



SMART FACTORY IN ACTION

SIDE CURTAIN AIRBAG

The powerful features within Smart Factory have allowed a leading Japanese automaker to introduce flexibility in the side curtain airbag process, giving workers the freedom to work ahead and catch up.

THE CHALLENGE

To prevent the side curtain airbag process from being a systemic cause of line stoppages, and a drain on production efficiency.

Adding the side curtain airbag (SCAB) on this manufacturer's production line involved two processes – one in which the SCAB is hung, and another where two safety critical fastenings are installed. One of the fastenings is difficult for workers to perform, due to its location in the vehicle. Often the operator had trouble tightening the fastening, and needed extra time to complete the task, after which he would have to catch up with the remaining fastenings. This was causing line stoppages many times a day.

- While the production line was stopped for the difficult tightening to be completed, all of the other operators were left waiting and unable to work. This was wasting time and money.
- The disruption caused by the SCAB line stops had a knock-on impact on the working rhythm in the plant, resulting in increased mistakes and inefficiencies on the following two or three car bodies.

THE SMART FACTORY SOLUTION

Smart Factory has given operators flexibility to work beyond their time, enabling them to get ahead or catch up.

The Smart Factory system created a digital map of the Japanese automaker's assembly line, and defined virtual zones both upstream and downstream of the side curtain airbag. This provided operators with extra time, when required, and also the ability to work their way back up the line during error-free processes.

The process also managed tool activation and deactivation, ensuring that each process was performed on the correct car. In doing this Smart Factory allowed the automaker to introduce cordless tools while maintaining full quality control and error-proofing.

THE RESULTS

- 1 Smart Factory eliminated cost and waste caused by the SCAB fastening process.
- 2 The Japanese automaker introduced flexibility while maintaining traceability of all its SCAB critical safety fastenings.
- 3 Cordless tools were introduced – removing associated tripping hazards, car body paint marring and tool-tether maintenance costs.

