



HIGH-PERFORMANCE SOLUTIONS FOR ELECTRIC VEHICLE APPLICATIONS

Compression Limiters and Threaded Inserts in Charging Stations

Threaded Inserts and Compression Limiters in Sunroof Assemblies

Solid Pins in Transmission Valve Body

Coiled Pins in Trunk Latches

Compression Limiters in Battery Pack Housings

Coiled Pins in Seat Adjust Mechanisms

Compression Limiters and Threaded Inserts in Pedal Boxes

Threaded Inserts in Door Trims

Coiled Pins and Solid Pins in Interior Handles

Solid Pins in Trunk 12V Sockets

Threaded Inserts in Headlamp Assemblies

Solid Pins in Glovebox Latches

Compression Limiters in Charging Plugs

Coiled Pins in "Flick" Key Fob

Spacers in Jacks

Solid Pins and Compression Limiters in Grab Handles

Headed Coiled Pins in ABS Pumps

Sleeves in Seat Adjust Handles

Spacers in Chassis Frame Bracket

Threaded Inserts in Bumper Moldings

Coiled Pins in Drum Brake Assemblies

Coiled Pins in Steering Columns as Shear Pins

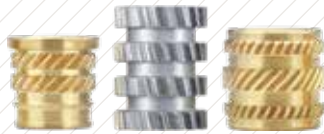
Coiled Pins and Solid Pins in Exterior Handles

Designing engineered components for the automotive industry since 1948.



Coiled Pins

We offer the widest range of Coiled Pins to ISO 8750, ASME B18.8.2 and other standards, in various duties, materials and finishes. In addition to standard Coiled Pins, we offer special Headed, Flared, Extra Light Duty and Superflex Coiled Pins suited to your diverse assembly requirements.



Threaded Inserts

Our Heat/Ultrasonic, Press-In, and Molded-In Inserts provide performance and integrity to the assembly and fastening of all types of plastic components for demanding automotive applications.



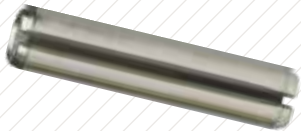
Alignment Dowels & Bushings

Hollow design permits a fastening screw or bolt to pass through the inside diameter eliminating the need to drill a separate hole. Ground Hollow Dowels are used where centerline tolerancing and precision alignment are required. They are designed to be direct replacements for standard Ground Solid Dowels per ISO 8734.



Compression Limiters

We manufacture nine standard series of Compression Limiters designed to protect the plastic components of your assembly from the compressive loads generated by the tightening of bolts. We offer a broad standard range and the ability to provide specials on demand.



Slotted Pins

SPIROL produces ISO 8752 Slotted Pins, as well as non-interlocking ASME B18.8.2 and ASME 18.8.4M Type B Slotted Pins having relatively higher shear strengths. Standards are available from stock. Specials for volume applications are available.



Solid Pins

Specifying SPIROL Solid Pins provides the lowest cost and the most responsive delivery. Tooling and raw material are available to meet your production requirements for all standard parts. Standards include SPIROL Straight Pins, Knurled Pins, Headed Pins and Headed Knurled Pins.

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Nadcap Nonconventional Machining

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Please refer to www.SPIROL.com for current specifications and standard product offerings.