Our Learning Journey: Vial Drones improving Line Operational Efficiencies

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Executive Summary

Our Opportunity

Filling line set ups are not always repeatable for container transport. They rely on skilled technicians to ensure all transition points have optimal setup. There is no quantitative data to verify line set up.

Our Solution

Use of a replica vial drone (SmartSkin) to capture real time data, proving optimal line settings. Reducing interventions and improving OEE.

Our learning journey

Technology is not always available off the shelf, off-the shelf processes are not always fit-for-purpose for aseptic purposes.

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Our Opportunity and Approach

Our Opportunities

1. Improve scheduling attainment

2. Increase line OEE and yield

3. Improve quality metrics in critical zones including lowering interventions

1 Repeatable setup with less dependance on operator skill

Quantitative verification method.

2 Reduced interventions due to optimised machine setup

Data created for transition points on the line that can result in vials falling.

3 Reduced vial breakages due to optimised vial transport
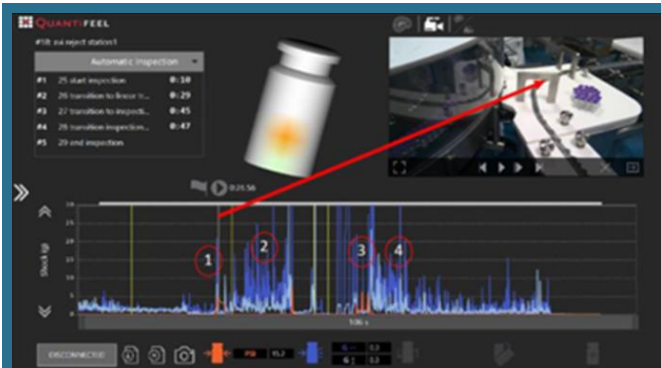
Identification of processing points where excessive force is applied to enable remediation.

4 Higher yield due to lower rejects including elimination of defects

Troubleshoot lines to prevent rejects being generated for inspection and packaging.

Our Outcome and Solutions

- ❖ Quantified set-up supporting experienced technicians.

- ❖ New production line baseline data to ensure set-up standardisation.

- ❖ Identified and worked on as part of industry collaborations promoted by PDA.

- ❖ Collaborating with supplier for full solution for aseptic uses

Practical Application

Our Learning Journey and Reflections

What worked well?

❖ Users of the base technology contributing data and experience

❖ Communication with supplier

❖ Responding to opportunities where resource flexibility was available

Where did we get stuck?

❖ Determining the ROI

❖ Identifying how to efficiently deploy in classified areas

❖ Ability to connect to our internal digital systems

What would we do differently?

❖ Better understanding of overall process for data analysis and line mapping

❖ Focus on today's problems, not past or historical problems

❖ Involving digital from the start to ensure robust deployment

Thank You!