



PennEngineering®

BLIND THREADED INSERTS



BULLETIN

AE

ATLAS®
a **PEM**® Product

1209
REV. 210



ATLAS® BLIND THREADED INSERTS

PennEngineering develops and manufactures ATLAS® brand blind threaded inserts.

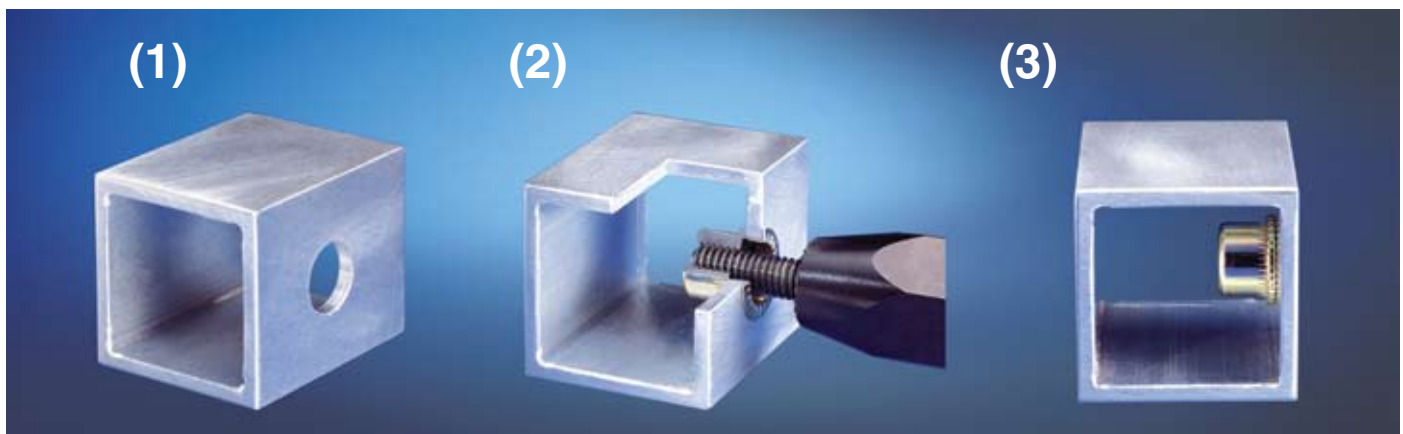
The advantages of ATLAS blind threaded inserts include:

- Fast, easy one-sided installation.
- Strong, permanent threads in thin panels.
- Installs anytime during production, in painted panels, in the field, and repair applications.
- Works in close-to-edge applications.
- Attaches to panels of any hardness.
- Utilizes light, compact, cost-effective installation tooling.
- Can assemble multiple dissimilar materials during installation.

There are three types: SpinTite®, MaxTite®, and Plus+Tite® fasteners. The SpinTite types are used for most applications where strong threads are required for blind applications. They are installed from one side using a spin/spin technique. The clockwise spinning action of the pneumatic tool draws the fastener in, compressing the unthreaded portion of the fastener wall. The bulge that is created presses against the panel creating a clamping force which tightly grips the sheet. In addition to high thread strength and torque-out, these fasteners have minimal inventory requirements since each size can accommodate many grip ranges.

Heavy duty MaxTite types are designed for the most demanding applications. They are installed from one side using a "spin/pull" technique. A hydraulic/pneumatic tool is used to draw the fastener in, creating the bulge and clamping force as described above.

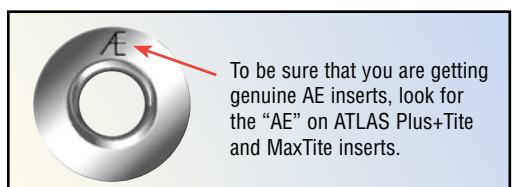
Blind Plus+Tite inserts feature a pre-bulbed slotted body that folds into four petals upon installation, gripping the backside of the parent material. These inserts can be installed into single, variable, or multiple thickness materials using ATLAS Series 800 pneumatic tools or an ATLAS spin/pull pneumatic/hydraulic tool.



Prepare properly sized hole in sheet.

Thread insert onto the pull-up stud of the installation tool and insert into the prepared hole. Activate tool and the pull-up stud retracts and bulges the unthreaded portion of the fastener shank against the flat undersurface.

The installation tool stud is removed, leaving the insert secure and ready for the attachment screw.



ATLAS® BLIND THREADED INSERTS

BLIND THREADED INSERTS

TYPE AEL - RIB-WALL LOW-PROFILE HEAD



- Feature a large diameter, low-profile head and knurled shank
- Offers highest all around strength.

TYPE AEK - RIB-WALL MINIMIZED-PROFILE HEAD



- Same as AEL but with a minimized-profile head.
- Allows near-flush installations with no need for special hole preparations.
- Available in steel, stainless steel and monel®.

TYPE AEH - HALF-HEX SHANK LOW-PROFILE HEAD



- Features a hex body design.
- Improved torque-out resistance.

TYPE AEO - THIN-WALL LOW-PROFILE HEAD



- Features a low-profile head design.
- Allows near-flush installations with no need for special hole preparations.

TYPE AES - BLIND THREADED STUDS



- Provide strong external threads in blind applications.
- Easy to install using spin/spin tooling.
- Optional anti cross-threading feature available.

TYPE AET AND AEW - SWAGING LOW-PROFILE HEAD



- Works in any thickness over .029"/0.76mm including blind hole.
- High resistance to torque-out.
- Minimal backside protrusion for restricted space applications.

TYPE AENW - ELASTITE™ NUT WITH WASHER



- Provides a vibration dampening attachment point in a variety of applications.

TYPE AE - ATLAS® PLUS+TITE® BLIND THREADED INSERTS



- Designed for superior pullout resistance in plastics and thin sheet metal.
- Internal formed threads are compatible with unified grade 5 or metric class 9.8 screws.
- Shoulder provides self-locating feature.

TYPE AE - ATLAS® MAXTITE® BLIND THREADED INSERTS



- Designed for high load applications.
- Countersunk feature allows fastener to be installed flush with the surface of the sheet.
- Available with rib, key or full hex features for high torque applications.

FULL METRIC BLIND THREADED INSERTS

TYPE AEFR - FLAT HEAD ROUND BODY



- Flat head design for high load applications.

TYPE AETR - THIN HEAD ROUND BODY



- Allows near-flush installations with no need for special hole preparations.

TYPE AEFK - FLAT HEAD KNURLED ROUND BODY



- Flat head design for high load applications.
- Knurled body for high torque applications.

TYPE AETK - THIN HEAD KNURLED ROUND BODY



- Knurled body for high torque applications.
- Allows near-flush installations with no need for special hole preparations.

TYPE AEFH - FLAT HEAD SEMIHEX BODY HEX COUNTERBORE



- Flat head design for high load applications.
- Semi-hex body for improved torque-out resistance.

TYPE AETH - THIN HEAD SEMIHEX BODY HEX COUNTERBORE



- Semi-hex body for improved torque-out resistance.
- Allows near-flush installations with no need for special hole preparations.

TYPE AEFHH - FLAT HEAD HEX BODY ROUND COUNTERBORE



- Full hex feature for high torque applications.
- Flat head design for high load applications.

TYPE AETHH - THIN HEAD HEX BODY ROUND COUNTERBORE



- Full hex feature for high torque applications.
- Allows near-flush installations with no need for special hole preparations.

TYPE AEGR - COUNTERSUNK HEAD ROUND BODY



- Countersunk head allows insert to be installed flush with sheet surface.

TYPE AECK - COUNTERSUNK HEAD KNURLED ROUND BODY



- Countersunk head allows insert to be installed flush with sheet surface.
- Knurled body for high torque applications.

TYPE AETHC - THIN HEAD SEMIHEX BODY



- Stainless steel insert for superior corrosion resistance.
- Allows near-flush installations with no need for special hole preparations.

ATLAS® BLIND THREADED INSERTS

INSTALLATION TOOLS

SERIES 800 SPIN/SPIN TOOL

ATLAS® Series 800 tools provide totally pneumatic, spin/spin operation to easily install all Atlas SpinTite® and Plus+Tite® fasteners. They are lightweight, economical, low maintenance, ergonomically designed, and portable.



HEX WRENCH INSTALLATION TOOL

The ATLAS® Hex Wrench Tool is designed for installing SpinTite® and MaxTite® fasteners. This tool is ideal for field installations, repair work, and prototype applications.



ATLAS® AE45 SPIN/PULL TOOL

The ATLAS® AE45 portable tool provides a hydraulic/pneumatic action to install ATLAS MaxTite® products for those heavy-duty applications. It is a powerful, efficient, and quiet tool, designed to provide long life and trouble free service.



L6000 INSTALLATION TOOL

The ATLAS® hand operated L6000 tool installs SpinTite® fasteners in most types and sizes and is also suitable for light production requirements.



AE10 HAND TOOL

The AE10 hand operated tool installs SpinTite® fasteners in most types and sizes and is also suitable for light production requirements.



AE® PROTOTYPE KIT

The AE prototype kit contains a wide variety of Atlas blind threaded rivets for repair or prototype needs. The kit contains over 1,200 pieces of Type AELS SpinTite® unified and metric fasteners, proper sized drill bits, and a hand installation tool. To order specify item number PKAE-100. Check with your local distributor for pricing.



Need more information?

Detailed engineering specifications on ATLAS® inserts and installation tools is available for download at www.pemnet.com or call 215-766-5987 or toll free 877-682-2505 (USA Only).

PennEngineering®



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