

# PRECISION METAL STAMPED COMPONENTS

Winning customers with our cutting edge precision metal fabrication capabilities

Backed by a highly experienced team of metal stamping specialists and toolmakers, Unisteel helps customers in the data storage, mobile device, industrial and automotive markets succeed by providing complete precision engineering solutions. We offer a wide range of customized engineered products that promise quality, consistency and reliability.

## Applications

Data Storage	Mobile Device	Industrial	Automotive
<ul style="list-style-type: none"><li>• Disk clamp</li><li>• Separator ring</li></ul>	<ul style="list-style-type: none"><li>• Mobile antenna part</li><li>• Mobile phone chassis</li><li>• Camera lens holder</li></ul>	<ul style="list-style-type: none"><li>• Insert molded component</li><li>• Camera chassis</li><li>• Circuit breaker</li></ul>	<ul style="list-style-type: none"><li>• High precision car battery component</li><li>• Latch insert molding</li><li>• Vehicle door lock component</li><li>• Deep drawing and heavy duty parts</li></ul>

## Metal Stamping Capabilities

Equipped with a wide range of metal stamping presses on site ranging from 25 tons to 300 tons that provide superior dimensional and burr control, Unisteel offers the latest stamping technologies that can support a variety of materials including aluminum, brass, bronze, copper, stainless steel and low/ high carbon steel.



### PROGRESSIVE

A metal strip is passed through an automated feeding system that encompasses a series of stations including cold forging, piercing and chamfering to form the final product.

#### Features and Benefits

- Multiple cutting and/or forming operations are executed simultaneously
- Other manufacturing operations include coining, punching, bending, deep drawing etc
- Able to produce small work pieces at a rapid rate
- Secondary processes may be required, depending on design specifications



### DEEP DRAWING

Similar to progressive stamping, in deep drawing, the material is stretched and formed into required shapes and dimension through progressive steps during the stamping process. Deep drawing is a process when the depth or height of the part exceeds its diameter.

#### Features and Benefits

- The material wall thickness is uniformly maintain throughout the part
- High speed production and high repeatability
- Many ductile materials are preferred and can be used for forming these stamped parts



## MULTI-SLIDE

Where design is not supported by progressive stamping, multi-slide stamping has the capability to produce uniquely- shaped components.

### Features and Benefits

- Ideal for components that have multiple bends or require multi-directional bends greater than 90°
- Suitable for parts that require control of bend orientation relative to material grain
- Economical use of raw materials
- Low tooling cost
- High production rate

## Secondary Processes

To complement our manufacturing processes, Unisteel provides a comprehensive range of secondary operations including CNC machining, demagnetization and single/double sided lapping to name a few. Our investment in both technology and training ensures that parts are delivered to customers, in high quality finish and assembly-ready.

## Technical Support

Unisteel offers more than just manufacturing. You can count on our partnership to provide end-to-end solutions for your needs.

## Product Design Assistance

With our years of experience and knowledge in the field, Unisteel will assist with customers' design requirements. Utilizing Pro/ENGINEER and AutoCAD for your applications, we can help select the correct materials and the right manufacturing process for the most economical production and the best performance of your products.

## Prototype Development

The prototyping process provides a good opportunity to not only test out the component's performance and enhance its design, but also to fine-tune its production methods. With full in-house tooling and manufacturing capabilities at Unisteel, we can quickly and efficiently develop prototypes from blueprint to final product, without compromising quality.

## Performance and Application Testing

Unisteel test facilities are fully equipped with state-of-the-art apparatus to carry out performance tests and quality checks of both incoming raw materials to finished products. Tests include statistical process control (SPC) measurements, 2D profile analysis, auto optical inspection (AOI), surface roughness, hardness, tensile strength, torsional analysis and concentricity gauge etc.



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