



Thinaer Use Case Protecting Raw Materials

Precision monitoring of material properties reduces waste by 9%

CHALLENGE

Degraded and Expired Raw Materials

Essential raw materials used in labor- and technology-intensive manufacturing processes are often susceptible to degradation or spoilage. Manually monitoring relevant environmental and material conditions is costly and difficult. Manufacturing processes can be slowed or halted when sensitive materials degrade or fracture, and product quality can be compromised. To mitigate these challenges, excess inventory is ordered which further increases costs.

Challenges

- Degraded product quality due to expired raw materials
- Manufacturing bottlenecks due to damaged raw materials
- Time-intensive manual monitoring of stored raw materials

The Thinaer platform also incorporates real-time human feedback, which provides qualitative information and context to assist in troubleshooting issues. In addition, the dashboard pushes notifications and alerts for real-time issue prevention and mitigation. Management optimizes workflow processes and generates reports using the Thinaer dashboard that is accessible from anywhere on any device.

OUTCOME

Manufacturer Reduced Rework Costs by 6% by Implementing Automated Material Monitoring

Manufacturing companies measurably reduce production waste after implementing Thinaer's AI-backed materials monitoring. They utilize inventory within prescribed storage times and conditions, eliminating costly re-ordering of materials. Thinaer platform deployment improves manufacturing output volume and streamlines manufacturing processes by preventing rework due to material failure. Manufacturers further reduce waste by using the Thinaer platform to capture employee feedback and input to optimize workflows across the enterprise.

SOLUTION

Real-Time Monitoring of Material Properties and Environmental Factors

Placing Thinaer IoT sensors on sensitive raw material containers enables real-time monitoring of environmental factors. The sensors continuously track characteristics such as material age, location, temperature, humidity, and vibration. Cellular beacons transmit that live data to feed Thinaer artificial intelligence (AI)-powered diagnostic analytics.

From pilot to multi-division expansion

After deploying a Thinaer pilot project, a Fortune 100 aerospace manufacturing company **reduced raw material waste by 9%** upon implementing automated material monitoring. Since then, the smooth technology rollout and broad employee adoption led to **full platform expansion across 3 divisions**.



To find out how to reduce manufacturing waste using the **Thinaer platform**, [get in touch](#) with one of our experts!

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