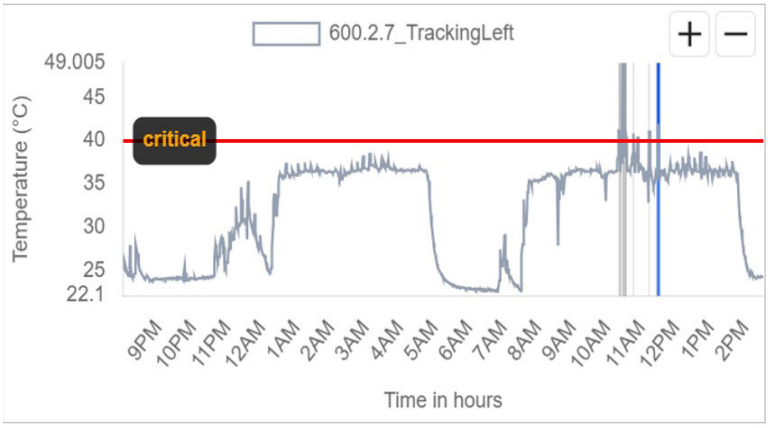
MultiSensor AI

Case Study: Conveyor Belt Misalignment in Multinational Retailer's Fulfillment Center

Belt misalignment and sideguard friction identified by MSAI Connect



TIMELINE OF EVENTS

A temperature anomaly was detected by MSAI Connect, triggering a maintenance inspection. The inspector found that the belt had tracked over and was rubbing against the sideguard of the conveyor causing an increase in temperature.

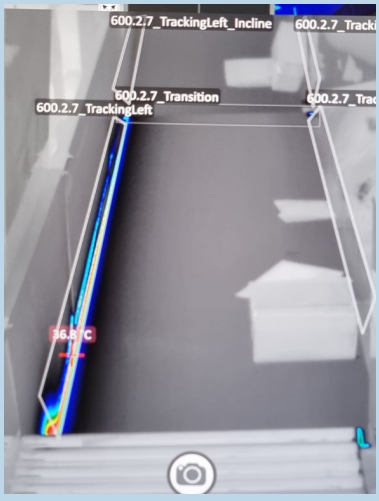
ACTIONS TAKEN

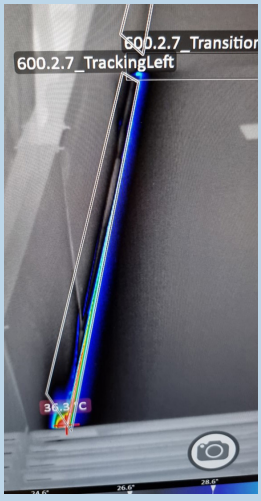
The reliability team was able to track the belt during scheduled downtime that day, ultimately avoiding the imminent belt failure.

POTENTIAL IMPACT

MSAI Connect identified the issue early enough that the belt was able to run until the next scheduled downtime a few hours later. Had the issue not been found, a belt failure would have occurred, resulting in an estimated three hours of downtime and idle labor, as the conveyor is single point of failure on route to the main flat sorter.

- Total downtime cost avoided was estimated at three hours for 120 laborers, at $50/hr per laborer, for a **total downtime cost avoidance of $18,000**.
- **The avoided cost of replacing the belt was $6,500**, had the hotspot not been caught by MSAI Connect.





Screen Captures of Thermal Alarm