Line Guards

General Recommendations

Protection: PREFORMED™ Line Guards are intended to protect against abrasion, and arc-over, and to provide repair. The degree of protection needed on specific line depends on a number of factors such as line design, temperature, tension, and exposure to wind flow, and vibration history on similar construction in the same area. As a general guide, the following recommendations may be adapted to the specific conditions.

Line Guards are recommended as minimum protection for hand-tied spans of less than 90 metres in urban construction having no experience of vibration.

Distribution Ties are recommended as an improvement over Line Guards secured with hand tie wire. They protect against chafing or wear caused by wind sway or unbalanced loading in urban-type areas having no experience of vibration. Distribution Ties also provide a stronger material and greater uniformity than hand tie wire.

Armor Rods are recommended as minimum protection for clamp-type supports or suspensions. Armor Rods are recommended as minimum protection for use with hand-tied spans of 90 metres or more.

No consideration of damping devices with Line Guards is made because Line Guards are not recommended when vibration is suspected.

Restorative-Repair: Line Guards may be used as patch rods designed to restore full conductance and strength to ACSR and aluminum conductors where damage is located outside the support area and does not exceed 25 percent of the outer strand layers. Consult Factory when damage is located at the point of support.

Note: All conductor, new or weathered MUST be thoroughly wire-brushed and coated with a good quality inhibitor along the area where restorative repair fittings are to be applied.

Tapping: Line Guards may be used as tap armour to protect conductors from wear and flash-over damage under hot line taps. Where it is known that tapping clamps will be installed over Line Guards, it is recommended that an inhibitor be applied.

Application-Inspection: After application of the correct number of rods per set, a slight gap between rods should be present.

Apply no more than one-half the number of rods per set at a time on smaller sizes. On conductor 12mm and larger, do not attempt to apply more than three rods at a time. The alignment of the ends of the rods should be maintained within 50 mm.
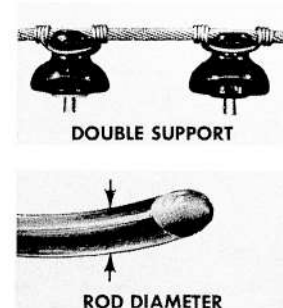
Catalogue No.: ALG (Aluminium); CLG (Copper)

O.D. Calculations

Applied overall diameter computed as follows:

The rod diameter can be obtained from the catalogue page tables. Conductor/strand O.D. can be found in conductor charts.

Rod Diameter.	3mm x 2 = 6.00mm
Conductor Diameter.	+ 4.78mm
Total Applied O.D.	10.78mm

DOUBLE SUPPORT

ROD DIAMETER

PLP **PREFORMED** LINE PRODUCTS
The connection you can count on.

Aluminium Alloy Line Guards

RIGHT HAND LAY STANDARD.

CATALOGUE NO. ALG	CONDUCTOR DIAMETER (mm)	COLOUR CODE	RODS PER SET	SETS PER PACK	APPROX PACK MASS (kg)	LENGTH OF FITTING (mm)	ROD DIA. (mm)
133 – 141	3.38 – 3.58	RED	6	50	3	300	2.34
142 – 150	3.59 – 3.81	BROWN	7	50	3	300	2.34
151 – 160	3.82 – 4.06	GREEN	7	50	3	350	2.34
161 – 171	4.07 – 4.34	YELLOW	7	50	3	350	2.34
172 – 181	4.35 – 4.60	GREY	8	50	4	350	2.64
182 – 193	4.61 – 4.90	RED	7	50	4	350	2.64
194 – 207	4.91 – 5.26	BLUE	7	50	4	350	2.95
208 – 219	5.27 – 5.56	GREEN	7	50	5	350	2.95
220 – 228	5.57 – 5.79	WHITE	8	50	5	350	2.95
229 – 243	5.80 – 6.17	RED	8	50	5	480	2.95
244 – 259	6.19 – 6.58	ORANGE	8	50	5	480	2.95
260 – 273	6.59 – 6.93	GREEN	9	50	5	480	2.95
274 – 289	6.94 – 7.34	YELLOW	9	50	5	530	2.95
290 – 308	7.35 – 7.82	BROWN	9	40	5	530	2.95
309 – 326	7.83 – 8.28	RED	10	40	6	530	2.95
327 – 346	8.29 – 8.79	BLUE	10	40	6	530	2.95
347 – 366	8.80 – 9.30	GREEN	11	40	6	580	2.95
367 – 389	9.31 – 9.88	BLACK	11	40	7	580	2.95
390 – 413	9.18 – 10.49	YELLOW	12	40	7	630	2.95
414 – 436	10.50 – 11.07	RED	12	30	6	630	2.95
437 – 463	11.08 – 11.76	BLUE	12	30	7	680	3.25
464 – 490	11.77 – 12.45	GREEN	12	30	7	680	3.25
491 – 521	12.46 – 13.23	BLACK	13	30	8	730	3.25
522 – 551	13.24 – 14.00	GREY	14	30	8	730	3.25
552 – 585	14.02 – 14.86	BROWN	14	20	7	790	3.25
586 – 606	14.87 – 15.39	WHITE	14	20	8	790	3.66
607 – 630	15.40 – 16.00	ORANGE	14	20	9	840	3.66
631 – 655	16.01 – 16.64	RED	14	20	9	840	3.66
656 – 679	16.65 – 17.25	GREEN	15	20	10	890	3.66
680 – 703	17.26 – 17.86	YELLOW	15	20	10	890	3.66
704 – 740	17.87 – 18.80	WHITE	16	15	9	940	3.66

PLP **PREFORMED** LINE PRODUCTS
The connection you can count on.

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Copper Alloy Line Guards

RIGHT HAND LAY STANDARD.

CATALOGUE NO. CLG	CONDUCTOR DIAMETER (mm)	COLOUR CODE	RODS PER SET	SETS PER PACK	APPROX PACK MASS (kg)	LENGTH OF FITTING (mm)	ROD DIA. (mm)
189 – 195	4.80 – 4.95	RED	7	30	6	510	2.64
196 – 207	4.96 – 5.26	ORANGE	8	30	7	510	2.64
208 – 217	5.27 – 5.51	GREEN	8	30	7	510	2.64
218 – 225	5.52 – 5.71	BLACK	8	30	7	510	2.64
226 – 236	5.72 – 5.99	YELLOW	8	30	7	510	2.64
237 – 249	6.00 – 6.32	WHITE	9	30	8	540	2.64
250 – 263	6.33 – 6.68	BROWN	9	30	8	540	2.64
264 – 277	6.69 – 7.03	GREY	9	30	8	540	2.64
278 – 295	7.04 – 7.49	ORANGE	10	20	6	540	2.64
296 – 314	7.50 – 7.97	BLUE	9	20	8	560	2.95
315 – 333	7.98 – 8.46	BLACK	9	20	10	590	3.25
334 – 352	8.47 – 8.94	WHITE	9	20	10	620	3.25
353 – 372	8.95 – 9.45	BROWN	10	20	10	640	3.25
373 – 392	9.46 – 9.96	RED	9	20	13	660	3.66
393 – 408	9.97 – 10.36	ORANGE	10	20	14	660	3.66
409 – 425	10.37 – 10.79	GREEN	10	20	14	690	3.66
426 – 450	10.82 – 11.43	BLUE	10	15	14	690	4.06
451 – 476	11.44 – 12.09	YELLOW	10	15	14	710	4.06
477 – 504	12.10 – 12.80	WHITE	11	15	16	710	4.06
505 – 534	12.81 – 13.56	GREY	11	15	16	740	4.06
535 – 565	13.57 – 14.35	RED	12	15	18	740	4.06
566 – 592	14.36 – 15.04	GREEN	12	15	18	760	4.06
593 – 625	15.05 – 15.87	BLUE	13	15	20	760	4.06
626 – 666	15.88 – 16.92	YELLOW	12	15	24	790	4.47
667 – 701	16.93 – 17.80	BROWN	13	15	26	790	4.47
702 – 735	17.81 – 18.67	GREY	13	15	26	810	4.47
736 – 767	18.68 – 19.48	BLUE	14	10	20	810	4.47
768 – 798	19.49 – 20.27	WHITE	14	10	20	840	4.88
799 – 841	20.28 – 21.26	GREEN	15	10	22	860	4.88
842 – 890	21.27 – 22.60	BLACK	14	10	26	890	5.38
891 – 940	22.61 – 23.88	YELLOW	15	10	28	910	5.38