



SCADA

Heat Treatment Furnaces Data Logging System
Smart Solution for the Data Logging and Reporting
system for Heat treatment Process

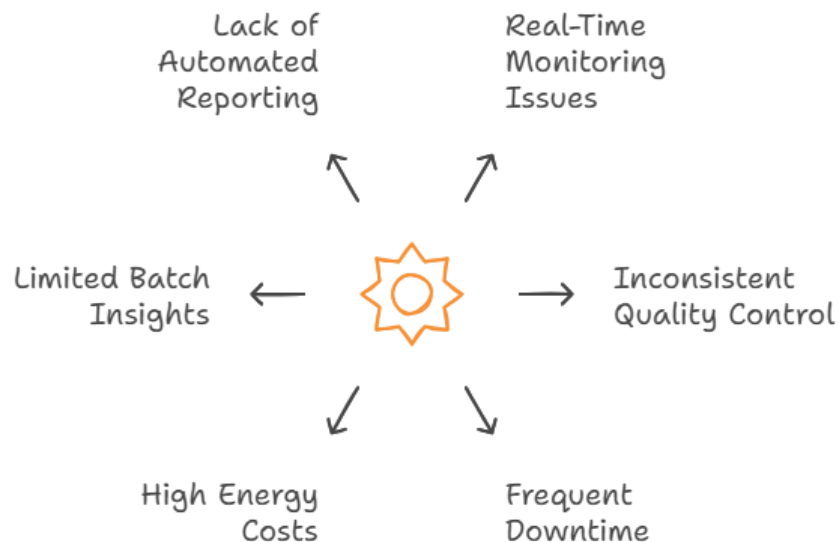
Embicon Tech Hub

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Project Overview

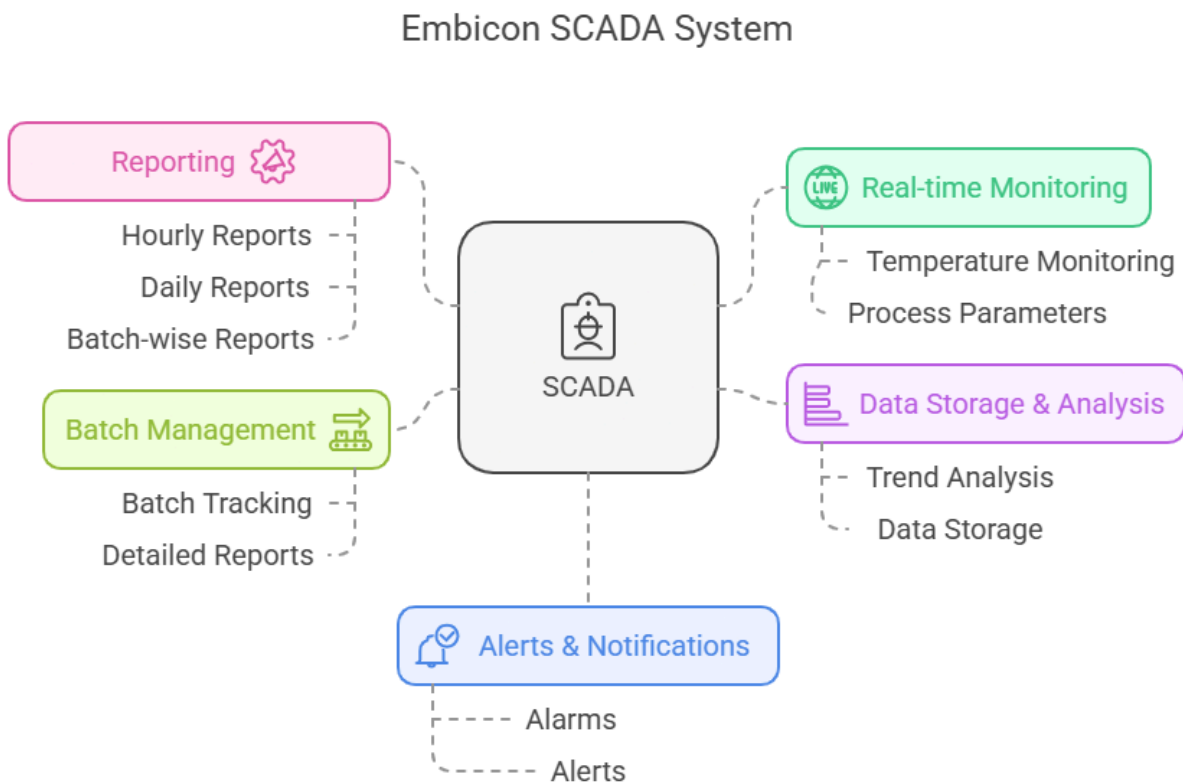
At Embicon, we have implemented an advanced SCADA and IoT-based cloud solution for various types of heat treatment furnaces including Hardening, Annealing, Tempering, Quenching, and Continuous Mesh Belt Furnaces. Our solution provides real-time data monitoring and historical analysis for furnace temperature, critical parameters, and process performance. This enables factory owners and operators to optimize furnace operations, improve product quality, and reduce downtime.

Challenges in Heat Treatment Processes



2. Our Solution:

A comprehensive IoT-based cloud platform designed for heat treatment furnaces, including Hardening, Annealing, Tempering, Quenching, and Continuous Mesh Belt Furnaces.



3. Benefits from Our Solutions:

1. **Improved Operational Efficiency:** Real-time data helps operators monitor processes closely and take timely corrective action.
2. **Enhanced Product Quality:** Consistent control over furnace parameters ensures better-quality output with reduced defects.
3. **Cost Savings:** Optimized energy consumption and predictive maintenance reduce operational costs significantly.

4. **Downtime Reduction:** Early fault detection minimizes unplanned production halts.
 5. **Data-Driven Insights:** Historical data analysis enables better decision-making for long-term process improvement.
 6. **Ease of Compliance:** Automated reports streamline audits and ensure compliance with industry standards.
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4. What We Offers

1. **Real-Time Monitoring:** Continuous tracking of temperature, CP values, and other critical parameters through IoT-enabled systems.
 2. **Batch Management System:** End-to-end tracking of material batches with customizable reports.
 3. **Historical Data & Trends:** Access to past data with visualization tools like charts and graphs for easy analysis.
 4. **Customizable Alerts:** Instant notifications for abnormal conditions like temperature deviations or equipment faults.
 5. **Automated Reporting:** Hourly, daily, and batch-wise reports for performance tracking and audits.
 6. **Cloud-Based Platform (Optional):** Secure, scalable, and accessible from anywhere with an internet connection.
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5. Why Us?

With over a decade of hands-on experience in IIoT and industrial automation, **Embicon Tech Hub** have worked on many projects across various industries, helping businesses optimize their processes. Our Custom SCADA and IoT solutions are designed specifically for heat treatment applications, ensuring better efficiency, quality, and cost savings. We offer end-to-end support, from implementation to ongoing maintenance, so you get a seamless experience. Our systems are built to scale, growing with your business and keeping you future-ready. Backed by a strong reputation in industrial automation and IoT, we're more than just a provider—we're a trusted partner in your digital transformation journey.