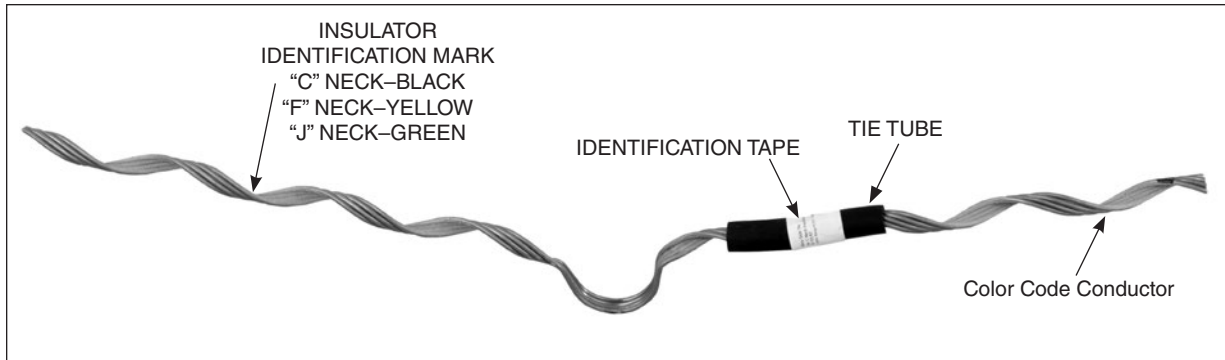




Alloy Spool Tie

FOR USE ON BARE AND 1-3/4" DIAMETER SPOOL INSULATORS
(ANSI CLASSES 53-1,53-2,53-3)

NOMENCLATURE



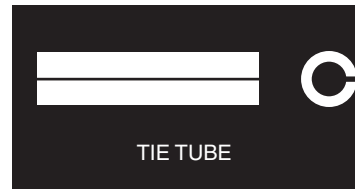
Tie Assembly: An Alloy Spool Tie Assembly consists of one metal tie component plus tie tube.

Tie Tube: Each Alloy Spool Tie is supplied with an elastomeric tie tube designed for abrasion protection with bare conductors.

Color Code: Identifies proper conductor size, corresponding to tabular information appearing in this section.

Identification Tape: Lists catalog numbers, proper insulator type, and nominal conductor sizes.

Applied Length: Describes length of tie after installation, plus assists in product identification.



GENERAL RECOMMENDATIONS

The Alloy Spool Tie is intended for use on aluminum based conductors with diameters from .245" to 1.096". The Alloy Spool Tie is manufactured from an aluminum alloy material which makes it ideal for corrosive environments.

Interchangeable Neck-Style Insulators: Alloy Spool Ties listed in this section are designed to be applied to only ANSI Class 53-1, 53-2 and 53-3 spool insulators which have 1-3/4" neck diameters.

To insure proper fit and service life of the Alloy Spool Tie, it is recommended only spool insulators with uniform dimensions, as described by the latest (C29.3) ANSI standards, be used.

Each Alloy Spool Tie is supplied with an elastomeric tie tube designed to minimize abrasion to bare conductors and insulators.

Mechanical Strength: The Alloy Spool Tie is designed to provide superior mechanical strength and resiliency during conductor motion and cyclic loading conditions. Longitudinal holding strengths consistently exceed the requirements of the National Electric Safety Code. **TR-695E** covers the mechanical testing of the Alloy Spool Tie and is available upon request.

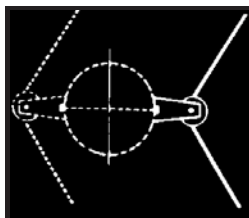
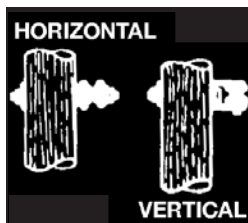
The RIV/TVI characteristics of Alloy Spool Ties are equivalent to those of a well made hand tie as originally installed. The precontoured loop and formed legs of the Alloy Spool Tie assure continued fit, which provide better RIV/TVI performance than a loosened hand tie wire.

Vibration Dampers: The Alloy Spool Tie is designed to outperform the hand tie during conductor motion activity, such as aeolian vibration and galloping. However, on some lines, the use of dampers may be necessary to prevent damage. Utilities that have experienced conductor motion or expect to, should consider adding dampers. Consult PLP® for general guidelines and advice concerning conductor motion and dampers. Also consult the Motion Control section.

Alloy Spool Tie

INSTALLATION GUIDELINES

- 1. Insulator Mounting:** When installing an Alloy Spool Tie, the spool insulator may be mounted either horizontally or vertically. Whatever the construction style, the conductor should be positioned so it will bear, as much as possible, into the insulator. During vertical mounted installations, the insulator should be removed from the rack or clevis so the conductor may be positioned inside the insulator. However, when running angles turn *into* the pole, the conductor should be placed on the *outside* of the insulator so the conductor bears against the spool.



- 2. Line Angles – General Guidelines:** On horizontally-mounted insulators, Alloy Spool Ties can accommodate line angles up to 10° . On vertically-mounted insulators, line angles up to 40° can be achieved.

In all cases the conductor should rest in the preferred insulator groove, independently of the tie, so the tie is not required to force the conductor to remain in that groove. The largest practical angle a tie can accommodate depends upon limiting factors such as conductor size, tension, span lengths, sag angles, insulator style and orientation, etc. Consult PLP® for further guidance on line angle issues.

- 3. Tapping:** Taps should not be made directly over the legs or loop of the Alloy Spool Tie.
- 4. Conductor Compatibility:** Alloy Spool Ties should be used only on the size, type, and lay direction for which they are designed. When using conductors not mentioned in this catalog section, consult PLP.
- During installation and at all times, care should be taken to avoid gouging or damaging the protective coating of the Alloy Spool Tie or the conductor.
- Alloy Spool Ties should not be used as tools; i.e., come-alongs, pulling-in grips, etc.
- Consult the Alloy Spool Tie Application Procedure for additional installation information.
- When in doubt about usage of Alloy Spool Ties, consult your PLP representative or Preformed Line Products.

SAFETY CONSIDERATIONS

- 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.
- 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.
- When working in the area of energized lines with this product, EXTRA CARE should be taken to prevent accidental electrical contact.
- For PROPER PERFORMANCE AND PERSONAL SAFETY be sure to select the proper size Alloy Spool Tie before application.
- Alloy Spool Ties are precision devices. To insure proper performance, they should be stored in cartons under cover and handled carefully.



Alloy Spool Tie

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

Spool Insulator

ANSI 53-1
ANSI 53-2
ANSI 53-3

1-3/4"
Neck Diam.



Catalog Number	Diameter Range (Inches)		Nominal Conductor Size – Bare Conductor	Units	Wt./Lbs.	Applied Length (Inches)	Color Code
	Min.	Max.		Per Carton			
ASP-4300	.190	.215	#4, #6 (3W, 7W Alum. Alloy)	100	16	21	Blue
ASP-4301	.216	.244	#4 (7W Alum. Alloy)	100	16	22	Brown
ASP-4302	.245	.277	#4 (6/1, 7/1) #4 (7W Alum. Alloy)	100	16	24	Orange
ASP-4303	.278	.315	#1, #2, #7	100	16	28	Purple
ASP-4304	.316	.357	#2 (6/1, 7/1) #2 (7W Alum. Alloy) #1 (6/1)	100	16	28	Red
ASP-4305	.358	.405	1/0 (7W All Alum.) 1/0 (6/1) 1/0 (7W Alum. Alloy)	100	17	30	Yellow
ASP-4306	.406	.459	2/0 (7W All Alum.) 2/0 (6/1) 2/0 (7W Alum. Alloy)	100	21	32	Blue
ASP-4307	.460	.520	3/0 (7W All Alum.) 3/0 (6/1) 3/0 (7W Alum. Alloy)	100	21	34	Orange
ASP-4308	.521	.588	4/0 (7W All Alum.) 4/0 (6/1) 4/0 (7W Alum. Alloy)	100	27	36	Red
ASP-4309	.589	.665	266.8 (37W All Alum.) 266.8 (18/1) 336.4 (19W All Alum.)	100	28	38	Purple
ASP-4310	.666	.755	336.4 (18/1) 397.5 (19W All Alum.) 400 (19W, 37W All Alum.)	100	30	40	Brown
ASP-4311	.756	.858	477 (19W, 37W All Alum.) 477 (18/1, 24/7), 26/7	100	35	44	Red
ASP-4312	.859	.968	556.5 (26/7) 636 (18/1) 700 (37W, 61W All Alum.)	100	40	47	Blue

EXPLANATORY NOTES:

- (1) "Diameter Range" indicates the size of conductors that utilize the same tie.
- (2) "Nominal Conductor Size" indicates only a few conductors that have outside diameters within the ranges listed.
- (3) Since all spool insulators do not have neck dimensions suitable for application of the Alloy Spool Tie, consult the Insulator Manufacturer's List on the last page of the Spool Tie Section.
- (4) AWAC is a registered trademark of the Copperweld Co.