

Monitoring Vibration in a Rooftop Air Handler Fan

Customer

Industry – Any commercial building owner with rooftop air handling units.

Background – Rooftop air handling units provide for the HVAC in commercial buildings. Such units are heavy and are installed using large overhead cranes.

Requirement – Means to monitor fans to predict potential bearing failure or out-of-balance conditions that would lead to catastrophic failure.

Challenges – Roof-top air handlers are not normally monitored and can be difficult to access. If failures occur, it results in productivity loss and issues with air quality. In catastrophic failures, the entire unit must be replaced. Sampling fan motor vibration requires additional labor and scheduling.



Solution

A QM30VT vibration sensor connected to a DX80 Node is mounted on fan motors to collect continuous vibration values. Data is wirelessly transmitted to a DXM100 Controller containing action rules that define thresholds. If thresholds are exceeded, third-party monitoring data notifies the customer for immediate corrective action by sending an email or text message to building maintenance.

Why Banner?

Value – Predictive maintenance verses reactive maintenance

- Prevent potential production disruption due to loss of HVAC
- Avoid wasted energy and high additional energy costs due to a failing unit
- Schedule maintenance during off hours
- Avoid catastrophic failure that costs more then \$10,000 to replace the unit and \$1500 to rent a crane
- Prevent overheating that can cause a fire

Expansion – With the wireless network backbone already in place, the customer is economically able to expand the monitoring solution to simple equipment evacuation fans.

Customer Benefits

- ROI – Vibration monitoring solution pays for itself with first incident
- Monitor continuously to detect potential failures
- Eliminate cost and time of manual sampling set-up; easy retrofit installation
- Prevents loss of productivity
- Improve safety by preventing potential fires

Talk with an app engineer. Get product specs. Order now.

bannerengineering.com 1-888-373-6767

