CASE STUDY

Lean Improvement Drives On-Time Delivery up 236% in Aerospace & Defense

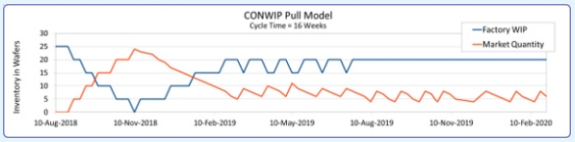
Our client, a leading international defense, aerospace and security company, employs a skilled workforce of more than 83,000 people in 40 countries. The location this case describes employs more than 12,000 employees in a high technology engineering and manufacturing facility.
The company was experiencing increases and extreme variability in customer demand. This was driving schedule instability, long lead-times and the associated delivery challenges.

Implementation Engineers was engaged to:

- Support the transition from a high variability engineering environment into a flexible manufacturing facility capable of meeting sharp increases in customer demand
- Reduce lead time from 44 to 12 weeks
- Increase on-time delivery from 19 percent to above 50 percent
- Implement High Performance Management (HPM) and visual management throughout the factory

APPROACH

1. Improving customer lead-time and delivery performance first required an understanding of the factors that were affecting lead-time and schedule instability so these factors could then be mitigated or eliminated.
2. Lead-time was not only constrained by the laws of physics but also by **frequent priority changes**. Orders were released for specific customers and by individual programs **causing every lot to experience the same long lead-time**, even when the products themselves were identical.
3. **Implementing a CONWIP pull system** allowed the company to delay the differentiation of orders, **stabilize the schedule and reduce lead-time**. Strict protocols for releasing work also provided stability, which helped reduce lead-time further. A model of the CONWIP pull system was developed and applied to the forecast to optimize parameters.



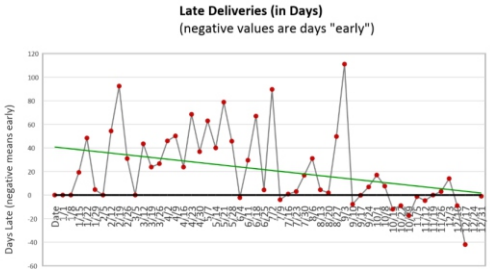
4. The **customer personnel** immediately embraced the CONWIP pull system and **participated in both its design and implementation**. The new protocols were integrated into formal procedures of the company.

RESULTS

236%
On time delivery improvement from 19% to 64%

83%
Decrease in cycle time from Reducing WIP in the system

79%
Decrease in WIP between three factories from Lean improvements



These improvements have allowed our customer to respond with agility to changing customer demand, and to supply these critical components to both internal and external customers more quickly.

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