

## 16.0 FIELD ASSEMBLY OF TAPER GRIP-TWIST COUPLERS

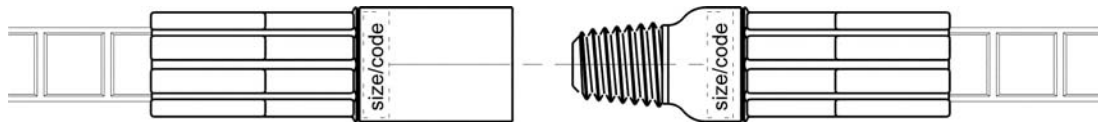
**FABRICATOR IS RESPONSIBLE FOR PROVIDING THESE INSTRUCTIONS TO THE PLACER AND/OR CONTRACTOR.**

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 If the Female coupler is placed first, make sure the female thread is protected from the concrete before pouring concrete around or near the Female coupler. If the Male coupler is placed first, make sure the male thread is protected from the concrete before pouring concrete around or near the Male 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.

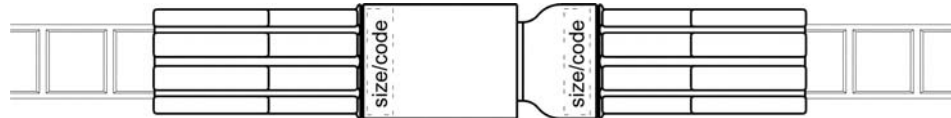
### PRE-ASSEMBLED CONNECTION



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 couplers together 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.

### ASSEMBLED CONNECTION



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 #3 - #6 = 8"-12" length, sizes #7 - #8 = 12"-18" length, sizes #9 - #11 = 18"-24" length, and sizes #14 - #18 = 24"-36" 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.