

Team-Based Engineering Delivers Maximum Value



KMC engineers work in teams to ensure quality parts and careful cost management.

How has KMC prospered in the highly competitive metal stamping business for nearly a century? By putting customers first, then constantly raising the bar on quality and performance. Nowhere is this philosophy more evident than in our highly integrated approach to engineering.

From design concept through prototyping, tooling and production, the KMC engineering team – over 20 strong and encompassing multiple specialties – serves customers with full-service support. We encourage customers to come to us at the earliest design or concept stages, where the opportunities for cost management are greatest.

Drawing on decades of experience, KMC engineers, working in concert with customer engineers, examine the entire product lifecycle. Our understanding of materials, tooling, technology and processes allow consideration not only of the function and durability of a part, but also its manufacturability as it moves into production.

The result is a part that performs to spec and can be efficiently and cost-effectively manufactured.

COST CONTROL AN EMPHASIS

At KMC, our goal is to engineer parts that are efficient and repeatable to manufacture, that minimize raw material consumption, and that deliver maximum value for the customer. Within our engineering process are many opportunities for cost control, including:

Part Design – The footprint of the part when flattened determines the manufacturing layout and therefore the amount of scrap that will be produced. Often, our design engineers will recommend changes in part geometry that reduce material consumption while maintaining or improving functionality and process efficiency.

In-House Tooling – By working interactively with our tooling engineers, the KMC design engineering staff can further optimize part design for improved run time, reduced scrap or other advantages. Frequently, tool engineers will suggest



Inspection and gauging are important steps in the product design process.



Examples of custom parts produced from KMC designs.

incorporating capabilities into a tool that reduce or eliminate secondary operations, thus controlling costs.

Production Knowledge – Our engineering team includes manufacturing specialists with intimate knowledge of all our production technologies: punch press, fourslide, multi-slide, vertical forming and laser technology. Early in the design process, a part can be directed toward the manufacturing technology that will achieve maximum production efficiency and lowest finished part cost.

Material Selection – Something as simple as a minor change in material thickness can dramatically increase or decrease the cost of the finished part. At KMC, we stock or regularly purchase raw materials covering a wide range of types and thicknesses. Because of our volume, we are able to purchase at favorable prices and pass the savings on to our customers. Further, KMC engineers are experts in material properties such as tensile strength and metallurgical properties and their effects on performance and dimensional stability.

Secondary Processes – Heat treating, plating or other secondary operations inevitably cause some degree of material variation. By recognizing this in the design and prototype phases, the effects of any variation can be taken into account and production delays avoided.

OUR QUALITY COMMITMENT

The KMC quality system ensures adherence to customer specifications through contract review, advanced quality planning, production part approval processes, and a comprehensive inspection and test program. An active continuous improvement philosophy drives refinement of our products and processes, and improves service to our customers.

Evidence of KMC's commitment to quality is our certification to ISO/TS 16949 and ISO 9001:2000 quality standards. While ISO/TS is specific to customers in the automotive industry, this certification signifies to all customers that KMC is committed to the highest quality in product, engineering and manufacturing processes, and customer service.

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