



Perma Tech Inc. Lean Office Initiative

OVERVIEW

Region: Erie County, USA
Industry: Material Handling Products

Customer Profile

Perma Tech, Inc. has over 20 years of experience as a leading manufacturer of loading dock equipment including seals, shelters, traffic doors, dock bumpers, truck restraints and pour in place pit forms for all types of dock levelers. Perma Tech employs approximately 25 people in its Buffalo, NY production facility.

Business Situation

Perma Tech did not have a very good handle on inventory control and the company's work order processing system was contributing to delays. Some orders were in the queue for as long as 21 days. Some Lean improvements had been made in production areas; management hoped that Lean could do even more to improve office efficiency, particularly in the area of work order processing.

Solution

Perma Tech retained the services of UB's Center for Industrial Effectiveness (TCIE). TCIE led an extensive training program on Lean Office implementation that featured hands-on training in 5S workplace organization, value stream mapping, standardized work, and problem solving methods. The program, which included over 100 hours of training, helped cut work order processing time by half, and helped to instill a problem-solving culture in the workforce and an appreciation for Lean applications in the office environment.

Perma Tech, Inc. has over 20 years of experience as a leading manufacturer of loading dock equipment including seals, shelters, traffic doors, dock bumpers, truck restraints and pour in place pit forms for all types of dock levelers. It has a team with more than a quarter of a century of experience in the dock shelter industry. Perma Tech has gathered together people who have pioneered such things as the wedge cut foam dock seal and other innovations and molded them into a seasoned manufacturing and research team.





President Richard Lund and General Manager Janice Stoll are sold on Lean applications in the office. Perma Tech now conducts two meetings a month dedicated entirely to Lean initiatives.

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- Richard Lund
President
Perma Tech

Situation

Before engaging TCIE’s Lean Office training team, office inefficiencies were a condition of doing business at Perma Tech. Management was seeing some improvements with Lean applications on the shop floor – material movement improvements, for example – but wasn’t convinced that they would help in the office.

Company President Richard Lund had seen Lean gains in the production areas. Perma Tech had freed up 20% of available floor space in the steel area. “We just didn’t know how to lean out an office,” said Lund. “Little did we know that it would be in the office that Lean improvements would really make the most significant impact for our company to date”

The process for handling work orders was particularly unwieldy. The majority of work orders were classified as non-standard and had special processing requirements.

Processing of a work order generally took six days or more, with some work orders in the queue for as long as 21 days. Work order data was often entered into the computer system multiple times. Inventory control

was another area that needed attention.

Perma Tech estimated that it purchased nearly 1,600 items, with fewer than 8% on a pull/kanban system.

Solution

Some of the Lean improvements were immediate and straight-forward. 5S workplace organization workshops identified basic changes to the office environment. Files were consolidated, with unused cabinets removed to free up space. Copiers were moved, printing functions consolidated, labels were added to files and equipment. Furniture was repositioned, wheeled castors added to chairs to ease repositioning. Phones were relocated and sound barriers/partitions added to reduce distractions. Lights and ceiling tiles were repaired, carpets were shampooed. Minor improvements, some affecting space utilization, some more aesthetic, combined to improve the look and feel of the office environment.

Value stream mapping exercises helped identify two critical areas for improvement: work order processing and the inventory control process. Participants developed





A new pull system for work orders has reduced processing time from office to shop by 50%.

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-Richard Lund
President
Perma Tech

current state and future state maps to identify non value-added activities and streamline them right out of the process. Outputs included templates to ensure that work orders were entered into the database once and once only.

Next, training in Standardized Work intensified the focus on “leaning out” the work order processing. According to Richard Lund, standardizing the work order process was the single-most effective Lean initiative.

“Standardized work had a huge impact for us. No more duplicated data entry. Order processing is down to just a matter of hours for standard orders. And we converted far more non-standard type work orders to standard than I would have thought possible.” Standardized Work initiatives resulted in conversion of dozens of work order categories, particularly dock seal and shelter products, from non-standard to standard. The new work order processing system also included a wall tracking pull system that features card-format kanbans and other visual controls. Standard orders now flow right from sales to production, with

total processing time just a matter of hours. Overall, work order processing time – for standard and non-standard orders – has been cut in half.

For inventory control of Perma Tech’s nearly 1,600 purchased items, 13 categories of materials and supplies were created. This enabled Perma Tech to develop kanban reordering processes for 80% of purchased items.

Training in problem-solving methodologies complemented the lean workshops and implementation. General Manger Janice Stoll notes how the elements of the program came together. “The results of this program have been phenomenal. Before, I never imagined Lean office would have such an impact. Now, I’d be the first to recommend it. Perma Tech employees are developing an enthusiasm for attacking bottlenecks. Meetings now have a sharper focus on resolving specific problems because we feel we have the tools in place.”

TCIE’s training team included Al Hammonds, Don Bowes, and Kristina Young.



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- Janice Stoll
General
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Perma Tech

Summary

President Lund praised the efforts of the TCIE training team. “Training featured a real hands-on approach, attacking actual problems. Also, training was sufficiently extensive that we have developed the skills and understanding to train other employees.”

Perma Tech’s Lean Office initiative has seen gains in general office efficiency and working environment, general workflow, work order processing, work order standardization, purchasing efficiency and inventory control. Standard Operation Procedures were documented and implemented for both work order and raw material flow systems. Procedures for cross-training the workforce are in place. Monthly meetings dedicated to Lean Office improvements help sustain Lean gains.

Finally, Lean office efficiencies have also buoyed sales and marketing confidence and performance. Recently, Perma Tech renewed a key account with a national office products supplier.

Benefits

Key benefits of this program are summarized below:

- Work order cycle time was dramatically reduced. For most work orders the reduction in processing time was on the order of 85% to 90%. Standard work orders that had taken 6-14 days are now processed in a few hours.
- Many order types were converted from non-standard to standard, dramatically increasing ease and speed of processing. For example, 29 categories of seal-type orders were converted to standard type.
- Kanban systems were implemented for the work order process and for purchase of raw material and supplies (80% of about 1,600 purchased items are now part of a kanban system, up from 7.5%).



For More Information

For more information about TCIE products and services, call our offices at (716) 636-2538. To access information using the World Wide Web, go to:
<http://www.tcie.buffalo.edu/>

For more information about Perma Tech's products and services visit the Web site at:
<http://www.permatechinc.com>

- Perma Tech's business grew by 10% -- just over the course of the eight month program. Management attributes much of this to improved office efficiency.
- Cultural change is taking place, including a can-do, problem-solving focus across the workforce.
- Meetings have become more focused and productive. Two ½-hour meetings per month are dedicated to sustaining Lean gains.
- Lean office efficiencies have buoyed sales and marketing confidence and performance. Recently, Perma Tech renewed a key account with a national office products supplier.

UB Center for Industrial Effectiveness

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<http://www.tcie.buffalo.edu/>

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