

Plastic Part Joining & Assembly Solutions

Ultrasonic Welding, Heat Staking, Welding Inserts, Adhesive

Bonding, Fastening, Custom Part Joining Solutions



Delivering a high-quality plastic component doesn't stop at molding. Reliable part joining and assembly are critical to performance, durability, and long-term success in the field. Our comprehensive plastic joining services provide strong, repeatable bonds tailored to your design, material, and application requirements—helping you reduce assembly time, eliminate unnecessary hardware, and improve overall product integrity.

Ultrasonic Welding

Ultrasonic welding offers a fast, clean, and highly repeatable method for joining thermoplastic components. Using high-frequency vibrations, parts are fused together without adhesives or fasteners, creating strong, permanent bonds in seconds. This process produces no visible marks or residue, making it ideal for high-volume production, sealed assemblies, and cosmetically critical parts. Ultrasonic welding delivers consistent strength while maintaining tight dimensional control.

Heat Staking

Heat staking creates secure mechanical joints by controlled deformation of plastic features to capture another component in place. This method eliminates the need for screws or additional hardware while providing excellent strength and vibration resistance. Heat staking is commonly used for attaching covers, inserts, or internal components and is well suited for both structural and cosmetic assemblies. The process is reliable, efficient, and adaptable to a wide range of plastic materials.

Welding Inserts

Welding inserts provide durable metal-to-plastic joining for applications requiring threaded or load-bearing features. Inserts are securely installed into plastic parts using controlled heat or ultrasonic energy, creating strong anchoring without damaging surrounding material. This approach ensures dependable fastening points for repeated assembly and disassembly, making it ideal for housings, enclosures, and structural components.



Adhesive Bonding

Adhesive bonding delivers strong, uniform bonds for complex geometries or dissimilar materials where traditional joining methods may not be suitable. We select adhesives based on material compatibility, strength requirements, and environmental exposure. This process allows for stress distribution across the joint, improved aesthetics, and flexibility in design—making it an excellent solution for intricate assemblies and mixed-material applications.

Fastening

Mechanical fastening remains a dependable solution for assemblies requiring serviceability or modular design. We apply fasteners with precision to ensure proper torque, alignment, and part stability. Whether used alone or in combination with other joining methods, fastening provides strength, consistency, and ease of maintenance.

Custom Part Joining Solutions

Every product has unique performance demands. We evaluate part design, materials, load requirements, and production volumes to deliver customized joining solutions that balance strength, efficiency, and cost. By integrating the right joining method early in the process, we help customers improve product quality while streamlining manufacturing.

From concept to final assembly, we deliver plastic joining solutions you can trust—engineered for strength, efficiency, and long-term performance. Contact us today!

Request a Quote Today!
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