

Off-Road Division of Leading Tire Manufacturer in Asia

Digitalization of Manufacturing Systems

Challenge

- Absence of a digital solution to address traceability and excess material consumption.
- Lack of real-time visualization of KPIs from each step within the subprocess.
- Low RFT and lack of accurate data reporting and planning platform to manage production.

Solution

- Implemented a Digital Shop Floor solution to trace the movement of materials in real time.
- Deployed a customized connected shop floor solution to capture user inputs through HMIs and scanners.
- The solution captured key elements around planned vs. actual losses, raw material weight addition, quality and process parameters, along with labor deployed.
- Integrated the user input data with the sensors and PLC signals, enabling accurate process genealogy.
- Operator Assistance Screens and reports specifically designed from user perspective to be leveraged by shop floor operators to make informed decisions about day-to-day operations and schedules.

Outcomes

- Improved RFT (Right First Time) by 20% using end-to-end traceability and analytics.
- Reduced excess material consumption by up to 60% with real-time alarms and control.
- Enhanced OEE by 10% and workforce productivity through actionable recommendations.
- Enabled monitoring of utility costs with real-time monitoring of steam, nitrogen, and electricity use.

