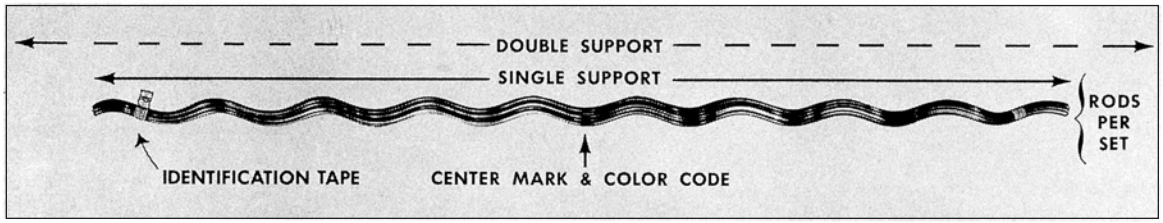
Line Guards

NOMENCLATURE



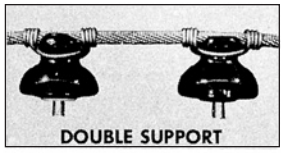
Single Support and Double Support Length: Identified by "S" and "D" appearing in the length column on the catalog page. Should the maximum distance between tied supports exceed 12 inches, consult the Factory.

Rod Diameter: Added to conductor O.D., assists in arriving at applied overall diameter.

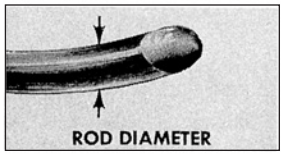
Rods Per Set: Indicates the proper number of rods for each application.

Center Mark: Establishes recommended alignment of rods during application.

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



Identification Tape: Shows catalog number, nominal sizes.



Thermal Rating (Continuous)

- **In Jumper Loop Support Applications: 250°C**
- **Within a High Temperature Suspension Clamp: See Manufacturer's Recommendation**
- **For Repair on any Aluminum Conductor: 125°C**

GENERAL RECOMMENDATIONS

PROTECTION. PREFORMED™ Line Guards are intended to protect against abrasion and arc-over, and to provide limited repair. 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. As a general guide, the following recommendations may be adopted to the specific conditions.

Line Guards are recommended as minimum protection for hand-tied spans.

PLP® Factory Formed Ties are recommended as improvements over Line Guards secured with hand tie wire. They protect against chafing or wear caused by wind sway or unbalanced loading. PLP Ties also provide a stronger material and greater uniformity than hand tie wire.

Armor Rods are recommended as minimum protection for clamp-type supports or suspensions. The use of supplemental damping devices, such as Spiral Vibration Damper, should be considered when conductor vibration is present or expected.

LINE GUARDS RESTORATIVE-REPAIR. Line Guards may be used as patch rods designed to restore full conductance and strength to ACSR and aluminum conductors where damage is located outside the support area and does not exceed 25 percent of the outer strand layer. Consult Preformed Line Products for repair capability of specific strandings.

NOTE: When Line Guards are used to repair damaged aluminum-based conductors, the following application steps will produce optimum electrical repair:

Step 1: Thoroughly wire-brush damaged conductor for the full length of the Line Guard to be applied.

Step 2: Apply a gritted inhibitor to the full length of this area before applying the Line Guard.

Line Guards

GENERAL RECOMMENDATIONS CONTD.

TAPPING. Line Guards may be used as tap armor to protect conductors from wear and flash-over damage under hot line taps. Where it is known that tapping clamps will be installed over Line Guards, it is recommended that the conductor be thoroughly wire brushed clean, then an inhibitor be applied.

APPLICATION-INSPECTION. After application of the correct number of rods per set, a slight gap between rods should be present. Consult the General Information Section for detailed explanation.

Apply no more than one-half the number of rods per set at a time on smaller sizes. On conductors 4/0 and larger, do not attempt to apply more than 3 rods at a time. The alignment of the ends of the rods should be maintained within 2 inches.

Standard Line Guards are intended for non EHV applications (230kV and lower). Contact PLP for Line Guards with Parrot-Bill® rod ends for EHV applications.

O.D. CALCULATIONS

Applied overall diameter computed as follows:

The rod diameter can be obtained from the catalog page tables. Conductor/Strand O.D. can be found in the Conductor Chart, General Information Section.

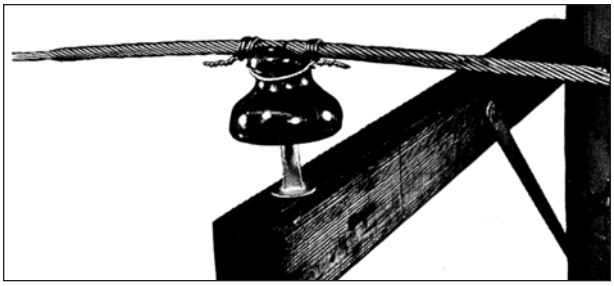
Rod Diam.,	.102" x 2 = .204"
Conductor Diam.	+ .188"
Total Applied O.D.	.392"

SAFETY CONSIDERATIONS

1. This product is intended for a single (one-time) use and for the specified application. CAUTION: DO NOT REUSE OR MODIFY THIS PRODUCT UNDER ANY CIRCUMSTANCES.
2. This product is intended for use by trained craftspeople only. This product SHOULD NOT BE USED by anyone who is not familiar with and trained in the use of it.
3. When working in the area of energized lines with this product, EXTRA CARE should be taken to prevent accidental electrical contact.
4. For PROPER PERFORMANCE AND PERSONAL SAFETY be sure to select the proper size PREFORMED™ Line Guard before application.
5. PREFORMED Line Guards are precision devices. To ensure proper performance, they should be stored in cartons under cover and handled carefully.

Line Guards

For use on:
ACSR, Compacted ACSR,
Aluminum Alloy
All-Aluminum, AWAC®
Compacted All-Aluminum, ACAR



Catalog Number	Diameter Range (Inches)		Nominal Conductor Size	Units Per Carton	Wt./Lbs. Per Carton	Length (Inches)	Rod Diameter (Inches)	Rods Per Set	Color Code
	Min.	Max.							
MG-0122 MG-0305	.182	.193	#6, 7W All-Alum.	100	12 19	17(S) 29(D)	.102	7	Purple
MG-0123 MG-0306	.194	.207	#6, 6/1 #6, 7W Alum. Alloy	100	12 19	17(S) 29(D)	.102	7	Blue
MG-0125 MG-0308	.220	.228	#5, 6/1 #5, 7W Alum. Alloy	100	16 26	17(S) 29(D)	.121	7	White
MG-0126 MG-0309	.229	.243	#4, 7W All-Alum. #4, 6/1, 7/1 Comp.	100	20 32	19(S) 31(D)	.121	8	Brown
MG-0127 MG-0310	.244	.259	#4, 6/1, 7/1 #4, 7W Alum. Alloy	100	20 32	19(S) 31(D)	.121	8	Orange
MG-0128 MG-0311	.260	.273	#3, 7W All-Alum. #2, 7W Comp.	100	20 32	19(S) 31(D)	.121	8	Green
MG-0129 MG-0312	.274	.289	#3, 7W Alum. Alloy	100	25 38	21(S) 33(D)	.121	9	Yellow
MG-0130 MG-0313	.290	.308	#2, 7W All-Alum.	100	25 38	21(S) 33(D)	.121	9	Purple
MG-0131 MG-0314	.309	.326	#2, 6/1, 7/1 #2, 7W Alum. Alloy	100	25 38	21(S) 33(D)	.121	9	Red
MG-0132 MG-0315	.327	.346	#1, 7W All-Alum. 1/0, 7W-19W Comp.	100	28 42	21(S) 33(D)	.121	10	Blue
MG-0133 MG-0316	.347	.366	#1, 6/1 1/0, 6/1 Comp.	100	30 44	23(S) 35(D)	.121	10	Green
MG-0134 MG-0317	.367	.389	1/0, 7W All-Alum. 2/0, 7W-19W Comp.	100	32 46	23(S) 35(D)	.121	11	Black
MG-0135 MG-0318	.390	.413	1/0, 6/1 1/0, 7W Alum. Alloy	100	35 50	25(S) 37(D)	.121	11	Yellow
MG-0136 MG-0319	.414	.436	2/0, 7W All-Alum. 3/0, 7W-19W Comp.	50	20 29	25(S) 37(D)	.121	12	Brown
MG-0137 MG-0320	.437	.463	2/0, 6/1, 7/1 2/0, 7W Alum. Alloy	50	23 32	27(S) 39(D)	.121	13	Blue
MG-0138 MG-0321	.464	.490	3/0, 7W-19W All-Alum.	50	24 32	27(S) 39(D)	.121	13	Green
MG-0139 MG-0322	.491	.521	3/0, 6/1 3/0, 7W Alum. Alloy	50	26 36	29(S) 41(D)	.121	14	Orange
MG-0140 MG-0323	.522	.551	4/0, 7W-19W All-Alum.	50	26 36	29(S) 41(D)	.121	14	Black
MG-0141 MG-0324	.552	.585	4/0, 6/1 4/0, 7W Alum. Alloy	50	30 40	31(S) 43(D)	.121	15	Red
MG-0142 MG-0325	.586	.606	266.8, 7W-19W, 37W All-Alum.	50	40 54	31(S) 43(D)	.146	14	Black

(Continued on next page)

Right-hand lay standard
EXPLANATORY NOTES:

(1) Nominal Conductor size indicates one of various conductors within each range.
(2) Single Support Length (S) and Double Support Length (D) are described on the first page of this section.
(3) AWAC is a registered trademark of the Copperweld Co.

Line Guards

Catalog Number	Diameter Range (Inches)		Nominal Conductor Size	Units	Wt./Lbs.	Length (Inches)	Rod Diameter (Inches)	Rods Per Set	Color Code
	Min.	Max.		Per Carton					
MG-0143 MG-0326	.607	.630	266.8, 18/1 300, 19W-37 All-Alum.	50	42 57	33(S) 45(D)	.146	14	White
MG-0144 MG-0327	.631	.655	266.8, 19W Alum. Alloy (6201)	50	42 57	33(S) 45(D)	.146	14	Yellow
MG-0145 MG-0328	.656	.679	336.4, 19W-37W All-Alum.	50	48 62	35(S) 47(D)	.146	15	Brown
MG-0146 MG-0329	.680	.703	336.4, 18/1 350, 37W All-Alum.	50	48 62	35(S) 47(D)	.146	15	Blue
MG-0147 MG-0330	.704	.740	336.4, 26/7 19W Alum. Alloy (6201)	50	54 70	37(S) 49(D)	.146	16	Green
MG-0148 MG-0331	.741	.792	397.5, 18/1 26/7, 24/7	50	60 77	39(S) 51(D)	.146	17	Orange
MG-0149 MG-0332	.793	.840	477, 18/1 477, 19W-37W All-Alum.	50	64 82	39(S) 51(D)	.146	18	Purple
MG-0150 MG-0333	.841	.898	477, 24/7, 26/7 30/7	25	36 45	41(S) 53(D)	.146	19	Blue
MG-0151 MG-0334	.899	.954	556.5, 24/7, 26/7 30/7	25	46 58	43(S) 55(D)	.167	18	Green
MG-0152 MG-0335	.955	.986	605, 26/7 636, 24/7	25	54 68	45(S) 57(D)	.182	17	White
MG-0153 MG-0336	.987	1.016	636, 26/7 666.6, 24/7	25	58 72	45(S) 57(D)	.182	18	Yellow
MG-0154 MG-0337	1.017	1.064	715.5, 24/7 26/7	25	60 74	47(S) 59(D)	.182	18	Brown
MG-0155 MG-0338	1.065	1.098	874.5, 37W-61W All-Alum.	15	44 55	49(S) 61(D)	.204	17	Green
MG-0156 MG-0339	1.099	1.153	795, 26/7 30/19	15	58 72	49(S) 61(D)	.250	15	Orange
MG-0157 MG-0340	1.154	1.208	954, 45/7 54/7	15	62 75	51(S) 63(D)	.250	15	Purple
MG-0158 MG-0341	1.209	1.268	1113, 45/7, 1192.5, 61W All-Alum.	15	68 82	53(S) 65(D)	.250	16	Black
MG-0159 MG-0342	1.269	1.327	1113, 54/19, 1192.5, 45/7	10	48 58	53(S) 65(D)	.250	17	White
MG-0160 MG-0343	1.328	1.390	1272, 45/7	10	50 60	55(S) 67(D)	.250	17	Yellow
MG-0161 MG-0344	1.391	1.440	1431, 45/7	5	36 44	57(S) 69(D)	.310	15	Brown
MG-0162 MG-0345	1.441	1.508	1431, 54/19	5	40 48	59(S) 71(D)	.310	16	Blue

Right-hand lay standard
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