

# SPIROL®

## HIGH-PERFORMANCE SOLUTIONS FOR AEROSPACE APPLICATIONS

**Laminated Shims**  
in Pilot Control Assemblies

**Threaded Inserts**  
in Intercom Systems

**Roll Formed Spacers and Coiled Spring Pins**  
in the Linkages of Seats and Table Trays

**Compression Limiters**  
in Plastic Fascia Items, Internal and External

**Threaded Inserts**  
in Radar and Antenna Domes

**Compression Limiters**  
in Plastic Overlays on Instrument Panels

**Latch Pins**  
in Overhead Storage Compartments

**Coiled Spring Pins**  
in Inflator for Life Vests

**Coiled Spring Pins**  
in Hinges of Tray Tables

**Precision Shims**  
in Fluid/Hydraulic Systems

**Spacers**  
in Pilot Seat Adjustment Mechanisms

**Laminated Shims**  
in Cockpit Pedestal Assemblies

**Coiled Spring Pins**  
in Seat Recliner Mechanisms

**Coiled Spring Pins**  
in Interior Latch Handles

**Disc Springs**  
in Chair Arm

**Threaded Inserts**  
in ECU Control Modules

**Precision Machined Nuts**  
in Flight Control Electrical Components

**Disc Springs**  
in Airline Seat

**Coiled Spring Pins and Precision Shims**  
in Control Systems

**Alignment Dowels**  
in Hydraulic Pumps and Motors for Landing Gear

**Precision Shims**  
as Space Compensators in Engines

**Coiled Spring Pins**  
in Fuel Pipe Hangers

**Coiled Spring Pins**  
in Evacuation Slide Mechanisms

**Disc Springs**  
in No-Back Brakes in Horizontal Stabilizer Trim Actuators

**Compression Limiters**  
in Plastic Shroud of Radar Antenna Systems

**Solid and Laminated Shims**  
in Auxiliary Power Units

**Precision Shims and Specialty Hardened Washers**  
as Wear Components in Landing Gear

**Coiled Spring Pins and Solid Pins**  
in Cargo Straps

**Coiled Spring Pins**  
in Engine Cover Latches

**Disc Springs**  
in Ram Air Turbines

**Disc Springs**  
in Steering Mechanisms

**Stainless Steel Shims/Washers**  
in Hydraulic Actuators for Flight Surfaces

**Solid and Laminated Shims**  
in Turbines – Main Engines

**Laminated Shims**  
in Landing Gear Rebuild

**Rolled Formed Spacers**  
in Cargo Roller Conveyors

**Alignment Dowels**  
in Hydraulic Pumps and Motors for Automated Doors

***Delivering components to the aerospace industry at the lowest-installed cost since 1948!***

### Technical Centers



**Coiled Spring Pins**



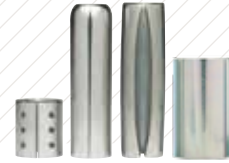
**Slotted Spring Pins**



**Solid Pins**



**Alignment Dowels / Bushings**



**Spacers & Rolled Tubular Components**



**Compression Limiters**



**Threaded Inserts for Plastics**



**Disc Springs**



**Machined Aerospace Components**



**Precision Shims, Washers & Metal Gaskets**



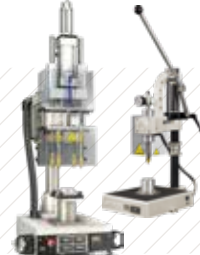
**Laminated Shims**



**Parts Feeding Technology**



**Pin Installation Technology**



**Insert Installation Technology**



**Compression Limiter Installation Technology**

Please refer to [www.SPIROL.com](http://www.SPIROL.com) for current specifications and standard product offerings.

**SPIROL offers complimentary Application Engineering support!** We will assist on new designs as well as help resolve issues, and recommend cost savings on existing designs. Let us help by visiting **Application Engineering Services** on [SPIROL.com](http://SPIROL.com).

**Manufactured to exacting commercial and military aerospace standards.**

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Nadcap Nonconventional Machining

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