

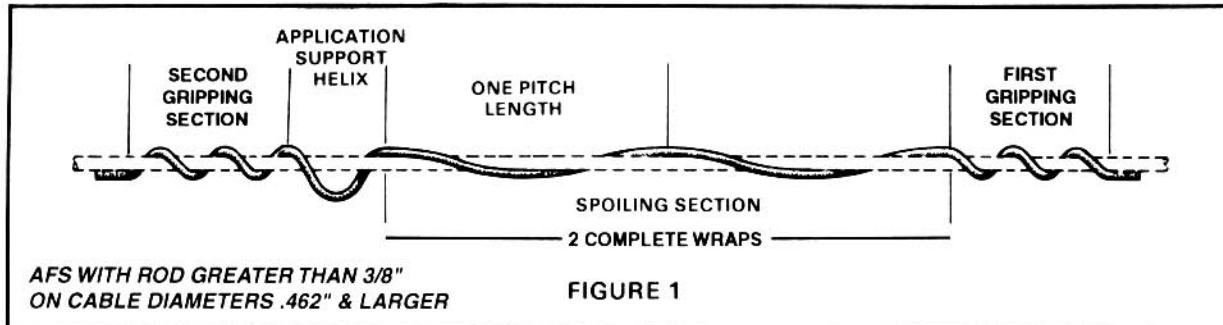
# APPLICATION PROCEDURE & SAFETY CONSIDERATIONS PREFORMED LINE PRODUCTS



DECEMBER 1996

## AIR FLOW SPOILER

Completely read and understand this procedure before applying product. Special attention should be given to the Safety Considerations located on the last page. We advise the reader to review those considerations now, and then again during the general review of this procedure.



### NOMENCLATURE

**GRIPPING SECTION:** Grips cable. Consists of several pitches (360° wraps around the cable) and holds the Air Flow Spoiler firmly in position.

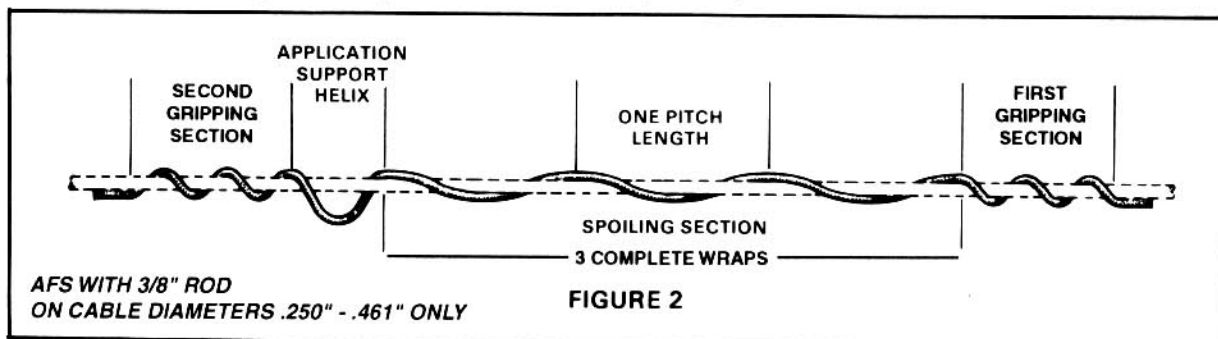
**SPOILING SECTION:** Disturbs aerodynamic lift. The spoiling section is wrapped around the cable in a manner which presents a constantly changing profile to wind flow and helps reduce lift forces which cause galloping. The spoiling section is wrapped around the cable either two times (FIGURE 1) or three times (FIGURE 2), depending on cable diameter.

**APPLICATION SUPPORT HELIX:** Supports Spoiler. Air Flow Spoilers range in length from 14 to 16 feet. The Application Support Helix on one end keeps the Air Flow Spoiler from hanging down, while the gripping section on the opposite end is applied.

### APPLICATION

1. Once the location for installation of the Air Flow Spoiler has been chosen, wrap the Application Support Helix around the cable and slide the Air Flow Spoiler away from you until the first gripping section is in its correct location. The Application Support Helix prevents the Air Flow Spoiler from hanging down while the first gripping section is wrapped on.
2. Wrap on the first gripping section.
3. Now move to the opposite end of the Air Flow Spoiler where the Application Support Helix is located and wrap the spoiling section around the cable **two times** in a **right-hand** lay direction. See Figure 1.

**NOTE:** For small diameter cables which use the Air Flow Spoiler made from 3/8" diameter rod, wrap the spoiling section around the cable three times in a right-hand lay direction. (This will limit excessive drooping of the small diameter Air Flow Spoiler during hot weather conditions.) See Figure 2.



4. Install the second gripping section by wrapping it around the cable and snap the end of the gripping section in place.

## TIPS ON INSTALLATION

To assist the installer in determining how many times the Air Flow Spoiler is wrapped around the cable, the following will be helpful:

1. For small cable diameters (.250" - .461") where the AFS rod diameter is 3/8", wrap the spoiling section in a right-hand lay direction three times around the cable.
2. For all cable diameters .462" and larger where the AFS rod diameter is larger than 3/8", wrap the spoiling section in a right-hand lay direction two times around the cable.

## GENERAL NOTES

1. Several Air Flow Spoilers are required in each span to offset the aerodynamic lift forces which cause galloping.
2. The number and placement of Air Flow Spoilers in each span are determined by a computer program which considers the results of on going field and laboratory research.
3. An Air Flow Spoiler Placement Request form should be completed and returned to Preformed Line Products Company prior to installation of Air Flow Spoilers. A placement scheme will be returned to determine placement of Air Flow Spoilers in each span.
4. Please advise whether the cables contain optical fibers. This may influence Air Flow Spoiler selection.

## FIGURE 8 & LASHED MESSENGER CABLES

Figure 8 and lashed messenger cables are special applications for short span construction. Air Flow Spoilers may be located in accordance with the table below.

Span Length in feet	Air Flow Spoilers per cable	Air Flow Spoiler placements start from first structure. Distances are measured from same end of Air Flow Spoiler, accumulated distances in ( ).		
100-130	2	33.3 (33.3)	28.8 (62.0)	48.0 (110.0)
130-160	3	33.9 (33.9) 48.6 (140.0)	28.8 (62.6)	28.8 (91.4)
160-190	3	48.9 (48.9) 63.6 (170.0)	28.8 (77.6)	28.8 (106.4)
190-220	4	44.5 (44.5) 28.8 (130.8)	28.8 (73.3)	28.8 (102.0)

Please contact the factory for recommendations on longer spans. Figure 8 and lashed messenger cables are more difficult to determine correct Air Flow Spoiler size. Please provide complete dimensions of the cable so correct size may be established.

### SAFETY CONSIDERATIONS

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| <ol style="list-style-type: none"> <li>1. This application procedure is not intended to supersede any company construction or safety standards. This procedure is offered only to illustrate safe application for the individual. <b>CAUTION: FAILURE TO FOLLOW THESE PROCEDURES AND RESTRICTIONS MAY RESULT IN PERSONAL INJURY OR DEATH.</b></li> <li>2. This product is intended for the specified application. <b>CAUTION: DO NOT MODIFY THIS PRODUCT UNDER ANY CIRCUMSTANCES.</b></li> <li>3. This product is intended for use by trained craftspeople only. This product <b>SHOULD NOT BE USED</b> by anyone who is not familiar with and trained in the use of it.</li> </ol> | <ol style="list-style-type: none"> <li>4. When working in the area of energized lines with this product, <b>EXTRA CARE</b> should be taken to prevent accidental electrical contact.</li> <li>5. For <b>PROPER PERFORMANCE AND PERSONAL SAFETY</b> be sure to select the proper size <b>PREFORMED</b> product before application.</li> <li>6. <b>PREFORMED</b> products are precision devices. To insure proper performance, they should be stored in cartons under cover and handled carefully.</li> </ol> |
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**PREFORMED LINE PRODUCTS** 

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