

Vibration Analysts

Customer: Rio Tinto, Australia
Department: Asset Management

Case Study



Background:

“Condition Monitoring” is a specialist area that focuses on plant maintenance and the detection of faults in rotating machines.

Vibration Analysts are the specialists who are trained to detect the faults of any rotating machine (pumps, motors, generators) and to sound the alert about problems before they become significant and expensive.

Today, Vibration Analysts use a range of smart sensors that allow faults to be predicted before they occur. They use listening/audio amplifiers, sensors and headsets to listen to the sound that the bearings make while the machine is rotating. Often they use this method when lubricating a machine - they can hear when enough grease has been inserted.

Customer Problem:

Vibration Analysts are continually exposed to loud, sometimes dangerous noise on the job, in particular, the noise coming out of the listening amplifiers.

As a result Vibration Analysts have a higher chance of contracting noise-induced hearing loss which affects people who are constantly exposed to dangerous levels of noise.

Because of an existing relationship, Rio Tinto turned to Sensear to find a solution for their Vibration Analysts that would reduce their exposure to dangerous noise levels while still being able to use their existing equipment. In particular, Rio Tinto saw this as part of their duty of care to their employees' well being.



Sensear's Solution:

Sensear worked with the Vibration Analysts and the supplier of their Analyser units to deliver a customized solution that did not require replacing existing equipment.

Sensear developed special cords for the Sensear SM1 units and adapted the **SENS™** software so they could connect effectively with the Analyser units. By connecting the Sensear SM1's to the Analyser units the Vibration Analysts are never exposed to noise levels above 82db even during high impact, continuous or intermittent noise.

Result:

The results speak for themselves as the following customer quotes confirm:

“I have found the clarity to be great, in particular I like the units shutting out extreme noise from some bearings.”

“Sometimes I find myself cussing in readiness for the loud burst into the ears, but very relieved when no noise comes through.”

“Sensear has lived up to my expectations 100%. Many thanks to your team for a wonderful product and support.”



Sensear

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