

PennEngineering®

BLIND THREADED INSERTS



BULLETIN

AE

ATLAS®
a PEM® Product

ATLAS® BLIND THREADED INSERTS

PennEngineering develops and manufactures ATLAS® brand blind threaded inserts.

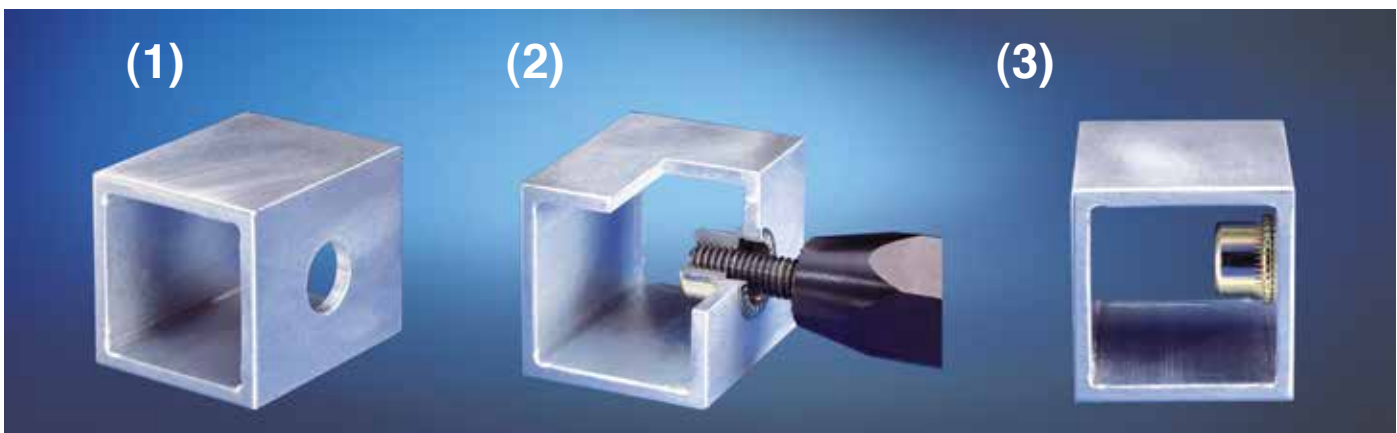
The advantages of ATLAS blind threaded inserts include:

- 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.



To be sure that you are getting genuine Plus+Tite and MaxTite inserts, look for the “AE” stamp, a registered trademark.

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®.

Available
in monel®

Monel is a registered trademark of Specialty Metals Corporation.

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"/0.76 mm including blind hole.
- High resistance to torque-out.
- Minimal backside protrusion for restricted space applications.

TYPE AEENW - 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







VALUE-ADDED OPTIONS

- Custom designs
- Wedge head design
- Nylon locking patch
- PVC Sealed head
- Half-square shank inserts
- MATHread® anti cross-threading feature (MATHread is a registered trademark of MATHread, Inc.)

Available finishes:

Cadmium and clear chromate, zinc and black chromate, tin plate, cadmium and yellow chromate, zinc and yellow chromate, tin/zinc plate, zinc and clear chromate

INSTALLATION TOOLS

<p>Pneumatic Spin Tools</p> <ul style="list-style-type: none"> • Series 800 tools • 901, 902, 903 and 904 in-line tools • 911, 912, and 913 right angle tools 				
<p>Pneumatic/hydro-pneumatic pull tools</p> <ul style="list-style-type: none"> • RIV938 pull-to-pressure tool • RIV938S small, lightweight pull-to-pressure tool • RIV912 pull-to-stroke tool • RIV942 pull-to-pressure or pull-to-stroke tool • RIV949 pull-to-pressure or pull-to-stroke vertical tool • RIV998V pull-to-stroke tool • RIV916 pull-to-stroke tool for Plus+Tite® inserts 				
<p>Heavy-duty Pull Tool</p> <ul style="list-style-type: none"> • RIV916B tool for large thread sizes 		<p>Battery Operated Pull Tool</p> <ul style="list-style-type: none"> • RIV790 14.4V lithium battery operated tool 		
<p>Hex Hole Cutter Tool</p> <ul style="list-style-type: none"> • RIV990 and RIV991 hex cutter tools transform round holes to hexagonal holes 			<p>Hand Operated Tools</p> <ul style="list-style-type: none"> • RIV901 hand tool • RIV903 hand tool • RIV905 hydraulic hand tool 	

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?

An ATLAS catalog with complete fastener and tool specifications is available on our pemnet website. On the website you can also access the CAD library where you can find ATLAS standard product drawings and 3D models. For all other inquiries please call 215-766-5987 or toll free 877-682-2505 (USA Only).

Regulatory compliance information is available in Technical Support section of our website.

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