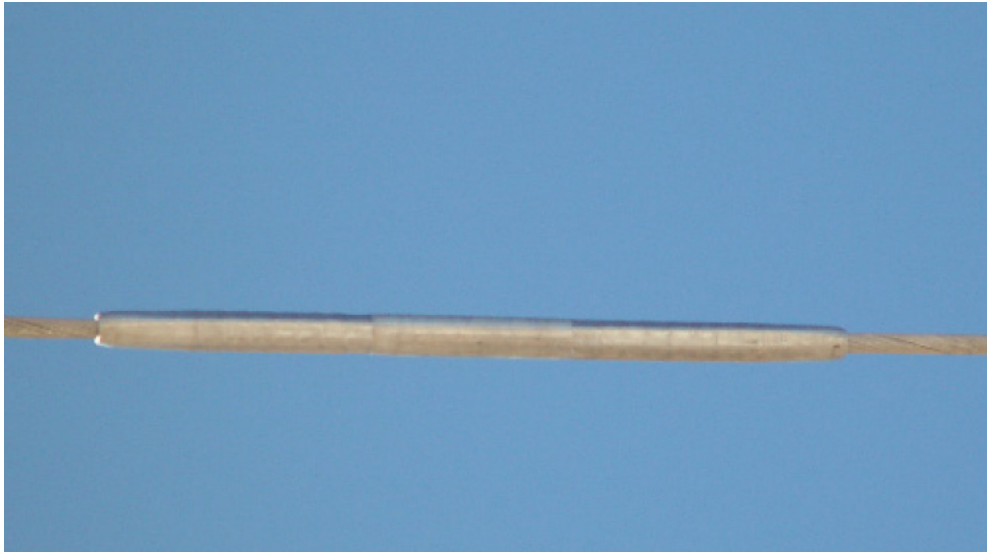


Installation Instructions for AFL Compression Joint Installed on TS HTLS Conductor



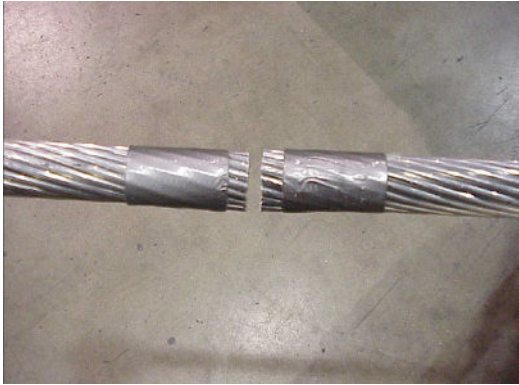
NOTE:

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Preparation

Prior to making connections, the conductor and accessory bore must be clean. Clean conductor strands thoroughly with wire brush or abrasive cloth. (**Wire brush "new" conductor also.**) Check accessory bore for foreign particles, removing if present.

Serve the conductor, prior to cutting, with tape to help maintain the round contour. File a chamfer on the end of the conductor. (The larger the chamfer, the easier the conductor will slide through the joint).



Straighten several feet of the conductor removing the set caused by the reel.

Assembly

Joint Assemblies consist of an Aluminum Body and steel sleeve. The assembly may also contain body filler sleeves.

Installation

Measure back from each conductor and mark at a distance equal to 1/2 the length of the aluminum Joint.



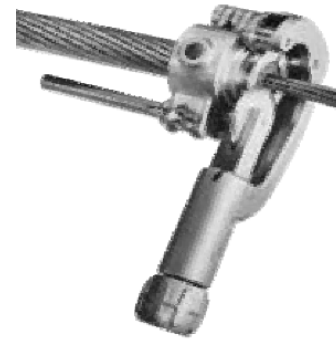
Slide aluminum body over the conductor and beyond mark until sufficient working length protrudes from barrel end. Straightening the conductor as much as possible will also aid in this installation step.



NOTE: If the splice body uses filler sleeves, mark the conductor past half of the splice body at a distance equal to the filler sleeve protrusion.

Suggested method of cutting back aluminum strands

1. Tape location where "cutting back" is needed.
2. Position RIDGID cable trimmer around conductor at the tape location.
3. Cut outer aluminum strands by rotating tool until layer becomes loose.
4. Remove cut outer aluminum layer strand.
5. Bend inner layer wires back and forth until they fracture.
6. Remove the broken wires.



Steel Sleeve Assembly Installation onto Core/Encapsulation

Remove prescribed amount of aluminum stranding from core/ encapsulation(see Table 1 below for the total amount to expose). Ensure the core and encapsulation are not damaged when cutting the inner aluminum strands. This can be achieved by lightly scoring the strands then bending the inner strands back and forth to remove.

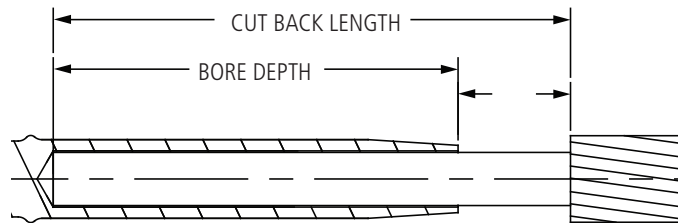


Table 1—Length of Exposed Core for Dead Ends and Splices

AFL SH DIE SIZE	TOTAL EXPOSED CORE/ENCAPSULATION LENGTH (INCH)	TOTAL EXPOSED CORE/ENCAPSULATION LENGTH (MM)
14SH, 16SH, 18SH, 20SH	7.0	180
24SH	13.5	343

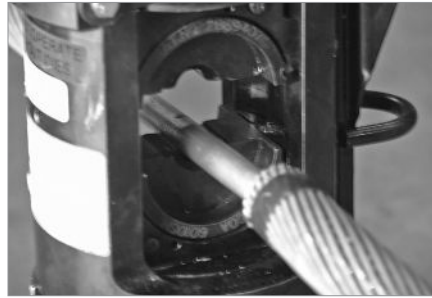
Select die size for compressing steel barrel. The die size on die and die size marked on steel barrel must be the same.

NOTE: 100-ton dies are required when compressing TS Accessories.

Lubricate barrel with "Accu-Lube" or similar lubricant, or cover it with the plastic accessory shipping wrapper to ensure a straight compression barrel.

Using the proper SH die set, compress steel sleeve full length making initial compression over center of sleeve. Press one side completely into the span direction, then go back and repeat process on other side. Overlap each successive compression by at least ¼ inch (6.4 mm) making sure not to rotate the press head or steel sleeve. Complete die closure is required on all compressions, pressing each end of the steel sleeve all the way to each end. Please see three steel sleeve compression photos on following page.

Steel Sleeve Compression



Aluminum Body Compressing

Suggested Arrangement of Compressor and Accessory during Field Installation of Joint

The photo in Setup 1 illustrates setups, which works well to ensure a straight compression and easy maneuverability of the compressor. The photo in Setup 2 shows the conductor has been "tied off" (tensioned with slings and chain hoist) to slacken the conductor at point of installation.



Setup 1

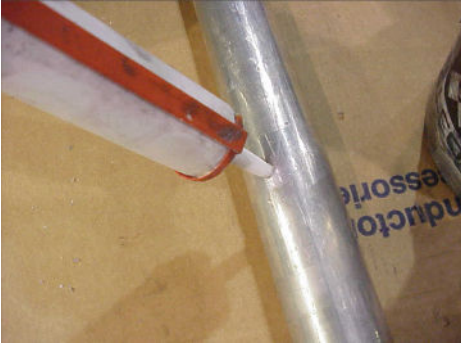
The compressor is attached to the sling by a large shackle (the compressor is suspended upside down). The accessory and cable are tied to the sling ensuring all parts are straight and inline. The compressor can easily be slid along to each successive compression.



Setup 2

The compressor sits on a board, which sets on the rails of the high lift. The board and compressor can be slid along to each successive compression. The accessory and cable must be supported and all parts must be straight and inline or bowing will occur.

Remove tape from ends of aluminum strands and slide aluminum joint over steel sleeve until end of barrel aligns with marks placed on the conductors. This should center the outer aluminum sleeve over the inner sleeve.



Inject AFL Filler Compound, AFCHT or HiTuc, into filler hole. AFL will specify amount needed base on accessory being used – no less than 1.5 tubes are required per joint body. Insert compound, then drive filler plug into hole and peen edge of hole over top surface of plug.

Filler Compound Information

Filler Compound does four things:

1. Protects the compressed barrels from corrosion. The filler compound acts as a barrier to moisture.
2. Contains aluminum particles, which clean the strands (removing oxides) while compressing. Compressing forces the compounds within the strands.
3. Blocks moisture, which can wick up through the strands. Compressing forces the compound throughout the conductor strands.
4. Aids in the holding strength of the accessory.

Note: Main reason for accessory failure is inadequate amount of filler compound in the accessory.

Select AFL die size to compress aluminum splice body. Die size for aluminum splice body and die size marked on the die must be the same. AFL dies are to be used in compressing AFL accessories.

The Joint will bow during compression unless reasonable care is taken to have about 15 ft. (4.5 m) of the conductor supported straight out from the ends of the Joint.

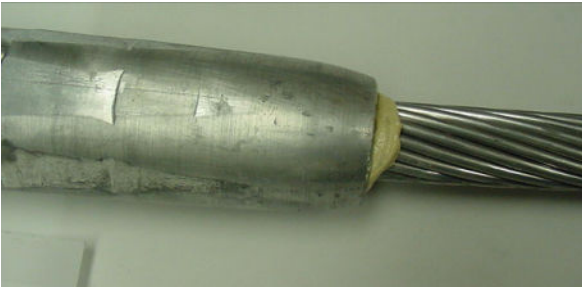


Lubricate area to be compressed from “Start” knurl to end of barrel as illustrated. Lubricate both ends of Joint.

Compression Joint



Make initial compression on either side of Joint starting at the "Start" knurl. Make the second compression on the opposite end of the joint at the other "Start" knurl. Continue making compressions to the end of the joint. **Overlap each successive compression by approximately 0.50 inch (1.27 cm). Do not "skip bite." Complete die closure is required for each compression.** Go back and complete the compressions on the opposite end. The center portion of the Joint is not compressed.



Filler Compound should be visible at end of the barrel during the final compressions (if adequate amount has been pumped in).



Compressed portion of the dead end should have a smooth uniform appearance. Remove flash, if present, with file or emery cloth.

CAUTION: Follow Installation Instructions carefully. Improper installation can result in mechanical failure of the cable system and possible injury to persons handling or in the vicinity of the cable system.