

The following is a reprint from HTR HIGHLIGHTS 2001 Summer Edition, June.



A Publication of
High Technology of Rochester
2001 Summer Edition, June

Lean Success Stories

HTR recently sponsored *Lean Success Stories*, as part of the 31st annual conference of *The Institute of Industrial Engineers Rochester Chapter (IIE)*. The event showcased Lean manufacturing project successes of local companies and provided a forum for discussion and learning. In addition to the posters and presentations of our local success stories, the event also featured a dynamic and thought provoking presentation by **George Koenigsaecker**, a nationally recognized leader in Lean Thinking. Below are highlights of a few of these success stories. For additional information, please contact **Dick Krause** at (716) 327-7930.

Triplett Machine Company is a precision machine shop that specializes in high quality and close tolerance CNC machining. Historically, TMC was considered a job shop with few repeat jobs. To test this paradigm, TMC worked with Operations Consulting Service to conduct a customer-order review. Analyses uncovered great opportunities through lean tools to improve the value stream flow, facility layout and create technology centers in the plant. By thinking lean, the company was ultimately able to capitalize more effectively on repeat business and improve the bottom-line.

The Lean Solution Implementation process included: training on Lean tools and techniques, benchmarking and value stream mapping TMC's processes, optimizing solutions to reduce cycle-time and distance traveled, aligning processes to ensure customer focused operations and prioritizing and implementing solutions immediately. Consequently, the value stream was shortened and resources were leveraged to re-deployed to create significantly higher productivity. TMC was able to switch from a batch mode of production to a continuous flow and offer Kanban inventory replenishment to its customers.

Webster Plastics is a full service plastic injection molding company with over 600 active part numbers using more than 350 engineering-grade resins. In the late 1990s, WP was confronted with a predominately automotive and aging customer base, antiquated machinery and an old facility. To address these challenges, WP adopted the mantra that innovation in manufacturing starts and ends with lean manufacturing principles.

Waste was eliminated through the purchase of state-of-the-art molding equipment. A new facility enabled a layout streamlined for product flow and organized into product-oriented cells. Self-directed cellular manufacturing teams were established to manage day-to-day operations. Key performance metrics and production plans for each cell are now reviewed twice daily.

External auditors and customers alike consider the new WP quality system a model of best practice, and performance justifies this confidence. Sales per employee have improved 27% and continue to increase. Yield efficiency went from 92% to 99% and machine utilization increased from 40% to 70% (close to optimum for this industry). The composite cost-of-quality improved from 16% to 5%, while customer quality rates expanded ten-fold. in-process quality was enhanced by 50%.

SupplyFORCE is an MRO integrator with 26 western NY affiliated distributors networked to support the Kodak Supply Contract. The KSC encompasses over 40,000 SKUs and demands stringent delivery requirements. To improve the delivery process and reduce costs, value stream mapping, benchmarking 'best in class' and other quality & lean tools were implemented.

The results of this project were significant.

Improvements included: process-steps reduced by 81%, cycle-time by 73%, value added time increased by 150% and hand-offs by 55%. In addition to these impressive achievements, both Eastman Kodak's processes and supplyFORCE distributors improved performance. Accordingly, other customers realized benefits through the distributing network. Best of all, the implemented solutions were visible to the end-user as customer satisfaction improved 30%.

Xerox Corporation is a document processing products, systems, services and solutions company that distributes high volume copiers, primarily from facilities in Webster. This success story is based on the XTRA segmentation distribution facility upgrade. Finished goods storage involved heavy duty fixed racks which were inefficient since different sized pallets meant the foot prints inside each rack shelf was not fully occupied. The warehouse layout was inefficient as only 50% of the foot print was occupied by fixed racks with the remaining 50% allocated for accessing the faces of each fixed rack. Since many products are built at the same rate each month, but most sales are in the fourth quarter each year, even the aisle space was often jammed with pallet loads, forcing pick cycle times of about ten minutes for individual pallets.

The lean solutions included replacing about half of the fixed racks with Dynamic Flow Racks and a new layout for improved product flow. These changes produced a 30% improvement in capacity utilization of the footprint and an increase in pallet loads by 35%. More significantly, there was a ten-fold improvement in picking and staging cycle time. This increased efficiency allowed more orders to be distributed from the Webster facility. Previously, partial orders were accumulated for delivery at each of 63 contracted logistics carriers and orders took up to 30 days. As a result of the changes implemented, these same orders can now be picked, staged and delivered to an East Coast customer within three days.

Lake Country Woodworkers manufactures fine executive office furniture. The company's capabilities include design, fabrication, assembly and finishing for companies such as Hickory Business Systems and Bernhardt. Victims of their own success, LCW was running out of space, WIP inventory was high and flow through the plant was poor. Customers faced long lead times for deliveries. The situation was becoming critical and outside perspective and support was needed.

Working with *Operational Consulting Services, LCW*

applied for support through the *NYS Industrial Effectiveness Program*. This IEP support provided lean techniques that lead to significant improvements in the value flow and improved customer service. These improvements included: reducing steps by 50%, total time by 58%, value-added time improved by 53%, distance traveled reduced by 73% and labor resources were used 33% more effectively. LCW continues on their lean improvement path with over 60% of the workforce trained in lean tools and applying continuous improvement projects as part of their daily job.

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