

## THE PROBLEM:

Induced Draft Fans are crucial to the Mining industry. Failures on these assets can be costly as it can take a considerable amount of manpower to replace. Unexpected downtime from an Induced Draft Air Fan can get expensive, very fast.



### COST OF ASSET FAILURES

**\$250,000**  
per Failure  
Event in  
Equipment  
Costs

### SAVINGS POTENTIAL

Reduce Maintenance Routes by  
**50%**

**Up to \$20,000** per hour of  
unplanned downtime, depending  
on failure mode

Upwards of **\$300,000** in Total Cost  
Savings for one failure avoidance

## ASSET BLIND SPOTS:



**Challenge #1: Due to the larger size of Induced Draft Fans, without continuous monitoring, smaller faults are often overlooked**



**Challenge #2: Diagnosing fault types without precision can result in unnecessary work & increase the already costly Mean Time Between Failure (MTBF).**



**Challenge #3: Time-based protocols do not provide the insight necessary for full maintenance & process optimization.**

# A NEW APPROACH TO MONITOR ID FANS



Image 2: 250 HP Induced Draft Fan

## Current Reality:

Routes are often time consuming due to the location of equipment on-site. The time-consuming nature of routes leads to inefficiencies while trying to monitor and optimize ID Fan maintenance. Bearing faults, imbalance, alignment issues, and motor faults may often occur between route measurements, increasing the chances for failures to occur unexpectedly.

## New Solution:

Implement a condition-based maintenance program by installing vibration nodes to key monitoring points on the motor and fan to detect issues in the asset the moment they occur.



## HARDWARE

- 2 Motor Vibration Sensors
- 2 Fan Vibration Sensors
- 1 Motor Voltage Sensor\*
- 1 Motor Current Sensor\*
- Integrate Other Relevant Data Available (Dampener Position, Load, etc.)

*\*Continuous MCSA Coming Soon!*



## SOFTWARE

- 24/7 Continuous Monitoring
- Warning and Alarm Threshold Settings
- Custom Built Indicators
- Dashboards
- Monthly Reports



## REAL-TIME DATA

- Comprehensive Machine Health
  - Vibration
  - Temperature
  - Current and Voltage ranges
  - Running Speed
  - VFD Settings
  - Gearbox ratios
  - Oil Quality



## TRAINING

- Sentry
  - Site visits: 2 times/year
  - In-person training
- Academy
- Customer training/handbooks
- Asset playbook

## CONTACT US!

Call **814-867-4097** or email [sales@kcftech.com](mailto:sales@kcftech.com) for information.

