

# Revolutionizing Condition Monitoring In Nonwoven Manufacturing with GraceSense's™ IIoT Technology

## INTRODUCTION

Unplanned downtime can cause problems for manufacturers, leading to production losses and safety incidents. In the nonwoven production industry, excessive heat generated during fiber processing poses a significant risk of thermal events, resulting in unplanned downtime and potential injuries to personnel. To address this challenge, a leading nonwovens manufacturer invested in an IIoT-driven condition monitoring system to improve their maintenance insights and reduce risks during reactive maintenance scenarios.

## CHALLENGE

The nonwoven manufacturer faced the challenge of excessive heat generated by their complex machinery during the fiber processing stage, leading to thermal events, material loss, and putting personnel at risk. They were in search of a predictive technology solution to monitor their equipment and detect potential issues before they turned into costly downtime.



## SOLUTION

Through their local distributor, they discovered Grace Technologies and their innovative GraceSense™ Predictive Maintenance System, which utilizes wireless and wired sensor technology to monitor the condition of assets, providing real-time temperature feedback without the need for complicated wiring.

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## INTEGRATION OF THE GRACESENSE™ PREDICTIVE MAINTENANCE SYSTEM

The GraceSense™ Predictive Maintenance System proved to be an effective solution for the nonwovens manufacturer looking to prevent thermal events and minimize unplanned downtime with a condition monitoring solution. The integration and application of the GraceSense™ system were quick and simple, and the cloud-based capabilities were particularly useful.



## PREDICTIVE MAINTENANCE SYSTEM PREVENTS THERMAL EVENTS AND UNPLANNED DOWNTIME

The nonwovens manufacturer successfully integrated the GraceSense™ Predictive Maintenance System, which has provided them with advanced warning of temperature anomalies, enabling them to prevent thermal events and unplanned downtime.

## HOW GRACESENSE ENHANCES PLANT RELIABILITY, SAFETY, AND MAINTENANCE METRICS

The GraceSense™ Predictive Maintenance System offers remote condition monitoring, timely notifications, and advanced data analytics to improve overall plant reliability, safety, and maintenance metrics.

### RESULT

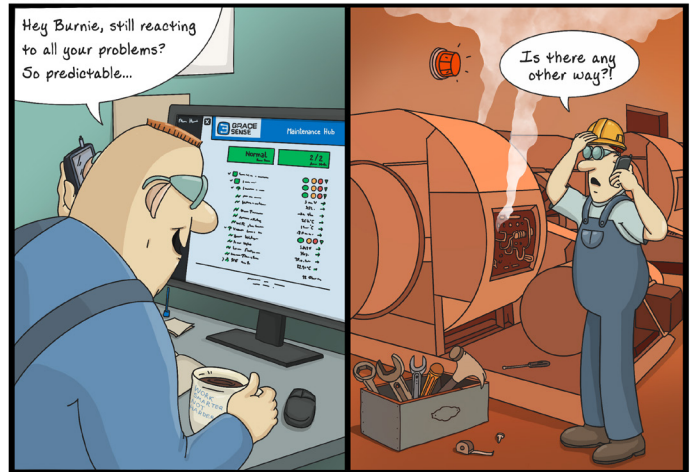
After implementing GraceSense™, the nonwovens manufacturer was able to closely monitor their equipment and detect potential issues before they became a problem. This allowed them to prevent thermal events, minimize unplanned downtime, and reduce material loss. With GraceSense™, they were able to revolutionize their nonwoven production, making it more efficient, reliable, and safe.



## CONCLUSION

By investing in the IIoT-driven condition monitoring system, the nonwovens manufacturer was able to gain better insights into their equipment's condition and take corrective action before a catastrophic event occurred. Grace's innovative solution has helped them improve their operations, minimize unplanned downtime, and increase safety for their personnel, which has led to the parent company's consideration of using the system in more of their facilities.

### *Burnie & Les*



PREDICTIVE MAINTENANCE VS. REACTIVE MAINTENANCE