

Custom Manufacturing to Empower Your NPD Success!

Metal, Plastic & Silicone Integration Service

Quality Assurance at GEMS-MFG: Delivering Precision and Reliability

By GEMS-MFG Team

1. Introduction: Commitment to Quality

At GEMS-MFG, we are committed to delivering top-quality custom parts and assemblies at every stage—from **rapid prototyping** to **finished assembly**. Our integrated processes, coupled with rigorous quality controls, ensure that every product meets precise specifications. By leveraging advanced technology and quality assurance practices, GEMS-MFG consistently provides reliable, high-performance components.

GEMS-MFG has put quality control systems in place to assure complete customer satisfaction. We understand that your product reflects your company and brand, and that you cannot afford to cut corners. Being one of our customers, you will benefit from our customized, flexible production build and functionality test services. To ensure that your products maintain high performance levels, we combine efficient procedures with comprehensive quality control system. We are proud of ourselves on meeting and exceeding customer expectations on a regular basis.





Custom Manufacturing

to Empower Your NPD Success!

Metal, Plastic & Silicone Integration Service

2. Rigorous Quality Assurance Measures

We employ a multi-tiered quality assurance system that incorporates strict controls across all production phases:

- **Material Inspection:** Comprehensive material inspections for **mold making**, **die casting**, and **CNC machining** ensure that only high-quality materials are used.
- **Process Monitoring:** Advanced monitoring tools track critical variables in **injection molding** and **rapid prototyping**, ensuring optimal production conditions.
- **In-Process Quality Checks:** Detailed in-process inspections are conducted using precision tools to verify dimensional accuracy and surface finishes in processes like **CNC machining** and **die casting**.
- **Final Product Inspection:** Each product undergoes rigorous testing for dimensional accuracy, functionality, and durability before delivery, ensuring compliance with client specifications and industry standards.

3. Advanced Testing Equipment and Tools

At GEMS-MFG, we leverage advanced testing equipment and tools to uphold our quality management standards. These technologies play a crucial role in ensuring that our products meet the highest benchmarks of quality:

- **Coordinate Measuring Machines (CMMs):** Used for precision measurement of manufactured parts, ensuring they meet stringent tolerances.
- **Optical Comparators:** Employed to check surface profiles and dimensions, enhancing the accuracy of **CNC machining** and **injection molding** processes.
- **X-ray Inspection Systems:** Utilized in **die casting** to detect internal defects and ensure the integrity of cast parts.
- **Tensile Testers:** Measure the strength and ductility of materials, ensuring that components can withstand operational stresses.
- **Vision Systems:** Implemented for automated inspection processes to verify part quality and detect defects at high speed.

These advanced tools enable us to maintain strict quality control, ensuring that every product delivered to clients meets or exceeds expectations.

4. Ensuring Precision, Durability, and Compliance

At GEMS-MFG, we emphasize precision, durability, and compliance across all manufacturing projects:



Custom Manufacturing

to Empower Your NPD Success!

Metal, Plastic & Silicone Integration Service

- **Rapid Prototyping:** Advanced testing tools are utilized to verify prototype accuracy and durability, helping clients validate designs before full-scale production.
- **Mold Making:** Precision is key. We use high-precision testing tools to verify that molds meet tight tolerances, ensuring reliable performance during production.
- **Injection Molding:** Stringent testing ensures that molded parts are consistent and compliant with ISO standards for quality.
- **Die Casting:** We emphasize the use of advanced inspection techniques to guarantee the strength and durability of die-cast components.
- **CNC Machining:** High-precision machining processes are validated through advanced testing to ensure compliance with industry specifications.
- **Finished Assembly:** Assembled products undergo functional testing to ensure seamless operation and adherence to quality standards.

5. Adherence to Industry Standards

GEMS-MFG adheres to the highest industry standards, reinforced by our use of advanced testing equipment. We ensure compliance across all production stages:

- **Mold Making:** Compliance with standards for dimensional accuracy and material quality is verified using precision measuring tools.
- **Injection Molding & Die Casting:** Advanced testing ensures that parts meet global requirements for strength, durability, and accuracy.
- **CNC Machining:** Our processes consistently meet or exceed ISO standards, ensuring high levels of precision and material quality.
- **Finished Assembly:** We follow strict protocols to ensure that every assembled product meets both customer specifications and industry standards.

6. Continuous Improvement & Client Collaboration

Our commitment to quality involves continuous improvement through advanced testing and close client collaboration:

- **Process Optimization:** We refine our methods in **mold making**, **CNC machining**, and **injection molding** based on insights gained from advanced testing equipment.
- **Client Collaboration:** Throughout the **rapid prototyping** and production phases, we work closely with clients, using testing results to make informed decisions and adjustments.
- **Feedback-Driven Improvements:** Insights from advanced testing tools help us continually improve our processes and ensure that we exceed client expectations.



Custom Manufacturing **to Empower Your NPD Success!** Metal, Plastic & Silicone Integration Service

7. Summary of Quality Assurance at GEMS-MFG

At GEMS-MFG, we prioritize quality at every stage of our manufacturing processes, ensuring that custom parts and assemblies meet the highest standards of precision, durability, and compliance. Our rigorous quality assurance measures encompass material inspection, process monitoring, in-process checks, and final product inspections, all supported by advanced testing equipment and tools such as CMMs and optical comparators. Our commitment to continuous improvement and client collaboration drives us to refine processes and exceed expectations, positioning GEMS-MFG as a reliable partner in delivering high-performance manufacturing solutions.

Contact us now!

From concept design to finished product delivery, GEMS-MFG commits to providing technical assistance, troubleshooting and on-site service for any China basis project falling into our contract manufacturing service, whether GEMS-MFG is the first one to built it or not.

You can reach a customer service representative by calling, sending us an email, or submitting the form below. Our team is looking forward to working with you.

Telephone

Company: +86 1392 653 1254

Factory: +86 755 2357 5095

Email

info@gems-mfg.com

Address

Headquarters

B615, Xinhefeng Commercial Mansion, Baomin 2nd Road, Bao'an District, Shenzhen, China

UK Office

New Mill, Holmfirth, West Yorkshire, HD9 7DH, United Kingdom

Manufacturing Facility

No. 23, Shida Road, Xintang Industrial Park, Dalingshan Town, Dongguan, China