



Corporation & Product

Micron Manufacturing Company has been a family owned precision machined products manufacturer since 1952 supplying automotive, truck, aerospace, furniture, hydraulic pump, oil and gas exploration and various other industries. As a job shop, Micron produces precision components from a variety of raw materials such as titanium, brass, steel, plastics, stainless steel, aluminum, and castings.

A variety of machine capabilities offer flexibility to meet customer part design and volume that include cam driven single and multiple spindle screw machines, CNC single spindle lathes and CNC machining centers.

Services such as in-depth engineering support during the prototype stage, short-lead-time small runs and vendor managed inventory with reusable packaging provide cradle to grave solutions for many customers who are not experts in the machining field or lean principles. Providing multiple part sub-assemblies, so customers can order one part number rather than many, and partnering with heat treat, plating, and finish grind suppliers provide further service to customers so that product is ready for use at delivery.

Micron's only plant is 28,800 sq. ft. on 7 acres and employs 31. In

early 2000, Micron planned a 10,000 sq ft expansion to accommodate its steady growth. By late 2000, however, Micron chose to adopt the lean principles and improve flow rather than increase the size of the plant. Since 2000, many lean principles have been incorporated into the daily culture including 5S, set-up reduction, cross functional teams, daily 5 minute huddles, value stream mapping, and many more.

Achievements

Some of the results achieved are as follows:

	<u>2000</u>	<u>2007</u>
Inventory Turns:	9	16.6
Request for quote win rate:	6%	24%
New product launch prep:	5.8 days	1 day
Product on Pull Sys:	0%	40%
Lead (order to ship) time:	49 days	15 days

People

When Micron began its lean journey in 2000 there were 42 employees, 5 of whom were supervisors who managed separate departments with the help of 4 lead persons. These levels reported to the plant manager who reported to the general manager and all were under the watchful eye of the president.

In 2008, there are 3 self-directed business units with no lead persons, no supervisors and the president does not actively manage the business. There are now 3 levels instead of 6 which greatly enhance information flow and decision making. Machine operators now set their own machining schedules directly with production control. Machine operators conduct their own

daily 5-minute huddles and measure the success of their business unit.

Management of the company is now largely directed by a cross-functional management team made up of the general manager, the plant manager, the lead estimator, the IT technician and the manufacturing engineer.

Micron's values, goals and key performance indicators are concentrated on one document, the One Page Strategic Plan. The One Page Strategic Plan is also the central plan for all Microns' major activities. This document is reviewed and updated quarterly then shared with all employees. Each employee, from the chip spinner to the general manager, lists their personal goals which are in support of the companies goals and posts them at their work station.

Process

Micron's sales peaked in 2000 (at \$5,300,000) and then dropped precipitously during 2001, 2002 and 2003, (to \$3,200,000) along with many other manufacturing companies in the area. Since then, Micron has redefined its place in the market from that of a medium to high volume producer of relatively low-tech product to that of a very small to medium run company with very little high volume sales remaining. During that time Micron has also focused on more technically challenging products that require Micron's engineering support, high tech equipment and very short runs. It is Micron's contention that this business is most resistant to market fluctuations, takeover risks from low cost producers and global pricing pressure. With that, it is Micron's strategy to

partner with customers that exhibit the following characteristics:

- They are an OEM
- They are non-automotive
- They are in a growing market
- They are market leaders
- They support Micron's lean journey

Following these tenets, Micron's sales have grown to \$4,789,000 in 2007. These sales were accomplished, however, with only 31 employees for a throughput (sales/person) of \$154,000 when our industry average is less than \$120,000.

2008 Theme

To provide greater focus on the One Page Strategic Plan, elevate the 2008 Presidential election and honor our founder, Micron's theme this year is "Freedom". Ed Preston, Micron's founder, served our country during WWII. After his service to our country, like many others he became fascinated with machining and for over half a century has served his customers and the families of all Micron's employees. And so, in our 56th year as a small manufacturer, we are proud to submit this application for the Shingo Prize for Excellence in Manufacturing.

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