



VARI-GRIP™ DEAD-END

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.

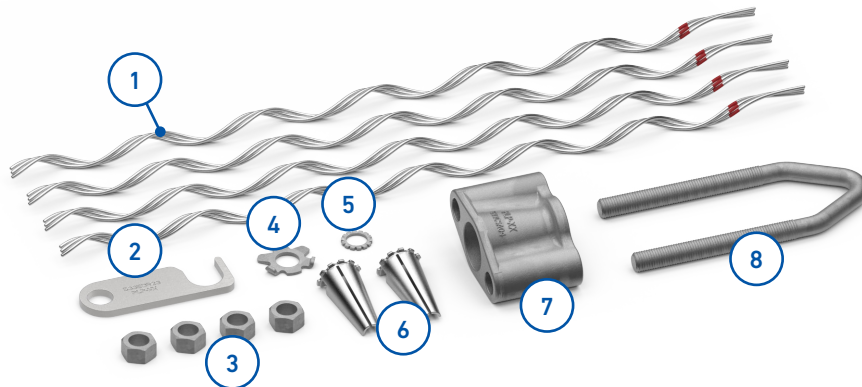
This product is intended for use by trained technicians only. This product should not be used by anyone who is not familiar with and not trained to use it. When working in the area of energized lines, extra care should be taken to prevent accidental electrical contact. Be sure to wear proper safety equipment 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.



WARNING

PLP Products are not designed or tested for uses other than those set forth herein. This includes, but is not limited to, rope/challenge courses, aerial adventures, canopy tours, and zip line applications. If PLP Products are used in such applications, they may be subjected to forces and stresses for which they are not designed, and which could result in **SERIOUS INJURY OR DEATH**.

PACKAGE COMPONENTS



- | | |
|--|---|
| 1. Retaining Rods | 7. Housing |
| 2. Space Bar (supplied with all models using 1-1/8" and smaller U-Bolts) | 8. U-Bolt |
| 3. Hex Nuts | 9. Guy Strand (not pictured) [extends 2" {50 mm} below wedge] |
| 4. Anti-Tamper Washer | 10. Conformal Casting (not pictured [supplied with all models using 1-1/2" and 1-3/4" U-Bolts]) |
| 5. Spring Lock Washer | 11. Anchor or Fitting (not pictured) |
| 6. Wedges | |

1 Pretension guy strand with hoist attached high enough to permit installation of retaining rods.

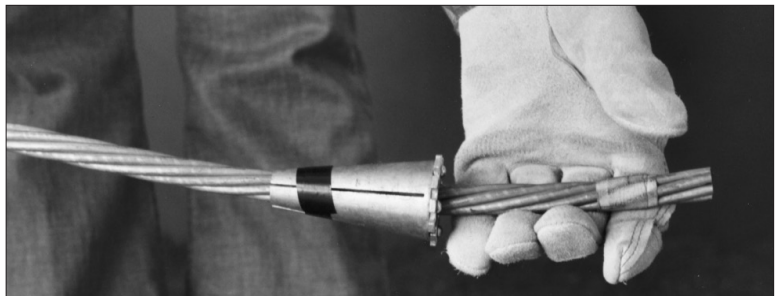
2 Insert U-Bolt through anchor or fitting. Installation of adjustable modules may require removal and replacement of spacer bar and associated hex nuts.



3 Place housing on U-Bolt at the desired location, with the larger opening of the tapered bore facing the fitting. Mark strand at lower end of housing and cut strand at least 2" (50 mm) beyond mark. If desired, the strand may be left uncut and extended beyond the mark as far as necessary. Move housing on strand and temporarily fasten it far enough away to permit installation of retaining rods.



4 Attach both wedges on strand, with a single wrap of tape near the mark and at least 2" (50 mm) from the end of the strand. The larger end of the edges should face the fitting.

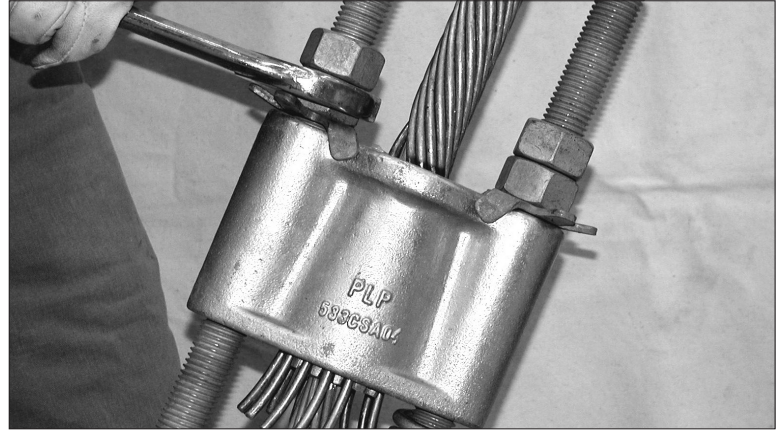


5 Installation of the retaining rods is as follows: Place the straight end of the rods (color code end) in the notches of the wedges so at least 1/8" (3 mm) extends beyond the wedge. Wrap rod subset on strand completely and repeat procedure for subsequent subsets. All rods should be placed into the grooves on the wedge. A screwdriver can be used to equalize gap between the wedge halves.



6 Slide housing over wedge/rod assembly and onto the U-Bolt until it is firmly seated over the wedge.

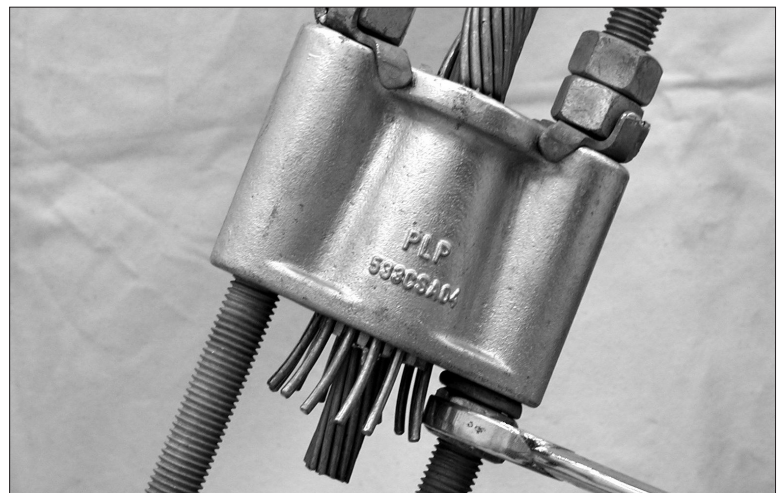
7 Apply anti-tamper washers and four (4) hex nuts on U-Bolt as illustrated to the right. The two pre-bent lips, on the anti-tamper washer, fit over the housing. Tighten hex nuts equally so the housing is square on U-Bolt.



8 After final tensioning, secure the nuts closest to the housing by bending the anti-tamper washer lip over them. These lips may be rebent for disassembly and reassembly.



9 Tighten hex nut below housing until spring lock washer is flat. The application is now complete. If retensioning is required, reverse and repeat steps 7, 8, and 9. To aid in disassembly of the wedge/housing unit, strike the bottom of the housing with a hammer.



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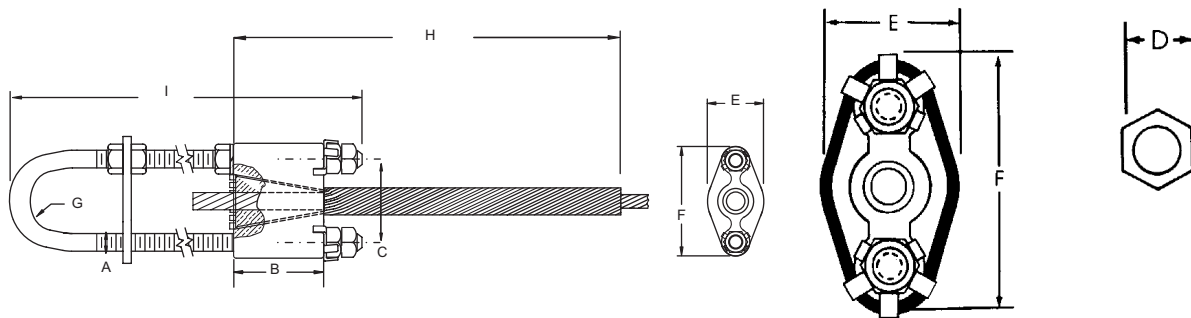
Tighten hex nut below housing until spring lock washer is flat. The application is now complete. If retensioning is required, reverse and repeat steps 7, 8, and 9. To aid in disassembly of the wedge/housing unit, strike the bottom of the housing with a hammer.



APPENDIX: ACCEPTABLE PIN DIAMETERS

Strand Range	U-Bolt Diameter	Minimum	Maximum
0.438" - 0.500"	5/8"	5/8"	1-1/8"
0.546" - 0.661"	3/4"	3/4"	1-1/8"
0.744" - 0.914"	1"	1"	1-1/4"
0.915" - 1.034"	1-1/8"	1-1/8"	1-3/8"
1-1/8" EHS 1 BS 61#7 61#6	1-1/2"	4"	4"
61#5 91#6	1-3/4"	4"	4-1/2"

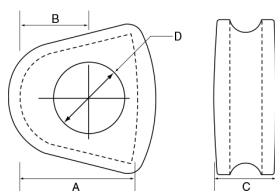
APPENDIX: DIMENSIONAL DATA



Strand Range	A	B	C	D	E	F	G	H	I (0")	I (18")
0.438" - 0.500"	5/8"	3-1/4"	3-1/4"	1-1/16"	3-17/32"	4-3/4"	15/16"	Refer to the VARI-GRIP™ Dead-End section of the PLP catalog to determine rod lengths for specific designs	N/A	29-9/16"
0.546" - 0.661"	3/4"	3-1/2"	3-9/16"	1-1/8"	2-13/16"	5-3/16"	19/32"		11-11/16"	28-5/16"
0.744" - 0.914"	1"	4-1/2"	4-3/4"	1-1/2"	3-5/16"	6-11/16"	5/8"		12-11/16"	33-3/16"
0.915" - 1.034"	1-1/8"	4-15/16"	5-3/8"	1-5/8"	3-5/8"	7-5/8"	3/4"		14"	33-1/2"
1.25" - 1.460"	1-1/2"	7-1/4"	7-1/8"	2-5/16"	5-1/4"	10-1/8"	2-1/16"		20-3/4"	39-15/16"
1.5" - 1.64"	1-3/4"	7-1/4"	8-3/16"	2-5/8"	5-9/16"	11-11/16"	2-1/2"		22-1/2"	42-3/4"
1.78"	1-3/4"	8-3/4"	8-3/16"	2-5/8"	6-5/8"	12-3/8"	2-1/2"		22-1/2"	42-3/4"

APPENDIX: CONFORMAL CASTING

SUPPLIED WITH DEAD-ENDS USING 1-1/2" AND 1-3/4" U-BOLTS TO ENSURE PROPER SUPPORT



Strand Sizes	U-Bolt Thread Diameter	A	B	C	D
1-1/8" EHS, 1-1/4" EHS, 37#6, 61#8, 37#5, 61#7, 1" BS, 1-1/16" BS, 1-1/8" BS, 1-3/16" BS	1-1/2"	5"	2.75"	2.875"	2.875"
61#6, 1-1/4" BS, 1-5/16" BS, 1-3/8" BS, 1-7/16" BS	1-1/2"	5"	3"	2.875"	3.125"
61#5, 1-1/2" BS	1-3/4"	5.844"	3.75"	3.375"	3.625"
91#6	1-3/4"	5.844"	4"	3.375"	3.875"



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