7 Smart Ways
to Avoid Product Recalls

1

Ensure the Correct Features are Installed

The Challenge

Ensuring that the right components are installed on your product isn't always easy to achieve. In a high-mix manufacturing process, where each unit can be different, there's a heightened risk of human error as a procession of unique units go by, each with its own inspection requirements.

The Solution

What is required is a digital inspection solution that can adapt dynamically. This could mean that it's communicating with the MES or PLM system so that it knows the build of every unit that comes through. For manual inspections the operator would be presented with an electronic checklist and images tailored to each unit.

2

Rectify Defect Causes Faster

The Challenge

Effectively preventing product recalls isn't simply about being able to identify quality issues before each unit leaves the plant, it's about a continuous improvement approach that allows you to identify those issues as soon as they occur and locate the process in which the issue occurred. This approach allows you to better target your resources to improve your processes giving you better quality for less cost.

The Solution

Ensure that when quality issues are discovered they are fed back to the source of the issue as quickly as possible. With a digital inspection this can be achieved by utilising quality alerts and presenting quality information on overhead displays. The sooner the operators are aware a defect has occurred the sooner they can prevent it from happening again.

3

Reduce Human Error

The Challenge

Whatever level of automation you have within your plant, at some point human interaction will be required to confirm or progress a process. If human error is allowed to creep in at this point then you have an uncontrolled environment in which a faulty product could be produced which could make it to market.

The Solution

Human error can almost never be eliminated but it can be reduced. Physical poka-yokes can be employed that prevent the possibility of mistakes happening while carrying out manual tasks. Also, the user interfaces that operators interact with must be meticulously designed to ensure that instructions are clear and correct and that data entry can be performed intuitively with warnings for unexpected values.

4

Work Closely with Your Suppliers

The Challenge

The product that leaves your plant may well have components that were originally built by multiple suppliers. Even so, you are responsible for the quality of all the components on your product so you must ensure that the quality you are receiving from suppliers is adequate.

The Solution

This can best be achieved by integrating your quality systems, allowing the free flow of information from which both you and the supplier can benefit. This needn't be an IT burden either as many solutions allow for simple data exchange between enterprises.

5

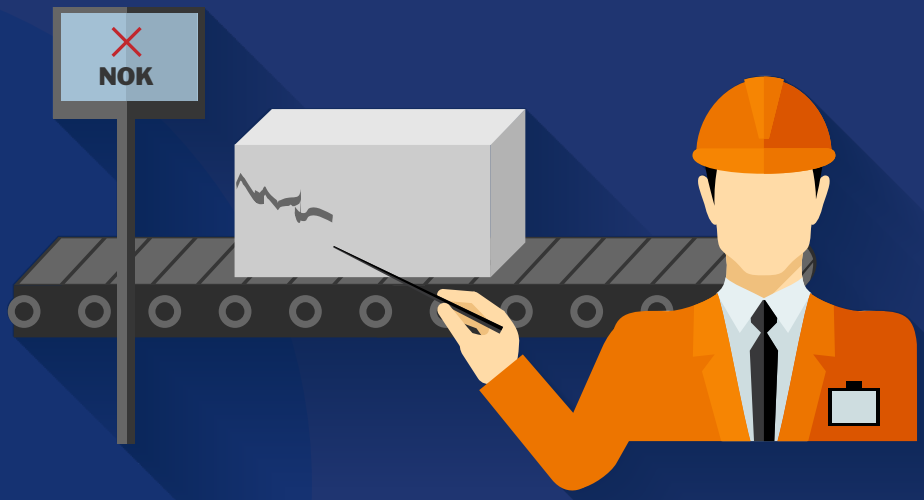
Improve Quality Inspection Accuracy

The Challenge

Not all inspection methods are equally effective. While some may be fast and provide a good overview of the areas in which quality issues are arising, they may not provide the detail required to pinpoint the exact location of an issue on a product. This can lead to delays in spotting recurring issues and delays to repair and rework as an operator struggles to find what they should be repairing.

The Solution

Ensure your inspection solution provides the granularity required to perform effective analysis of your product quality. At the very least this will mean moving beyond a paper-based inspection which has limited accuracy and presents the additional issues of human error introduced during transcription. A digital solution should be designed around the operators' existing inspections to allow it to be adopted faster.



6

Perform Effective Analysis

The Challenge

The power to avoid product recalls comes from information and that information comes from data. If data is inaccurate, or if it isn't made available quickly then it'll take longer to react when issues arise. This is often the problem with paper-based solutions where data has to be transcribed adding time and accuracy delays.

The Solution

Accurate, real-time analysis is only possible with a digital inspection solution. This means that data is made available as soon as it's entered. Converting to a digital solution may seem daunting but the ROI is fast thanks to the reduced lag time in resolving issues, not to mention the savings of eliminating paper forms and printing.

7

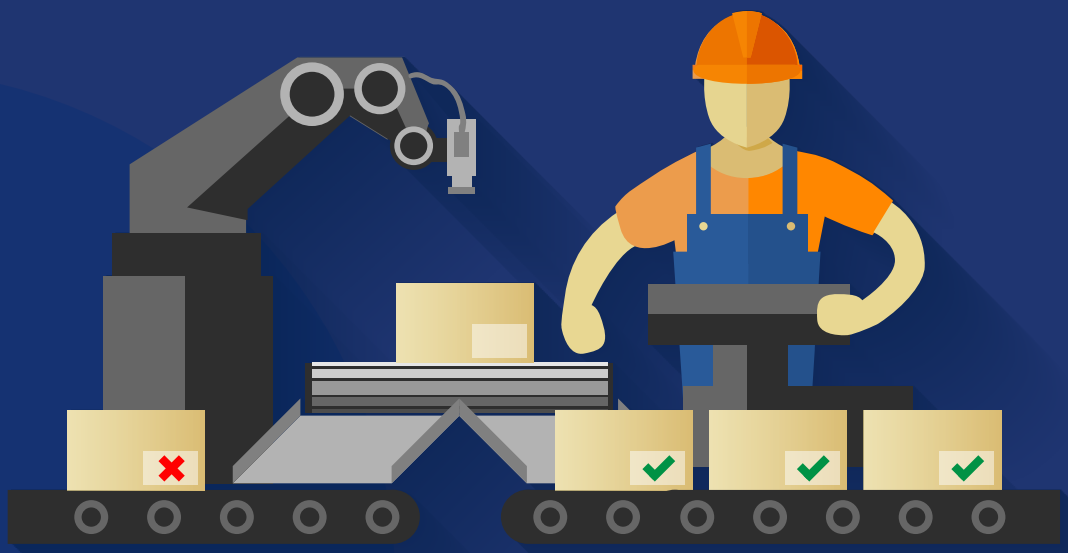
Introduce a Gating System

The Challenge

This is the most important rule of the seven and should protect you from recalls should the other six fail. Your product can't be allowed to leave the plant simply because it looks okay. You need a formalised gating system, integrated with your quality solution, that ensures each unit can proceed at strategic checkpoints throughout the manufacturing process.

The Solution

This is about bridging the IT/OT divide and making sure your shopfloor is talking to your management systems. An effectively integrated quality management system can tell the production line whether a unit can proceed as well as informing the MES/MOM about the decisions that are made. This final check keeps quality issues in-house and protects your brand reputation.



About
ATS Global

ATS Global is the Independent Solution Provider for Smart Digital Transformation. We are a passionate automation, quality and IT enterprise delivering tangible business value to our customers world-wide.

ATS is an innovative, strategic knowledge partner offering nine areas of expertise:

Automation & IT
Lean & Six Sigma
Manufacturing Execution System
Product Lifecycle Management
Quality Management
Supply Chain Management
Application Lifecycle Management & CloudNXT
Advanced Planning and Scheduling
Smart Manufacturing & Industry 4.0

Visit us at
www.ats-global.com

Watch our videos on Youtube channel
ATS Global B. V.