



# FAN OPTIMIZATION



Across industries, fans are essential for cooling, filtering, fueling combustion, fume control, and more. Over 80 billion kWh of power is used annually from industrial fans alone -- that's enough to power all of the homes in the state of New York.

Wasted energy from fan inefficiency is a major source of revenue loss for manufacturers. Over time, inefficiency can result in millions of dollars in wasted energy costs. In addition, fan downtime can cost up to \$200,000 per hour.

The good news? Just by increasing the efficiency on one 200 HP fan from 60%-75%, you can save over \$42,000 per year. KCF's machine health monitoring analytics, SMARTfan, identifies the root cause of fan inefficiency and downtime, optimizing your fan operations.



**2% Of annual U.S. power usage is from manufacturing fans**



**That is enough to power the state of New York**

## FAN-RELATED COSTS

**\$42,000/year**

For one 60% efficient fan

**\$26,000/month**

For one 40% efficient fan

**\$200,000/hour**

Exhaust Fan Downtime Cost

## INHERENT FAN CHALLENGES



1. **WASTE** A well-designed fan operates at 60-80% efficiency. The rest is lost, primarily as heat. Most fans operate at around 50% efficiency.



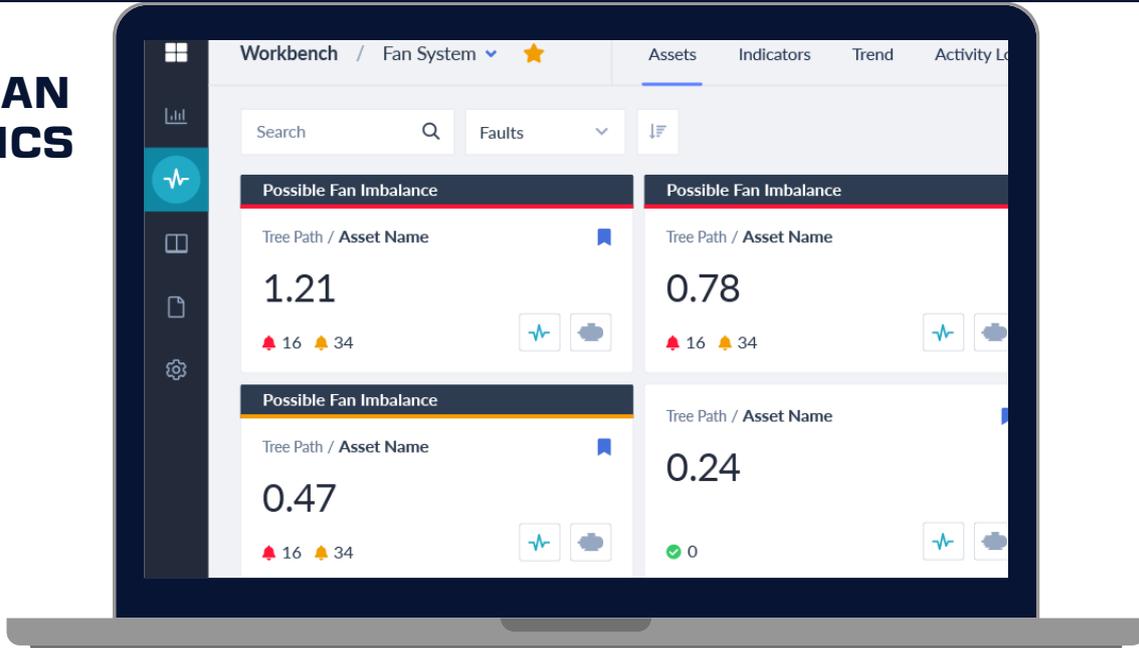
2. **WEAR** Over time, fans are prone to clogged ductwork or filters, improperly adjusted dampers, and worn or dirty blades.



3. **IMPROPER RUNNING SPEEDS** Fans that are ran too fast or slow waste energy.

# ADVANCED FAN ANALYTICS

## SMARTFAN ANALYTICS



### LIVE DIAGNOSTICS

With real-time data, you immediately see which of your fans are in alarm state and why.



### ACTIONABLE DATA

Simple dashboards make your data understandable. At a glance, you'll know which assets need your attention.



### >90% ACCURACY

With a constantly improving machine health algorithm, our SMARTfan analytics identifies faults with over 90% accuracy.



### TEAM OF EXPERTS

KCF Sentry Engineers are certified machine health analysts. They and are here to help you optimize your fan operations.

## OPTIMIZE YOUR OPERATIONS

KCF has collected key insights from over 3,000 industrial fans to help manufacturers increase fan efficiency, decrease downtime, and optimize their operations.



**200+**

2017-2020  
Hours of  
prevented fan  
downtime



**\$197M**

2017-2020  
Fan-related  
Customer  
Savings

**"We almost had an extremely costly error and downtime event in one of our paint facilities. We are very fortunate to have had KCF's alarms and quick reaction - they followed up immediately."**

- US Automotive Executive

**WE WANT TO DISCUSS YOUR FAN CHALLENGES.**

**EMAIL US AT [SALES@KCFTECH.COM](mailto:SALES@KCFTECH.COM) TO SCHEDULE A CONVERSATION.**