HeliCoil

Gall Resistant Inserts

FEATURES & BENEFITS

• Manufactured from corrosion-resistant stainless steel

• Eliminates the need for lubrication to prevent galling

• Reduces friction

• Increases strength through uniform load distribution

• Virtually particle free

Gall Resistant inserts are ideal for use in satellites, electronics, clean room and vacuum applications.

Not only are Gall Resistant inserts wear-resistant, but they are also made from a special material which is inherently resistant to galling. Because of the reduction in friction, Heli-Coil® Gall Resistant inserts provide a more consistent, true clamping torque within the fastener assembly. In addition, they are compatible with stainless steel screws.
Testing was performed using #10-32 standard tapped hole blocks prepared in 316 grade stainless steel material. #10-32 STI holes were prepared to Heli-Coil specifications in aluminum material. Gall Resistant inserts were installed and tangs removed. Tests were performed using both plain and chemically polished 316 stainless steel screws. Torque tests were conducted with the test blocks correctly aligned as well as mis-aligned by 2.2 and 4.4 degrees from perpendicular. The torque was recorded for the 20 screws in each combination, during the 10 insertions for each screw. (Figure 1.)

Based on the testing completed, Heli-Coil Gall Resistant inserts provide superior gall resisting characteristics compared to standard tapped holes fitted with inserts made of 300 series stainless steel. Gall Resistant inserts also provide increased compensation for mis-alignment of both assemblies and fasteners. Because of the reduction in friction, Gall Resistant inserts provide a more consistent, true clamping torque in the fastener assembly.