

Solutions



Trusted Supplier for More Than 75 Years

Serving as the leader in product protection, custom molded components and masking for over 75 years, Caplugs provides the broadest range of solutions, highest quality parts and most responsive service in the industry.

We provide a comprehensive catalog with 13,000+ masking parts and an in-house team of engineers dedicated to custom designs. Our custom process enables us to develop unique solutions more quickly and economically than anyone in the industry.

Caplugs offers 13 global manufacturing facilities, a world-class sales and service team and a comprehensive quality management system, so you can expect consistent results and short lead times no matter where you operate.



lanuta Injection Molding Vinyl Dip Molding Extrusion ring Vinvl Coating Processe Rubber Molding **Die-Cutting**

for all your finishing needs





1. Design and Collaborate

Our experts will work with you wherever your project starts. We utilize 3D modeling compatible with all CAD platforms. Our Design for Manufacturability analysis and practices ensure the most cost-effective and efficient solution to your specific application.

2. Rapid Prototyping

Prototypes are built in house to confirm fit requirements prior to production approval, ensuring high-quality outcomes.

3. Advanced In-House Tool Fabrication

Molds made in house result in shorter lead times, easier modifications and lower costs – with new tools in as little as 4 weeks. We also offer a wide range of cavitation options and an extensive library of existing tools for scalability and efficiency.

4. PPAP Process and Full Production Capability

Our formal verifications ensure part design and production processes comply with all your specifications.

5. Logistics Support

From special packaging requirements, like corrugatefree, to a range of shipment and inventory solutions, including JIT, EDI and Advanced Shipping Notice, we ensure your products arrive intact and on time, every time.







custom molded rubber masks

Rubber masks offer a more durable, multi-use option with time- and cost-saving benefits:

- Engineered to speed up production times with easy installation and removal
- Resistant material for multiple uses
- Performance masks designed for complex masking surfaces

Compound Mixing and Development

All materials for rubber components are formulated and mixed in house, ensuring a controlled process for consistency and performance. We can also develop custom compounds, as needed, to meet specific performance requirements.

A team of in-house chemists perform:

- Materials inspection and analysis
- Compound physical property and life testing
- Performance simulation testing
- Processibility and repeatability testing
- MDR, SG, hardness, tensile and elongation tests on every batch

Additional tests are performed based on your needs and our internal control plan, such as heat aging, compression set, ozone resistance, low temperature, brittleness, staining, etc.



Solutions for Your Unique Challenges

Bleeding

With our custom engineered solutions, you can tackle the industry's most common pain points:

- Inconsistency
- Leakage High labor costs
- Low durability

- Adhesive residue
- Low tolerances

Custom Molded Masks

Paintball Gun Mask

Material: EPDM Finishing process: Powder coating Quantity: 2,500

Air Valve Mask

Material: Ultrabake™ Finishing process: Powder coating Quantity: 50



Sprocket Pulley Mask

Material: Ultrabake™ Finishing process: Chrome plating Quantity: 300



10-Stud Axle Mask

Material: EPDM Finishing process: Wet paint Quantity: 5,000



custom die-cutting capabilities

Extremely effective when masking a flat surface, custom die-cuts are quick and easy to apply and remove, and they can even be fitted with pull tabs to expedite the removal process. This solution is ideal for wet paint, powder coating, e-coating and plating operations. Custom die-cuts are also an economical way to eliminate tedious manual masking steps, saving significant labor costs.

Caplugs offers four unique die-cutting processes to produce a wide range of solutions for product protection and masking purposes.

- Plotter
- Steel rule die-press
- Rotary die-cutter
- Magnetic plate die-cutting

Additional Options:

- Die-cut kits
- Perforated liner
- Slit back liner
- Carrier tape
- Pull tabs



Prototypes in 24 hours

Custom die-cut designs from a simple sketch or drawing

Hold **tolerances** of \pm 0.002" on a 24" length

Masks supplied in rolls, sheets or **pre-assembled** kits

Capacity for full **in-house** custom converting

Custom die-cut **samples**

die-cuts for any application

Custom Die-Cuts

Bezel Mask for Electronic Components

Material: 3 mil polyester tape Finishing process: Plating

Quantity: 15,000



Circuit Board Mask

Material: Crepe paper tape Finishing process: Solvent application Quantity: 2,000



Material: 2 mil polyester tape Finishing process: Powder coating Quantity: 2,500



Donut Mask for Aerospace Components

Material: Lead foil tape

Finishing process: Plating

Quantity: 800

Die-Cut Assembly Kits

Inline masking often requires the user to mask several different areas of a component. To streamline this process, we can create multiple different die-cut shapes within one kit sheet.



masking solutions for every industry



Electrical Housing Mask

- Material: Silicone
- Application: Powder coating
- Design Features: Five different parts packaged in one bag as an installation kit. Providing all five parts in a bagged kit reduces human error as all parts in the bag must be applied. This solution further streamlines your purchasing process and simplifies your stocking process.
- **Savings:** Masking labor per component was reduced from five minutes to 30 seconds.
- Quantity: 1,000

LED Housing Mask

- Material: PC21-SH Series in a thicker PC23-SH material
- Application: Powder coating
- **Design Features:** Die-cut to meet exact specifications with thicker material that doesn't tear during handling.
- Savings: Labor savings from tedious hand-taping installation, as well as an excess of tape used.
- Quantity: 15,000





Connector Pin Mask

- Material: EPDM
- Application: Wet epoxy coating
- **Design Features:** Cap designed with flange for easy installation and removal. Resilient material makes it reusable.
- **Savings:** Significant labor savings from the application of tape to a single, easy-to-install cap.
- **Quantity:** 500

Masking Cap for Circuit Board

- Material: Silicone
- Application: Epoxy coating
- **Design Features:** Designed to protect these delicate pins without bending or impacting them in any way.
- Savings: This mask reduced the number of damaged components as a result of insufficient masking using other methods.
- Quantity: 500





Ultrabake™ Silicone Plug for Cylinder Bore in Piston Engine

- Application: Component goes through a high-pressure wash and powder coating
- **Design Features:** Installed on a fast-moving conveyor line, these plugs need an ergonomic design that enables quick installation and removal.
- **Savings:** Reduced scrap parts and rework due to paint in the bores. Sizable cost savings over die-cut parts that had been used as these are reusable. Reduction of labor force required to run the products.
- Quantity: 8,000

custom solutions, consistent results



Large Ultrabake™ Silicone Surface Mask for Trailing Arms on Snowmobile

- Application: Powder coating
- **Design Features:** Large surface requires protection on both left and right side. Using tape was too tedious, raising labor costs and often resulted in failures. This custom solution uses the holes to align it and can be flipped to mask both sides with one mask.
- **Savings:** Reduction of parts required as one mask fits both sides. Consistent masking alignment and seal reduces failures and quality issues on final assembly.
- Quantity: 2,000

Custom EPDM Cap for Stub Shaft

- Application: Wet paint
- **Design Features:** Cap must keep teeth and shaft free of paint and stay on the component as shipping protection after the finishing process.
- Savings: Eliminates the need for two separate caps by combining masking and protection into one. Eliminates scrap and rework of expensive drivetrain component.
- Quantity: 3,000





Front Axle Magnetic Steel and Silicone Mask Assembly

- Application: Powder coating
- **Design Features:** Used to mask concentric diameters on front and back of the frame for a front axle. The mask is made up of four separate pieces two rubber components, a machined center pin and a magnetic donut. These are then assembled and shipped to you as a unit.
- **Savings:** Dramatic reduction of masking time due to quick installation and consistent alignment of the two diameters required to be free of paint.
- Quantity: 500

Custom Ultrabake™ Silicone Mask for Bus Bars

- Application: High-temperature epoxy coating
- **Design Features:** Installed to cover the mounting ends of large bus bars used in power systems. There is a hole in the mask to allow for hanging of the parts, and a custom hook is used to help seal the edges.
- **Savings:** The previous method of masking was labor-intensive with an often inconsistent application of aluminum tape. These parts are also reusable for additional cost savings.



Global Powerhouse

Caplugs is the leader in product protection, masking solutions, hose protection and custom molded components. We provide the personalized service, range of capabilities, manufacturing expertise and scalable infrastructure to be your trusted partner.

