

## CASE STUDY

# Advancing Manufacturing Performance with AI for a Leading U.S. Bakery Equipment Manufacturer

## Client Profile

The largest U.S. bakery equipment manufacturer focused on enhancing its manufacturing processes through innovation and technology.



Aether has transformed how we access and interpret our manufacturing data. With real-time dashboards, AI-driven insights, and conversational analytics, our teams can quickly identify performance gaps and act on opportunities to improve efficiency across operations.

— Director of  
Manufacturing Operations



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## CHALLENGES



The client struggled with:

- Limited visibility into production performance across fabrication, assembly, and testing of equipment, impacting throughput and efficiency.
- Inconsistent cycle times and output quality due to variability in processes like welding, assembly, and system integration.
- Difficulty identifying inefficiencies in critical equipment builds, such as thermal systems, conveyor mechanisms, and control units.
- Heavy reliance on manual data analysis to understand machine performance, production trends, and operational inefficiencies.
- Delayed response to production issues, leading to rework, extended build cycles, and missed delivery timelines.

## SOLUTIONS



ITHENA's **Analytics AI Platform, Aether**, empowered the client with:

1

### Contextualized Manufacturing Data Layer

Shifted focus from fragmented data to a unified view of production processes, enabling teams to monitor and optimize fabrication, assembly, and testing workflows in real time.

2

### Continuous Throughput & Flow Intelligence

Applied AI to analyze production patterns, identify sources of variability, and stabilize cycle times across different equipment builds.

3

### AI-Powered Performance Visibility

Delivered granular visibility into how key subsystems like heating elements, conveyors, and control panels perform during manufacturing, enabling targeted process improvements.

4

### Automated Insight Generation

Eliminated manual analysis by continuously scanning production data to surface inefficiencies, performance gaps, and improvement opportunities.

5

### Proactive Issue Detection & Resolution

Detected early signs of production slowdowns, quality deviations, and workflow disruptions, enabling faster corrective actions and smoother operations.

## OPPORTUNITY FOR IMPACT



28%

**Improvement** in  
production efficiency

32%

**Reduction** in operational  
bottlenecks

37%

**Faster** decision-making