

Interconnect Wiring

The Situation

InterConnect Wiring has positioned their company successfully in the market due to their continuous effort of delivering high quality services to their customers. They hold several awards and recognitions such as:

- Sikorsky Aircraft, Top Supplier
- Lockheed Martin – Top Supplier Awards 2015
- L3 Supplier of the Month
- Vought – Preferred Performer Program

However, there is always an opportunity to be better! In fact, one of their core values reflects this:

“We are forward thinking – We do not believe in doing business as usual. We are always looking for a better solution. We are not intimidated by new technology, instead we embrace it. We’re always looking for new ways to improve.”

In this case, the improvement initiative focused on the aircraft kit assembly – one of their main production lines. The process consists of getting all necessary components (some of which are manufactured in house) and assembling them by a single operator. Although the company had a 99% on-time delivery rate, they often needed to be ahead of schedule because the time for getting kits assembled was longer than expected. Some of the issues identified in the process were unbalanced workload, waiting for components, high levels of work in process, multiple 100% inspections, transportation between buildings and rework.

The Solution

InterConnect Wiring’s management team identified, analyzed and designed a new production model for the aircraft kit assembly line with the objective of achieving one-piece flow and reducing the processing time and thus reducing the cost. Management contacted TMAC for advice on how to apply Lean best practices and to start with the new line. Additionally, management wanted their employees to be involved in the initiative and to hold them accountable for controlling and continuously improving their processes.

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The Results

TMAC's approach to Lean focuses on equipping customers with the knowledge, skills and abilities to become self-sufficient in improving performance typically follows 4 phases - Introduce, Practice, Apply and Reinforce. In addition, we focus on pursuing Lean as an organization-wide initiative to achieve sustainable results.

The first step at InterConnect Wiring was for the workforce to learn basic principles of Lean manufacturing. InterConnect Wiring then formed a team with key members to analyze the process with a waste walk and a detailed Value Stream Map to identify the bottleneck and areas of opportunities. A future state map was created and the responsibilities and tasks for the one-piece flow line were defined. The new assembly tables were already in place, giving them the opportunity to pilot the new design. As expected, some adjustments were needed and communication between “suppliers” (internal activities) was a key element for feeding the line and avoid delays. After stabilizing the line the results were stunning, the process lead-time for assembly kits reduced from an average of 92 days to 5 days or less, the work in progress declined from 90 days to 7 days and from \$150K to \$30K. These savings allowed them to invest money by purchasing more worktables and new tools to speed up production in other areas. Most importantly, the efforts had a huge impact on employees’ morale and engagement, and showed the Lean functionality to the rest of the organization.

From their customer’s viewpoint, their satisfaction has improved. InterConnect Wiring is now getting more business for kits because the lead times have decreased significantly. They used to bid lead time around 16 weeks, now they win many contracts with lead times less than 6 weeks.

InterConnect Wiring’s top management team was completely involved in the journey. Every day the InterConnect Wiring team holds an energetic and dynamic companywide meeting. During the meeting, they not only discuss the performance of the plant and the expectations of the day but also recognize employees and play games. They use a disco-ball lamp and play music! InterConnect Wiring is definitely an example to follow!