

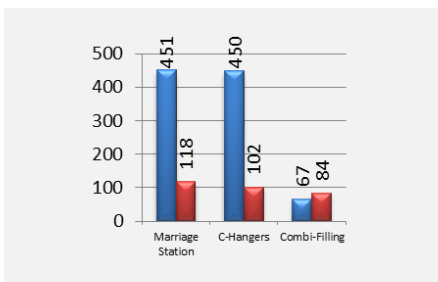
Client Reference

Automotive



Client Background

Our client is an icon worldwide in the motor industry and a leading manufacturer in South Africa. The manufacturing plant in East London, South Africa, currently produces the latest model of their luxury passenger vehicle. The management of our client embarked on a journey to implement a range of management systems based on the Pragma Asset Management road map. The aim is to mature all asset management key performance areas to a world class standard.



“The Focused Improvement project at the Marriage Station resulted in a deeper analysis of the assembly process, equipment and risks associated with it. The combined team effort led to constructive engagement with the quest of problem solving. The DMAIC methodology brought about a structured approach backed with data to address critical topics and improve the overall efficiency of both the Equipment and Assembly Process.”

Rozane McAllister, Assembly Shop Production Manager

Pragma Intervention

- The first step was to gather maintenance breakdown data from SAP PM at the Marriage Station.
- Next, Cell Tech Production Data from Bukela was incorporated to verify the major breakdown categories, sub-categories and technologies.
- After the major breakdown categories, sub-categories and technologies were identified, brainstorming was done to identify possible root causes for these breakdowns.
- Brainstorming sessions were documented in Fish-Bone and Cause-and-Effect Diagrams.
- Parts on the floor were identified as the major root cause and actions put in place to identify the origin of these parts.
- Continual monitoring by verbal confirmation from Production and by support of breakdown data to verify a downward trend in the number of breakdowns and downtime at the Marriage Station was done.

Key Challenges

- The Marriage Station was identified as one of the most unstable functional locations in the Assembly Shop and a large contributor to downtime. However, there was no clear understanding of which breakdown categories and technologies were the major contributors to these breakdowns.
- There was no clear link between production and maintenance breakdown data as Level 1's (Cell Techs) often didn't escalate repetitive breakdowns. A cross-functional problem solving team needed to be created in order to align production and maintenance regarding the root causes of these breakdowns.
- The Marriage Station has several technologies. Each one needed to be assessed and categorised into breakdown categories and sub-categories to reveal root causes.



Value Add

- Control has been gained with accurate tracking of both downtime and the number of occurrences.
- Problematic breakdown categories, sub-categories and technologies within the Marriage Station can now be identified leading to Focused Improvements.
- Clarity on asset data and failure data, specifically on Automated Guided Vehicle and C-Hanger Technologies, can now be used in FMEAs.
- Teamwork between Production and Maintenance has been established.

The Bottom Line

Downtime and the number of breakdowns have significantly decreased and MBSA now has better control over breakdowns at the Marriage Station, including appropriate escalation processes. Asset Care Plans, specifically for the Automated Guided Vehicle and C-Hanger technologies have been enhanced.

Tools and Technology

- SAP PM
- Microsoft Excel
- Bukela Production Software
- Microsoft Visio

- DMAIC problem solving steps
- Fish Bone/Ishikawa Diagram
- Cause-and-Effect Diagram.