

EQUIPMENT TYPE
BLOWER**INDUSTRY**
BREWING & DISTILLING**FAILURE MODE**
BEARING DEFECT

EARLY VIBRATION DETECTION PREVENTS BLOWER FAILURE IN BREWING & DISTILLING

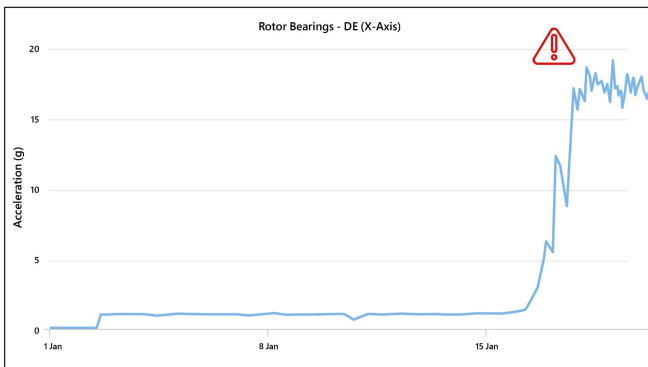
THE CHALLENGE

In brewing and distilling facilities, dust collection systems are critical for handling grain and ensuring safe, compliant operations. When vibration readings on a key transport blower spiked, Waites analysts flagged severe bearing degradation. Left unchecked, the failure would have forced extended shutdowns across production lines, disrupting throughput and creating costly downstream delays. The urgency was compounded by the plant's reliance on continuous grain movement to maintain brewing and distilling schedules.

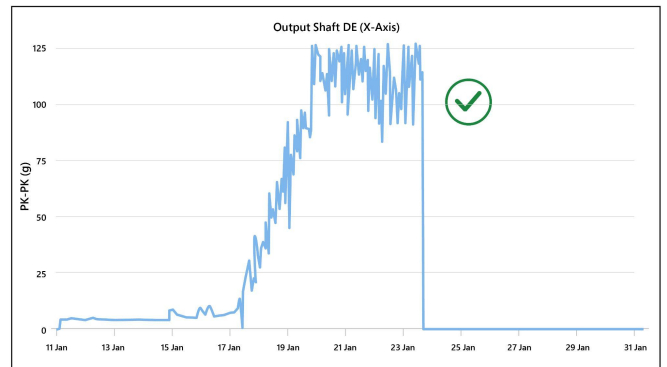


PROBLEM IDENTIFIED

Data showed a strong frequency spike at 482 Hz on the drive-end bearing, with harmonics confirming bearing defect progression. Investigation revealed misalignment between the motor and blower sheaves—offset by nearly 3/8"—and excessive belt tension. These conditions accelerated wear on the rotor bearings, leading to severe degradation and imminent blower failure if left unresolved.



Spectrum data revealed a strong 482 Hz spike with harmonics, indicating severe drive-end bearing wear accelerated by misalignment and belt tension.



Blower replacement, alignment, and belt re-tensioning stabilized vibration levels—confirming the fix and preventing 336 hours of potential downtime.

QUICK RESOLUTION

The site replaced the failing blower with an OEM spare and realigned the motor-blower assembly. Belts were re-tensioned to spec, resolving angular and parallel offset. Waites' sensors confirmed vibration levels normalized post-repair, validating the corrective action. By acting before failure, the brewery avoided more than 300 hours of lost production and secured over \$500K in cost savings, while preventing unsafe dust buildup in critical processing areas.

**\$504K**
COST SAVINGS**336 HRS**
DOWNTIME AVOIDED**9 DAYS**
ALERT TO RESOLUTION