

Client

WIKA Instrument Corporation, a leading international manufacturer of pressure gauges and other critical measurement instruments.

Challenge

After seven years of sales growth bolstered by WIKA's LeanSigma efforts, the global economic recession caused a double-digit sales decline, which was then followed by record-setting growth in the recovery period immediately following the downturn.

Solution

Lean manufacturing practises enabled the company to respond quickly to market declines without being caught holding excessive inventory. Discipline and transparency enabled WIKA to maintain profitability during the global market downturn, and then respond quickly when sales growth returned.

Results

Financial benefits include sales and market share growth, healthy margins and operating cost advantages such as higher productivity, less scrap and lower working capital requirements.

Dramatic reductions in equipment order lead times, productivity improvements, cost savings and on-time delivery.

When sales decline, speed and agility are key to protecting profits. They also help companies capitalise on opportunities when the market returns. This German manufacturer's lean practises helped it survive the Great Recession and realise 30% sales growth in the recovery period.

When sales at WIKA Alexander Wiegand SE levelled off at around 300 million, lean manufacturing practises helped reposition the company as a highly responsive, high volume supplier of made-to-order pressure and temperature measurement instruments. The privately held firm headquartered in Klingenberg, Germany, employs more than 6,500 people and ships more than 40 million products every year. Then, the European and North American recession took a double-digit bite out of sales.

"We were told that the award for transitioning to lean would be nothing but growth," says Michael Gerster, former President of WIKA Instrument Corp. in the U.S. "That was true until we experienced negative market forces that derailed an otherwise spotless record."

Management's primary objective was to shorten order lead times, then running anywhere from four to six weeks, and improve on-time delivery performance, which was hovering between 60-70%. Improving quality and productivity were other top priorities.

"One of the weekly discussions that we had before lean was that we were too slow, too expensive, never had the right stuff in stock and our quality was not good," recalls WIKA Instrument Corp. COO Klaus Gross. "You can probably imagine how much fun we had in those meetings."

During this period some of the company's product lines were becoming commoditized by new competitors offering similar products at 30 to 50% lower prices. Rather than pursue a race to the bottom by competing based on lowest prices, WIKA business leaders decided to leverage operational excellence and lean manufacturing to transition to a just-in-time, high variation, fast delivery strategy that provided enhanced customer value.

To move away from batch production methods and warehouses stuffed with inventory, WIKA leveraged kaizen workshops—more than 1,000 to date—to set up work cells, reduce changeover times, implement onepiece flow and slash work-in-process inventory. It took about 18 months for the changes to reach critical mass and begin to show up in the company's operational and financial performance, according to Gross. WIKA has since achieved dramatic reductions in equipment order lead times, productivity improvements, cost savings and on-time delivery. The company has reduced quality failures from around 1%, or 10,000 defects per million opportunities (dpmo), to 2,000 dpmo, and is on target for 500 dpmo.

Today, WIKA leverages its operational advantages to produce a wide range of high-quality measurement instruments to exact customer specifications, and deliver them quickly—usually within three to five days. Such service has been rewarded by customers and is a major contributor to the company's sales growth. At the same time WIKA has been able to improve productivity, shrink floor space requirements, reduce working capital requirements and uncover additional cost savings, which have contributed to better margins.

Because each lean work cell now has its own prominently displayed performance metrics, it's easy for supervisors to see when output or any other key indicator slips. And when market demand returned, it was easier to align production activities to order requirements.

Top to Bottom Culture Change

One of the critical elements of WIKA's ongoing success has been the fact that lean efforts and the continuous improvement mentality have not been limited to the factory floor, or to any one department or division. Lean management practises extend all the way from annual goal setting to the sales process and the shipping department. Here's just a small sample:

- Policy deployment practises now define breakthrough performance targets for the whole company
- Leadership development programmes identified skill gaps, assessed management strengths and weaknesses, and provided individual and team coaching to help make the best decisions and develop talent from within
- The Georgia plant shipping department simplified order picking, streamlined product flow, and improved inventory management, leading to a 25% increase in sales
- Many kaizen workshops have reduced working capital requirements by reducing both inventories and receivables
- The continuous improvement mindset even led to standard, company-wide processes for organising meetings and hosting visitors

Klaus Gross estimates that productivity gains in the United States alone have made it possible for the business to grow without adding the labour equivalent of 200 employees, which calculates out to cost savings of \$7 million per year. It doesn't take very long for results like that to really add up.

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