

Leveraging STE and Standard Work to Increase Productivity--and Employee Engagement



Industry

Manufacturing

Our Role

Creating STE-Based Human Resources and Standard Operating Procedure Documentation

STE

Simplified Technical English

SITUATION

Enabling increased productivity and employee engagement in a Company in post-COVID recovery: An STE transformation of Company policies and procedures to standard work documentation .

Our client, a manufacturer and distributor of specialized pressure relief valves, was in the process of reevaluating their post-COVID operation. No root cause analysis was needed to trace the sharp, mid-year revenue free fall to its source. While the sudden reversal was devastating enough, employees were collateral damage. Stakeholders in this situation were management, employees and customers.

Several patents and a state-of-the-art manufacturing facility could not inoculate the Company against the effects of COVID. Within six months, the facility was operating at 50% capacity. Employees not producing parts were kept on at 50% time. Since most of these employees were engineers, they worked on new processes and new manufacturing methods as well as new valve configurations.

Management had a vested interest in putting revenue on an upward trajectory; and ensuring the survivability of the Company. Employees, from the most highly-paid engineers to the janitors, questioned what they would get for their efforts to restore the level of productivity that enabled the Company to grow initially. Customers were hoping for a return on their investment, their patronage and support of Company innovation.

The solution had to incorporate Company requirements for post-COVID operations; a method for engaging employees as stakeholders in the Company's recovery; and a commitment to customers that they would be rewarded for their support during the recovery period. It was agreed that increased productivity would be a byproduct of these changes.

APPROACH

- **Stakeholder Input**
Stakeholders—both employees and management—provided input about the documentation available for each critical process. The critical processes were done first. All stakeholders provided input on current issues that affected productivity, best practices, and recommended changes.
- **Root Cause Analysis**
A root cause analysis of decreased productivity and increasing employee disengagement indicated that a lack of clearly-defined standard operating procedures was the primary issue.
- **Business Process Analysis**
A comprehensive business process analysis was conducted that involved research of current processes via interviews and observation; the processes were mapped in a process modeling system; and procedural issues were identified.
- **Selection of Standard Work Processes**
The business processes that had been mapped and modeled were evaluated to see which of them were suited to being Standard Work operations. Those that were selected became part of the solution.

SOLUTION

The solution in this case was to integrate **Simplified Technical English** and **Standard Work** principles into Company documentation. The project was defined as a transformation of standard operating procedures with the goal of increasing productivity and employee engagement. The two elements in this solution were implemented simultaneously but the contribution of each was different.

Simplified Technical English

A complete overhaul was done of standard operating procedures, converting the wording in them to simple technical English—even if they related to the operation of a CNC machine. The STE revisions ensured that each new or existing employee could do their job knowing how to perform it and what was expected of them.

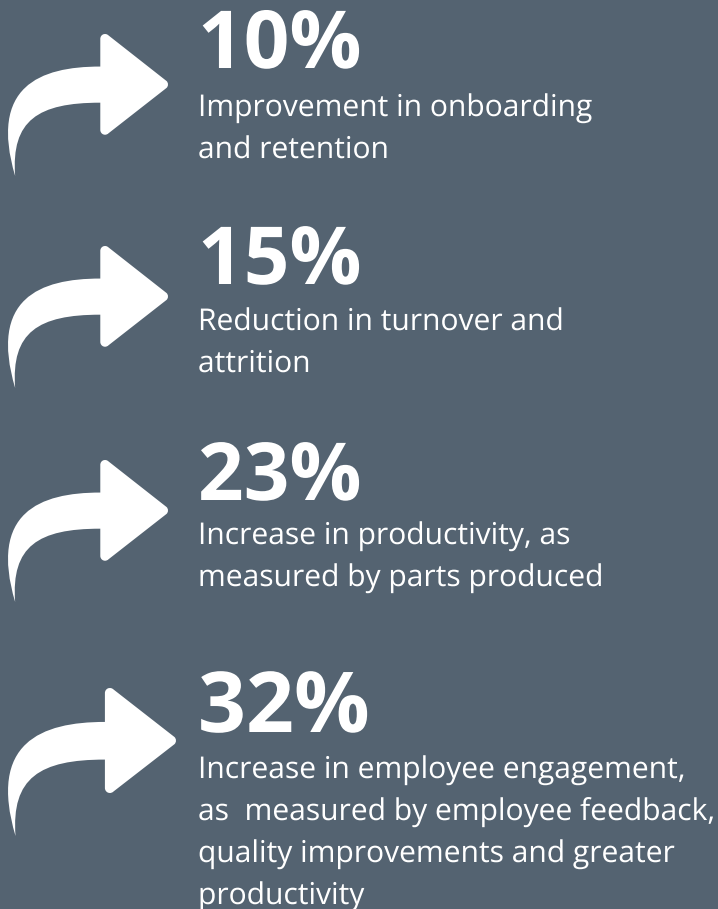
- Machining, the heart of the production process, was the most critical area so it was addressed first
- The standard operating procedures that did exist were largely incomplete or incomprehensible
- Some of the machining instructions were written when the Company first began operations 50 years ago—well before computer aided technology was used
- The conversion involved all stakeholders at each step of the conversion and they contributed to STE dictionary terms and the final wording.

Standard Work

After business processes were mapped and the processes for Standard Work chosen, best practices policies and procedures were created. Current processes for all shifts were documented, variability was reduced, training became easier, injuries were reduced, and a baseline was established for improvement activities.

- **Takt time**, the rate at which products must be made in a process to meet customer demand, was determined
- The precise work sequence in which an operator performed tasks within takt time was determined and mapped
- The standard inventory, including units in machines, required to keep the process operating smoothly was established
- Realistic, current and accurate policies and procedures were created to reflect best practices.

RESULTS



We were faced with a lack of productivity from employees and bleak prospects for hiring more employees as turnover peaked. We had never worried too much about whether everyone understood clearly what they were supposed to do and we relied a lot on osmosis for new hires. After COVID, that wasn't working so well. STE and Standard Work allowed us to move on.

-Brian Flemish, Cascade

Valves

TAKEAWAYS

This effort was the start of an ongoing process of evaluation and change. [STE](#) was the basis for clear, unambiguous statements of Standard Work best practices for job performance. These best practices were used to improve existing practices and then to document them, which resulted in:

- Improved onboarding and training
- Increased productivity and quality
- Reduced waste and the number of defective parts
- Increased customer satisfaction
- Streamlined decision-making and problem-solving

From these new standard operating procedures, training programs were developed, [KPIs](#) created for monitoring processes and output, and an internal communication network created to include all employees.

Case Study: Leveraging STE

About This Case Study

This case study was done in the three-page format. It was also published online as a case study. Our expertise for this project includes case studies, STE conversions and Standard Work operating procedures. If you would like more information on these services, please use the contact information shown below.

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