

## **Installation Instructions** Compression Joints on Extra High Strength ACSR Conductors

- 1. Measure back from each conductor end and mark at a distance equal to  $\frac{1}{2}$  the length of the aluminum joint.
- 2. Prior to making connections, the conductor must be wire brushed and accessory bore must be clean. If the conductor is weathered or blackened, carefully unlay aluminum strands for a distance equal to or greater than ½ the length of the aluminum joint and clean strands thoroughly with wire brush or abrasive cloth. Check accessory bore for foreign particles, removing if present.
- 3. Prior to cutting, serve the conductor with tape to help maintain the round contour making it easier to slide the end through the joint and filler sleeve.
- 4. Straighten several feet of conductor removing set caused by reel.
- 5. Slide the aluminum filler sleeve over conductor end beyond mark.
- 6. Slide the aluminum joint over other conductor end beyond mark. End with staked if filler sleeve first.
- Cutback aluminum strands on each conductor end a distance equal to ½ the length of the steel joint plus one inch (25.4 mm). Do not nick steel strands. File burrs as necessary for ease of insertion.
- 8. Insert ends of steel core into the steel joint making sure the ends butt solidly against center stop.
- 9. Select die size for compression steel joint. The die size on die and die size marked on steel joint must be the same.
- 10. Compress steel joint full length making initial compression over center stop. Overlap each successive compression by approximately 1/4 die bits. Complete die closure is required for each compression.
- 11. Remove tape from ends of aluminum strands. Slide the aluminum joint over the installed steel joint and center between the two marks on the cable.
- 12. Slide the aluminum filler sleeve into the aluminum joint until ends of the filler sleeve and aluminum joint are flush.
- 13. Inject AFL Filler Compound (AFC) into filler hole at end of joint until compound is visible at both ends of joint. Insert drive filler plug into hole and peen edge of hole over top surface of plug.
- 14. Select die size to compress aluminum joint. Die size for aluminum joint and die size marked on die must be the same.
- 15. 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 both ends of the joint such that the eight of the conductor does not hang unsupported from the end of the joint when compressing.
- 16. 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 one end of the joint overlapping the previous compression by approximately 1/4 die bite. Complete die closure is required for each compression. Go back and complete the compression on the opposite end. The center portion of the joint is not compressed. It is recommended that die grooves be well lubricated with a light weight oil. Oil coating should be maintained during entire compression operation.
- 17. Compressed portion of the joint 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 systems.









