



QUALITYDIGEST

Wired for Quality

(Marlin Steel Wire Products: Baltimore) -- Highlighted in a recent publication from the National Association of Manufacturers are stories about how various U.S. companies are handling the challenges of health care, energy costs and availability, Chinese competition, regulation, tort lawsuit excesses, taxes, innovation, compensation, and exchange rates. Twenty-eight companies' responses to these issues are featured, including: Caterpillar, Dow Chemical, Emerson Electric, Ingersoll Rand, Intel, PPG Industries, Procter & Gamble, RPM, Texas Instruments, Timken, Toyota Motor, and Marlin Steel Wire Products.

Marlin Steel Wire Products, a Baltimore company owned by Drew Greenblatt, is featured because, as a small company with only 20 employees and eight temp workers, it had to radically change its manufacturing operations and marketing strategies to compete with Chinese manufacturers and to comply with heavy government regulations. The main point of the Marlin feature is that stringent government regulations on truckers' hours, pension plan compliance, and tax code fine print, combined with tough price competition from China, forced Marlin to invest heavily in CAD systems and labor-saving machinery to keep its costs down and its quality up. Now, thanks to these steps, Marlin is better able to fulfill its mission to provide high-quality wire products quickly while manufacturing solely in the United States.

"Marlin is fanatical about lean manufacturing and continuous improvement," Greenblatt says when asked about the keys to his company's success. "The Toyota Way is our bible. We have a translation for our Korean employees."

"Toyota is also a client," the shop owner continued with obvious enthusiasm. "We provide lean manufacturing tools such as engineered baskets and parts-washing racks so Toyota can be leaner. We consult with Toyota engineers to optimize products for higher throughput."

Greenblatt takes the value of personal consultation and cooperation with customers very seriously. "When I arrived at Toyota's West Virginia plant to discuss improving baskets," he says, "their engineer had *four* whiteboards of comments ready. We reviewed each comment to tweak this, optimize that. I [almost] walked away with a BS in lean engineering."

Marlin's business began to improve when Greenblatt realized that some customers, such as Boeing, wanted small orders turned around quickly and accurately and didn't haggle over price. He decided that Marlin should focus on making high-quality, well-engineered

steel products for such high-tech manufacturing plants, because, unlike Marlin, many Chinese manufacturers require large minimum orders and long lead times.

“China can't get a custom single hook or single basket in less than a week, or in less than three weeks,” Greenblatt told *The Washington Post* in an Aug. 19 interview. “They can't do it.”

“Second, smaller minimums/maximums of raw material (wire diameters) and more-frequent reordering mean that less space is required for wire inventory; and inventory is more visible; also, inventory management is simpler (two coils, do *not* order that wire diameter; one coil, order.). There is less investment in raw materials, but fewer volume discounts on purchasing.

“And third, a smaller minimum/maximum finished-goods inventory of stock items means we need less space for inventory, and less investment in stock items, and more inventory turns and setups.”

Lean also applies to the planning and quality control of Marlin's products. “Engineers provide CAD drawings to the factory,” Greenblatt says. “Dimensions on the prints identify simple measuring points, so all employees can check their work accuracy, and each employee is responsible for his or her own quality.”

In addition, Greenblatt explained that on the production line:

- Each cell has its own check fixtures where product must fit. No fit? Line stops until the part fits.
- Prints are visible with a plotter for 1:1 top, front, side, isometric views of the product.
- With computers in the factory storing engineering's prints, operators can check dimensions without walking to engineering.
- The foreman and lead engineer check quality before shipment, and sign to confirm they reviewed the parts before shipping.

By aggressively pursuing and specializing in high-end, custom-designed, and quick turnaround products, the company, according to the NAM document, “has managed to stay competitive while offering [its] employees a full package of benefits, including health insurance, holiday pay, 401(k) matches and full tuition reimbursement.”

As Kevin Meyer summed up the Marlin Steel Wire Products success story in his Evolving Excellence blog (www.evolvingexcellence.com/blog/companies/index.html) entry on Aug. 22, “Speed has value. Quality has value. Agile customizing has value. Not using lead paint has value.”

For more information, visit <http://www.marlinwire.com/nam.html> or www.evolvingexcellence.com/blog/companies/index.html