

NIST Home > Baldrige > Trident Precision Manufacturing

Select Language ▼

Powered by Google Translate

Malcolm Baldrige National Quality Award 1996 Recipient Trident Precision Manufacturing Inc.

As large companies cull the ranks of their suppliers and demand more from those that survive the cut, Trident Precision Manufacturing Inc. is being pushed to improve continuously by its customers, by its competitors, and, especially, by its own workers. From 1991 through 1995, employees at the Webster, N.Y., firm submitted more than 5,000 process-improvement recommendations about 125 every month and management has chosen to implement 97 percent of those ideas. Over that five-year span, Trident made significant gains in many key performance areas, including productivity and efficiency, customer satisfaction, sales, and profitability. Sales per employee jumped 29 percent, time spent on rework of nonconforming products decreased nearly 90 percent, customer complaints fell 80 percent, and rates of return on assets consistently exceeded industry averages. In 1995, Trident's five major customers rated the quality of the supplier's products at 99.8 percent or better. The 17-year-old company has never lost a customer to a competitor.

About Trident

Founded in 1979, privately held Trident manufactures precision sheet metal components, electro-mechanical assemblies, and custom products, mostly in the office-equipment, medical-supply, computer, and defense industries. It has grown from a three-person operation to an employer of 167 people, occupying a modern, 83,000-square-foot facility. In 1995, revenues totaled \$14.5 million. Well established as a local supplier, Trident is now diversifying to serve regional and international markets. Sole company owner Nicholas Juskiw is Trident's chief executive officer and president. In 1988, under Juskiw's leadership, the company's Senior Executive Team devised and launched "Excellence in Motion," a strategy designed to sharpen Trident's focus on its customers and to instill a commitment to continuous improvement throughout the organization.

"Satisfying Customers . . ."

Trident has established "quality as its basic business plan" to accomplish short- and long-term goals for each of its five key business drivers: customer satisfaction, employee satisfaction, shareholder value, operational performance, and supplier partnerships. All goals, however, contribute to achieving Trident's overarching aim of total customer satisfaction. Each improvement project begins with a thorough analysis of how to meet or exceed customer requirements in four critical areas: quality, cost, delivery, and service. Metrics are designed to ensure that progress toward the customer-targeted improvements can be evaluated. The company's data-collection system provides all personnel with a current record of the company's progress toward its goals. Forty-five networked computers recently increased from 18 at the request of employees make this information readily accessible. Performance data also are reviewed daily in each department and weekly by the Senior Executive Team. Once each month, this team aggregates the data for the entire company and reports on progress toward goals set for each of the five key business drivers.

Beyond tracking its operational and financial performance, Trident also analyzes data collected from a variety of other internal and external sources. These include semi-annual surveys of customers, suppliers, and employees; benchmarking studies; discussions with customers; employee forums; market reports; quarterly quality audits; and an independently conducted annual assessment of the company's competitive position within its industry.

Regular contact with customers and suppliers is an essential element of Trident's quality strategy. Senior executives meet twice a year with representatives of each customer company for in-depth discussions on Trident's performance as a supplier, while 41 customer-contact personnel interact with these firms on a daily basis. Customers, as well as key suppliers, also participate in Continuous Involvement Meetings, initiated by Trident to gain full understanding of a customer's new or modified product design. Direct feedback flags real and potential problems that can be acted upon immediately, and it alerts Trident to changing customer requirements that can be addressed in short-and long-range planning. Responding to future requirements identified through such discussions, for example, Trident recently raised its goal for manufacturing-process reliability to a level significantly more stringent than now specified by its most demanding customers.

Before bidding on a project, Trident also works with prospective customers to eliminate hazardous materials that may be specified in the initial design and that would pose health or environmental risks. By policy, Trident will not submit a bid if the material requirements are not changed.

Trident also uses technology to strengthen links to customers and suppliers. Electronic data interchange capabilities, for example, permit paperless transactions, while file-exchange capabilities enable customers to send their designs electronically to Trident's computer-aided design and manufacturing equipment.

". . . Fulfilling Employee Expectations"

Top management takes the lead in planning, setting improvement priorities, and systematically reviewing progress toward quality goals, but executives and managers see their primary role as facilitating the transformation to a continuous improvement culture. Workers, the company believes, are the "source and foundation for quality leadership and competitiveness." Consequently, Trident's human resource strategies emphasize training, involvement through teams, empowerment, and reward and recognition.

Since 1989, Trident has invested an average of 4.4 percent of its payroll on training and education in total quality as well as general education, job-related skills, and safety. This is an especially large investment for a small company and two to three times above the average for all U.S. industry.

Organized into functional departmental teams, employees "own" specific processes and are given responsibility for identifying problems and opportunities for improvement. To foster innovation, employees have the authority to modify their process, using the company's documented process improvement procedure, which focuses attention on non-value-added activities that can be eliminated.

The company also relies heavily on the contributions of cross-functional teams, and it encourages employees to diversify their work skills and abilities. Eighty percent of Trident workers are trained in at least two job functions, well on the way to the 1998 goal of 100 percent.

To reinforce worker commitment to continuous improvement, the company regularly acknowledges exemplary performance. Reward and recognition of employees have climbed steadily, from just nine incidents in 1988 to 1,201 in 1995.

Results

Improvements set in motion by Trident's total quality strategy have catalyzed performance gains that have cascaded throughout the organization and generated benefits reaped by customers. Employee turnover has declined dramatically, from 41 percent in 1988 to 5 percent in 1994 and 1995. The company correlates these positive workforce trends with increasing productivity and rising levels of customer satisfaction. Sales per employee rose from \$67,000 in 1988 to \$116,000 in 1995.

Defect rates have fallen consistently, so much so that Trident now offers a full guarantee against defects in its custom products. Machines made for one of Trident's major customers go directly to that company's distribution center for shipping. For the past two years, no defects have been reported in these Trident-built machines. On the service side, the company has greatly improved its on-time delivery performance from 87 percent in 1990 to 99.94 percent in 1995.

These and other improvements have enabled Trident to maintain its status as key supplier to major customers, even after those companies trimmed suppliers by 65 to 75 percent. The company recognizes that, because of changing competitive conditions, major manufacturers will expect ever-better products and services from their suppliers. Trident believes it has the strategy, people, tools, capabilities, and full organizational commitment necessary to keep the company one step ahead of customers' rising expectations.

Baldrige Website comments:

baldrige@nist.gov

Date created: 08/27/2001

Last updated: 11/29/2011
