

SI® THREADED INSERTS: PROVEN PERFORMANCE IN PLASTICS FOR AUTOMOTIVE ELECTRONICS



Precision-machined SI® brand inserts are engineered to provide strong, reusable, wear-resistant threads in plastic. And as automakers convert more assemblies from metal to plastic, SI® threaded inserts have been specified for many types of applications – especially those where frequent assembly and disassembly are required for serviceability.

Designed for Automotive Electronics Applications

- Control Modules
- Current-Carrying Devices
- Busbar
- Powertrain
- Thermal Management
- Housings – Cameras, Taillights
- Electric Vehicles

Why SI® Threaded Inserts?

Wear-Resistant Threads

The engineered external features of SI® inserts create strong, wear-resistant threads in plastic where assembly/disassembly is needed.

Strong Joint Assembly

Unlike thread-cutting screws that degrade plastic with repeated use, SI® inserts maintain a strong joint assembly.

Electrical Connection Point

SI® inserts are often used to provide an electrical contact point for various connectors within the plastic part.

Close Tolerance Threads

SI® inserts provide close tolerance threads for mating components (Unified: Class 2B/internal and Metric: 6H/internal)

SI® Compression Limiters

SI® Compression Limiters are non-threaded inserts for applications where compressive load is applied to a plastic assembly – in control modules, housings, thermal management systems, and more.



- Compression limiter strengthens the plastic and withstands the compressive force that's applied when mating screw is tightened during assembly
- Plastic integrity is uncompromised by the applied load
- Custom-engineered for a wide range of sizes and profiles
- Flexible materials – brass, stainless steel, lead-free aluminum



Flange-Head

(all installation methods)

Larger contact area provides high resistance to axial loads and eliminates direct contact of plastic with mating components.



Symmetrical

(all installation methods)

Symmetrical design offers fast loading without the need to orientate the part.



Full Diamond Knurl

(mold-in installation)

Symmetrical design and uniform diamond knurl reduces the risk of sink marks.



Non-Knurled Symmetrical

(mold-in installation)

Symmetrical design with retention groove for use in automation and high-volume applications needing compressive load resistance.

Installation Methods

SI® inserts are manufactured for all common installation methods:

Ultrasonic

Great for: Thermoplastics

High overall performance

VIDEO: [Ultrasonic Animation](#)

Heat Staking

Great for: Thermoplastics

High overall performance with low installation cost

VIDEO: [Heat Staking Animation](#)

Mold-In

Great for: Thermosets & Thermoplastics

Best pull-out and torque performance

VIDEO: [Molded-In Animation](#)

Press-In

Great for: Thermosets

Easy, simple press installation at lowest cost

VIDEO: [Press-In Animation](#)

Materials and Finishes

Brass

- Industry standard
- Lowest cost

Stainless Steel & Aluminum

- SI® is the industry leader for stainless steel and aluminum inserts
- Only insert manufacturer to offer aluminum as a catalog standard (lead-free and 70% lighter than brass)
- Stainless Steel offers better protection from certain types of corrosive agents
- Smart alternatives to leaded brass that support sustainable manufacturing

Get SI® Support Anytime, Anywhere

No matter where you are in the world, our value-add services are there. With locations throughout North America, Asia and Europe you'll get complete global support at the local level.

Application Engineering Services

- Application Review
- Custom Design/Product Development
- 3D Models
- Teardown Services

Technical Lab Services

- Product Testing worldwide
- State-of-the-art Clean Lab capabilities



SI® Prototype Kit

- 1,000+ ultrasonic, mold-in, press-in inserts
- Various types/sizes for your specific design requirements



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