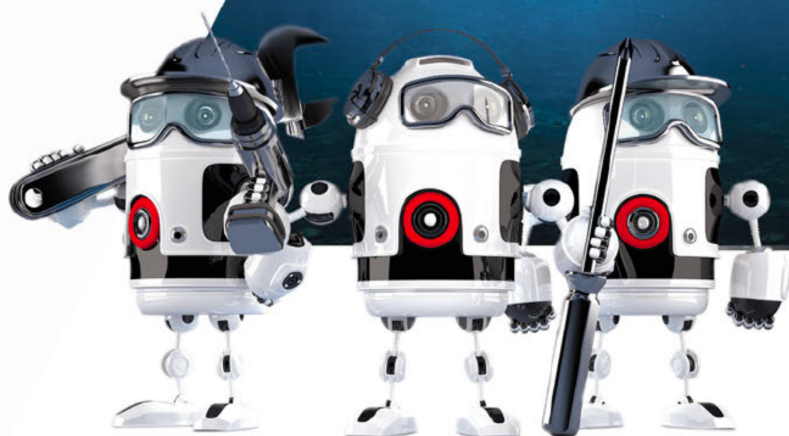




Fasten Forward

YOUR NO.1 SOURCE:
**SEALING FASTENERS,
SWITCH BOOTS &
CRYSTAL SEALS**



**SMALL
COMPONENTS
THAT MAKE
A BIG IMPACT**



www.tecnimetal-tm.eu

OVERVIEW

HIGH-TECH CUSTOM SEALING SOLUTIONS PREFERRED BY THOUSANDS OF ENGINEERS & OEMS WORLDWIDE



When it comes to protection, resilience and optimization of high-value, sophisticated equipment, ranging from power grids and solar panels to rechargeable batteries and minute sensors enabling smart technology, time and time again, engineers and OEMs choose ZAGO high-tech, sustainable sealing solutions and components. There are many reasons why.



360° RUBBER O-RING TECHNOLOGY

ZAGO sealing fasteners are engineered with a custom groove under the head of the screw (face of nut/washer), and when combined with a rubber O-ring and tightened, form an airtight, leak-proof 360° seal preventing contaminants i.e. water, gas, oil, air, saltwater, precipitation, humidity & more from leaking in or out of high-asset equipment.

BENEFITS

- Protect high-asset machinery and inner components from contaminants seeping into equipment and damaging it or leaking out and potentially harming our environment.
- Once sealing fastener is torqued, the rubber O-ring forms an impenetrable seal; will not break or crack – even under extreme pressure, temperatures, and weather.
- Airtight sealing solutions provide peace of mind, saving time and money on costly repairs.
- Corrosion-resistant, reusable and pollutant-free.
- MS3212/3213 and NASM 82496 parts available.
- Pressure-tested to Military Standard 1,500 psi
- Made for indoor/outdoor use.
- Made in the USA/Buy American Act compliant.
- Meet DFARS, REACH, and RoHS requirements.
- ISO 9001:2015 certified and NEMA-ready.
- No special installation tools necessary.
- Custom and standard parts available.



SEALING SCREWS & BOLTS

**DESIGNED FOR ULTIMATE PROTECTION
AND FOR THE ROUGHEST CONDITIONS**

Withstands Extreme
Pressure, Temperatures
& Weather

Reusable and
Pollutant-Free

360° Rubber
O-Ring Technology
Creates Impenetrable
Captive Seal

Made from
Corrosion-Resistant Metals

**NO SEEPAGE
IN OR OUT**

CORROSION-RESISTANT METALS AVAILABLE

- Stainless Steel
- Steel
- Titanium
- Aluminum
- Brass
- Copper
- Monel

O-RING OPTIONS

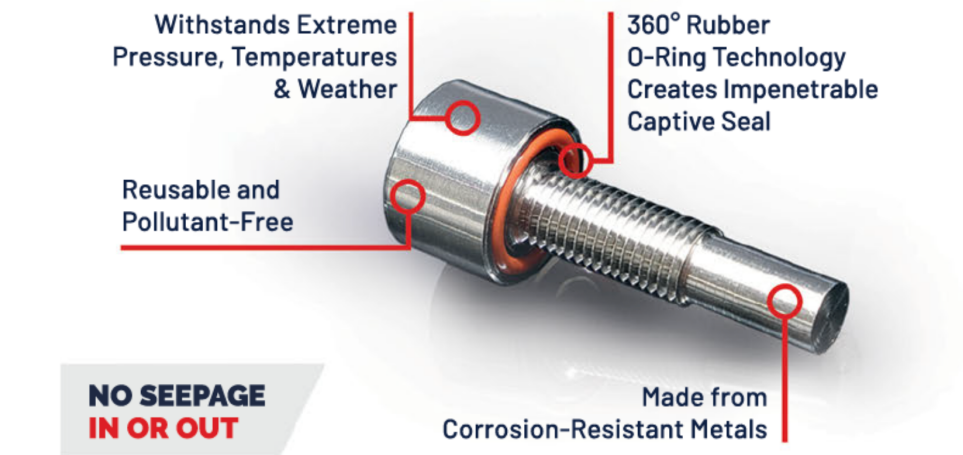
- Silicone
- Buna-N
- Fluorosilicone
- Fluorocarbon (Viton)
- EPDM
- Neoprene (Chloroprene)
- FDA-approved O-rings
- Military-spec O-rings

SEALING SCREWS AND BOLTS THAT SHIELD AGAINST:

- Extreme Vibration
- Hydraulic Fluid
- Gas/Oils
- Precipitation
- Air
- Alcohol/Disinfectants
- Water/Saltwater
- Humidity/Moisture
- Lithium
- Dust/Dirt
- Lubricants

Customizable threading, head and driver options:
Phillips, Slotted, Socket, 6-Lobe, Hex Bolts, Seal Rivets/Plugs, Specialty.

UNC and Metric
sizes available.



SOCKET CAP SEAL SCREWS

ZAGO socket cap seal screws are widely used for their larger head height, resulting in a stronger part, which permits use of a higher torque value. They have unmatched gripping ability and reduced stripping. Like all ZAGO sealing fasteners, they are pressure-, vibration- and corrosion-resistant and designed to prevent contaminants from leaking into machinery and damaging it or leaking out and potentially harming our environment. Equipment applications include air tooling, generators, pumps, compressors, machine parts, automotive components, and electronic devices.



PRESSURE SEALING WASHERS



Our unique silicone double rib design creates an air-tight rubber to metal, pressure resistant 360° seal, preventing contaminants, i.e., water, precipitation, ice, dirt, air, saltwater, bacteria, and moisture, from leaking into equipment and damaging it or leaking out and potentially harming the environment. They are perfect for protecting the innermost part of sensitive electronic devices and equipment operating in high-pressure or treacherous environments. Composed of a corrosion-resistant stainless steel type 316 inner component, they provide excellent noise and vibration reduction. Sustainable, reusable, and highly durable.

SEAL NUTS

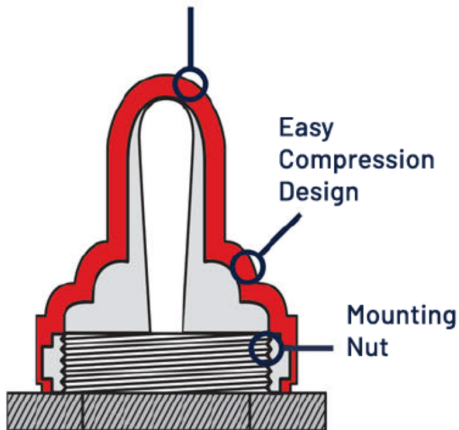
ZAGO seal nuts are designed to withstand extreme pressure and are second-to-none when sealing and maintaining a vacuum are necessary. ZAGO seal nuts bond with a rubber element, and once torqued, form a 360° hermetic seal that prevents contaminants, i.e., water, air, oil, gas, disinfectants, precipitation, dust, from seeping into and damaging machinery or leaking out and potentially polluting the environment. Exceptional vibration resistance and noise reduction. Perfect for use in pneumatic/hydraulic systems, pneumatic medical devices and marine or aerospace applications.

- Available in Low Acorn, High Acorn, Hex and Hex Flange Seal Nuts.
- Pressure tested to Military Standard 1,500 psi.
- Ideal for extreme temperatures (hot and cold) and harsh weather; designed for both outdoor and indoor use.
- Corrosion-resistant, reusable, pollutant free.



SWITCH BOOTS

Tough Rugged Tear-Resistant Silicone Rubber Boots



Switch boots are silicone-molded protective coverings that shield mechanical devices and electrical inputs from outdoor contaminants and environmental hazards, including, oxygen, water, saltwater, dirt, sand, bacteria, oil, and ice.

ZAGO switch boots form an airtight, rubber-to-metal seal between the switch and the panel in every direction, which prevents degradation & switch erosion. Perfect for protecting switches and circuit breakers used in: electronic dashboards aboard ships, rugged computers in off-road equipment, outdoor smokers and barbecues, and portable medical devices.

ZAGO switch boots portfolio includes toggle switch boots, push-button switch boots, rotary switch boots, circuit breaker boots, rocker switch boots and multi switch panel covers. Industries utilizing switch boots include marine, military & defense, transportation/heavy duty machinery, oil/gas, and renewable energy.

Rated IP68 NEMA-ready, DFARS, REACH & RoHS compliant, ZAGO switch boots can handle extreme temperatures (hot and cold). They are available in multiple colors and sizes.



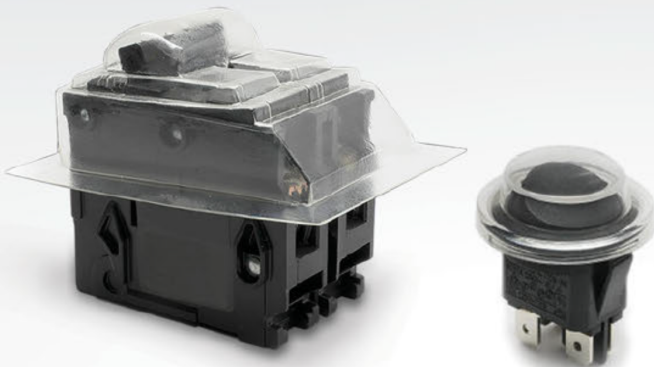
Custom designs available. DFARS, REACH & RoHS compliant.



ZAGO EXCLUSIVE: CRYSTAL SEALS

ZAGO airtight crystal seals protect circuit breakers and panels from water and contaminants seeping in and damaging the panel or the breaker. They are splashproof and crystal clear for instantaneous visibility.

Rated IP54 NEMA-ready, ZAGO crystal seals are available in tactile and dip switch seals, circuit breaker seals, rocker switch seals, and full panel seals.



MIL-DTL-5423 PANEL BUSHING SEALS

- Prevent toggle switches from being damaged by contaminants, i.e., air, saltwater, precipitation, dust, dirt, oil, bacteria, and moisture.
- Meet MIL-DTL-5423.
- Molded from silicone rubber that has a durometer hardness of 35 to 55 and is malleable yet extremely resilient.
- Made from corrosion-resistant type 302/303 steel.
- Built for tough outdoor environments, pollutant-free and reusable.
- Made in USA and Buy American Act, DFARS, REACH and RoHS compliant.

APPLICATIONS

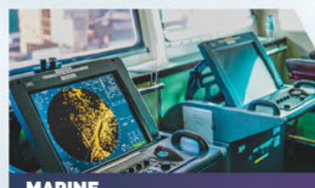
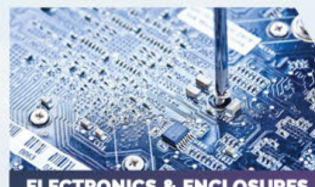
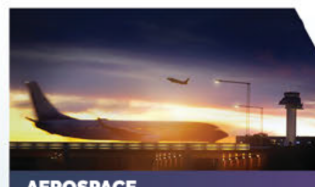
SEAL IN/SEAL OUT

ZAGO sealing fasteners and components seal all sorts of equipment:

- Robots and Cobots
- Satellites
- Electric Vehicle Charging Units
- Rechargeable Batteries
- Circuit Boards
- 3D Cameras/LiDAR Technology
- Drones and Droneports
- Medical Devices
- Night Vision Goggles
- HVAC Systems
- Sonar Systems
- Conveyor Belts
- Sensors
- Data Centers
- Aircraft Engines and Motors
- Offshore Wind Turbines
- Solar Panels



INDUSTRIES SERVED



AND MORE...

SECONDARY PROCESSES



SELF-LOCKING FEATURES

For applications that require sealing and locking, ZAGO offers a complete solution. High-quality self-locking components are available for both military and commercial usage. All of our Pellet Strip and Patch products meet or exceed the required specifications for MIL-F-18240, IFI 124 and IFI 524.

PLATING

- Black Chrome (MIL-C-14538B)
- Black Oxide Coating (MIL-C-13924B)
- Cadmium (QQ-P-416C)
- Passivate (QQ-P-35/MIL S-500SC)
- Phosphate Coating Light (TT-C-00490B)
- Gold (MIL-G-45204B)
- Nickel (QQ-N-290A)
- Zinc (QQ-Z-325C)

CUT-DOWN

State-of-the-art machine shop with CNC machines capable of precisely cutting down screws to our customers' unique specifications.

PAINTING

Fully qualified Mil-spec materials are used.

DRILLING

Head drilling, shank drilling and specialties.

CAPTIVE PANEL SCREWS

ZAGO is capable of quickly grinding the thread of any fastener to make it a captive panel screw.

OVER-SIZE HEAD FASTENERS

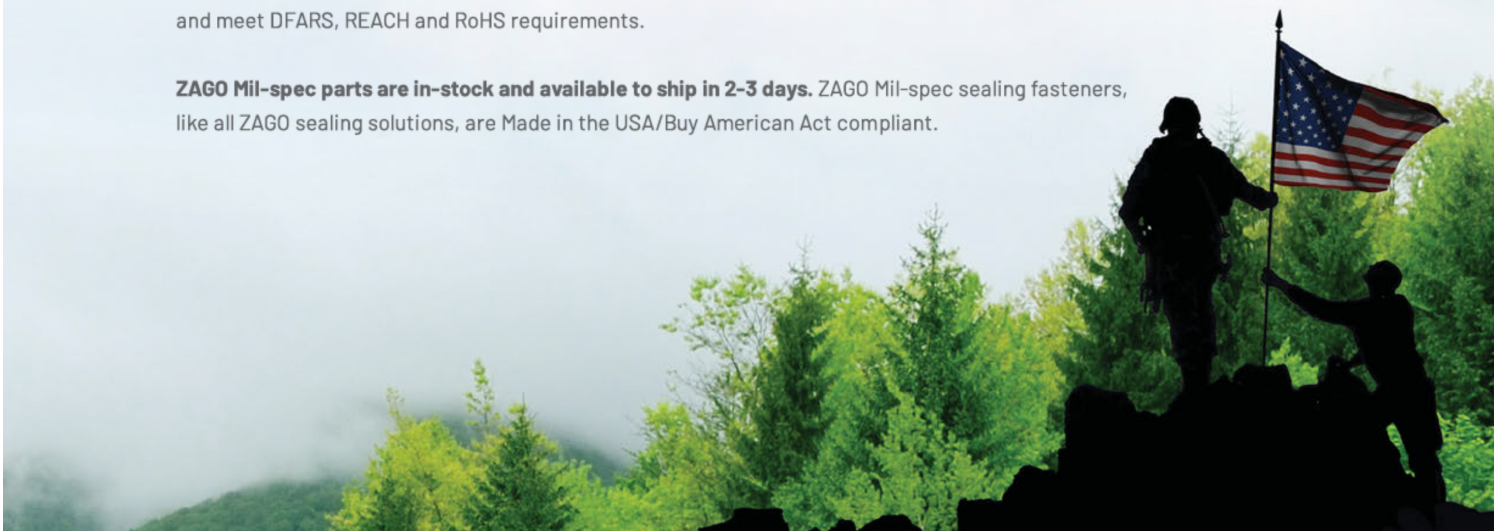
If you need a fastener with dimensions outside the standard range, ZAGO is your best source for unusual lengths and head sizes.

NASM 82496

SEALING FASTENERS CERTIFIED FOR MILITARY USE

ZAGO MS3212/3213 (NASM 82496) sealing fasteners are made for every branch of the military and for OEMs manufacturing equipment for military use. ZAGO MS3212/3213 sealing fasteners are pressure-tested to 1,500 psi and meet DFARS, REACH and RoHS requirements.

ZAGO Mil-spec parts are in-stock and available to ship in 2-3 days. ZAGO Mil-spec sealing fasteners, like all ZAGO sealing solutions, are Made in the USA/Buy American Act compliant.





ZAGO is a woman owned business.

MISSION: To develop and manufacture clean, sustainable, high tech sealing solutions and components that satisfy engineers' toughest requirements and advance innovation. To instill a culture of learning where all employees have the opportunity to flourish; to be conscious of our impact on the environment; and, to treat all of our stakeholders with kindness, dignity and respect.

VISION: To be a socially responsible manufacturing company, accelerating innovation globally with customizable high tech sustainable sealing solutions and components.

**ZAGO: A Sustainable Company,
Manufacturing Sustainable Sealing Solutions,
for a More Sustainable World.**



**SUSTAINABLE
BY DESIGN**

TECNIMETAL

SOLUZIONI, NON SOLO PRODOTTI

Via degli Andreani, 9
40037 Sasso Marconi (BO) ITALY
Tel +39 051735744
info@tecnimetal-tm.com
www.tecnimetal-tm.com

www.tecnimetal-tm.eu