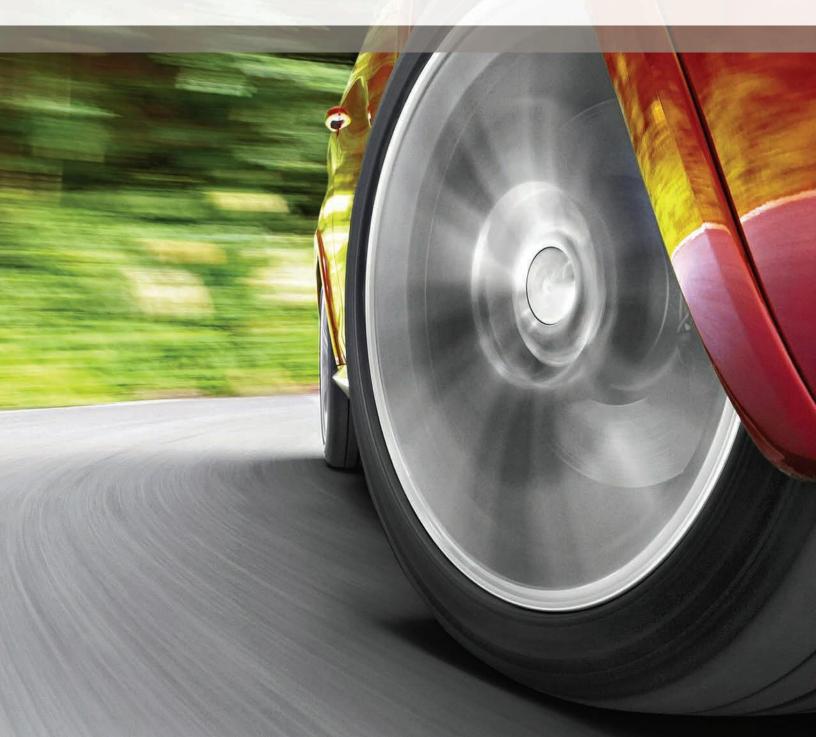




## drive your business forward with Caplugs



## company overview

For more than 65 years, Caplugs has been the leader in product protection with innovative plastic and rubber molded components that solve challenges for automotive OEMs and tier suppliers.

Our robust catalog has more than 12,000 of the industry's most commonly used parts including plastic caps, plugs, netting, tubing, masking products and other molded components.

As a longtime partner of the automotive industry, we understand the need for custom solutions. We have a dedicated team of engineers to work one-on-one with you to design a solution. To ensure quality and efficiency, we have a comprehensive tool room and all of our molding is done in-house.

As a global manufacturer, Caplugs is a trusted source and versatile partner for all your molded component needs.

> Over **400,000,000** parts in stock. **10,000,000** parts produced per day. Over **12,000** standard parts. Over **200** molding machines. Over **15** engineers. **6** global manufacturing facilities. The **1** partner you need.



### bumper to bumper solutions from Caplugs

#### Protection

Protect components when shipping from tier to assembly. We have designed a wide range of parts to cushion delicate threads, secure open ports from debris and contaminants and shield machined parts from impact damage and scratching.

#### **Body Sealing and Finishing**

We offer a wide range of sheet metal plugs for use in all areas of the vehicle. Some are designed for high visibility, while others are designed to seal the cabin, enduring harsh environments and heat.

#### **Functional Components**

This includes parts that stay on the vehicle and provide some type of functionality, such as isolator grommets and heat shield boots. Or, these components can be used as protection and installation guides that ensure assembly is done correctly without damaging adjacent areas of the vehicle.

#### **Masking Solutions**

We make a variety of caps, plugs, tapes and discs to secure critical areas during powder coating, plating, e-coating and more. Our line of masking products has been designed to withstand the harsh environments of chemical processing and high-temperature curing ovens, ensuring no bleed or leakage.

These are just a few highlights of the application solutions Caplugs provides. Call today to find out how we can help you.



Steering and Suspension Rod covers, ball joint caps, shock tower caps, bleeder valve caps and plugs, stabilizer bushings, suspension spring seats and masking parts for brake assemblies



#### HVAC and Thermal Units Block and condenser caps, thermal expansion valves, tube ends, as well as plugs, grommets and bushings for air conditioner and flaps



Electrical System Distribution coil boots, spark plug boots, fuse box covers and electrical connector protection



Masking Ultrabake™ caps, plugs, tapes and die-cuts for process temperatures up to 600°F (315°C)



#### Interior and Exterior

Grommets, gaskets, bumpers, dampeners for small motors, button and body plugs for doors, undercarriages, body panels, access panels and other open ports



Fuel System Heat shields, O-rings and caps and plugs to fit SAE fuel lines and quick connects



Body and Chassis Body plugs, overslam bumpers, and front and rear exhaust heat shields for vehicles



Engine and Powertrain Shift caps, driveshaft protection, housing covers, transmission boots, seals, bushings, caps and plugs

## comprehensive engineering & manufacturing capabilities

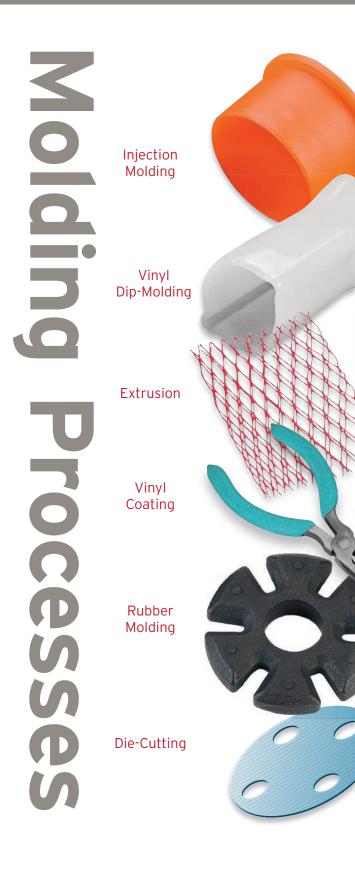
With six different processes, we can select the one to most effectively and cost efficiently meet your specific needs:

Full in-house capabilities include:

- 3-D modeling
- Rapid prototyping
- Advanced tool room
- Team of design engineers
- Thousands of production-ready custom molds
- Interchangeable mold base system

We have a vast array of materials to meet your performance needs, and our full staff of in-house engineers can also formulate and mix custom compounds and material additives for specific performance attributes and characteristics.





More than just a breadth of solutions, our in-house engineers and molding experts focus on solving your unique challenges with innovative solutions that are:

- Ergonomic Easy to install and remove
- High performing Precision molded protection
- Efficient Quality products ensure reliable protection and function
- Value-added Choose from hundreds of materials to enhance performance, from sound-dampening and vibration control to custom finishes for highvisibility applications

We've developed so many automotive solutions, chances are we've solved a challenge like yours before. With a full library of existing tooling beyond our standard catalog and our interchangeable mold base system, we may already have a custom mold that meets your needs.





## custom engineered solutions made easy

Documented process controls throughout our Production Part Approval Process **(PPAP)**. In-house tool room and team of design engineers **ENSURE aCCURACY**, quality, consistency and efficiency.

#### 1 > Identify/Understand Need

Dedicated sales engineer works closely to understand your needs and to create the best possible solution.

#### 2 > Concept and Design

Our team of design engineers concept a solution and offer you recommendations on molding process, tooling and the best material for your application. If you already have a design, we perform a Design for Manufacturability (DFM) review and material performance analysis.

#### 3 > Prototype

We can provide a rapid prototype to prove out dimensions, a 2-D part when applicable and a SolidWorks rendering to integrate with your component design files.

#### 4 > In-House Tool Fabrication

Ensuring quality tooling that is efficient and accurate. An interchangeable mold base system enables us to produce insert tooling that can work with existing mold bases for lower tooling costs and shorter lead times.

#### 5 > Full Production Capability

From production runs of hundreds of parts to millions of parts, we have the scalability to produce your volumes efficiently. Tool design, build, qualification and revisions are done in-house by the same team for accuracy and consistency.

#### 6 > Inventory control

We cater to the automotive industry, offering a wide range of shipment/inventory solutions such as JIT, EDI, Portal Management, ASNs and more.

## trust our unmatched service and support

### Put a team in your corner.

We have a dedicated team of service experts to work with you at every stage of your project:

- In-Field Account Manager Onsite visits with you to discuss new projects, challenges and custom needs
- Sales Engineer Moves your custom projects from concept to production
- Design Engineer Offers solutions to your unique challenges and requirements
- Customer Service Representative Enters your orders, ensures your shipments meet demands, maintains your needs during production and fulfills any catalog needs
- Regional Sales Manager Coordinates and oversees your project from start to finish

## **Built for Automotive**

- ✓ JIT shipping
- EDI inbound and outbound documentation with thirdparty system
- Inventory programs based on customer planning documents
- Portal management

- Full service SFS team center
- ✓ 24/7 customer support
- Quick quote turnaround from our sales engineers
- ✓ 6 Sigma

## **Quality Management Systems**

Caplugs stringent quality management systems ensure the necessary process controls exist to provide quality products that meet our customers' precise specifications.

Our Production Part Approval Process (PPAP) is a key component of our quality system specifically designed for our automotive customers to ensure accuracy, consistency, repeatability and record retention.

# Caplugs has a comprehensive quality lab.

> Measurement Equipment

- Mark-10 Force Tester
- Beta LaserMike
- RAM Optical Vision System
- Optical Comparator

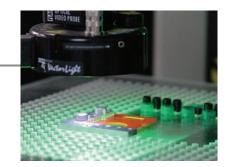


# Formal APQP Product Development Process options to meet customers' specific needs:

- > Failure Mode and Effects Analysis (FMEA)
- > Measurement Systems Analysis (MSA) Gage R&R/Calibration
- > Risk Assessment
- > Statistical Process Control (SPC)
- > Production Part Approval Process (PPAP)



Our quality systems in the New York and Pennsylvania facilities are certified to ISO 9001 & ISO/TS 16949. Our quality systems in our California and Texas facilities are certified to ISO 9001. Our quality systems in Shanghai and Hangzhou, China are certified to ISO 9001 & ISO/TS 16949. Buffalo, NY ISO 13485 certification applies to all clean room medical products. Our environmental systems in the New York, Pennsylvania and California facilities are certified to ISO 14001.





Caplugs is the leader in product protection with manufacturing locations and sales representatives all over the world to serve every customer efficiently.



Manufacturing Plants
Sales Representatives

www.caplugs.com/auto | 1.888.CAPLUGS | sales@caplugs.com