

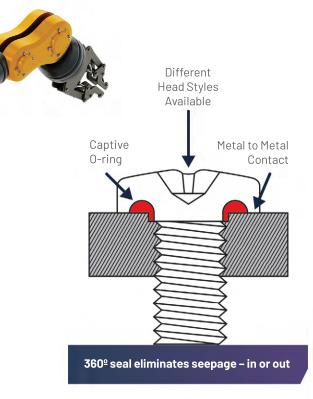


Demand for sealing fasteners is skyrocketing, and engineers in the manufacturing sector are flocking to this specialty sealing solution. Among the reasons why:

- Escalating urgency for traditional manufacturers to transition to the smart factory.
- The ability to turn virtually any physical asset into a digital asset.
- The need for "contactless" work environments as a result of COVID-19.
- Accelerated adoption of robots and co-bots to remain competitive.

Whether building co-bots and robots that make "contactless" work possible or the sensors, LiDAR and 3D cameras that comprise autonomous vehicles and enable "lights out" manufacturing, sealing fasteners are used to seal, protect and preserve all of them.

To understand why engineers are choosing sealing fasteners, it's important to understand how they work. The following overview is courtesy of USA-based ZAGO Manufacturing Co., the global producer of high-tech sealing fasteners.



WHAT ARE SEALING FASTENERS?

Sealing fasteners are highly specialized fasteners that include sealing screws, sealing nuts, sealing bolts, and sealing washers. Sealing fasteners are configured with a rubber O-ring (or a rubber element) that when squeezed, permanently seal out contaminants (i.e., water, saltwater, chemicals, lubricants, gas, dust) from entering and damaging equipment while preventing leakage of toxins into the environment.

THE DIFFERENCE: 360° O-RING TECHNOLOGY

Unlike ordinary fasteners, ZAGO self-sealing fasteners are engineered with a groove under the head of the screw or the face of the nut that when combined with a rubber O-ring and tightened, squeezes outwardly to form a 360° leak-proof hermetic seal. The undercut groove ensures that the O-ring will not break or crack once the screw is torqued, and the metal-to-metal contact prolongs the life of the O-ring, which is not compromised under pressure.



SEALING FASTENERS FOR ALL SEASONS

ZAGO sealing fasteners are designed to withstand harsh weather and extreme temperatures, such as when unmanned underwater vehicles survey the icy cold depths of the ocean floor to unmanned automotive vehicles operating in the extreme heat of the desert. They are vibration and pressure-resistant and outperform ordinary fasteners in highly pressurized environments, such as pneumatic pumps used in medical ventilators and pressure valves in industrial machinery.

SENSORS & SECURITY

To protect both equipment and fragile sensors capturing, storing and transmitting sensitive data, engineers choose ZAGO security / tamper-proof seal screws, which prevent contaminants from leaking into or out of machinery, and contain a locking mechanism that is next to impossible to break or open without proper tooling.

SEAL IN / SEAL OUT: EQUIPMENT APPLICATIONS

ZAGO sealing fasteners are used to seal all sorts of equipment, including:

- Robots and Co-bots
- Electric Vehicle Charging Units
- Rechargeable Batteries
- Drones and Droneports
- Night Vision Goggles
- Sonar Systems
- Sensors
- Aircraft Engines & Motors

- Satellites
- O Circuit Boards
- 3D Cameras / LiDAR Technology
- Invasive / Non-Invasive Medical Devices
- HVAC Systems
- Conveyor Belts
- Data Centers
- Offshore Wind Turbines and Solar Panels







Does your high-asset machinery / sensitive equipment need an air-tight, hermetic seal to:

- 1. Protect itself from exposure to oil, gases, liquids, chemicals, dust, dirt, moisture, saltwater or other contaminants?
- 2. Withstand extreme pressure, temperature and/or weather conditions?
- 3. Prevent seepage of pollutants leaking into the environment?

If the answer is yes to any of these questions, then, it is essential to seal your equipment with sealing fasteners for long-lasting, air-tight, leak-proof protection.

DID YOU KNOW?

ZAGO sealing fasteners:

- Usually have an unlimited shelf-life and are available in custom and standard sizes.
- Are reusable, tamper proof and made of corrosion-resistant metals, like stainless steel and steel alloys, titanium, brass and Monel.
- Are compatible with rubber 0-rings made of Silicone, Fluorosilicone, Viton, neoprene, buna, Teflon and EPDM.
- Are available with military and FDA grade 0-rings and sealing screws that meet Military Specifications MS3212/3213, NASM82946 and pressure tested to Military Standard 1500 psi.
- Are DFARS, REACH, RoHS and DEKRA compliant and NEMA ready for electrical enclosures.
- Are Made in the U.S.A. / Buy American Act compliant.













For more information on ZAGO sealing fasteners, please visit www.zago.com or email ZAGO at info@zago.com



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