

Self-tapping Screw for Light Alloy Materials

ALUMATE PLUS

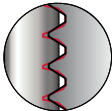
ALUMATE PLUS is the new era in self-tapping screws for light alloy materials provided in alternate materials with a wide variety of plating and coating options.

FEATURES AND BENEFITS

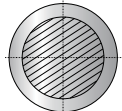
- Compatible with machine screw threads
- Provides a high joint strength
- Low loss of preload force under high dynamic and thermal loading
- Effortless lead-in with low insertion torque for safe assembly
- Excellent self-locking vibration resistance
- High stripping torque
- Allows for reduction in installation depth



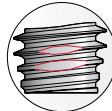
flank angle of 33°



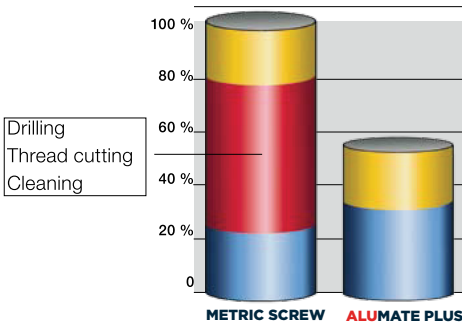
compatible with metric fasteners



circular thread cross section



non-circular thread forming zone



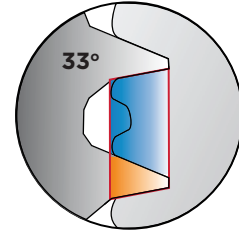
- Costs for material
- Costs for handling / processing
- Costs for assembly

ALUMATE PLUS VS MACHINE SCREWS

When compared with machine screws, thread forming fasteners can create cost savings of up to 40%. Self-tapping fasteners provide the advantage of directly assembling into cast holes as opposed to a pre-drilling, thread tapping and the subsequent cleaning of metal chips process to prepare the hole for a machine screw. **ALUMATE PLUS** provides all of these in one single phase creating not only cost advantages, but ensuring effective use of time.

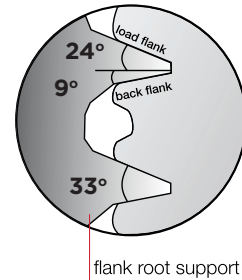
THREAD FEATURES

The thread geometry of **ALUMATE PLUS** provides a greater shear area achieving a higher performance in pull-out and strip-out.



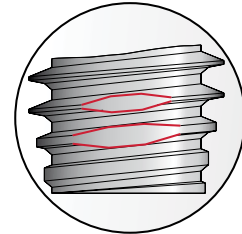
FLANK BENEFITS

The **ALUMATE PLUS** is composed of a smaller 33 degree flank angle which forges a stronger internal thread in the mating material than screws with a 60 degree flank angle. The larger tooth area of the female thread delivers a more sturdy joint, whereas the control design optimizes displacement of material during the thread forming process which secures a maximum thread engagement. The profile of the lower thread flank provides an increased strength which is critical for high load joints.



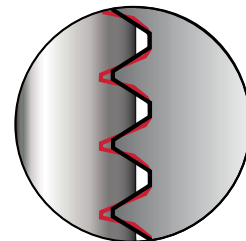
THREAD FORMING CHARACTERISTICS

The tapered thread forming lead-in with sharp crested threads minimizes debris generation and lowers the drive torque.



THREAD COMPATIBILITY

The **ALUMATE PLUS** is designed to be an alternate to machine screws, thus, being completely interchangeable. Therefore, **ALUMATE PLUS** can be used in existing tapped machine screw threads with equivalent sizing. Additionally, if required, a machine screw can be used in the thread formed by an **ALUMATE PLUS** fastener which in return eliminates any field service related concerns.



ALUMATE PLUS
MACHINE SCREW