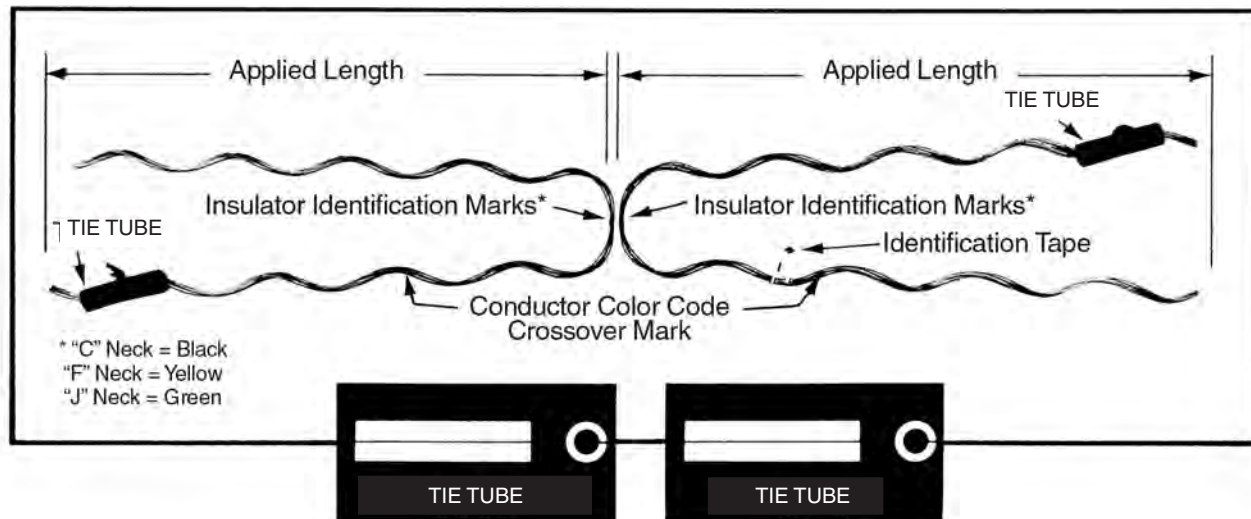




Double Side Tie

NOMENCLATURE

RUS Accepted



Tie Assembly: A Double Side Tie assembly consists of two metal tie components plus two tie tubes.

TieTube: Each Double Side Tie assembly is supplied with two elastomeric tie tubes, designed for abrasion protection.

Cross-Over Marks: C-Neck indicates starting point for application on smaller diameter C-Neck insulators.

F-Neck indicates alternate starting point for application on larger diameter F-Neck insulators.

J-Neck has only one cross-over mark.

Insulator Identification Mark: Identifies the correct insulator headstyle by colors corresponding to information on catalog pages.

Color Code and Applied Length: Assist in identification of conductor size, corresponding to tabular information appearing on catalog pages.

Identification Tape: Shows catalog number and nominal conductor sizes.

GENERAL RECOMMENDATIONS

INTENDED USE: Double Side Tie, manufactured of aluminum-covered steel wire, is designed to secure conductors on double-arm construction in the side groove of interchangeable headstyle insulators. They are intended for larger line angles than top groove style ties, such as, Double-Support Ties.

LINE ANGLES – GENERAL GUIDELINES: On vertically-mounted insulators at double crossarms or brackets, the Double Side Tie can normally accommodate line angles of between 0° and 80°, with no more than a 40° angle at each insulator. When insulators are mounted at various degrees of cant from the vertical, various line angles may be accommodated, depending upon the actual cant of the insulators.

A technical report (**TM-197E**) is available which describes these permissible line angles for Double Side Ties as a function of the insulator's cant.

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 not covered in the above test report.

INTERCHANGEABLE Headstyle INSULATORS: Double Side Ties are designed for installation on double insulator construction in the side groove of interchangeable insulators. To insure proper fit and service life, it is recommended only insulators with uniform dimensions as described by the ANSI insulator standards be used. Consult PLP for application on nonstandard insulators.

(Continued)

Double Side Tie

GENERAL RECOMMENDATIONS CONTD.

DOUBLE SIDETIE: Double Side Ties feature a elastomeric tube which surrounds the bare conductor with a resilient cushion. This tube provides superior abrasion protection for the conductor under all types of motion, including low frequency sway oscillation and high frequency aeolian vibration. As a result, Double Side Ties provide a vastly improved method of securing conductors compared to hand ties over protective rods, since they eliminate abrasion (and the need for protective rods) rather than sacrificing outside surfaces to abrasion. For applications on jacketed conductors, the tube may be discarded.

MECHANICAL STRENGTH: The Double Side 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. **TM-170E** covers the mechanical testing of the Double Side Tie and is available upon request.

RADIO INTERFERENCE: The RIV/TVI characteristics of Double Side Ties are equivalent to those of a well made hand tie, as originally installed. The precontoured loop and formed legs of the Double Support Tie assures continued fit, which will provide better RIV/TVI performance than a loosened hand-tie wire.

VIBRATION DAMPERS: The Double Side Tie is designed to outperform other tie devices during conductor motion activity, such as aeolian vibration and galloping. However, on

some lines the use of dampers may be required 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.

TAPPING: Taps should not be made directly over the legs or loop of the Double Side Tie.

CONDUCTOR COMPATIBILITY: Double Side Ties should be used only on the size, type, and lay direction for which they are designed. When using conductors not mentioned in the catalog, consult PLP.

During installation and at all times, care should be taken to avoid gouging or damaging the wires of the Double Side Tie or conductor.

Double Side Ties should not be used as tools, i.e., come-alongs, pulling-grips, etc.

Consult the Double Side Tie Application Procedure for additional installation information.

When in doubt about usage of Double Side Ties, consult your PREFORMED™ Sales Representative or Preformed Line Products.

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 Double Side Tie before application.
5. PREFORMED Double Side Ties are precision devices. To insure proper performance, they should be stored in cartons under cover and handled carefully.



Double Side Tie

For use on:

**ACSR, All-Aluminum,
AWAC®, Aluminum Alloy
Compacted ACSR, ACAR**

**C-Neck & F-Neck Interchangeable
Headstyle Insulators**



ANSI 55-2 PIN

ANSI 55-3 PIN

ANSI 55-4 PIN

ANSI 55-5 PIN

ANSI 57-1 POST

ANSI 57-2 POST

ANSI 57-3 POST

**2-1/4" & 2-7/8"
Neck Diameters**

Catalog Number	Diameter Range (Inches)		Nominal Conductor Size	Units	Wt./Lbs.	Applied Length (Inches)	Insulator Identification Mark	Color Code
	Min.	Max.		Per Carton				
9/16" R. GROOVE (See Note 2)								
DBST-1100	.245	.277	#4, 6/1-7/1 – #4, 7W Alum. Alloy	50	21	16	Black/Yellow	Orange
DBST-1101	.278	.315	#3, 7W Alum.Alloy #2, 7W All Allum.	50	21	16	Black/Yellow	Purple
DBST-1102	.316	.357	#2, 6/1, 7/1 – #2, 7W Alum. Alloy – #1, 6/1	50	21	17	Black/Yellow	Red
DBST-1103	.358	.405	1/0, 7W All Alum. 1/0, 6/1 1/0, 7W Alum. Alloy	50	21	16	Black/Yellow	Yellow
DBST-1104	.406	.459	2/0, 7W All Alum. 2/0, 6/1 2/0, 7W Alum. Alloy	50	21	18	Black/Yellow	Blue
DBST-1105	.460	.520	3/0, 7W All Alum. 3/0, 6/1 3/0, 7W Alum. Alloy	50	36	19	Black/Yellow	Orange
DBST-1106	.521	.588	4/0, 7W All Alum. 4/0, 6/1 4/0, 7W Alum. Alloy	50	36	19	Black/Yellow	Red
DBST-1107	.589	.665	266.8, 37W All Alum. 266.8, 18/1	50	38	20	Black/Yellow	Purple
DBST-1108	.666	.755	336.4, 18/1 336.4, 19W All Alum. 397.5, 19W, All Alum.	50	39	20	Black & Yellow	Brown
DBST-1109	.756	.858	477, 19W, 37W, All Alum. 477, 18/1, 24/7, 26/7	50	39	20	Black & Yellow	Red
5/8" R. GROOVE (See Note 2)								
DBST-1110	.859	.968	556.5, 26/7 636, 18/1 700, 37W, 61W, All Alum.	50	42	22	Black & Yellow	Blue
11/16" R. GROOVE (See Note 2)								
DBST-1111	.969	1.096	795, 37W, 61W, All Alum. 715.5, 24/7 795, 54/7	50	44	24	Black & Yellow	Green
3/4" R. GROOVE (See Note 2)								
DBST-1112	1.097	1.240	954, 36/1, 54/7 1033.5, 37W, 61W, All Alum.	50	44	24	Black & Yellow	Yellow

Right-hand lay standard

EXPLANATORY NOTES:

- (1) Diameter Range indicates the size of conductors that utilize the same tie.
- (2) For the succeeding ranges, the insulator's side groove radius should be at least as large as shown above.
- (3) The loop of the Double Side Ties on this page can accommodate either C or F neck insulators.
- (4) Nominal Conductor size indicates one of various conductors within each range.
- (5) AWAC is a registered trademark of the Copperweld Co.

Double Side Tie

For use on:

ACSR, All-Aluminum,
AWAC®, Aluminum Alloy
Compacted ACSR, ACAR

J-Neck Interchangeable
Headstyle Insulators



ANSI 55-6

Single Skirt Pin

ANSI 55-7

Single Skirt Pin

ANSI 56-1

Double Skirt Pin

3-1/2"
Neck Diameter

Catalog Number	Diameter Range (Inches)		Nominal Conductor Size	Units	Wt./Lbs.	Applied Length (Inches)	Insulator Identification Mark	Color Code
	Min.	Max.		Per Carton				
9/16" R. GROOVE (See Note 2)								
DBST-1300	.245	.277	#4, 6/1-7/1 – #4, 7W Alum. Alloy	50	24	19	Green	Orange
DBST-1301	.278	.315	#3, 7W Alum.Alloy – #2, 7W All Alum.	50	21	17	Green	Purple
DBST-1302	.316	.357	#2, 6/1, 7/1 – #2, 7W Alum. Alloy – #1, 6/1	50	27	22	Green	Red
DBST-1303	.358	.405	1/0, 7W - 19W All Alum. 1/0, 6/1 1/0, 7W Alum. Alloy	50	26	21	Green	Yellow
DBST-1304	.406	.459	2/0, 7W - 19W All Alum. 2/0, 6/1 2/0, 7W Alum. Alloy	50	36	19	Green	Blue
DBST-1305	.460	.520	3/0, 7W All Alum. 3/0, 6/1 3/0, 7W Alum. Alloy	50	37	20	Green	Orange
DBST-1306	.521	.588	4/0, 7W All Alum. 4/0, 6/1 4/0, 7W Alum. Alloy	50	39	21	Green	Red
DBST-1307	.589	.665	266.8, 37W All Alum. 266.8, 18/1	50	45	24	Green	Purple
DBST-1308	.666	.755	336.4, 18/1 336.4, 19W All Alum. 397.5, 19W, All Alum.	50	46	25	Green	Brown
DBST-1309	.756	.858	477, 19W, 37W, All Alum. 477, 18/1, 24/7, 26/7	50	44	24	Green	Red
5/8" R. GROOVE (See Note 2)								
DBST-1310	.859	.968	556.5, 26/7 636, 18/1 700, 37W, 61W, All Alum.	50	43	23	Green	Blue
11/16" R. GROOVE (See Note 2)								
DBST-1311	.969	1.096	795, 37W, 61W, All Alum. 715.5, 24/7 795, 54/7	50	43	23	Green	Green
DBST-1312	1.097	1.240	954, 36/1, 54/7 1033.5, 37W, 61W, All Alum.	50	48	25	Green	Yellow

Right-hand lay standard

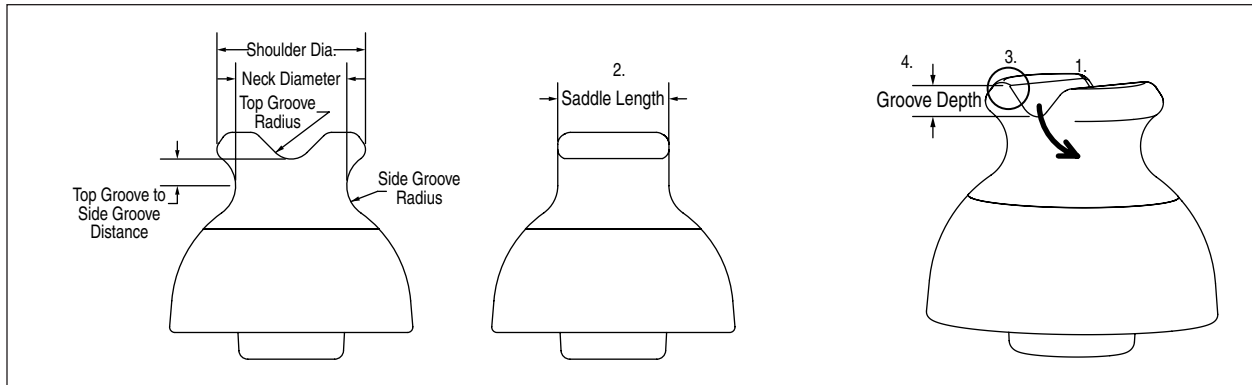
EXPLANATORY NOTES:

- (1) Diameter Range indicates the size of conductors that utilize the same tie.
- (2) For the succeeding ranges, the insulator's side groove radius should be at least as large as shown above.
- (3) The loop of the Double Side Ties on this page can accommodate J-neck insulators.
- (4) Nominal Conductor size indicates one of various conductors within each range.
- (5) AWAC is a registered trademark of the Copperweld Co.



Insulator Fit

Interchangeable Insulators for use with PLP® Ties Dimensional Factors that affect Tie Application and Performance



It is recommended that only insulators meeting the dimensional requirements of the most recent ANSI® C29.3, C29.5, C29.6, and C29.7 specifications be used with the appropriate PLP ties.

ANSI C29 Insulator Specifications and their Affects on PLP Ties

ANSI C29 specifies and defines dimensions for insulator heads that are crucial to the proper application and lifetime performance of PLP factory formed ties. These dimensions include:

- Neck Diameter - nominal
 - C-neck – 2-1/4"
 - F-neck – 2-7/8"
 - J-neck – 3-1/2"
 - K-neck – 4"
- Top groove radius (minimum)
- Side groove radius (minimum)
- Maximum shoulder diameter (maximum)
- Top groove to side groove vertical spacing

Some of the specified dimensions are simply maximum or minimum allowable values. The dimensions for the vertical distance from the bottom of the top groove to the middle of the side groove and the neck diameter have minimum and maximum values designated.

These dimensions and insulator designations determine the proper tie to be used and the maximum conductor size for the groove application. Review the individual tie sections for groove/conductor diameter limitations.

Insulator characteristics that are not part of the ANSI C29 Specifications

Some of the insulator characteristics that have an impact on the application and performance of PLP Ties are not included in the ANSI specification. These characteristics include:

1. The transition contour of the top groove into side groove
2. Length of the saddle or top groove
3. Extension of shoulders past the edge of the top groove.
4. Depth of the top groove

Each of these items has different results on a factory formed tie's performance. Combinations of several of these characteristics could result in initial tie damage and incorrect application.

1. The transition contour of the top groove into the side groove is important due to the tie's shape. If an edge is created instead of a smooth rounded transition, the tie's formed wire is forced to bend over a fulcrum point resulting in a high concentration of stress. This is detrimental for both the insulator and tie.

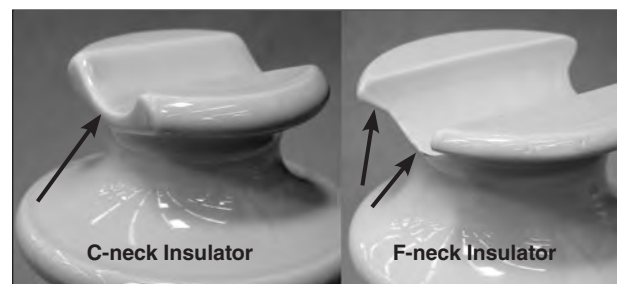


Figure 1a

Note the edge that exists between the top groove and the side groove above. Figure 1b shows a smooth transition.



Figure 1b

Insulator Fit

2. A top groove length longer than the insulator's neck diameter results in an edge. This edge creates a high stress contact point and results in an abnormal tie application. As an example, Figure 2 illustrates how a Distribution Tie reacts to this configuration (the tie tube was omitted to illustrate the gap beneath the conductor). Note the point contact at the insulator/tie interface.

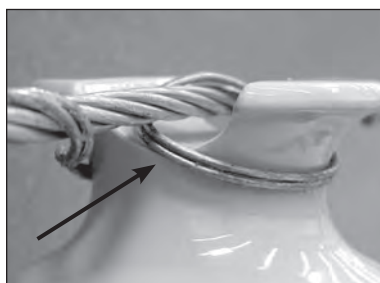


Figure 2

3. The shoulder extensions result in difficulty in application of top ties. As the tie is rotated, the added protrusions from the shoulders past the end of the top groove provide catch points for the tie (see F-neck Insulator in Figure 1a).

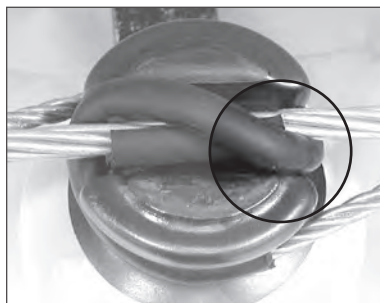


Figure 3

4. The top groove of the insulator can cause installation difficulties of top ties when its diameter is at the minimum ANSI designation. This is especially troublesome when installing the WRAPLOCK® Tie. Figure 3 illustrates the application on a C-neck insulator on 1/0 ACSR 6/1 conductor.

The circled area illustrates that the covered center section of the WRAPLOCK® Tie is wedged between the conductor and the inner surface of the insulator. This increases the installation difficulty of the tie.

In many instances the transition of the grooves can have a great impact on the form, fit, and function of a factory formed tie and hand tie wire. The sharp edge of a long top groove saddle (see Figure #1) can be especially hazardous to the soft hand tie wire as well as a factory formed tie.

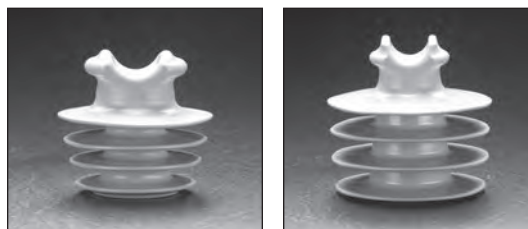
Insulator Review and Trial Applications

It is recommended the user conduct a thorough review of the insulator size, shape and geometry and conduct trial fits with the ties, prior to full scale field installations. Consult PLP for assistance, especially if there are any doubts concerning tie and insulator fit or performance.

Non-ANSI C29 Insulators

Some insulators that do not technically meet all the ANSI C29 Wet Process Porcelain Insulator standards may be suitable for use with PLP factory formed ties depending on their head and neck dimensions and geometry.

An example is the PLP polymer C & F-neck tie top insulators. These insulators have head and neck designs for use with PLP factory formed ties or PLP Ring Ties. The head and neck dimensions of the PLP Polymer C & F-neck insulators have been designed to match critical ANSI C29 dimensional specifications and meet or exceed most of the mechanical and electrical performance requirements specified in that standard.



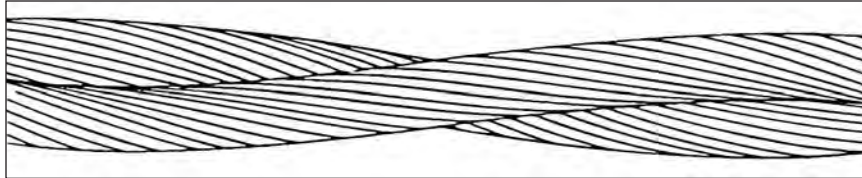
PLP Polymer 15kV and 35kV Insulators



Helical Ties for T2 Conductor

CONSTRUCTION

T2 conductor consists of two identical conductors twisted together in a left-hand lay direction at an approximate nine foot pitch length. Generally the conductors used are standard ACSR, AAC or AAAC construction but can be conductors of any configuration.



THEORY

The spiral shape of the two conductors twisted together disrupts the forces created by the steady crosswinds that can cause cable motion. The forces are disrupted by the continuously changing profile exposed to the wind. This spiral shape, together with less torsional stiffness and varying bending stiffness also reduces or can minimize cable galloping due to ice and wind loads.

APPLICATION

T2 conductor can be used in regions that are subject to galloping due to wind and ice. T2 conductor is also designed to reduce the requirement for vibration protection when installed within accepted tension limits.

Helical Ties for T2 Conductor

GENERAL RECOMMENDATIONS

T2 conductor is designed to prevent “typical” conductor motion activity like aeolian vibration and galloping, however, the non-circular configuration and unusual cable movement of T2 conductors requires special consideration of tie devices. When choosing products for T2 conductor, it is important not to mistake standard concentric conductor products listed in the catalog for similarly name T2 conductor. The T2 conductor equivalents require substantially larger sized products for similarly named conductor sizes. If a desired product is not listed in the product table in this section, contact Preformed Line Products to determine if the product has been reviewed. In many cases, Preformed Line Products can recommend products for a particular installation.

INTENDED USE. Manufactured formed wire ties secure conductors in the grooves of interchangeable headstyle insulators.

PREFORMED™ ties provide an improved method of securing conductor compared to clamp-top or hand-ties over Armor Rods.

DEAD-ENDING. T2 conductor can be terminated in the same manner as a single conductor except both of the elements of the T2 conductor requires its own Dead-end device. The two Dead-end devices should be terminated on separate hardware on the structure.

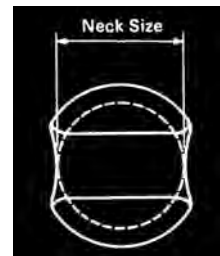
CONDUCTOR REPAIR. When repairing T2 conductor, the individual elements of the span must be analyzed and repaired separately. To accomplish this, it is important to know the construction of the T2 conductor so the correct repair components can be chosen.

ARMOR RODS/ARMOR-GRIP® SUSPENSION/SUPPORT.

When using Armor Rods or ARMOR-GRIP Suspensions or Supports, the introduction of a third piece of conductor is advisable. This short section of conductor is equal to one of the conductor elements of the T2 conductor. The additional piece of conductor is placed in the interstices of the two conductor elements of the T2 conductor assembly in order to create an assembly that is closer to the shape of the circle. The appropriately sized Armor Rod or ARMOR-GRIP Suspensions or Supports can then be easily installed over this new assembly. The additional piece of conductor should be held in place by a few pieces of tape prior to the installation of the Armor Rods. For specific information on this installation including the length of the additional piece of conductor and the appropriate Armor Rods or ARMOR-GRIP Suspension or Supports catalog number, contact Preformed Line Products.

INTERCHANGEABLE HEADSTYLE INSULATOR. To insure proper fit and service life, it is recommended that only insulators corresponding to C-Neck, F-Neck, J-Neck, K-Neck, or spool insulators be used. These neck diameter and groove height dimensions appear in ANSI standards.

Consult Preformed Line Products for engineering recommendations on non-interchangeable headstyle insulators. A sample of the insulator in question is desirable.



SAFETY CONSIDERATIONS

1. These products are intended for a single (one-time) use and for the specified application. CAUTION: DO NOT REUSE OR MODIFY THESE PRODUCTS 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 products before application.
5. PREFORMED products are precision devices. To insure proper performance, they should be stored in cartons under cover and handled carefully.



Helical Ties for T2 Conductor

PREFORMED™ TIES FOR T2 CONDUCTOR



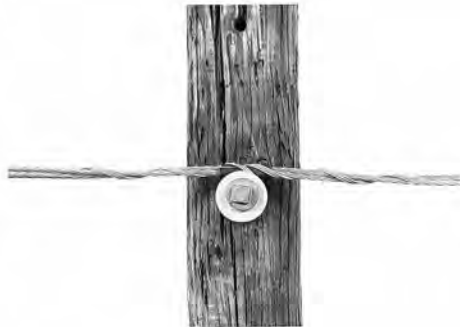
WRAPLOCK® Tie



Distribution Tie



EZ-WRAP® Spool Tie



Spool Tie



Double Support Tie



Side Tie



Double Side Tie

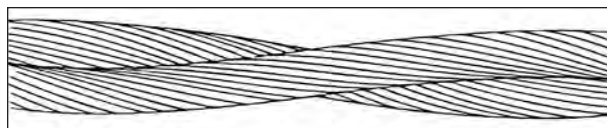
BENEFITS:

- Elastomeric tubes/pads cushion to protect T2 conductor.
- No special equipment or installation techniques required.
- Reduces time required to tie in T2 conductor
- Minimizes possibility of mistakes during tie installations.
- Complete line of ties readily available for popular T2 conductors and insulators.
- Over 15 years successful experience with support devices on T2 conductor
- Superior ability to hold T2 conductor to insulator
- Meets NESC longitudinal holding requirement
- Provides resiliency under all potential motion conditions
- Provides stability during twisting motion

Helical Ties for T2 Conductor

For use on:

**ACSR, Compacted ACSR,
Aluminum Alloy,
All-Aluminum, AWAC®,
Compacted All-Aluminum**



T2 Conductors	Distribution Tie	Wraplock Tie	Spool Tie	Ez Wrap Spool Tie	Double Support Tie	Double Side Tie	Side Tie
2 x #4 (6/1) ACSR (7/1) ACSR (7/W) AAAC	UTC-1106 UTF-1206 UTJ-1306 UTK-1606	WTC-0112 WTF-0212 WTJ-0412	SPL-1356-P	EZSP-4376	DST-0154 (C&F) DST-0354 (J)	DBST-1104 (C&F) DBST-1304 (J)	STC-1256-P STF-1156-P STJ-1506-P
2 x #3 (6/1) ACSR	UTC-1107 UTF-1207 UTJ-1307 UTK-1607	WTC-0114 WTF-0214 WTJ-0414	SPL-1357-P	EZSP-4376	DST-0155 (C&F) DST-0355 (J)	DBST-1105 (C&F) DBST-1305 (J)	STC-1257-P STF-1157-P STJ-1507-P
2 x #2 (6/1) ACSR (7/1) ACSR (7/W) AAAC	UTC-1108 UTF-1208 UTJ-1308 UTK-1608	WTC-0116 WTF-0216 WTJ-0416	SPL-1358-P	EZSP-4377	DST-0156 (C&F) DST-0356 (J)	DBST-1106 (C&F) DBST-1306 (J)	STC-1258-P STF-1158-P STJ-1508-P
2 x #1 (7/W) AAAC	UTC-1109 UTF-1209 UTJ-1309 UTK-1609	WTC-0118 WTF-0218 WTJ-0418	SPL-1359-P	EZSP-4378	DST-0157 (C&F) DST-0357 (J)	DBST-1107 (C&F) DBST-1307 (J)	STC-1259-P STF-1159-P STJ-1509-P
2 x 1/0 (6/1) ACSR (7/W) AAAC	UTC-1110 UTF-1210 UTJ-1310 UTK-1610	WTC-0119 WTF-0219 WTJ-0419	SPL-1360-P	EZSP-4379	DST-0158 (C&F) DST-0358 (J)	DBST-1108 (C&F) DBST-1308 (J)	STC-1260-P STF-1160-P STJ-1510-P
2 x 2/0 (6/1) ACSR (7/W) AAAC	UTC-1111 UTF-1211 UTJ-1311 UTK-1611	WTC-0122 WTF-0222 WTJ-0422	SPL-1361-P	EZSP-4380	DST-0159 (C&F) DST-0359 (J)	DBST-1109 (C&F) DBST-1309 (J)	STC-1261-P STF-1161-P STJ-1511-P
2 x 3/0 (6/1) ACSR (7/W) AAAC	UTC-1112 UTF-1212 UTJ-1312 UTK-1612	WTC-0124 WTF-0224 WTJ-0424	SPL-1362-P	EZSP-4381	DST-0160 (C&F) DST-0360 (J)	DBST-1110 (C&F) DBST-1310 (J)	STC-1262-P STF-1162-P STJ-1512-P
2 x 4/0 (6/1) ACSR	UTC-1112 UTF-1212 UTJ-1312 UTK-1612	WTC-0125 WTF-0225 WTJ-0425	SPL-1362-P	EZSP-4382	DST-0160 (C&F) DST-0360 (J)	DBST-1110 (C&F) DBST-1310 (J)	STC-1263-P STF-1163-P STJ-1513-P
2 x 266.8 (18/1) ACSR (26/7) ACSR	UTC-1113 UTF-1213 UTJ-1313 UTK-1613	WTC-0126 WTF-0226 WTJ-0426	*	*	DST-0161 (C&F) DST-0361 (J)	DBST-1111 (C&F) DBST-1311 (J)	STC-1263-P STF-1163-P STJ-1513-P
2 x 336.4 (18/1) ACSR	UTC-1113 UTF-1213 UTJ-1313 UTK-1613	WTC-0127 WTF-0227 WTJ-0427	*	*	DST-0161 (C&F) DST-0361 (J)	DBST-1111 (C&F) DBST-1311 (J)	STC-1264-P STF-1164-P STJ-1514-P
2 x 336.4 (26/7) ACSR 2 x 397.5 (19W) AAC	UTC-1114 UTF-1214 UTJ-1314 UTK-1614	WTC-0128 WTF-0228 WTJ-0428	*	*	DST-0161 (C&F) DST-0361 (J)	DBST-1112 (C&F) DBST-1312 (J)	STC-1264-P STF-1164-P STJ-1514-P

*Insulator groove not large enough for these T2 sizes.

EXPLANATORY NOTES:

- (1) User should make sure insulator groove radius is large enough for T2 conductor and PLP tie with pad.
- (2) This table represents application of the PLP ties on T2 conductor only.
- (3) Consideration should be made of the physical fit of the actual T2 conductor plus PLP tie on a specific insulator because variances in individual insulators can affect application.
 - a. Only insulators with ANSI accepted dimensions should be used with PLP ties.
 - b. PLP suggests application trials be conducted on actual T2 conductor, PLP ties and insulators prior to installation.
- (4) Consult PLP for application with Armor Rod, ARMOR-GRIP® Suspensions or Supports, or T2 conductor not shown.