

# 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.



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

## Solution

QM30VT 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 two 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

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