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Productivity improvement in the final assembly area

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Keywords

Improvement, productivity, fluid pipes, leak test, assembly

Introduction

Products manufactured SMA Metalltechnik RO SRL are delivered to our clients after being manufactured, inspected and tested according to a specific quality standard, agreed with the customers. The air-conditioning pipes are no exception – after going through multiple brazing and bending processes, the last step before delivery is the final assembly, where the main process is leak-testing the assembly.

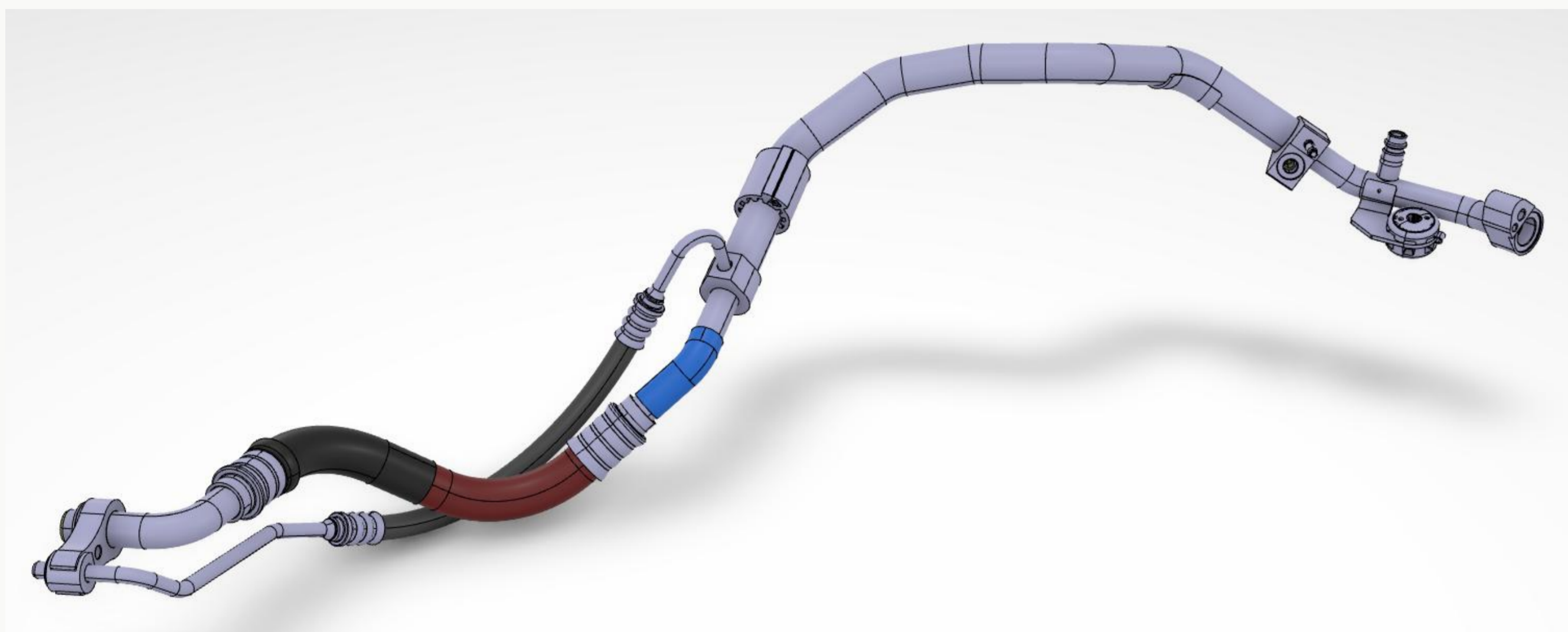


Figure 1. C-Class W206 air conditioning pipe

PDCA Methodology



Figure 2. PDCA Methodology

PDCA cycle is an iterative process for continually improving products, people and services. The Plan – Do – Check – Act model includes solutions testing, analyzing results and improving the process.

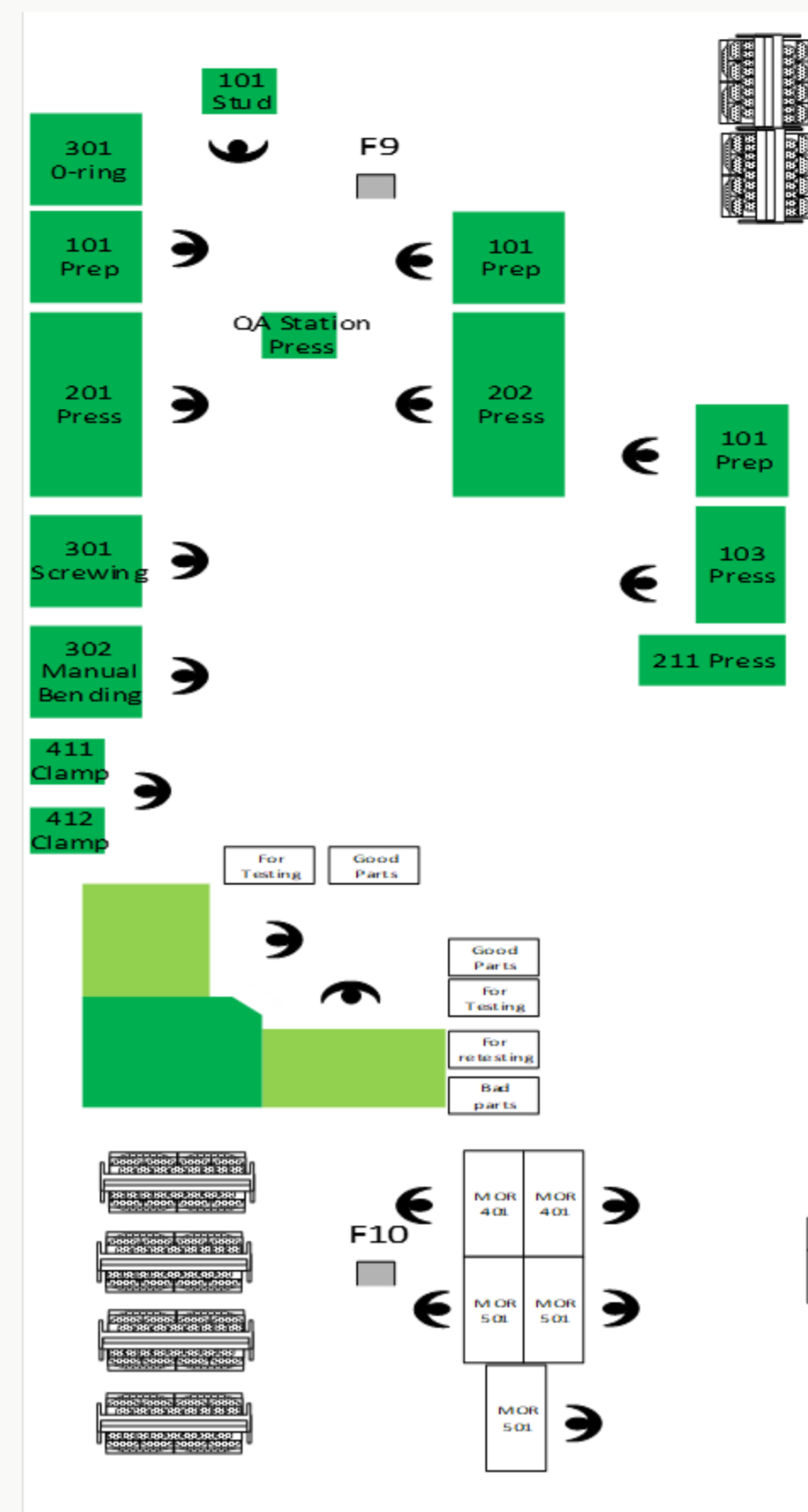


Figure 3. Left – old layout in Final Assembly Area; Right – old station for insulation mounting

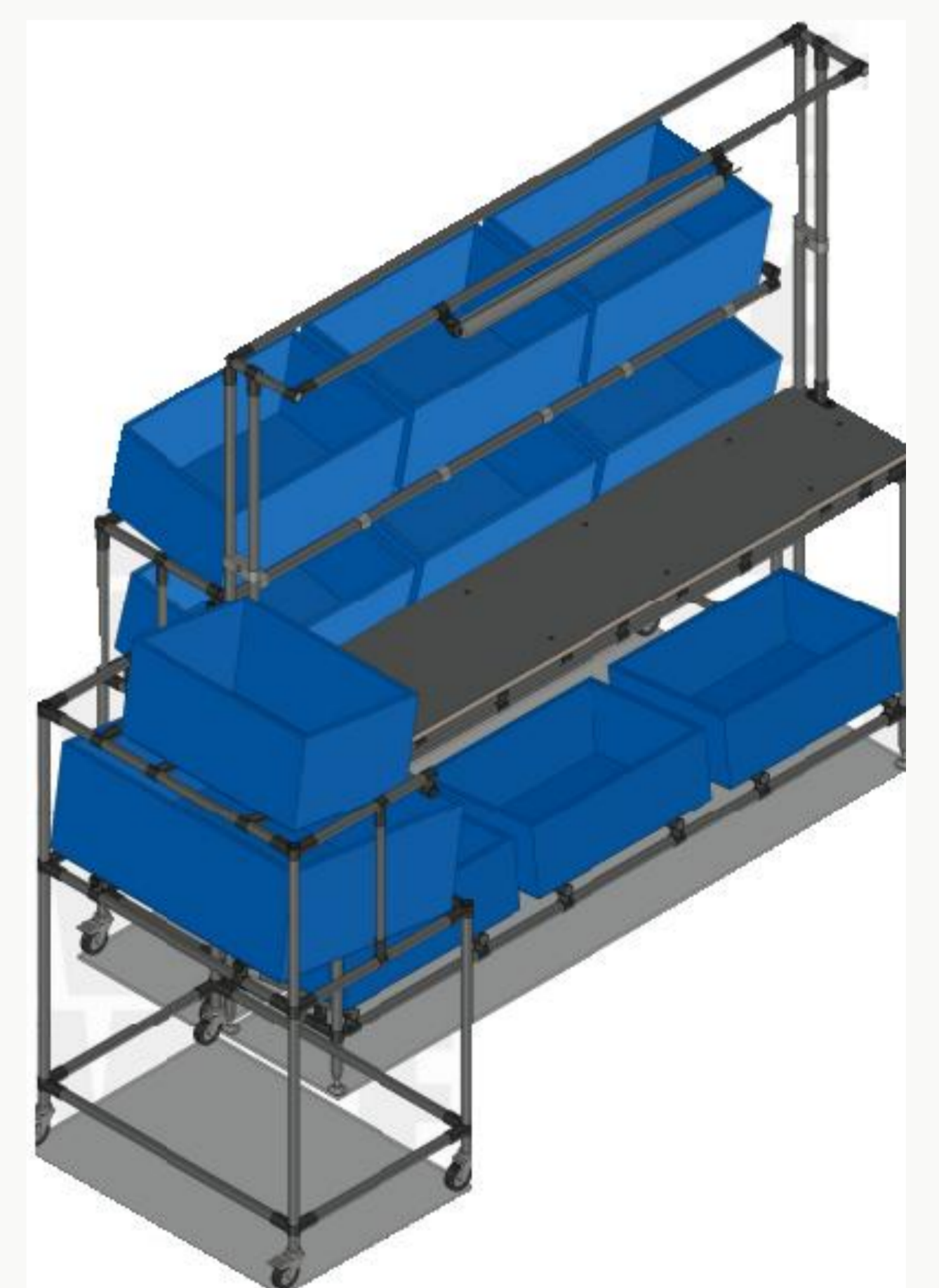
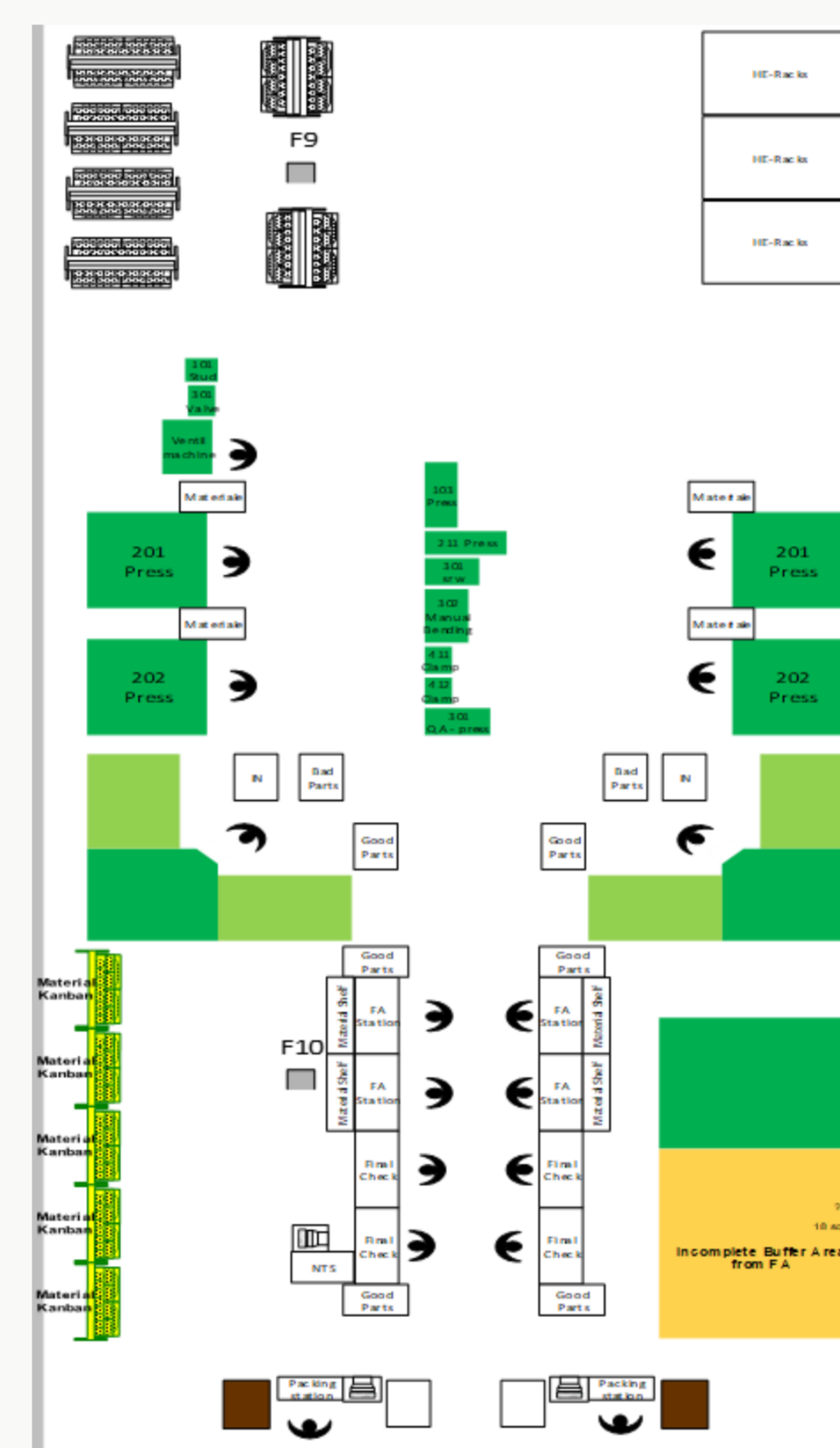


Figure 4. Left – new layout in Final Assembly Area; Right – new station for insulation mounting

Conclusions

After applying the PDCA Methodology for improvements in the Final Assembly area, the productivity was increased from maximum 297 parts per shift (26750 € at the last selling price) to 372 parts per shift (33500 € at the last selling price), consisting in a >25% return.

Improvements consisted in new layout, station redesign, SMED methodology implemented for changeovers, Kanban implementation.