



59th Advanced Manufacturing Forum

Held March 30-31, 2006 at The Penn Stater Conference Center

Sponsored by

The Center for the Management of Technological and Organizational Change

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The Lean Office Transformation

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Emerson Electrical Group

Ron Orcutt provided an overview of Kato Engineering's lean office turnaround. Kato, part of Emerson, has been in business for over 79 years. The company used to make generators, but now concentrates on alternators, primarily for Caterpillar, its largest customer. When Emerson acquired Kato, Kato had lost some of its brand image and recognition. Sales were around \$55M. Kato was competing not only domestically, but with a business in France. Could Emerson save the plant, protect the brand image and drive the business? Within four years, company sales soared to \$90M, and are currently at \$135M.

Lean office processes were crucial activities in which the company engaged. And on their third try, they "got it right" as Orcutt said. Before implementing lean, Orcutt cautioned that it is important to understand every aspect of your business as there is no recipe for implementing lean. Support needs to come from the top to effect change; the old school notion of simply reducing headcount to change the bottom line no longer works. To improve the process, there needs to be sensitivity to the customer and the drive to move the enterprise in the right direction.

Kato had worked lean on their factory floor, had reduced defects and eliminated waste. The next issue was to assess office procedures, where, generally, no sense of urgency exists as it does on the production floor. Kato discovered that their business was quoting lead times of eight to ten weeks for product, with two weeks actual flow time and the other six to eight weeks for time in the office, getting the order to the floor. All the manufacturing time was eaten up in the office, with the shop floor given a week or less to build and deliver. Poor delivery records made for an unhappy customer base.

There were no metrics in the office. The business was not being managed. Questions were being asked, however. Manufacturers do not place all their drill presses in one place, so why do that with the accounting department, with the engineers, with sales? What kind of flow results? Some of Kato's processes dated from the 1930s. How was management to win the hearts and minds of its employees and overcome the natural resistance to change and the existing cultural barriers?

Kato had dispersed information residing in systems that could not talk to one another. The engineering department had two silos of information (mechanical and electrical); accounting had a separate silo (with credits within accounting in another silo); and manufacturing and the platform each had separate silos.

Kato decided to focus its lean office initiatives on process effectiveness, not departmental effectiveness. Radical cultural change was called for, along with streamlining the flow. The company took what it had learned on the factory floor and sought to apply those activities to the office operations. Kato looked at its skill base, whether there was flexibility, whether the people were trainable. Kato knew it would need to provide education so that its employees could move become multi-skilled and move to the next level.

Orcutt brought in MainStream Management, a lean consulting firm, to look at the company's organizational dynamics, to help compile office metrics, and to communicate the changes and secure staff buy-in. Employees participated in Meyers Briggs personality testing to help structure the lean teams with individuals with complementary talents. The teams were built with people from each department on each team: the steering team, resource support teams, and process improvement teams. Compensation was tied to lean: membership on a lean team was necessary to secure a raise or promotion, and lean teams completing an activity received one per cent merit raises.

Kato's lean office goals were the same goals found on the factory floor: reduce cycle time, look hard at non-value-added activities, increase first-pass yields, boost job satisfaction, follow-up and hold people accountable. Important, too, was controlling the scope of any given project by defining start and finish lines.

Kato's sales order acceptance procedure was one of the first lean projects. The goal was to get sales orders through in one day (instead of weeks), with 100 per cent processing including specifications and information. The process improvement team held a five-day kaizen, interviewing staff five times to answer questions such as 'what form are you filling out', 'what are the value and non-value items', 'what is in the queue', 'what does it take to get this piece of paper to the next step', and 'where are the gaps'. Next came process mapping, and brainstorming sessions on how to streamline the process. An outside sales representative was brought in to help the process be more responsive and sensitive to the customer. An action plan was presented, and most important, signed off on by all in the presence of others indicating acceptance and support of the changes.

Kato found that their first-pass yield was a dismal 3 per cent. Orders were not being taken correctly; 100 per cent of the information from Caterpillar, its largest customer, was incorrect. Queue time was long: orders sat if the responsible person was out of the office. There was no cross-training so no one knew if a particular order was important.

The results of the sales order kaizen, and others, were impressive. Kato reorganized the sales group so that inside sales people took the orders and then color-coded them by type (a visualization technique). The orders were then taken to the newly-created engineering 'pods', with each pod having a mechanical engineer, an electrical engineer, technicians and draftsmen. Engineering configured the product, created the order, and sent it out to the factory floor. The numbers speak for themselves: sales order cycle times reduced by 59%, engineering cycle times reduced by 92%, queue time reduced by 92%, the distance paper traveled reduced by 86%.

Orcutt listed other positive impacts from Kato's lean office initiatives: lean tools and metrics have improved the focus on the velocity of the process flow; employees participate on structured, cross-functional teams; there is real-time availability of information to the factory floor; and improved supplier performance due to policies demanding accountability, with consequences for non-compliance. Orcutt has moved on to another division of Emerson, but lean initiatives and process improvements continue to reap benefits for Kato Engineering.