

United Gear and Assembly Uses Synergy to Bring in New Business



When Douglas Winfrey, Director of Quality, started at United Gear and Assembly, the Synergy software had already been purchased, but was not fully utilized. "I inherited Synergy, and I enforced it," said Winfrey. Winfrey immediately saw the benefits of utilizing the Synergy software. "The real issue was that we were collecting all of this data, but not looking at the data. Synergy gave us a way to easily pull up the data and act on what we are seeing; it also gave us the ability to access the data anywhere in the world including our customer sites," said Winfrey.

United Gear and Assembly has been in business for 50 years. During that time, they have evolved from a family-owned business into a multi-million dollar company and a core supplier of precision gears, shafts, and related assemblies to companies in the automotive, agriculture, forestry, construction, mining, marine and rail industries. "We are now expanding our presence along with our parent company, United Stars, based out of Beloit, WI, into the Pacific Rim and recently opened an office in China," Winfrey explained.

"I have been in meetings at the customer's location where we are discussing a new product. Synergy gives us the ability to log into our server, show them the exact machine that would be used to produce the new product, what tolerance the machine is currently running and the capability history of that machine. This type of information shows the customer what they need to see before moving forward. Synergy provides us that edge to win the business."

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Executive Summary

Customer

United Gear and Assembly has been in business for 50 years. During that time, they have evolved from a family-owned business into a multi-million dollar company and a core supplier of precision gears, shafts, and related assemblies to companies in the automotive, agriculture, forestry, construction, mining, marine and rail industries.

Challenges

- Collecting all the data by hand and plotting charts by hand

Solution

- Zontec's Synergy 2000™

Results

- Saving 12 man-hours per day
- Increased tool lifecycle management
- Reduction of non-conformities by 20%
- Reduced scrap rate
- Leveraging Synergy data to win new business

Once United Gear and Assembly began using Synergy, they found that Synergy made it easy for individuals without a statistics background to create charts on their machines, setup to receive notifications, reduce the number of errors and assist the inexperienced operator in understanding the process clearly. "It's a very good teaching tool to be able to explain with visuals to describe where the process is running at and where we want to be," said Winfrey. "Within seconds, we can call up a part number on a machine and know what's going on with that machine or the current production run."

"Since implementing Synergy, the reduction in paperwork is huge. Before every entry took us about 3-½ minutes per sample size and now it only takes us less than 30 seconds. There are 240 critical characteristics we could be measuring at any given time. Using Synergy has saved us about 12 man-hours per day," said Winfrey.

One of the benefits United Gear and Assembly have experienced is that they came to a better understanding of their machines and their capabilities. "Through data gathering, charting and analysis, we can analyze data on every product produced in a particular machine. We can get to the root cause, whether it is the people, the process, or the machine," said Winfrey. "We run product on several machines; with Synergy we can compare a machine's capability which gives us the least variation and best product. We can see inconsistencies and make systematic changes across the entire process; we can see data points for all products, regardless of machine and resolve inconsistencies for all processes."

Synergy also gives United Gear and Assembly the ability to effectively manage the lifecycle of its tools. Through the use of Run Charts and other Synergy tools we can determine tool life and predict how many parts can run before needing to make adjustments or change out the tool. "We can budget our tool life management more accurately and effectively based on this data," said Winfrey. Synergy has helped United Gear and Assembly in the decision making process of whether to repair or replace equipment. "Synergy can show us if a particular machine can't produce a particular product in a specific tolerance range. This data can then be used to justify procurement of new equipment," Winfrey added.

Synergy has helped United Gear and Assembly with their Six Sigma and continuous improvement initiatives. "In the aspects of our business where we are using Synergy, we have seen our PPM (parts per million) decrease," said Winfrey. "On average, we have reduced our non-conformities by 20%. We also have a very low scrap rate in those applications."

Winfrey states they use Synergy for new business development. "I have been in meetings at the customer's location where we are discussing a new product. Synergy gives us the ability to log into our server, show them the exact machine that would be used to produce the new product, what tolerance the machine is currently running and the capability history of that machine," Winfrey said. "This type of information shows the customer what they need to see before moving forward. Synergy provides us that edge to win the business."

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