



Helical Products

Custom Machined Spring Solutions



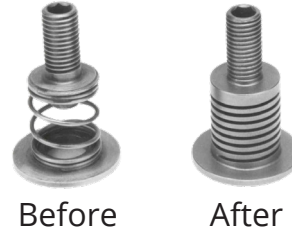
For more than 65 years, Helical Products has provided innovative machined spring solutions to critical industries, including aerospace, aviation, medical, defense, energy, and semiconductor manufacturing. Solving difficult engineering problems for demanding applications, environments, and performance requirements is possible due to Helical Products' extensive design and engineering experience, vast manufacturing and customization capabilities, and our experience working with specialty alloys, including Inconel, titanium, MP35N, custom 455, and more.

- Custom Single-Piece Spring Solutions
- Compression, Extension, & Torsion Springs
- Springs for Lateral Bending & Translation
- Custom Attachments
- Specialty & Exotic Materials
- +/- 1% Spring Performance Tolerances
- Dedicated Prototyping Cell
- AS9100D & ISO 9001 Certified
- ITAR Compliant

Why Choose a Machined Spring?

Machined springs are produced from solid bar stock to the desired requirements using a proprietary machining process. They offer greater performance in extreme conditions, extended cycle life, and versatility. Machined springs are ideal for critical applications because they allow for pure moments and balanced loading, and many features can be integrated within a single part. Some key benefits are below.

- Reduces Parts with a Single-Piece Solution
- Many Configurations & Attachments
- Rotation & Buckling Mitigation
- Exceptional Cycle Life
- Extreme Temperature Tolerance
- Reduces Installation Time
- No Assembly
- Reduces Inventory & Inventory Space
- Avoids Tolerance Stack-Up
- Custom Made to Your Requirements
- Multi-Start Flexures (2 or 3 sets of Intertwined & Evenly Spaced Active Coils Achieves Balanced Loading)
- Create Pure Moments (Torque Transmittal Without Lateral Translation)



Products and Capabilities

Products	<ul style="list-style-type: none"> • Compression Springs • Extension Springs 	<ul style="list-style-type: none"> • Torsion Springs • Lateral Bending & Translation Springs
Certifications	<ul style="list-style-type: none"> • AS9100D • ISO 9001 	<ul style="list-style-type: none"> • ITAR Compliant
Materials	<ul style="list-style-type: none"> • CRES Steel (17-4PH, 15-5PH, 303, 304 & 316) • Aluminum (7075-T6, T73, 6061 & 2024-T4) • Titanium (Ti6Al-4V & Ti-Beta C) • 4340 & 4340M • Aluminum Nickel Bronze • Delrin 150 • Ultem 2300 	<ul style="list-style-type: none"> • Carpenter Custom 455 & 465 • Maraging steel (C250, C300 & C350) • Inconel (625, 718 & X750) • Hastelloy • MP35N • Monel 400

Markets Served

- Aerospace
- Aviation
- Automotive
- Defense
- Energy
- Medical
- Semiconductor

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To order custom parts, visit heli-cal.com
or contact us at 805.928.3851 | sales@heli-cal.com

