



LEAN Business Solutions

MILCO MANUFACTURING CO.



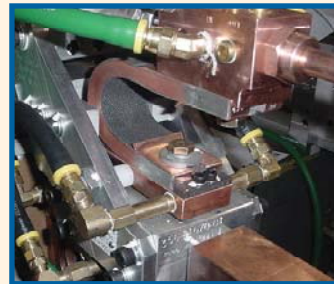
and WELFORM ELECTRODES, INC.



Founded in 1950, Milco Manufacturing Company is among the world's leading designers and manufacturers of resistance welding equipment. Welform Electrodes Inc. specializes in the manufacture of resistance welding components. Customers of Milco and Welform include all of the major domestic automotive manufacturers, many of the transplant and international automotive corporations and other manufacturing concerns.



In 2004 Milco recognized the need to become more efficient as competition was intensifying. Also, the components niche served by Welform was moving toward build-to-order mass customization. Small frequent orders with little to no lead time were increasing in frequency. The ability to respond to meet these customer demands was key to Welform's growth.



forgings, and cast parts was greatly improved. As a result, lead time to supply customers with welding components was reduced from 6 weeks to 3 weeks.

Other benefits derived from the Kaizen included: increased cash flow, improved delivery performance, improvement in employee morale and a safer workplace for all employees.

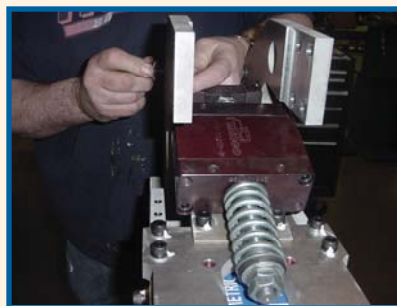
Measurable economic benefits were derived from these Kaizen events at both Milco and Welform. Milco now routinely delivers weld gun assemblies in under 8 weeks. Combined production floor space was reduced by about 20%. Improvements in production efficiency will save about 260 hours annually, or more than \$22,000. Beyond the direct dollar savings, improvements and better capacity utilization have led to development of new products and a joint venture with a French company. Welform made many layout changes to improve workflow and instituted a monthly 6S audit review that includes performance rewards to the best performing group.



The Michigan Manufacturing Technology Center (MMTC) was contracted to provide staff training in LEAN Business Solutions and 6S. All staff at Milco and Welform attended an on-site LEAN overview training session. Following training, several Kaizen events were planned and

executed to implement the principles of LEAN manufacturing. Initially, improvement in the Assembly, Test and Shipping area of Milco was targeted. The goal was to achieve on-time delivery to customers within a lead time of 8 weeks or less, reduce square footage in the work area, and organize the work area for greater productivity.

Next, Welform organized two Kaizen events. The first was to improve the cellular workflow of components throughout the plant, followed by a Kaizen to improve workflow and production efficiency in the bending area. By utilizing 6S and changing equipment layout to improve work flow, production throughput for straight and offset shanks, hex adapters,



Impacts Realized

- Reduced weld gun lead time by 33%
- Reduced component lead time by 50%
- Reduced floor space utilization by 20%
- Improved production efficiency saving over \$22,000

"The benefits that we derived from learning about and implementing LEAN techniques are significant. At our Welform facility, MMTC helped us re-lay out virtually the entire machinery workflow. I think we must have moved literally every piece of equipment. It was worth it! Our efficiency has gone way up and our lead-times way down. Customers are much happier receiving shipment on orders in 3 weeks rather than 6 weeks. We have space available to increase capacity. Based on our results, the people at MMTC know what they are doing and I wouldn't hesitate to recommend them."

John Pippin, Jr.
General Manager