PREFORMED LINE PRODUCTS

Section 20 – Dead-end & Accessories

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Dead-ends for Figure-8 Messenger

Dead-ends for Figure-8 Drop Wire Messenger

There is no quicker, easier way to attach Figure-8 drop wire or cable than with PREFORMED™ Dead-ends for Figure-8 RG-59/U coaxial cable messenger. Strip the messenger to accommodate the Dead-end and wrap on for a secure and permanent installation. The helical shape will insure low distribution of holding stresses and prevent premature fatigue breakage. If required, False or Double Dead-ending can be accomplished without cutting the wire, a feature that is exclusive with all helically designed PREFORMED Dead-ends.

Catalog Number	Material	Cable Diameter	Units Per Carton	Wt./Lbs. Per Carton
DE-2525	Galvanized Steel	.051"	200	7
DE-2505	Galvanized Steel	.063"	200	8
DE-2506	Galvanized Steel	.083"	200	8
GDE-2501	Galvanized Steel	.109"	100	9
GDE-2503	Galvanized Steel	.134"	100	15
DE-8500	Stainless Steel	.063"	200	5
DE-8501	Stainless Steel	.083"	200	5

GUY-GRIP® Dead-end

GUY-GRIP Dead-ends, installed at the top, the breaker and the anchor, provide today's most effective method for securing guy strand. This unique, one-piece dead-end is neat in appearance and free from bolts or high-stress holding devices. The GUY-GRIP Dead-end was the first to offer the cabled loop, a feature that provides more durability, easier tensioning and adaptability to multiple guying.

GUY-GRIP Dead-ends are made of the same material as the strand to which they are applied. They should be used on hardware that is held in a fixed position. The fitting should not be allowed to rotate or spin about the axis of the strand. They should not be used as tools including come-alongs, pulling-in grips, etc.

NOMENCLATURE

Cross-over Marks:
(A)—Indicates starting point for application on smaller diameter fittings.

(B)—Indicates alternate starting point for application on larger diameter fittings.

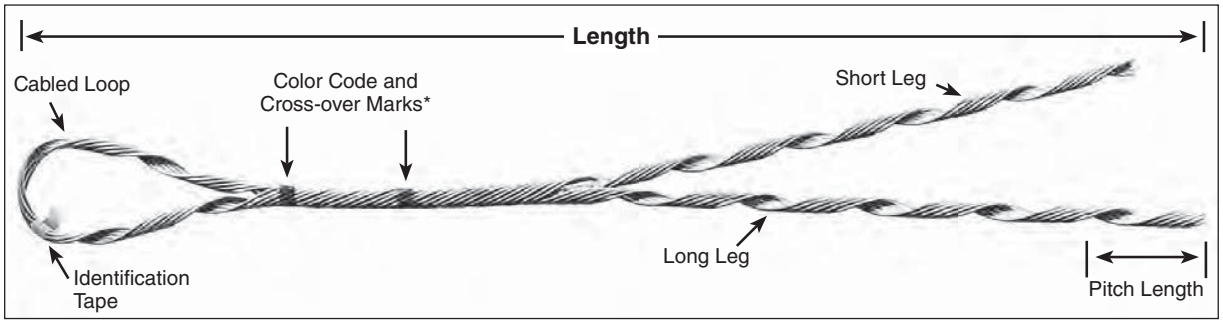
Cabled Loop: Furnished as standard, all sizes.
Pitch Length: One complete wrap.

Short Leg-Long Leg: Identifies rods belonging to each leg, after application.

Color Code and Length: Assists in identification of strand size, corresponding to tabular information appearing on price page.

Identification Tape: Shows catalog number, nominal sizes.

Nomenclature



Suggested Hardware Dimensions for Cabled-loop GUY-GRIP Dead-ends

Nominal Strand Sizes			Seat Dimensions (fig 1 & 2)			
Dead-end Diameter Range (mm)	Galvlvanized/ Galfan Steel	Aluminum-Clad Steel	Max. Seat Diameter with Dead-end at Second Crossover Mark (mm)	Minimum Groove Diameter (mm) (fig. 2)	Minimum Groove Diameter (mm) (fig. 3)	Minimum Hole Diameter* (mm) (fig. 3)
.123"-.143" (3.1-3.6)	1/8"	—	—	3/16" (4.7)	3/16" (4.7)	1/4" (6.3)
.144"-.173" (3.7-4.4)	5/32"	—	2½" (64)	1/4" (6.3)	1/4" (6.3)	5/16" (7.9)
.174"-.203" (4.4-5.2)	3/16"	—	2½" (64)	1/4" (6.3)	1/4" (6.3)	3/8" (9.5)
.204"-.230" (5.2-5.8)	7/32"	3 #10, 4M3	2½" (64)	5/16" (7.9)	5/16" (7.9)	3/8" (9.5)
.231"-.259" (5.9-6.6)	1/4"	7 #12, 6M	2½" (64)	5/16" (7.9)	5/16" (7.9)	7/16" (11.0)
.260"-.291" (6.6-7.4)	9/32"	7 #11, 8M	2½" (64)	3/8" (9.5)	3/8" (9.5)	1/2" (12.7)
.292"-.336" (7.4-8.5)	5/16"	7 #10, 10 M	2½" (64)	3/8" (9.5)	3/8" (9.5)	9/16" (14.2)
.337"-.394" (8.6-10)	3/8"	7 #8, 14M, 16M	2½" (64)	7/16" (11.0)	7/16" (11.0)	5/8" (15.8)
.395"-.474" (10-12)	7/16"	7 #7, 18M, 20M	2½" (64)	1/2" (12.7)	1/2" (12.7)	11/16" (17.4)
.475"-.515" (12.1-13.1)	**	7 #6	—	9/16" (14.2)	9/16" (14.2)	3/4" (19.0)
.516"-.570" (13.1-14.5)	**	7 #5, 25M	—	5/8" (15.8)	5/8" (15.8)	15/16" (23.7)

Figure 1

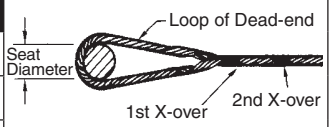


Figure 2

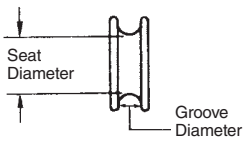
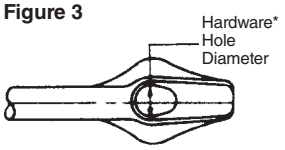


Figure 3



*Depending on geometric shape of the hole, a hole diameter less than specified may be acceptable.
**Use Big-Grip Dead-ends (Refer to Page 20-7).

GUY-GRIP® Dead-end

Acceptable Fittings

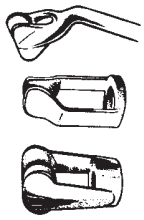
ANCHOR RODS

Anchor Rod Diam.

1/2"	5/8"	3/4"	1"	1-1/4

Loop Diameters 1" to 1-7/8"

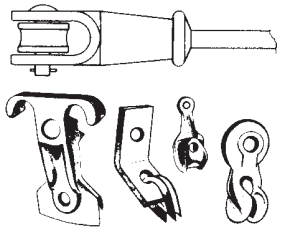
THIMBLE EYE-BOLTS, EYENUTS & EYES



3/8"	7/16"	1/2"	9/16"	5/8"	3/4"

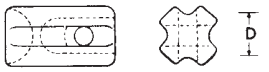
Loop Diameters 1" to 2"

POLE FITTINGS



Loop Diameters 1" to 2-3/8"

GUY-STRAIN INSULATORS



NEMA	D
54-1	1-3/4"
54-2	2-1/8"
54-3	2-3/8"
54-4	2-3/8"

Loop Diameters 1-3/4" to 2-3/8"

For Use on Galvanized Steel Strand

Catalog Number		Size (mm)	Strand Construction	Mean Diameter (mm)	Length (mm)	Color Code	Units Per Carton	Wt./Lbs. Per Carton
B-Coat	C-Coat							
GDE-1102	GDE-2102	3/16" (4.7)	7W	.186" (4.7)	20" (508)	Red	100	30
			7W	.195" (4.7)				
GDE-1104	GDE-2104	1/4" (6.3)	3W	.259" (6.5)	25" (635)	Yellow	50	24
			7W	.240" (6.0)				
GDE-1106	GDE-2106	5/16" (7.9)	3W	.312" (7.9)	31" (788)	Black	50	39
			7W	.312" (7.9)				
			7W	.327" (7.9)				
GDE-1107	GDE-2107	3/8" (9.5)	3W	.356" (7.9)	35" (788)	Orange	50	51
			7W	.360" (9.1)				
GDE-1108	GDE-2108	7/16" (11.0)	7W	.435" (11.0)	38" (965)	Green	25	40

Bezinal® Strand*

Catalog Number	Size (mm)	Strand Construction	Mean Diameter (mm)	Length (mm)	Color Code	Units Per Carton	Wt./Lbs. Per Carton
BDE-9102	3/16" (4.7)	7W	.186" (5)	20" (508)	Red	100	30
		7W	.195" (5)				
BDE-9104	1/4" (6.3)	3W	.259" (7)	25" (635)	Yellow	50	24
		7W	.240" (6)				
BDE-9106	5/16" (7.9)	3W	.312" (8)	31" (788)	Black	50	39
		7W	.312" (8)				
		7W	.327" (8)				
BDE-9107	3/8" (9.5)	3W	.356" (8)	35" (788)	Orange	50	51
		7W	.360" (9)				
BDE-9108	7/16" (11.0)	7W	.435" (11)	38" (965)	Green	25	40

Notes:
1. Left hand lay standard.
2. Big-Grip Dead-end recommended for guying metal towers and antennas.

*Dead-ends manufactured from Bezinal® Material. Bezinal is a registered trademark of the Bekaert Company.

GUY-GRIP® Dead-end

Aluminum-Clad Steel						
Catalog Number	Mean Diameter (mm)	Nominal Strand Size	Length (mm)	Color Code	Units Per Carton	Wt./Lbs. Per Carton
AWDE-4108	.220" (5.5) .220" (5.5)	4M 3 #10	21" (533)	Green	50	20
AWDE-4110	.242" (6.1) .247" (6.2)	6M 3 #9	24" (610)	yellow	50	20
AWDE-4113	.272" (6.9) .277" (7.0)	8M 3 #8	24" (610)	Blue	50	22
AWDE-4116	.306" (7.7) .306" (7.7) .311" (7.8)	5/16"—7 #10 10M 3 #7	26" (660)	Black	50	29
AWDE-4119	.343" (8.7) .343" (8.7) .349" (8.8)	11/32"—7 #10 12.5M 3 #6	29" (737)	Yellow	50	41
AWDE-4120	.363" (9.2)	14M	31" (787)	Blue	50	53
AWDE-4122	.385" (9.7) .386" (9.8) .392" (9.9)	3/8"—7 #8 16M 3 #5	32" (812)	Orange	50	55
AWDE-4124	.417" (10.5)	18M	34" (864)	Black	25	37
AWDE-4125	.433" (10.9)	7/16"—7 #7	36" (914)	Green	25	40
AWDE-4126	.444" (11.2)	20M	37" (940)	Yellow	10	22

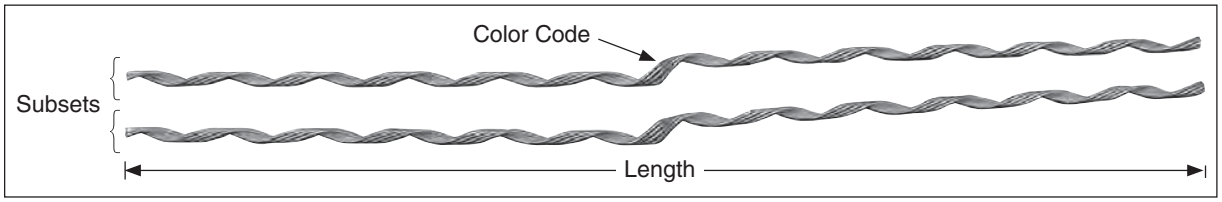
Note: Left hand lay standard. Nominal strand size indicates one of various conductors within each range. Big-Grip Dead-end is recommended for guying metal towers and antennas.

Catalog Number	Size (mm)	Strand Construction	Mean Diameter (mm)	Length (mm)	Color Code	Units Per Carton	Wt./Lbs. Per Carton	Percent of Strand Rated Breaking Strength
Stainless Steel for Type 302 Strand and Type 430 Strand								
SDE-5101	7/32" (5.5)	3W 7W	.224" (5.6) .216" (5.4)	22" (559)	Blue	100	30	100%
SDE-5102	1/4" (6.3)	3W 7W	.259" (6.5) .249" (6.3)	26" (660)	Yellow	50	25	100%
SDE-5103	9/32" (7.1)	7W	.279" (7.0)	27" (686)	Black	50	26	90%
SDE-5104	15/16" (23.7)	3W 7W	.312" (7.9) .312" (7.9)	31" (787)	Orange	50	41	93%
SDE-5105	3/8" (9.5)	3W 7W	.356" (9.0) .360" (9.1)	37" (940)	Green	50	66	83%
SDE-5106	7/16" (11.0)	7W	.435" (11.0)	43" (1092)	Red	25	53	85%
Stainless Steel for Type 316 Strand								
SDE-6101	7/32" (5.5)	3W 7W	.224" (5.6) .216" (5.4)	22" (559)	Blue	100	29	100%
SDE-6102	1/4" (6.3)	3W 7W	.259" (6.5) .249" (6.3)	26" (660)	Yellow	50	25	100%
SDE-6103	9/32" (7.1)	7W	.279" (7.0)	27" (686)	Black	50	26	90%
SDE-6504*	8/16" (7.9)	3W 7W	.312" (7.9) .312" (7.9)	31" (787)	Orange	50	41	93%
SDE-6105	3/8" (9.5)	3W 7W	.356" (9.0) .360" (9.1)	37" (940)	Green	50	66	87%
SDE-6107	1/2" (12.7)	7W	.500" (12.7)	53" (1346)	Blue	10	52	85%

Note: Left hand lay standard. GUY-GRIP Dead-ends for copper-covered steel are also available.
*These Dead-ends utilize the open helix loop design.

GUY-LOCK

NOMENCLATURE



Length: Indicates length of GUY-LOCK before installation.

Subset: GUY-LOCK consists of sub-sets of helically formed galvanized steel wires, bonded together and coated internally with an abrasive material.

Color Code: Provides strand size identification and indicates cross-over point for starting application.

GENERAL RECOMMENDATIONS

The GUY-LOCK is intended for use on single wood poles associated with distribution constructions.

The GUY-LOCK is designed to perform the same function as GUY-GRIP® dead-ends, but are for those who prefer a "wrap around" guy at the pole. The GUY-LOCK is recommended for any size pole and neatly secures the tail of the guy strand to the load portion of the down guy. The GUY-LOCK can also be used to secure the down guy at the anchor location.

RATED HOLDING STRENGTH: The GUY-LOCK is rated at 100% of the strands published rated breaking strength.

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 AFTER 90 DAYS UNDER ANY CIRCUMSTANCES.

Catalog Number	Size (Inches)	Construction	Mean Diameter (Inches)	Length (Inches)	Color Code	Rated Holding Strength (Lbs.)
GL-1104*	1/4	7W 3W	.259 .240	33	Yellow	6,650
GL-1106*	5/16	7W 3W	.312 .327	35	Black	11,200
GL-1107*	3/8	7W 3W	.356 .360	42	Orange	15,400
GL-1108	7/16	7W	.435	44	Green	20,800
GL-1109	1/2	7W 19W	.495 .500	46	Blue	26,900

*Denotes a single subset design

Big-Grip Dead-end

Big-Grip Dead-ends are designed for use with antenna, communications tower, microwave and various guyed structures that require use of large guy strand. They are effective at both the structure top and the anchor bottom.

Big-Grip Dead-ends are left hand lay standard and are applied to the same basic materials as the strand (galvanized strand, aluminum covered strand, except where noted differently).

The Big-Grip Dead-end is designed to be applied quickly in the field, without tools, and usually by one person.

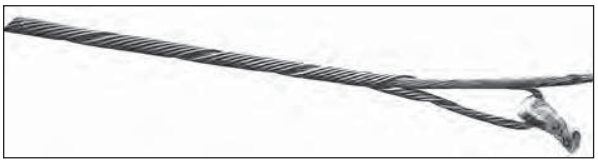
Concentrated stresses in the anchor area are minimized by the cabled loop. Long length helical gripping distributes other stresses uniformly and evenly.

For more detailed information concerning installation guidelines contact Preformed Line Products.

Galvanized Strand

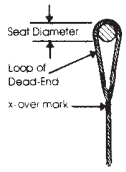
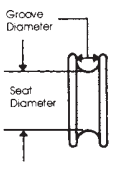
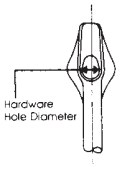
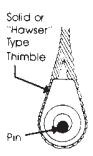
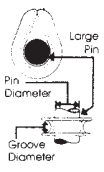
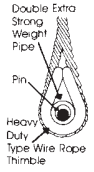
For use on:

- Extra High Strength
- High Strength
- Siemens Martin
- Utilities Grade



Catalog Number	Size (mm)	Strand Construction	Actual Diameter (mm)	BG Per Carton		Approx. Length (m)	Color Code	Rated Holding Strength	% of Strand's Rated Breaking Strength
				Units	Wt/ Lbs				
BG-2115	1/2" (12.7)	7W or 19W	.495"(12.5) or .500"(12.7)	20	63	49" (1.24)	Blue	26,900#	(100%)
BG-2116	9/16" (14.2)	7W or 19W	.564"(14.3) or .565" (14.3)	10	48	55" (1.39)	Yellow	35,000#	(100%)
BG-2111	5/8" (15.8)	7W or 19W	.621"(15.7) or .625"(15.8)	10	65	64" (1.62)	Black	40,200#	(100%)
BG-2112	3/4" (19.0)	19W	.750"(19.0)	5	54	76" (1.93)	Orange	58,300#	(100%)
*BG-MS-7023	7/8" (22.2)	19W	.885"(22.4)	3	47	90" (2.28)	Green	79,700#	(100%)
*BG-MS-7047	1" (25.4)	19W or 37W	1.000"(25.4) or 1.001"(25.4)	3	76	125" (3.17)	Blue	104,5000# 92,430#	(100%) (90%)

Note: Left Hand Lay Standard.
*Manufactured or Alumoweld® material. Alumoweld is a registered trademark of the Copperweld Co.

Strand Diameter (mm)	Nominal Strand (mm)	Seat Dimensions		Minimum Groove Diameter (mm)	Minimum Hardware Hole Diam. (mm)	Thimble Size (mm)	Pin Diameters		Double Extra Strong Weight Pipe		
		Min. (mm))	Max. (mm)				Min. (mm)	Max. (mm)	Nominal Size (mm)	O.D.	I.D.
.475"-.515" (12-18)	1/2" (12.7)	1 3/8" (34.9)	2 3/8 (60.3)	9/16" (14.2)	3/4" (19.0)	5/8" (15.8)	1" (25.4)	1 5/8" (41.2)	1 1/4" (31.7)	1.66	.896
.516"-.570" (13-14)	9/16" (14.2)	1 1/2" (38.1)	2 5/8" (66.6)	5/8" (15.8)	15/16" (23.7)	5/8" (15.8)	1 1/8" (28.5)	1 5/8" (41.2)	1 1/4" (31.7)	1.66	.896
.571"-.635" (15-16)	5/8" (15.8)	2" (50.8)	2 5/8" (66.6)	3/4" (19.0)	1" (25.4)	3/4" (19.0)	1 1/2" (38.1)	1 7/8" (47.6)	1 1/4" (31.7)	1.66	.896
.636"-.772" (16-20)	3/4" (19.0)	2 1/2" (63.5)	3 1/8" (79.3)	7/8" (22.2)	1 3/16" (30.1)	7/8" (22.0)	1 7/8" (47.6)	2 1/8" (53.9)	1 1/2" (38.1)	1.9	1.1
.773"-.868" (20-22)	–	2 1/2" (63.5)	3 5/8" (92.0)	1" (25.4)	1 3/8" (34.9)	1" (25.4)	2" (50.8)	2 3/8" (60.3)	2" (50.8)	2.375	1.503
.869"-1.024" (22-26)	1" (25.4)	3" (76.2)	4 1/8" (104.7)	1" (25.4)	1 3/8" (34.9)	1 1/8"-1 1/4" (28.5-31.7)	2 3/8" (60.3)	2 3/4" (69.8)	2" (50.8)	2.375	1.503
1.025"-1.27" (26-32)	–	3 1/2" (88.9)	5 1/8" (130.1)	1 3/8" (34.9)	1 3/4" (44.4)	1 1/4"-1 3/8" (31.7-34.9)"	2 3/4" (69.8)	3 1/4" (82.5)	2 1/2" (63.5)	2.875	1.771
1.30" (33)	–	4" (101.6)	5 1/8" (130.1)	1 3/8" (34.9)	1 15/16" (49.1)	1 3/8"-1 1/2" (34.9-38.1)	2 7/8" (73.0)	3 3/8" (85.7)	2 1/2" (63.5)	2.875	1.771
Figure 1.		Figure 2.		Figure 3.		Figure 4.		Figure 5.		Figure 6.	
											

Big-Grip Dead-end

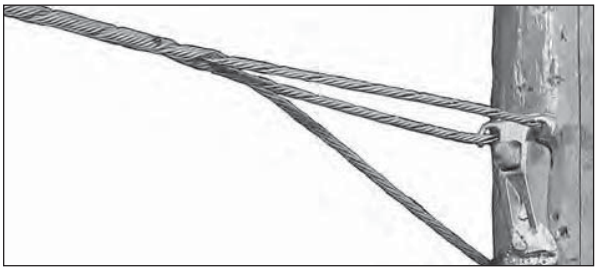
For Use On: Aluminum Covered Steel Strand										
Catalog Number	Strand Diameter Range		Nominal Strand Size	BG Per Carton		Approx. Length		Color Code	Rated Holding Strength	% of Strand's Rated Breaking Strength
	Min. Inches	Max. Inches		Units	Wt.-Lbs.	Inches	Meters			
BG-4168	.475	.494	7#6	25	60	42	1.06	Blue	22,730#	(100%)
BG-4169	.495	.515	19#10	25	62	44	1.11	Green	27,190#	(100%)
BG-4170	.516	.536	25M	20	66	47	1.19	Red	25,000#	(100%)
BG-4171	.537	.555	7#5	20	67	48	1.21	Yellow	27,030#	(100%)
BG-4172	.556	.570	—	15	68	49	1.24	Blue	33,330#	–
BG-4173	.571	.591	19#9	20	68	50	1.27	Orange	34,290#	(100%)
BG-4174	.592	.612	—	15	50	50	1.27	Green	34,500#	–
BG-4175	.613	.635	—	10	49	54	1.37	Yellow	45,000#	–
BG-4176	.636	.661	19#8	10	50	56	1.42	Black	43,240#	(100%)
BG-4177	.662	.686	19 x .1363"	10	66	59	1.49	Blue	47,400#	(100%)
BG-4178	.687	.712	—	10	68	61	1.54	Red	54,200#	–
BG-4179	.713	.741	19#7 37#10	10	70	63	1.60	Black	51,730# 50,300#	(100%) (95%)
BG-4180	.742	.772	19 x .1499"	5	41	71	1.80	Yellow	54,300#	–
Catalog Number	Actual Diameter Inches		Nominal Strand Size	BG Per Carton		Approx. Length		Color Code	Rated Holding Strength	% of Strand's Rated Breaking Strength
				Units	Wt.-Lbs.	Inches	Inches			
BG-4181	.792		19 x .1584"	5	50	80	2.03	Blue	59,000#	–
BG-4183	.801, .810, .827		37#9 19#6 19 x .1660"	5	69	84	2.13	Green	63,430# 61,700# 63,000#	(95%) (100%) (100%)
BG-4185	.849, .850, .866		37 x .1213" 19 x .170" 19 x .1732" 37 x .1237"	5	68	87	2.21	Black	71,250# 66,000# 68,500# 74,100#	(95%) (100%) (100%) (95%)
BG-4186	.899		37#8	5	76	91	2.31	Yellow	80,000#	(95%)
BG-4187	.910, .934		19#5 19 x .1868"	5	78	93	2.36	Blue	73,350# 75,000#	(100%) (100%)
BG-4188	.981		37# .1401"	4	55	95	2.41	Red	90,250#	(95%)
BG-4189	1.01		37#7	4	85	106	2.74	Green	90,600#	(90%)
BG-4190	1.10		37 x .1571"	3	87	117	2.97	Black	101,700#	(90%)
BG-4191	1.134		37#6	3	86	120	3.04	Yellow	108,200#	(90%)
BG-4192	1.27		37#5	2	87	151	3.83	Red	127,000#	(89%)

Note: Left Hand Lay Standard.

False Dead-end

False Dead-ends

PREFORMED False Dead-ends are a fast, safe, and economical method for false dead-ending strand. They are designed to be easily applied without any special tools, and because False Dead-ends are made from the same material as the strand, they will hold the same published rated breaking strength.



Galvanized Steel, C-Coat for use on Extra High Strength or Utility Grade Strands						
Catalog Number	Strand 7-Wire	Mean Diameter	Length	Color Code	Units Per Carton	Wt./Lbs. Per Carton
GFDE-2121	¼"	.240"	36"	Yellow	25	17
GFDE-2123	5/16"	.327"	39"	Black	25	24
GFDE-2124	3/8"	.360"	42"	Orange	25	30
GFDE-2125	7/16"	.435"	48"	Green	25	52
GFDE-2126	½"	.495"	50"	Blue	25	71

Note: Left Hand Lay Standard.

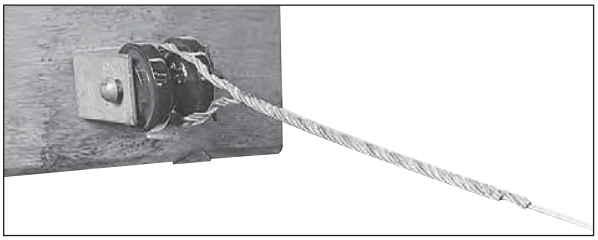
For use on Bezinal® Strand						
Catalog Number	Strand 7-Wire	Mean Diameter	Length	Color Code	Units Per Carton	Wt./Lbs. Per Carton
BFDE-9121	¼"	.240"	36"	Yellow	25	17
BFDE-9123	5/16"	.327"	39"	Black	25	24
BFDE-9124	3/8"	.360"	42"	Orange	25	30
BFDE-9125	7/16"	.435"	48'	Green	25	52
BFDE-9126	½"	.495"	50"	Blue	25	71

Note: Left Hand Lay Standard.
Manufactured from Bezinal® Material. Bezinal is a registered trademark of the Bekaert Corporation

Open Wire Dead-end

Open Wire Dead-ends

PREFORMED™ Dead-ends for Open Wire are designed to be applied by hand in seconds without tools. They exert uniform, positive, gentle gripping. Holding power extends throughout their full length and prevents the concentration of stress points that cause premature line failure. Trim and modern in appearance, they are made of the same material as the conductor to which they are applied and are performance proven even under various climate extremes.



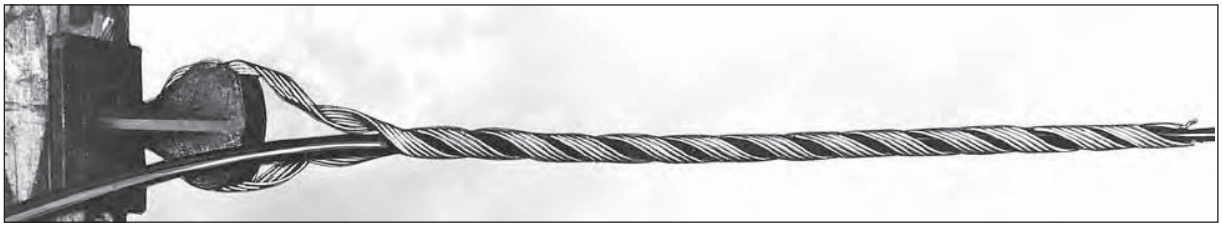
Catalog Number	Wire Gauge	Wire Size	Length	Color Code	Units Per Carton	Wt./Lbs. Per Carton
Galvanized Steel						
GDE-2500	BWG-14	.083"	12"	Yellow	100	6
GDE-2501	BWG-12	.109"	12"	Black	100	9
GDE-2503	BWG-10	.134"	14"	Orange	100	15
Aluminum Clad Steel						
2004511	AWG-11	.091"-.095"	11"	Green	100	7
Copper-Clad Steel						
CWDE-5507	AWG-12	.080"-.081"	11"	Green	100	8
CWDE-5508	AWG-11	.091"-.095"	12"	Red	100	9
CWDE-5509	AWG-10	.102"-.104"	12"	Blue	100	12
CWDE-5510	AWG-9	.114"	13"	Orange	100	13
CWDE-5511	AWG-8	.128"	13"	Black	100	16
CWDE-5512	AWG-6	.162"	16"	Green	100	21

Drop Wire/C-Rural/Buried Line Wire Dead-ends

Drop Wire Dead-ends

PREFORMED™ Drop Wire Dead-ends provide an easy, low-cost way to support service drop wire without bail failures or stripping of the insulation. Rapidly applied by hand without tools, they are adjusted to exert firm uniform holding power throughout their length, without crushing or damaging drop wire. Wrap-on design prevents potentially damaging stress points. PREFORMED Drop Wire Dead-ends present a trim, neat appearance, and are manufactured of neoprene-coated stainless steel for added protection against the elements.

Stainless Steel Neoprene Coated					
Catalog Number	Manufacturer	Manufacturer's Designation	Color Code	Units Per Carton	Wt./Lbs. Per Carton
NDE-9500	Alphaduct	PDCW Parallel (N-182)	Black	100	9
	Alphaduct	PDCW Parallel Dumbbell (NE-182)	Black	100	9
	Alphaduct	PDCW Parallel Reinforced (NR-182)	Black	100	9
	Whitney-Blake	TCWP Parallel (2#18)	Black	100	9
	Whitney-Blake	TBP Parallel Reinforced (2#17)	Black	100	9
NDE-9501	AT&T	Bell Reinforced (2#18)	Green	100	9
	Whitney-Blake	TBP-R Parallel Reinforced (2#17)	Green	100	9



C-Rural Dead-ends

PREFORMED™ C-Rural Wire Dead-ends are an inexpensive way of safely dead-ending one pair aerial distribution wire to a drive hook or eye bolt. They are designed to keep the lines up and costs down by simple hand application without tools of any kind. Their design assures long maintenance free service life.

Buried Line Wire Dead-ends

Buried Line Wire Dead-ends are used for overhead construction applications of buried line wire.

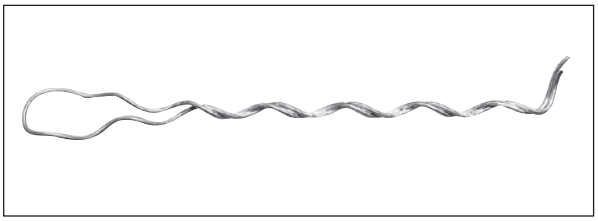
Catalog Number	Wire Sizes	Length	Color Code	Units Per Carton	Wts./Lbs. Per Carton
Buried Line Wire Dead-ends					
NDE-8500	2 #19 Copper	21" (533)	Red	100	17
NDE-8501	2 #16 Copper	23" (584)	Blue	100	26
C-Rural Dead-ends					
NDE-8502*	2 #14 CW	22" (559)	White	200	30
NDE-8503*	2 #12 CW (or .083 Steel)	30" (762)	Yellow	250	55
NDE-9502*	2 #14 CW	15" (381)	Orange	500	50

***Note:** Attachments specifically designed for use with High Density Linear Polyethylene One-Pair Aerial Distribution Wire also may be used with conventional polyethylene covered C-Rural Wire.

Telegrip

Telegrip

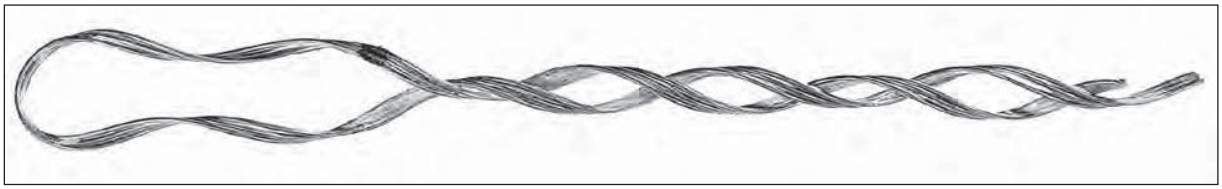
Telegrips are designed for service drop applications of coaxial cables. Flexible but firm, Telegrips exceed mechanical holding requirements for coaxial cable. The long length design reduces stress levels and eliminates the possibility of crushing the cable or affecting its dielectric properties. Also, its unique gripping principle prevents bending that can cause “snow” or distortion of the television picture.



Telegrip			
Catalog Number	Cable Type (mm)	Units Per Carton	Wt/Lbs Per Carton
DE-1500	.242" (6) RG59/U .275" (7) RG6/U	500	23
DE-1600	.242" X .504" (6 x 13) DUAL RG59U	500	25
	.275" X .546" (7 x 14) DUAL RG6/U	500	25
DE-1601	.312" - .315" (8 - 8) QUAD RG6/U	500	25

Consult PLP for requirements not listed.

Custom Coaxial Dead-end



Coaxial Dead-ends

Custom Coaxial and Dual Coaxial Dead-ends are performance-proven dead-end designs for RG-59/U, Dual RG-59/U, Dual RG-6/U, and RG-11/U coaxial cable. In addition to the inherent benefits of the basic Telegrip, these premium products feature twin leg construction which cushion and relieve gripping stresses created by unusually high winds and heavy ice loading. They are especially recommended for foam insulated coaxial cable and areas where there are extreme corrosive and demanding environmental conditions.

Catalog Number	Cable Type (mm)	Units Per Carton	Wt./Lbs. Per Carton
Custom Coaxial Dead-End			
DE-3329*	RG59/U .242" (6.1)	200	9
Dual Coaxial Dead-End			
DE-2519	DUAL RG59/U .242" X .504" (6.1 x 12.8)	200	20
DE-2520	DUAL RG6/U .275" X .546" (6.9 x 13.8)	200	43
Coaxial Dead-End			
DE-2518	RG11/U .405" (10.2)	200	22

*Manufactured from stainless steel

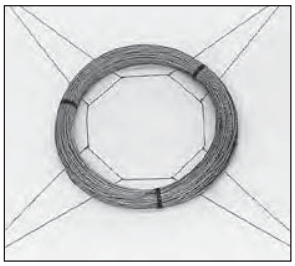
Pulling Eye

Pulling Eye

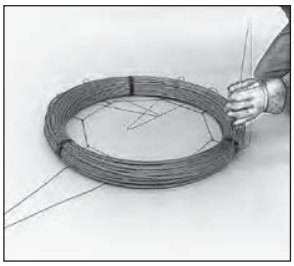
PREFORMED™ Pulling Eye is the fastest, most practical means of installing GUY-GRIP® Dead-ends at the anchor rod. The large eye is designed to avoid conflict with the chain hoist. The keeper bolt is adjustable for rod size. Pulling Eye is made of corrosion-resistant nodular iron, finished in orange vinyl coating for added durability against bad weather and rough handling. The keeper bolt is made of specially heat-treated extra high strength steel. The PREFORMED Pulling Eye capacity is 3,000 lbs.

Catalog Number	Description	Standard Carton
Anchor Rod Application		
PE-0300	Pulling Eye	4 Units
Replacement Parts		
PE-A-0002	Pulling Eye: Keeper	As Required
PE-B-2019	Pulling Eye: Bolt	As Required
PE-C-0607	Pulling Eye: Nut	As Required

Safety Guy Wire Dispenser



1. Fold out legs.



2. Bend legs over coil.

3. Twist at least two inches of legs together until wire cage is tight.

4. Turn wire cage over and pay-out from side. Tuck end back into the cage.

Safety Guy-Wire Dispenser

NO MORE RUNAWAYS. PREFORMED™ Safety Guy-Wire Dispenser is designed to provide safe, easy, completely controlled handling and paying-out of strand coils up to 500 ft. in length, including EHS strand. It also can be used with wire, wire rope, cable, conductor, etc. Eliminate weight lifting, handling struggle, and the hazards of "runaway" coil ends. Small and light in weight (a carton of 50 weighs only 22 pounds), the Safety Guy-Wire Dispenser occupies minimal truck space. No banding or taping of coils is necessary. Saves personnel cost (only one person to pay out a loaded coil) and reduces inventory (just one universal size).

PREFORMED Safety Guy-Wire Dispenser accommodates any size coil, provided at least two inches of the end of each leg can be twisted. Designed to withstand the free-fall impact of a 200 pound coil from 15 ft.

Catalog Number	Standard Carton Quantity	Typical Size Coils Accommodated	Leg Length (mm)	Wire Size
SGD-0700 (Standard Size)	50	500' 7/16" 250' ½" Strand 23" by 9" Triplex Coils	24" (610)	14 gauge
SGD-0701 (Jumbo Size)	25	500' ½" Strand	30" (762)	12 gauge

PREFORMED LINE PRODUCTS

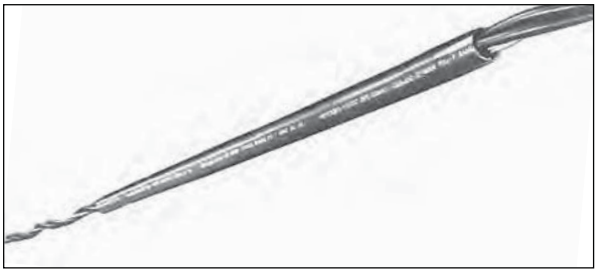
Section 21 – Guards, Moldings & Markers

Table of Contents Page

Tree Guards

Tree Guards

PREFORMED™ Tree Guards are designed to protect bare conductors, fabric-covered or plastic-covered cables and fiber optic cables against mechanical abrasion caused by tree limbs or other obstructions. Tree Guards provide fast, easy application without disconnecting the wire. Tree guards are applied around the wire, and taped at each end. High-impact polyethylene has strong abrasion resistance, strong weathering endurance, and high dielectric properties.



Catalog Number	Diameter Range		Units Per Carton	Wt./Lbs. Per Carton
	Min.	Max.		
Tree Guards 6 Ft. (1.8 m) Length				
PTG-0201	.238"	.500"	150	46
PTG-0203	.501"	.1.00"	60	39
PTG-0205	1.01"	1.50"	25	25
PTG-0207	1.51"	2.00"	20	26
PTG-0208	2.01"	3.00"	12	25
Tree Guards 8 In. (203 mm) Length				
PTG-0200	.238"	.500"	1,000	35
PTG-0202	.501"	1.00"	500	34
PTG-0204	1.01"	1.50"	250	30
PTG-0206	1.51"	2.00"	175	25

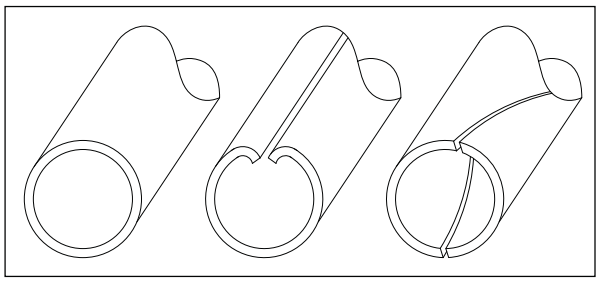
These guards are polyethylene, and are black in color.

Catalog Number	Diameter Range		Length	Wall Thickness	Units Per Carton	Wt./Lbs. Per Carton
	Min.	Max.				
Tree Guards 6 Ft. Length						
PTG-0104	.267"	.297"	6'	1/16"	100	26
PTG-0107	.296"	.328"	6'	1/16"	100	28
PTG-0113	.359"	.389"	6'	1/16"	100	32
PTG-0116	.390"	.421"	6'	1/16"	100	34
PTG-0122	.454"	.478"	6'	1/16"	75	30
PTG-0125	.479"	.511"	6'	1/16"	75	32
PTG-0128	.512"	.542"	6'	1/16"	75	32
PTG-0137	.599"	.641"	6'	5/64"	75	48
PTG-0140	.642"	.706"	6'	5/64"	75	52
PTG-0143	.707"	.762"	6'	3/32"	50	46
PTG-0146	.763"	.820"	6'	3/32"	50	48
PTG-0149	.821"	.882"	6'	3/32"	50	52
PTG-0152	.883"	.947"	6'	3/32"	50	56
PTG-0155	.948"	1.010"	6'	3/32"	50	58
Tree Guards 3 Ft. Length						
PTG-0118	.422"	.453"	3'	1/16"	100	20
PTG-0121	.454"	.478"	3'	1/16"	100	20
PTG-0130	.543"	.568"	3'	5/64"	100	30
PTG-0139	.642"	.706"	3'	5/64"	100	34
PTG-0142	.707"	.762"	3'	3/32"	100	46
PTG-0154	.948"	1.010"	3'	3/32"	100	58

These guards are PVC and are gray in color.

Guy Markers

PREFORMED™ Guy Markers are used for identifying Down Guys or other wire and cable installations where anchoring devices are exposed to pedestrian and/or vehicular traffic.



Profile Options

PREFORMED™ Guy Markers are available in three basic profiles:

- Full Round – 1-1/2" and 1-1/4" OD (Outer Diameter)
- "B" Profile "heart shape" – 1-1/2" effective OD
- Two Piece Spiral Round – 1-1/2" OD, helically slit to create two halves

Material

Guy Markers are available in PVC and Polyethylene materials as shown in tables. All materials employ UV inhibitors to enhance life span performance.

Color

Guy Markers are available in yellow, gray, and orange. For other available colors and combinations of colors consult PLP for availability.

Reflective tape is available as an option. If desired configuration is not shown in catalog tables. Contact PLP for availability.

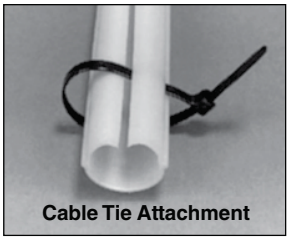
Attachment Devices

PREFORMED™ Guy Markers utilize five basic attachment devices. These are:

- Cable Tie
- LOOP-LOCK® Pin
- Integral Helical Pigtail (used in conjuction with Short Lock Strap)
- Mounted Cable Tie
- Plastic Clamp (see next page)

CableTie:

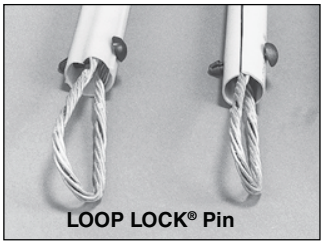
Supplied as an alternate to the LOOP-LOCK Pin. Helps deter vandalism.



Cable Tie Attachment

LOOP-LOCK® Pin:

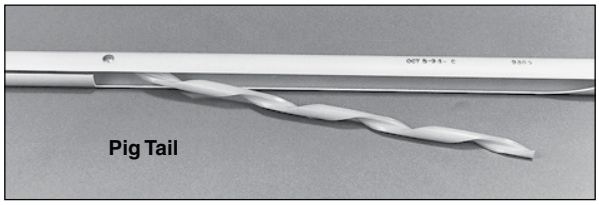
A unique, one-way method that applies through the marker's tube and loop of a GUY-GRIP® Dead-end. Once applied, the tube is "locked" onto the Dead-end and cannot be removed easily by vandals. Removal and reinstallation of the marker by authorized personnel is possible with a new pin, which can be supplied separately.



LOOP LOCK® Pin

Integral Pigtail:

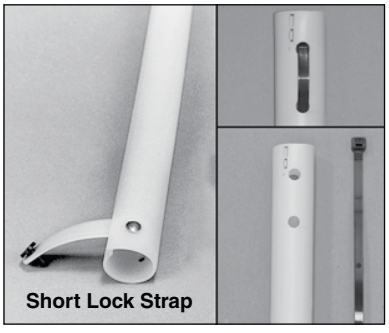
Attached to the inside of the marker tube and wraps on to secure it to the strand. Generally fits a strand range of 3/16" – 1/2" diameters and provides a unique one-way slip down motion for ease of installation. The installed pigtail resists upward movement. The pigtail is made from specially formulated plastic designed to provide high strength, tear resistance, and no corrosion.



Pig Tail

Lock Strap and Cable Tie:

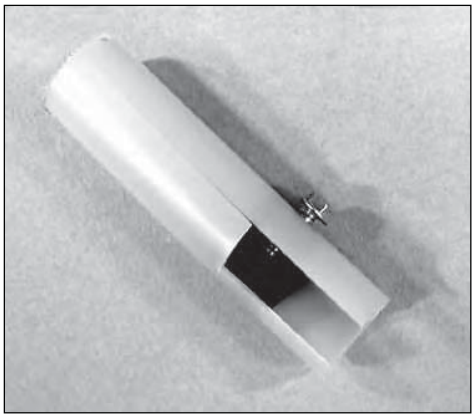
The short lock strap is primarily used with the pigtail device and helps deter vandalism. The cable tie is used on Dead-end devices that restrict the use of the LOOP-LOCK® Pin.



Short Lock Strap

Guy Markers

Attachment Devices Continued.



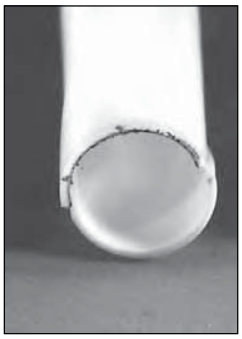
Note: Photo shows marker cut away to show clamp

Plastic Clamp

This innovative plastic clamp is completely internal to the marker tube. The clamp is held in place and tightened by the same bolt which is roughly 32" from the top of the Guy Marker. The Clamp provides a positive locking attachment to the strand without strand damage making it difficult for vandals to remove.

Currently supplied on the PG-5800 and PG-5810.

For alternate attachment devices on any profile, availability of different tube sizes, or tube lengths other than eight (8) feet, contact Preformed Line Products.



Two Piece
Spiral Round

Two Piece Spiral Round Markers

Designed to provide increased visibility for many guying or cable applications, the two piece spiral round markers can provide coverage from the ground line, around fittings and above normal reach depending upon installation.

The addition of a third helical section can provide up to 360° coverage for diameters over 1". This method may require special application techniques as outlined in the application procedure.

Limited coverage is possible for diameters over 1⅝" or over large, non-circular fittings. Consult the application procedure for special techniques.

Catalog Number	Length		Color	Material	Tube OD		Attachment Type	Carton Information	
	Feet	Meters			Inches	(mm)		Units	Wt./Lbs.
PG-5750	8	2.4	Orange/ Yellow	Poly	1-1/4	32	2-CT	25	30
PG-5752	8	2.4	Orange	Poly	1-1/4	32	2-CT	25	30

Guy Markers

Standard Guy Markers

Attachment Devices

PT	**Helical Pigtail**
SLS	**Short Lock Strap** - used in conjunction with the Helical Pigtail
LLP	**LOOP-LOCK™ Pin**
CT	**Cable Tie**
CMP	**Plastic Clamp**

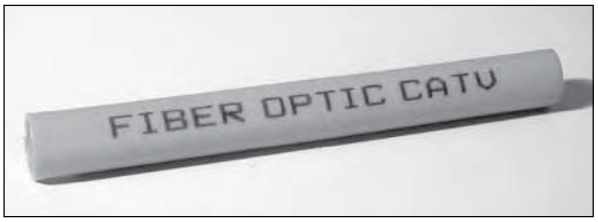
Catalog Number	Length (m)	Color	Material	Tube Profile	Tube OD (mm)	Attachment Type	Carton Information	
							Units	Wt./Lbs.
PG-5414	8' (2.4)	Yellow	Poly	Round	1-1/4" (32)	LLP	25	32
PG-5411	8' (2.4)	Gray	Poly	Round	1-1/4" (32)	LLP	25	32
PGMS4988	8' (2.4)	Yellow	Poly	Round	1-1/4" (32)	None	25	32
PGMS3830	8' (2.4)	Orange	Poly	Round	1-1/4" (32)	None	25	32
PGMS9838	8' (2.4)	Yellow	Poly	Round	1-1/4" (32)	CT	25	32
PG-5800	8' (2.4)	Yellow	Poly	Round	1-1/2" (38)	CMP	25	34
PG-5810	8' (2.4)	Orange	Poly	Round	1-1/2" (38)	CMP	25	34
PG-5718	8' (2.4)	Yellow	Poly	Round	1-1/2" (38)	PT/SLS	25	39
PG-5718P	8' (2.4)	Yellow	Poly	“B”	1-1/2" (38)	PT/CT	25	35
PG-5518	8' (2.4)	Yellow	PVC	Round	1-1/2" (38)	PT/SLS	25	33
PGMS3921	8' (2.4)	Yellow	Poly	Round	1-1/2" (38)	CT	25	33
PGMS4072	8' (2.4)	Yellow	Poly	“B”	1-1/2" (38)	CT	25	35
PG-5405	8' (2.4)	Yellow	Poly	Round	1-1/2" (38)	LLP	25	36
PG-5423	8' (2.4)	Yellow	Poly	“B”	1-1/2" (38)	LLP	25	36
PG-5462	8' (2.4)	Yellow	Poly	“B”	1-1/2" (38)	2 LLP	25	33
RPG-5618	8' (2.4)	Yellow/Reflective Tape	PVC	Round	1-1/2" (38)	PT/SLS	25	33
RPGMS12030	8' (2.4)	Yellow/Reflective Tape	Poly	“B”	1-1/2" (38)	CT	25	36
RPGMS10469	8' (2.4)	Yellow/Reflective Tape	Poly	“B”	1-1/2" (38)	LLP	25	36
PG-5738	8' (2.4)	Orange	Poly	Round	1-1/2" (38)	PT/SLS	25	34
PG-5708	8' (2.4)	Gray	Poly	Round	1-1/2" (38)	PT/SLS	25	34
PG-5708P	8' (2.4)	Gray	Poly	“B”	1-1/2" (38)	PT/CT	25	36
PGMS7578	8' (2.4)	Yellow	Poly	Round	2" (51)	PT/SLS	25	49

Note: For different lengths, attachments, and/or the addition of reflective tape, contact your PLP representative or Preformed Line Products.

Fiber Optic Cable Marker/Pedestal Marker

Fiber Optic Cable Marker

The Fiber Optic Cable Marker is designed to visibly identify Fiber Optic cable location on a wood utility pole. The identification can be determined from the ground due to the marker's bright orange color.



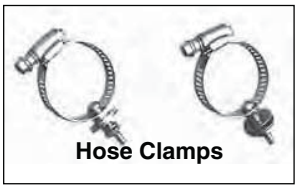
The Fiber Optic Cable Marker is manufactured from a corrosion resistant, lightweight polyethylene. Polyethylene provides superior retention of physical characteristics over temperature ranges and exposure to ultraviolet radiation.

Catalog Number	Color	Tube ID	Length	Per Carton	
				Units	Wt/Lbs.
5005500	Orange	.86"	8"	450	34

Standard Fiber Optic Cable Marker is imprinted with the following information: FIBER OPTIC CATV. The characters are printed in black lettering that is $\frac{5}{16}$" high and located opposite the installation slit. Custom printing and alternate colors are available. Contact Preformed Line Products for price and availability.

Pedestal Marker

Pedestal Markers are designed to identify and protect pedestals in deep snow by alerting highway snow removal crews of pedestal position.


Hose Clamps

Made from high impact polyethylene, Pedestal Markers are available in various lengths and in a highly visible yellow color. Each Pedestal Marker comes with two hose clamps and can be applied to the pedestal quickly, easily, and with standard tools.

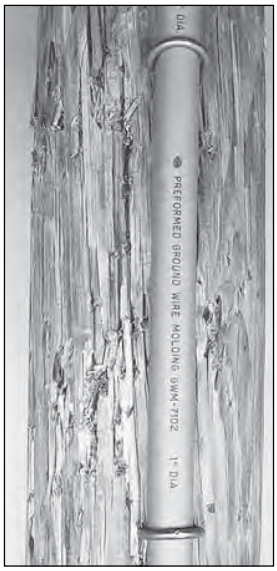
Catalog Number	Length	Color	Per Carton	
			Units	Wt./Lbs.
PM-6114	4'	Yellow	20	13
PM-6115	5'	Yellow	20	16
PM-6116	6'	Yellow	20	19
PM-6117	7'	Yellow	20	22
PM-6118	8'	Yellow	20	25

Ground Wire Molding

Ground Wire Molding

Ground Wire Molding is designed to protect and cover surface-mounted cable, wire, or conductor on wood poles, etc. The soft grey color blends naturally in industrial or urban settings.

Ground Wire Molding is made from lightweight polethylene and is available in standard 8 ft. lengths of various diameters. It is corrosion resistant and retains good physical characteristics over wide temperature ranges. Application with standard tools i.e., hammer and staples.

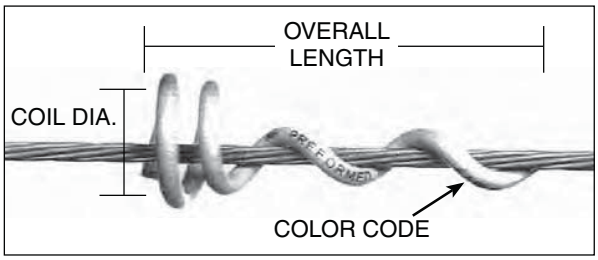


Catalog Number	Length	Color	Diameter	Per Carton	
				Units	Wt./Lbs.
GWM-7100	8'	Grey	½"	125	51
GWM-7101	8'	Grey	¾"	100	60
GWM-7102	8'	Grey	1"	50	50
GWM-7200	8'	Black	½"	125	51
GWM-7201	8'	Black	¾"	100	60
GWM-7202	8'	Black	1"	50	50

BIRD-FLIGHT™ Diverter

NOMENCLATURE

PLASTIC BIRD FLIGHT DIVERTER



Length: Distance product covers the conductor.

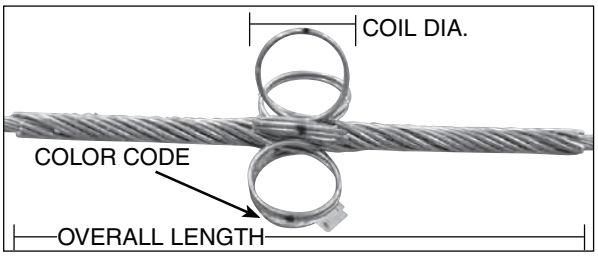
Color Code: Identifies conductor range, corresponding to tabular information on the following page.

Color: Yellow or Gray

Material: Outdoor grade PVC

Coil Diameter: Internal diameter of diverter coil

ALUMINUM BIRD FLIGHT DIVERTER



Length: Distance product covers the conductor.

Color Code: Identifies conductor range, corresponding to tabular information on the following page.

Color: Silver

Material: Aluminum Alloy

Coil Diameter: Approximately 4"

GENERAL RECOMMENDATIONS

The BIRD-FLIGHT Diverter is designed to make overhead lines and guyed structures visible to birds and provides an economical means of reducing the hazard to both lines and birds. For low and medium voltage construction, the BIRD-FLIGHT Diverter is applied to the phase conductors (bare or jacketed). For high voltages, it is used on the shield wire.

The BIRD-FLIGHT Diverter is lightweight, offers little wind resistance and is easily and quickly applied by hand or by hot stick. The positive grip on the conductor ensures that the Bird-Flight Diverter remains in the applied position and cannot move along the span under aeolian vibration or other conditions.

Visibility:

The diverter section increases the visible profile of the cable or conductor to a degree necessary to ensure safety, but avoids an undesirably bulky outline.

Materials:

The plastic BFD is manufactured from rigid .375" and .500" high impact polyvinyl chloride (PVC) possessing excellent chemical resistance and tensile strength properties. The BIRD-FLIGHT Diverter will retain good physical characteristics within a range of extreme temperatures. Aging tests confirm the material does not deteriorate in function or appearance from the effects of severe weather conditions. Industrial fumes and salt water cannot seriously degrade the properties of rigid PVC.

The Aluminum BFD is manufactured from a high strength, corrosive resistant aluminum alloy material. It is ideal for use on conductors operated at elevated temperatures.

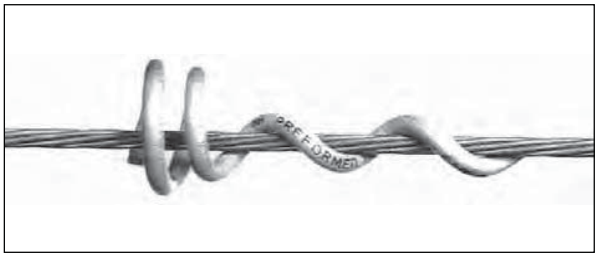
APPLICATIONS

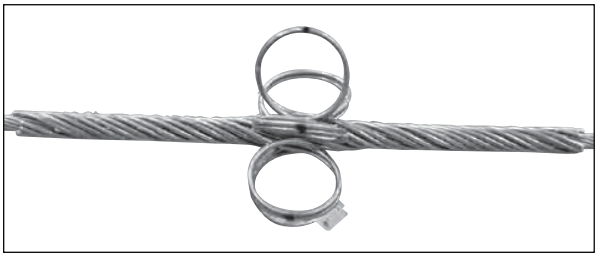
Ensure the correct size BIRD-FLIGHT Diverter is used. For a detailed installation description, refer to the application instructions. Hot stick application is fast and simple with standard equipment.

Spacing:

For optimum results, spacing distances are generally recommended at 15' intervals depending upon local conditions. Since wind resistance is very limited, sufficient BIRD-FLIGHT Diverters can be used to ensure adequate visibility without creating stresses on the line. When marking adjacent spans, overall visibility is improved by staggering the application.

BIRD-FLIGHT™ Diverter





For use on:
Bare and Jacketed Conductors & Strand

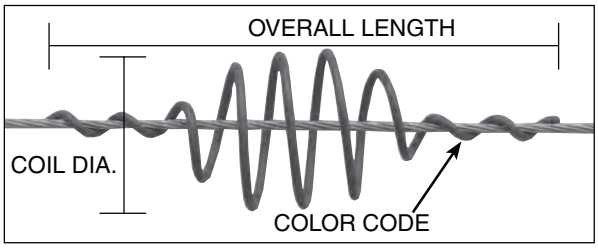
Catalog Number	Material Color	Conductor Range (Inches)		Overall Length (Inches)	Diameter of Diverter Coil (Inches)	Diameter of PVC Rod (Inches)	Color Code
		Min	Max				
BFD-MS-3331	Yellow	0.175	0.249	7.00	2.25	0.375	Black
BFD-MS-3346	Gray						
BFD-MS-3155	Yellow	0.250	0.349	8.50	2.50	0.375	Blue
BFD-MS-2921	Gray						
BFD-MS-3164	Yellow	0.350	0.449	9.50	2.75	0.375	Brown
BFD-MS-3355	Gray						
BFD-MS-10022	Black						
BFD-MS-11135	Yellow			12.375	4.50	0.500	
BFD-MS-11060	Gray						
BFD-MS-11134	Black						
BFD-MS-3341	Yellow	0.450	0.599	11.00	3.00	0.375	Green
BFD-MS-3366	Gray						
BFD-MS-10023	Black						
BFD-MS-3344	Yellow	0.600	0.770	13.00	3.75	0.500	Purple
BFD-MS-3371	Gray						
BFD-MS-3345	Yellow	0.771	0.858	15.00	4.25	0.500	Red
BFD-MS-3376	Gray						
BFD-MS-3405	Yellow	0.859	0.942	16.50	4.75	0.500	Orange
BFD-MS-11699	Gray						
BFD-MS-11111	Yellow	0.971	1.121	15.50	4.25	0.438	Pink
BFD-MS-12290	Gray						
BFD-MS-10277	Black						
BFD-MS-11430	Yellow	1.122	1.306	16.25	4.38	0.438	Gray
BFD-MS-11110	Yellow	1.307	1.530	17.00	4.70	0.438	Black
BFD-MS-12351	Yellow	1.531	1.786	20.00	4.88	0.438	White
BFD-MS-11566	Yellow	1.787	2.100	23.00	5.25	0.438	Purple
BFD-MS-12603	Yellow	2.101	2.500	26.00	5.25	0.438	Orange
BFD-MS-11543	Aluminum	0.800	0.850	26.00	4.00	0.250	Pink
BFD-MS-12679	Aluminum	1.100	1.150	37.00	4.00	0.250	Purple
BFD-MS-12645	Aluminum	1.300	1.350	43.00	4.00	0.250	Red
BFD-MS-12687	Aluminum	1.565	1.635	54.00	4.00	0.250	Black

Explanatory Notes:
For field study results, consult Preformed Line Products.

SWAN-FLIGHT™ Diverter

NOMENCLATURE

PLASTIC SWAN-FLIGHT DIVERTER



Length: Distance product covers the conductor.

Color Code: Identifies conductor range, corresponding to tabular information on the following page.

Color: Yellow or Gray

Material: Outdoor grade High Impact PVC

Coil Diameter: Outside diameter of diverter coil

GENERAL RECOMMENDATIONS

The Preformed Line Products SWAN-FLIGHT Diverter is designed for use on conductor/strand to create greater visibility for avian flight paths on overhead lines and tower down guys. Offering little wind resistance, it reduces hazards to both lines and birds. For construction up to 230kV, the SWAN-FLIGHT Diverter can be applied to phase conductors (bare or jacketed). For EHV voltages, it is typically installed on the shield wire.

The SWAN-FLIGHT Diverter is lightweight, offers little wind resistance and is easily and quickly applied by hand or hot stick. The positive grip on the conductor ensures that the SWAN-FLIGHT Diverter remains in the applied location and cannot move along the span under Aeolian vibration or other conditions.

Visibility:

The diverter section increases the visible profile of the cable or conductor to a degree necessary to ensure safety, but avoids an undesirably bulky outline.

Materials:

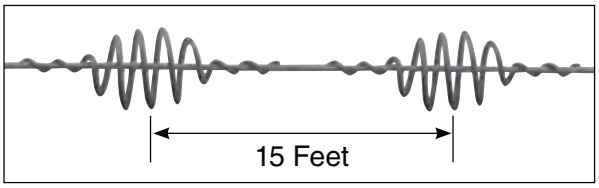
The SWAN-FLIGHT Diverter (SFD) is manufactured from rigid .375" and .500" high impact polyvinyl chloride (PVC) possessing excellent chemical resistance and tensile strength properties. The SFD will retain good physical characteristics within range of extreme temperatures. Aging tests confirm the material does not deteriorate in function or appearance from the effects of severe weather conditions. Industrial fumes and salt water cannot seriously degrade the properties of rigid PVC.

APPLICATIONS

Ensure the correct size SWAN-FLIGHT Diverter is used. For detailed installation description, refer to the application procedure. Hot stick application is fast and simple with standard equipment.

Spacing:

For optimal results, spacing distances are generally recommended at 15' intervals depending upon local conditions. Since wind resistance is very limited, a sufficient quality of SWAN-FLIGHT Diverters can be used to ensure adequate visibility without creating stresses on the line. When marking adjacent spans, overall visibility is improved by the staggering application.



Catalog Number	Conductor Range (Inches)		Overall Length (Inches)	Diameter of Diverter Coil (Inches)	Diameter of PVC Rod (Inches)	Color Code
	Min	Max				
SFD-0445	0.175	0.249	20	7.0	0.375	Black
SFD-0635	0.250	0.349	23	7.0	0.375	Blue
SFD-0890	0.350	0.449	25	7.5	0.375	Brown
SFD-1140	0.450	0.599	35	8.0	0.375	Green
SFD-1520	0.600	0.770	38	8.0	0.500	Purple
SFD-1960	0.771	0.858	38	8.0	0.500	Red
SFD-2220	0.859	0.942	40	8.0	0.500	Orange
SFD-2460	0.943	1.121	40	8.0	0.500	Pink
SFD-2700	1.122	1.306	40	8.0	0.500	Gray
SFD-3035	1.307	1.530	46	8.0	0.500	Black

NOTE: Add suffix –Y to the catalog number for yellow color (i.e.: SFD-1140-Y).

PREFORMED LINE PRODUCTS

Section 22 – Splices

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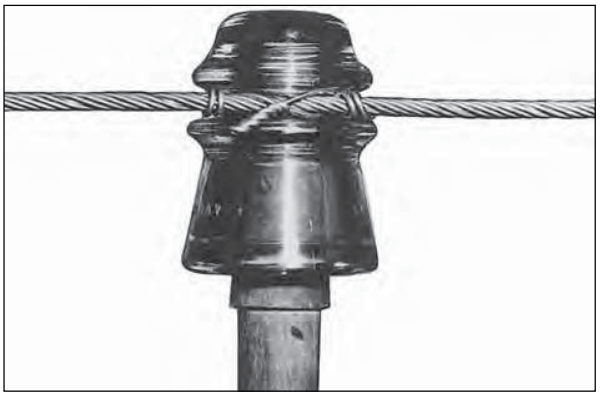
Open Wire Splice

Open Wire Splice

PREFORMED™ Open Wire Splices are used for mid-span splicing during new construction and for repair of abraded or severed wire at tie points. Provides armoring at the tie that is designed to protect the conductor from damaging effects of chafing and fretting. Open Wire Splices wrap on easily by hand without a need for wire cutting. They are designed to permanently restore the full mechanical strength and conductivity of the conductor to which they are applied.

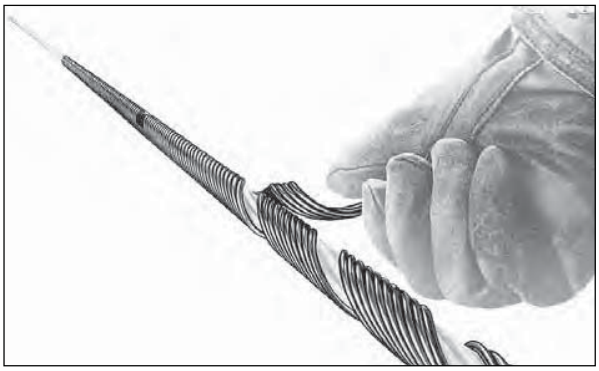


Catalog Number	Wire		Number of Subsets	Length	Color Code	Per Carton	
	Gauge	Size				Units	Wt./Lbs.
Galvanized Steel							
GLS-3101	BWG-12	.109"	3	12"	Black	100	9
GLS-3103	BWG-10	.134"	3	14"	Orange	100	15
Aluminum Clad Steel							
AWLS-5101	AWG-11	.091"-.095"	2	12"	Green	100	7

Strand Splice

Strand Splice

PREFORMED™ Strand Splices are used to repair strand or messenger simply and economically. All applications can be checked visually — no guesswork involved. Because of its superior design, the Strand Splice provides maximum strength and excellent fatigue characteristics resulting in longer life for both strand and messenger.



Galvanized Steel, C-coat								
Catalog Number	**Size**	**Strand Construction**	**Mean Diameter**	**Length**	**No. of Subsets**	**Color Code**	**Units Per Carton**	**Wt./Lbs. Per Carton**
Utility Grade C-Coat								
GLS-2115	3/16"	7W	.195"	22"	3	Red	100	20
GLS-2117	5/16"	7W	.327"	29"	3	Black	50	26
GLS-2118	3/8"	7W	.360"	34"	3	Orange	50	42
GLS-2119	7/16"	7W	.435"	41"	3	Green	25	37
Extra High Strength C-Coat								
GLS-2102	3/16"	7W	.186"	27"	2	Red	100	30
GLS-2104	1/4"	7W	.240"	35"	2	Yellow	50	34
GLS-2106	5/16"	7W	.312"	42"	3	Black	50	46
GLS-2107	3/8"	7W	.360"	50"	3	Orange	25	38
GLS-2108	7/16"	7W	.435"	56"	3	Green	25	57
GLS-2109	1/2"	7W	.495"	63"	3	Blue	10	34

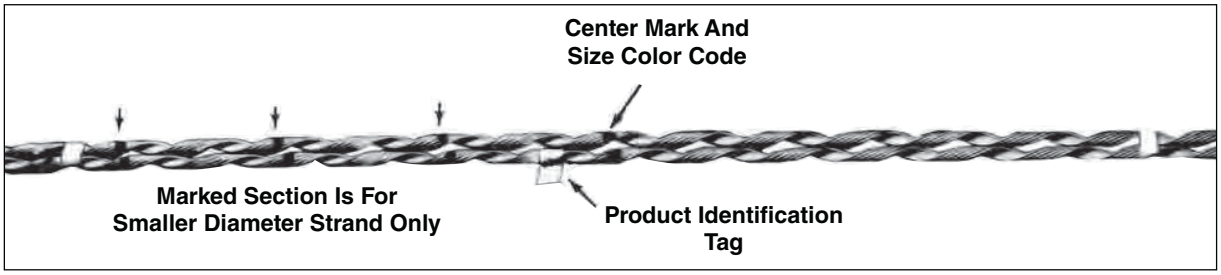
NOTE: Left hand lay standard

Bezinal® Strand*								
Catalog Number	**Size**	**Strand Construction**	**Mean Diameter**	**Length**	**No. of Subsets**	**Color Code**	**Units Per Carton**	**Wt./Lbs. Per Carton**
BLS-9102	3/16"	7W	.186"	27"	2	Red	100	30
BLS-9104	1/4"	7W	.240"	35"	2	Yellow	50	34
BLS-9106	5/16"	7W	.312"	42"	3	Black	50	46
BLS-9107	3/8"	7W	.360"	50"	3	Orange	25	38
BLS-9108	7/16"	7W	.435"	56"	3	Green	25	57
BLS-9109	1/2"	7W	.495"	63"	3	Blue	10	34

NOTE: Left hand lay standard

*Manufactured from Bezinal Material. Bezinal is a registered trademark of the Bekaert Corporation.

Reducing Splice



Reducing Splice

PREFORMED™ Reducing Splices are intended to permanently join two strands of different diameters. Application by hand—no tools required—is fast, easy, uniform and can be visually checked to assure proper application. Without any loose parts, jaws to seat, or teeth to bite into the strand, the Reducing Splice is designed to permit spinner-free travel without adjusting the gates or lifting the spinner over the splice.

The PREFORMED Reducing Splice is made of material completely compatible with the strand to which it is applied and can be used in any environment.

Galvanized Steel, C-Coat for use on Extra High Strength or Utility Grade Strands							
Catalog Number	Standard Size		Length	Reduced End Color Code	Per Carton		Non-Reduced End Color Code
	From	To			Units	Wt./Lbs.	
LSR-2122	5/16"	1/4"	35"	Yellow	50	33	Black
LSR-2123	3/8"	5/16"	42"	Black	25	25	Orange
LSR-2124	7/16"	3/8"	50"	Orange	25	39	Green
LSR-2125	3/8"	1/4"	42"	Yellow	50	41	Orange

NOTE: Left Hand Lay Standard

PREFORMED LINE PRODUCTS

Section 23 – Motion Control Products

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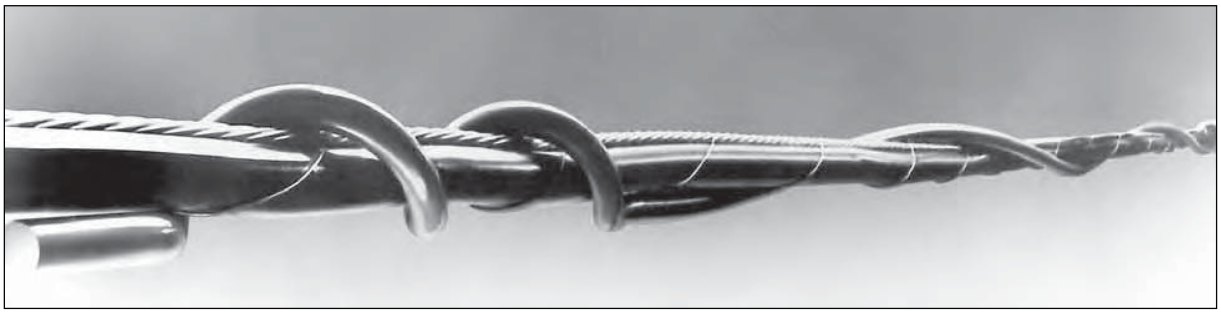
Air Flow Spoilers for Telecommunications Cables



Air Flow Spoilers

Air Flow Spoilers are designed to counteract a damaging wind-related phenomenon known as galloping. Galloping is a low frequency, high amplitude motion that can cause trip-outs, service interruptions, cable damage, and damage to the supporting structures and hardware at their point of connection.

Air Flow Spoilers are designed to maintain aerodynamic stability by continually changing the profile of the cable to the wind. The one-piece helically formed rod, made of rigid, non-corrosive, non-metallic plastic, controls motion problems that can damage lines. The three-section structure of the Air Flow Spoiler enables it to grip the cable or conductor firmly.

Air Flow Spoilers have proven effective in the field, significantly reducing galloping, abrasion and fatigue, and extending the life of the line.

Span Length		Spoilers Per Span	Span Length		Spoilers Per Span
feet	meters		feet	meters	
0-120	0-36.6	2	551-600	167.9-182.9	11
120-180	36.6-54.9	3	601-650	182.9-198.1	12
181-240	55.2-73.2	4	651-700	198.4-213.4	13
241-300	73.5-91.4	5	701-750	213.7-228.6	14
301-350	91.7-106.7	6	751-800	228.9-243.8	15
351-400	106.9-121.9	7	801-850	244.1-259.1	16
401-450	122.2-137.2	8	851-900	259.4-274.3	17
451-500	137.5-152.4	9	901-950	274.6-289.6	18
501-550	152.7-167.6	10	951-1000	289.9-304.8	19

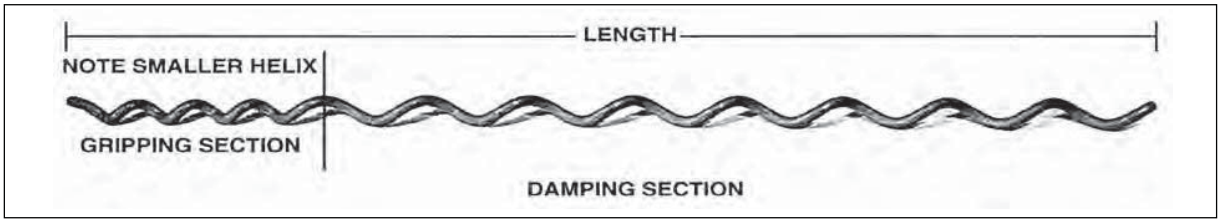
Catalog Number	Self Supporting Single Cable Diameter Range	¼" Messenger Plus Single Telephone Cable within Range shown Below	5/16" Messenger Plus Single Telephone Cable within Range Shown Below	3/8" Messenger Plus Single Telephone cable Within Range Shown Below	Multiple Lashed Cables All Messenger Sizes	Carton Quantity
5058102*	.462"-.563"	.319"-.434"	.319"-.372"	–	.448"-.574"	25
5058103*	.564"-.760"	.435"-.619"	.373"-.565"	.319"-.495"	.575"-.717"	25
5058104*	.761"-.926"	.620"-.828"	.566"-.765"	.496"-.716"	.718"-.896"	15
5058105*	.927"-1.019"	.829"-1.000"	.766"-.954"	.717"-.891"	.897"-1.041"	15
50589317	–	1.001"-1.165"	.955"-1.100"	.892"-1.040"	1.042"-1.200"	15
50588710	–	1.166"-1.350"	1.101"-1.280"	1.041"-1.250"	1.201"-1.371"	15
50589318	–	1.351"-1.560"	1.281"-1.480"	1.251"-1.470"	1.372"-1.542"	15
50589319	–	1.561"-1.770"	1.481"-1.670"	1.471"-1.670"	1.543"-1.686"	15
50588867	–	1.771"-1.970"	1.671"-1.850"	1.671"-1.850"	1.687"-1.839"	15
50589291	–	1.971"-2.250"	1.851"-2.150"	1.851"-2.100"	1.840"-2.200"	15

* Application Support Helix gripping sections are standard on one end of these Air Flow Spoilers. All other Air Flow Spoilers have conventional gripping sections on both ends.
* Contact PLP for recommendations on coaxial type cables.

Notes:

1. If Figure 8 cable or more than one cable is lashed to a messenger, furnish diameter of each cable (prefer dimensions taken with a diameter tape) and the messenger as well as a cross sectional diagram of the cable bundle, and PLP® will provide the catalog number of the AIR FLOW SPOILER to be used.
2. For estimating quantity purchase, approximately 100 Air Flow Spoilers are required per cable mile. In order to achieve satisfactory protection against cable dancing at least 20% of the span should be covered with Air Flow Spoilers.
3. Larger size Air Flow Spoilers are available on special orders.

Spiral Vibration Damper



NOMENCLATURE

Length: Assists in identification of conductor size, corresponding to tabular information appearing on following page.

Damping Section: Helically scaled for interplay of damper and conductor, to provide the action/reaction motion that opposes the natural vibration wave.

Gripping Section: Has a smaller helix designed to the grip conductor.

GENERAL RECOMMENDATIONS

Damping devices are designed for the single purpose of reducing vibration. This single function is entirely different from that of protecting against (1) stress concentrations, (2) fretting or abrasion, and (3) arc-over burning. Because of this, damping devices should be considered only as supplemental to WRAPLOCK® Tie, Armor Rod, Side Tie, Spool Tie, or other hardware at tangent supports. Dampers are also used as supplemental protection at dead-ends.

The degree of protection needed on a specific line depends upon a number of factors such as line design, temperature, tension, exposure to wind flow, and vibration history on similar construction in the same area.

Spiral Vibration Dampers are also effective on certain size overhead shield wires and OPGW. Consult PLP for specifics.

For damper applications on ADSS cable, refer to the FIBERLIGN® Fiber Optic Products section under motion control.

Consult your PREFORMED™ Sales Representative for placement and installation guidelines.

Material:
The solid polyvinyl chloride helical rod material is noncorrosive and has a surface hardness which does not abrade the conductor.

Application Inspection:
The Gripping Section should be installed approximately one hand's width from the ends of Armor Rod or other hardware. It is not necessary to make engineering calculations as to placement.

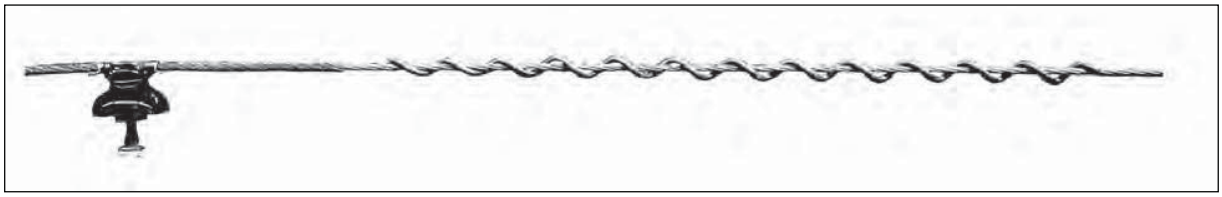
Standard Usage Recommendations for Standard Length Spiral Vibration Dampers on Bare Conductor, Shield Wire.

Span Length	0-.800'	801'-1600'	1601'-2400'
Number of SVDs per Span	2	4	6

Note: Water/Canyon Crossings – due to the increased potential of laminar wind flow, an additional 50% more dampers per span should be added to the standard recommendations above for adequate protection.

In areas that are prone to high levels of vibration where conductor tension is in excess of 18% RBS, consult PLP for specific recommendations.

Spiral Vibration Damper



For use on:
Bare Conductors, Shield Wires

Catalog Number	Diameter Range (Inches)		Units Per Carton	Wt/Lbs Per Carton	Length (Inches)
	Min.	Max.			
5050102	.174	.249	50	29	46
5050103	.250	.326	50	31	49
5050104	.327	.461	50	34	51
5050105	.462	.563	50	36	53
5050106	.564	.760	25	50	65

Spiral Vibration Damper – High Mass

For use on: Bare Conductors, Shield Wires

The Hi Mass Spiral Vibration Damper (HMSVD) has a damping section close to double that of the standard SVD. By extending the length of the damping section, one Hi Mass SVD is designed to provide the effectiveness of two standard SVDs.

- Fewer points of installation.
- Fewer components on the line.

Catalog Number	Diameter Range (Inches)		Units Per Carton	Wt/Lbs. Per Carton	Length (Inches)
	Min.	Max.			
5050200	.250	.326	50	55	87
5050201	.327	.461	50	60	91
5050202	.462	.563	50	65	94
5050203	.564	.760	15	55	97

PREFORMED LINE PRODUCTS

Section 24 – Spacers & Support

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Communications Spacers

Communications Spacers

PREFORMED™ Communications Spacers provide an inexpensive way of eliminating mid-span hits on open wire. Spacers keep open wires in their place and prevent lines from "going dead" and momentary shorts and crosses.

Made from rigid, solid ⅜", high-impact, PVC, Communications Spacers possess excellent strength properties. They are designed with a suitable inside diameter for direct application to mid-span locations, and are easily wrapped onto adjacent wires.

Catalog Number	Spacing	Wire Size	Color Code	Units Per Carton	Wt./Lbs. Per Carton
PSU-0106	6"	.080"	Green	300	31
PSU-0107	8"	.102"	Green	300	35
PSU-0108	10"	.109"	Green	30	390
PSU-0109	12"	.109"	Green	300	41

Tangent Supports

Tangent Supports

Standard Loop and Elongated Loop Tangent Supports are intended to protect and separate one-pair aerial wires on a common drive hook. They accomplish this in the safest, easiest way possible: just wrap them on and hang them up. Because they wrap on in seconds without tools, they keep installation expense down and provide long, trouble-free service at the lowest possible cost.

Catalog Number	Conductor Type	Color Code	Units Per Carton	Wt./Lbs. Per Carton
Standard Loop				
TS-2100	2 #14 CW	White	400	30
TS-2103	2 #12 CW (or .083 Steel)	Yellow	400	30
TS-3100	2 #14 CW	Orange	500	30
Elongated				
ETS-2104	2 #12 CW (or .083 Steel)	Yellow	350	35
ETS-3101	2 #14 CW	Orange	400	34

PREFORMED LINE PRODUCTS

Section 25 – Lashing Rods

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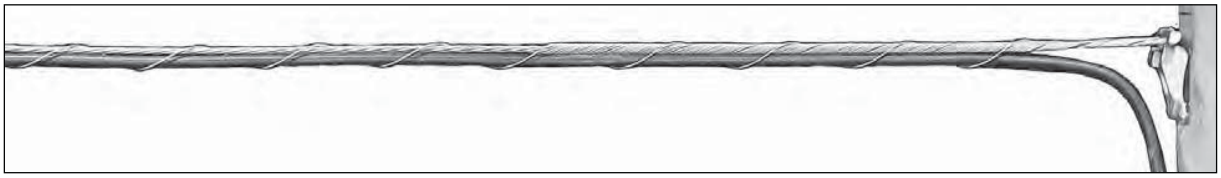
Lashing Rods

Lashing Rods

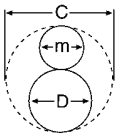
PREFORMED™ Lashing Rods can be used on all types of messengered overhead cables. Lashing Rods are particularly adaptable to spans obstructed by trees or short spans over traffic intersections. Once applied, they provide a permanently snug fit and trim, modern appearance. Made from the same basic material as the messenger, PREFORMED Lashing Rods feature overall low cost and simple installation.



Size Selection:
In selecting the proper size Lashing Rod it is necessary to determine the smallest circumscribing circle that will enclose the messenger and cables.

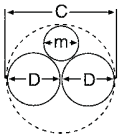
For grouping only one cable with messenger, add the diameters and multiply by a factor of .850.

C = (D + m) x .850



For grouping two equal diameter cables, multiply the diameter of one cable times 2.00. Then to find the diameter of the maximum messenger that will fit in the interstices of the cables multiply the diameter of one cable times .666.

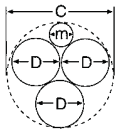
C = D x 2.00



m = D x .666

For grouping three equal diameter cables, multiply the diameter of one cable times 2.155. Then to find the diameter of the maximum messenger that will fit in the interstices of the cables, multiply the diameter of one cable times .483.

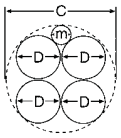
C = D x 2.155



m = D x .483

For grouping four equal diameter cables, multiply the diameter of one cable times 2.414. Then to find the diameter of the maximum messenger that will fit in the interstices of the cables, multiply the diameter of one cable times .414.

C = D x 2.414



m = D x .414

For grouping unequal diameter cables or messengers too large to fit into the interstices above, the minimum diameter grouping can best be determined by a graphic layout scale.

C-Coat Galvanized Steel Messengered Cable							
Catalog Number	Diameter Range		Length	Rod Diameter	Color Code	Per Carton	
	Min.	Max.				Units	Wt./Lbs.
LR-6105	.670"	.749"	5'	.100"	White	100	17
LR-6106	.750"	.839"	5'	.100"	Red	100	17
LR-6107	.840"	.939"	5'	.100"	White	100	17
LR-6108	.940"	1.049"	5'	.100"	Orange	100	17
LR-6109	1.050"	1.169"	5'	.119"	Green	100	24
LR-6110	1.170"	1.309"	5'	.119"	Yellow	100	24
LR-6111	1.310"	1.459"	5'	.119"	White	100	24
LR-6112	1.460"	1.629"	5'	.138"	Red	100	37
LR-6113	1.630"	1.819"	5'	.138"	White	100	37
LR-6114	1.820"	2.039"	5'	.138"	Orange	100	37