Electronic Work Instructions Help Steel Tool & Engineering Comply with NADCAP Audits

Steel Tool & Engineering, Trenton, Mich., manufactures jet engine parts for the United States government and international aviation companies. Founded more than 60 years ago, the company and its 130 employees have built a solid reputation for delivering world class quality, on time, at competitive prices.

In 2011, Steel Tool & Engineering integrated Sequence Work Instruction software into its own paperless routing system. Now fully unified with 4th Shift, the plant's material requirements planning (MRP) system that tracks more than 400 part numbers, Sequence simplifies complex manual assemblies and gives Steel Tool & Engineering an easy way to author, review, approve, deploy and validate the work instructions required to build its products.

"Blending Sequence with our own software system was an easy transition," says Ryan Grosos, Steel Tool & Engineering's engineering manager. "We had a home-grown, static data management system that made managing revision control history difficult. It relied on the due diligence of the sketch creators to keep up. Now that happens automatically."

"Sequence, integrated with 4th Shift, gives Steel Tool & Engineering the ability to put the information that production personnel need to build their products right at their fingertips," says Barry Lucas, president & CEO of Sequence.

As parts are routed down the line for assembly, production personnel electronically access the work instructions needed for their operations through an integrated interface.

"When the parts arrive at an operator's station, they simply scan a barcode to pull up both the electronic routing and the most current version of the work instructions. This allows for complete and efficient revision control," Grosos says.

Enhanced revision control pays off in numerous ways. Grosos says complying with audits from the National Aerospace and Defense Contractors Accreditation Program (NADCAP) verifying proper documentation has greatly improved. "We can go back to a specific date if needed," Grosos says. "We get lots of changes from our customers that do not always change a parts number. Now we can go back and see when we made a change and narrow it down to when those parts ship."

Improved customer satisfaction is another byproduct of Sequence software. “Before we ship the first delivery, we have to submit a package that includes specific operational sketches,” Grosos says. In the past, we would just do the sketches we had to in order to get approved and go back later and finish up the rest. Now we’re signing off on the entire router and our sketch-completion for first shipments has jumped more than 75 percent.”

Today, Grosos and the Steel Tool & Engineering team are continuing the process of converting many thousands of documents and sketches, some dating back to the 80s, to digital Sequence work instructions.

“Sequence is definitely helping us make the transition to 100 percent paperless,” Grosos says. “It forces us to do all the work that we’re supposed to do up front when we’re supposed to do it. Once it’s done, it’s done, and you can put it to bed until some changes come later.”

Sequence Enterprise

Designed for the manufacturing enterprise needing work instructions that are collaboratively authored, fully integrated with ERP/PLM/MES and deployed in a real time, interactive paperless environment.

EWIs Help Steel Tool & Engineering Comply with NADCAP Audits