

DRYER BLOWERS

MACHINE HEALTH SOLUTION FOR CHEMICALS & MATERIALS



THE PROBLEM:

Blower dryers are used throughout the Chemicals and Materials Industries and serve to efficiently remove moisture from various products. Induced draft and forced draft fans supply continuous flow of heated air to a product and challenges faced can vary depending on the product being produced or even between batches of product. Common issues include blade corrosion and imbalance due to material buildup, issues which can lead to early bearing or asset failure.



Figure 1: Dryer Blower in a Modifier Plant

COST OF ASSET FAILURES

\$5,000/hour
Downtime Cost

4-8 hours
Downtime

Asset Cost
\$50,000

INDUSTRY SAVINGS POTENTIAL

Reduce Unplanned
Downtime

\$40,000
Loss of Production per
Downtime Event

ASSET BLIND SPOTS:

There are several inherent challenges related to monitoring Blower Dryers.



Challenge #1: Material buildup rate may vary between batches and can cause imbalance but is not easily visually monitored.



Challenge #2: Early bearing failure is a common problem, but what is the root cause?



Challenge #3: Without a predictive maintenance program, equipment faults may unknowingly progress, eventually causing unplanned downtime.

A NEW APPROACH TO DRYER BLOWERS



Figure 2: KCF's easily mounted magnetic, wireless V3 Sensors alongside an older style wired sensor that requires much more installation work and maintenance

Running until failure is no longer a viable option in industry. KCF's technology allows for predictive maintenance strategies that identify problems at earlier stages.

Continuous machine monitoring eliminates the need for route-based measurements and allows for easy identification of the assets most in need of maintenance.

KCF provides a modern solution that provides maintenance and reliability programs with the tools needed to optimize plant operation.



HARDWARE

- Only four vibration sensors are required to monitor each Blower-Motor combination.
 - Motor Drive End
 - Motor Non-drive End
 - Fan Drive End
 - Fan Non-drive End
- V4 Basestations and Repeaters provide network coverage in order to relay data



SOFTWARE

- Dashboards provide system overviews and allow for drill-down to specific asset status
- Custom Threshold Settings for each piece of equipment
- Automated alarms sent to users based on customized thresholds



REAL-TIME DATA

- KCF V4 Sensors
 - Vibration
 - Temperature
- Integrated Process Data
 - Flow rate
 - Pressure
 - Overlay any process parameter with vibration data



TRAINING

- Sentry
 - Analysis of vibration data and professional solutions
 - Site visits from industry experts
 - In-person training
- KCF Academy
 - In-depth courses highlighting KCF's software and hardware solutions

CONTACT US!

Call **814-867-4097** or email sales@kcftech.com for information.

