



## Canted-coil™ Springs for Power Transmission and Distribution



Conducting • Connecting • Shielding

## SMART SOLUTIONS FOR POWER T&D

For over a decade, Bal Seal Engineering, Inc. has been providing power transmission and distribution equipment OEMs and designers with intelligent, reliable solutions to the toughest conducting and connecting challenges. Our Canted-coil™ springs deliver superior performance in high, medium and low-current applications. Their unique coil design provides increased conductivity in a compact, space-saving package that can help you lower manufacturing costs and simplify maintenance.



## CANTED-COIL™ SPRINGS: ADVANTAGES

### Long-term durability

Canted-coil springs exhibit excellent mechanical resilience under stress. This property makes them extremely resistant to compression set, and ideal for service in environments characterized by shock and vibration.

### Design flexibility

Since Canted-coil springs are available in a wide range of materials, coil heights, diameters and wire gauges, they can be engineered to accommodate almost any package requirement. The near-constant force exerted by each individual coil allows them to compensate for misalignment, surface irregularities and large tolerances between mating surfaces.

### High current capacity

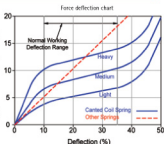
The excellent electrical properties of the copper alloy wire used to manufacture Canted-coil springs, combined with the controlled, concentrated forces and multiple contact points of their coils, allow them to provide superior conductivity in high current applications.

### Ease of use

With Canted-coil springs, insertion and removal forces can be precisely engineered and controlled. Their simple, yet robust design allows them to be stretched onto busbars and other features, facilitating fast, hassle-free installation and removal.

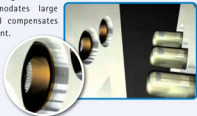
## CANTED-COIL™ TECHNOLOGY

Unlike typical contact elements, our Canted-coil springs maintain nearly constant force over a wide range of working deflections. Even under extreme temperature variations, these springs exhibit minimal change from their initial force. They can be engineered with non-linear compression force (axial and radial) to meet specific application requirements.



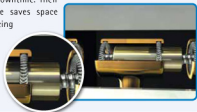
## GAS INSULATED SWITCHGEAR ALIGNMENT

Canted-coil™ springs ensure proper alignment and peak performance. Their wide working deflection range accommodates large tolerances and compensates for misalignment.



## THREE-POINT SWITCHES

By allowing for precise control of insertion and removal forces, Canted-coil springs can help reduce wear, prolong service life and minimize downtime. Their compact profile saves space without sacrificing performance.



## CIRCUIT BREAKERS

Canted-coil springs stand up to the repeated connect-disconnect cycles common to these applications - without fatigue failure.



## CONDUCTING

The coils of our springs act independently across the mating surface interface and their radial spring deflection forces ensure multiple contact points for low resistance along electrical conducting paths.

Typical applications include:

- Breakers
- Switches
- Busbars



## CONNECTING

The Canted-coil™ springs provide a one-touch mechanical latching connection, while simultaneously serving as electrical contacts.

Typical applications include:

- Cable ends
- Quick-release connectors
- Slip rings



## SHIELDING AND GROUNDING

The reliable, consistent electrical contact provided by the Canted-coil spring facilitates excellent shielding against electromagnetic interference (EMI) and radio frequency interference (RFI).

Typical applications include:

- Antenna bases
- Cables
- Electronics housings



## ABOUT BAL SEAL

Bal Seal Engineering, Inc. is a provider of custom-engineered conducting, connecting, shielding and sealing solutions for industry worldwide. Our collaborative, customer-focused approach puts skilled engineering, quality and manufacturing teams to work on your unique application, yielding results that enhance performance and advance technology.



## COMMITMENT TO QUALITY

At Bal Seal, our goal is to be your #1 choice for conducting, connecting and shielding solutions for in power transmission and distribution applications.

We strive to accomplish this by integrating strict quality standards at every step, from design control to process control, supplier approval to final packaging. These efforts enable us to ensure compliance with the most demanding customer requirements, as well as our own high workmanship standards. We've maintained our ISO 9001 certification since 1999.

## CONTACT INFORMATION

Whether you're around the corner or around the globe, the reliability and increased efficiency of the Cantel-coil™ spring is just a phone call away. Contact us today, or visit us online for more information.

Toll free: 800.366.1006

[www.balseal.com](http://www.balseal.com)

**Simply a better solution.**



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