The following guide is designed to assist with the field installation of inserts if there is a need to replace a damaged thread or to install an insert in a new location. In order to achieve a successful installation the following procedures are recommended:

! WARNING !
Field installation should only be performed by qualified personnel using suitable drilling equipment as described in the section below. Personnel should use a face mask to prevent inhalation of silica dust as the PoxyBase® is penetrated during drilling operations. Please consult the Zanite®Plus MSDS specification guide at www.basetek.com if you require additional information. Be sure to utilize protective eye wear while performing any drilling operation. Nitrile gloves are recommended to protect skin from misplaced epoxy.

Recommended Equipment:

- Proper Personal Protective Equipment (PPE)
- 5” small variable speed angle grinder with a 5/8-11” spindle to mount the core bit
- Correct Size diamond core bit (see pictures and Table 1 below)
- Shop vacuum (recommended)
- Wire Bottle Brush to clean the hole after drilling
- Rubbing Alcohol 70%
- Compressed air

Table 1 – Diamond Core Bit Recommendation

		Monster Dry/Wet
Insert Size	**Drill Size***	**Diamond Core Bit**
1/4-20	1.00 in.	SCB0100D
5/16-18	1.00 in.	SCB0100D
3/8-16	1.00 in.	SCB0100D
1/2-13	1.250 in.	SCB0114D
5/8-11	1.250 in.	SCB0114D
3/4-10	1.50 in.	SCB0112D
7/8-9	1.75 in.	SCB0134D
1.0 - 8	1.75 in.	SCB0134D

The items in Table 1 can be purchased from ***Applied Diamond Tools*** you can visit their website www.toolocity.com or a link directly to the diamond core bits at http://www.toolocity.com/diamond-core-drill-bits.aspx

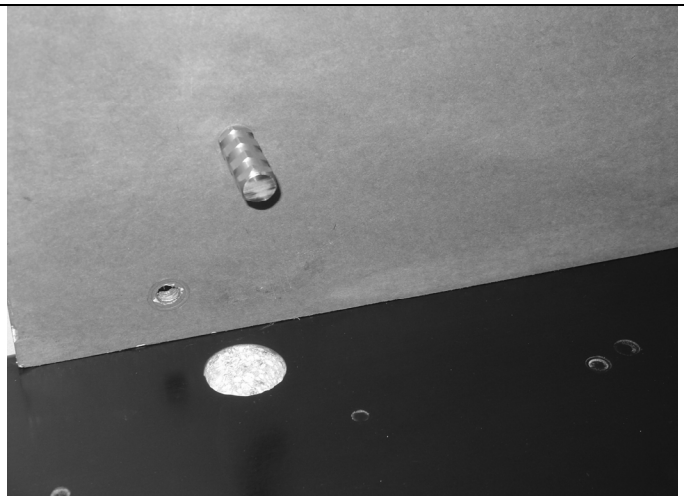
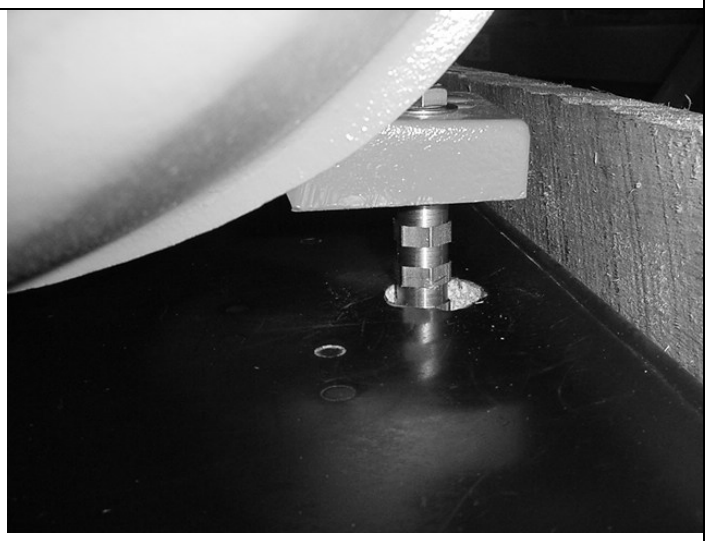
**Note: Diamond Core Drill size listed above is approximate and allows for a slight variance to provide the ability for perpendicular alignment of the insert. BaseTek recommends the verification of insert dimensions prior to drilling any installation holes.*

Please refer to the following steps to ease installation:

1. Mark the location for the insert on the base using a template or equipment mounting feet as a guide.
2. Attach the correct size core bit to the grinder and mark the desired depth you want to drill on the core bit using a permanent marker. You want to drill 3/8" deeper than the overall length of the insert.
3. Wear proper PPE (not limiting to the following):
    a) Eye protection
    b) Hearing protection
    c) N95 rated (minimum) dust mask
4. Start the grinder on an angle and gradually straighten so the core bit is vertical and center on the mark on the base.
5. You can use water to cool down the bit and extend the life
6. If you don't use water, have another person use a shop vacuum to minimize dust.
7. Apply light pressure but allow the drill bit to do the work.
8. Move the bit in a circular motion to remove the dust.
9. Once you drilled to our mark on the bit, stop, remove the core bit and take hammer and chisel to tap the polymer core at an angle to break free from the rest of the base.
10. Use the shop vacuum or compressed air to remove any dust or debris. Use the wire bottle brush to wipe the holes clean.
11. If you used water, clean the hole using rubbing alcohol and let dry before proceeding.

Note: You can also use the core bit to remove a damaged insert using the steps above.

12. It is critical that insert perpendicularity in relation to the surface of the PoxyBase be maintained. BaseTek recommends the following two basic methods to aid in proper insert perpendicularity:

a) Fabricate a template (i.e. constructed of plywood or metal) The template should be designed to locate the new insert hole off a reference point (ie. leveling insert or other existing insert) located on the respective drawing of the given base (please consult www.basetek.com to obtain a particular product drawing). Fasten the insert to a bolt and include the provided nylon flat washer between the template and insert to insure the insert will recess below the top surface of the base when installed (**Figure 1**).	 **Figure 1**
b) Use equipment as a template With the equipment to be mounted elevated above the base, fasten the insert(s) to the bottom of a bolt that is intended to mount the equipment down to the base. It is recommended that a provided nylon washer temporarily be installed between the bottom side of the equipment foot and the insert to insure the installed insert will recess below the top surface of the base (**Figure 2**).	 **Figure 2**

13. BaseTek recommends pre-filling the hole with epoxy to a level of approximately 50%. Promptly locate the template arrangement or equipment including insert(s) down into the epoxy filled holes and allow epoxy to harden. Note that epoxy will begin to harden in about 10

minutes (faster in warmer climates). Dispense epoxy into the drilled hole (**Figure 3**) utilizing only supplied epoxy and applicable Mark 5 gun – the two-part epoxy cartridge is designed to be used only with a proper mixing nozzle and applicator gun to insure homogenous mixing. Make certain not to overfill the hole as excess material may spill over on to the top surface of the insert and down into the threads. Top off the hole accordingly after the template and or equipment has been removed. Be sure to wipe away any excess material to keep the top surface clean.

Figure 3

Table 2 – Recommended bolt torques

FASTENER STANDARD	FASTENER NOMINAL SIZE	RECOMMENDED TORQUE LB/FT
S A E	1 / 4 - 20	10
	5 / 16 -18	12
	3 / 8 - 16	20
	1 / 2 - 13	34
	5 / 8 - 11	66
	3 / 4 - 10	118
	7 / 8 – 9	140
	1.0 - 8	210

(end)