ALLOY SPOOL TIE

Alloy Spool Ties provide a vastly improved method of securing conductor compared to hand ties or hand ties over Armor Rods and are manufactured from an aluminum alloy material which makes it ideal for corrosive environments. They provide superior abrasion protection for the conductor under all types of motion, including low-frequency sway oscillation, high-frequency aeolian vibration, and galloping. The included tie tube provides an armoring layer that eliminates abrasion damage of the conductor and insulator caused by conductor motion, extending the life of the electrical system and reducing maintenance.

FEATURES AND BENEFITS

- Superior corrosive-resistance when compared to standard aluminized steel ties
- Ideal for corrosive environments like coastal areas
- Applicable to 1-3/4" neck ANSI Class 53-1, 53-2, and 53-3 spool insulators
- Accommodates conductors from 0.190" - 1.096" diameter
- Pre-contoured Tie ensures tight fit
- Accommodates line angles up to 10-degrees in the horizontal orientation and up to 40-degrees in the vertical orientation
- Exceeds NESC requirements for unbalanced load
- Reduces or eliminates abrasion caused by vibration
- Resiliency of the tie protects the conductor
- Test reports available upon request

DESIGN CONSIDERATIONS

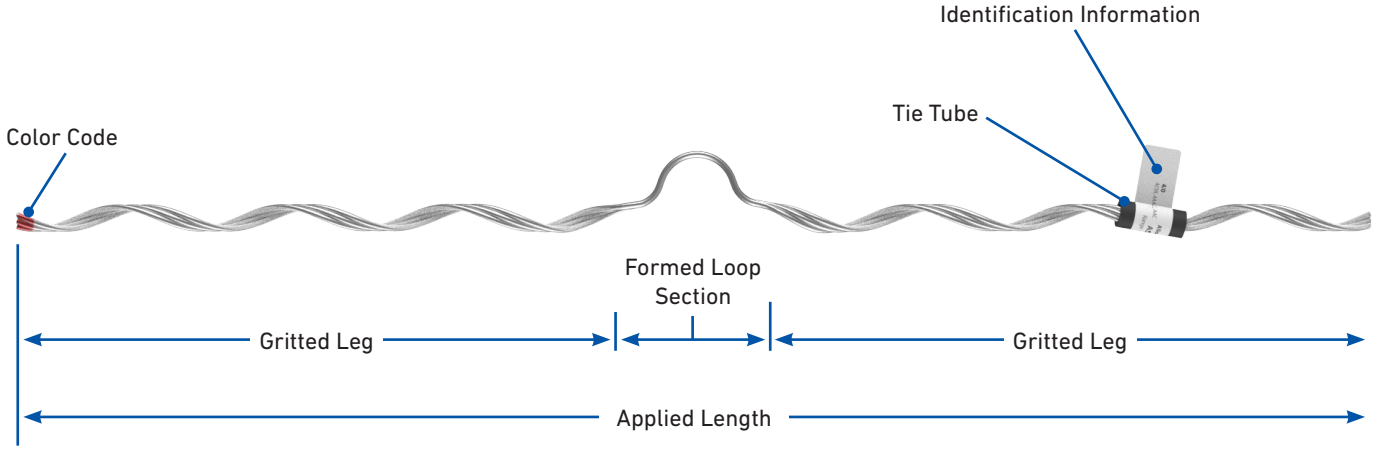
Description	Details
Interchangeable Headstyle Insulator	Alloy Spool Ties listed in this section are designed to be applied to ANSI Class 53-1, 53-2, and 53-3 spool insulators which have 1-3/4" neck diameters. Consult PLP for specifics. To ensure proper fit and service life of the Alloy Spool Tie, it is recommended only spool insulators with uniform dimensions, as described by the latest (C29.3) ANSI standards be used. Consult PLP for applications on non-standard insulators. A sample of the insulator in question is required.
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.
Conductor Size	Alloy Spool Ties can accommodate conductor diameters as defined in the product tables as long as the insulator can accept the conductor/tie tube diameter.
Line Angles - General Guidelines	On horizontally-mounted insulators, Alloy Spool Ties can normally accommodate line angles up to 10-degrees. On vertically-mounted insulators, line angles up to 40-degrees can normally 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.
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-879-E** covers the mechanical testing of the Alloy Spool Tie and is available upon request.
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 Catalog.
Tapping	Taps should **NOT** be made directly over the legs or loop of the Alloy Spool Tie.

Additional Resources

For additional information regarding the use and installation of Alloy Spool Ties, scan or click the QR code below.

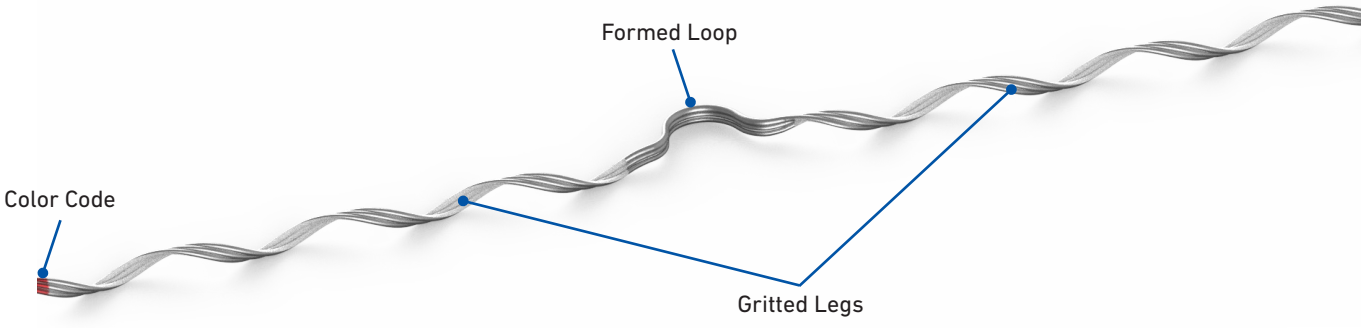
Alloy Spool Tie
Webpage

SPECIFICATIONS



Alloy Spool Tie

Component	Description
Tie Tube	Each tie is furnished with Tie Tube Component. The Tie Tube is detached and applied over the conductor.
Identification Information	Shows catalog number and pertinent tie information. Printed on a tie flag or printed on the tie tube.
Color Code	Identifies conductor diameter ranges for colors corresponding to tabular information on catalog pages.
Gritted Leg	Gritted helical legs retain the conductor in place and prevent the conductor from shifting over the spool.
Formed Loop Section	Allows the tie to form properly around the neck of the spool.
Applied Length	Assist in identification of conductor size corresponding to tabular information appearing on catalog pages.



Alloy Spool Tie

ORDERING INFORMATION

EZ-WRAP Spool Tie: ANSI Classes 53-1, 53-2, and 53-3

Diameter Range[1] in		Nominal Conductor Size[2]	Units per Carton	Catalog Number	Applied Length (in)	Conductor Color Code
Minimum	Maximum					
0.190	0.215	#6, 6/1; #4, 7W Comp.	100	ASP-4300	21	Blue
0.216	0.244	#4, 7W All Alum.; #4, 6/1, 7/1 Comp.	100	ASP-4301	22	Brown
0.245	0.277	#4, 6/1, 7/1; #4, 7W Alum. Alloy	100	ASP-4302	24	Orange
0.278	0.315	#1, #2, #7	100	ASP-4303	28	Purple
0.316	0.357	#2, 6/1, 7/1; #2, 7W Alum. Alloy; #1, 6/1 ACSR	100	ASP-4304	28	Red
0.358	0.405	1/0, 7W All Alum.; 1/0, 6/1 ACSR; 1/0, 7W Alum. Alloy	100	ASP-4305	30	Yellow
0.406	0.459	2/0, 7W All Alum.; 2/0, 6/1 ACSR; 2/0, 7W Alum. Alloy	100	ASP-4306	32	Blue
0.460	0.520	3/0, 7W All Alum.; 3/0, 6/1 ACSR; 3/0, 7W Alum. Alloy	100	ASP-4307	34	Orange
0.521	0.588	4/0, 7W All Alum.; 4/0, 6/1 ACSR; 4/0, 7W Alum. Alloy	100	ASP-4308	36	Red
0.589	0.665	266.8, 37W All Alum.; 266.8, 18/1	100	ASP-4309	38	Purple
0.666	0.755	336.4, 19W All Alum.; 336.4, 18/1; 397.5, 19W All Alum.	100	ASP-4310	40	Brown
0.756	0.858	477, 19W, 37W All Alum.; 477, 18/1 24/7, 26/7	100	ASP-4311	44	Red
0.859	0.968	556.5, 26/7; 636, 18/1; 700, 37W, 61W All Alum.	100	ASP-4312	47	Blue
0.969	1.096	795, 37W All Alum.; 795, 61W All Alum.; 715.5, 24/7; 795, 54/7	50	ASP-4313	54	Green

Right-hand lay standard

NOTES:

[1] Diameter Range indicates the size of conductors that utilize the same tie.
[2] Nominal Conductor Size indicates one or more of various conductors within each range.