

BIG-GRIP DEAD-END

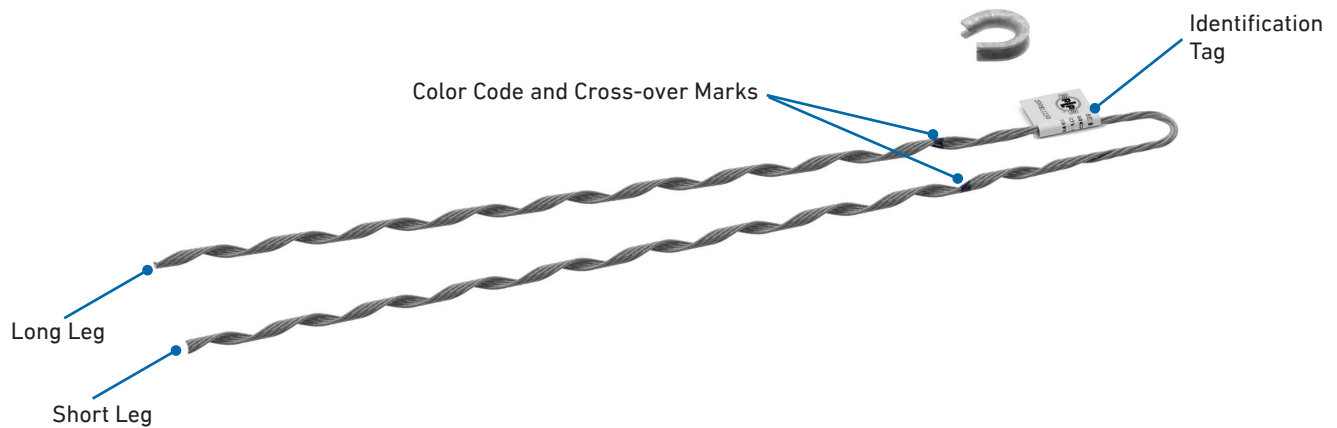
Big-Grip Dead-Ends are designed for use on transmission, antenna, communications, and other types of guyed structures that require use of large guy strand.

FEATURES AND BENEFITS

- Big-Grip Dead-Ends are designed at 100% of the rated breaking strength of the strand unless otherwise specified. (Test data available on request. Reference: TR-634-E)
- Made from material that is compatible with the strand they are designed to be used with except where noted otherwise
- 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 MODIFY OR REUSE THIS PRODUCT WITHIN 90 DAYS OF INITIAL INSTALLATION.
BIG-GRIP DEAD-ENDS ARE NOT ACCEPTABLE FOR USE ON WIRE ROPE APPLICATIONS.

COMPONENTS



Component	Description
Cross-over Mark	Indicates starting point for application.
Product Identification Tag	Shows catalog number, nominal sizes.
Color Code	Assists in identifying strand size, corresponding to tabular information appearing on catalog pages.
Short Leg	Identifies rods belonging to each leg, after application. During application, the short leg should be applied first.
Long Leg	Identifies rods belonging to each leg, after application. During application, the long leg should be applied second.

STRAND COMPATIBILITY

Big-Grip Dead-Ends should be used only on the size and strand for which they are designed. They must have the same lay direction and made from the same material as the strand to which they are applied.

- When ordering Big-Grip Dead-Ends, make sure to specify the strand diameter, lay direction, and material on which it is to be used.
- When using types of strand and/or sizes of strand not mentioned in these catalog pages, consult PLP for compatible Big-Grip Dead-End designs.



HARDWARE ACCESSORY GUIDELINES

For hardware and hardware dimensions to be used in conjunction with Big-Grip Dead-Ends, refer to Table 1 on the next page.

Big-Grip Dead-ends should not be used on hardware that allows the strand to rotate or spin about its axis uncontrolled. Adjustable hardware, such as a turnbuckle, may be used as long as rotational movement of the strand is restricted. Consult PLP for additional information concerning adjustable hardware that can be used with Big-Grip Dead-ends.

Hardware used in conjunction with Big-Grip Dead-Ends should have smooth contours, ample groove clearances, acceptable diameters, and sufficient strength to minimize abrasion and fatigue of the loop area.

Table 1, Figures 1-6 illustrate some of the possible hardware and the dimensions that may be used with Big-Grip dead-ends:

- Figure 1 and Table 1 illustrate minimum and maximum acceptable seat diameters to which the Big-Grip Dead-end can be applied.
- Figure 2 and Table 1 illustrate seat diameters and minimum groove diameters.
- Figure 3 and Table 1 illustrate minimum hardware hole diameters.
- If not using PLP's Heavy-Duty Thimbles, only heavy-duty type wire rope thimbles or solid Hawser type thimbles are recommended for use with Big-Grip Dead-ends. (Refer to Figures 4, 5, and 6)
- Heavy-duty type wire rope thimbles can collapse when guy tensions are high. In order to support and protect the loop area of the Big-Grip Dead-end, special precautions are necessary.
- To prevent collapse of the thimble, either a Hawser type thimble (Figure 4), a large pin inside the thimble (Figure 5), or a smaller pin (such as a shackle pin) plus double extra strong weight pipe or equivalent (Figure 6) is necessary. Double extra strong weight pipe, which has increased wall thickness and strength over schedule 160 pipe, does not have a schedule number but information can be obtained from a pipe supplier. Thimble strengths and dimensions can be obtained from a thimble supplier.

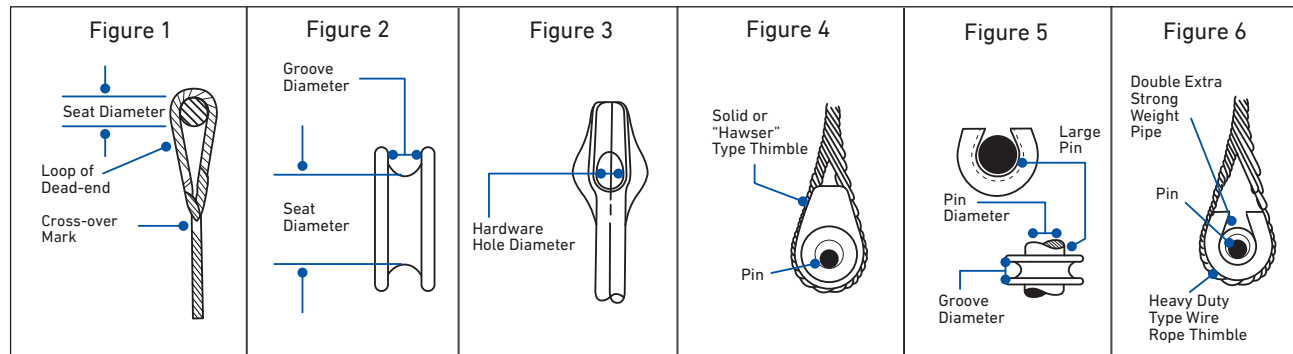
PLP suggests guy tensions be maintained at a minimum of approximately 10% of the strand's Rated Breaking Strength (RBS).

When in doubt about installations, hardware, or applications, contact a PLP representative.

HARDWARE ACCESSORY GUIDELINES

TABLE 1

Big-Grip Dead-End Hardware Accessories Dimensions									Double Extra Strong Weight Pipe Fig. 6		
(All Dimensions in Inches)											
Dead-End Diameter Range	Nominal Strand Sizes	Fig. 1 & 2 Seat Dimensions		Fig. 2 Minimum Groove Diameter	Fig. 3 Minimum Hardware Hole Diameter*	Heavy Duty Thimble Size	Fig. 4 & 5 Pin Diameters				
		Minimum	Maximum				Min	Max			
.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-.474	7/16	1-3/8	(2-1/2) 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	7/8 or 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



* Depending on geometric shape of the hole, the legs of the Big-Grip Dead-Ends may insert into the hole diameter less than specified.



ORDERING INFORMATION

For Use On: Extra High-Strength; Siemens Martin High-Strength Utilities Grade

Catalog Number	Size	Strand Construction	Actual Diameter	BG per Carton	BG per Carton	Approx. Length	Color Code	Rated Holding Strength	Percent of Strand's Rated Breaking Strength
	in		in	Units	wt/lb	in		lb	
BG-2140	1/8	7W	.123	100	11	14	Blue	1,830	100%
BG-2142	3/16	7W	.186	100	33	23	Red	3,990	100%
BG-2144	1/4	3W 7W	.259 .240	50	25	27	Yellow	6,650	100%
BG-2145	9/32	7W	.279	50	29	30	Blue	8,950	100%
BG-2146	5/16	3W 7W	.312 .312	50	41	33	Black	11,200	100%
BG-2147	3/8	3W 7W	.356 .360	25	33	37	Orange	15,400	100%
BG-2148	7/16	7W	.435	25	47	40	Green	20,800	100%
BG-2115	1/2	7W or 19W	.495 or .500	20	63	49	Blue	26,900	100%
BG-2116	9/16	7W or 19W	.564 or .565	10	48	55	Yellow	35,000	100%
BG-2111	5/8	7W or 19W	.621 or . 625	10	65	64	Black	7W 42,400 19W 40,200	100% 100%
BG-1112	3/4	19W	.750	5	54	76	Orange	58,300	100%
BG-1113	7/8	19W	.885	5	76	90	Green	79,700	100%
BG-1114	1	19W or 37W	1.000 or 1.001	3	76	125	Blue	19W 104,500 37W 92,430	100% 90%+

Left-hand lay is standard.

+ Down-Rated for 37 stranding (1994)

EXPLANATORY NOTES:

- (1) For strand sizes smaller than 1/2", refer to the GUY-GRIP® Dead-End.
- (2) Reference Table 1 earlier in this section for acceptable fitting dimensions.
- (3) Cabled loop design is furnished as standard for all sizes.
- (4) Rated Holding Strengths (RHS) of the Big-Grip Dead-Ends are listed for each strand and are expressed as a percent of the strand's Rated Breaking Strength (RBS).
- (5) C-Coat galvanized steel is standard for all Big-Grip Dead-Ends unless otherwise stated.
- (6) B-Coat galvanized steel is used for the Big-Grip Dead-Ends used on 3/4", 7/8", and 1" strand.
- (7) The Aluminum Clad Steel version of the 7/8" and 1" Big-Grip Dead-End are still available as Catalog Number BGMS7023 (7/8") and Catalog Number BGMS7047 (1").
- (8) Consult PLP for sizes and stranding not shown.

ORDERING INFORMATION

For use on: Aluminum Clad Steel Strand

Catalog Number	Strand Diameter Ranges		Nominal Strand Size	BG Per Carton		Approx. Length	Color Code	Rated Holding Strength	Percent of Strand's Rated Breaking Strength
	Min	Max		Units	Wt/Lb				
BG-4202	.174	.181	3 # 12	100	22	19	Orange	2,850	100%
BG-4208	.219	.230	4M 3 # 10	50	21	22	Green	4,532	100%
BG-4210	.237	.247	7 # 12 6M	50	22	24	Yellow	6,000	100%
BG-4213	.270	.280	3 # 8 8M	50	24	27	Blue	8,000	100%
BG-4216	.303	.313	3 # 7 10M 5/16 7 # 10	50	32	29	Black	10,000	100%
BG-4220	.343	.355	3 # 12.5M 11/32 7 # 9	50	45	32	Yellow	12,500	100%
BG-4221	.350	.364	14M	50	60	35	Blue	14,000	100%
BG-4223	.380	.394	3 # 5 3/8 7 # 8 16M	50	62	36	Orange	16,000	100%
BG-4225	.410	.426	18M	25	43	39	Black	18,000	100%
BG-4226	.427	.442	7/16 7 # 7	25	44	40	Green	19,060	100%
BG-4227	.443	.459	20M	25	57	41	Yellow	20,000	100%
BG-4168	.475	.494	7 # 6	25	60	42	Blue	22,730	100%
BG-4169	.495	.515	19 # 10	25	62	44	Green	27,190	100%
BG-4170	.516	.536	25M	20	66	47	Red	25,000	100%
BG-4171	.537	.555	7 # 5	20	67	48	Yellow	27,030	100%
BG-4172	.556	.570	-	15	68	49	Blue	33,330	
BG-4173	.571	.591	19 # 9	20	68	50	Orange	34,290	100%
BG-4174	.592	.612	-	16	50	50	Green	34,450	
BG-4175	.613	.635	-	10	49	54	Yellow	45,000	
BG-4176	.636	.661	19 # 8	10	50	56	Black	43,240	100%
BG-4177	.662	.686	19 x .1363"	10	66	59	Blue	47,400	100%
BG-4178	.687	.712	-	10	68	61	Red	54,200	
BG-4179	.713	.741	19 # 7 37 # 10	10	70	63	Black	51,730 50,300	100% 95%+
BG-4180	.742	.772	19 x .1499"	5	41	71	Yellow	54,300	100%

The Following Products Are For The Specific Cables Listed

Catalog Number	Actual Diameters							
BG-4181	.792	19 x .1584"	5	50	80	Blue	59,000	
BG-4183	.801, .810, .827	37 # 9 19 # 6 19 x .1660"	5	69	84	Green	63,430 61,700 63,000	(95%)+ (100%) (100%)
BG-4185	.849, .850, .866	37 x .121" 19 x .170" 19 x .173" 37 x .123"	5	68	87	Black	71,250 66,000 68,500 74,100	(95%)+ (100%) (100%) (95%)+
BG-4186	.899	37 # 8	5	76	91	Yellow	80,000	(95%)+
BG-4187	.910 .934	19 # 5 19 x .1868"	5	78	93	Blue	73,350 75,000	(100%) (100%)
BG-4188	.981	37 x .1404"	4	52	95	Red	90,250	(95%)+
BG-4189	1.01	37 # 7	4	85	108	Green	90,600	(90%)+
BG-4190	1.10	37 x .1571"	3	84	117	Black	101,700	(90%)+
BG-4191	1.134	37 # 6	3	86	120	Yellow	108,200	(89%)
BG-4192	1.27	37 # 5	2	82	151	Red	127,000	(89%)

Left-hand lay is standard.

+ Down-Rated for 37 stranding (1994)

EXPLANATORY NOTES:

- (1) For strand sizes smaller than 7#6, refer to the GUY-GRIP® Dead-End.
- (2) "Nominal Strand Size" indicates the strand which fits within the "Strand Diameter Range".
- (3) Reference Table 1 earlier in this section for acceptable fitting dimensions.
- (4) Cabled loop design is furnished as standard for all sizes.
- (5) Rated Holding Strengths (RHS) of the Big-Grip Dead-Ends are listed for each strand and are expressed as a percent of the strand's Rated Breaking Strength (RBS).
- (6) Consult PLP for sizes and stranding not shown.



ORDERING INFORMATION

For use on Galvanized Steel Structural Strand (Bridge)

Left-hand lay

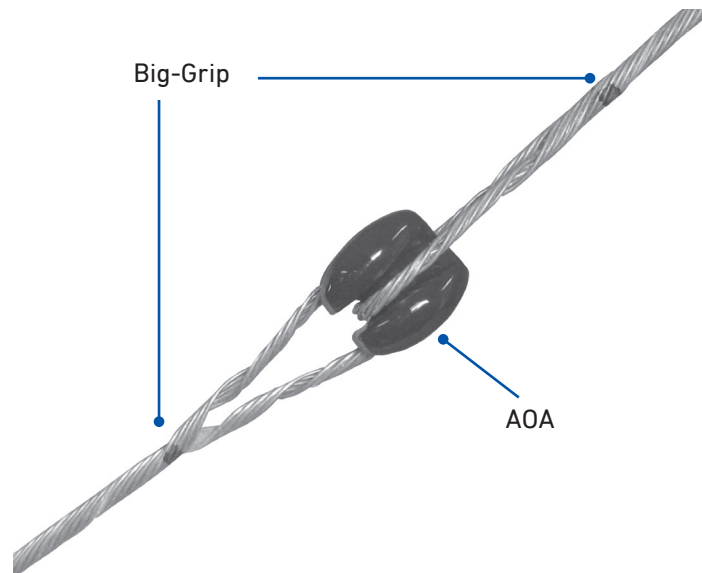
Catalog Number	Big-Grip Made From:	Strand Construction	Nominal Strand Size	BG Per Carton	BG Per Carton	Approx Length	Number of Individual Rods in Each Big-Grip	Color Code	Cables Published Rated Breaking Strength	Big-Grip Rated Holding Strength
			in	Units	Wt/lb	in			lb	lb
BG-MS-6599	C-Coat Galvanized Steel	19W	1/2	10	39	52	5	Orange	30,000	30,000
BG-MS-7648	C-Coat Galvanized Steel	19W	9/16	10	49	55	5	Yellow	38,000	38,000
BG-MS-6446	B-Coat Galvanized Steel	19W	5/8	10	77	67	4	Black	48,000	48,000
BG-MS-1035	C-Coat Galvanized Steel	19W	11/16	5	54	74	5	Blue	58,000	58,000
BG-MS-3690	Aluminum Clad Steel Strand	19W	3/4	5	69	84	4	Orange	68,000	68,000
BG-MS-2759	Aluminum Clad Steel Strand	19W	13/16	5	73	85	5	Red	80,000	80,000
BG-MS-7346	Aluminum Clad Steel Strand	19W	7/8	3	58	94	5	Orange	92,000	92,000
BG-MS-7656	Aluminum Clad Steel Strand	19W	15/16	3	74	121	5	Blue	108,000	101,300

Right-hand lay

Catalog Number	Big-Grip Made From:	Strand Construction	Nominal Strand Size	BG Per Carton	BG Per Carton	Approx Length	Number of Individual Rods in Each Big-Grip	Color Code	Cables Published Rated Breaking Strength	Big-Grip Rated Holding Strength
			in	Units	Wt/lb	in			lb	lb
BG-MS-0717	C-Coat Galvanized Steel	19W	1/2	10	39	52	5	Orange	30,000	30,000
BG-MS-6604	C-Coat Galvanized Steel	19W	9/16	10	49	55	5	Blue	38,000	38,000
BG-MS-2617	B-Coat Galvanized Steel	19W	5/8	10	77	67	4	Black	48,000	48,000
BG-MS-6654	C-Coat Galvanized Steel	19W	11/16	5	54	74	5	Green	58,000	58,000
BG-MS-0704	Aluminum Clad Steel Strand	19W	3/4	5	69	84	4	Black	68,000	68,000
BG-MS-0721	Aluminum Clad Steel Strand	19W	13/16	5	73	85	5	Red	80,000	80,000
BG-MS-5548	Aluminum Clad Steel Strand	19W	7/8	3	58	94	5	Orange	92,000	92,000
BG-MS-7260	Aluminum Clad Steel Strand	19W	15/16	3	74	121	5	Blue	108,000	101,300

ORDERING INFORMATION

For Use On: Extra High-Strength; Siemens Martin High-Strength Utilities Grade
Used with AOA Guy Strain Insulators



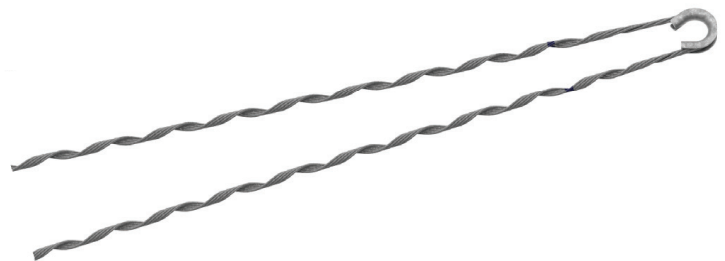
Catalog Number	Strand RTS (lb)	Strand Size	Loop Diameter	Rated Loop Breaking Strength (lb)
AOA-35			Seat Diameter = 2-7/16"	
BG-MS-5767	20,800	7/16"	2.875"	22,600
AOA-50			Seat Diameter = 2-11/16"	
BG-MS-5767	20,800	7/16"	2.875"	22,600
BG-MS-0751	26,900	1/2"	3.0"	29,900
BG-MS-4825	35,000	9/16"	3.5"	40,100
BG-MS-10417	42,400	5/8"	4.0"	45,300
AOA-65			Seat Diameter = 3"	
BG-MS-10754	42,400	5/8"	3.0"	45,300
BG-MS-9935	58,300	3/4"	4.25"	85,300
AOA-85			Seat Diameter = 4-3/16"	
BG-MS-9932	35,000	9/16"	4.25"	40,100
BG-MS-9935	58,300	3/4"	4.25"	85,300
BG-MS-7346	79,700	7/8"	4.25"	106,600
AOA-120			Seat Diameter = 4-5/8"	
BG-MS-10018	58,300	3/4"	4.5"	85,300
BG-MS-9936	79,700	7/8"	4.625"	106,600
BG-MS-14219	104,500 (19w)	1"	5"	106,600
	92,343 (37w)			95,900

Left-hand lay is standard.

ACCESSORIES

Heavy-Duty Thimble

Big-Grip Dead-End Heavy-Duty Thimbles are designed specifically to fit inside the loop of Big-Grip Dead-Ends. The heavy-duty thimbles have an enlarged opening to assist with installation over mounting hardware. All thimbles are hot-dip galvanized in accordance with ASTM-A153 to ensure a long life in the field.



Thimble Fitment

Big-Grip Dead-End Catalog Number	Heavy-Duty Thimble Catalog Number	Size	Big-Grip Carton Quantity	Thimble Carton Quantity
		in		
BG-2140	HDT-9147	1/8	100	50
BG-2142	HDT-9147	3/16	100	50
BG-2144	HDT-9147	1/4	50	50
BG-2145	HDT-9148	9/32	50	25
BG-2146	HDT-9148	5/16	50	25
BG-2147	HDT-9148	3/8	25	25
BG-2148	HDT-9149	7/16	25	20
BG-2115	HDT-9149	1/2	20	20
BG-2116	HDT-9150	9/16	10	10
BG-2111	HDT-9150	5/8	10	10
BG-1112	HDT-9151	3/4	5	5
BG-1113	HDT-9152	7/8	5	3
BG-1114	HDT-9152	1	3	3