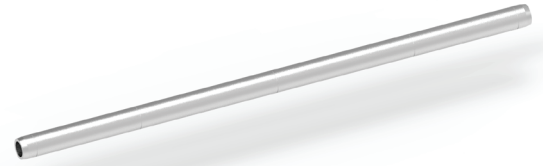




# COMPRESSION SPLICE FOR ACCC® & ULS ACCC CONDUCTORS PLUS AZR CORE PROTECTOR INSTALLATION

## INSTALLATION INSTRUCTIONS

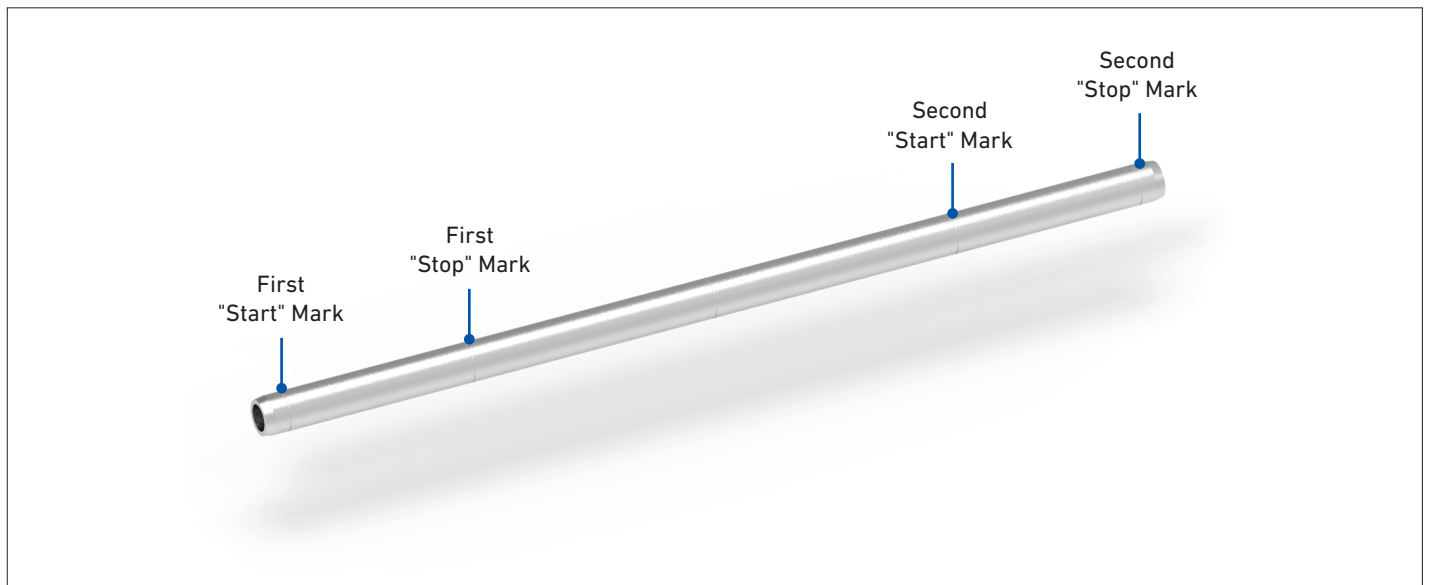


### IMPORTANT SAFETY INFORMATION

**READ AND COMPLETELY UNDERSTAND ALL INSTRUCTIONS BEFORE INSTALLING PRODUCT. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY OR DEATH.**

This product is intended for use by trained technicians only. This product should not be used by anyone who is not familiar with and not trained to use it. When working in the area of energized lines, extra care should be taken to prevent accidental electrical contact. Be sure to wear proper safety equipment per your company protocol. These instructions are not intended to supersede any company construction or safety standards. These instructions are offered only to illustrate safe installation for the individual. PLP products are intended for the specified application only. Do not modify this product under any circumstances. Do not reuse or reinstall any PLP product unless that capability is expressly indicated in the product's Installation Instructions. For proper performance and personal safety, be sure to select the proper PLP product before installation. PLP products are precision devices. To ensure proper performance, they should be stored in cartons under cover and handled carefully. No tension should be applied to the conductor until the full completion of this procedure.

## INSTALLATION OVERVIEW



**NOTE:** The product is imprinted with instructional words, such as "Press First," "Stop," and "Compress to End" to aid installation.

## PRODUCT COMPATIBILITY

These Installation Instructions are valid for PLP Compression Splice Assemblies for ACCC® and ULS ACCC conductors.

## PRECAUTIONARY MEASURES

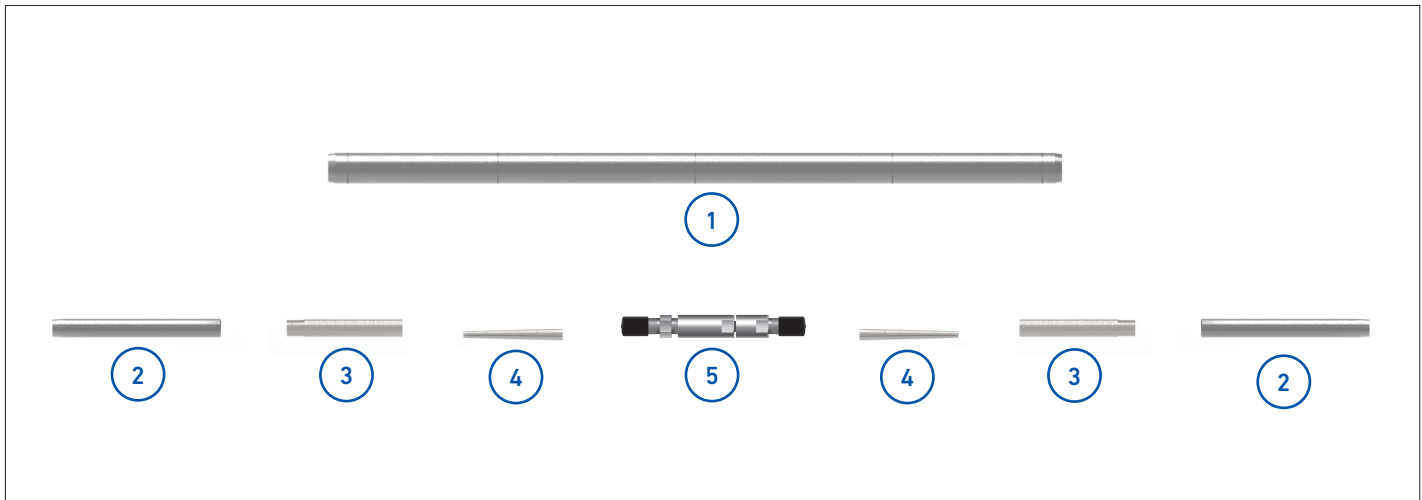
### CAUTION

Failure to follow the precautions, notes, and steps contained within these Installation Instructions represents a misapplication of the product. This product and application procedure are for ACCC and ACCC ULS conductors.

- (1) Ensure that the correct compression product has been selected for the conductor. Compare catalog numbers of the product with associated conductor size/range published in PLP literature.
- (2) Be certain that the dies being used to compress the fittings match the engraved sizes marked on the product surfaces. The dies will have markings on the surface of the die face or the edges of the die.
- (3) The compression press and the dies **MUST** be inspected before use. Ensure that they are well lubricated; there are no hydraulic oil leaks; the press is of the correct size (60- or 100-Ton) to adequately compress the fittings; die surfaces mate completely when the press is fully extended; and that the dies are in good condition without significant damage or wear.
- (4) Before installation, the mating surfaces of the products to be installed, such as the inner bore of the aluminum tube, the inner bore and outer surfaces of steel hardware, must be inspected for surface imperfections, etc. If any significant irregularities exist, the products **MUST** be discarded or returned to PLP. **DO NOT install defective or damaged compression hardware.**

## PACKAGE COMPONENTS

### COMPRESSION DEAD-END



1. Outer Aluminum Alloy Tube
2. Inner Sleeve
3. Collet Housing
4. Collet
5. Collet Coupler
6. Inhibitor (Not shown)
7. Sandpaper (Not shown)
8. Core Protector (AZR only) (Not shown)

### Tools Required:

- 60- or 100-Ton Press
- Product-Specific Aluminum (AH) Dies
- Torque Wrench
- Large Adjustable Wrench
- File
- Measuring Tape/Caliper
- Utility Knife
- Conductor strippers
- Hacksaw with fine-tooth blade
- Wire brush
- Marker pen
- Tape
- Lubricant or bar soap



## ACCC® & ULS ACCC CONDUCTOR INFORMATION

### Small Sizes

USA ACCC Code Name	kcmil	International ACCC Code Name	mm <sup>2</sup>	Outside Diameter in (mm)	"A" Exposed Core Length in (mm)	"B" Exposed Core Length in (mm)
	156.5	Skadar	79.3	0.523 (13.2842)	8.3 (212)	7.0 (177)
	221.8	Rijeka	112.4	0.535 (13.589)	8.3 (212)	7.0 (177)
	242.2	Silvassa	122.7	0.565 (14.351)	8.3 (212)	7.0 (177)
Pasadena	297.2	Helsinki	150.6	0.616 (15.6464)	8.3 (212)	7.0 (177)
	307.3	Jaipur	155.7	0.650 (16.51)	8.3 (212)	7.0 (177)
	350.1	Zadar	177.4	0.673 (17.0942)	8.3 (212)	7.0 (177)
	370.6	Rovinj	187.8	0.673 (17.0942)	8.3 (212)	7.0 (177)
Oceanside	383.2		194.2	0.680 (17.272)	8.3 (212)	7.0 (177)
Linnet	430.5	Copenhagen	219.9	0.720 (18.288)	8.3 (212)	7.0 (177)
Oriole	438.6	Reykjavik	223.1	0.741 (18.8214)	8.3 (212)	7.0 (177)
	491.0	Gdansk	248.8	0.756 (19.2024)	8.3 (212)	7.0 (177)
Waco	454.0	Glasgow	236.7	0.770 (19.558)	8.3 (212)	7.0 (177)
Laredo	529.8	Casablanca	273.6	0.807 (20.4978)	8.3 (212)	7.0 (177)
Hawk	611.3	Lisbon	315.5	0.858 (21.7932)	8.3 (212)	7.0 (177)
Dove	713.5	Amsterdam	367.4	0.927 (23.5458)	8.3 (212)	7.0 (177)
	788.2	Cordoba	399.4	0.961 (24.4094)	8.3 (212)	7.0 (177)
Amarillo	784.7	Leipzig	421.4	0.990 (25.146)	8.3 (212)	7.0 (177)
Grosbeak	821.4	Brussels	421.4	0.990 (25.146)	8.3 (212)	7.0 (177)

**NOTE:** ULS conductors with the same name will be built to the same process as the standard conductors above.

### Medium Sizes

USA ACCC Code Name	kcmil	International ACCC Code Name	mm <sup>2</sup>	Outside Diameter in (mm)	"A" Exposed Core Length in (mm)	"B" Exposed Core Length in (mm)
	451.0	Monte Carlo	228.5	0.818 (20.777)	11.2 (285)	10.2 (260)
Irving	609.5	Oslo	313.8	0.882 (22.403)	11.2 (285)	10.2 (260)
Lubbock	903.9	Stockholm	453.7/463.3	1.040 (26.416)	11.2 (285)	10.2 (260)
Galveston	1011.3	Warsaw	507.5	1.090 (27.686)	11.2 (285)	10.2 (260)
Drake	1025.6	Dublin	524.5	1.108 (28.1432)	11.2 (285)	10.2 (260)
	1072.6	Kolkata	543.5	1.127 (28.6258)	11.2 (285)	10.2 (260)
Curlew	1033.0	Mahakam	544.9	1.140 (28.956)	11.2 (285)	10.2 (260)
Plano	1059.5	Hamburg	546.5	1.127 (28.6258)	11.2 (285)	10.2 (260)
Corpus Christi	1103.0	Milan	567.7	1.146 (29.1084)	11.2 (285)	10.2 (260)
Arlington	1151.1	Rome	592.5	1.177 (29.8958)	11.2 (285)	10.2 (260)
Cardinal	1221.8	Vienna	629.2	1.198 (30.4292)	11.2 (285)	10.2 (260)
Fort Worth	1300.4	Budapest	668.3	1.240 (31.496)	11.2 (285)	10.2 (260)
	1352.7	Mumbai	685.4	1.251 (31.7754)	11.2 (285)	10.2 (260)
El Paso	1349.9	Prague	690.7	1.251 (31.7754)	11.2 (285)	10.2 (260)
	1386.0	Ratchaburi	702.4	1.257 (31.93)	11.2 (285)	10.2 (260)
Beaumont	1427.6	Dhaka	723.9	1.294 (32.8676)	11.2 (285)	10.2 (260)
	1447.0	Munich	733.2	1.293 (32.8422)	11.2 (285)	10.2 (260)
San Antonio	1474.9	London	759.0	1.315 (33.401)	11.2 (285)	10.2 (260)
Bittern	1581.6	Paris	813.7	1.345 (34.163)	11.2 (285)	10.2 (260)

**NOTE:** ULS conductors with the same name will be built to the same process as the standard conductors above.

ACCC® is a registered trademark of CTC Global, Inc.

## ACCC® & ULS ACCC CONDUCTOR INFORMATION CONTINUED

### Large Sizes

USA ACCC Code Name	kcmil	International ACCC Code Name	mm <sup>2</sup>	Outside Diameter in (mm)	"A" Exposed Core Length in (mm)	"B" Exposed Core Length in (mm)
Dallas	1794.9	Antwerp	944.9	1.452 (36.8808)	11.2 (285)	10.2 (260)
Houston	1927.4	Berlin	1006.6	1.504 (38.2016)	11.2 (285)	10.2 (260)
Lapwing	1948.9	Madrid	1013.1	1.506 (38.2524)	11.2 (285)	10.2 (260)
Falcon	2045.1		1036.3	1.545 (39.243)	11.2 (285)	10.2 (260)
Chuckar	2241.5		1135.8	1.604 (40.7416)	11.2 (285)	10.2 (260)
Bluebird	2740.6	Athens	1409.8	1.762 (44.7548)	11.2 (285)	10.2 (260)

**NOTE:** ULS conductors with the same name will be built to the same process as the standard conductors above.

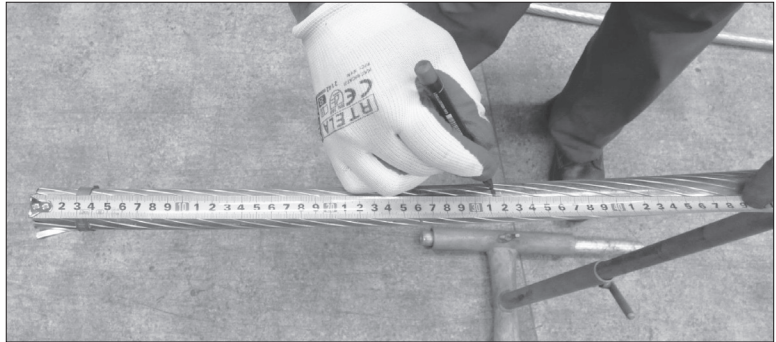
**NOTE: NO TENSION SHOULD BE APPLIED TO THE CONDUCTOR UNTIL THE FULL COMPLETION OF THIS PROCEDURE.**

## SPLICE APPLICATION

- 1 Measure and mark both conductors according to the "Exposed Core Length" columns in the provided table.

**Side A** is the conductor closest to the structure.

**Side B** is the conductor furthest from the structure.



- 2 Apply tape approximately 1" (25 mm) back from each mark to secure the aluminum strands after the cuts are made.

- 3 Cut the outer strands at each mark to expose the composite core.

#### CAUTION

Be careful not to cut or damage the core. Ensure that the core end is not crushed. Failure to follow these instructions could result in a poor connection. PLP recommends using a conductor trimming tool for this step.

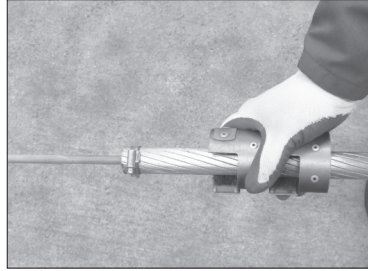


If application is for ACCC AZR, complete the steps in Appendix on both side A and B before moving to Step 4.

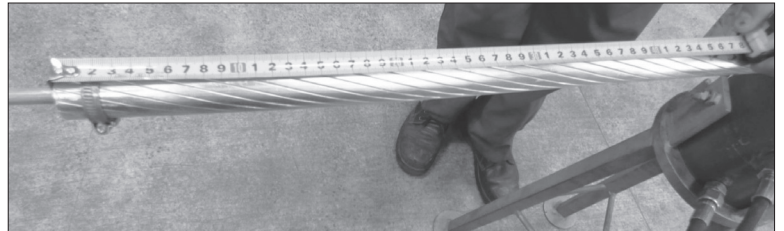
- 4 Use the provided 220-grit sandpaper to lightly rub both sides of the core until they become white. Wipe the outer surface of the core clean with a cloth.



- 5 Clean/wire-brush the entire aluminum area to be covered by the compression hardware and outside of both inner sleeves. Ensure that no residue or surface particles remain.



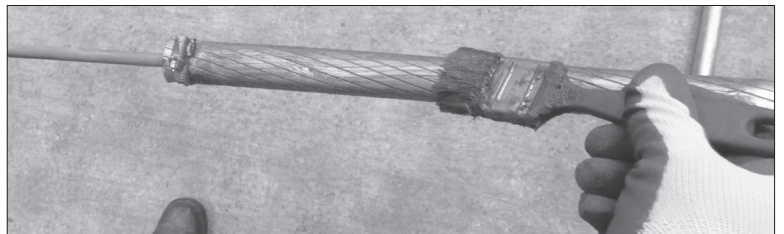
- 6 Mark the conductor on Side A with the inner aluminum sleeve length plus 3/8" (10 mm) from the end of the aluminum strands.



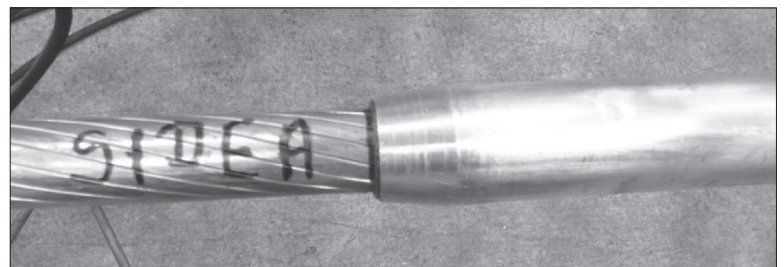
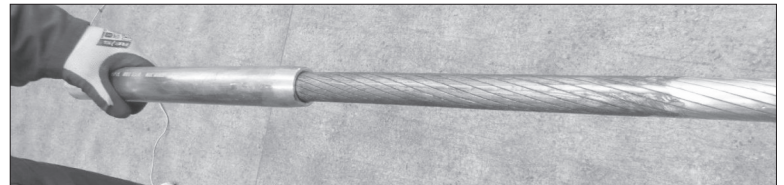
- 7 Apply the supplied oxide inhibitor (grease) to the brushed aluminum strands up to the mark made in Step 6.

**CAUTION**

Only use the supplied oxide inhibitor. Use of any unqualified product may affect function.



- 8 With the tapered end of the inner aluminum sleeve facing the end of the conductor, slide one inner aluminum sleeve onto Side A to the mark made in Step 6.

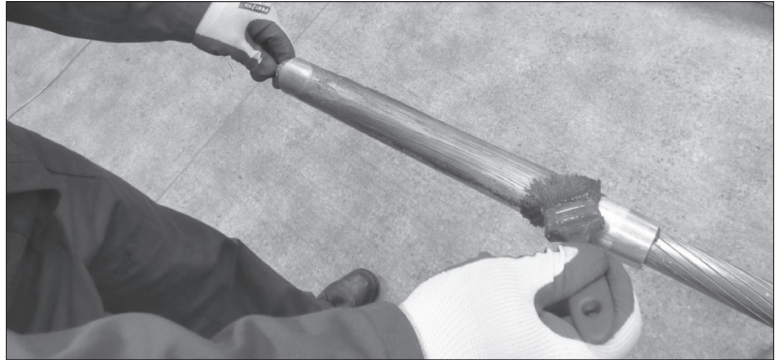


- 9 On Side B, apply inhibitor 3' (1 m) from the trimmed end, then slide inner sleeve onto the conductor up to where the grease stops. Then slide the Outer Aluminum Tube onto the conductor and position over the Inner Aluminum Sleeve.

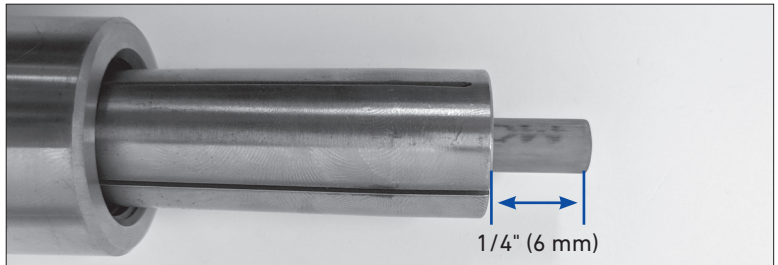
**NOTE:** DO NOT slide the outer aluminum tube past the inner aluminum sleeve.



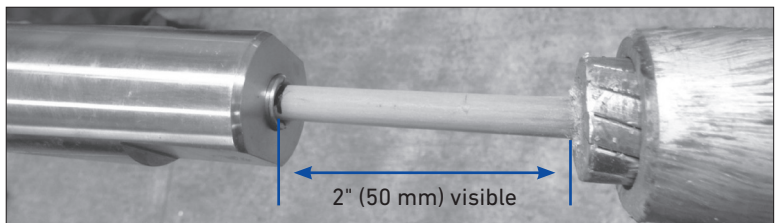
- 10 Apply oxide inhibitor (grease) to the outer surface of both inner aluminum sleeves, excluding the tapered sections.



- 11 Slide both collet housings, with wrench flats facing the conductor, onto the core. Then, slide the collets, narrow end toward the housings, onto the core. 1/4" (6 mm) of the core must be exposed through the back of the collet.

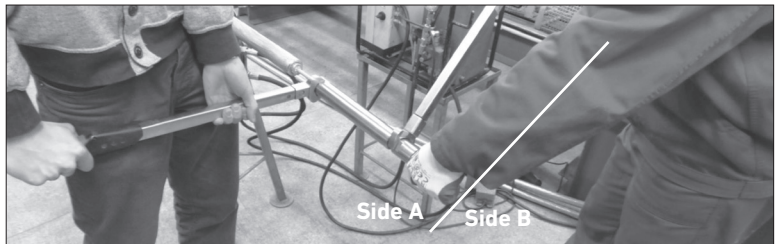


- 12 Install the collet coupler on Side A and the collet retainer on Side B and tighten each by hand. Ensure that the gap between the collet and the aluminum strands is 2" (50 mm).

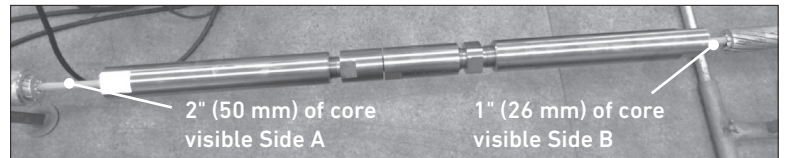
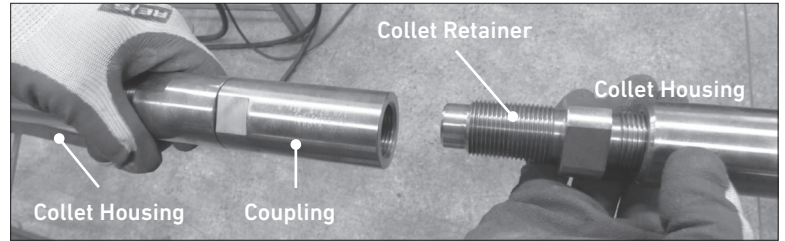


- 13 Use a torque wrench to fully tighten both sides of the coupler to a minimum of 85 ft-lb (115 Nm).

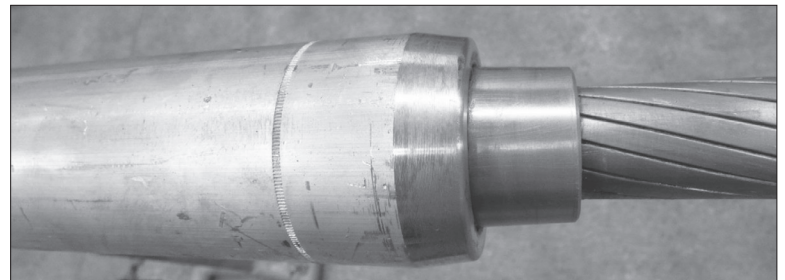
**NOTE:** Do not torque the housings. Hold the housing steady with a wrench while torquing the coupler/retainer.



- 14 Bring the two sides together and hand-tighten the swivel end of the coupling to the other side. Use a torque wrench to fully tighten to a minimum of 85 ft-lb (115 Nm).



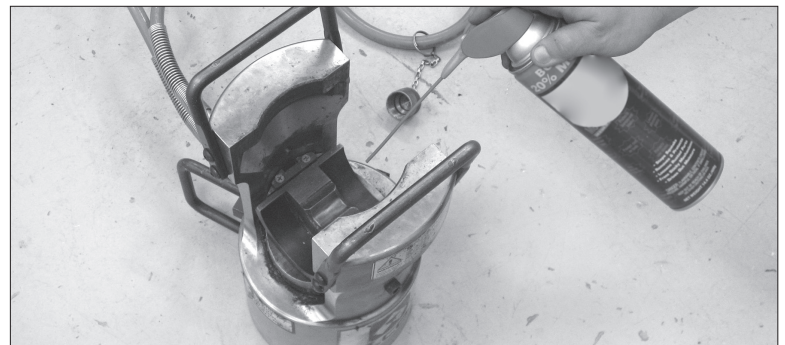
- 15 Slide the outer aluminum tube over the coupling assembly. With the Side A inner aluminum sleeve positioned at the mark made in Step 6, place the outer aluminum tube on the Side A inner aluminum sleeve so that 1" (25 mm) of the sleeve is sticking out.



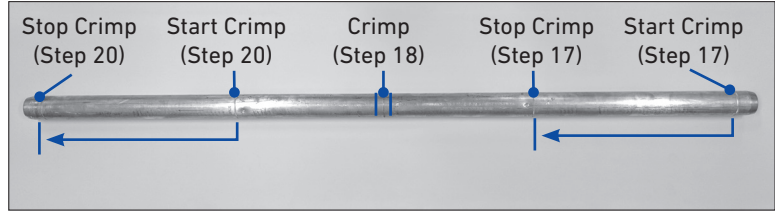
- 16 Ensure that the compression die surfaces are clean and free of burrs or debris. Either lubricate the compression dies with a wet lubricant or apply a dry lubricant to the compression surface of the components. After verifying that the correct die size is being used, begin compressing on the outer aluminum tube at the opposite end of the eye/clevis at the "Start" knurl.

**CAUTION**

Clean dies and sufficient but not excessive lubrication are the most important factors in applying proper compressions and avoiding curvature.

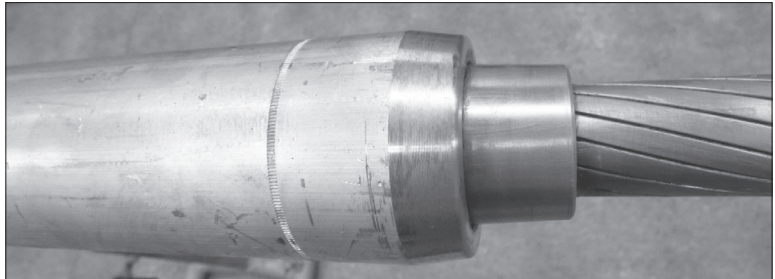


- 17** Install the corresponding die into the press. With the outer tube in place, compress the outer tube beginning at the Side A "Start" knurl, moving inwards toward the end of the compression zone on Side A. Overlap compressions by 1/3 to 1/2 to ensure complete compression and avoid curvature.

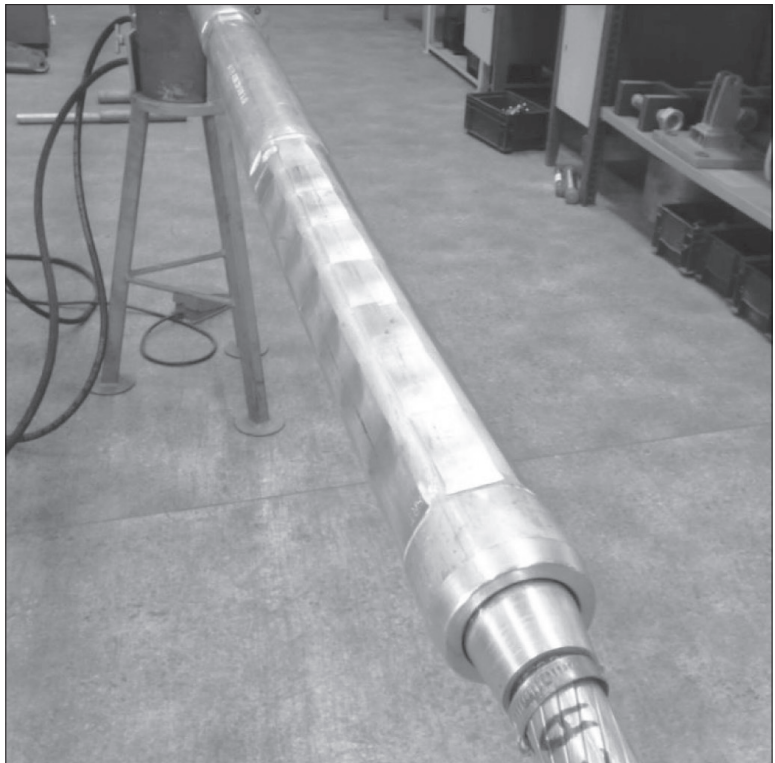


- 18** Compress the middle of the outer tube to the coupling assembly with one compression.

- 19** Slide the inner aluminum sleeve on Side B into the outer aluminum tube until 1" (25 mm) of the inner aluminum sleeve is sticking out.



- 20** Starting at the Side B "Start" knurl and compressing outwards, compress Side B to the "Stop" knurl. Overlap compressions by 1/3 to 1/2 to ensure complete compression and avoid curvature.



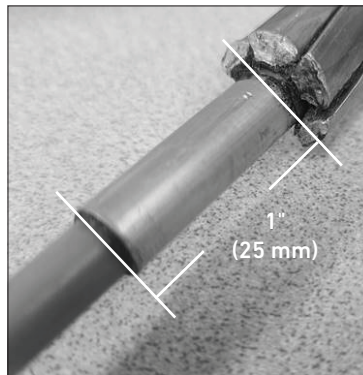
## APPENDIX

**A**

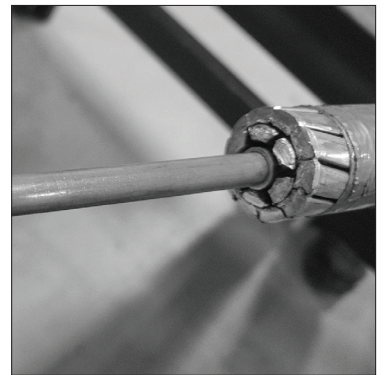
Slide the core protector over the core. Ensure you are leading in with the taper of the tube and gently push in the core protector by hand. **DO NOT** force the core protector, forcing can damage the core protector.


**B**

Slide the core protector installation tool over the core protector. Using a rubber mallet, lightly tap in the core protector until it is Side A 1" (25 mm) from or Side B flush with the conductor strands. **DO NOT** hit the installation tool hard, and keep the tool straight during installation to avoid damaging the core protector.



Side A - 1" (25 mm) Protruding



Side B - Flush







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