The A.W. Chesterton Company is a leading international manufacturer of industrial fluid sealing systems, advanced polymer composites, cleaners, lubricants, and industrial specialty products. Headquartered in Woburn, MA, the company prides itself on providing customers with solutions that allow plants, processes and equipment to operate more reliably, efficiently and economically.

Over the past two years Chesterton has been working with Dan Fleming, GBMP Continuous Improvement Manager, to apply lean thinking and methods across the organization. Often companies believe Lean is only for manufacturing or operations areas. Not Chesterton. They have embraced the idea of continuous improvement for all areas, realizing it is equally applicable to production or support areas. The anecdotes below demonstrate how Chesterton is engaging employees in improving a wide range of business processes with good results.

**Customer Service**
One improvement team focused on handling and processing customer orders in the North American team pod. Six team members handle all calls in this area, and the employees cover for one another during breaks, lunches and vacations. After being introduced to lean, the team realized it could help them provide consistent information as well as a quick and accurate response to every customer inquiry. Tools such as 5S (workplace organization) and process standardization were put in place. For instance, in the before condition each team member had a different work space layout (see their improved workspace at left), critical files were in different locations at each desk, a colored folder system was not consistently adhered to and the work areas were cluttered with material and information that was not necessarily used in the daily work routine. They worked together to define what each team member needed at hand to effectively and quickly handle customer calls and also found opportunities to standardize electronic data and reports used by all members of the customer service team.

**Logistics:**
As a result of an all-time record sales-year, the International Documentation Department experienced unprecedented international shipment volumes. However the additional shipments and related document execution problems were extending the time to arrange ocean freight assignments and increasing the number of late/missed international orders. A team value stream mapped the current process and identified many opportunities to streamline the process. They designed and implemented a new process that included improvements such as computerizing weights, measures and regulatory/hazard data needed for shipments, improving organization and layout of the documentation department, standardizing work methods and fixing software interfaces. The team was able to cut the lead-time for ocean freight consignments from 12.5 to 5 days through their improvements. The drawing at right shows the before and after layout for the document area and points out how much motion has been eliminated.

**Preventative Maintenance:**
Another lean effort focused on making the daily maintenance process on equipment more straightforward and consistent. The picture shown at right provides detailed, visual instructions that operators now use to do daily preventative maintenance on a piece of equipment in their area. Numbers have been added to the machine to show where each maintenance activity is to be carried out and detailed instructions corresponding to the numbers explain exactly what is to be done, such as when to top off lubricants and how to check coolant levels.
Assembly Layout: The Cartridge Assembly Team took on a project to improve the flow of work through their area. By changing the layout of the work area they cut travel distance by more than 2000 feet for one product line and total assembly/travel time for this same product grouping by 50%! Efficiency in the cartridge cell has climbed by more than 15% thanks to their improvement efforts.

Capital Asset Procurement: Unhappy with their capital asset procurement process, another team mapped the current process (the process flowchart at right) and analyzed it with an eye for improvement. They found inconsistencies in the process, lack of clarity in roles and responsibilities, disconnects in the project accounting steps and potential for documentation and sub-steps to be missed. They identified improvement opportunities in 13 of the 23 primary process steps and developed a detailed plan and implementation schedule for their improved process. Employees have now been trained and the new method for handling capital equipment requisitions is in place and working well.

A.W. Chesterton's President and CEO, Brian O'Donnell points out,

"at Chesterton, we wanted to expand the heavy focus on continuous improvement and lean processes beyond just our traditional manufacturing areas, where there is already a heavy focus. With the help of GBMP and Dan, we were able to apply the processes and tools very effectively in a wide variety of 'non-traditional' areas, and make some significant impacts. As a result, the other functional areas are now finding additional ways to apply the process and make improvements."

According to Chesterton's lean coach, Dan Fleming,

"there is tremendous opportunity for those companies that realize that lean is much more than a set of tools for production. When companies see it as a scientific method for identifying and eliminating waste in any process they can really start to accelerate on their lean journey and get positive results across the entire value stream."

For more information on A.W. Chesterton please visit [www.chesterton.com](http://www.chesterton.com)
For more information on GBMP please visit [www.gbmp.org](http://www.gbmp.org)