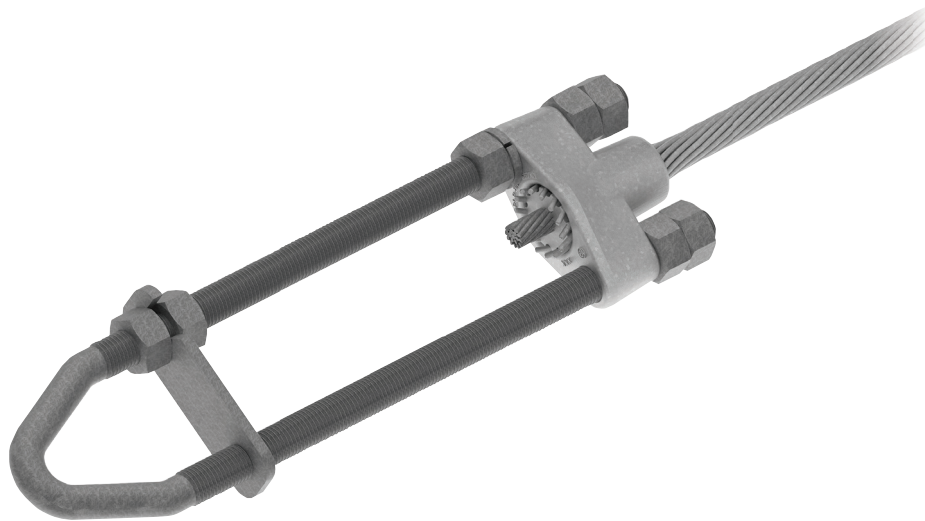




VARI-GRIP™ DEAD-END

The **VARI-GRIP Dead-End**, designed for transmission, antenna, and communications guyed structures, features a unique housing, wedge, and rod assembly that is designed to provide a holding strength of 100% of the strand's rated breaking strength. The high-strength U-bolt allows for adjusting the guy strand tension without the need for a turnbuckle.

The **VARI-GRIP Gen2 Dead-End** (available for select applications) allows for proper U-bolt support without the need for conformed castings. The new Gen2 design is also lighter while still maintaining the same holding strength features as the standard design.

FEATURES AND BENEFITS

VARI-GRIP Dead-End

- Retaining rods are made from a material that is compatible with the guy strand material (e.g., aluminum-clad steel rods for aluminum-clad steel guy strand)
- Available for strand sizes of .438" - 1.780" (20,800 lb - 295,500 lb)
- Take-up U-bolts in sizes 0" and 18" are available for most strand sizes

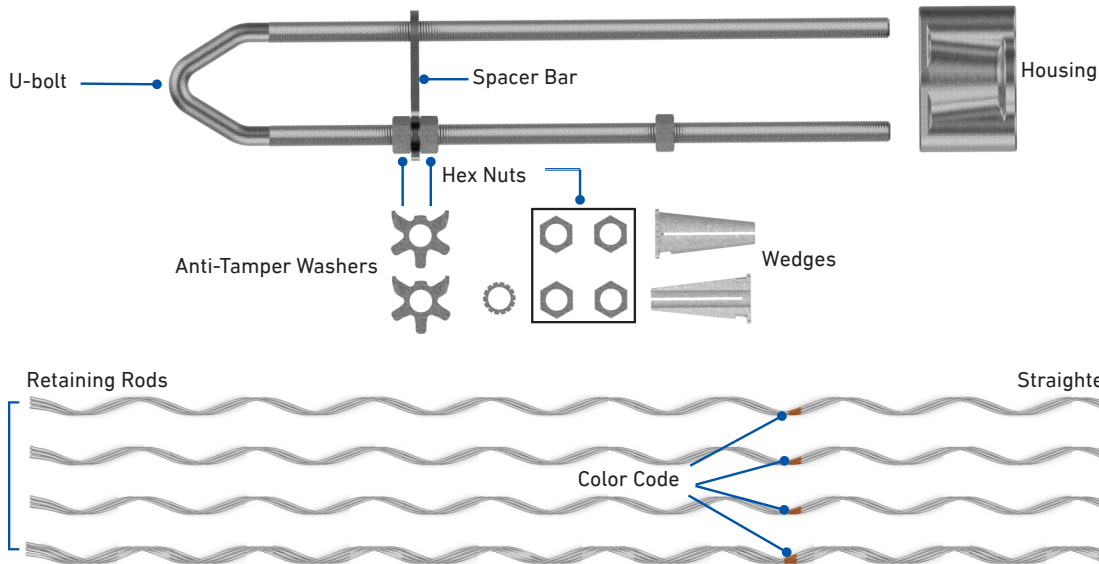
VARI-GRIP Gen2 Dead-End

- Allows for proper U-bolt support without the need for conformed castings
- Lighter design while still maintaining the same holding strength features as the standard design

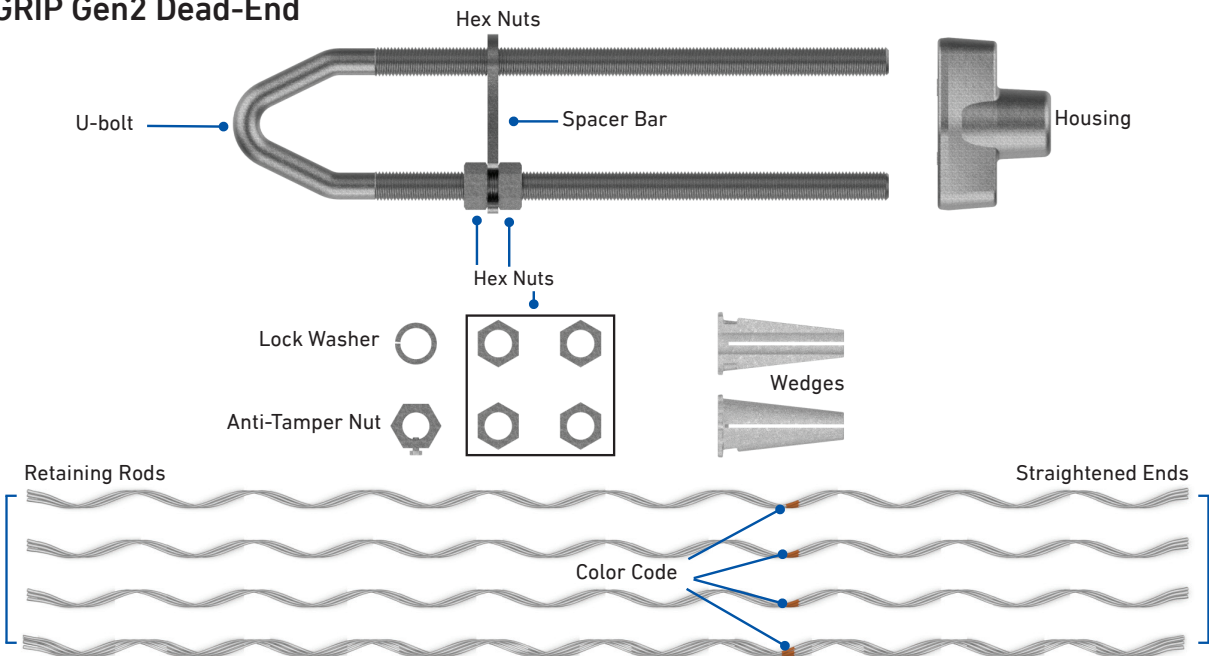
CAUTION: VARI-GRIP Dead-Ends are not acceptable for use on wire rope applications.

COMPONENTS

VARI-GRIP Dead-End



VARI-GRIP Gen2 Dead-End



Component	Material/Description
U-bolt	Galvanized Steel
Housing	VARI-GRIP: Galvanized Ductile Iron, VARI-GRIP Gen2: Galvanized Steel
Wedges	Aluminum
Spacer Bar	Galvanized Steel (supplied with adjustable models only, except for standard VARI-GRIP models with conformal 1-1/2 and 1-3/4 U-bolts which use castings. Gen2 designs do not use conformal castings)
Nuts & Washers	Galvanized Steel
Retaining Rods	Galvanized Steel for Galvanized Steel Strand, Aluminum-covered Steel for Aluminum-covered Steel Strand
Color Code	Identifies strand size



STRAND COMPATIBILITY

The retaining rods are made from a material that is compatible with the guy strand material (e.g., aluminum-clad steel rods for aluminum-clad steel guy strand). Where guying requirements call for strands not shown on the catalog pages, consult PLP.

CAUTION: VARI-GRIP Dead-Ends are not acceptable for use on wire rope applications.

VARI-GRIP Dead-Ends should be used only on the size and strand for which they are designed. The VARI-GRIP Dead-End Retaining Rods **MUST** have the same lay direction as the strand to which they are applied.

ATTACHMENT FITTINGS

When installing VARI-GRIP Dead-Ends to a pin or other linkage, refer to the table below for minimum and maximum diameters. The minimum dimension indicates the smallest fitting that will ensure support of the U-bolt, while the maximum dimension indicates the largest fitting that will fit through the U-bolt.

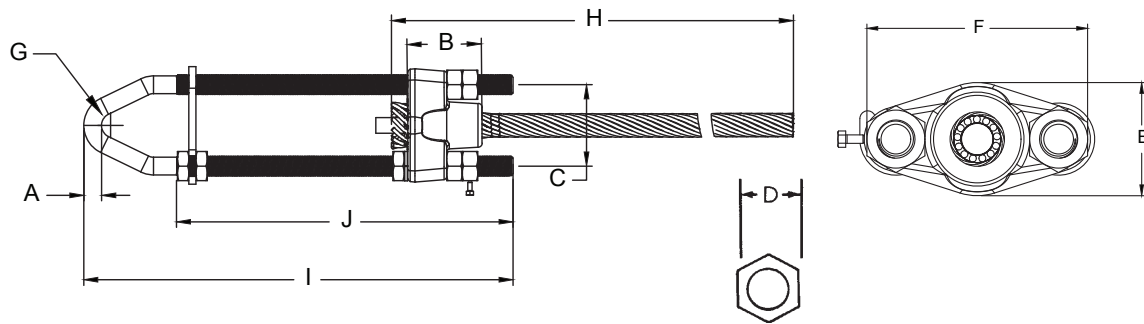
Acceptable Pin Diameters for VARI-GRIP Dead-End

Strand Range	U-bolt Diameter	Minimum	Maximum
in	in	in	in
.438 – .500	5/8	5/8	1-1/8
.546 – .661	3/4	3/4	1-1/8
.744 – .914	1	1	1-1/4
.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

Acceptable Pin Diameters for VARI-GRIP Gen2 Dead-End

Strand Range	U-bolt Diameter	Minimum	Maximum
in	in	in	in
.744 – .888	1	1	1-1/4
1 – 1.125	1-1/8	1-1/8	1-1/2

SPECIFICATIONS



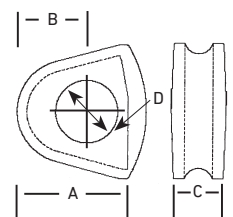
Strand Range	U-bolt Diameter										Design
	A	B	C	D	E	F	G	H	I (0 in)	I (18 in)	
	in										
.438 – .500	5/8	3-1/4	3-1/4	1-1/16	3-17/32	4-3/4	15/16	See Rod Length in table on next page	N/A	29-9/16	Std
.546 – .661	3/4	3-1/2	3-9/16	1-1/8	2-3/16	5-3/16	19/32		11-11/16	28-5/16	Std
3/4, 7/8	1	4-1/2	4-1/2	1-5/8	3-1/8	6-1/4	11/16		18-5/8	23-7/8	Gen2
.744 – .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	Std
.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	Std
1, 1-1/8	1-1/8	4-1/3	5-1/2	1-31/32	3-3/4	7-5/8	7/8		26-3/4	27-15/16	Gen2
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	Std
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	Std
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	Std

ACCESSORIES

Conformal Casting

Catalog Number	Strand Sizes	U-bolt Diameter	A	B	C	D
		in				
V1SBG	1-1/8" 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
V1TBG	61#6, 1-1/4" EHS, 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
V1VBG	61#5, 1-1/2" BS	1-3/4	5.844	3.75	3.375	3.625
V1WBG	91#6	1-3/4	5.844	4	3.375	3.875

NOTE: To be used with Standard VARI-GRIP Dead-End only. Gen2 VARI-GRIP Dead-Ends do not require Conformal Castings. (Supplied with Dead-Ends using 1-1/2" and 1-3/4" U-bolts to ensure proper support. Be sure that the VARI-GRIP Dead-End selected matches the material, lay direction and strength of the strand being used.





ORDERING INFORMATION

Aluminum-Clad Steel Strand (Left-Hand Lay)

Catalog Number	Catalog Number	Nominal Strand Range		Nominal Strand Size	Construction	U-bolt Diameter	Rods per Set	Rod Length	Subset	Color Code	Rated Holding Strength	Design
		Minimum	Maximum									
0" Take-Up	18" Take-Up	in	in	in		in		in			lb	
N/A	VG-18-3000	0.546	0.546	N/A	7#5	3/4	12	26	3-3-3-3	Yellow	27,030	Std
N/A	VG-18-3100	0.572	0.572	N/A	19#9	3/4	11	28	3-4-4	Orange	34,290	Std
VG-0-3101	VG-18-3101	0.636	0.661	N/A	19#8	1	11	32	3-4-4	Black	42,240	Std
VG-0-3102	VG-18-3102	0.713	0.741	N/A	19#7 37#10	1	12	35	3-3-3-3	Yellow	51,730 52,950	Std
VG-0-3103BR	VG-18-3103BR	0.800	0.810	N/A	19#6 37#9	1	12	46	3-3-3-3	Green	61,700 66,770	Gen2
VG-0-3104BR	VG-18-3104BR	0.893	0.903	N/A	37#8	1	12	54	3-3-3-3	Yellow	84,200	Gen2
VG-0-3105BR	VG-18-3105BR	0.904	0.914	N/A	19#5	1	12	54	3-3-3-3	Yellow	73,350	Gen2
VG-0-3106BR	VG-18-3106BR	0.911	0.921	N/A	61#10	1-1/8	13	54	3-3-3-4	Yellow	87,290	Gen2
VG-0-3107BR	VG-18-3107BR	1.000	1.010	N/A	37#7	1-1/8	14	58	3-3-4-4	Green	100,700	Gen2
VG-0-3108BR	VG-18-3108BR	1.024	1.034	N/A	61#9	1-1/8	14	76	3-3-4-4	Purple	110,100	Gen2
VG-0-3109BR	VG-18-3109BR	1.130	1.130	N/A	37#6	1-1/8	14	86	3-3-4-4	Yellow	120,200	Gen2
VG-0-3110	VG-18-3110	1.160	1.160	N/A	61#8	1-1/2	14	98	3-3-4-4	Orange	138,800	Std
VG-0-3111	VG-18-3111	1.270	1.270	N/A	37#5	1-1/2	16	105	4-4-4-4	Red	142,800	Std
VG-61#7-0	VG-61#7-18	1.300	1.300	N/A	61#7	1-1/2	16	106	4-4-4-4	Blue	166,100	Std
VG-61#6-0	VG-61#6-18	1.460	1.460	N/A	61#6	1-1/2	18	116	3-3-4-4-4	Green	198,100	Std
VG-61#5-0	VG-61#5-18	1.640	1.640	N/A	61#5	1-3/4	20	129	4-4-4-4-4	Orange	235,500	Std
VG-91#6-0	VG-91#6-18	1.780	1.780	N/A	91#6	1-3/4	18	165	3-3-4-4-4	Red	295,500	Std

Galvanized Steel Extra High-Strength Strand (Left-Hand Lay)

Catalog Number	Catalog Number	Nominal Strand Range		Nominal Strand Size	Construction	U-bolt Diameter	Rods per Set	Rod Length	Subset	Color Code	Rated Holding Strength	Design
		Minimum	Maximum									
0" Take-Up	18" Take-Up	in	in	in		in		in			lb	
N/A	VG-18-2101	0.459	0.500	1/2	7W or 19W	5/8	12	30	3-3-3-3	Blue	26,900	Std
VG-0-2108	VG-18-2108	0.559	0.563	9/16	7W or 19W	3/4	11	28	3-4-4	Yellow	35,000	Std
VG-0-2102	VG-18-2102	0.621	0.625	5/8	7W or 19W	3/4	11	31	3-4-4	Black	42,400	Std
VG-0-2103BR	VG-18-2103BR	0.744	0.754	3/4	1x19W	1	12	44	3-3-3-3	Orange	58,300	Gen2
VG-0-2104BR	VG-18-2104BR	0.878	0.888	7/8	1x19W	1	13	58	3-3-3-4	Green	79,700	Gen2
VG-0-2105BR	VG-18-2105BR	1.000	1.010	1	19W or 37W	1-1/8	14	66	3-3-4-4	Blue	104,500	Gen2
VG-0-2106BR	VG-18-2106BR	1.125	1.125	1-1/8	37W	1-1/8	14	95	3-3-4-4	Yellow	130,800	Gen2
VG-0-2107	VG-18-2107	1.250	1.250	1-1/4	37W	1-1/2	16	103	4-4-4-4	Red	162,200	Std

ORDERING INFORMATION

Galvanized Steel Bridge Strand

Left-Hand Lay

Catalog Number	Catalog Number	Nominal Strand Range		Nominal Strand Size	Construction	U-bolt Diameter	Rods per Set	Rod Length	Subset	Color Code	Rated Holding Strength	Design
		Minimum	Maximum									
0" Take-Up	18" Take-Up	in	in	in		in		in			lb	
VG-0-4104BR	VG-18-4104BR	0.813	0.813	13/16	1 X 19	1	12	54	3-3-3-3	Red	80,000	Gen2
VG-0-2104BR	VG-18-2104BR	0.875	0.875	7/8	1 X 19	1	12	58	3-3-3-4	Green	92,000	Gen2
VG-0-4106BR	VG-18-4106BR	0.938	0.938	15/16	19W, 31W or 37W	1-1/8	14	63	3-3-4-4	Black	108,000	Gen2
VG-0-2105BR	VG-18-2105BR	1.000	1.000	1.000	19W or 31W	1-1/8	14	66	3-3-4-4	Blue	122,000	Gen2
VG-0-4108BR	VG-18-4108BR	1.063	1.063	1-1/16	1 X 31	1-1/8	14	91	3-3-4-4	Green	138,000	Gen2
VG-0-2106BR	VG-18-2106BR	1.125	1.125	1-1/8	37W	1-1/8	14	95	3-3-4-4	Yellow	156,000	Gen2
VG-0-4109	VG-18-4109	1.187	1.187	1-3/16	1 X 37	1-1/2	15	99	3-4-4-4	Orange	172,000	Std
VG-0-2107	VG-18-2107	1.250	1.250	1-1/4	1 X 43	1-1/2	16	103	4-4-4-4	Red	192,000	Std
VG-0-4110	VG-18-4110	1.313	1.313	1-5/16	1 X 43	1-1/2	17	107	3-3-3-3-3-2	Black	212,000	Std
VG-0-4111	VG-18-4111	1.375	1.375	1-3/8	1 X 43	1-1/2	17	110	3-3-3-3-3-2	Orange	232,000	Std
VG-0-4112	VG-18-4112	1.438	1.438	1-7/16	1 X 43	1-1/2	18	114	3-3-3-3-3-3	Green	252,000	Std
VG-0-4113	VG-18-4113	1.500	1.500	1-1/2	1 X 43	1-3/4	16	119	3-3-3-3-2-2	Pink	276,000	Std

Right-Hand Lay

Catalog Number	Catalog Number	Nominal Strand Range		Nominal Strand Size	Construction	U-bolt Diameter	Rods per Set	Rod Length	Subset	Color Code	Rated Holding Strength	Design
		Minimum	Maximum									
0" Take-Up	18" Take-Up	in	in	in		in		in			lb	
VG-0-5104BR	VG-18-5104BR	0.813	0.813	13/16	1 X 19	1	12	54	3-3-3-3	Red	80,000	Gen2
VG-0-5105BR	VG-18-5105BR	0.875	0.875	7/8	1 X 19	1-1/8	13	58	3-3-3-4	Green	92,000	Gen2
VG-0-5106BR	VG-18-5106BR	0.938	0.938	15/16	19W, 31W or 37W	1-1/8	14	63	3-3-4-4	Black	108,000	Gen2
VG-0-5107BR	VG-18-5107BR	1.000	1.000	1	19W or 31W	1-1/2	14	66	3-3-4-4	Blue	122,000	Gen2
VG-0-5108BR	VG-18-5108BR	1.063	1.063	1-1/16	1 X 31	1-1/8	14	91	3-3-4-4	Green	138,000	Gen2
VG-0-5109BR	VG-18-5109BR	1.125	1.125	1-1/8	1 X 37	1-1/8	14	95	3-3-4-4	Yellow	156,000	Gen2
VG-0-5110	VG-18-5110	1.187	1.187	1-3/16	1 X 37	1-1/2	15	99	3-4-4-4	Orange	172,000	Std
VG-0-5111	VG-18-5111	1.250	1.250	1-1/4	1 X 43	1-1/2	16	103	4-4-4-4	Red	192,000	Std
VG-0-5112	VG-18-5112	1.313	1.313	1-5/16	1 X 43	1-1/2	17	107	3-3-3-3-3-2	Black	212,000	Std
VG-0-5113	VG-18-5113	1.375	1.375	1-3/8	1 X 43	1-1/2	17	110	3-3-3-3-3-2	Orange	232,000	Std
VG-0-5114	VG-18-5114	1.438	1.438	1-7/16	1 X 43	1-1/2	18	114	3-3-3-3-3-3	Green	252,000	Std
VG-0-5115	VG-18-5115	1.500	1.500	1-1/2	1 X 43	1-3/4	16	119	3-3-3-3-2-2	Pink	276,000	Std