

E.Full Loksert® Keylocking Insert

A New Solution for Locking and Heat Resistance

by Gang Hao Chang, Vice Editor-in-Chief of Fastener World



In terms of fastening, the susceptibility to loosening of fastening parts is an issue that has vexed many users for long.

E-FULL This issue can be now completely solved after E.Full Enterprise Co., Ltd., through technical collaboration with an U.S. leading company and with 8 years of R&D, developed the “Loksert® Keylocking Insert.” For certain fastening applications around the globe where loosening is absolutely not acceptable (aerospace, automotive, defense or semiconductor, for example), the release of this new product will be definitely great news.

Distinguished from other existing inserts without keys which are prone to loosening during vibration, the new Loksert® Keylocking Inserts features a unique “key” design, allowing a solid and stable fastening between the fastened workpiece and the insert when keys are driven into the workpiece, which prohibits the insert from spinning clockwise or counterclockwise to achieve permanent fastening, create excellent stability of products, and eliminate potential loosening-induced safety risks due to vibration.

“Processing this product requires high-level technique and must utilize special manufacturing procedures in order to achieve both superior quality and significant cost reduction. E.Full Enterprise is the only one in Taiwan that has successfully developed this product thus far,” said E.Full Sales Manager Tony Wang. He added, “The key feature of this product is its dovetail groove, which prevents the keys from dropping off. Through a computer to control riveting between the keys and grooves, the mass production with consistent fastening strength can be achieved and predicaments like key separation due to less strength or key breakage due to excessive strength won’t occur.”

Frequently used in the aerospace sector before, large amounts of inserts have been also used in the automotive field recently. E.Full can not only supply carbon/stainless steel inserts whose int./ext. threads are compliant with military and automotive standards, but is also dedicated to the development of Inconel Loksert® keylocking inserts for automotive turbo engines, propellers, and other high-temperature applications. The one-piece design provides an alternative to previous fastening requirement for “one screw with one nut” which would need larger fastening space, and the flush insertion surface also creates more possibilities for user’s product design, allowing them to achieve aesthetics, safety, and practicality. E.Full expects to release this new product half a year later at the earliest.

Wang added, “We mainly supply to overseas industries and are in collaboration with domestic automotive/ semiconductor industries and NCSIST as well. Our monthly capacity for Loksert® is approx. 30,000 pcs/month and is still on the rise. In addition, as this insert must be fastened with a specialty tool, E.Full can also provide pneumatic/hand tools and technical support according to customers’ actual applications and demand.

“Production of precision keys that steadily fit with the main insert body and threads of the highest precision are both what we’re very proud of.”

“With better performance of various transport vehicles and flourishing development of aerospace and defense industries, if fasteners cannot keep pace with the trend, it’ll be a secret concern,” Wang noted. “However, if global customers can make the most of this product, the added value of their products will definitely be upgraded.” ■

