

Customer Success - R&W Metal Fabricating

R&W Metal Fabricating, located in Brantford, Ontario, provides custom packaging solutions for automotive, commercial and industrial suppliers. Large U.S. and international automakers depend on the company to design and develop cost effective component racks. These racking solutions store parts during the transportation and assembly process.

According to industry estimates, an automaker can spend up to \$50 million dollars on its component racking alone. Due to the volume of racks required, the number of units each rack can accommodate has a significant "trickle down" effect across the supply chain. By increasing the number of parts stored on each one, costs can be reduced exponentially. The folks at R&W Metal Fabricating have developed a distinct competitive edge in the design of highly optimized racking solutions for manufacturing.

In most cases, R&W Metal Fabricating starts with a model of the part to be racked. The models are typically provided by the automaker in a CATIA® or UGS® format. "Models are created using parametric tools," said engineering manager Jim Fleming, "which suits the automakers' needs but is not effective for R&W Metal Fabricating. In order for us to achieve maximum productivity, we use the geometry-based tools in KeyCreator® software to quickly make changes that can dramatically impact an automaker's bottom line."

The process usually goes like this: an automotive supplier sends R&W Metal Fabricating a CAD file from their primary CAD system. Fleming and his team use KeyCreator to read and understand any popular CAD file format. Once the file is available in KeyCreator, the team can often turn around initial concepts within one hour. Not only does this impress existing customers, but it also enables R&W Metal Fabricating to move very quickly on new business proposals.

Fleming and his team strive for maximum space optimization on their racks. Customers have come to expect the company's packaging experts to offer additional value in the rack design. There are times when Fleming and his team shortcut the development process by taking their concepts right to the customer's doorstep. Rather than sending files back and forth between multiple groups involved in decision-making, Fleming conducts live simulations of the racking options.

These 'roundtable' meetings often involve any number of stakeholders managing the development process, e.g. designers, project managers, manufacturing engineers, United Auto Workers Union (UAW) representatives, and robotics managers. Fleming uses KeyCreator software to conduct a highly visual collaboration where decision makers are able to see the part and, in real time, understand the implications of recommended changes. Fleming understands that key factors involved in the rack design will impact ergonomics, ease of extracting parts, robotic loading and plant floor concerns.

When an R&W Metal Fabricating customer is able to maximize the number of parts on a rack, the cost savings can be quickly quantified by the customer. Additional parts on a rack means less racks must be transported. More parts and fewer trucks create dramatic savings on fuel, fleet maintenance costs, labor and much more.

Fleming has many examples to share. When an automotive supplier needed to update a vehicle assembly rack that only accommodated eight parts per rack. Fleming's team tapped KeyCreator to create alternatives that would satisfy the racking requirement. The automaker ended up having a new racking system to hold 30 pieces in one unit saving more than one million dollars by implementing simple design modifications.

Prior to using the geometry-based features and 3D modeling capabilities found in KeyCreator, this type of flexibility and rapid productivity was nearly impossible. Commented Fleming, "Every time files are moved between CAD formats, features are lost. With KeyCreator, we can work without risk. KeyCreator has revolutionized our business and has become a real money-maker for R&W Metal Fabricating – not to mention the savings our customers realize."