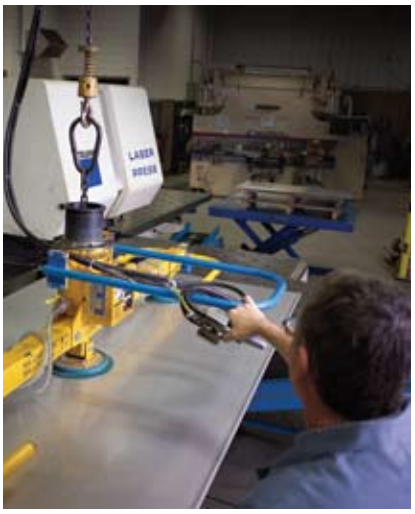
Complete Prototype Capabilities Within a Production Environment



Laser presses, which don't require hard tooling, are used extensively for rapid-response prototyping.

At KMC, we recognize all the layers of value that a great prototype can bring. We know its importance in new product introduction and that, in today's business environment, prototype speed can often be a critical factor in helping our customers achieve market advantage and commercial success.

But speed-to-prototype is only one measure of performance. As a full-service metal parts manufacturer, we view the prototype as an essential step on the journey from design, to tooling and on to full production. Perhaps more than anything else, it's this total lifecycle approach that drives a successful product development outcome.

SPEED, WHEN YOU NEED IT

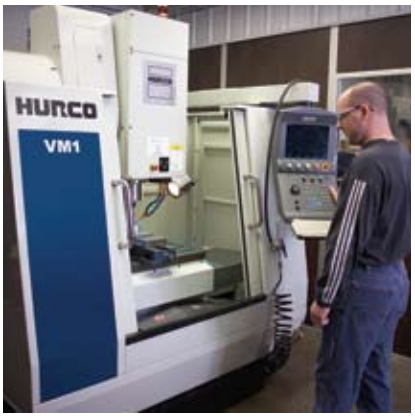
For customers on an extremely tight schedule, KMC can send a rapid-response team of engineers, designers and manufacturing specialists directly to your site. Preliminary drawings, costs and production estimates are provided within 48 hours of the visit, and a prototype can be delivered within 72 hours.

At KMC, most rapid-response prototypes emerge from our in-house KMC LaserForm operation, where advanced laser turret presses turn out stamping-quality parts without hard tooling.

When the development schedule is less compressed, however, we typically take the time to evaluate multiple design variations, considering various materials if the application allows. Under the direction of KMC's engineering staff, including experienced tool designers, this approach affords the maximum opportunity within the prototype phase to optimize a part's form, function and manufacturability, as well as to control its production cost.

Plus, with our dedicated tooling operation, KMC has the capacity to concurrently build, validate and fine tune tooling during the design/development process, so that production can proceed quickly upon prototype approval.

PROTOTYPING



Modern CNC mills help speed creation of both prototype and production tooling.

Experienced tool designers play critical roles in KMC's prototype process.

A DISCIPLINED APPROACH

At KMC, every project develops through a controlled and proven plan, including prototyping. The process is led by project management professionals and includes these steps, some of which occur concurrently:

Establishing the timeline

- Deadline for conceptual design
- Timing for prototype
- Date of pre-production run
- Date of design finalization
- Date of PPAP
- Date of first production

Part design

- Select appropriate raw material
- Determine limits of part variation
- Anticipate tooling and production needs
- Ensure manufacturability
- Constantly evaluate for cost

Prototyping

- Validate product design
- Apply design changes
- Develop prototype
- Approve for production

Tool Design/Build

- Define tolerance and run rate requirements
- Design and build tooling

Pre-production run

- Confirm tooling, including run to rate
- Fine tune as necessary
- Approve part for full production

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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