



Patti Engineering Provides Engineering Expertise for Auto Industry's First 9-speed Transmission

Thanks to our relationship with [ThyssenKrupp System Engineering](#) (TKSE), Patti Engineering is excited to be part of the TKSE team implementing the equipment to build the auto industry's first 9-speed transmission in the Chrysler Transmission Plant in Kokomo, Indiana. This is another step in Chrysler's biggest U.S. investment plan since the company's bankruptcy: transmissions with more gears to enhance fuel economy and performance. Chrysler was the first domestic automaker to introduce an 8-speed transmission in its models, starting with the 2012 Chrysler 300S and Limited models. The new 9-speed front-wheel drive transmission is expected to be in production the first half of next year.



For almost a year now, we have been working in conjunction with TKSE on various assembly lines that will be used to build the new 9-speed transmission for Chrysler. TKSE designs, manufactures and delivers complete assembly lines adapted to the requirements of its customers. These assembly lines integrate various types of transport systems, assembly, test and high precision measurement machines.

Solution Partner	
Automation	

Our relationship with TKSE began in early 2010 when our engineers were working for another client in the new Caterpillar Engine Plant under construction in Seguin, Texas. We connected with the folks from TKSE while they were at the plant installing equipment and found they needed local resources to help. Based on our [Siemens expertise](#), coupled with the fact that we had just opened an office in Texas; TKSE made the decision to enlist our

team to assist installing the new equipment in the Caterpillar plant. We are very proud to say that after our first project with TKSE, they have continued to use our services because of our ability to get things done correctly the first time.

Currently, we are working on the various assembly lines that will be used to build Chrysler's new 9 speed transmission. Our involvement in these lines spans from software development to commissioning. The equipment includes: conveyors, nutrunners, servo presses, pneumatic stops, pneumatic diverts, barcode scanners, and Sony probes. Our engineers are providing assistance with the development of various Siemens Programmable Logic Controllers (PLCs), Siemens Human Machine Interface (HMI), Festo pneumatic manifolds and with interfacing I/O via Profinet.

Beyond development, we commission the programs to ensure functionality and support of customer part runs demonstrating complete functionality to Chrysler. Commissioning includes verification of I/O, manual function, automatic function, and auxiliary functions. Some of the auxiliary functions include verifying operator interfacing through the HMI and various stations status displays.

We appreciate the opportunity to work with TKSE on the auto industry's first 9-speed transmission project. We are honored to serve as a trusted resource to TKSE, adding value with our Siemens technical expertise. Patti Engineering's Senior Engineer, Duane Edgar, who is leading the project, has noted, "Our value has been in our ability to provide TKSE a level of comfort in the fact that we understand "their" way of doing things and can adapt with little guidance."