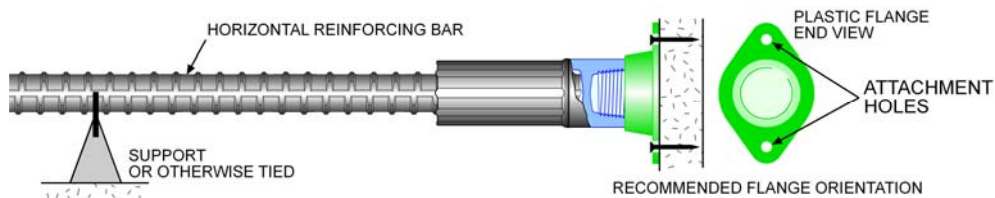


17.0 FIELD ASSEMBLY & PLACING OF TAPER GRIP-TWIST COUPLERS WITH PLASTIC FLANGES

FABRICATOR IS RESPONSIBLE FOR PROVIDING THESE INSTRUCTIONS TO THE PLACER AND/OR CONTRACTOR

Female threads are protected by color-coded plastic plugs and Male threads are protected by color-coded plastic caps, both of which should be kept in place until the time of assembly. If missing, **obtain the correct plugs/caps** from the manufacturer. If you see minor external **thread damage**, try using a thread file to correct the problem. For other thread damage, it may be necessary to use a thread cleaner tool. **DO NOT TRY TO ASSEMBLE DAMAGED THREADS.** You may cause premature binding. Care must be taken to install the proper size rebar and coupler in the correct location, especially with transition splices. Note: All couplers are marked with rebar size and material code. **DO NOT USE THIS COUPLER IN CONJUNCTION WITH A REBAR WHICH IS LARGER OR SMALLER THAN THE INTENDED BAR SIZE. CONTACT BPI FOR TRANSITION SPLICES. STORE COUPLERS IN A CLEAN, DRY PLACE UNTIL READY TO INSTALL.** This product is **NOT** suitable for use on **CURVED REBARS.** When the bar cannot be turned, use a Grip-Twist® Position coupler or an alternate splice system such as Zap Screwlok®.

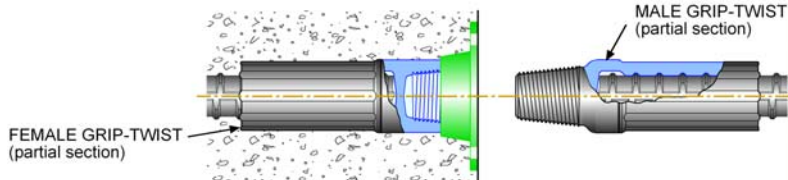
1 [This step only applies when Grip-Twist Female couplers are supplied with an inert plastic flange and the coupler orientation is horizontal]. The Female coupler with a snap-on plastic flange is attached to the formwork using suitable screws or nails through two holes in the flange. When the reinforcing bar is horizontal, make sure to use both holes with the flange orientation as shown below. After attachment, the reinforcing bar that extends from the coupler **MUST** be properly supported and tied to prevent movement of the bars and/or pull-off of plastic flanges. Plastic flanges are not structural components. **DO NOT STAND ON UNSUPPORTED OR IMPROPERLY SUPPORTED BARS AND DO NOT POUR CONCRETE AROUND REINFORCING BARS AND COUPLERS THAT ARE NOT SUPPORTED AND TIED.**



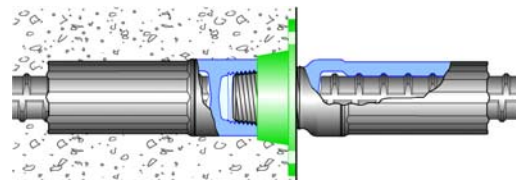
Make sure the female thread is protected from the concrete before pouring concrete around or near the Female flanged coupler. **DO NOT PLACE REINFORCING BAR IF SWAGING IS NOT CORRECT.**

2 When joining the Male and Female coupler, remove the protective plugs and caps and then line up both sides as straight as possible as shown in the pre-assembled condition below.

PRE-ASSEMBLED CONNECTION



ASSEMBLED CONNECTION



Just before assembly, check both male and female threads for cleanliness. Clean off any foreign matter. **DO NOT USE CORROSIVE ACIDS.** Any thread damage must be corrected as noted above before installation.

3 After the initial thread location, rotate the free rebar clockwise making sure that the two coupler halves remain aligned. NOTE: If the coupler(s) have been swaged onto a crooked bar end, **DO NOT ALIGN THE REBARS. ALIGN THE COUPLERS SO THAT THE THREADS SCREW TOGETHER.** Continue to rotate the free rebar by hand. If you feel the threads starting to prematurely bind, **DO NOT FORCE THEM. Shake the free end of the rebar while turning.** Allow the free end of the rebar to rotate in its own natural circle. **ASSEMBLE UNTIL THREADS ARE FULLY ENGAGED.** Usually, this takes 4 to 5 turns.

If the threads of the coupler do not properly engage during assembly, stop immediately. Disassemble the connection to determine the problem. Possible causes of mis-assembly may be either mis-matched thread sizes (be especially careful if splice is a transition), or bars are rubbing against each other, or threads are contaminated with (ex.) concrete, dirt, or threads have been damaged. Reassemble only after the problem has been identified and corrected.

4 To be assured that the threads have been fully engaged, use a pipe wrench or chain wrench to snug and tighten the assembly. Long lengths of rebar, especially large diameter bars, are heavy. To overcome bar weight or bars rubbing against each other, it may be necessary to use an extension bar. As a guide, and as necessary, use the following wrench lengths: Coupler sizes #4 - #6 = 8" - 12" length, sizes #7 - #8 = 12" - 18" length, and sizes #9 - #11 = 18" - 24" length. **DO NOT WIRE TIE BARS UNTIL AFTER FULL ASSEMBLY.** In all cases, consider your own **personal safety.** Make sure you are securely positioned and that you will not slip or fall during installation. Use only good quality wrenches that will not round-out.

5 Inspect the splice for proper swaged length and thread engagement. For taper threads, some variation in the number of exposed threads is natural due to thread tolerance build-up and thread run-out. In general, it is usual to see 0 to 1 threads after full assembly. Fully assembled threads can be double-checked by the application of a pipe wrench, which overcomes the weight of the bar as described above. **IT IS NOT NECESSARY TO USE A TORQUE WRENCH OR APPLY A HIGH TORQUE VALUE.**

Please direct all assembly questions to BarSplice Products, Inc. (937) 275-8700.