

Encouraging Environmental Excellence – Silver Level Award

Kent Elastomer Products – Winesburg Facility

In 2014, Kent Elastomer Products Winesburg facility received an Ohio EPA Encouraging Environmental Excellence (E3) Silver Level Award. The silver level recognizes businesses and others that have a good environmental compliance record and have completed environmental stewardship activities. The silver level is open to any business, industry, trade association, professional organization or local government of Ohio.

Kent Elastomer Products manufactures precision-engineered tubing and dip-molded products for the medical marketplace. The Winesburg facility provides finishing operations, final inspection and shipping in support of the company's other two manufacturing facilities. The facility, which opened in 1975, is 42,344 square feet, situated on 7.48 acres. The Winesburg facility employs 60 hourly workers.

Commitment to Continued Improvement

Kent Elastomer's commitment to the environment is supported by a deep, fully ingrained corporate principle of continuous improvement. This principle is integral to the very existence of the company.

Continuous improvement is a common thread in the company's fabric. Safety, environment, hygiene, costs and efficiency are interwoven, not separate entities. There are not separate "programs" or departments supporting each. The same tools and methods are used to make improvements to all of them, sometimes simultaneously.

In 2006, the Lean Enterprise journey began. As of June 2013, 387 Kaizens were completed company-wide, 120 of those in the Winesburg facility. At Winesburg, some areas have been "Kaizenized" more than once. Not all of the Kaizens were environmentally focused; but "lean" opened the door to look at all areas, brainstorm ideas, and to ask, "why not?"

The company's mantra: Continuous improvement is a journey, not a destination. Continuous improvement is a progression, not a project.

Employees Make the Difference

To complete and sustain improvements, the company uses tools such as Kaizens, 6S, process mapping, value stream analysis, line balancing, kan ban, poka yoke, visual work place, one-piece flow and spaghetti charts. "Lean" provides a systematic approach to incremental improvements. Recently Six Sigma tools were added to the toolbox when three



Kent Elastomer Products – Winesburg facility is recognized for:

- Reducing the amount it sends to landfills by implementing across-the-board efforts aimed to reduce, reuse and recycle any extra by-products from day-to-day operations at the facility. The facility went from a high of 260 industrial waste receptacles annually to the current level of 26.
- Using U.S. EPA calculation methods, recycling the paper and cardboard (16,120 pounds) equates to: 137 trees; 2,015 pounds of CO₂; 26.6 cubic yards of landfill space; 33,046 Kilowatts of electricity; and 483.6 pounds of other air pollutants.

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employees became Six Sigma Black Belts. Recognizing the importance of employee involvement, it has been a company-wide goal that every employee participates in at least one Kaizen event.

The Winesburg facility uses a tool called “Stand-in-a-Circle” in which an employee stands on a wild-colored circular rug for 30 minutes and jots down 30 observations for improvement. The observations from a Stand-in-a-Circle can include suggestions for environmental, safety, efficiency and housekeeping. The point is the process has turned the workforce into constant observers/auditors. It has trained everyone to notice and think about surroundings, processes and improvements. In addition to this invaluable training, numerous improvements came from these.

- EXAMPLE – Employees noticed that nylon fishline by-product was tossed in the dumpster. The company implemented a program to recycle it, saving 4,000 lbs/yr from going to a landfill.
- EXAMPLE - One customer application required a 17” piece, and an 8” piece. An employee questioned why the 17” defective pieces were tossed. Now, any 17” pieces of scrap are saved to use toward an order for 8” pieces.

Furthermore, the facility has another observation method called “20/20” – title chosen for the obvious reference to perfect vision – but also for the goal of 20 tickets per employee per month (about one a day) to be eligible for Employee of the Month.

- EXAMPLE - Numerous employees submitted suggestions to eliminate disposable cups and require employees to bring in their own cups. This was implemented.

In approximately six years, the facility went from 260 dumpsters per year to 26, toward a goal of zero dumpsters. The following is a list of items that used to go into the dumpster, but are now recycled or otherwise diverted: cardboard; paper; plastic wrap; lunchroom items (bottles, cans, glass); metals; paper towels; latex; silicone; nylon fishline; neoprene; polyisoprene; and tungston gloves.

Some initiatives are outlined below:

1. Eliminating styrofoam cup purchases - There is no local source for recycling. Styrofoam products are no longer purchased at Kent Elastomer. From multiple employee suggestions, the facility took it one step further and eliminated all disposable cups. Employees now bring in their own cups and can store them in a designated area in the lunchroom.
2. Eliminating paper towels in the employee restrooms by installing high-speed hand dryers.

Employee Reward System

- Kaizen conclusions are presented to management. Participation and results are celebrated with direct recognition from the President during this meeting, as well as in follow up postings of the team’s efforts.
- Stand-in-a-Circle events are rewarded by posting the participant’s picture and comments on bulletin boards.
- One 20/20 suggestion is chosen each month as the “best” and the employee is rewarded with a Kent Elastomer item (cup, water bottle, mini-cooler, etc.)
- Employee of the Month winner gets a special parking spot, and a half-day vacation.

Scrap Reduction Examples

- 30 percent scrap reduction has been a year-long goal of the company, implemented as a six sigma project and through the use of several Kaizen events. One event aimed to reduce scrap generated through processing. The team reduced the number of inches that were cut from every end of tubing from an average of three inches down to one inch. This resulted in a 33 percent reduction in scrap (from 3.3 to 2.2 percent).
- One procedure was to cut sleeves off of every mandrel and then reattach new ones. Now the sleeves are re-used. The calculated savings shows that sleeve usage was reduced from approximately 87,500 sleeves per year to 26,250 (a savings of 70 percent). Additionally, this reduced the resources (labor, material) required to constantly produce replacement.

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3. Recycling scrap from manufacturing (latex, silicone, nylon, neoprene, polyisoprene, tungsten) by finding alternate sources. Most of it was able to be sold. The largest amount of scrap is latex tubing, which the recycler grinds and processes into liners for ceramic vats.

For more information

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For more information about Ohio EPA's Encouraging Environmental Excellence program, contact the Office of Compliance Assistance and Pollution Prevention (OCAPP) at 800-329-7518, or visit epa.ohio.gov/ocapp/ohioe3.aspx.