

LOW COST & ACCURATE CONDITION ASSESSMENT TOOLS FOR HVAC & FM

Previous Barriers to using Vibration Assessment for HVAC

Maintenance technicians visit one or more sites per day and are expected to do all of the mandatory, maintenance and site infrastructure checks within that time frame AND manage/rectify any unexpected breakdowns.



Most engineers are aware of condition monitoring (CbM), but are also aware of the historic drawbacks, namely:

- Basic Vibration meters are too generic, don't store history and notoriously inaccurate
- Spectral Vibration data-collectors and software are too expensive for mobile working
- The data interpretation required by accurate CbM systems is training intensive

New Low Cost Vibration Assessment Tool

The recently developed USB Vib sensor turns a PDA into a fully functional vibration data-collector for less than £1000.

The system takes 3 different reading types to differentiate between rotor, bearing and gearbox related problems. Over 10,000 spectral vibration components are processed and compiled into 6 specific RED/AMBER/GREEN fault symptoms for simple, on the spot fault assessment.

The PDA software simplifies the two modes of use: High level symptom based vibration checker OR route based vibration measuring system (interfaces with CMMS/CAFM or the SmarTrend web portal).

SmarTrend is a web based vibration portal that allows any registered user to manage route data, to view the symptom data trends and to visualise the assets and associated maintenance actions for the purposes of Predictive Maintenance intervention. External vibration experts can also view the data and create more complex reports/ diagnostics.



How Can Vibration Help?

- Detects lubrication and bearing problems early enough to fix before failure
- Classifies looseness and misalignment/coupling problems before damage occurs
- Can be used to extend overhaul intervals where vibration levels are low and steady
- Accurate/reliable enough to diagnose problems on all HVAC, Refrigeration and UPS assets