



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

Compression Limiters in Battery Pack Housings

Coiled Pins in Seat Adjust Mechanisms

Compression Limiters and Threaded Inserts in Pedal Boxes

Coiled Pins in Trunk Latches

Coiled Pins and Solid Pins in Interior Handles

Threaded Inserts in Door Trims

Threaded Inserts in Headlamp Assemblies

Solid Pins in Trunk 12V Sockets

Coiled Pins in "Flick" Key Fob

Solid Pins in Glovebox Latches

Compression Limiters in Charging Plugs

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.



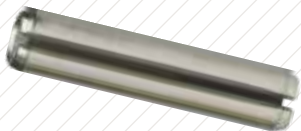
Alignment Dowels & Bushings

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.

Technical Centers

Americas

SPIROL International Corporation
30 Rock Avenue
Danielson, Connecticut 06239 U.S.A.
Tel. +1 860 774 8571
Fax. +1 860 774 2048

SPIROL Shim Division
321 Remington Road
Stow, Ohio 44224 U.S.A.
Tel. +1 330 920 3655
Fax. +1 330 920 3659

SPIROL Canada
3103 St. Etienne Boulevard
Windsor, Ontario N8W 5B1 Canada
Tel. +1 519 974 3334
Fax. +1 519 974 6550

SPIROL Mexico
Avenida Avante #250
Parque Industrial Avante Apodaca
Apodaca, N.L. 66607 Mexico
Tel. +52 81 8385 4390
Fax. +52 81 8385 4391

SPIROL Brazil
Rua Mafalda Barnabé Soliane, 134
Comercial Vitória Martini, Distrito Industrial
CEP 13347-610, Indaiatuba, SP, Brazil
Tel. +55 19 3936 2701
Fax. +55 19 3936 7121

Quality Certifications:

IATF 16949
AS 9100
ISO 9001
ISO 14001
ITAR Registered
Nadcap Chemical Processing
Nadcap Nonconventional Machining

Europe

SPIROL United Kingdom
17 Princewood Road
Corby, Northants
NN17 4ET United Kingdom
Tel: +44 (0) 1536 444800
Fax: +44 (0) 1536 203415

SPIROL France
Cité de l'Automobile ZAC Croix Blandin
18 Rue Léna Bernstein
51100 Reims, France
Tel: +33 (0) 3 26 36 31 42
Fax: +33 (0) 3 26 09 19 76

SPIROL Germany
Ottostr. 4
80333 Munich, Germany
Tel: +49 (0) 89 4 111 905 71
Fax: +49 (0) 89 4 111 905 72

SPIROL Spain
Plantes 3 i 4
Gran Via de Carles III, 84
08028, Barcelona, Spain
Tel/Fax: +34 932 71 64 28

SPIROL Czech Republic
Evropská 2588 / 33a
160 00 Prague 6-Dejvice
Czech Republic
Tel: +420 226 218 935

SPIROL Poland
ul. Solec 38 lok. 10
00-394, Warsaw, Poland
Tel. +48 510 039 345

Asia Pacific

SPIROL Asia Headquarters
1st Floor, Building 22, Plot D9, District D
No. 122 HeDan Road
Wai Gao Qiao Free Trade Zone
Shanghai, China 200131
Tel: +86 (0) 21 5046-1451
Fax: +86 (0) 21 5046-1540

SPIROL Korea
16th Floor, 396 Seocho-daero,
Seocho-gu, Seoul, 06619, South Korea
Tel: +82 (0) 10 9429 1451

info@spirol.com

SPIROL.com

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