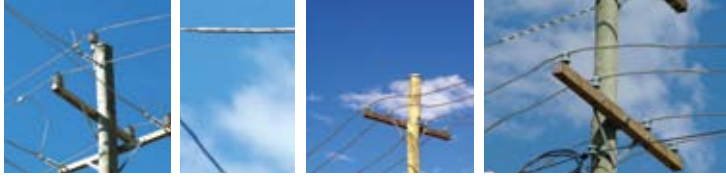
PREFORMED™ Splice



For AAC, AAAC and Smaller Ø ACSR Conductors

Part Number	Conductor Stranding	Conductor Diameter (mm)		Colour Code
AFS-053	7/1.75	5.25		Purple
AFS-068	7/2.25	6.75		Brown
AFS-075	7/2.50	7.50		Blue
AFS-078	7/2.60	7.80		Orange
AFS-083	7/2.75	8.25		Red
AFS-090	7/3.00	9.00		Red
AFS-090-AW	4/3/3.00	9.00		Red
AFS-102	7/3.40	10.20		Purple
AFS-105	19/2.10	10.50		Blue
AFS-113	7/3.75	11.25		Black
AFS-113-AW	4/3/3.75	11.25		Black
AFS-135	7/4.50	13.50		Green
AFS-143	7/4.75	14.25		Blue
AFS-163	19/3.25	16.25		Orange
AFS-175	37/2.50	17.50		Blue
AFS-188	19/3.75	18.75		Black
AFS-210	37/3.00	21.00		Red
AFS-238	19/4.75	23.75		Blue

Note: Contact PLP for ACSR suitability.

For ACSR Conductors - Multi piece

Part Number	Conductor Stranding	Conductor Diameter (mm)		Colour code
FTS-071	6/1/2.36	7.08		Black
FTS-100	12/7/2.00	10.00		Yellow
FTS-113	6/1/3.75	11.25		Black
FTS-117	12/7/2.34	11.70		Brown
FTS-125	12/7/2.50	12.50		Blue
FTS-143	6/4.75/7/1.60	14.30		Blue
FTS-146	7/4.39/7/1.93	14.60		Blue
FTS-150	12/7/3.00	15.00		Red
FTS-155	18/1/3.09	15.50		Black
FTS-157	26/2.54/7/1.91	15.90		Blue
FTS-175	30/7/2.50	17.50		Blue
FTS-181	30/7/2.59	18.13		Blue
FTS-193	18/1/3.86	19.30		Black
FTS-199	26/3.14/7/2.44	19.90		Brown
FTS-210	30/7/3.00	21.00		Red
FTS-245	30/7/3.50	24.50		Purple

Note: An FTS is a full-tension fitting and will hold 100% of the conductor UTS.

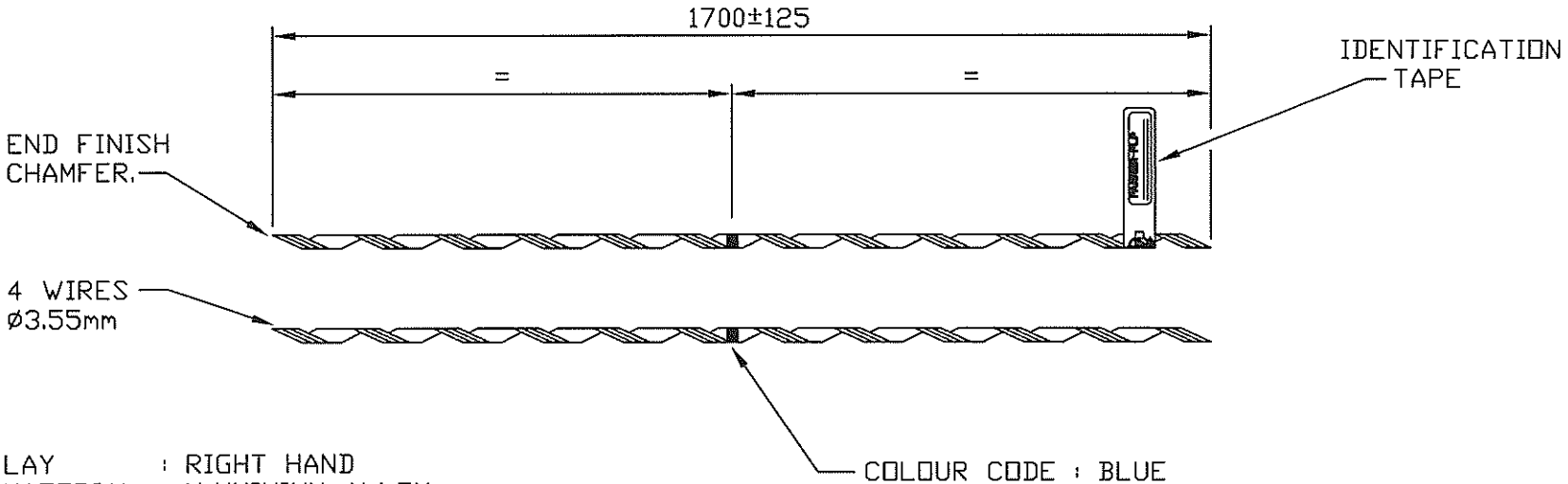
NOTES

1 ALL DIMENSIONS IN MILLIMETRES

2 TOLERANCES UNLESS OTHERWISE STATED:-
- a. HOLE DIAMETER ±0.5mm
- b. LINEAR DIMS. UP TO 30mm ±1.5mm
- c. LINEAR DIMS. OVER 30mm ±5% UP TO A MAX. OF 5mm.

3. BRACKETED DIMS. DO NOT AFFECT INTERCHANGEABILITY OR COUPLING & ARE FOR GUIDANCE ONLY.

4. MATERIAL TO AS1154.



LAY : RIGHT HAND
MATERIAL : ALUMINIUM ALLOY

NUMBER OF SETS : 2

PRODUCT TAPE COLOUR : BLUE

TAPE REQUIRED.

A	CW	30/4/91	CAT. NO: AFS-075-1.7 ALUMINIUM ALLOY FANNSPLICE				FANNER-PLP PTY. LTD.		
CHK							ISSUE A		DRAWING NUMBER
INITIAL ISSUE			DRAWN CW	PASSED		DATE 30/4/91	SCALE N.T.S.		059-018-RD
DSC NO.									

FANNER-PLP PTY. LTD.
PREFORMED LINE PRODUCTS
DISTRIBUTION, TRANSMISSION & SUBSTATION HARDWARE
FORGED PRODUCTS, OPTICAL FIBRE ACCESSORIES
Box 243 Northmead NSW 2152 Australia
150 Briens Road Northmead NSW 2152 Australia
(02) 630 6388, INT'L (612) 630 6388

ORIGINAL

TYPE TEST REPORT

REPORT No. : FT-2023

TEST DATE : 11.7.89

TEST REF. No.: P89/48

REPORT DATE : 20.7.89

DESCRIPTION OF FITTINGS

CATALOGUE NO : AFS-075-1.7 DRAWING No. : SPEC 5/89

DESCRIPTION : PREFORMED REPAIR RODS FOR 3/4/2.50 ACSR

TERMINATION FITTINGS AWFG-075-X

CONDUCTOR STRANDING: 3/4/2.50 mm DIAMETER:7.50 mm N.B.L 24.4 kN

TEST SPECIFICATION

STANDARD	PART	SECTION	DESCRIPTION	M.F.L/N.B.L
AS 1154 1985	3	4.2.3	MECHANICAL STRENGTH TEST TENSION FITTING	90%-22.0 kN 85%-20.7 kN

PREPARATION OF CONDUCTORS

ALL OF THE ALUMINIUM STRANDS WERE CUT WITHIN A 20 mm LENGTH AT THREE PREMARKED POSITIONS ON CONDUCTOR LENGTH.

TEST ASSEMBLY AND PROCEDURE

THE FITTINGS WERE ASSEMBLED IN ACCORDANCE WITH FANNER-PLP RECOMMENDATIONS ONTO THE CONDUCTOR NOMINATED WITH A FREE LENGTH OF CONDUCTOR NOT LESS THAN 100 TIMES THE DIAMETER.

1/ A RESISTANCE TEST WAS CARRIED OUT ACROSS SAMPLES AND AN EQUIVALENT LENGTH OF CONDUCTOR AT A TENSILE FORCE OF 2.4 kN.
2/ A TENSILE FORCE OF 50 % OF THE NOMINATED BREAKING LOAD WAS APPLIED AND THE CONDUCTOR MARKED SO THAT MOVEMENT OF THE FITTING COULD BE DETECTED EASILY.

TEST REQUIREMENTS

1/ THE RESISTANCE OF THE SAMPLES SHALL NOT EXCEED 75% OF THE MEASURED RESISTANCE OF THE EQUIVALENT LENGTH OF CONDUCTOR.
2/ DURING THE 1 MINUTE PERIOD IN WHICH THE TENSILE FORCE IS HELD AT 85% OF THE NOMINAL BREAKING LOAD, THERE SHALL BE NO MOVEMENT OF THE CONDUCTOR RELATIVE TO THE JOINT DUE TO SLIP AND NO FAILURE OF THE FITTING.

TEST RESULTS

RESISTANCE MΩ CONDUCTOR - 2.78, AFS-1 1.23, AFS-2 1.20, AFS-3 1.35.

FITTING NO.	LOAD	NATURE OF FAILURE
1,2,3	28.5 kN	CONDUCTOR FAILED OUTSIDE FITTINGS

COMPLIANCE TO SPECIFICATION

THE RESULTS INDICATE THAT THE DESIGN COMPLIES WITH SPECIFICATION

TESTING OFFICER: B Mm APPROVED: _____

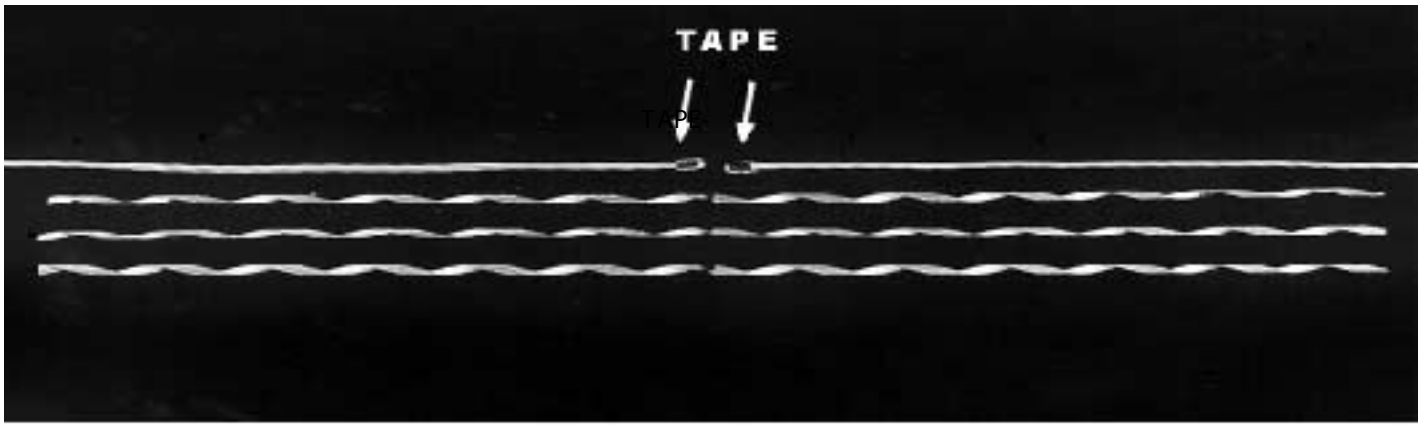
Application Procedure & Safety Considerations

PREFORMED LINE PRODUCTS

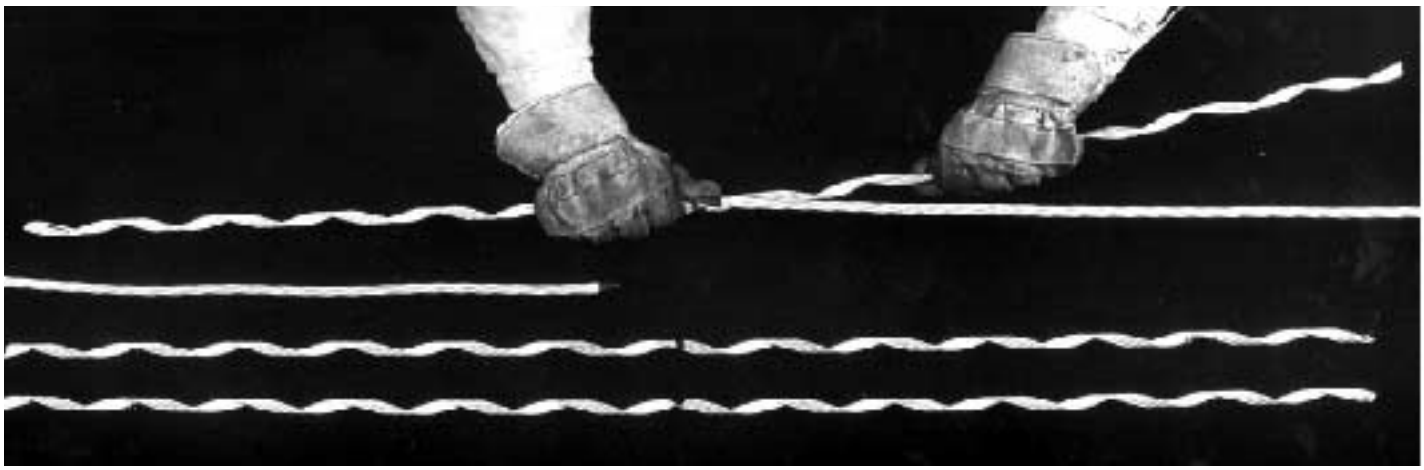
Conductor Splice

Completely read and understand this procedure before applying products. 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

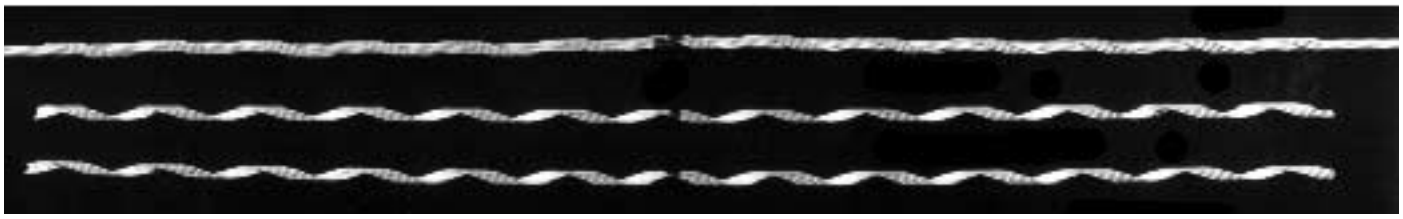
Hand Application of Splice on Conductor.



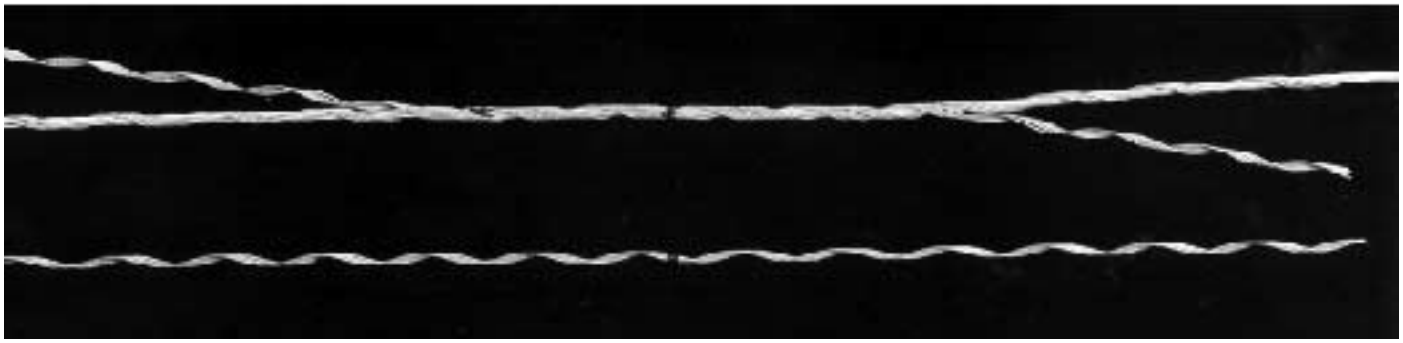
1) Illustration of splice as received in the field. Tape Aluminium Conductor ends with one layer of vinyl tape to prevent ends from flaring.



2) Conductor should be thoroughly wire brushed until bright and clean. A quality inhibitor must be applied to retard oxidation. Place one taped conductor end at the centre mark of one of the subsets. (NOTE: If each subset does not have the same quantity of rods, start with one containing the greatest number of rods.) Hold it securely with thumb and finger pressure and apply by wrapping the subset around the conductor.

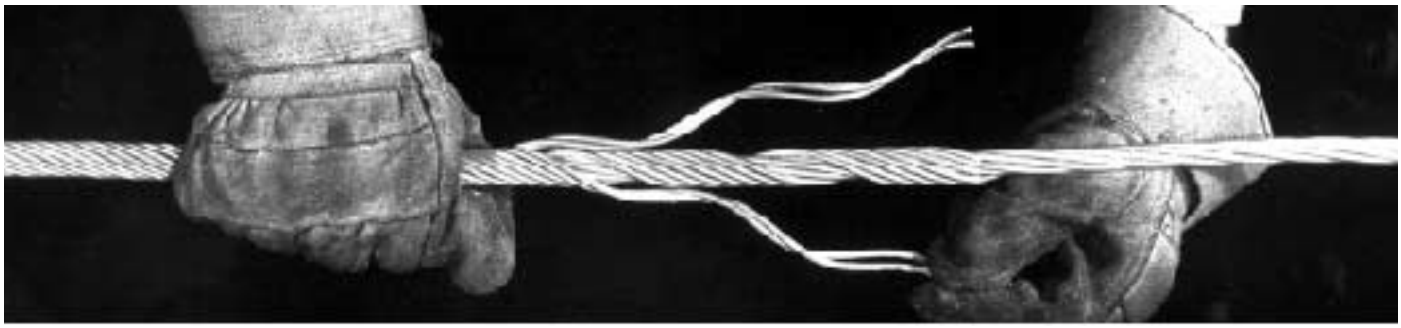


3) Position the other taped conductor end so that both ends are approximately 2 mm apart. Hold it securely and wrap on the subset completely.



4) Match the centre mark of the first subset and apply the second subset one or two pitch lengths on each side of centre.

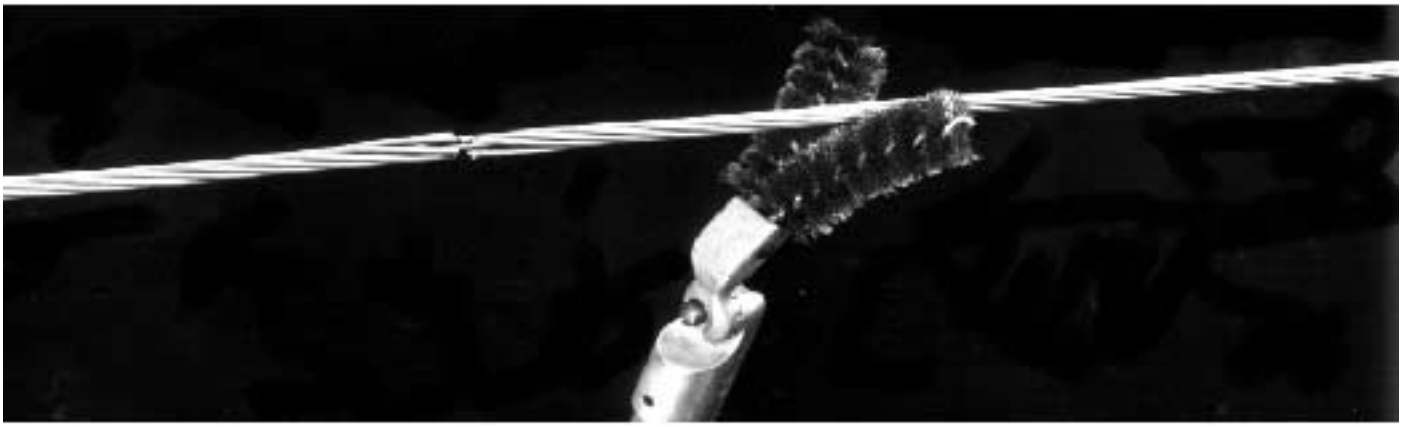
5) Apply the third subset in the same manner, then wrap on both subsets simultaneously, to within one or two pitch length of completion.



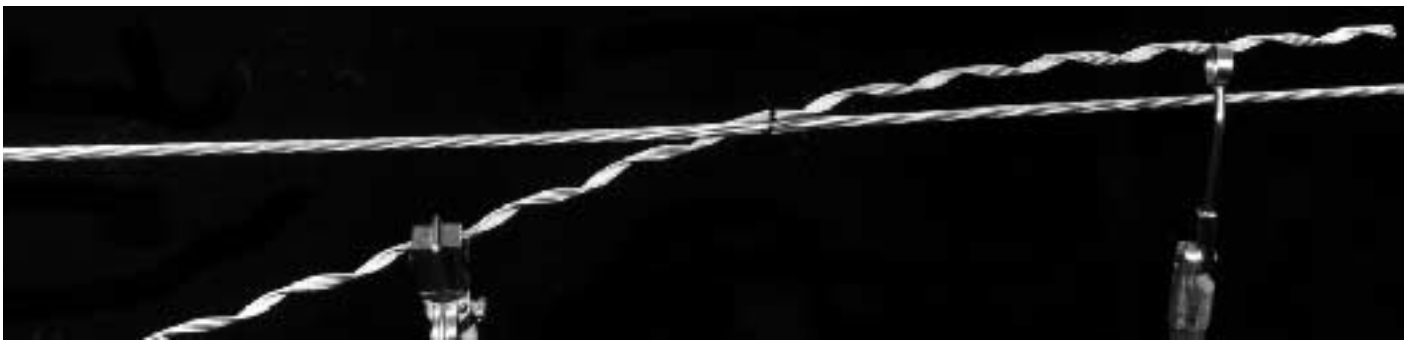
6) For an easy and distortion free application, split the subset as shown. Wrap each split end around the conductor separately, and apply thumb pressure till it snaps into place.

7) Splice completely applied

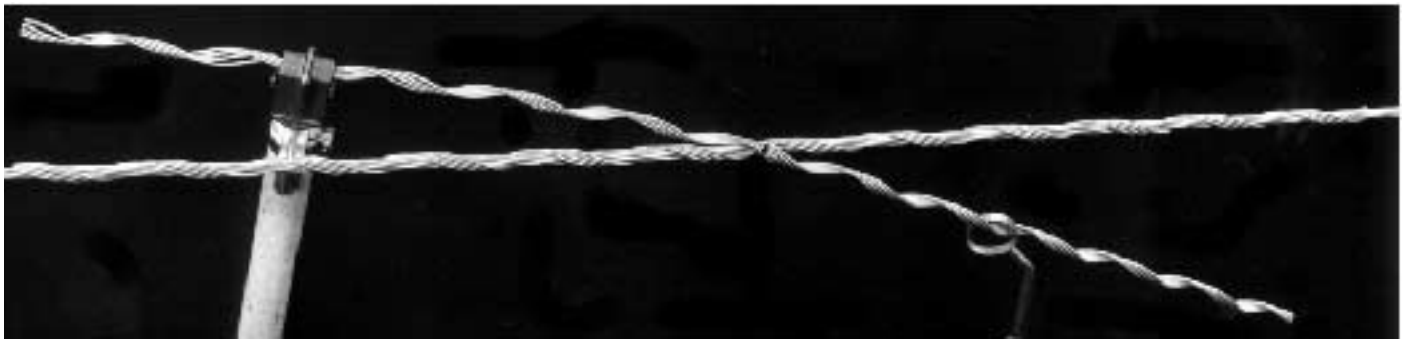
Hot Stick Application of Splice on Damaged Conductor



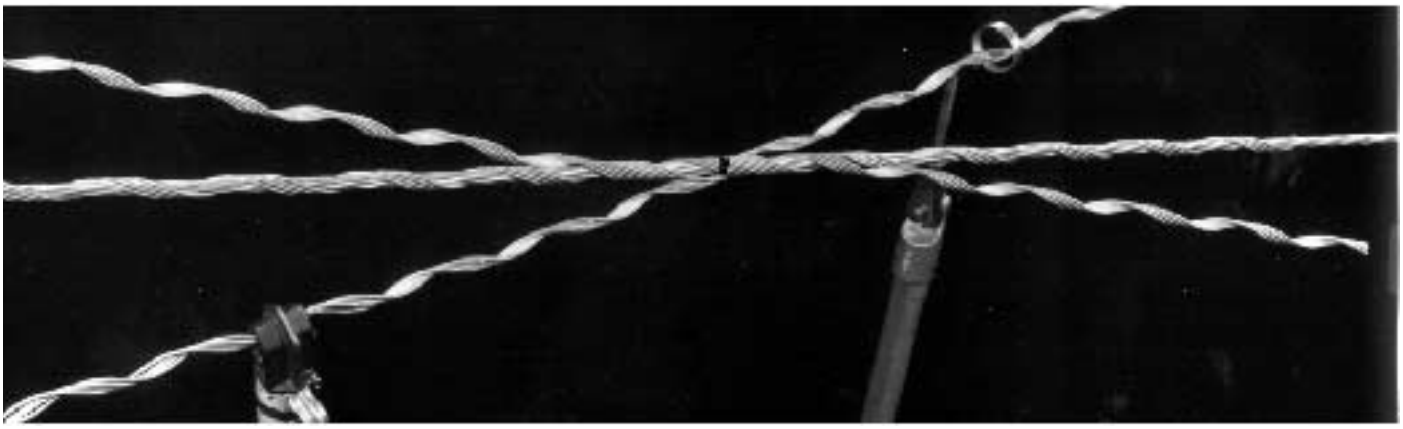
1) Prepare conductor by thoroughly wire brushing entire splice are until bright and clean. A quality inhibitor must be applied to retard oxidation. If damaged conductor ends are flared out, they must be unwrapped two pitch lengths and the flared ends severed with hotline cutters. Care should be taken not to distort the lay of the strands. The strands must then be wrapped back into their original positions before the splice can be applied.



2) Position the centre mark of one of the subsets at the centre of the damaged conductor as shown. (Refer to 'NOTE' in paragraph two of Hand Application Procedure.) Wrap on completely with the aid of an Applicator Ring.



3) Place the second subset in the hold stick, making sure that the centre marks match and that the subsets are seated tightly against each other.



4) When the second subset has been applied one pitch length each way from the centre, apply the third subset in the same manner.

5) After the second and third subsets have been started, move the hold stick to a convenient location to steady the conductor. Then wrap on the second and third subsets consecutively, one or two pitches at a time.

6) Snap the end of the splice into place with the Applicator Ring.

7) Splice completely applied. The ends of the splice rods can be snapped in easily by flexing the conductor and rotating the subset with thumb pressure until the rod ends snap into position.

GENERAL NOTES

1) To assure a reliable electrical connection, all conductors, new or weathered, must be thoroughly scratch brushed until bright and clean immediately prior to installation.

2) A quality inhibitor must be applied to retard oxidation.

3) Tapping over a PREFORMED conductor splice is permissible. Whenever a tapping clamp will be installed over a splice, the outer surface of the splice should be thoroughly scratch brushed to remove any oxides and glue which may be present. Inhibitor should then be applied to the area beneath the tap itself.

4) PREFORMED Splices must not be re-applied after initial installation.

5) PREFORMED Splices may be used at the support point but only after factory consultation.

6) PREFORMED Splices are precision devices which should be handled carefully to prevent distortion and damage.

7) PREFORMED Splices should be stored in cartons under cover, preferably shelf storage.

SAFETY CONSIDERATIONS

1) For proper performance and personal safety be sure to select the proper size PREFORMED Splice before application.

2) Some inhibitors when in contact with rubber protective equipment can reduce its dielectric strength and cause deterioration of the rubber. Please follow your company's safety procedures when this situation is encountered.

3) PREFORMED Splices are precision devices. To ensure tight assembly, they should be stored in cartons under cover and handled carefully.

4) 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. Failure to follow these procedures and restrictions may result in personal injury.

5) When working in the area of energized lines, extra care should be taken to prevent accidental electrical contact.

6) This product is intended for use by trained linesmen only. This product should not be used by any one who is not familiar with and trained in the use of it.

PREFORMED
LINE PRODUCTS
(AUSTRALIA) PTY LTD
A.B.N. 27 004 533 877

190 Power st. Glendenning, NSW Australia 2761
PO Box 106, Glendenning Business Centre, NSW Australia 2761
Phone: (02) 8805 0000 intl 61 2 8805 0000 Fax: (02) 8805 0090 intl 61 2 8805 0090
Email: plpaus@preformed.com.au
Web: www.preformed.com.au