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Prior to following the instructions below, verify that this document is the latest version in use. The latest version can be found at www.barsplice.com.

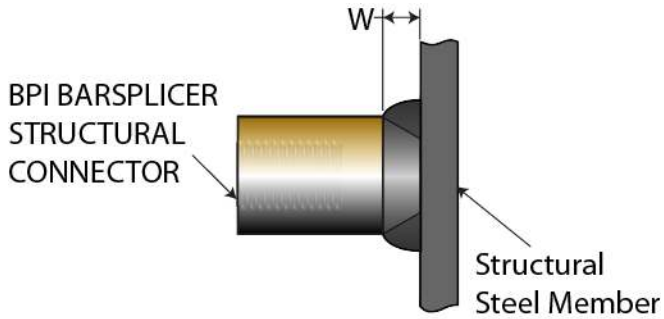
INSTALLATION INSTRUCTIONS FOR FIELD ASSEMBLY OF BPI® BARSPLICER STRUCTURAL CONNECTORS TO STRUCTURAL STEEL MEMBERS AND GRADE 60 THREADED REBARS [U.S. METRIC GRADE 420]

Internal connector threads are protected by plastic plugs and external rebar threads are protected by plastic caps, both of which should be kept in place until the time of welding and assembly. If missing, ***obtain the correct plugs/caps*** *from the manufacturer or supplier. 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 die tool. DO NOT TRY TO ASSEMBLE DAMAGED THREADS. You may cause premature binding. DO NOT USE THIS STRUCTURAL CONNECTOR IN CONJUNCTION WITH A REBAR WHICH IS LARGER OR SMALLER THAN THE INTENDED BAR SIZE. DO NOT USE WITH ANYTHING OTHER THAN UNIFIED NATIONAL COURSE (UNC) THREADS. STORE CONNECTORS IN A CLEAN, DRY PLACE UNTIL READY TO INSTALL.*

1 The following recommendations apply consistent with BPI and/or other publications:

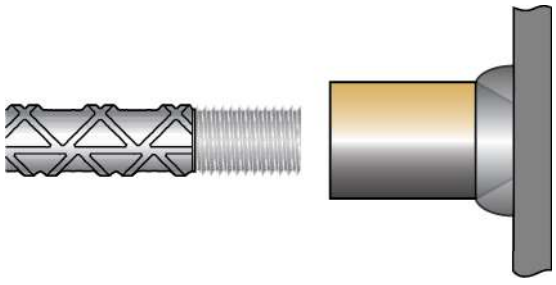
- Weld surfaces should be cleaned as needed
- Use electrode E7018 or equivalent for low carbon steel, grade 1018
- Fillet weld entire circumference of the connector using weld bevel size “W” (see CHART 1).
- Welding to conform to AWS D1.1, Structural Welding Code.
- Remove PLUG in Structural Connector prior to welding.

DO NOT PLACE REINFORCING BAR OR CONNECTOR IF THE THREADS ARE DAMAGED AND CANNOT BE REPAIRED.



2 When joining the threaded rebar and Barsplicer Structural Connector, remove the protective caps from the bar ends and line up the threaded bar as straight as possible as shown in the pre-assembled condition below.

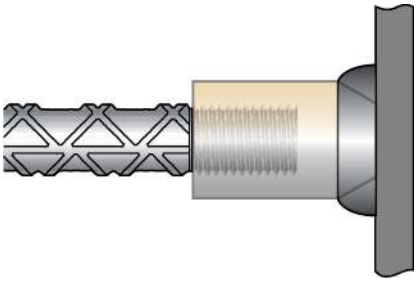
PRE-ASSEMBLED CONNECTION



Just before assembly, check both internal and external 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 threaded ends remain aligned. NOTE: If the threaded end of the rebar is bent, **DO NOT ALIGN THE REBARS. ALIGN THE THREADS 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**.

ASSEMBLED CONNECTION



If the threaded rebar end does not properly engage into the Barsplicer Structural Connector during assembly, stop immediately. Disassemble the connection to determine the problem. Possible causes of mis-assembly may be either mis-matched thread sizes, 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: Structural Connector sizes #3 - #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 thread engagement. For Barsplicer 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**.

CHART 1:

REBAR SIZE US [metric]	THREAD SIZE	APPROXIMATE DIMENSIONS IN INCHES			
		STRUCTURAL CONNECTOR LENGTH (in.)	STRUCTURAL CONNECTOR DIAMETER (in.)	WELD BEVEL SIZE “W” (in.)	REBAR THREAD LENGTH (in.)
#4 [13]	1/2 - 13 UNC	1 3/8	7/8	3/16	13/16
#5 [16]	5/8 - 11 UNC	1 1/2	1	1/4	15/16
#6 [19]	3/4 - 10 UNC	1 3/4	1 1/4	1/4	1
#7 [22]	7/8 - 9 UNC	2	1 3/8	5/16	1 3/16
#8 [25]	1 - 8 UNC	2 1/4	1 5/8	3/8	1 3/8
#9 [29]	1 1/8 - 7 UNC	2 5/8	1 3/4	7/16	1 9/16
#10 [32]	1 1/4 - 7 UNC	3	2	1/2	1 3/4
#11 [36]	1 3/8 - 6 UNC	3 3/8	2	9/16	2

Please direct all assembly questions to BarSplice Products, Inc