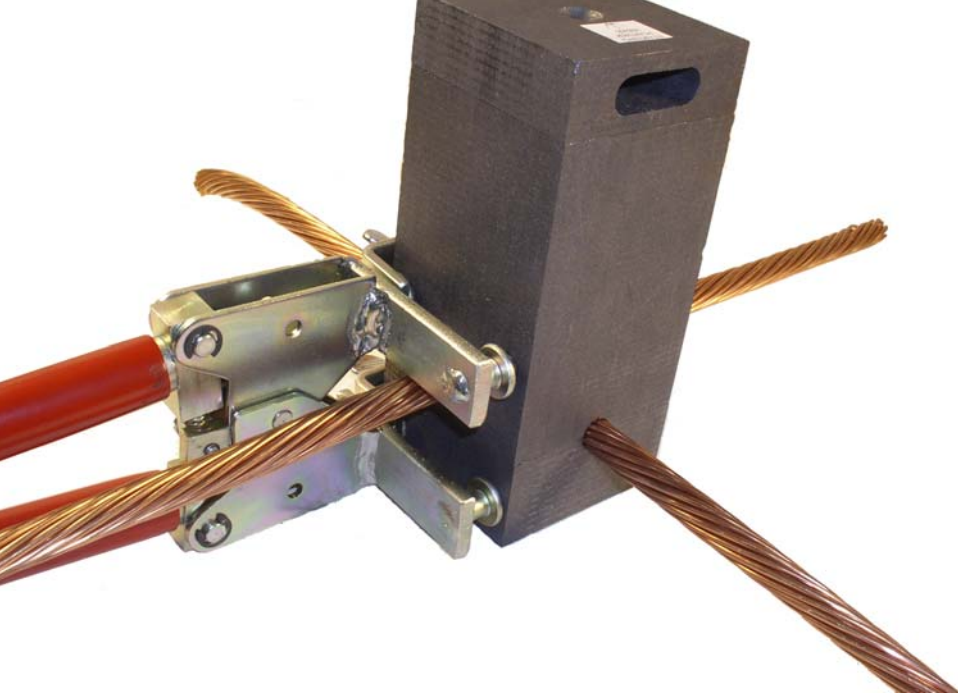




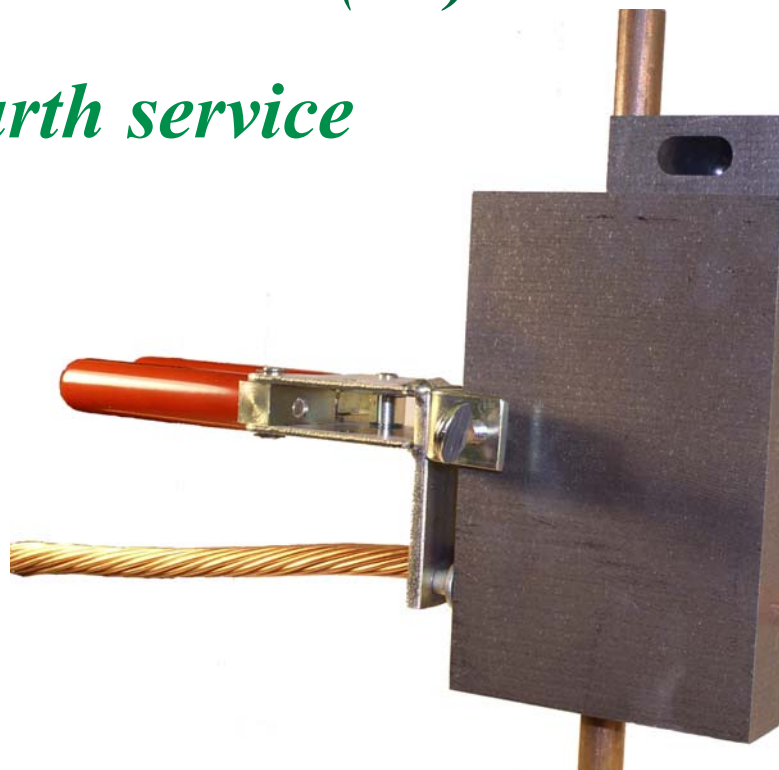
KingsWeld

The Premier Earthing and Lightning Protection Manufacturers

PRODUCT CATALOGUE

A Division of Kingsmill Industries (UK) Ltd

down to earth service





Kingsmill

*The Premier Earthing and Lightning Protection Manufacturers
down to earth service*

Kingsmill Industries (UK) Ltd is a leading manufacturer and distributor of earthing and lightning protection products for the UK and export markets.

The company aims to provide the highest standards of service and customer care without compromising quality or price. Undeniably, quality assurance is of paramount importance to the company and, to ensure this, all products are manufactured in accordance with BS EN 62305, BS EN 50164 and BS7430.

Kingsmill Industries (UK) Ltd is an ISO 9001 : 2000 registered company.



Company Background

Kingsmill Industries (UK) Ltd . . .

Kingsmill Industries (UK) Ltd have become a leading manufacturer and distributor of earthing and lightning protection products for the UK and export markets.

The company aims to provide the highest standards of service and customer care without compromising quality or price. Undeniably, quality assurance is of paramount importance to the company and, to ensure this, all products are designed and manufactured to meet stringent British and international standards - including BS6651, BS7430 and UL467. In addition we have achieved the UK governments full ISO9002 National Accreditation in recognition of the high quality of our management systems and products.

Kingsmill Industries (UK) Ltd is intrinsically sensitive to the needs of its customers and to the requirements of an ever-changing technological world.



Introduction to the Catalogue . . .

This catalogue has been designed to meet the following specification:

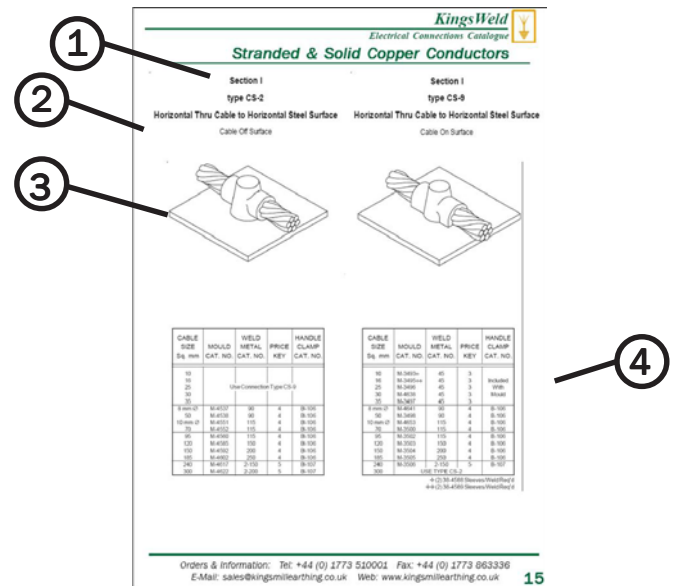
- ☐ To provide as much relevant information about each product as possible.
- ☐ For products to be easily located and referenced.

To help find the product you require, there is a part number index and diagrammatic product locator.

Products featured have technical and application drawings to ensure the correct product is related to the right application.

See the page diagram to the right that displays the page format and the way in which the catalogue has been designed to provide easily accessed product data and information.

Kingsmill



There are both new products and a wider selection of existing product ranges included within this catalogue.

Website: Our website contains our product range with data specification - www.kingsmillearthing.co.uk





Table Of Contents

TECHNICAL SECTION

Selector Chart	Page 3-4
Kingsweld Process	Page 5
How to Make a Kingsweld Connection	Page 6
How to Order	Page 7

SECTION I

(Stranded & Solid Conductors)

Cable to Cable	Page 8-11
Cable to Ground Rod	Page 12-13
Threaded Stud to Steel Surface	Page 14-19
Cable to Steel Surface	Page 14-19
Cable to Lug or Bus Bar	Page 20
Bus Bar to Bus Bar	Page 21-22
Bus Bar to Ground Rod	Page 23
Bar to Steel Surface	Page 24
Threaded Stud to Rail	Page 25
Cable to Rail	Page 25

SECTION II

(Kingsweld Moulds, Weld Metal & Accessories)

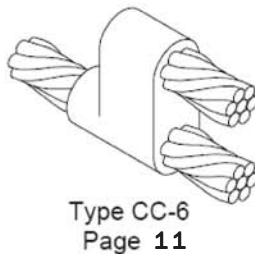
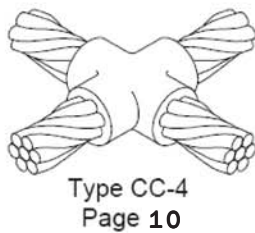
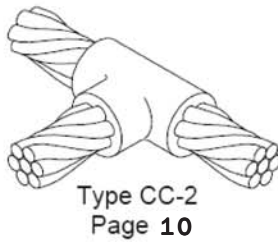
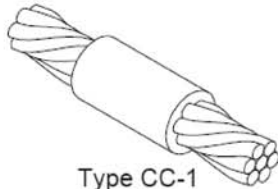
Ground Plates	Page 27
Aircraft Grounding Receptacles	Page 28
Kingsweld Moulds	Page 29-31
Weld Metal	Page 32
Handle Clamps	Page 33
Accessories	Page 34-37



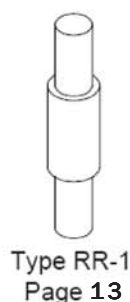
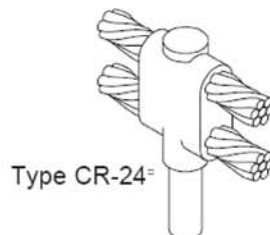
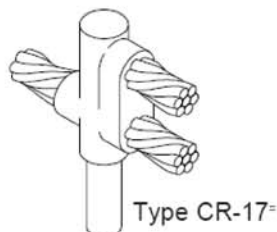
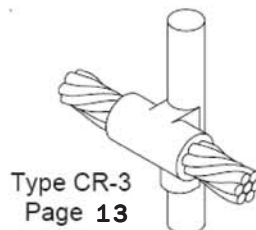
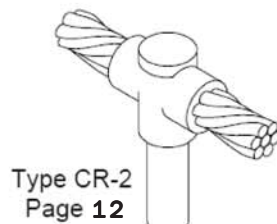
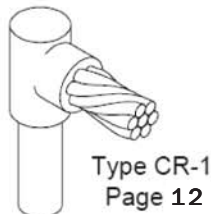
Selector Chart

Kingsweld®

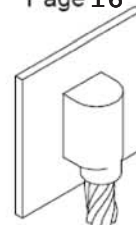
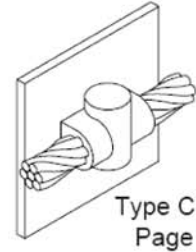
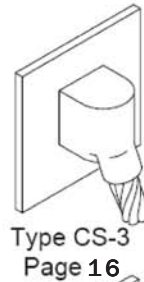
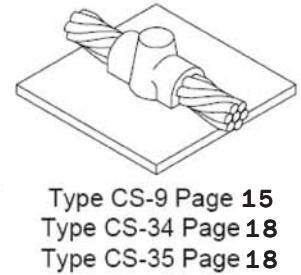
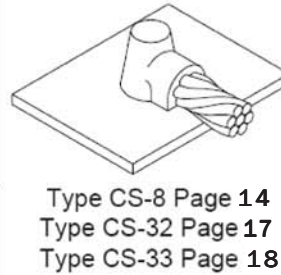
Cable to Cable



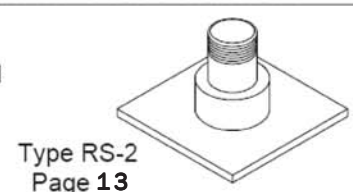
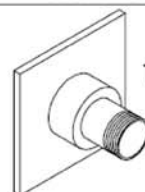
Cable to Earth Rod



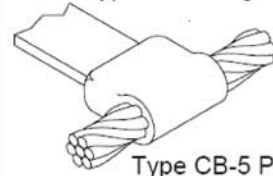
Cable to Surface



Threaded Stud to Steel Surface



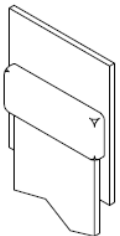
Cable to Lug or Bus



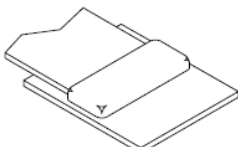


Selector Chart

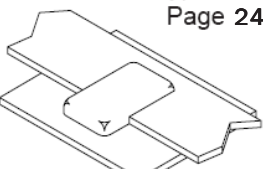
Bar to Steel Surface



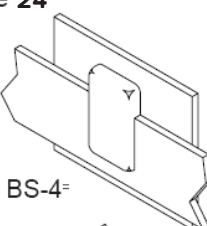
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Page 24



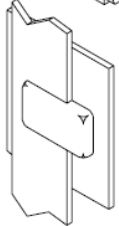
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Page 24



Type BS-3
Page 24

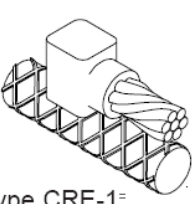


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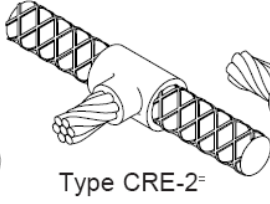


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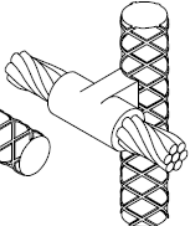
Cable to Rebar



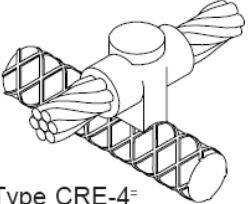
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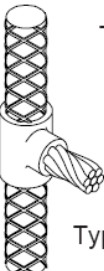
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Type CRE-3⁼



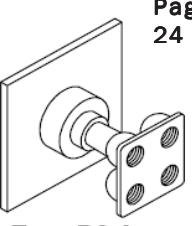
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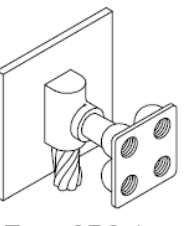
Type CRE-6⁼

Earth Plate to Steel Surface

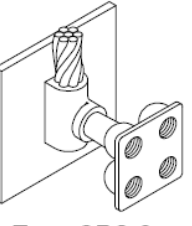
Page 24



Type RS-3⁼



Type CRS-1⁼



Type CRS-2⁼

Grounding Receptacle to Earth Rod

Page 28



Type AC-1⁼

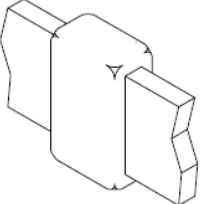


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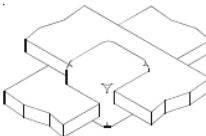


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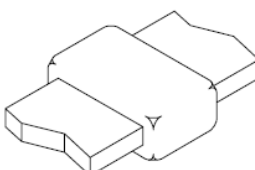
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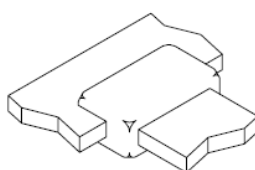
Type BB-1
Page 21



Type BB-41
Page 21

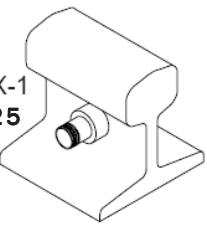


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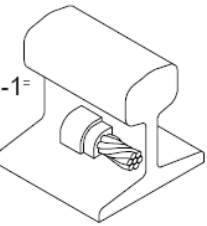


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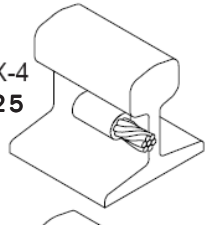
Cable to Rail



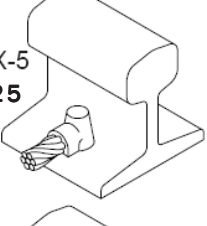
Type RX-1
Page 25



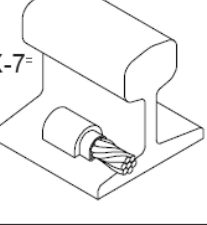
Type CX-1⁼



Type CX-4
Page 25

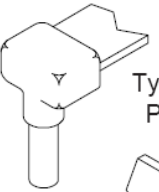


Type CX-5
Page 25

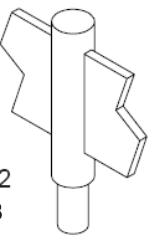


Type CX-7⁼

Bus Bar to Ground Rod



Type BR-1
Page 23



Type BR-2
Page 23

**= Contact Factory For These Weld Types.
For Weld Types Not Shown Contact Factory.**

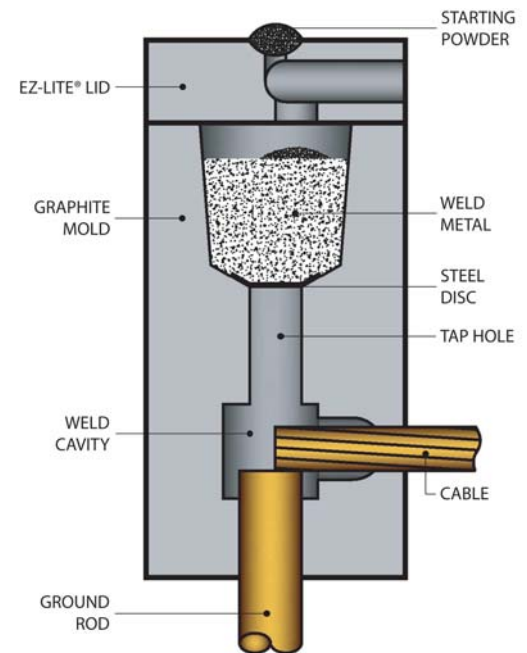


KingsWeld Process

The KingsWeld electrical connection process is a simple, efficient method of welding copper to copper or copper to steel. No outside source of power is required when using KingsWeld. KingsWeld connections use the high temperature of reaction of powdered copper oxide and aluminium. The reaction takes place in a semi-permanent graphite mould (KingsWeld Mould) that lasts for fifty or more welds if properly cared for. The KingsWeld reaction takes place in a few seconds, therefore the total amount of heat (calories or BTU's) applied to the conductors or surfaces is considerably less than that employed in brazing or soldering. This is an important consideration when welding to insulated cable or thin wall pipe.

KingsWeld is ideal for field use, since it is light and portable and requires no outside power source. It requires very little time or skill to obtain an efficient, maintenance free electrical connection when using KingsWeld.

KingsWeld equipment required for making all types of electrical connections are shown on the following pages.



**Cutaway Section
of CR-1**

KingsWeld Connection

The KingsWeld connection is a molecular weld. The weld metal has the same melting point as copper. Because of these factors along with the increased cross section of the connection, KingsWeld connections:

1. Will not be affected by a high current surge. Tests have shown that the electrical conductor will melt before the KingsWeld connection when subjected to

high short-circuit current. Consult standard I.E.E.E. Standard 80-1989.

2. Will not loosen or corrode at the point of weld. There are no contact surfaces or mechanical pressures involved. A KingsWeld connection becomes an integral part of the conductor.

3. Have a current-carrying capacity equal to or greater than that of the conductors.

KingsWeld equipment has been used to weld materials other than copper for electrical purposes. Materials welded have included:

Stainless Steel	Monel	Copper Clad Steel	Steel Rail	Brass
CopperWeld	Plain Steel	Bronze	Chromax	Nichrome
Nichrome V	Everdur	Galvanised Steel	Wrought Iron	Cast Iron
Kama	Cor-Ten	Silicone Bronze	Columbium	Niobium

When welding to galvanized steel it may be necessary to resurface exposed bare steel (see page 29-31)



Making a Kingsweld Connection



1. Position cleaned conductors in mould after making sure mould is dry, by pre-heating or making a test joint.



2. Place metal disc in bottom of mould crucible.



3. Dump powder into crucible, spreading some starting powder on edge of mould.



4. Close lid and ignite with flint gun from side, fire sparking onto the starting powder.



5. Reaction takes place.



6. Remove weld and clean mould before making next connection.

How to Order Kingsweld Material

In order to receive the correct material, it is important to have all the relevant information regarding the type of installation you are to make before selecting the KingsWeld material. Information required to select the correct materials are:

1. Materials to be welded (Copper, Steel, Cast Iron etc)
2. Cable size and type (Solid or Stranded, Copper or Steel)
3. Weld type (Configuration)

Additional information may be required for a particular weld type. If more information is required, it will be asked for with that weld type at the time of quotation.

After you have selected the cable size and weld type to be used, use the selector chart to find the page number for that particular weld type. After turning to the correct page, find the correct cable size and follow it across to get the Mould number, cartridge size and price key.

If required, select sleeves, packing material, ground plates, lugs, etc.

Specify handle clamp if required. All moulds with Price Key 4, 7 and 17 require 40-0106-00 handle clamps and all moulds with price key 5, 6 and 8 require 40-0107-00 handle clamps. All other price key moulds come complete with frame.

To clean the cable, order the cable cleaning brush 38-0135-00 (see page 37) and to clean steel or cast iron surface use 38-0101-00 rasp (see page 35).

Before making any connection, always read the enclosed instruction sheet. This instruction sheet tells you about the precautions to be taken, how to clean the materials to be welded and how to make the weld connection.

BASIC MATERIAL REQUIRED To Make A KingsWeld Connection

The Correct KingsWeld Mould
KingsWeld Handle Clamps (if required)
Weld Metal
Flint Gun
Wire Brush

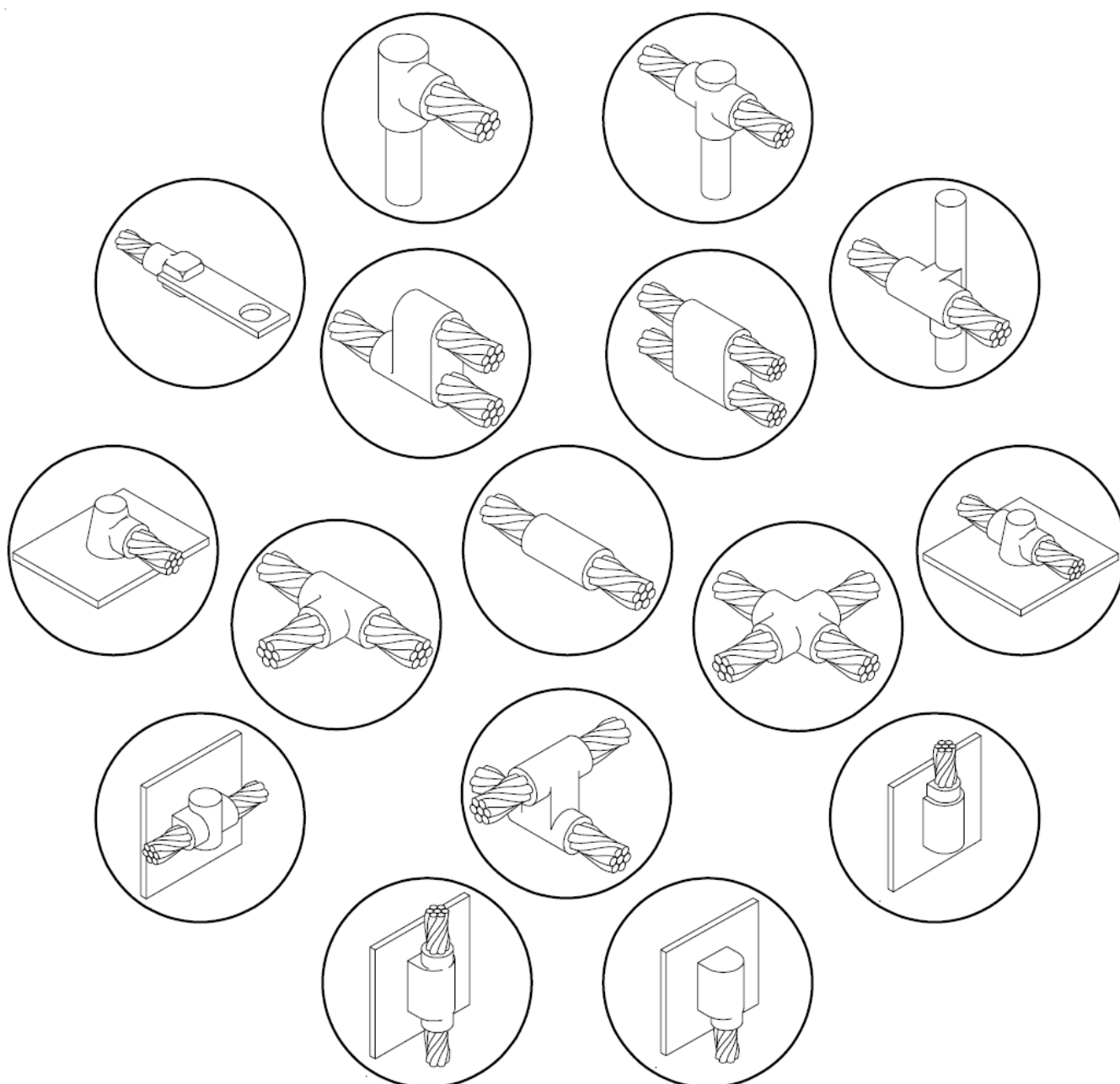


KingsWeld

Electrical Connections Catalogue

Stranded & Solid Copper Conductors

Section I Kingsweld Moulds for Stranded & Solid Copper Conductors



Orders & Information: Tel: +44 (0) 1773 510001 Fax: +44 (0) 1773 863336

E-Mail: sales@kingsmillearthing.co.uk Web: www.kingsmillearthing.co.uk

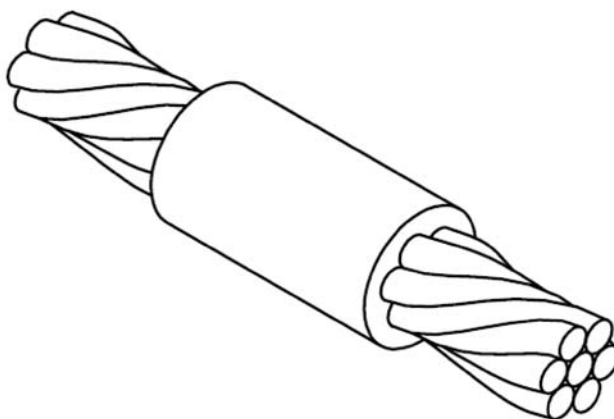


Stranded & Solid Copper Conductors

Section I

type CC-1

Horizontal End To End



CABLE SIZE Sq. mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	M-3001B	32	4	B-106
16	M-3003++	32	4	B-106
25	M-3004	32	4	B-106
30	M-2842	32	4	B-106
35	M-3005	32	4	B-106
50	M-3006	45	4	B-106
8 mm Ø	M-2849	45	4	B-106
70	M-3008	65	4	B-106
10 mm Ø	M-2910	65	4	B-106
95	M-3010	90	4	B-106
120	M-3011	115	4	B-106
150	M-3012	115	4	B-106
185	M-3013	150	4	B-106
240	M-3014	200	4	B-106
300	M-3015	250	4	B-106

† (2) 38-4588 Sleeves/Weld Req'd

†† (2) 38-4589 Sleeves/Weld Req'd

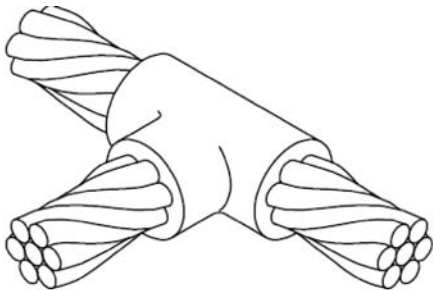


Stranded & Solid Copper Conductors

Section I

type CC-2

Horizontal Cable Tap to Horizontal Cable Run



CABLE SIZE Sq. mm		MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
RUN	TAP				
10	10	M-3018+	45	4	B-106
16	16	M-3020++	45	4	B-106
25	25	M-3021	45	4	B-106
5.6 mm Ø	5.6 mm Ø	M-2914	45	4	B-106
30	30	M-2915	45	4	B-106
35	35	M-3022	45	4	B-106
	25	M-3023	45	4	B-106
8 mm Ø	8 mm Ø	M-2949	65	4	B-106
50	50	M-3024	90	4	B-106
	35	M-3025	65	4	B-106
	25	M-3026	65	4	B-106
10 mm Ø	10 mm Ø	M-2916	90	4	B-106
70	70	M-3031	90	4	B-106
	50	M-3033	90	4	B-106
	35	M-3034	65	4	B-106
	25	M-3035	65	4	B-106
95	95	M-3041	115	4	B-106
	70	M-3043	90	4	B-106
	50	M-3045	90	4	B-106
	35	M-3046	90	4	B-106
120	120	M-3047	150	4	B-106
	95	M-3048	150	4	B-106
	70	M-3051	90	4	B-106
	50	M-3052	90	4	B-106
150	150	M-3053	200	4	B-106
	120	M-3054	150	4	B-106
	95	M-3055	150	4	B-106
	70	M-3057	90	4	B-106
185	185	M-3059	200	4	B-106
	150	M-3060	200	4	B-106
	120	M-3061	200	4	B-106
	95	M-3062	150	4	B-106
240	240	M-3065	2-150	4	B-106
	185	M-3066	200	4	B-106
	150	M-3067	200	4	B-106
	120	M-3068	200	4	B-106
300	300	M-3071	2-200	5	B-107
	240	M-3072	2-200	5	B-107
	185	M-3073	250	4	B-106
	150	M-3074	200	4	B-106

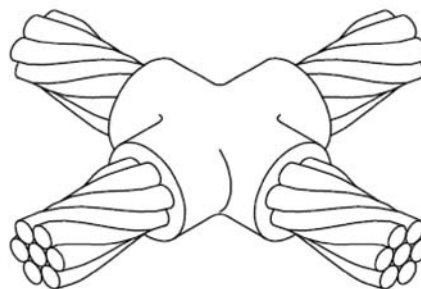
+(3) 38-4588 Sleeves/Weld Req'd

++(3) 38-4589 Sleeves/Weld Req'd

Section I

type CC-4

Horizontal to Horizontal Cable Cross



CABLE SIZE Sq. mm		MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
RUN	TAP				
10	10	M-3144+	45	4	B-106
16	16	M-3146++	65	4	B-106
25	25	M-3147	45	4	B-106
30	30	M-2926	45	4	B-106
35	35	M-3148	65	4	B-106
	25	M-3149	65	4	B-106
8 mm Ø	8 mm Ø	M-2950	90	4	B-106
50	50	M-3150	90	4	B-106
	35	M-3151	90	4	B-106
	25	M-3152	90	4	B-106
10 mm Ø	10 mm Ø	M-2928	115	4	B-106
70	70	M-3157	115	4	B-106
	50	M-3159	115	4	B-106
	35	M-3160	115	4	B-106
	25	M-3161	115	4	B-106
95	95	M-3167	150	4	B-106
	70	M-3169	150	4	B-106
	50	M-3171	115	4	B-106
	35	M-3172	115	4	B-106
120	120	M-3173	200	4	B-106
	95	M-3174	200	4	B-106
	70	M-3176	150	4	B-106
	50	M-3178	150	4	B-106
150	150	M-3179	250	4	B-106
	120	M-3180	250	4	B-106
	95	M-3181	200	4	B-106
	70	M-3183	150	4	B-106
185	185	M-3185	2-150	4	B-106
	150	M-3186	250	4	B-106
	120	M-3187	250	4	B-106
	95	M-3188	200	4	B-106
240	240	M-3191	500	5	B-107
	185	M-3192	2-200	5	B-107
	150	M-3193	2-200	5	B-107
	120	M-3194	2-150	5	B-107
300	300	M-3197	3-200	5	B-107
	240	M-3198	3-200	5	B-107
	185	M-3199	500	5	B-107
	150	M-3200	500	5	B-107
	120	M-3201	2-200	5	B-107
	95	M-3202	2-200	5	B-107

+(4) 38-4588 Sleeves/Weld Req'd

++(4) 38-4589 Sleeves/Weld Req'd

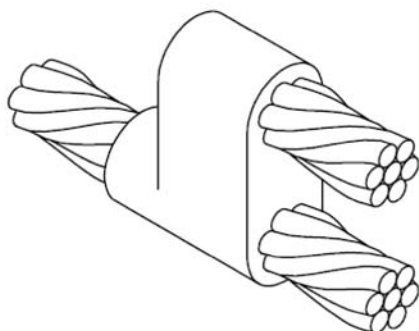


Stranded & Solid Copper Conductors

Section I

type CC-6

Horizontal Parallel Tap



CABLE SIZE Sq. mm		MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
RUN	TAP				
10	10	M-2934+	45	4	B-106
16	16	M-2952++	65	4	B-106
25	25	M-2971	45	4	B-106
30	30	M-3269	65	4	B-106
35	35	M-3432	65	4	B-106
	25	M-4254	65	4	B-106
50	50	M-4260	90	4	B-106
	35	M-4290	65	4	B-106
	25	M-4291	65	4	B-106
70	70	M-3234	115	4	B-106
	50	M-4292	115	4	B-106
	35	M-3237	90	4	B-106
	25	M-3238	90	4	B-106
95	95	M-4302	150	4	B-106
	70	M-4303	115	4	B-106
	50	M-4311	115	4	B-106
	35	M-4319	115	4	B-106
120	120	M-4325	200	4	B-106
	95	M-4337	200	4	B-106
	70	M-4338	150	4	B-106
	50	M-4347	115	4	B-106

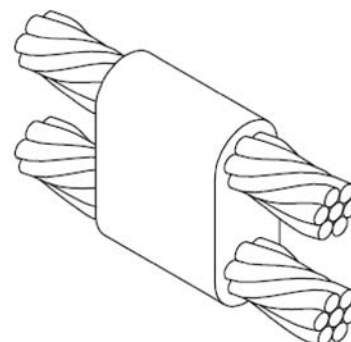
+ (3) 38-4588 Sleeves/Weld Req'd

++ (3) 38-4589 Sleeves/Weld Req'd

Section I

type CC-7

Horizontal Parallel thru Cables



CABLE SIZE Sq. mm		MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
RUN	TAP				
10	10	M-3251+	45	4	B-106
16	16	M-3253++	65	4	B-106
25	25	M-3254	45	4	B-106
30	30	M-4348	45	4	B-106
35	35	M-3255	65	4	B-106
	25	M-3256	65	4	B-106
8 mm Ø	8 mm Ø	M-4643	90	4	B-106
50	50	M-3257	90	4	B-106
	35	M-3258	90	4	B-106
	25	M-3259	65	4	B-106
10 mm Ø	10 mm Ø	M-4350	115	4	B-106
70	70	M-3264	115	4	B-106
	50	M-3266	115	4	B-106
	35	M-3267	90	4	B-106
	25	M-3268	90	4	B-106
95	95	M-3274	150	4	B-106
	70	M-3276	115	4	B-106
	50	M-3278	115	4	B-106
	35	M-3279	115	4	B-106
120	120	M-3280	200	4	B-106
	95	M-3281	200	4	B-106
	70	M-3283	150	4	B-106
	50	M-3285	150	4	B-106
150	150	M-3286	2-150	5	B-107
	120	M-3287	250	4	B-106
	95	M-3288	200	4	B-106
	70	M-3290	150	4	B-106
185	185	M-3292	2-150	5	B-107
	150	M-3293	2-150	5	B-107
	120	M-3294	250	4	B-106
	95	M-3295	200	4	B-106
240	240	M-3298	2-200	5	B-107
	185	M-3299	2-150	5	B-107
	150	M-3300	2-150	5	B-107
	120	M-3301	250	4	B-106
300	300	M-3304	500	5	B-107
	240	M-3305	500	5	B-107
	185	M-3306	2-200	5	B-107
	150	M-3307	2-150	5	B-107

+ (4) 38-4588 Sleeves/Weld Req'd

++ (4) 38-4589 Sleeves/Weld Req'd



Stranded & Solid Copper Conductors

Section I

type CR-1

Horizontal Cable Terminal to Ground Rod



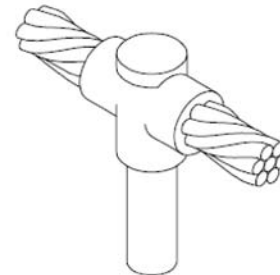
GRD ROD	CABLE SIZE	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
12.8	10	M-3318+	65	4	B-106
	16	M-3320++	65	4	B-106
	25	M-3321	65	4	B-106
	5.6 mm Ø	M-4351	65	4	B-106
	30	M-4352	65	4	B-106
	35	M-3322	65	4	B-106
	50	M-3323	65	4	B-106
	8 mm Ø	M-4644	65	4	B-106
	70	M-3325	90	4	B-106
	95	M-3327	90	4	B-106
	120	M-3328	90	4	B-106
14.3	5.6 mm Ø	M-4381	65	4	B-106
	25	M-3336	65	4	B-106
	30	M-4392	65	4	B-106
	35	M-3337	65	4	B-106
	50	M-3338	90	4	B-106
	8 mm Ø	M-4412	90	4	B-106
	70	M-3340	90	4	B-106
	95	M-3342	90	4	B-106
	120	M-3343	90	4	B-106
	150	M-3344	115	4	B-106
	185	M-3345	115	4	B-106
	240	M-3346	150	4	B-106
17.2	25	M-3354	65	4	B-106
	30	M-4413	65	4	B-106
	35	M-3355	65	4	B-106
	50	M-3356	90	4	B-106
	8 mm Ø	M-4414	90	4	B-106
	70	M-3358	90	4	B-106
	95	M-3360	90	4	B-106
	120	M-3361	90	4	B-106
	150	M-3362	115	4	B-106
	185	M-3363	115	4	B-106
	240	M-3364	150	4	B-106
	300	M-3365	200	4	B-106

+ (1) 38-4588 Sleeve/Weld Req'd
 ++ (1) 38-4589 Sleeve/Weld Req'd

Section I

type CR-2

Horizontal thru Cable to Ground Rod



GRD ROD	CABLE SIZE	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
12.8	10	M-3369+	90	4	B-106
	16	M-3371++	90	4	B-106
	25	M-3372	90	4	B-106
	5.6 mm Ø	M-4486	90	4	B-106
	30	M-4503	90	4	B-106
	35	M-3373	90	4	B-106
	50	M-3374	90	4	B-106
	8 mm Ø	M-4881	90	4	B-106
	70	M-3376	90	4	B-106
	95	M-3378	115	4	B-106
	120	M-3379	150	4	B-106
14.3	5.6 mm Ø	M-4505	90	4	B-106
	25	M-3387	90	4	B-106
	30	M-4513	90	4	B-106
	35	M-3388	90	4	B-106
	50	M-3389	90	4	B-106
	8 mm Ø	M-4515	90	4	B-106
	70	M-3391	115	4	B-106
	95	M-3393	115	4	B-106
	120	M-3394	150	4	B-106
	150	M-3395	200	4	B-106
	185	M-3396	200	4	B-106
	240	M-3397	250	4	B-106
17.2	25	M-3405	90	4	B-106
	30	M-4518	90	4	B-106
	35	M-3406	90	4	B-106
	50	M-3407	115	4	B-106
	8 mm Ø	M-4645	115	4	B-106
	70	M-3409	115	4	B-106
	95	M-3411	115	4	B-106
	120	M-3412	150	4	B-106
	150	M-3413	200	4	B-106
	185	M-3414	200	4	B-106
	240	M-3415	250	4	B-106
	300	M-3416	2-150	5	B-107

+ (2) 38-4588 Sleeves/Weld Req'd
 ++ (2) 38-4589 Sleeves/Weld Req'd

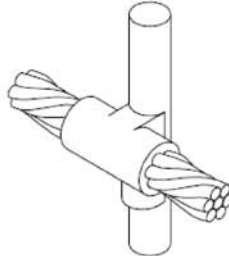


Stranded & Solid Copper Conductors

Section I

type CR-3

Horizontal thru Cable to Ground Rod



GRD ROD	CABLE SIZE	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
12.8	10	M-2801+	90	7	B-106
	16	M-2802++	90	7	B-106
	25	M-2804	90	7	B-106
	5.6 mm Ø	M-2805	90	7	B-106
	30	M-2808	90	7	B-106
	35	M-2813	90	7	B-106
	50	M-2815	115	7	B-106
	8 mm Ø	M-2816	115	7	B-106
	70	M-2818	115	7	B-106
	95	M-2819	115	7	B-106
14.3	120	M-2821	150	7	B-106
	5.6 mm Ø	M-2823	90	7	B-106
	30	M-2824	90	7	B-106
	35	M-2826	115	7	B-106
	50	M-2827	115	7	B-106
	8 mm Ø	M-2828	115	7	B-106
	70	M-2829	115	7	B-106
	95	M-2831	115	7	B-106
	120	M-2837	150	7	B-106
	150	M-2838	150	7	B-106
17.2	185	M-2839	250	7	B-106
	240	M-2840	2-200	8	B-107
	30	M-2841	90	7	B-106
	35	M-2844	90	7	B-106
	50	M-2845	115	7	B-106
	8 mm Ø	M-2846	115	7	B-106
	70	M-2847	150	7	B-106
	95	M-2848	150	7	B-106
	120	M-4882	200	7	B-106
	150	M-2850	250	7	B-106
	185	M-2851	2-200	8	B-107
	240	M-2852	500	8	B-107
	300	M-2853	3-200	8	B-107

++ (2) 38-4588 Sleeves/Weld Req'd
 +++ (2) 38-4589 Sleeves/Weld Req'd

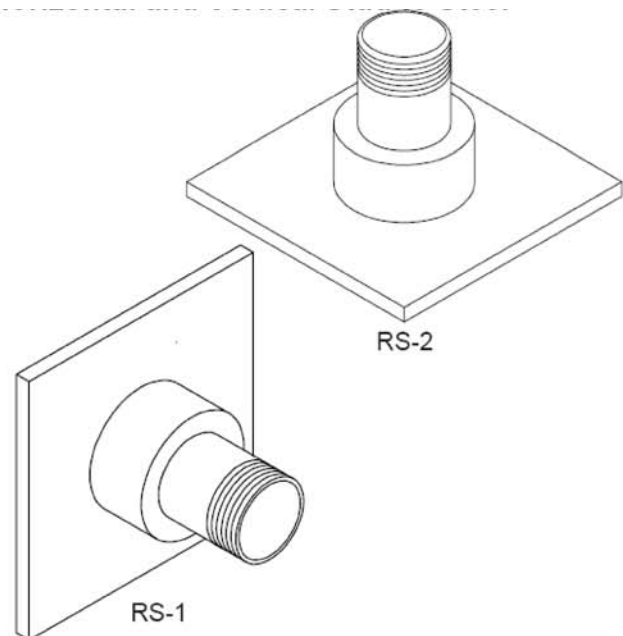
Section I

type RR-1

Ground Rod to Ground Rod



GROUND ROD SIZE mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
12.8	M-3624	150	17	B-106
14.3	M-3625	200	17	B-106
17.2	M-4522	250	17	B-106



Section I

type RS-1 & RS-2

Horizontal and Vertical Stud to Steel

STUD SIZE mm	RS-1 MOULD CAT. NO.	RS-2 MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	M-2891	M-4382	45	4	B-106
12	M-4285	M-4383	65	4	B-106
16	M-2822	M-4471	115	4	B-106

Moulds for copper studs available. For information, contact Kingsweld.



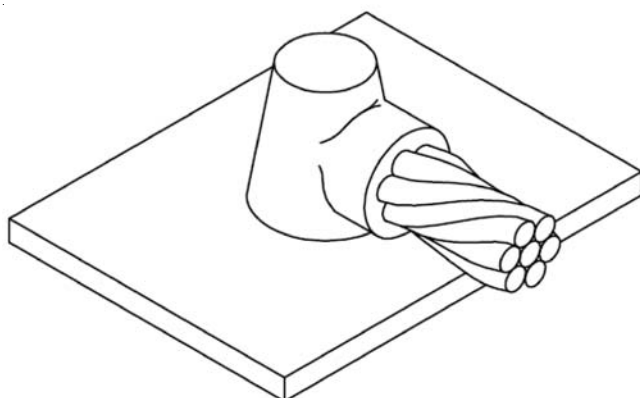
Stranded & Solid Copper Conductors

Section I

type CS-1

Horizontal Cable to Horizontal Steel Surface

Cable Off Surface

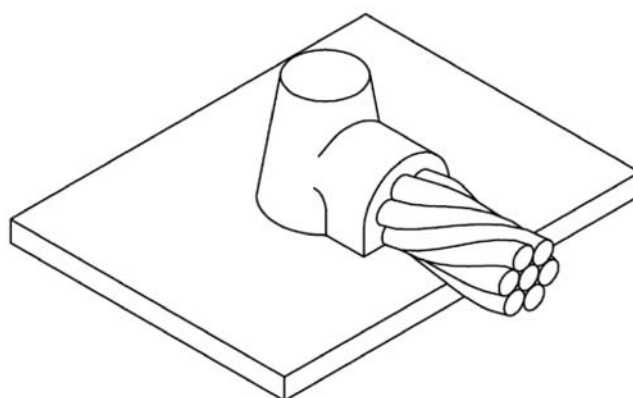


Section I

type CS-8

Horizontal Cable to Horizontal Steel Surface

Cable On Surface



CABLE SIZE Sq. mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10 16 25 30 35	Use Connection Type CS-8			
8 mm Ø	M-4527	90	4	B-106
50	M-3419	90	4	B-106
10 mm Ø	M-4529	90	4	B-106
70	M-3421	90	4	B-106
95	M-3423	115	4	B-106
120	M-3424	115	4	B-106
150	M-3425	150	4	B-106
185	M-3426	200	4	B-106
240	M-3427	200	4	B-106
300	M-3428	250	4	B-106

CABLE SIZE Sq. mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10 16 25 30 35	M-3476+ M-3478++ M-3479 M-4530 M-3480	45 45 45 45 45	3 3 3 3 3	Included With Mould
8 mm Ø	M-4534	45	3	
50	M-3481	45	3	
10 mm Ø	M-4536	65	3	
70	M-3483	65	3	
95	M-3485	90	3	B-106 B-106 B-106 B-106 B-106
120	M-3486	115	4	
150	M-3487	150	4	
185	M-3488	200	4	
240	M-3489	200	4	
300	M-3490	250	4	B-106

+ (1) 38-4588 Sleeve/Weld Req'd
 ++ (1) 38-4589 Sleeve/Weld Req'd



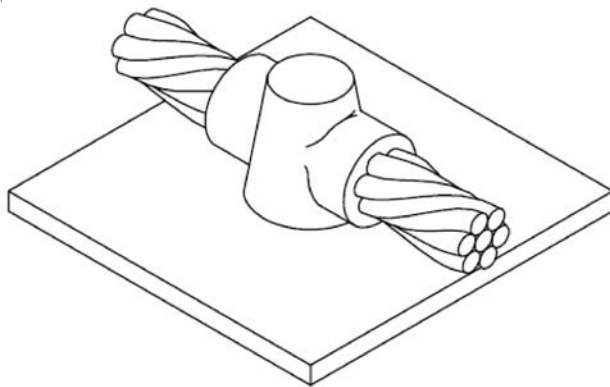
Stranded & Solid Copper Conductors

Section I

type CS-2

Horizontal Thru Cable to Horizontal Steel Surface

Cable Off Surface

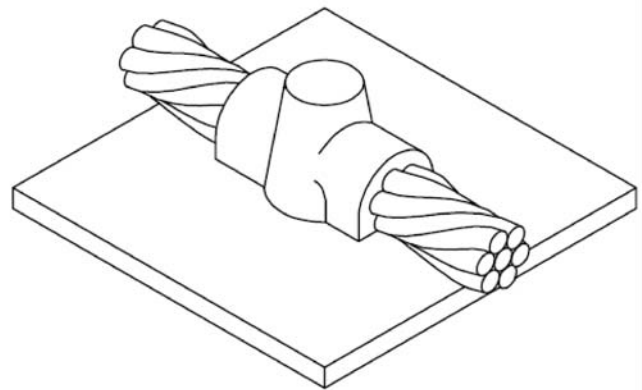


Section I

type CS-9

Horizontal Thru Cable to Horizontal Steel Surface

Cable On Surface



CABLE SIZE Sq. mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10 16 25 30 35	Use Connection Type CS-9			
8 mm Ø	M-4537	90	4	B-106
50	M-4538	90	4	B-106
10 mm Ø	M-4551	115	4	B-106
70	M-4552	115	4	B-106
95	M-4560	115	4	B-106
120	M-4585	150	4	B-106
150	M-4592	200	4	B-106
185	M-4602	250	4	B-106
240	M-4617	2-150	5	B-107
300	M-4622	2-200	5	B-107

CABLE SIZE Sq. mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10 16 25 30 35	M-3493+ M-3495++ M-3496 M-4638 M-3497	45 45 45 45 45	3 3 3 3 3	Included With Mould
8 mm Ø	M-4641	90	4	
50	M-3498	90	4	
10 mm Ø	M-4653	115	4	
70	M-3500	115	4	
95	M-3502	115	4	B-106
120	M-3503	150	4	B-106
150	M-3504	200	4	B-106
185	M-3505	250	4	B-106
240	M-3506	2-150	5	B-107
300				

USE TYPE CS-2

++ (2) 38-4588 Sleeves/Weld Req'd

+++ (2) 38-4589 Sleeves/Weld Req'd

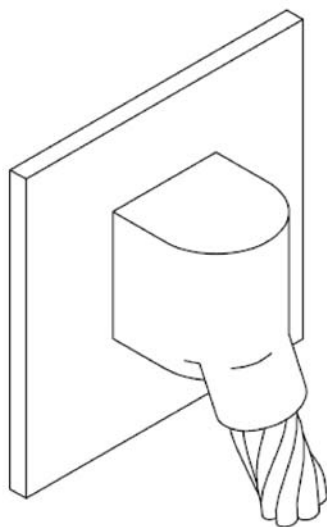


Stranded & Solid Copper Conductors

Section I

type CS-3

Angular Cable Drop to Vertical Steel Surface

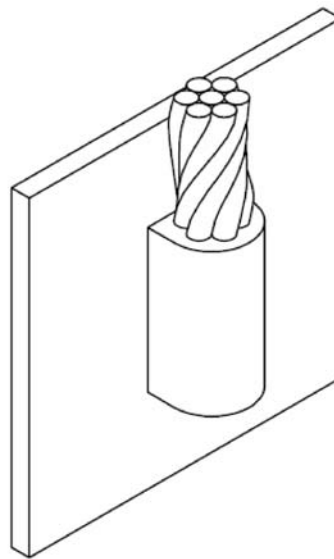


Section I

type CS-7

Overhead Vertical Tap Cable to Vertical Steel Surface

Cable On Surface



CABLE SIZE Sq. mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	M-3442+	45	4	B-106
16	M-3444++	45	4	B-106
25	M-3445	45	4	B-106
30	M-4670	45	4	B-106
35	M-3446	45	4	B-106
8 mm Ø	M-4672	90	4	B-106
50	M-3447	90	4	B-106
10 mm Ø	M-4691	115	4	B-106
70	M-3449	90	4	B-106
95	M-3451	115	4	B-106
120	M-3452	115	4	B-106
150	M-3453	115	4	B-106
185	M-3454	200	4	B-106
240	M-3455	200	4	B-106
300	M-3456	250	4	B-106

+ (1) 38-4588 Sleeve/Weld Req'd
 ++ (1) 38-4589 Sleeve/Weld Req'd

CABLE SIZE Sq. mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	M-3459+	65	4	B-106
16	M-3461++	65	4	B-106
25	M-3462	65	4	B-106
30	M-4701	65	4	B-106
35	M-3463	65	4	B-106
8 mm Ø	M-4752	90	4	B-106
50	M-3464	90	4	B-106
10 mm Ø	M-4769	150	17	B-106
70	M-3466	150	17	B-106
95	M-3468	200	17	B-106
120	M-3469	200	17	B-106
150	M-3470	250	17	B-106
185	M-3471	2-150	6	B-107
240	M-3472	2-150	6	B-107
300	M-3473	2-200	6	B-107

+ (1) 38-4588 Sleeve/Weld Req'd
 ++ (1) 38-4589 Sleeve/Weld Req'd



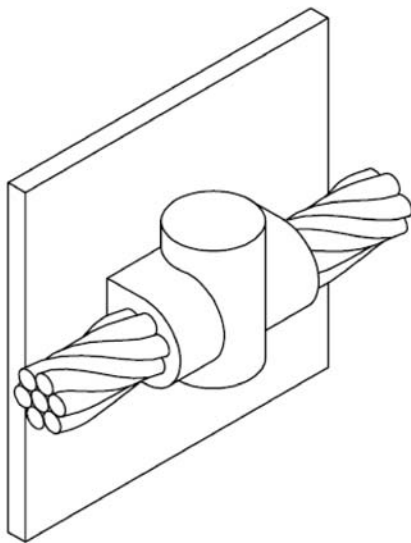
Stranded & Solid Copper Conductors

Section I

type CS-27

Horizontal Thru Cable To Vertical Steel

Cable On Surface



CABLE SIZE Sq. mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	M-3520+	45	4	B-106
16	M-3522++	45	4	B-106
25	M-3523	45	4	B-106
30	M-4779	45	4	B-106
35	M-3524	45	4	B-106
8 mm Ø	M-4780	65	4	B-106
50	M-3525	65	4	B-106
10 mm Ø	M-4833	115	4	B-106
70	M-3527	115	4	B-106
95	M-3529	150	4	B-106
120	M-3530	150	4	B-106
150	M-4757	200	17	B-106
185	M-4834	250	5	B-107
240	M-4835	2-150	5	B-107
300	M-2803	2-200	5	B-107

++ (2) 38-4588 Sleeves/Weld Req'd

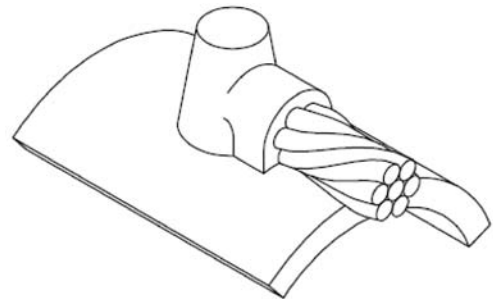
+++ (2) 38-4589 Sleeves/Weld Req'd

Section I

type CS-32

Horizontal Cable Tap To Horizontal Steel

Pipe For Cathodic Protection



CABLE SIZE Sq. mm	PIPE DIA. in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2.5, 4 & 6	up to 125	M-4146+	15	3	Handle Included With Mould
2.5, 4 & 6	over 125	M-4147+	15	3	
10	up to 125	M-4150++	25	3	
	over 125	M-4151++	25	3	
16	up to 125	M-4146	15	3	
	over 125	M-4147	15	3	
25	up to 70	M-4152	25	3	
	70 to 165	M-4153	25	3	
	over 165	M-4154	25	3	
30	up to 70	M-2833	32	3	
	70 to 165	M-2834	32	3	
	165 to 250	M-2835	32	3	
	over 250	M-2836	32	3	
35	up to 70	M-4155	32	3	
	70 to 165	M-4156	32	3	
	165 to 250	M-4157	32	3	
	over 250	M-4158	32	3	
50	up to 70	M-4159	45	3	
	70 to 165	M-4160	45	3	
	165 to 250	M-4161	45	3	
	over 250	M-4162	45	3	
70	up to 70	M-4163	65	3	
	70 to 165	M-4164	65	3	
	165 to 250	M-4165	65	3	
	over 250	M-4166	65	3	

++ (1) 38-4590 Sleeve/Weld Req'd

+++ (1) 38-4588 Sleeve/Weld Req'd



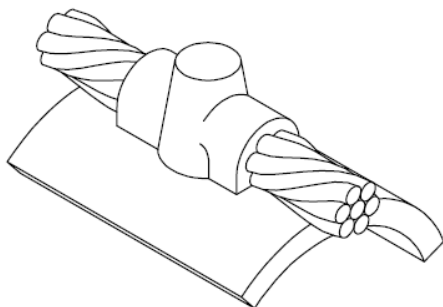
Stranded & Solid Copper Conductors

Section I

type CS-34

Horizontal Cable Thru to Horizontal Steel

Pipe for Cathodic Protection



CABLE SIZE Sq. mm	PIPE DIA. in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2.5, 4 & 6	up to 105	M-4167+	25	3	HANDLE INCLUDED WITH MOULD
2.5, 4 & 6	over 105	M-4168+	25	3	
10	up to 105	M-4169++	32	3	
	over 105	M-4170++	32	3	
16	up to 105	M-4171+++	45	3	
	over 105	M-4172+++	45	3	
25	up to 70	M-4173	32	3	
	70 to 165	M-4174	32	3	
	over 165	M-4175	32	3	
35	up to 70	M-4176	45	3	
	70 to 165	M-4177	45	3	
	165 to 250	M-4178	45	3	
	over 250	M-4179	45	3	
50	up to 70	M-4180	65	3	
	70 to 165	M-4181	65	3	
	165 to 250	M-4182	65	3	
	over 250	M-4183	65	3	

+(2) 38-4590 Sleeve/Weld Req'd

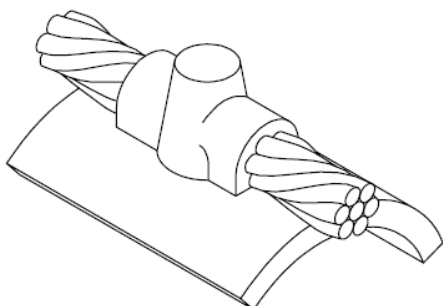
++(2) 38-4588 Sleeve/Weld Req'd

+++(2) 38-4589 Sleeve/Weld Req'd

type CS-35

Horizontal Cable Thru to Horizontal Cast

Iron Pipe for Cathodic Protection

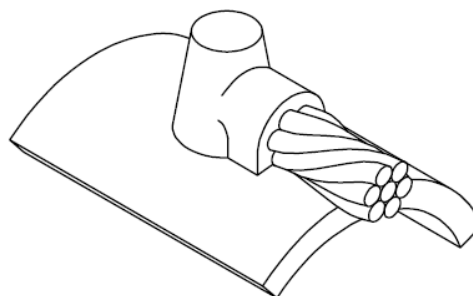


Section I

type CS-33

Horizontal Cable Tap to Horizontal Cast Iron

Pipe for Cathodic Protection



CABLE SIZE Sq. mm	PIPE DIA. in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2.5, 4 & 6	Flat	M-4188+	45CI	3	HANDLE INCLUDED WITH MOULD
10	Surface	M-4189++	45CI	3	
16	or	M-4188+++	45CI	3	
25	750 Dia	M-4191	45CI	3	
35	and	M-4192	45CI	3	
50	above	M-4193	45CI	3	
70	pipe	M-2868	65CI	3	

+(1) 38-4590 Sleeve/Weld Req'd

++(1) 38-4588 Sleeve/Weld Req'd

+++(1) 38-4589 Sleeve/Weld Req'd

CABLE SIZE Sq. mm	PIPE DIA. in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2.5, 4 & 6	Flat	M-2876+	32CI	3	HANDLE INCLUDED WITH MOULD
10	Surface	M-2882++	45CI	3	
16	or	M-2883+++	45CI	3	
25	750 Dia	M-2884	45CI	3	
35	and	M-2887	45CI	3	
50	above	M-2889	65CI	3	
70	pipe	M-2890	65CI	3	

+(2) 38-4590 Sleeve/Weld Req'd

++(2) 38-4588 Sleeve/Weld Req'd

+++(2) 38-4589 Sleeve/Weld Req'd

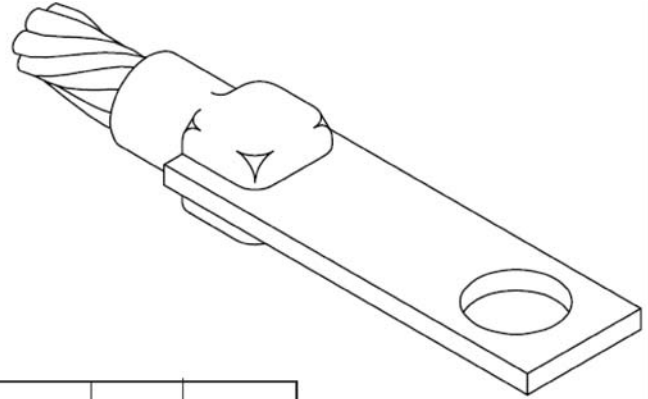


Stranded & Solid Copper Conductors

Section I

type CB-1

Horizontal Cable Tap to Horizontal Lug or Bus



CABLE SIZE Sq. mm	LUG SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	2 x 20	M-3531+	32	4	B-106
16	2 x 20	M-3532++	32	4	B-106
25	2 x 20	M-3534	32	4	B-106
35	2 x 20	M-3535	32	4	B-106
30	2 x 25	M-3536	45	4	B-106
50	2 x 25	M-3537	45	4	B-106
8 mm Ø	3 x 25	M-3538	65	4	B-106
	2 x 25	M-3539	45	4	B-106
	3 x 25	M-3540	65	4	B-106
70	3 x 25	M-3541	65	4	B-106
10 mm Ø	4 x 25	M-3544	65	4	B-106
	3 x 25	M-3545	65	4	B-106
	4 x 25	M-3548	65	4	B-106
95	4 x 25	M-3549	90	4	B-106
120	5 x 25	M-3550	90	4	B-106
	5 x 25	M-3551	90	4	B-106
	5 x 30	M-3552	115	4	B-106
150	5 x 30	M-3553	115	4	B-106
185	5 x 40	M-3554	150	4	B-106
	5 x 40	M-3555	150	4	B-106
	5 x 50	M-3556	200	5	B-107
240	5 x 50	M-3557	200	5	B-107
300	6 x 50	M-3558	2-150	5	B-107
	6 x 50	M-3559	2-150	5	B-107
	8 x 50	M-3560	2-200	5	B-107

+ (1) 38-4588 Sleeve/Weld Req'd
 ++ (1) 38-4589 Sleeve/Weld Req'd

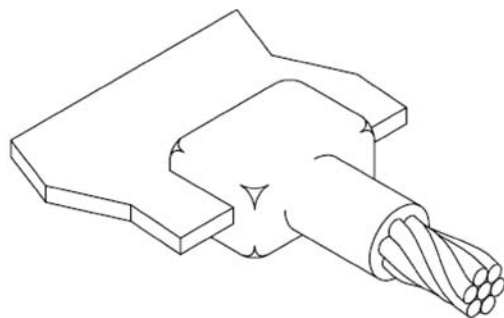


Stranded & Solid Copper Conductors

Section I

type CB-4

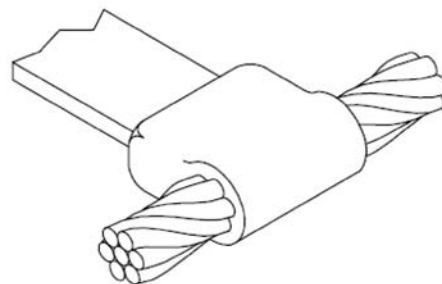
Horizontal Cable Tap to Horizontal Bus



Section I

type CB-5

Horizontal Cable Tap to Horizontal Cable Run



CABLE SIZE Sq. mm	LUG SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	2 x 20	M-3561+	25	4	B-106
16	2 x 20	M-3562++	32	4	B-106
25	2 x 20	M-3563	25	4	B-106
35	2 x 20	M-3565	32	4	B-106
30	2 x 25	M-3566	45	4	B-106
50	2 x 25	M-3567	45	4	B-106
8 mm Ø	3 x 25	M-3568	45	4	B-106
	2 x 25	M-3569	45	4	B-106
	3 x 25	M-3570	45	4	B-106
70	3 x 25	M-3571	65	4	B-106
10 mm Ø	4 x 25	M-3572	65	4	B-106
	3 x 25	M-3575	65	4	B-106
	4 x 25	M-3576	65	4	B-106
95	4 x 25	M-3579	90	4	B-106
120	5 x 25	M-3580	90	4	B-106
	5 x 25	M-3581	90	4	B-106
	5 x 30	M-3582	115	4	B-106
150	5 x 30	M-3583	115	4	B-106
185	5 x 40	M-3584	115	4	B-106
	5 x 40	M-3585	150	4	B-106
	5 x 50	M-3586	150	4	B-106
240	5 x 50	M-3587	200	4	B-106
300	6 x 50	M-3588	250	4	B-106
	6 x 50	M-3589	2-150	5	B-107
	8 x 50	M-3590	2-200	5	B-107

++ (1) 38-4588 Sleeve/Weld Req'd
 +++ (1) 38-4589 Sleeve/Weld Req'd

CABLE SIZE Sq. mm	LUG SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	2 x 20	M-3593+	45	4	B-106
16	2 x 20	M-3594++	45	4	B-106
25	2 x 20	M-3595	45	4	B-106
35	2 x 20	M-3596	45	4	B-106
30	2 x 25	M-3597	65	4	B-106
50	2 x 25	M-3598	65	4	B-106
8 mm Ø	3 x 25	M-3599	65	4	B-106
	2 x 25	M-3600	65	4	B-106
	3 x 25	M-3601	65	4	B-106
70	3 x 25	M-3602	90	4	B-106
10 mm Ø	4 x 25	M-3603	115	4	B-106
	3 x 25	M-3606	115	4	B-106
	4 x 25	M-3607	150	4	B-106
95	4 x 25	M-3610	150	4	B-106
120	5 x 25	M-3611	150	4	B-106
	5 x 25	M-3612	150	4	B-106
	5 x 30	M-3613	200	4	B-106
150	5 x 30	M-3614	200	4	B-106
185	5 x 40	M-3615	250	4	B-106
	5 x 40	M-3616	250	4	B-106
	5 x 50	M-3617	2-150	5	B-107
240	5 x 50	M-3618	2-150	5	B-107
300	6 x 50	M-3619	2-200	5	B-107
	6 x 50	M-3620	2-250	5	B-107
	8 x 50	M-3621	2-250	5	B-107

++ (2) 38-4588 Sleeve/Weld Req'd
 +++ (2) 38-4589 Sleeve/Weld Req'd

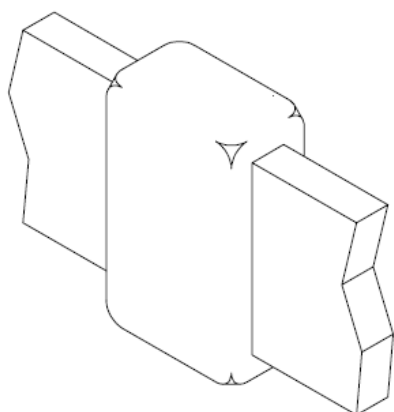


Stranded & Solid Copper Conductors

Section I

type BB-1

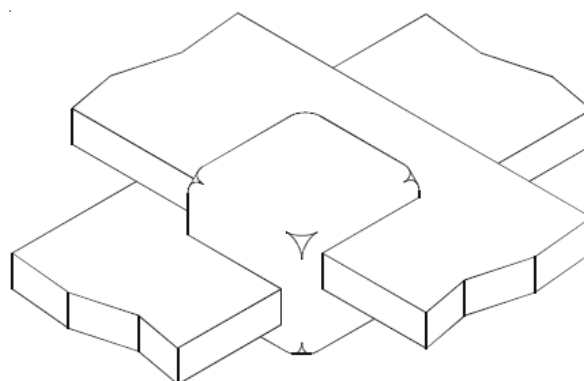
Horizontal Bus Bar End to End



Section I

type BB-41

Horizontal Bus Bar Cross Bars Uncut



COPPER BAR SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2 x 20	M-3628	45	4	B-106
2 x 25	M-3629	65	4	B-106
2 x 30	M-3630	65	4	B-106
3 x 20	M-3631	45	4	B-106
3 x 25	M-3632	65	4	B-106
3 x 30	M-3633	90	4	B-106
3 x 40	M-3634	115	4	B-106
4 x 25	M-3635	90	4	B-106
4 x 30	M-3636	115	4	B-106
4 x 40	M-3637	150	4	B-106
5 x 30	M-3638	115	4	B-106
5 x 40	M-3639	150	4	B-106
5 x 50	M-3640	200	4	B-106
6 x 40	M-3641	200	4	B-106
6 x 50	M-3642	250	4	B-106
6 x 60	M-3643	250	4	B-106
6 X 80	M-3644	2-200	5	B-107
8 x 50	M-3645	2-150	5	B-107
8 x 60	M-3646	2-200	5	B-107
8 X 80	M-3647	500	5	B-107
10 x 60	M-3648	500	5	B-107
10 X 80	M-3649	3-200	5	B-107

COPPER BAR SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2 x 20	M-9807	45	4	B-106
2 x 25	M-4344	65	4	B-106
2 x 30	M-9796	65	4	B-106
3 x 20	M-9797	65	4	B-106
3 x 25	M-4935	65	4	B-106
3 x 30	M-9798	90	4	B-106
3 x 40	M-9799	115	4	B-106
4 x 25	M-9800	90	4	B-106
4 x 30	M-9801	90	4	B-106
4 x 40	M-9802	150	4	B-106
5 x 30	M-9803	115	4	B-106
5 x 40	M-9804	150	4	B-106
5 x 50	M-9805	200	5	B-107
& WIDER				
6 x 31	M-9806	150	4	B-106
6 x 50	M-3370	250	5	B-107
& WIDER				

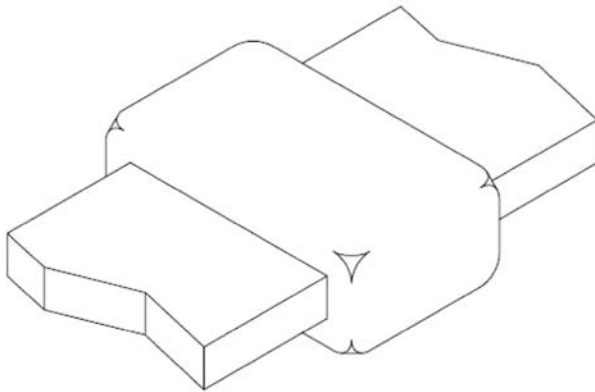


Stranded & Solid Copper Conductors

Section I

type BB-7

Horizontal Flat Bus Bar End to End

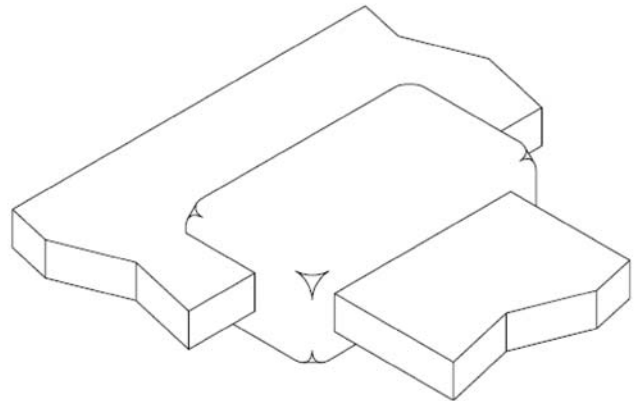


COPPER BAR SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2 x 20	M-3804	45	4	B-106
2 x 25	M-3805	45	4	B-106
2 x 30	M-3806	65	4	B-106
3 x 20	M-3807	45	4	B-106
3 x 25	M-3808	65	4	B-106
3 x 30	M-3809	65	4	B-106
3 x 40	M-3810	65	4	B-106
3 x 50	M-3811	90	4	B-106
4 x 20	M-3812	65	4	B-106
4 x 25	M-3813	90	4	B-106
4 x 30	M-3814	90	4	B-106
4 x 40	M-3815	115	4	B-106
5 x 20	M-3816	90	4	B-106
5 x 25	M-3817	90	4	B-106
5 x 30	M-3818	115	4	B-106
5 x 40	M-3819	150	4	B-106
5 x 50	M-3820	200	5	B-107
6 x 25	M-3821	115	4	B-106
6 x 30	M-3822	150	4	B-106
6 x 31	M-9388	150	4	B-106
6 x 40	M-3823	200	4	B-106
6 x 50	M-3824	250	5	B-107
6 x 60	M-3825	2-150	5	B-107
8 x 50	M-3826	2-150	5	B-107
8 x 60	M-3827	2-200	5	B-107
10 x 50	M-3828	2-200	5	B-107
10 x 60	M-3829	500	5	B-107

Section I

type BB-14

Horizontal Flat Bus Bar Run and Tap



COPPER BAR SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2 x 20	M-3831	45	4	B-106
2 x 25	M-3832	45	4	B-106
2 x 30	M-3833	65	4	B-106
3 x 20	M-3834	45	4	B-106
3 x 25	M-3835	65	4	B-106
3 x 30	M-3836	65	4	B-106
3 x 40	M-3837	90	4	B-106
4 x 20	M-3838	65	4	B-106
4 x 25	M-3839	90	4	B-106
4 x 30	M-3840	90	4	B-106
4 x 40	M-3841	115	4	B-106
5 x 20	M-3842	90	4	B-106
5 x 25	M-3843	90	4	B-106
5 x 30	M-3844	115	4	B-106
5 x 40	M-3845	150	4	B-106
5 x 50	M-3846	200	5	B-107
6 x 31	M-3399	200	4	B-106
6 x 40	M-3847	200	4	B-106
6 x 50	M-3848	250	5	B-107
6 x 60	M-3849	2-150	5	B-107
8 x 50	M-3850	2-150	5	B-107
8 x 60	M-3851	2-200	5	B-107
10 x 60	M-3852	500	5	B-107

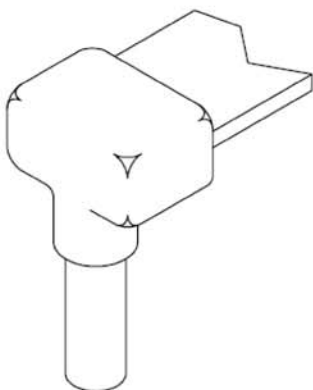


Stranded & Solid Copper Conductors

Section I

type BR-1

Horizontal Bus Bar to Ground Rod

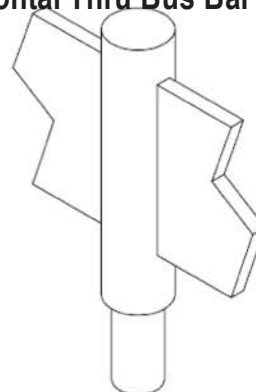


GRD ROD	BAR SIZE	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
12.8	2 x 20	M-3912	65	4	B-106
	2 x 25	M-3913	65	4	B-106
	2 x 30	M-3914	90	4	B-106
	3 x 20	M-3915	90	4	B-106
	3 x 25	M-3916	90	4	B-106
	3 x 30	M-3917	90	4	B-106
	3 x 40	M-3918	90	4	B-106
	3 x 50	M-3919	115	4	B-106
	4 x 20	M-3920	90	4	B-106
	4 x 25	M-3921	90	4	B-106
14.3	2 x 30	M-3922	115	4	B-106
	3 x 20	M-3923	90	4	B-106
	3 x 25	M-3924	90	4	B-106
	3 x 30	M-3925	115	4	B-106
	3 x 40	M-3926	115	4	B-106
	3 x 50	M-3927	150	4	B-106
	4 x 20	M-3928	90	4	B-106
	4 x 25	M-3929	115	4	B-106
	5 x 25	M-3930	115	4	B-106
	5 x 30	M-3931	150	4	B-106
	5 x 40	M-3932	150	4	B-106
	5 x 50	M-3933	200	4	B-106
	6 x 25	M-3934	150	4	B-106
	6 x 30	M-3935	150	4	B-106
	6 x 40	M-3936	200	4	B-106
	6 x 50	M-3937	200	5	B-107
17.2	2 x 30	M-3938	150	4	B-106
	3 x 20	M-3939	115	4	B-106
	3 x 25	M-3940	150	4	B-106
	3 x 30	M-3941	150	4	B-106
	3 x 40	M-3942	200	4	B-106
	3 x 50	M-3943	2-150	5	B-107
	4 x 20	M-3944	150	4	B-106
	4 x 25	M-3945	150	4	B-106
	5 x 25	M-3946	150	4	B-106
	5 x 30	M-3947	200	4	B-106
	5 x 40	M-3948	200	4	B-106
	5 x 50	M-3853	2-150	5	B-107
	6 x 25	M-3854	200	4	B-106
	6 x 30	M-3855	250	4	B-106
	6 x 40	M-3856	2-150	5	B-107
	6 x 50	M-3857	2-200	5	B-107

Section I

type BR-2

Horizontal Thru Bus Bar to Ground Rod



GRD ROD	BAR SIZE	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
12.8	2 x 20	M-3949	65	4	B-106
	2 x 25	M-3950	65	4	B-106
	2 x 30	M-3951	90	4	B-106
	3 x 20	M-3952	90	4	B-106
	3 x 25	M-3953	90	4	B-106
	3 x 30	M-3954	90	4	B-106
	3 x 40	M-3955	90	4	B-106
	3 x 50	M-3956	115	4	B-106
	4 x 20	M-3957	90	4	B-106
	4 x 25	M-3958	90	4	B-106
14.3	2 x 30	M-3959	90	4	B-106
	3 x 20	M-3960	90	4	B-106
	3 x 25	M-3961	90	4	B-106
	3 x 30	M-3962	115	4	B-106
	3 x 40	M-3963	150	4	B-106
	3 x 50	M-3964	200	4	B-106
	4 x 20	M-3965	90	4	B-106
	4 x 25	M-3966	115	4	B-106
	5 x 25	M-3967	115	4	B-106
	5 x 30	M-3968	150	4	B-106
	5 x 40	M-3969	150	4	B-106
	5 x 50	M-3970	200	4	B-106
	6 x 25	M-3971	150	4	B-106
	6 x 30	M-3972	150	4	B-106
	6 x 40	M-3973	200	4	B-106
	6 x 50	M-3974	250	4	B-106
17.2	2 x 30	M-3975	150	4	B-106
	3 x 20	M-3976	150	4	B-106
	3 x 25	M-3977	150	4	B-106
	3 x 30	M-3978	150	4	B-106
	3 x 40	M-3979	200	4	B-106
	3 x 50	M-3980	2-150	5	B-107
	4 x 20	M-3981	150	4	B-106
	4 x 25	M-3982	200	4	B-106
	5 x 25	M-3983	150	4	B-106
	5 x 30	M-3984	200	4	B-106
	5 x 40	M-3985	200	4	B-106
	5 x 50	M-3986	2-150	5	B-107
	6 x 25	M-3987	200	4	B-106
	6 x 30	M-3988	250	4	B-106
	6 x 40	M-3989	250	4	B-106
	6 x 50	M-3858	2-150	5	B-107



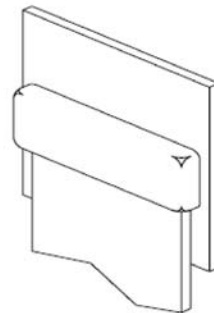
Stranded & Solid Copper Conductors

Section I

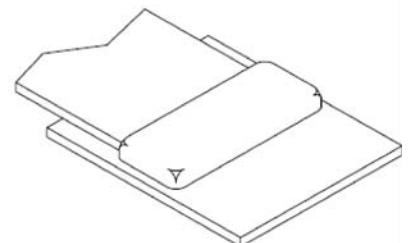
type BS-1

Vertical Bus Bar Tap to Vertical Steel Surface

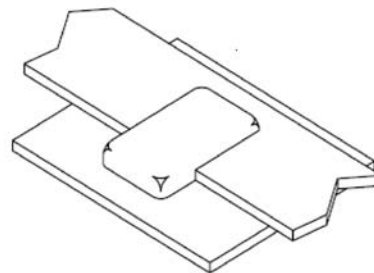
BUS BAR SIZE mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2 x 20	M-4066	65	4	B-106
2 x 25	M-4067	90	4	B-106
2 x 30	M-4068	90	4	B-106
3 x 20	M-4069	65	4	B-106
3 x 25	M-4070	90	4	B-106
3 x 30	M-4071	90	4	B-106
3 x 40	M-4072	150	4	B-106
4 x 25	M-4073	90	4	B-106
4 x 30	M-4074	115	4	B-106
4 x 40	M-4075	200	4	B-106
5 x 30	M-4076	150	4	B-106
5 x 40	M-4077	200	4	B-106
5 x 50	M-4078	250	4	B-106
6 x 40	M-4079	250	4	B-106
6 x 50	M-4080	2-150	5	B-107
6 x 60	M-4081	2-200	5	B-107
6 x 80	M-4082	500	5	B-107
8 x 50	M-4083	2-200	5	B-107
8 x 60	M-4084	500	5	B-107
8 x 80	M-4085	3-200	5	B-107
10 x 60	M-4086	3-200	5	B-107
10 x 80	M-4087	3-250	5	B-107



BS-1



BS-2



BS-3

Section I

type BS-2

Section I

type BS-3

Horizontal Bus Bar Tap to Horizontal Steel Surface

BUS BAR SIZE mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2 x 20	M-4090	65	4	B-106
2 x 25	M-4091	90	4	B-106
3 x 20	M-4092	90	4	B-106
3 x 25	M-4093	90	4	B-106
3 x 30	M-4094	115	4	B-106
3 x 40	M-4095	115	4	B-106
4 x 25	M-4096	90	4	B-106
4 x 30	M-4097	150	4	B-106
4 x 40	M-4098	200	4	B-106
5 x 30	M-4099	200	4	B-106
5 x 40	M-4100	200	4	B-106
5 x 50	M-4101	2-150	5	B-107
6 x 40	M-4102	250	4	B-106
6 x 50	M-4103	2-150	5	B-107
8 x 50	M-4104	2-200	5	B-107

Horizontal Bus Bar Thru to Horizontal Steel Surface

BUS BAR SIZE mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2 x 20	M-2892	65	4	B-106
2 x 25	M-2893	90	4	B-106
3 x 20	M-2909	90	4	B-106
3 x 25	M-2911	115	4	B-106
3 x 30	M-2912	115	4	B-106
3 x 40	M-2913	150	4	B-106
4 x 25	M-2939	115	4	B-106
4 x 30	M-2940	150	4	B-106
4 x 40	M-2954	200	4	B-106
5 x 30	M-2985	200	4	B-106
5 x 40	M-2986	250	4	B-106
5 x 50	M-2989	250	4	B-106
6 x 50	M-2990	250	4	B-106
8 x 60	M-4257	2-150	5	B-107
10 x 60	M-4266	2-200	5	B-107

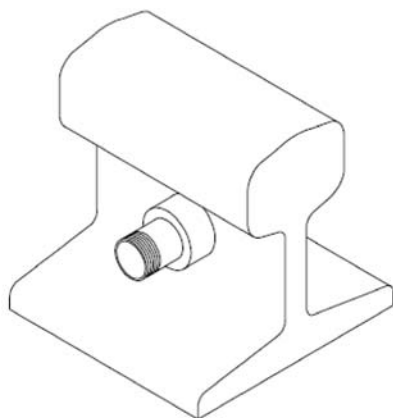


Stranded & Solid Copper Conductors

Section I

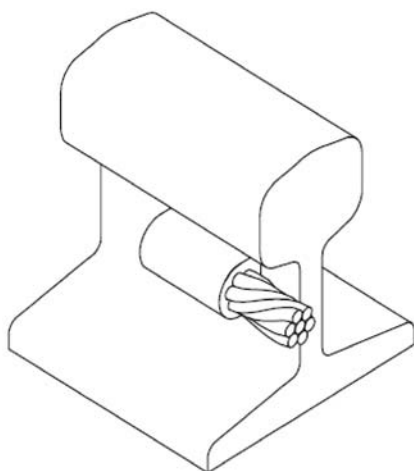
type RX-1

Stud to Web of Rail

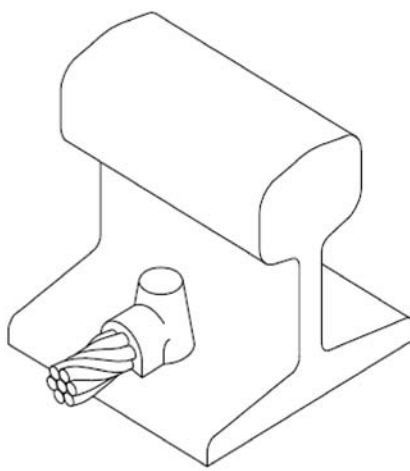


COPPER BAR SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
M6	M-4712	25	4	B-106
M8	M-4714	32	4	B-106
M10	M-4798	45	4	B-106
M12	M-4815	65	4	B-106
M16	M-4433	115	4	B-106

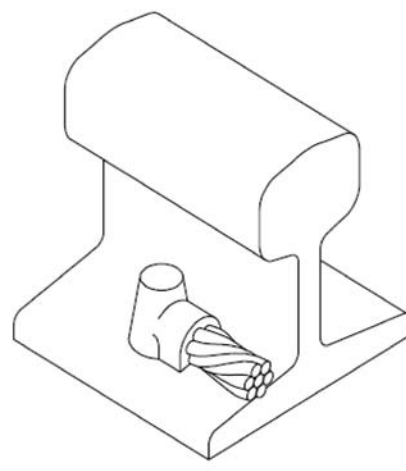
FOR CABLE TO RAIL CONNECTIONS, CONTACT FACTORY.



CX-4



CX-5



CX-7

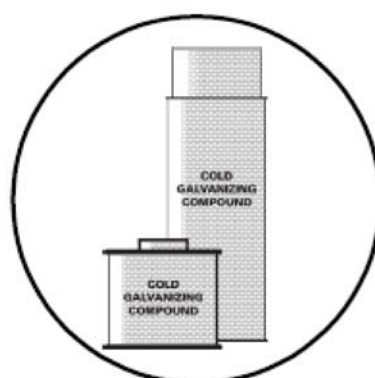
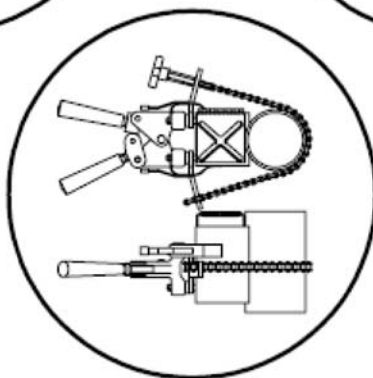
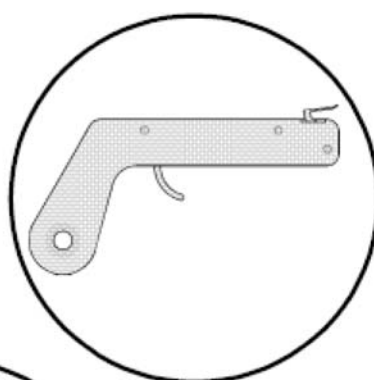
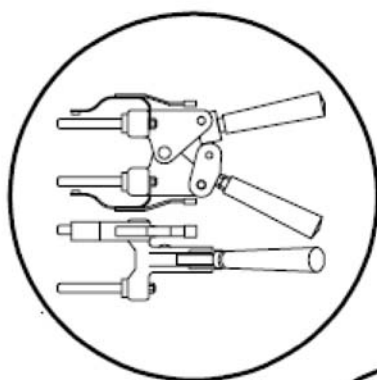


KingsWeld

Electrical Connections Catalogue

KingsWeld Moulds, Weld Metal & Accessories

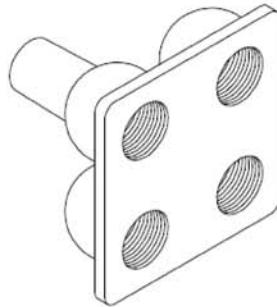
Section II
Kingsweld Moulds
Weld Metal
Handle Clamps &
Accessories





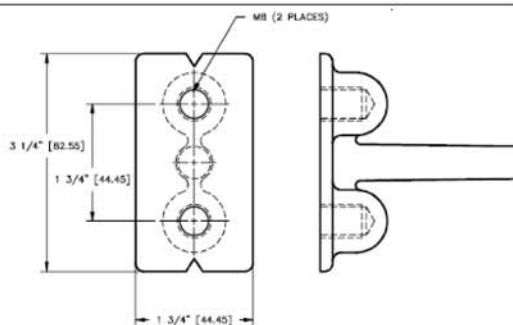
KingsWeld Moulds, Weld Metal & Accessories

Section II Kingsweld Ground Plates

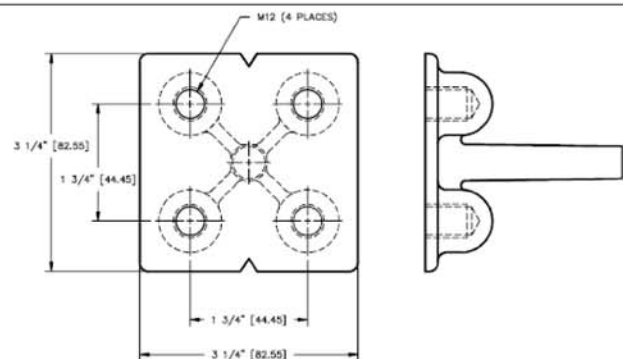


Ground Plates

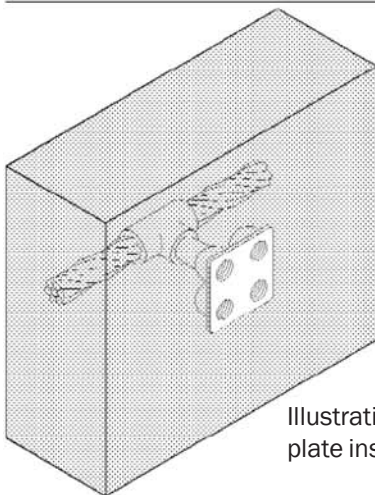
When cast into concrete structures, these offer grounding points for equipment, machinery etc. They are made from high quality copper alloy and can be KingsWelded easily to copper cable.



PART NUMBER
38-4591-00



PART NUMBER
38-4592-00



Cable may be welded to the stud of the ground plate in several configurations. Contact KingsWeld for further information.

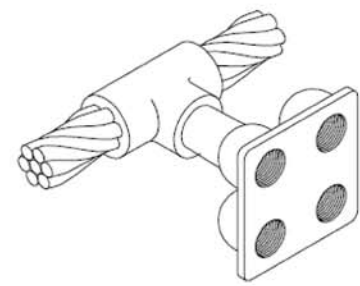
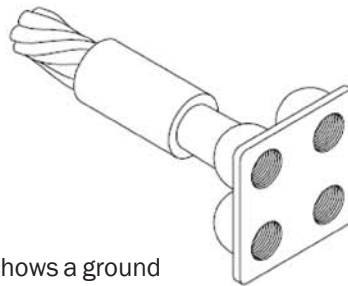
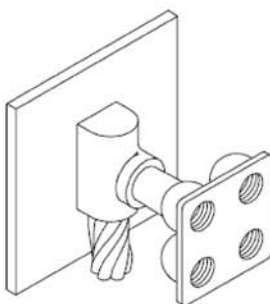
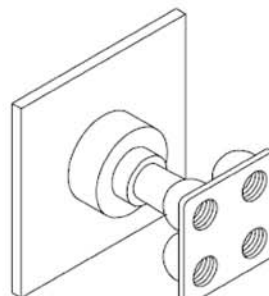


Illustration at left shows a ground plate installed in a concrete wall.



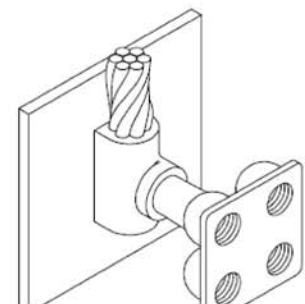
CRP-1



RS-3

NOTE:

For structural purposes, weld types RS-3, CRP-1 and CRP-2 should only be used when the ground plate is to be encased in concrete.



CRP-2



KingsWeld Moulds, Weld Metal & Accessories



38-0119-00
Aircraft Grounding Receptacle

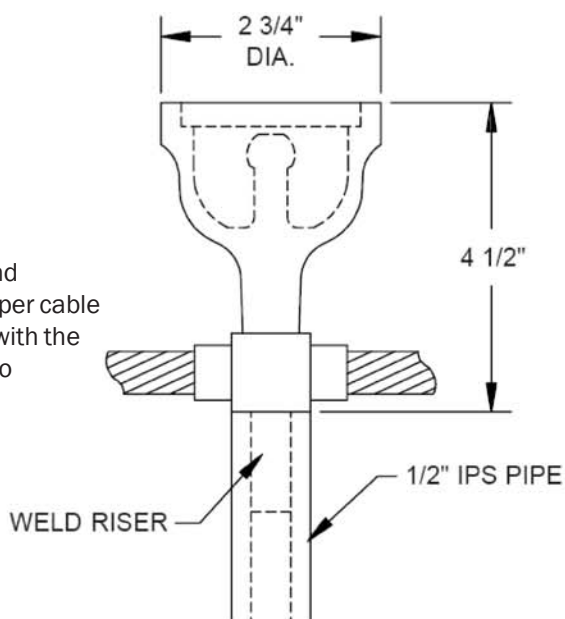
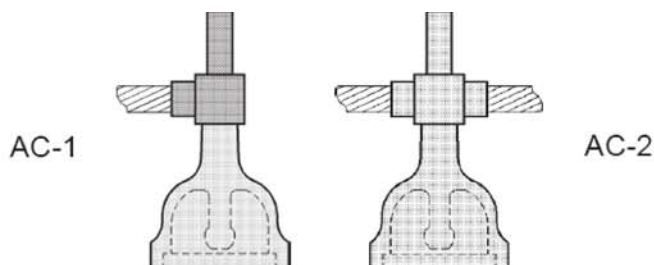
Aircraft Grounding Receptacle

Aircraft Grounding Receptacle 38-0119-00 is a copper alloy casting used for static grounding in aircraft refueling areas. The receptacle when installed, is flush with the airport apron surface and provides a permanent, corrosion-proof static grounding connection. It can be easily attached to copper cable or ground rods in several configurations with a KingsWeld mould.

type AC KingsWeld Mould

Horizontal Cable to Aircraft Grounding Receptacle

Type AC-1 is used to terminate a horizontal copper cable to a ground receptacle. Type AC-2 is used to connect a horizontal through copper cable to a ground receptacle. KingsWeld types AC-1 and AC-2 are made with the receptacle in an inverted position. The resulting riser is then used to position the receptacle on top of 1/2" IPS pipe.



type AR & ACR KingsWeld Mould

Horizontal Cable to Aircraft Grounding

Receptacle to Ground Rod

Type AR-1 is used to weld a ground receptacle to the top of a ground rod. TYPES ACR-1 and ACR-2 are used to weld a horizontal cable and ground receptacle to the top of a ground rod.





KingsWeld Moulds, Weld Metal & Accessories

KingsWeld Moulds

The copper exothermic reaction takes place within a specially designed, fine graphite KingsWeld mould that permits free flow of molten metal to all sections of the weld cavity. The weld cavity is designed to allow easy removal of the KingsWeld mould from the finished joint to increase mould life.

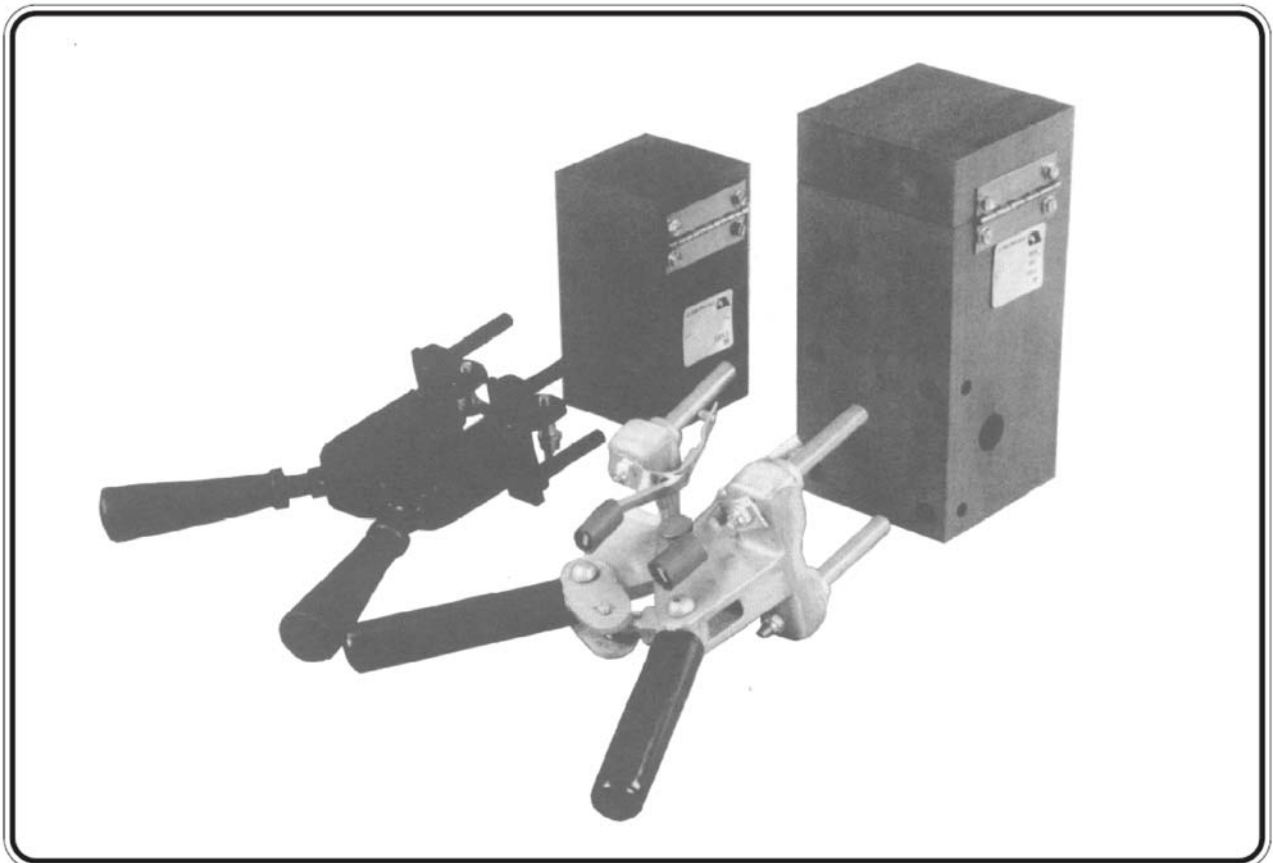
The average life of a KingsWeld mould is 50 plus welds depending on the care and treatment it receives. The maximum wear on a mould takes place at the mould openings due to forcing a mould shut over "out of round" conductors, hitting and then chipping opening with ends of conductors, etc. To increase the mould life, "wear plates" can be factory installed around the mould openings. They can be supplied for all KingsWeld moulds for 70 sq mm cable sizes and larger. To order, simply add the suffix "W" to the KingsWeld mould catalogue number such as M-3008-W.

In many cases, a customer will use very heavily oxidised reclaimed conductor for his grounding system. Due to this heavy oxidation, a thorough cleaning job cannot be done. In these cases, a "heavy duty" KingsWeld mould is recommended as it utilises a larger size cartridge than the standard duty mould. The actual heat of reaction is not

increased but is prolonged for a longer period of time and allows for burn-off of the heavy oxidation. The completed joint in the physical size is, of course, larger than that produced by a standard mould. At times, a customer may feel that the calculated theoretical ground fault current may be higher and prefers the heavy duty mould so that he will obtain the greater mass of metal around the finished connection. A standard duty mould **may not** be used as a heavy duty mould by merely using a larger cartridge. To order a heavy duty mould, contact the KingsWeld sales office.

On some very large cable to cable, or bar to bar connections which require multiple cartridges, a separate crucible must be used. A single mould having both crucible and weld cavity as an integral unit, would be excessively large, expensive and could only be used for the specific application. The separate crucible is placed directly on top of the KingsWeld mould which contains only the weld cavity. In this manner, the customer gains a cost advantage and flexibility in that the same crucible can be used on different moulds.

A set of instructions is packaged with each KingsWeld mould.



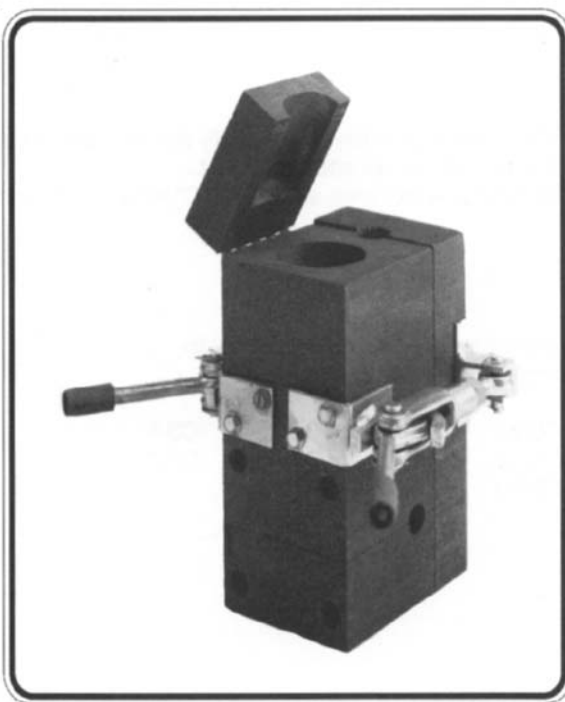


KingsWeld Moulds, Weld Metal & Accessories

KingsWeld Moulds



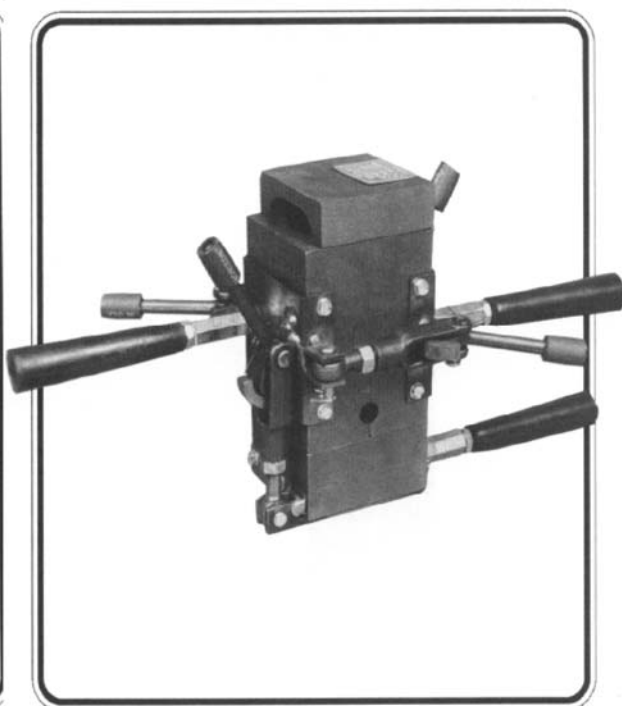
KingsWeld Mould Price Key 3 Frame (Typical)



KingsWeld Mould Price Key 7 & 8 Frame (Typical)



KingsWeld Mould Price Key 14 Frame (Typical)



KingsWeld Mould Price Key 15 & 16 Frame (Typical)



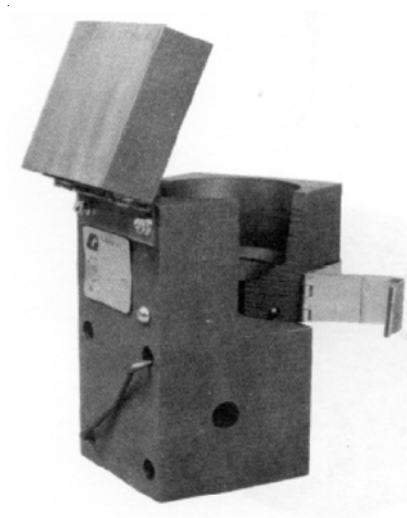
KingsWeld Moulds, Weld Metal & Accessories

KingsWeld Moulds

Split Crucibles

Moulds that have horizontally split moulds may be furnished with split crucibles. Split crucibles make it easier to clean the crucible after each weld.

To order split crucibles, add suffix “-C” to the KingsWeld mould catalogue number. (Example, M-3031-C).



Wear Plates

The average life of a KingsWeld mould is 50 plus welds depending on the care and treatment it receives. The maximum wear on a mould takes place at the mould openings due to forcing a mould shut over “out of round” conductors, hitting and then chipping openings with ends of conductors etc. To increase mould life, “wear plates” can be factory installed around the mould openings. They can be supplied for all moulds for 50 sqmm cable to 240 sqmm cable. To order, simply add the suffix “-W” to the KingsWeld catalogue number. (Example, M-3008-W).

Wear Plates are available for the following weld type:

CB-1	1	CC-1	2	CC-2	3	CC-6	2
CC-7	4	CR-1	1	CR-2	2	CR-3	2
CS-1	1	CS-2	2	CS-3	1		





KingsWeld Moulds, Weld Metal & Accessories

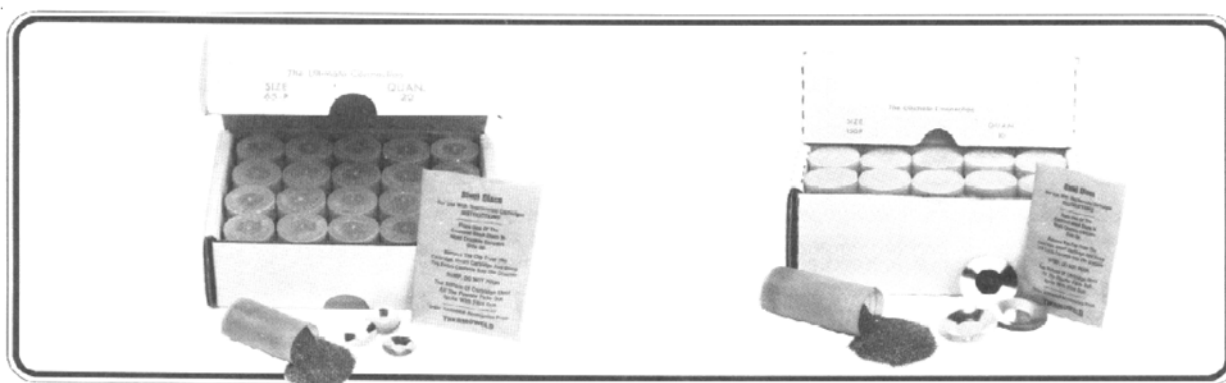
KingsWeld Weld Metal

The size and weight (in grams) of the cartridge are marked on each individual cartridge. When a particular size cartridge is not available, a combination of smaller cartridges, or a portion of a larger cartridge may be used to arrive at the approximate gram weight required. When using several smaller cartridges, take care not to get the starting powder mixed between the weld metal. The starting powder is packed in the bottom of each cartridge and when poured into a KingsWeld Mould should be spread evenly on top of the weld powder. Due to the cohesiveness of the starting powder, it does not mix with the weld powder and the bottom of the cartridge should be tapped with a flint gun to be sure all the starting powder has been removed. **DO NOT TAMPER WITH THE POWDER ONCE IT IS PLACED IN THE MOULD.**

KingsWeld powders are packed in moisture-resistant plastic cartridges that have tight fitting caps. These cartridges and the necessary steel discs are then packed in boxes that are hermetically-sealed in plastic bags. This ensures the powder arrives in good condition, always dry and ready for fast positive ignition.

KingsWeld Powder comes in two types; one for welding copper to copper, copper to steel and copper to rail and one for welding copper to cast iron.

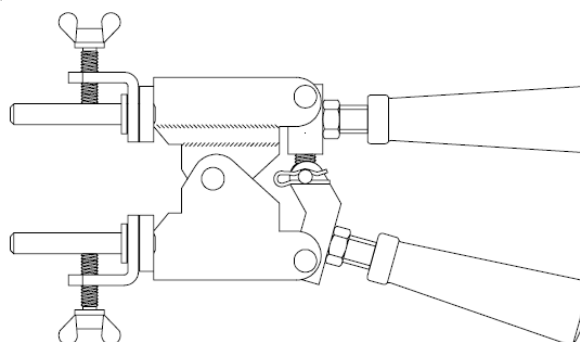
STANDARD CARTRIDGE SIZE	CAST IRON CARTRIDGE SIZE	PACKED PER BOX
#15	-	20
#25	#25CI	20
#32	#32CI	20
#45	#45CI	20
#65	#65CI	20
#90	#90CI	10
#115	#115CI	10
#150	-	10
#200	-	10
#250	-	10
#500	-	10



KingsWeld Handle Clamps

For most connections involving lugs, cable, or rectangular bus, KingsWeld Handle Clamps are used. KingsWeld Handle Clamps make possible the use of many different sizes and types of moulds with only two different clamps. The two KingsWeld Handle Clamps are catalogue numbers B-106 and B-107. These will fit 95% of all standard moulds.

1. Use B-106 clamps for all moulds having a price key 4, 7, OR 17. These moulds are a nominal 3-1/8" x 3-1/8" square.
2. Use B-107 clamps for all moulds having a price key 5, 6 or 8. These moulds are a nominal 4" x 4" square.
3. All moulds having a price key 2, 3, 9, 10, 11, 12, 13, 14, 15 or 16 have an attached frame; separate handles are not required.





KingsWeld Moulds, Weld Metal & Accessories

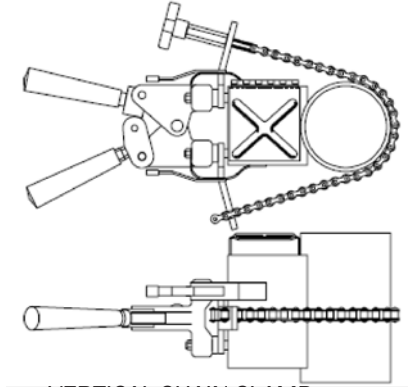
Special KingsWeld Handle Clamps

Horizontal & Vertical Chain Clamps

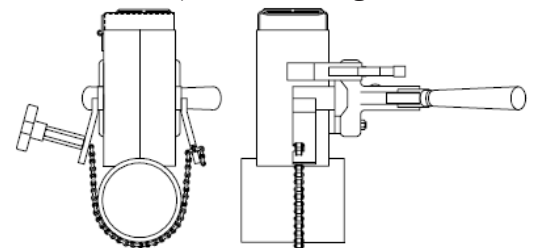
The KingsWeld Handle Chain Clamps are used to hold a mould in position on horizontal or vertical pipe up to 4" in diameter. For larger pipe, a 20" chain extension is available to allow the chain clamps to be used on pipe up to 10" in diameter. The chain clamp can be purchased complete with 40-0106-00 or 40-0107-00 KingsWeld Handle Clamp or if you already have a set of clamps, you can order the chain and mounting assembly separately. The mounting assembly can easily be mounted on the prongs of your existing handle clamp. 20" chain extension part 40-0106-27.

Chain Clamp and KingsWeld Handle Clamp

Part Number	Fits Moulds With Price Key	For Use With Weld Types	Pipe Position
40-0106-32	4 & 17	CS-3, 4, 7 & 23	VERTICAL
40-0107-32	5 & 6	CS-3, 4, 7 & 23	VERTICAL
40-0106-37	4 & 17	CS-1, 2, 5, 8 & 9	HORIZONTAL
40-0107-37	5 & 6	CS-1, 2, 5, 8 & 9	HORIZONTAL



VERTICAL CHAIN CLAMP
(Shown with KingsWeld Handle Clamp)



HORIZONTAL CHAIN CLAMP
(Shown with KingsWeld Handle Clamp)

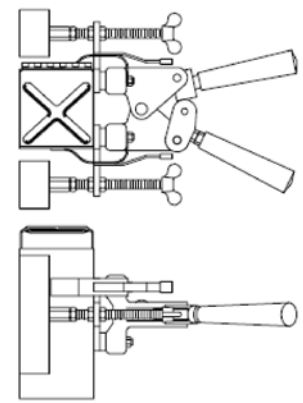
Chain Clamp and KingsWeld Handle Clamp

40-0107-20	5 & 6	CS-3, 4, 7 & 23	VERTICAL
40-0107-36	5 & 6	CS-1, 2, 5, 8 & 9	HORIZONTAL

Vertical Magnetic Clamps

The KingsWeld Handle Magnetic Clamp is used to hold a mould in position on a vertical steel surface. The magnetic clamp can be purchased complete with 40-0106-00 KingsWeld Handle Clamp or if you already have a set of handles, you can order the magnetic mounting assembly separately. The mounting assembly can easily be mounted on the prongs of your existing 40-0106-00 handle clamp. A minimum width of 10" is required.

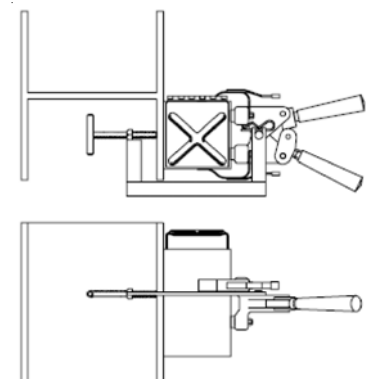
Part Number	Fits Moulds With Price Key	For Use With Weld
W/40-0106-00 40-4431-00	4 & 17	CS-3, 4, 7 & 23



Mould Support Clamp

The mould support clamp is used to hold a mould in position on a vertical steel column or angle. It is easily attached to the KingsWeld Handle Clamps. The mould support clamp can be used with weld types CS-3, CS-18, CS-23 & CS-27.

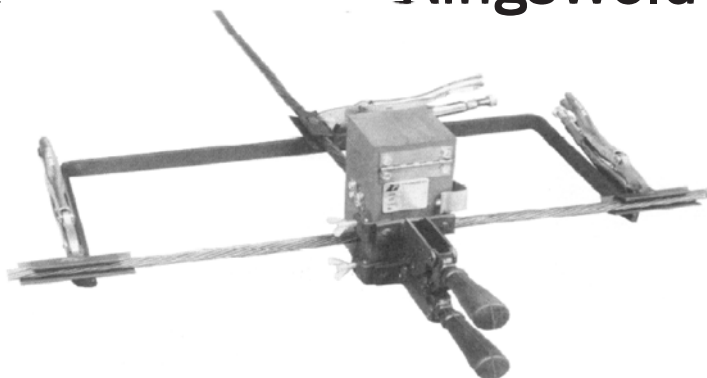
Part no: 40-3657-00





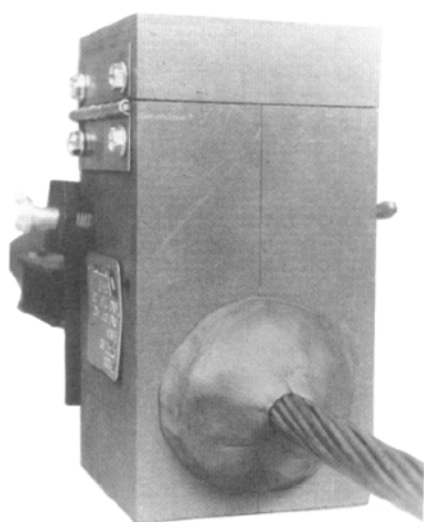
KingsWeld Moulds, Weld Metal & Accessories

KingsWeld Accessories



38-0330-00 Cable Clamp

The KingsWeld Cable Clamp is recommended for holding a wide range of cables properly in place when welding cables are under tension. This prevents the cables from pulling out of the mould when the weld is made. KingsWeld Cable Clamp can also be used to hold ground rods together for easier welding of KingsWeld Mould type RR-1.



Hand Held Propane Torch

Hand Held torches are used to preheat the moulds to remove any moisture.

Part #:
38-4391-00

Description:
Propane Bottle with
Self Igniting Torch Head
Self Igniting Torch Head
Self Igniting Torch Head

38-4391-01
38-4391-02

Packing Material

Packing material is used to prevent the molten weld metal from leaking out of the mould. When the cable opening becomes worn from heavy use, the packing material may be used to prolong mould use. It is also used around 7 strand cable to prevent leaking. Packing material comes in a 1 lb or 5 lb packs.

Part #:
38-4129-00
38-4129-05

Description:
1 lb package
5 lb package



38-4391-00



38-4391-01

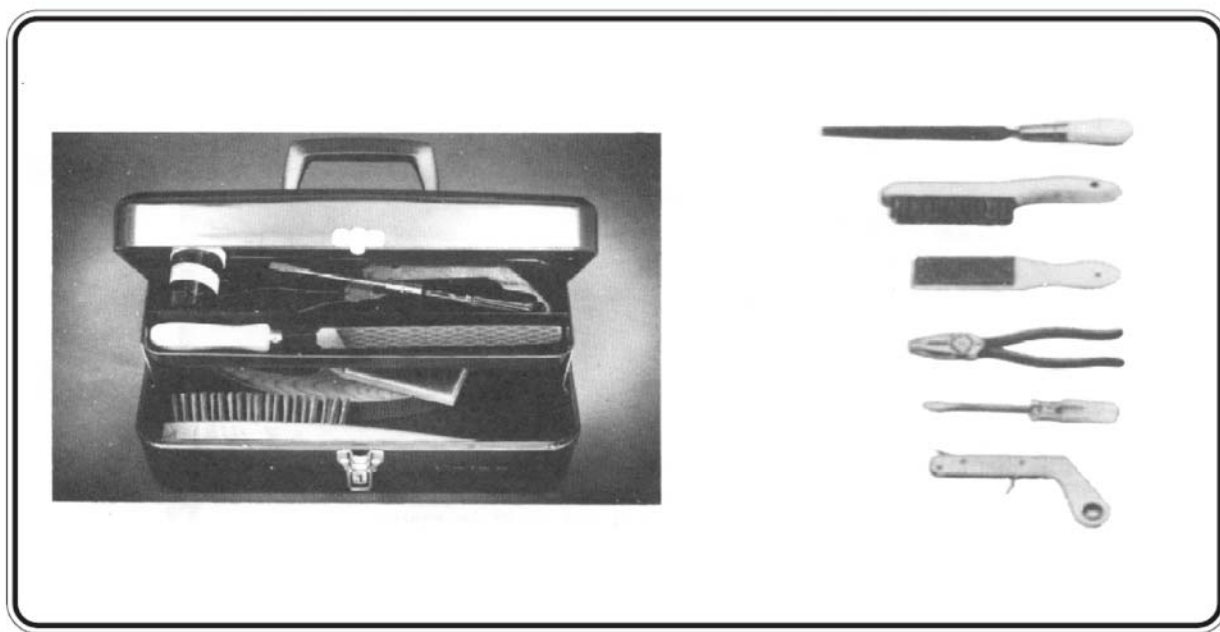


38-4391-02



KingsWeld Moulds, Weld Metal & Accessories

KingsWeld Accessories

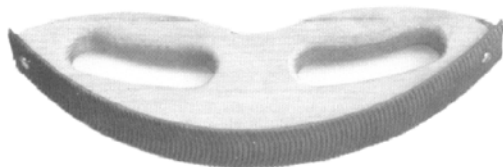


KingsWeld Tool Kit

Part #:	Description:
38-0302-00	Tool Kit with Tools Shown except Rasp
38-0302-02	Tool Kit with Tools Shown and Rasp
38-0303-00	Tool Box only

KingsWeld Tools

Part #:	Description:
38-0304-00	8" File
38-0305-00	Wire Brush
38-0306-00	Card Cloth Brush
38-0307-00	Crimping Tool
38-0308-00	6" Screwdriver
38-0309-00	Flint Gun



38-0101-00 RASP

This tempered steel, curved rasp is recommended for removing rust and mill scale from steel and cast iron surfaces. The blade is replaceable. Specify part #38-0101-01.
Not recommended for use on galvanised surfaces.



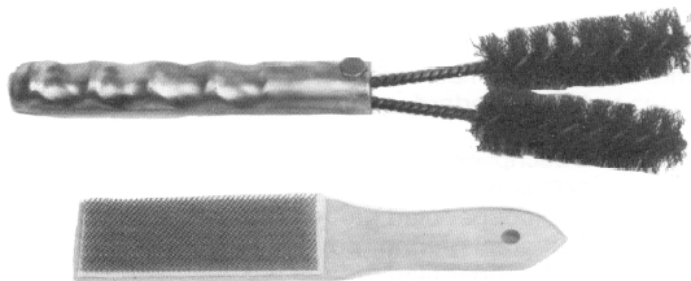
38-0109-00 Flint Gun

The 38-0309-00 Flint Gun is used to ignite the starting powder. Each mould that is sold with a frame has a flint gun included.
Replacement flints are available, request part #38-0309-01.



KingsWeld Moulds, Weld Metal & Accessories

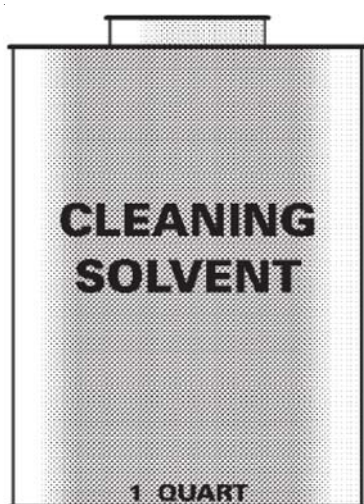
KingsWeld Accessories



Cable Cleaning and Card Cloth Brush

The Cable Cleaning Brush is recommended for cleaning heavily oxidised cables. The V-Shape brushes permit their use over a wide range of cable sizes. Brush assembly consists of a handle with two stiff wire bristle brushes that are rotatable, for longer life and are replaceable. The Card Cloth Brush is used for cleaning large conductors and bus bar. It has short stiff bristles. These brushes are for cleaning cable only, not moulds.

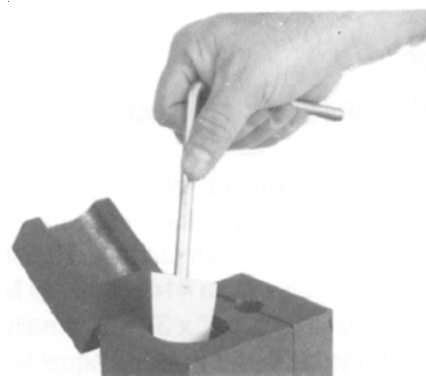
Cable Cleaning Brush	38-0135-00
Replacement Brush Set (2 Brushes)	38-0135-01
Card Cloth Brush	38-0306-00



Cleaning Solvent

Cleaning solvent is used to remove oil and grease from materials to be welded.

Part #38-3688-00
(Quart Can).



Mould Cleaners

Mould Cleaners are used to clean the slag from moulds that are not split through the crucible.

40-0319-01	for cartridge sizes #15 thru #65
40-0319-03	for cartridge sizes #90 thru #115
40-0319-05	for cartridge sizes #150 thru #250
40-0	for cartridge size #500

Regalvanising Compounds

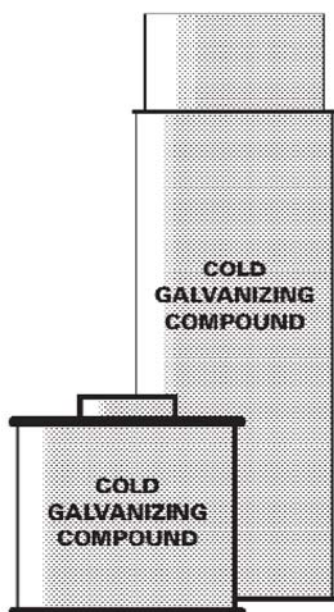
When welding to galvanised steel it may be necessary to resurface exposed bare steel. This may be accomplished in several ways.

COLD GALVANISING COMPOUND

This is a 16 oz. aerosol Cold Galvanising Compound.
Part #38-4384-00

REGALVANISING BAR (Not SHown)

Regalvanising with a regalvanising bar is accomplished by brushing a low temperature, self-fluxing galvanising material on the surface. Generally there is enough heat from the KingsWeld connection to melt the bar. If necessary, heat may be applied with a small propane hand torch.
Part #38-0331-00.





KingsWeld Moulds, Weld Metal & Accessories

KingsWeld Accessories



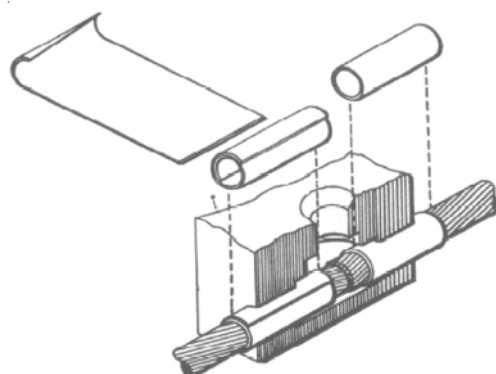
Ground Rod Driving Sleeves

Ground Rod Driving Sleeves are placed over the top of a ground rod while driving it into the ground. This prevents the top from mushrooming or flaring out. Ground rod driving sleeves come in sizes to fit all standard unthreaded ground rods.

Part#	Description
38-3662-01	12.8mm copper clad ground rod
38-3662-02	14.3mm copper clad ground rod
38-3662-03	17.2mm copper clad ground rod

Shim Stock & Adapter Sleeves

KingsWeld moulds designed for larger cable sizes can be used on smaller diameter cables if copper adapter sleeves or shim stock is utilised. The copper shim stock, 010108" x 1-1/2" x 3, is normally wrapped around cable until the diameter is about equal to the KingsWeld mould opening. A tight fit is not necessary as the shim stock will unwrap slightly and prevent leakage of weld metal. To order shim stock use part #38-0329-00. Shim stock is supplied 100 pieces per box.



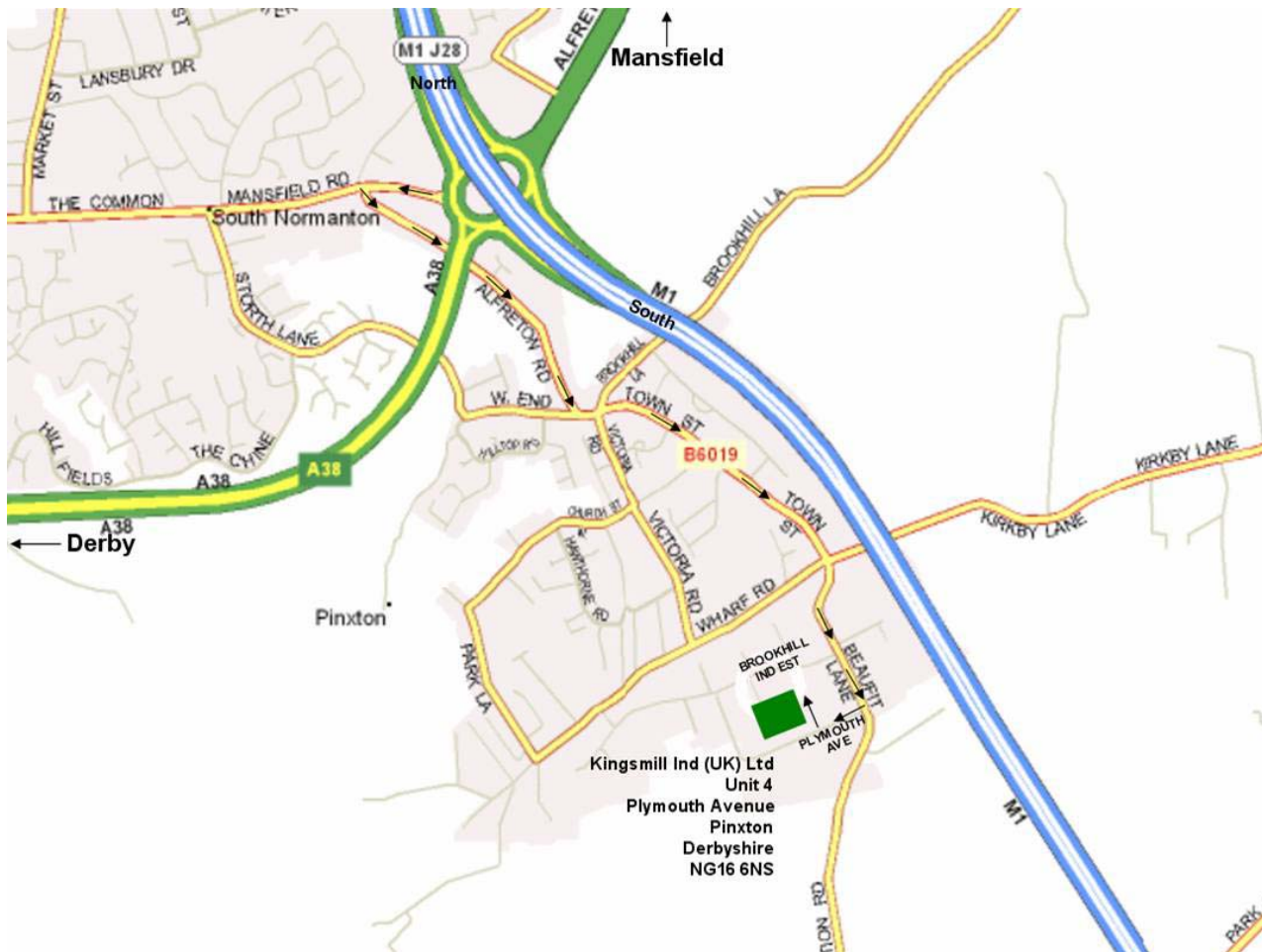
FOR USE ON CABLE SIZE		PART NO.	USE IN MOULD SIZE	SLEEVE DIMENSIONS		
STRANDED	SOLID			O.D.	I.D.	LENGTH
10 mm ²	4 mm Ø	38-4588	25 mm ²	.250	.169	1.00
16 mm ²		38-4589	35 mm ²	.303	.209	1.00
2.5, 4, 6 mm ²	2.5 mm Ø	38-4590	16 mm ²	.197	.118	1.00



How To Find Us

Find Us . . .

The maps below provide detailed instructions on how to locate our site:



Use the Kingsmill Sign for instructions for entry to the site:





The Premier Earthing and Lightning Protection Manufacturers

Carriage:

Carriage will be paid on all orders over £400 nett, despatched as one consignment on a 2-3 day service to (UK) mainland destinations only. All other deliveries will be charged at cost.

Non Deliveries:

All non deliveries or shortage claims must be made within two working days of receipt of invoice.

Copper LME Base Rate:

As Copper is a commodity item which is bought and sold on the London Metal Exchange (LME) daily, the price of copper-based items must fluctuate in line with the LME Rate. To keep these variations to a minimum, copper items are sold in price bands relating to the LME base rate.

For today's Rate please telephone:
+44 (0) 1773 510001

Conductor Lengths:

Due to the manufacturing tolerances it is not always possible to guarantee the exact lengths when supplying conductor. We therefore reserve the right to supply and invoice within 5% of the quantity ordered.

Conditions of sale:

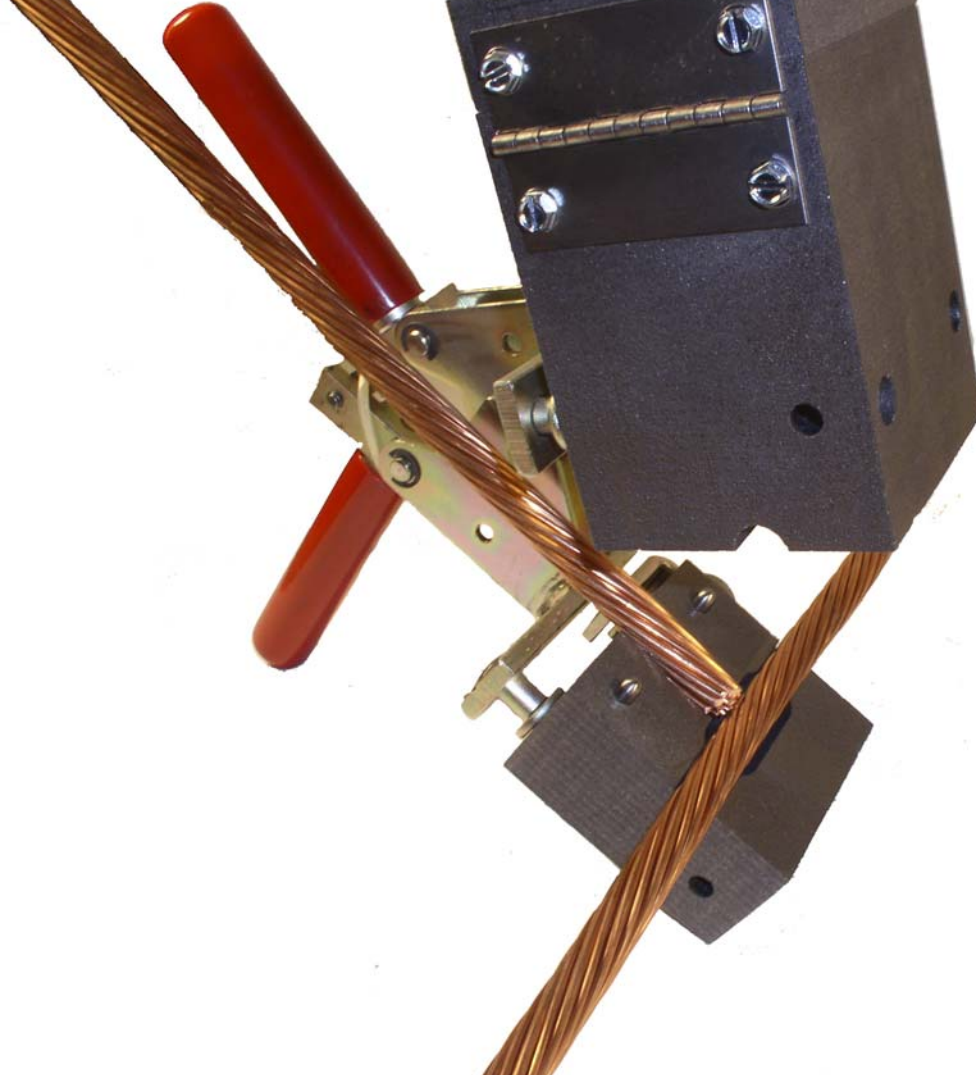
Our standard terms and conditions of sale apply and can be obtained upon request.

VAT:

VAT will be charged at the appropriate rate at the time of invoice.

Changes:

Kingsmill Industries (UK) Ltd reserve the right to alter or amend the design specifications and prices of items within our product range without prior notice.



KingsWeld

The Premier Earthing and Lightning Protection Manufacturers

PRODUCT CATALOGUE

A Division of Kingsmill Industries (UK) Ltd

down to earth service