

# Acupoint® - Anti-Cross Threading Feature

When a rotating fastener is misaligned with a tapped hole, a no-start condition or cross threading can occur. The Acupoint® fastener was developed to overcome both of these assembly problems. As the fastener is driven, the Acupoint feature locates the tapped hole and provides proper alignment to ensure positive thread engagement.



## STANDARD DESIGN GUIDELINES

Sizes: M2.5 thru M12

#2, #5, #10, 1/4"

Thread Design: Machine screw; others as specified

Head Design: Can be used with all external head designs; also available in studs

Drive System: Can be used with all fastener drive systems, including TORX PLUS® Drive

## SOLVES COMMON ASSEMBLY LINE PROBLEMS

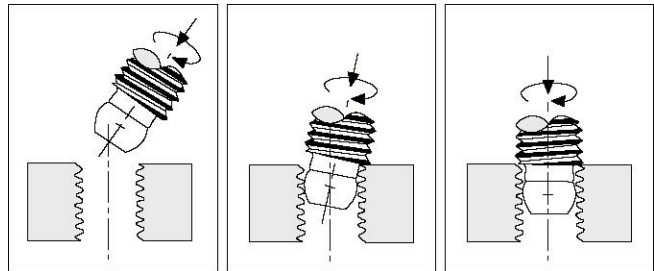
The Acupoint anti-cross-threading feature provides for rapid thread engagement and greatly reduces cross threading on the assembly line.

## FEATURES

- Truncated spherical point quickly locates the hole to help align the fastener
- Point length minimizes application interference
- Economical design since the point is roll formed
- Point length and diameter designed to avoid thread engagement in misaligned conditions

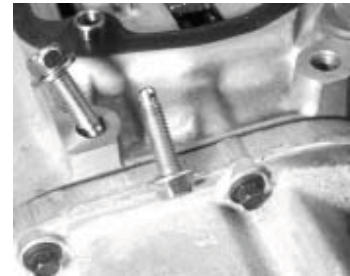
## BENEFITS

- Resists cross-threading and no-start conditions to reduce assembly problems
- Rapid engagement improves productivity
- Compensates for off-angle and off-center conditions



## CAN BE USED IN A BROAD RANGE OF APPLICATIONS

The Acupoint fastener can be used in a wide variety of applications where cross-threading commonly occurs. Typically used with machine screw threads, it can be applied to a broad range of fastener styles. In addition, its design minimizes point interference so it can be used in a wider variety of applications, as compared to competitive designs.



## EXCELLENT PERFORMANCE IN OFF-ANGLE CONDITIONS

During initial laboratory testing, the Acupoint fastener has shown excellent performance in off-angle and off-center positions when compared to machine screws. Fasteners with the Acupoint feature showed a 97% starting rate at an off-angle of 30°. A machine screw had a 0% starting rate at 15°.

In the off-center position, the Acupoint design showed a good start 100% of the time at 2.40mm off-center and 91% at 2.90mm. A machine screw demonstrated a 73% starting rate at 2.40mm and 44% starting rate at 2.90mm.