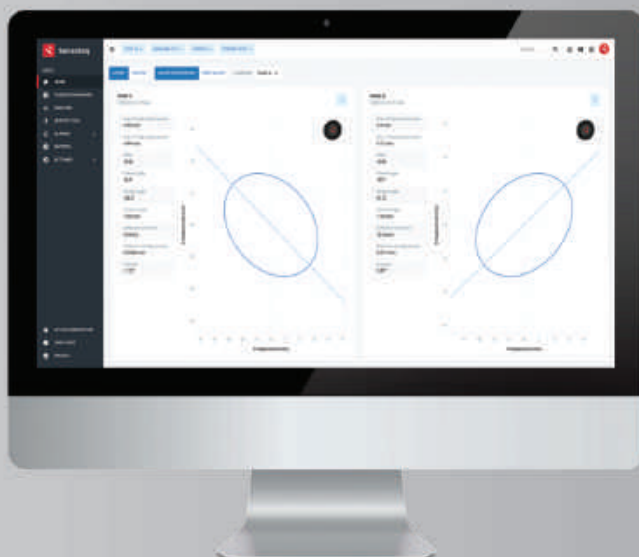
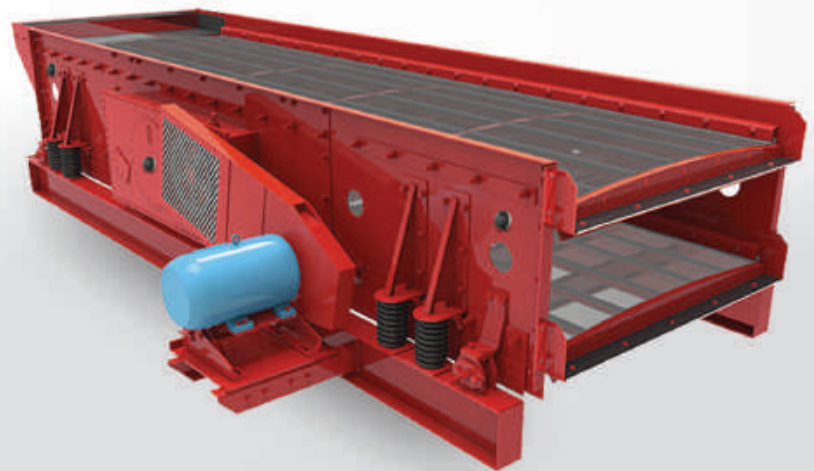
FEEDING



Sensotek Tau[®] wireless sensor system measures and transmits data every minute to ensure the most accurate diagnosis can be performed on your machinery for predictive maintenance purposes, not only reducing downtime & costs, but also increasing efficiency and extending your machines' life. Tau is particularly useful in dangerous and difficult to reach locations.

The system identifies faults based on set limits which, if breached, alerts users via email or text that there is an issue.

Tau is renowned for its powerful capabilities and used by vibration analysts worldwide.



Sensotek Analytix[®]

Sensotek Analytix[®] pioneers the user interface world when it comes to condition monitoring. Sleek, modern design meets powerful, advanced analysis and reporting tools to give you one of the most advanced platforms available.

View high level data with overall health rating. Dive deeper with full spectrum analysis, tracking harmonic peaks, bearing fault frequencies and side band amplitudes. Data trends allow for long-term projections. Generate and send graphs at the click of a button.

With new features and updates added quarterly, Analytix ensures you remain ahead of the game.



Tau Wireless Sensor

Sensotek Tau[®] sensors measures tri-axial vibration and temperature to produce an all-encompassing picture of machine health.

Tau vibration sensing elements use **Smart Wake** to recognise when your machine is running. It only provides critical information required for accurate monitoring when in motion, extending battery life and producing more reliable results.

Tau's proprietary sub 1GHz ISM band protocol allows the sensor to achieve a continuous connection to Analytix while maximising battery life.



Tau Gateway

The Tau Gateway provides an uplink from your plant to the Analytix cloud platform via Wi-Fi or cellular connection. It also serves as a sensor, monitoring and transmitting ambient temperature.

The Tau Gateway listens for RF communications from the sensors, collates them into Wi-Fi protocol and communicates this data for viewing and analysis.

Tau's proprietary sub 1GHz ISM band protocol relays long- range, stable transmissions effortlessly in high noise environments, ideal for large-scale quarry and mine site installations.

Sensor Specifications

Detects

- ▶ Screen Defects
- ▶ Mechanical Looseness
- ▶ Shaft and Bearing Wear
- ▶ Bearing Failure
- ▶ Misalignment
- ▶ Imbalance
- ▶ Electrical Noise and Resonance

Key Measurements

Stroke Plots, Screen Efficiency Data (Stroke Angle, Length, G Force, Deflection, etc.), RMS Velocity/Acceleration, Peak to Peak, Acceleration Time Waveform, Spectrum (Acceleration, Velocity, Displacement)

2.5 kHz

Fmax (X, Y, Z)

16G

Vibration Limt (+/-)

IP69K/ATEX

Environmental Protection (ATEX Zone 0)

3+ Years

Battery Life

Gateway Specifications

Key Benefits

- Proprietary RF Link Ensures Robust Data Connection
- Easy Install
- Small Form Factor

Compatibility

- Sensotek Kappa and Sensotek Tau Sensors
- Sensotek Analytix Platform
- Sensotek Install App

250m

Wireless Range (Line of Sight)

WiFi

Connection to LAN

IP64/ATEX

Environmental Protection (ATEX Zone 2)

Cellular

Optional Connection