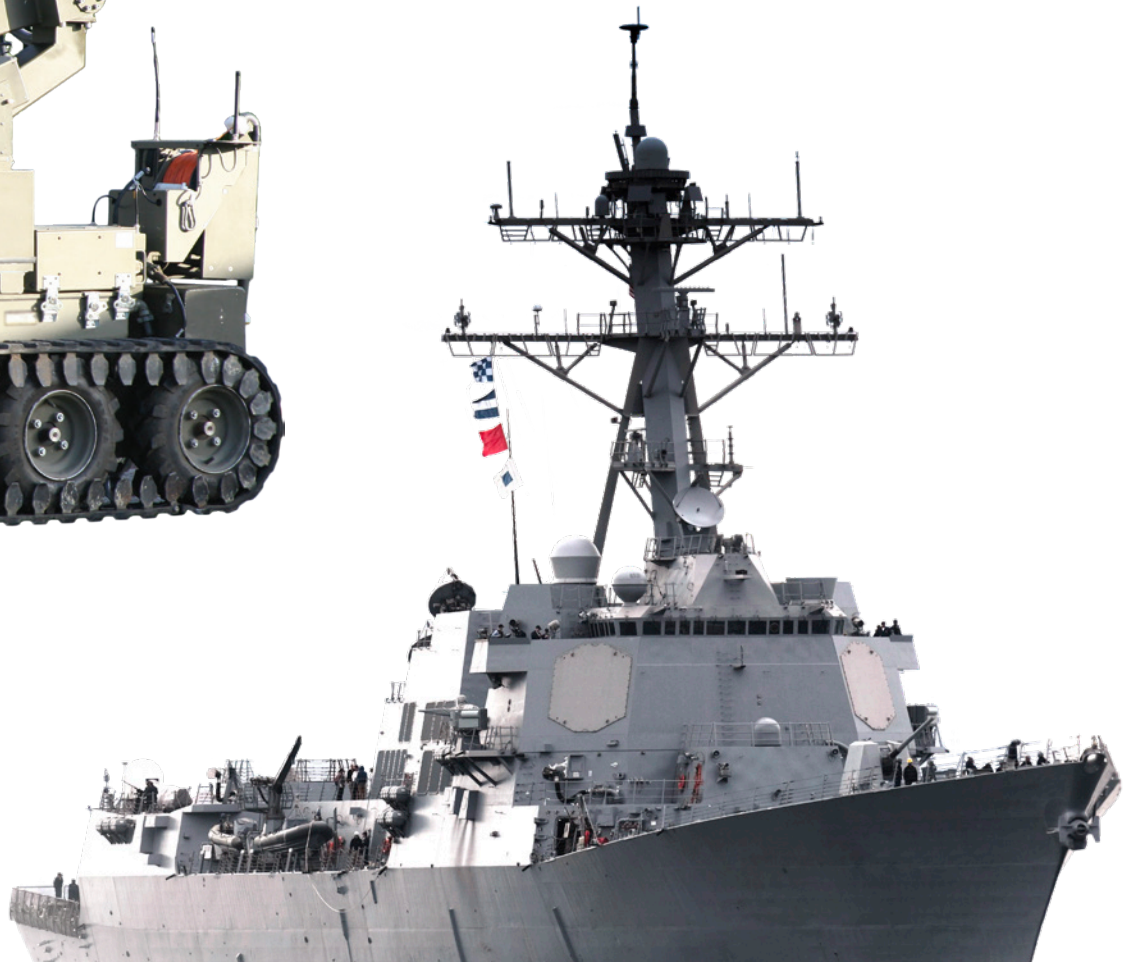
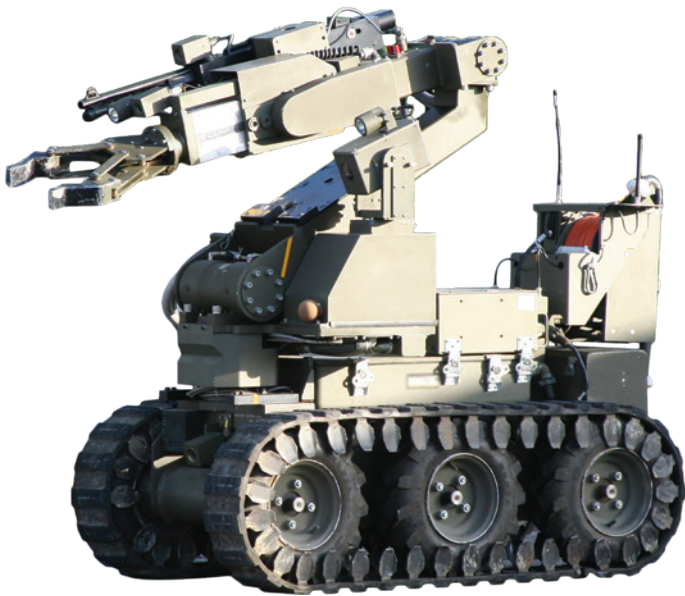




**Sealing, Connecting, Conducting,
and EMI/RFI Shielding Solutions
for Aerospace and Defense**



Smart Solutions for Aerospace & Defense

When manufacturers of critical aerospace and defense equipment need intelligent solutions to the toughest sealing, connecting, conducting, and EMI/RFI shielding challenges, they turn to Bal Seal Engineering. For more than 50 years, our precision-engineered polymer sealing and Bal Spring® canted coil spring technologies have been improving the performance, safety and reliability of commercial and military aircraft systems, protecting sensitive onboard radar, and even ensuring the combat-readiness of ground troop communications and targeting gear.

We're more than just a problem-solver—we're your *innovation partner*. With our vast application engineering knowledge base, industry-compliant processes, and advanced manufacturing capabilities, we can help you develop standard-setting breakthroughs that give you a competitive edge. Our unique collaborative engineering approach enables us to quickly identify and address design issues, so that you can improve speed to market and enhance equipment performance.

Bal Seal Engineering products have earned the trust of industry primes, and they're already at work in many of the world's best-known commercial, regional and business aircraft, as well as fighter jet and military helicopter platforms. Our skilled engineers are continually developing new solutions for emerging aviation, marine and modern battlefield technologies.

Bal Seal® Spring-energized Seals



We offer a wide range of sealing products machined from Polytetrafluoroethylene (PTFE) and other premium polymers. These materials can be blended with engineered fillers, such as carbon fiber, to meet your specific application requirements for durability, temperature resistance and longevity. Typically, our seals are energized with a custom-engineered Bal Spring canted coil spring, which exerts a near-constant force over a wide deflection range to ensure more even, consistent wear and longer service life in the following types of applications:

- Rotary
- Reciprocating
- Oscillating
- Face

**Controllable
friction forces**

Long life

**Excellent chemical
resistance**

**Broad temperature
range**

Canted Coil Technology at the Core



The solutions we develop begin with proven Bal Spring technology. In electrical conducting and EMI/RFI shielding applications, the spring's individual coils provide multi-point contact, and they compensate for mating surface irregularities and misalignment. As a contact component, the spring offers superior conductivity and power density. It runs cooler than other contact technologies, and it is also self-cleaning.

Since it is capable of performing both mechanical and electrical functions, the Bal Spring eliminates unnecessary components and can help reduce system weight. Its highly customizable design also allows for precise control of insertion and breakaway forces. As a stand-alone solution, the Bal Spring is ideal for use in applications that require:

- Latching/locking
- Holding
- Centering
- Conducting
- EMI/RFI Shielding
- Grounding
- Tolerance compensation
- Thermal management

**High contact
power density with
minimal heat rise**

**Easy installation/
field replacement**

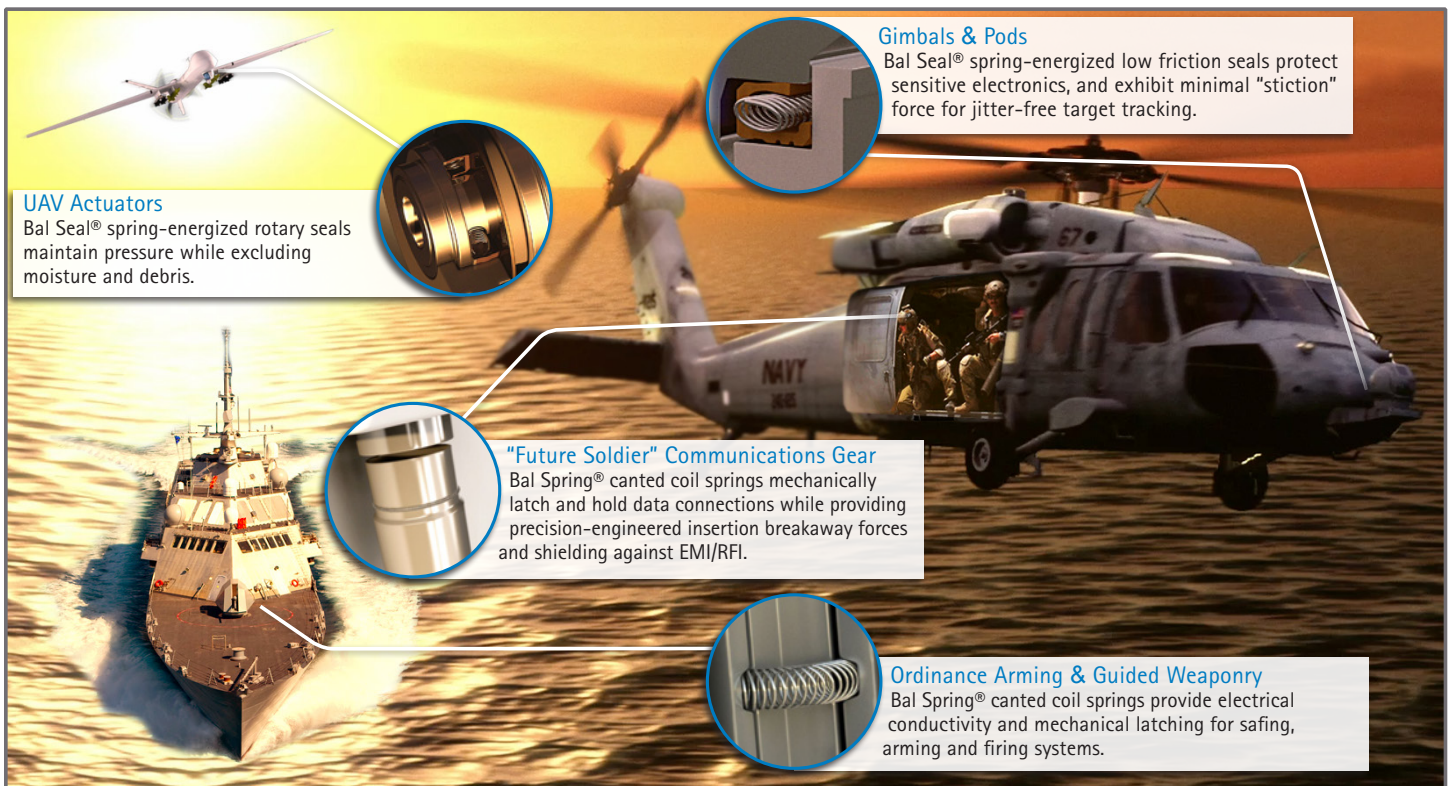
**Built-in shock and
vibration resistance**

**Customizable
insertion &
breakaway forces**

Typical Aerospace Applications



Typical Defense Applications





www.balseal.com

Bal Seal Engineering, Inc.
19650 Pauling
Foothill Ranch, CA 92610-2610
Telephone (949) 460-2100
Toll Free (800) 366-1006
Fax (949) 460-2300
E-mail sales@balseal.com

Bal Seal Engineering Europe B.V.
VIDA Building, 1st floor
Kabelweg 57
1014 BA Amsterdam
The Netherlands
Telephone +31 20 638 6523
Fax +31 20 625 6018
E-mail info@balseal.nl

Bal Seal Asia Limited
Suite 901, Chinachem Century Tower
178 Gloucester Road
Wanchai, Hong Kong
Telephone +(852)-28681860
Fax +(852)-22956753
E-mail sales@balseal.com.hk

Bal Seal Engineering is certified to **ISO 9001 and AS9100D**