

Research Tool & Die Works

Research Tool & Die Works (RT&D) is a manufacturing firm with over fifty years experience in marine electrical systems hardware. Their modern plant in Carson, Los Angeles, California, serves as the corporate headquarters and state of the art manufacturing facility. It houses some of the most advanced fabrication equipment available. RT&D provides competitive die design and metal stampings such as cable trays, degaussing cable hangers, EMI Bonding hardware, light hangers, stuffing tubes, and more.

Kevin Perrault, Vice President of RT&D, acquired the 3DQuickPress software in April, 2005. "Manufacturing in US and California has declined a lot in the last ten years. With good ideas and experience in stamping, we continue to grow and expand our business coverage around the world. Being a global player in the metal stamping industry, we have to be fast, accurate, and cost effective. We are using all possible technologies to enable us to be faster and better than our competition. Before I started working full-time at RT&D, the company had invested in SolidWorks software. In a testing period of six months, the tool designer learned how to use the software and tried to apply it in tool design jobs. The intricacy of the software is good for parts design, but requires much more specialization to do die design. My goal is to use SolidWorks as a day-to-day design tool. 3D part file

communication is emerging as a standard communication protocol between our customers. SolidWorks is a good common interface, and to use it in the downstream application such as tool design is our next logical step. If we keep on using the same approach without change, we will lose out. Speeding up the production time is not an option. We managed to complete this 2D to 3D transition in a year."

RT&D is a full service shop housing tooling, press, and product services departments, and a staff force of over seventy. "In the stamping industry, the turnover rate is less than four years. Most of our staff have been working at RT&D over twelve years and many of them have been here for over twenty years. Our experience and



modern manufacturing technologies are the foundations of our success. We started to use Mazak fifteen years ago. Since that time, we have kept the steady increase of CNC machines in terms of number and precision. To optimize our labor cost, we increased the use of progressive stampings many years ago. Today, my die design is created 100% as 3D and we are in a much better position in utilizing our CNC machines."

"Our next step is to promote the 3D tool design approach to all our tool designers. I am coming from a background of computer graphics. Using 3DQuickPress in SolidWorks is very natural to me. Having achieved the first milestone in using 3D tool design, we are now very confident to share the skill sets with our tool design department. A new user of 3DQuickPress will achieve competence within one or two months in our company. The efficiency we have gained using 3DQuickPress is incomparable. Before having 3DQuickPress, we could hardly finish a



tool design in 3D. In the last six months, we managed to complete more than ten projects using 3DQuickPress."

"3DQuickPress brings to RT&D not just a 3D design tool, itself is a 5D design process," shared Robert Konczal, President of STS, the distributor of 3DQuickPress in North America. "Stamping industries today need 3D communication and design power, plus 2D machining and production environment. The rich contents of 3DQuickPress enable our customers to solve their design problem in a good balance of 3D and 2D. Production-ready-libraries, auto drafting, and automated assemblies are put together in 3DQuickPress to provide our users a high performance mode. It is not difficult to achieve a time reduction of 75% in tool design after our customers have migrated completely into a 3DQuickPress production design environment." Kevin agreed, "By making use of Production-Ready-Libraries, we manage to complete a die design process within a few hours. That same process used to take us a couple of weeks using a 2D approach."



