Water & Wastewater · Global

A wastewater treatment plant cut blower failures by 27% in four weeks

A metropolitan water and wastewater treatment plant put blower maintenance on runtime-based plans, brought instrument calibration onto one calendar, and recorded every repair with its root cause.



27%
fewer blower failures

4 weeks
to reach that reduction

0
missed calibrations

AT A GLANCE

INDUSTRY
Water and wastewater treatment

SERVES
An entire metropolitan region

CRITICAL ASSETS
Blowers, aeration, pumps, sensors

PREVIOUSLY
Inconsistent logs, missed PM

FEATURES USED
Maintenance · Work · Insight

01 The client

The client is a large water and wastewater treatment plant serving an entire metropolitan region. It relies on blowers, aeration equipment, pumps, dissolved oxygen sensors, flow meters and clarifier mechanisms.

Blowers are the heart of the aeration process. They directly affect treatment quality, energy use and plant throughput, so a blower failure is felt across the plant.

02 The challenge

Repeated blower failures were disrupting treatment. Maintenance was missed or rushed, instruments drifted out of calibration, and nobody had a single record of what had failed and why.

- Blower motors, belts, bearings and couplings broke down often.
- Preventive maintenance was missed or rushed for lack of scheduling visibility.
- Lapsed calibration on sensors and gauges gave false readings and delayed corrections.
- Technician logs were inconsistent, often missing vibration or temperature readings.
- Root causes of repeat failures were hard to trace.

03 What they set up in Asset Infinity

The plant moved blower maintenance, instrument calibration and repair records into Asset Infinity, giving maintenance and instrumentation teams one record of each blower's health.

Maintenance

Blower PM by runtime

Standard checklists cover belt tension, bearing lubrication, temperature and vibration, filters and motors. Plans trigger on runtime hours and manufacturer guidance, and overdue PM escalates.

Maintenance

One calibration calendar

Dissolved oxygen sensors, flow meters, pressure gauges and air velocity sensors are on calibration plans, with certificates stored on each instrument and evidence captured in the mobile app.

Work

Repairs with root causes

Technicians log each breakdown with photos, readings, spare parts used and a root-cause note, so supervisors see repeat failures straight away.

Insight

Blower health dashboard

Runtime hours, failure frequency, overdue PM, temperature and vibration readings and spare consumption are shown by blower, with failures grouped by cause.

04 How it works day to day

Here is how blower and instrument care runs at the plant now.

SYSTEM

Raises PM on runtime

When a blower reaches its runtime threshold, a work order is created with the PM checklist attached.

TECHNICIAN

Completes the blower checklist

In the mobile app, the technician checks belt tension, lubrication and filters, and enters temperature and vibration readings. Required fields cannot be skipped.

INSTRUMENT TECHNICIAN

Calibrates on schedule

Calibration work orders come due from the calendar. The technician records the result and attaches the certificate to the instrument.

SYSTEM

Escalates anything overdue

PM or calibration that passes its due date triggers reminders and escalates to a supervisor.

TECHNICIAN

Logs a breakdown with its cause

If a blower fails, the repair is logged with photos, readings, spares used and the root cause, such as belt wear or bearing failure.

SUPERVISOR

Spots repeat failures

The supervisor sees repeat failures by blower and closes each job after review.

ENGINEERING TEAM

Targets the causes

Failures grouped by cause show where to act, and the team plans targeted corrections.

05 Before and after

	BEFORE	WITH ASSET INFINITY
Blower failures	Frequent breakdowns	27% fewer in four weeks
Preventive maintenance	Missed or rushed	Runtime-based plans with escalation
Calibration	Lapses caused false readings	Zero missed calibrations
Technician logs	Missing vibration and temperature data	Required readings on every checklist
Root causes	Hard to trace	Recorded on each repair and grouped by cause
Equipment record	No unified history	One health record per blower

06 How it rolled out

1

All three teams included. The system was rolled out across the mechanical, electrical and instrumentation teams.

2

Blower history migrated. All historical blower logs were migrated so root-cause analysis could build on past failures.

3

No disruption to treatment. Field engineers were trained on mobile checklists and calibration, with no disruption to ongoing treatment.

07 The results

- Strong improvement in PM compliance and execution quality
- More stable aeration and dissolved oxygen levels, with predictable treatment output
- Fewer emergency repairs and less spare-part wastage
- Better coordination between maintenance and instrumentation teams
- Faster corrective planning from clear root-cause insight

08 Why it worked

Plans follow the machine

PM is triggered by runtime hours, so each blower is serviced according to how hard it has worked.

Calibration on one calendar

Every instrument is on a plan with escalation, so readings can be trusted and corrections come sooner.

Every failure has a cause

Recording the cause of each failure lets engineers fix what keeps breaking, which is why failures fell so fast.

09 Looking ahead

By putting blower PM on runtime-based plans, keeping every instrument on a calibration calendar and recording each repair with its cause, the plant cut blower failures by 27% in four weeks.

Stable aeration followed, and the same records now support longer blower life, steady treatment output and the plant's regulatory obligations.

See it on your own assets

A 30-minute demo, set up for a water or wastewater utility.

The client's name is withheld for confidentiality. Results are as reported by the client.

Book a demo

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