

Case study:

Bringing Reliability Centred Maintenance to the Health Industry

Metro South
Health



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Stan Thomsen,
Technical
Officer
(Mechanical),
Metro South
Health



Preventing failures in critical systems

Metro South Health, a division of Queensland Health, is working to reduce maintenance spend across their assets.

They are changing their maintenance strategy to align with reliability engineering practices, implementing a condition monitoring program. Preventive maintenance optimisation strategies rather than a time-based maintenance strategy are being implemented to reduce overall maintenance spend.

Challenges

Metro South Health’s maintenance team cover several hundred pieces of rotating equipment across four hospitals and multiple community health centres in South East Queensland.

Their transition to condition based maintenance needs to fit within budgets and justify procurement of new equipment, like vibration analysers.

What is a vb7?

The GE Commtest vb7 vibration analyser is suitable for every level of vibration analyst, from novice to expert.

The vb7 offers the power and convenience of dual-channel measurement and dual-plane balancing and combines intuitive operation, ease of use with outstanding storage capacity.

The vb7 allows you to take measurements and diagnose issues with your equipment quickly and easily.



Getting started

The Metro South Health team maintain building infrastructure and critical assets in four hospitals and multiple community health centres. The HVAC system is a critical asset and runs without redundancy during the summer months. With guidance from Stewart Wood at NVMS to select outcome-appropriate technology, the maintenance team set up their condition monitoring database in Commtest Ascent and collected their first data.

Two early wins

Stan Thomsen said the very first round of vibration analysis yielded two results that justified the change in maintenance practices.

“Our first round of analysis identified our current condition and our current faults within our machines. We actually picked up some faults that could have lead to major failures within our chilled water system.”

Looseness was detected in the critical machine and holddown bolts were adjusted accordingly. “We actually saved the life of that machine set...that was a really good win for us.”

The second win was the discovery of a faulty bearing on a pump.

“From the analysis we did with the vb7, I made the call to replace the bearings within the pump. Once we took those bearings out we saw that the defect matched exactly what was in the vibration analysis.”

“We probably wouldn’t have seen another three months out of that pump. If the bearing fails catastrophically, you can damage your whole pump and also your motor, so you can end up replacing the whole pump and motor set, which would have saved us in the order of \$30,000, plus the downtime.”

NVMS service made it easy

NVMS trained the team on the Commtest vb7 vibration analyser and Ascent software. Staff were trained on how to set up and use the database as well as the basic operations of the unit.

“From there, after that one day training, I moved straight into doing the analysis on our machines,” Stan Thomsen said.

“Jordan’s been really good if I’ve asked him any questions relating to the Ascent software and the vb7 unit, he’s been very responsive and helpful. One of the other things too is setting up the database and actually using that software. That’s one of the things that you need some experience in as well. Any questions that I’ve had, whether it’s by telephone or email, NVMS just responded properly and helped us out and that’s been a great benefit to our condition monitoring program.”