

Precision Tool & Stamping

Precision Tool & Stamping, Inc. (PTS) is located in a rural area of Clinton, North Carolina, where you can find more tobacco fields than precision die shops. PTS is a locally owned company which controls the complete die design to production process. PTS now uses over 23 world-class punch presses ranging from 15 to 400 tons. A completely equipped CNC facility is equipped to produce the dies to serve customers from industries like electronics, electrical appliances, lawnmowers, furniture and parts used in outer spaces. PTS has a very strong commitment to offer the best service, designs and products available. In order to achieve this, PTS needs to react extremely fast to customer needs without any errors. This is the ultimate goal of any conventional die shop. Being an ISO9000 certified company, PTS understands very well that communicating the metal die design in 3D at the earliest stage is extremely important to avoid errors in production. PTS is committed to spend much time and money to explore new methods in die design.

Tart Lee is the owner of PTS. Having committed himself in the die making industry for 33 years, Tart was a pioneer in applying computer-aided-drafting tools to the industry back in 1987. "Initially, I tried to do the die design in 2D CAD. There were problems and issues in the new tools. I had to go back to the drawing board to finish the job. It took several years for me to try out new software tools. I moved back and forth between the computer and drawing board before I finally made the

migration from manual drafting to 2D CAD. In 1991, I settled down in choosing AutoCAD® as the design tool. I did make a number of macros in the system to automate the repetitive works which our die design needs that cannot be found in a generic 2D CAD system. The world is changing and the industries demand more in terms of speed and price. I kept on monitoring the innovation in CAD software. My first purchase of 3D software was back in 1997. I read the various CAD magazines, and I realized SolidWorks® was getting very popular in the mechanical design industries. It was easy to learn and easy to use. We invested in the first seat that



Diesets designed with 3DQuickPress

year and I started to test the feasibility of applying only SolidWorks® to do the die design job in a timely fashion. The learning curve for me was almost three months to get myself competent to use SolidWorks® to do the die design. I understood that there were no standard 3D CAD tools to handle our specific needs in tool design. I had to adapt to using the tools available in 3D CAD to finish my design. SolidWorks® helped me complete the design in 3D, although it required more time than my previous 2D design approach. Using 3D SolidWorks® was justified because it reduces errors in the concept phase of the die design. Today, we cannot afford to make errors which result in loss of time and reduced profit".

Tart kept searching for better tools to speed up SolidWorks® for die design projects. He decided to buy 3DQuickPress, a new solution partner of SolidWorks® in progressive die design in March 2004 from a local SolidWorks® reseller located in North Carolina. "After I got the training at the 3DQuickPress training center, I knew that I made the right decision to buy this new product. Of course, I can manage to finish all my work in SolidWorks® alone in a quality fashion, but, with 3DQuickPress, I can now finish the job much faster. The overall gain in productivity was almost 30% after I implemented 3DQuickPress into my SolidWorks® environment. 3DQuickPress makes everything a lot faster. Strip layout design today is much easier. Hole series design is much quicker. User-defined features in 3DQuickPress added value to SolidWorks® for all of our design projects. In my last 12 months of daily use of 3DQuickPress, I found the distribution and support team supporting 3DQuickPress resellers in North America, Strategic Technology Solutions, is great to work with. Their working attitude is the right solution to serve these very competitive industries."

Tart Lee grows with the US metal manufacturing industry and has devoted over 33-years in his career to apply new methods to make the US metal industries remain the most competitive entities in the world market. While the world metal manufacturers are still debating the benefits of using 3D for die design, Tart has shown leadership to the world by his success in producing quality die designs in 3D.

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STS worked extensively with Precision Tool & Stamping during the first 12 months of their 3DQuickPress implementation. This successful partnership helped both Precision Tool and 3DQuickPress to further develop new design methods and techniques for 3D progressive die design. The level of automation and reuse of data has made the traditional 3D modeling approaches of other CAD solutions obsolete. 3DQuickPress is rapidly becoming the new catalyst for design success in the metal forming and stamping industries.