

# APPLICATION PROCEDURE & SAFETY CONSIDERATIONS **PREFORMED LINE PRODUCTS**

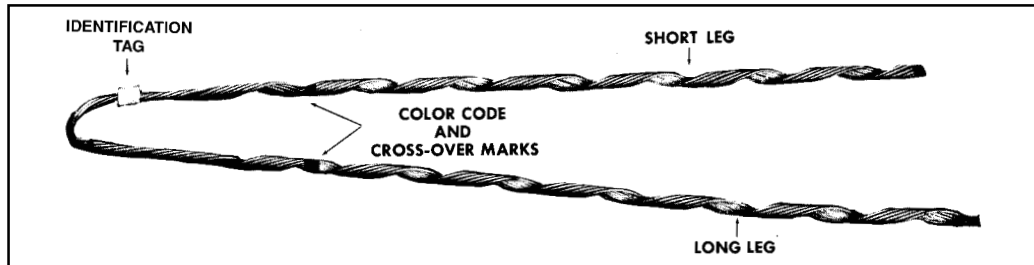


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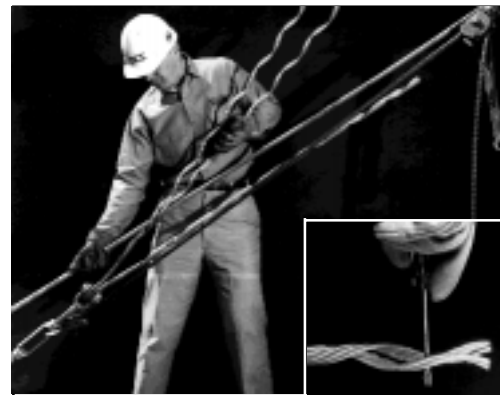
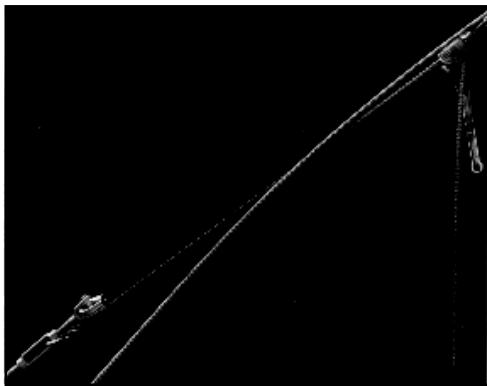
## **BIG-GRIP DEAD-END**

Be sure to completely read and understand this procedure before applying product. Be sure to select the proper size PREFORMED™ product before application.

### 1.00 NOMENCLATURE

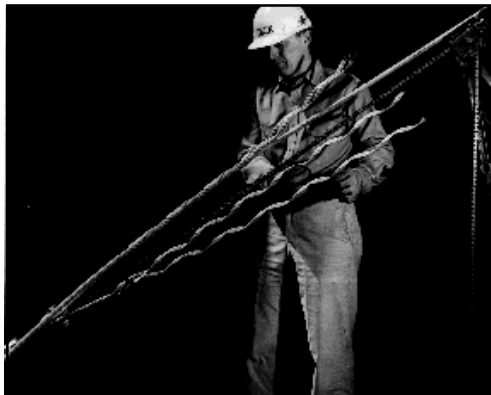


### 2.00 DESCRIPTION



2.01 Pretension the guy.

2.02 Insert the dead-end through the fitting, then split one leg (see inset) into two sections back to the crossover mark as shown. Begin the application at the crossover mark.

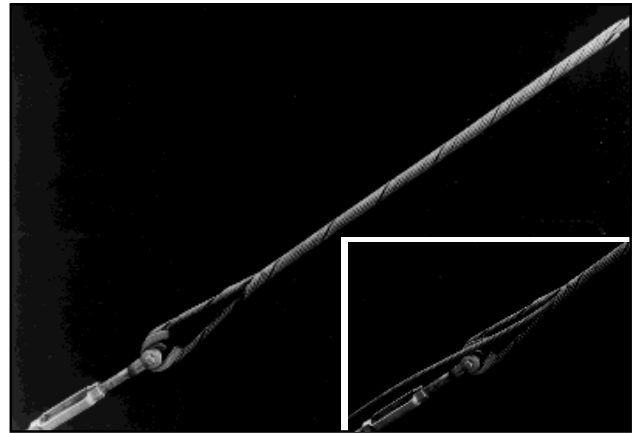


2.03 Wrap on the first leg one section at a time for two-thirds of its length. Then split the second leg back to the crossover mark.

2.04 Align the crossovers marks and make one or two wraps of the upper section. Next, do the same with the lower section. Then apply each section alternately, one wrap at a time, until the second leg is applied for two-thirds of its length.



**2.05** Now complete the application of the dead-end one section at time, applying the short leg first. (This method allows the ends to be snapped into place more easily.)



**2.06** A completed application. (Be sure that all rod ends are snapped into place.) For appearance and safety, the strand tail should be cut as close as convenient to the crossover mark. If desired, the strand tail can, instead, extend through the loop for grounding purposes. (see insert)

### GENERAL NOTES

1. PREFORMED Big-Grip dead-ends are precision devices. To insure a tight assembly, they should be handled carefully. To prevent distortion and damage, they should be installed as illustrated.
2. Big-Grip dead-ends provide a mechanical termination only for the guy strand. Separate clamps and cable should be employed for grounding the strand or for any other electrical connectivity requirements.
3. Big-Grip dead-ends should be stored in cartons under cover until used. Shelf storage is recommended.
4. Care should be taken to avoid gouging or damaging the corrosion preventative material.
5. Big-Grip dead-ends should be used only on the size and type of strand for which they are designed.
6. Big-Grip dead-ends must have the same lay direction as the strand to which they are applied.
7. Big-Grip dead-ends should not be used on hardware which allows the strand to rotate or spin about its axis, such as a swivel.
8. Big-Grip dead-ends should not be applied with tools. They should be applied by hand. However, a screwdriver may be used as an aid in splitting the legs as shown in Photo #2 inset.
9. When splitting the legs, do not make more than two subsets (split sections) from each leg.
10. CAUTION: Big-Grip dead-ends must not be used as tools; for example, come-alongs or pulling-in grips.
11. After original installation, Big-Grip dead-ends may be removed and reapplied two times, if necessary, for the purpose of retensioning guys. If removal is necessary after a Big-Grip dead-end has been installed for a period greater than 3 months, it should be replaced with a new one.
12. Big-Grip dead-ends are designed to be applied over smoothly contoured hardware. The dimensions of this hardware for various sizes of Big-Grip dead-ends are listed in Table 1. Heavy-Duty-Type Cable Thimbles, if used, can collapse when guy tensions are high. If thimbles are used in the loop of the Big-Grip dead-end, a large pin is recommended to fill the loop of the thimble to prevent distortion. The collapsing strength of the thimble and the proper pin size should be obtained from the thimble manufacturer. Refer to Table 1.
13. If in doubt about fittings or applications, contact your factory representative.

**HARDWARE ACCESSORIES DIMENSIONS  
TABLE 1**

Strand Diameter (inches)	Nominal Strand (inches)	Seat Dimensions (inches)		Minimum Groove Diameter (inches)	Minimum Hardware Hole Diameter (inches)	Thimble Size (inches)	Pin Diameters (inches)		Double Extra Strong Weight Pipe (inches)		
		Min.	Max.				Min.	Max.	Nominal Size	O.D.	I.D.
.174-.203	3/16	1	*(2-1/2) 1-3/4	1/4	3/8	7/16-3/8	5/8	1	3/4	1.050	.614
.204-.230	7/32	1-1/8	*(2-1/2) 1-3/4	5/16	3/8	7/16-3/8	5/8	1	3/4	1.050	.614
.231-.259	1/4	1-1/8	*(2-1/2) 1-3/4	5/16	7/16	1/2	1	1-3/8	1	1.315	.815
.260-.291	9/32	1-1/8	*(2-1/2) 1-3/4	3/8	1/2	1/2	1	1-3/8	1	1.315	.815
.292-.336	5/16	1-1/4	*(2-1/2) 1-3/4	3/8	9/16	1/2	1	1-3/8	1	1.315	.815
.337-.394	3/8	1-3/8	*(2-1/2) 1-3/4	7/16	5/8	1/2	1	1-3/8	1	1.315	.815
.395-.426	N	1-3/8	*(2-1/2) 2	1/2	11/16	1/2	1	1-3/8	1	1.315	.815
.427-.474	7/16	1-3/8	2-3/8	1/2	11/16	1/2	1	1-3/8	1	1.315	.815
.475-.515	1/2	1-3/8	2-3/8	9/16	3/4	5/8	1	1-5/8	1-1/4	1.66	.896
.516-.570	9/16	1-1/2	2-5/8	5/8	15/16	5/8	1-1/8	1-5/8	1-1/4	1.66	.896
.571-.635	5/8	2	2-5/8	3/4	1	3/4	1-1/2	1-7/8	1-1/4	1.66	.896
.636-.772	3/4	2-1/2	3-1/8	7/8	1-3/16	7/8	1-7/8	2-1/8	1-1/2	1.9	1.1
.773-.868	-	2-1/2	3-5/8	1	1-3/8	1	2	2-3/8	2	2.375	1.503
.869-1.024	1	3	4-1/8	1	1-3/8	1-1/8-1-1/4	2-3/8	2-3/4	2	2.375	1.503
1.025-1.27	-	3-1/2	5-1/8	1-3/8	1-3/4	1-1/4-1-3/8	2-3/4	3-1/4	2-1/2	2.875	1.771
1.30	-	4	5-1/8	1-3/8	1-15/16	1-3/8-1-1/2	2-7/8	3-3/8	2-1/2	2.875	1.771
Figure 1.		Figure 2.		Figure 3.		Figure 4.		Figure 5.		Figure 6.	
*Depending on geometric shape on the hole, a hole diameter less than specified may be acceptable.											

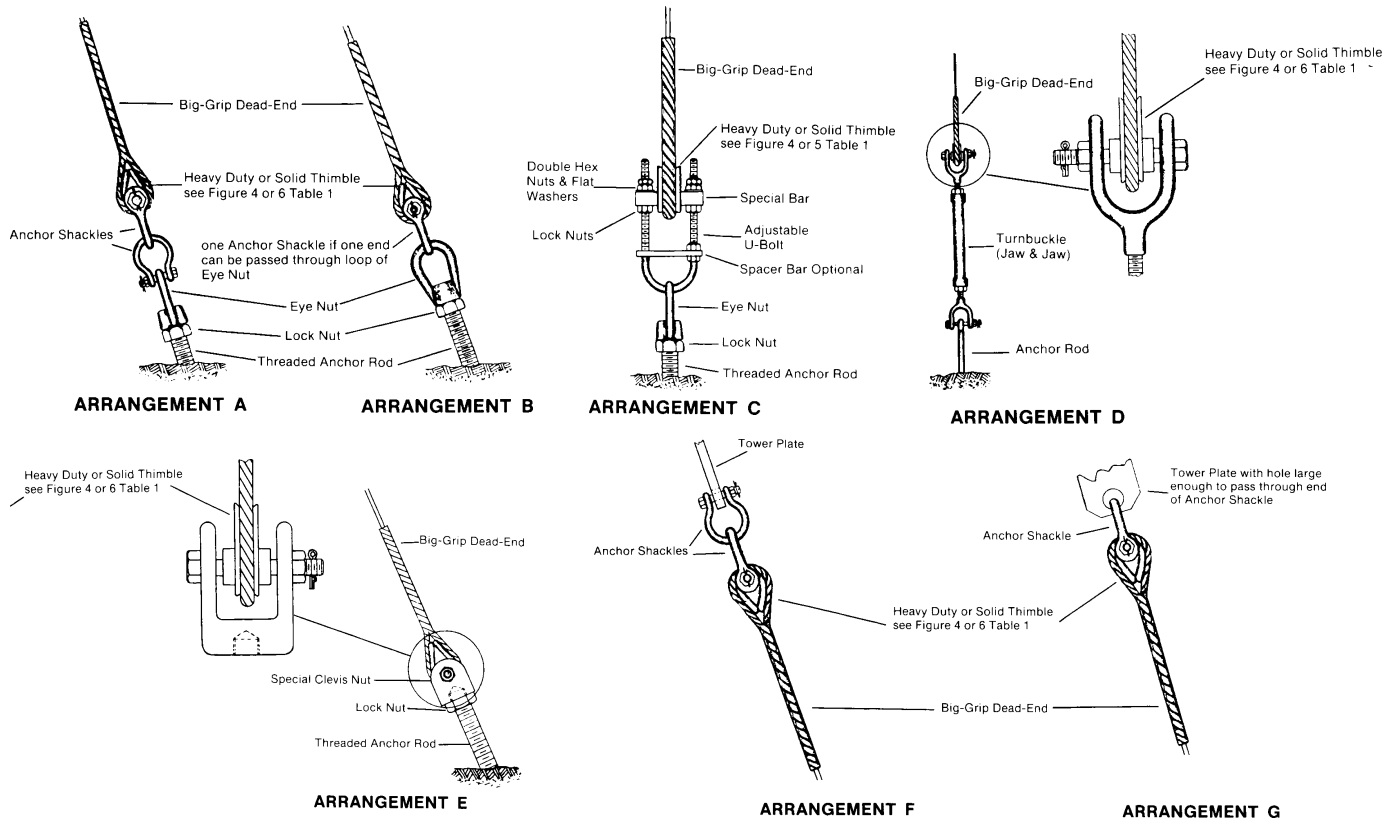
If thimbles are used, only Heavy-Duty-Type Cable Thimbles are recommended. (See General Note 11)

\*( ) Dimensions listed in parenthesis indicate Big-Grip dead-ends that are applied at the second cross-over mark.

Severe dead-end abrasion can result when high velocity winds load one side of a guyed structure causing the guy on the leeward side to slack off to a low tension. These winds cause a lightly loaded dead-end to cyclically load and unload against the connecting hardware and can ultimately result in damaging abrasion. In order to keep the guys from going slack during high wind loading, we recommend that guy tensions be maintained at a minimum of 10% of the

strand's published rated breaking strength. Also recommended is the inclusion of articulated hardware at the Big-Grip dead-end attachment. The articulated hardware illustrated in arrangements A,B,C,D,E,F, and G will reduce the abrasion on the dead-end hardware interface when the guy is subjected to cyclic loading conditions. The articulated hardware transfers the wear to the massive hardware which can sustain this type of cyclic motion.

### ARTICULATED HARDWARE RECOMMENDED FOR USE WITH BIG-GRIP DEAD-ENDS



#### SAFETY CONSIDERATIONS

1. This Application Procedure is not intended to supersede any company construction or safety standards. This procedure is offered only to illustrate safe application for the individual. **CAUTION: FAILURE TO FOLLOW THESE PROCEDURES AND RESTRICTIONS MAY RESULT IN PERSONAL INJURY OR DEATH.**
2. This product is intended for a single (one-time) use and for the specified application, although it may be reapplied twice for retensioning within 90 days of initial installation. **CAUTION: DO NOT REUSE OR MODIFY THIS PRODUCT AFTER 90 DAYS UNDER ANY CIRCUMSTANCES.**
3. This product is intended for use by trained craftspeople only. This product **SHOULD NOT BE USED** by anyone who is not familiar with and trained in the use of it.
4. When working in the area of energized lines with this product, **EXTRA CARE** should be taken to prevent accidental electrical contact.
5. For **PROPER PERFORMANCE AND PERSONAL SAFETY** be sure to select the proper size **PREFORMED™** Big-Grip dead-end before application.
6. **PREFORMED™** Big-Grip dead-ends are precision devices. To insure proper performance, they should be stored in cartons under cover and handled carefully.