Monitoring Printing Press Fan Vibration

Customer

Industry – Large commercial printing and ad distribution company in Pennsylvania

Goal – Prevent catastrophic failure and minimize machine downtime

Background – Large-scale printing company in Pennsylvania working with a third-party motor specialty firm needed to minimize downtime on their printing lines

Requirement – Continuously monitor fan motors cantilevered above printing machines to identify bearing or blade issues prior to catastrophic failure

Challenges – Company had been collecting sample vibration data monthly on machine cooling fans located over the main printing machines. Despite this, several catastrophic failures occurred, costing the company over $30,000 in replacement costs and down time for each failure. Access to the fans is very difficult and installing/relocating the sampling systems proved to be arduous and costly.

Solution

QM42VT vibration sensors connected to DX80 Nodes are mounted on cooling fan motors and 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.

Why Banner?

Value – Predictive verses reactive maintenance

- In Jan 2018, one of the Banner Wireless vibration systems detected an anomaly. The customer was able to replace the fan unit prior to failure, avoiding another $30K repair situation.
- Detecting the failure early and scheduling the repairs prevented 2 days in downtime.

Expansion – With a wireless network backbone already in place, the customer is expanding equipment monitoring to all similar machines.

Customer Benefits

- ROI – The system paid for itself in the first several months
- Monitor motor functions continuously to detect potential failures
- Eliminate cost and time of manual sampling set up
- Easy retrofit installation
- Eliminate machine downtime

Replacing a defective fan before catastrophic failure saved about two days of production time.