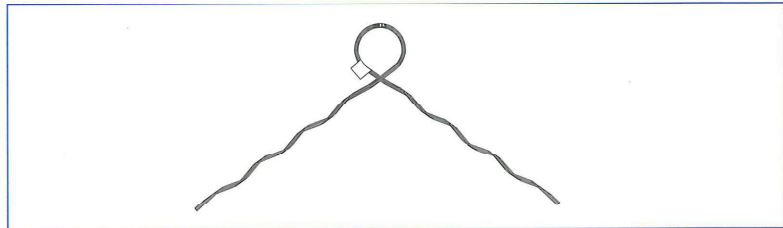


SUSPENSION AND SUPPORT

PREFORMED™ Groove Formed Side Tie



Application

The PREFORMED™ Groove Formed Side Tie is intended to secure bare or jacketed distribution conductors in the side groove of vertically and horizontally mounted insulators. They provide an improved method of securing conductors compared to clamp-top insulators or handbinds.

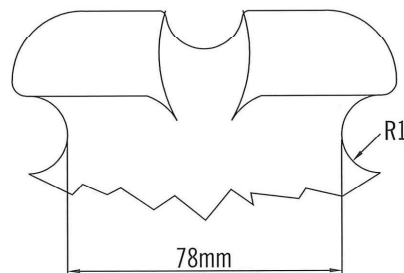
Groove Formed Side Ties with pad, are recommended for use with bare conductors. They provide superior abrasion protection for the conductor under all types of motion including aeolian vibration, galloping and sway. The pad component is recommended because it surrounds the conductor with a resilient cushion which eliminates abrasion at the conductor-insulator interface.

Pads are not required with jacketed conductors.

Compared to the original designed Side Tie which was helically formed throughout the loop, the Groove Formed design broadens the conductor ranges matching that of the PREFORMED™ Distribution Tie.

The formed loop also permits better utilization of the groove space so that larger conductor can be accommodated on a given insulator.

The fittings listed in the data sheets are designed to fit insulators with Dimension R1 of 11mm and neck diameter of 78mm plus or minus 3mm, within the conductor ranges shown. For insulators outside this category and for other conductor sizes, the dimension shown in the diagram should be supplied, together with manufacturers drawing, if possible and conductor data.



On vertically mounted insulators, Groove Formed Side Ties are recommended for line angles up to 30 degrees. The maximum sag angle is 15 degrees. Larger angles can be obtained under certain conditions. For recommendations please contact our sales office at Andover.

The Groove Formed Side Tie has a slip load exceeding 318kg in unbalanced load conditions. The maximum holding strength is usually sufficient to contain a broken conductor to a single span. Groove Formed Side Ties are designed however to relieve the load before severe damage occurs to the pole's structural components.

The Groove Formed Side Tie is designed to permit controlled movement of unbroken conductor, reducing cantilever loading at the base of the insulator. The resilience of the Tie permits it to then restore itself.

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SUSPENSION AND SUPPORT

PREFORMED™ Groove Formed Side Tie

PREFORMED™ Groove Formed Side Ties maximise the vibration fatigue life of the conductor to the extent that its original endurance is not reduced by vibration. However, on lines subject to long periods of vibration that might approach the fatigue life of the conductor, cause inner wire fretting or scoring of the insulator glaze, the use of Spiral Vibration Dampers is recommended.

The RIV characteristics of Groove Formed Side Ties are equivalent to those of well made handbinds when originally installed. During service life the precontoured Groove Formed Side Tie assures continued fit which would have better RIV than a loosened tie wire.

Tapping over the applied legs of Groove Formed Side Ties is not recommended. Taps can be made on the conductor beyond the ends of the legs.

Construction

PREFORMED™ Groove Formed Side Ties are made of material compatible with the strand to which they are applied. For bare conductors, each tie is supplied with a neoprene tie pad that is detached and applied over the conductor centred in the top groove of the insulator. For jacketed conductors a tie pad is not required.

Lay Direction

Lay direction must be the same as that of the outer stranding of the conductor to which it is applied.

Product Referencing and Ordering

Contact PLP (GB) Ltd with the following information:-

- Quantity
- Catalogue number
- Product name
- Insulator reference and dimensions (see insulator recommendations)
- Strand: Material
Diameter
Lay direction

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SUSPENSION AND SUPPORT

PREFORMED™ Groove Formed Side Tie-Aluminium Covered Steel

CATALOGUE No.	CONDUCTOR DIAMETER mm		COLOUR CODE	APPROX WEIGHT KGS PER 100
	MIN	MAX		
GFST5080714	4.82	5.48	BLUE	5
GFST5080716	5.49	6.21	BROWN	6
GFST5080718	6.22	7.05	ORANGE	8
GFST5080720	7.06	8.02	PURPLE	8
GFST5080722	8.03	9.08	RED	11
GFST5080724	9.09	10.30	YELLOW	11
GFST5080726	10.31	11.67	BLUE	14
GFST5080728	11.68	13.22	ORANGE	15
GFST5080730	13.23	14.95	RED	16
GFST5080732	14.96	16.96	PURPLE	18
GFST5080734	16.97	19.19	BROWN	23
GFST5080736	19.20	21.73	RED	24
GFST5080738	21.74	24.60	BLUE	26
GFST5080740	24.61	27.85	GREEN	28
GFST5080742	27.86	31.51	YELLOW	30

For use on Aluminium Based Conductors

3-4-7/3

BRITISH



SUSPENSION AND SUPPORT

PREFORMED™ Groove Formed Side Tie-Copper Covered Steel

CATALOGUE No.	CONDUCTOR DIAMETER mm		COLOUR CODE	APPROX WEIGHT KGS PER 100
	MIN	MAX		
GFST5680714	4.82	5.48	BLUE	6
GFST5680716	5.49	6.21	BROWN	7
GFST5680718	6.22	7.05	ORANGE	9
GFST5680720	7.06	8.02	PURPLE	10
GFST5680722	8.03	9.08	RED	13
GFST5680724	9.09	10.30	YELLOW	14
GFST5680726	10.31	11.67	BLUE	18
GFST5680728	11.68	13.22	ORANGE	19
GFST5680730	13.23	14.95	RED	20
GFST5680732	14.96	16.96	PURPLE	22
GFST5680734	16.97	19.19	BROWN	28
GFST5680736	19.20	21.73	RED	30
GFST5680738	21.74	24.60	BLUE	32
GFST5680740	24.61	27.85	GREEN	34
GFST5680742	27.86	31.51	YELLOW	36

For use on Copper Based Conductors

3-4-7/4



SUSPENSION AND SUPPORT

PREFORMED™ Groove Formed Side Tie-Galvanised Steel Conductors

CATALOGUE No.	CONDUCTOR DIAMETER mm		COLOUR CODE	APPROX WEIGHT KGS PER 100
	MIN	MAX		
GFST5780714	4.82	5.48	BLUE	6
GFST5780716	5.49	6.21	BROWN	6
GFST5780718	6.22	7.05	ORANGE	9
GFST5780720	7.06	8.02	PURPLE	10
GFST5780722	8.03	9.08	RED	13
GFST5780724	9.09	10.30	YELLOW	14
GFST5780726	10.31	11.67	BLUE	17
GFST5780728	11.68	13.22	ORANGE	19
GFST5780730	13.23	14.95	RED	20
GFST5780732	14.96	16.96	PURPLE	22
GFST5780734	16.97	19.19	BROWN	27
GFST5780736	19.20	21.73	RED	29
GFST5780738	21.74	24.60	BLUE	31
GFST5780740	24.61	27.85	GREEN	33
GFST5780742	27.86	31.51	YELLOW	35

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For use on Galvanised Steel Conductors

