

POWERS BOOSTS ON-TIME PERFORMANCE BY A STAGGERING 59% FOR DEFENSE INDUSTRY MAKE-TO-ORDER MANUFACTURER

PROJECT OVERVIEW

Faced with a competitive bidding environment, disrupted supply chains, and little predictability within its manufacturing department, our Partner, a Make-to-Order Manufacturer in the Defense Industry, struggled to get its product out the door on time under budget.

Straining to scale with outdated production paradigms, our Partner also faced a generational management transition. Managers who had been there for 20+ years were set to retire and take their years of experience with them.

With numerous programs behind schedule and customers to satisfy, program managers were forced to compete for limited resources, with senior management having little visibility on how these decisions impacted the entirety of the operation. This opaque view of the operation created a culture lacking accountability.

Product rework time nearly equaled first pass assembly time with no “lessons learned” at the execution level. Instead, the entire operation existed on a “whatever it takes to get it out the door” firefighting culture.

ANALYSIS

Inaccurate and Insufficient Production Data

Work/time relationship studies found our Partner could not reliably plan or forecast resource requirements due to significant database inaccuracies and insufficiencies.

No Unified Production Schedule

Our Partner lacked a unified production schedule which created constantly shifting “hot lists” and a climate of reactive production and constant firefighting.

Poor Collaboration and Communication

Timelines for individual programs were created within silos without reconciling production resources across the enterprise.

Poor Shop Floor Control

Lacking a unified schedule, supervisors were hindered from assigning operators instead, wasting time and effort determining what was needed or could be worked on instead of proactively managing the effective execution of work.

Wasted Time and Resources

Determining manufacturing status across their facilities diverted time and resources from manufacturing, scheduling, operators, and program management.

No Performance Reporting, Evaluation, or Accountability

Without operating reports, there was little understanding of manufacturing department performance. This reporting deficiency was compounded by a culture where past performance was never evaluated at the process or department level.

SOLUTIONS

We worked with manufacturing engineers to construct observations and time studies to set reasonable expectations with hundreds of unique routing operations.

Working with the planning department, we developed a capacity model for the operation that enabled both short-term department scheduling and long-term resource needs planning and forecasting for the company.

Supporting front-line leadership on the floor, we improved short interval scheduling, follow-up, and barrier identification at the supervisory level. This allowed front-line leaders to identify obstacles better and take action to address variances.

Working with the manufacturing team, we developed lost time capture to the root cause and developed actions to improve output and more closely perform to their capacity.

With the help of IT, we developed operating reports to illuminate production department performance for management, identify production variances down to the operation level, and close the feedback loop to program management and scheduling.

Improved communication feedback loops and work execution have led to a singular priority focus from one in which everything was “priority one.”

PERFORMANCE RESULTS

ON-TIME PERFORMANCE

Real-time usage of ERP system and shop floor planning visibility provide near real-time information flows to Program Management and Customers on Due Dates leading to fewer expedites and an increase in on-time performance from 56% to 89%.

59%
Increase in
On-Time
Performance

SCHEDULING ACCURACY

Time studies and feedback loops between production management and manufacturing engineering led to a 20% increase in scheduling accuracy for the cable and wire department.

20%
Increase in
Scheduling
Accuracy

STOCK ROOM OUTPUTS

22%
Improvement in
Stock Room
Outputs

A focus on root cause analysis and solving lost time drivers improved Stock Room outputs by 22% without increasing headcount.

REDUCTION IN INDIRECT TIME CHARGED

56%
Reduction in
Indirect Time
Charged

With a more accurate picture of the schedule, more organized work cells, and employee buy-in, Manufacturing Operators saw a 56% reduction in indirect time charged.

REDUCTION IN LOST TIME

A 69% reduction in Surface Mount Technology lost time was reached by improving changeovers through SMED (Single-Minute Exchange of Dies) analysis, focus on start-up, and lost time RCCA (Root Cause and Corrective Action).

69%
Reduction in
Lost Time

REDUCTION IN LEAD TIME

Lead time in testing decreased from 7.5 days to 2.5 days, a 65% reduction, as fewer scheduling changes and more precise communication with upstream departments improved flow through the work center.

65%
Reduction in
Lead Time