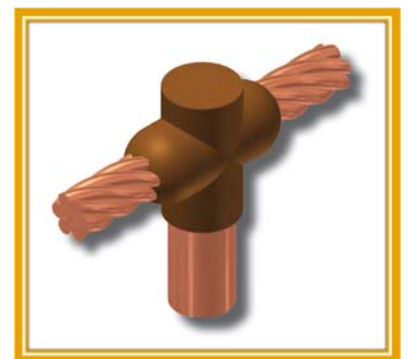
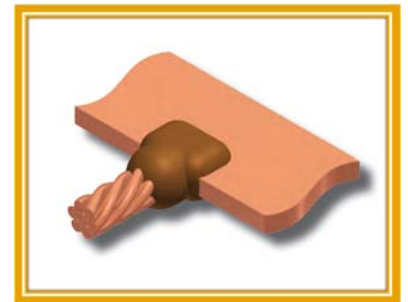
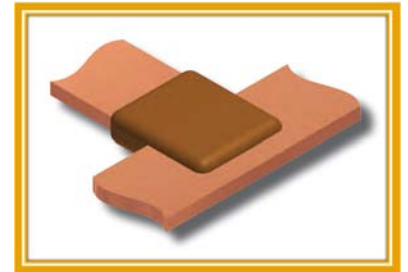
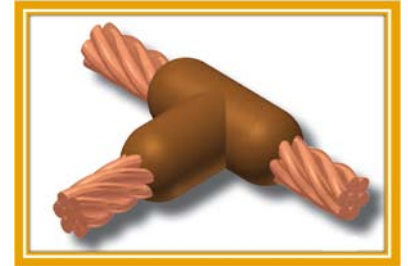


KINGSWELD

EXOTHERMIC WELDING



PRODUCT CATALOGUE

Edition 2

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Introduction to Exothermic Welding

“Exothermic” is a chemical term used to describe a reaction that produces heat.

Exothermic Welding, also known as "thermit welding" or "aluminothermic welding" is a welding process for permanently joining materials (usually copper conductors) that employs the exothermic reaction. An exothermic reaction requires no external heat or power source, reactant powders and a spark is all that is needed for the high energy reaction.

For Kingsweld exothermic welding, it is the reaction occurring between copper oxide and aluminum powder (weld metal) creating molten super-heated copper and aluminum oxide slag.

When a spark first reaches the weld metal it causes the reaction within the weld metal, melting and separating the metals. The aluminum rises to the top of the connection creating slag leaving the copper to flow around the joint creating the actual weld.

The weld or connection is a permanent, maintenance free connection that will not loosen overtime or deteriorate with age. The connection's current carrying capability is equal to or greater than that of the conductors being joined. In other words, there is no increase in resistance in an exothermically welded connection as there is in most pressure connections.

Throughout the world, exothermic welding has been shown to be the best choice where safety, reliability, current carrying capacity and longevity are critical.

Advantages of Exothermic Welding

1. Current carrying capacity of the connection equals or is greater than that of the conductor.
2. Connections will not deteriorate with age since they are welded.
3. Connections are permanent molecular bonds that cannot loosen.
4. Connections are unaffected by corrosive products to same degree as copper.
5. Connections can withstand repeated high current surges without deterioration.
6. Minimum training is required to make connections.
7. Material to make connections is light and portable.
8. External heat or power is not required to make a connection.
9. Connections can be visibly checked for quality.
10. Connections can be used to weld copper, copper alloys, copper clad steel and various steel alloys including stainless steel.

The Kingsweld Process

The Kingsweld exothermic welding process is a simple, efficient method of welding copper to copper or copper to steel.

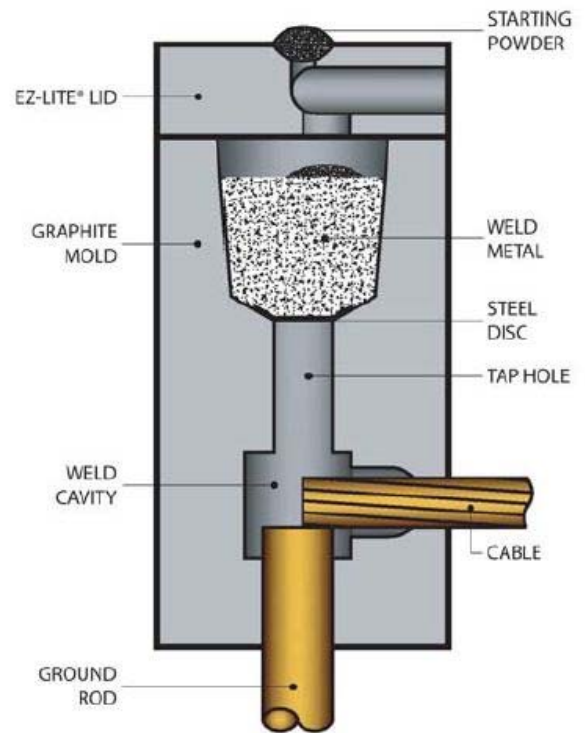
Kingsweld connections use the exothermic reaction of a powdered copper oxide and aluminium powder (weld metal).

The reaction takes place in a specially designed, semi-permanent graphite mould crucible (Kingsweld mould). The Kingsweld mould is designed and manufactured with a specific weld cavity and it is in this cavity that the molten metal is allowed to flow to all sections of the required connection creating the permanent connection.

The Kingsweld process creates a permanent, homogeneous and molecular bond that will not loosen or corrode. It becomes an integral part of the conductor and will have a current carrying capacity equal to or greater than that of the original conductor.

The Kingsweld reaction takes place in just 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, arc welding or soldering. This is an important consideration when welding to insulated cable or thin wall pipe.

Kingsweld is an ideal solution for field use since it is light and portable and requires no external heat or power source. It requires very little time or skill to obtain an efficient, permanent, maintenance free connection.



The Kingsweld exothermic welding process has been used to weld materials other than copper for electrical purposes.

Materials welded have included:

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

* When welding to galvanised steel it is recommended to resurface exposed bare steel.

Kingsweld Moulds

The Kingsweld exothermic welding reaction takes place in a specially designed, semi-permanent graphite mould crucible (Kingsweld mould)

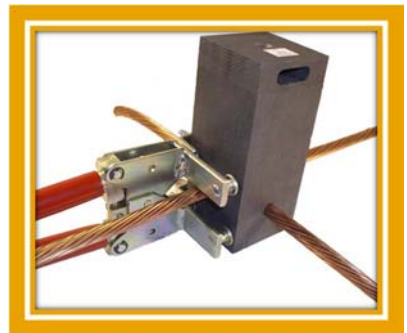
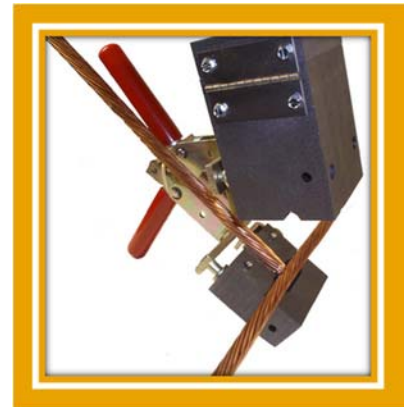
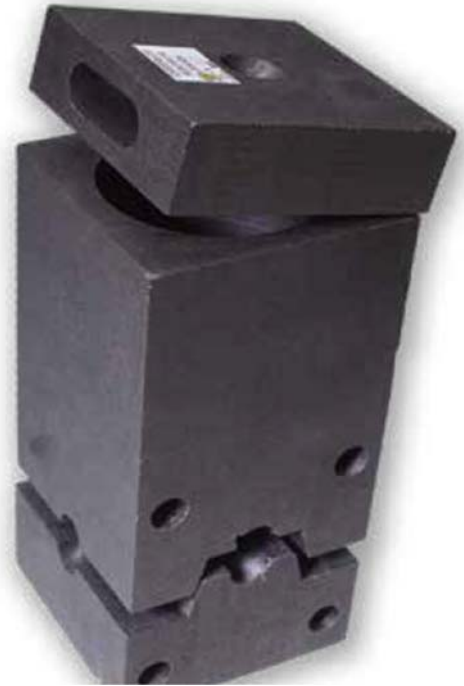
The Kingsweld mould is designed and manufactured with a specific weld cavity and it is in this cavity that the molten metal is allowed to flow to all sections of the required connection creating the permanent connection.

Features

- All Kingsweld moulds come with an EZ Lite Lid.
- Added safety—The EZ Lite Lid redirects exhaust away from the user.
- The average life of a Kingsweld mould is 40-50 plus welds, depending on the care and treatment it receives.
- EZ to ignite with the top ignition hole.
- EZ Lite Lid extends the life of handles and framework of the Mould.
- Reduces emission by more than 50% compared to the standard lid.

Care & Treatment

- After every weld clean the mould with a mould cleaning brush (natural bristle brush) to remove all debris & slag.
- The cleaner the mould the better the connection & the longer the mould will last.
- Always keep the Kingsweld mould dry & away from moisture.
- When not in use keep the mould in the box for protection.
- Try to avoid hitting the edges of the mould with the connecting conductor.
- **Do not use a wire brush to clean the mould.**



Making a Kingsweld Connection

Items Required to make a Kingsweld Connection

- Kingsweld Mould
- Handle Clamp
- Weld Metal
- Flint Gun
- Wire Brush
- Mould Cleaning Brush
- Packing/sleeves or other accessories (if required)

Before making a Kingsweld Connection

- Always wear proper clothing, safety glasses and gloves when exothermic welding.
- Read the general safety instructions & the positioning of conductors sheet supplied with each Kingsweld mould to familiarise yourself with the procedure you are going to perform.
- Make sure the conductors that are to be welded are dry, dirt free and clean.
- Use the wire brush to clean the conductor surfaces being placed inside the mould, the cleaner the surface the better the connection will be.
- Attach the handle clamp to the Kingsweld mould and check it will open & close freely.
- Make sure that the Kingsweld mould is dry and moisture free, the best way to do this is by pre-heating the mould with a blow torch or by making a test connection.



1 *Position cleaned conductors (cleaned with a wire brush/card cloth brush) in the Kingsweld mould after making sure the mould is dry & moisture free by pre-heating or making a test connection.*

2 *Place the metal disc in the bottom of the Kingsweld mould crucible.*

Note - The metal discs are supplied with the weld metal.



Making a Kingsweld Connection



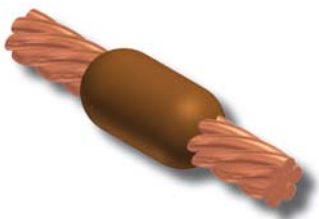
- 3** *Pour the weld metal into the Kingsweld mould crucible.*
 Note - The weld metal cartridge is made up of the actual weld metal & the starting powder. The starting powder is packed tightly in the bottom of the cartridge and will not drop out until tapped out (step 4)

- 4** *Close the lid on the Kingsweld mould and tap the starting powder out of the weld metal cartridge on the top of the lid (in the ignition pocket)*



- 5** *Use the flint gun to ignite the starting powder & the reaction will take place*
 Note - Pull flint gun away from starting powder right after trigger is pulled to keep from fouling flint gun. (Do not place any exposed body part directly over lid or in front of lid opening.)

- 6** *Wait approx. 15-20 seconds to allow the weld to cool down.*
 Note - Whilst waiting for the weld to cool down clean the top of the Kingsweld mould with the mould cleaning brush, also use the brush to open the lid and clean the inside of the lid.



- 7** *After 15-20 seconds open the Kingsweld mould (with the handle clamp) to inspect the connection, knock off the slag with the brush handle and clean the Kingsweld mould thoroughly (with the mould cleaning brush) ready for the next connection.*

How to Order

The most common Kingsweld exothermic connections are listed in this product catalogue for your easy reference. However, it would not be feasible to place all the possible connections, configurations and sizes of conductor in this catalogue as the amount is simply too vast (and constantly growing.)

With a database of approximately 15,000 moulds the chances are we would already of supplied a mould you require in the past. In the unlikely event that we haven't supplied the mould in the past then we will design and produce the required mould.

If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office with the below relevant information and we will advise you accordingly.

- 1. Know the materials to be welded (Copper, Steel etc.)**
- 2. Determine the weld type (configuration) using the selector charts (pages 8-10, 37-40)**
- 3. Find the required weld type and turn to the relevant page**
- 4. Determine the material sizes and types (mm, mm², stranded, solid etc.)**
- 5. Locate the above information on the correct page to find the correct mould stock code**
- 6. Verify you have the following information:**
 - a) Kingsweld mould stock code**
 - b) Price key - This will determine the cost of the Kingsweld mould**
 - c) Weld metal (size) required to perform each connection**
 - d) Handle clamps required for the Kingsweld mould**
 - e) Packing materials required (if any)**
 - f) Notes for any other accessories/information that may be required to perform the connection**

**Contact our sales office with the above information for
current prices and lead times**

Items Required to make a Kingsweld Connection

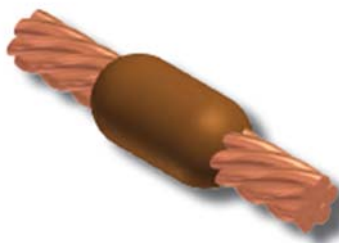
- Kingsweld Mould
- Handle Clamp
- Weld Metal
- Flint Gun
- Wire Brush
- Mould Cleaning Brush
- Packing/sleeves or other accessories (if required)

Connection Types

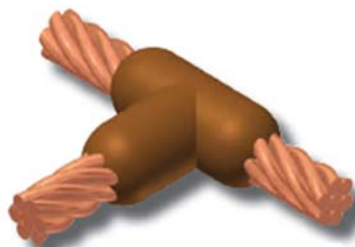
Connection Types	Page Number
Cable to Cable Connections	12 - 14
Cable to Ground Rod Connections	15 - 17
Cable to Bar Connections	18 - 20
Bar to Bar Connections	21 - 23
Cable to Rebar Connections	24 - 26
Bar to Ground Rod Connections	27 - 28
Cable to Surface Connections	29 - 33
Bar to Surface Connections	34 - 36

Selector Chart (additional chart see pages 37-40)

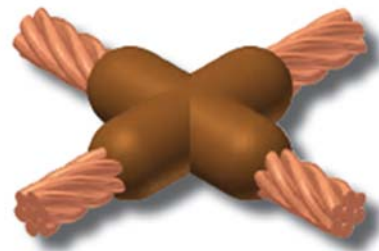
Cable to Cable Connections



Weld Type CC-1
Page 12

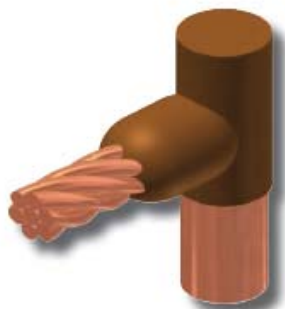


Weld Type CC-2
Page 13

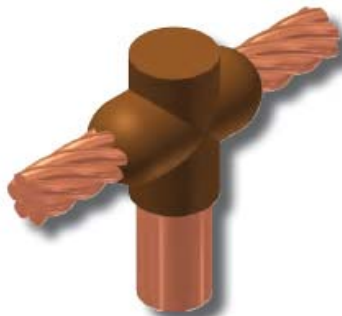


Weld Type CC-4
Page 14

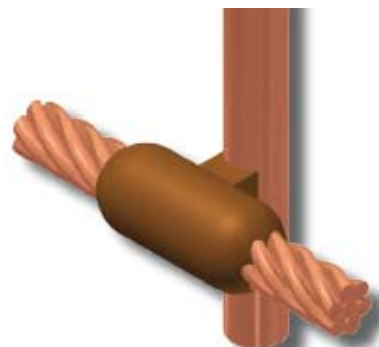
Cable to Ground Rod Connections



Weld Type CR-1
Page 15

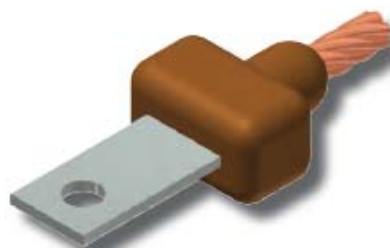


Weld Type CR-2
Page 16



Weld Type CR-3
Page 17

Cable to Bar Connections



Weld Type CB-1
Page 18



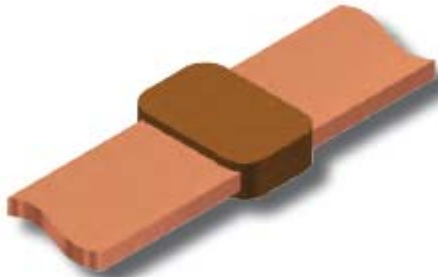
Weld Type CB-4
Page 19



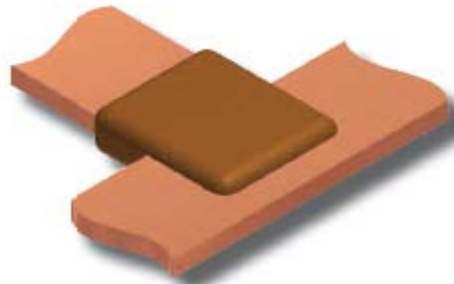
Weld Type CB-5
Page 20

Selector Chart (additional chart see pages 37-40)

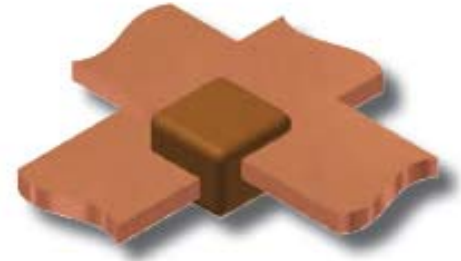
Bar to Bar Connections



Weld Type BB-7
Page 21



Weld Type BB-14
Page 22



Weld Type BB-41
Page 23

Cable to Rebar Connections



Weld Type CRE-1
Page 24

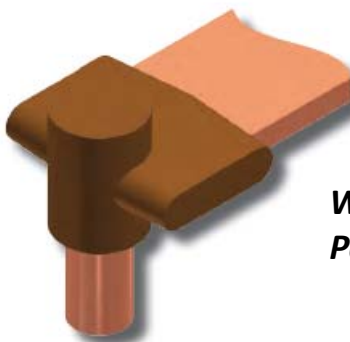


Weld Type CRE-3
Page 25

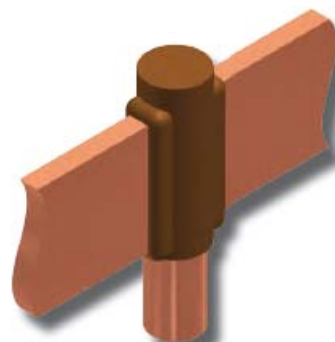


Weld Type CRE-6
Page 26

Bar to Ground Rod Connections



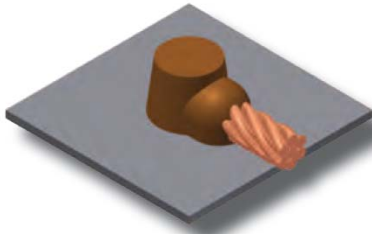
Weld Type BR-1
Page 27



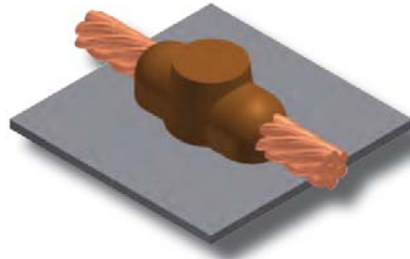
Weld Type BR-2
Page 28

Selector Chart (additional chart see pages 37-40)

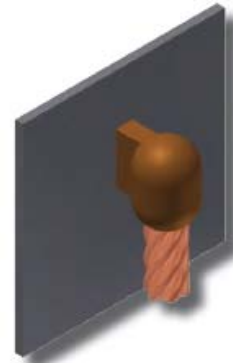
Cable to Surface Connections



Weld Type CS-8
Page 29



Weld Type CS-9
Page 30



Weld Type CS-23
Page 31

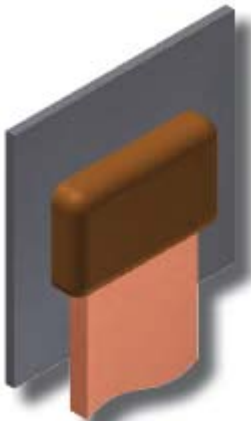


Weld Type CS-32
Page 32

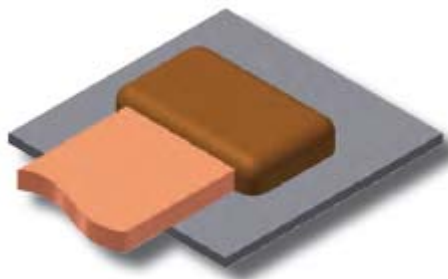


Weld Type CS-34
Page 33

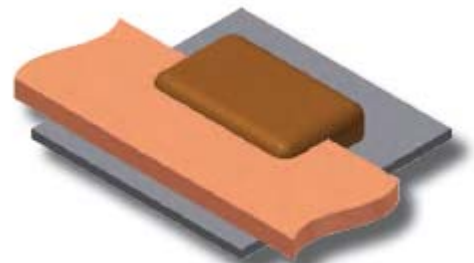
Bar to Surface Connections



Weld Type BS-1
Page 34



Weld Type BS-2
Page 35

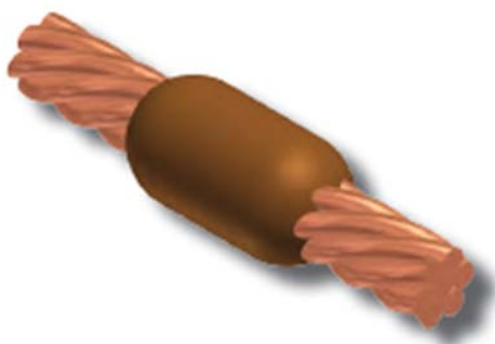


Weld Type BS-3
Page 36

Cable to Cable Connection

Weld Type CC-1

Horizontal End to End Joint



Cable Size (mm ²)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
10	K-10038	4	KW-15	KA-40010600
16	K-10040	4	KW-25	KA-40010600
25	K-3004	4	KW-32	KA-40010600
30	K-2842	4	KW-32	KA-40010600
35	K-3005	4	KW-32	KA-40010600
50	K-3006	4	KW-45	KA-40010600
8 mm Ø	K-2849	4	KW-45	KA-40010600
70	K-3008	4	KW-65	KA-40010600
10 mm Ø	K-2910	4	KW-65	KA-40010600
95	K-3010	4	KW-90	KA-40010600
120	K-3011	4	KW-115	KA-40010600
150	K-3012	4	KW-115	KA-40010600
185	K-3013	4	KW-150	KA-40010600
240	K-3014	4	KW-200	KA-40010600
300	K-3015	4	KW-250	KA-40010600

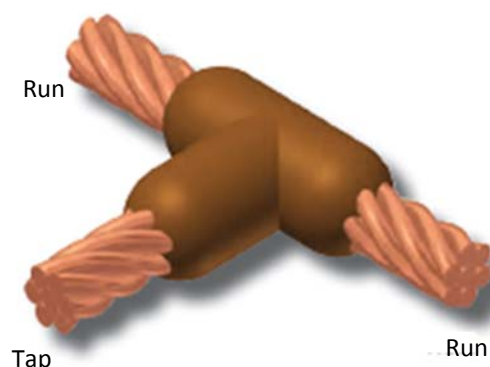
Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Cable Connection

Weld Type CC-2

Horizontal Cable Run to Horizontal Cable Tap Tee Joint

Cable Size (mm ²)		Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
Run	Tap				
10	10	K-10780	4	KW-32	KA-40010600
16	16	K-10781	4	KW-32	KA-40010600
25	25	K-3021	4	KW-45	KA-40010600
35	35	K-3022	4	KW-45	KA-40010600
	25	K-3023	4	KW-45	KA-40010600
8 mm Ø	8 mm Ø	K-2949	4	KW-65	KA-40010600
50	50	K-3024	4	KW-90	KA-40010600
	35	K-3025	4	KW-65	KA-40010600
	25	K-3026	4	KW-65	KA-40010600
10 mm Ø	10 mm Ø	K-2916	4	KW-90	KA-40010600
70	70	K-3031	4	KW-90	KA-40010600
	50	K-3033	4	KW-90	KA-40010600
	35	K-3034	4	KW-65	KA-40010600
	25	K-3035	4	KW-65	KA-40010600
95	95	K-3041	4	KW-115	KA-40010600
	70	K-3043	4	KW-90	KA-40010600
	50	K-3045	4	KW-90	KA-40010600
	35	K-3046	4	KW-90	KA-40010600
120	120	K-3047	4	KW-150	KA-40010600
	95	K-3048	4	KW-150	KA-40010600
	70	K-3051	4	KW-90	KA-40010600
	50	K-3052	4	KW-90	KA-40010600
150	150	K-3053	4	KW-200	KA-40010600
	120	K-3054	4	KW-150	KA-40010600
	95	K-3055	4	KW-150	KA-40010600
	70	K-3057	4	KW-90	KA-40010600
185	185	K-3059	4	KW-200	KA-40010600
	150	K-3060	4	KW-200	KA-40010600
	120	K-3061	4	KW-200	KA-40010600
	95	K-3062	4	KW-150	KA-40010600
240	240	K-3065	4	2 x KW-150	KA-40010600
	185	K-3066	4	KW-200	KA-40010600
	150	K-3067	4	KW-200	KA-40010600
	120	K-3068	4	KW-200	KA-40010600
300	300	K-3071	5	2 x KW-200	KA-40010700
	240	K-3072	5	2 x KW-200	KA-40010700
	185	K-3073	4	KW-250	KA-40010600
	150	K-3074	4	KW-200	KA-40010600

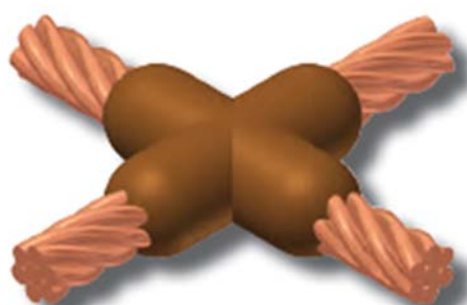


Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Cable Connection

Weld Type CC-4

Horizontal to Horizontal Cable Cross Joint



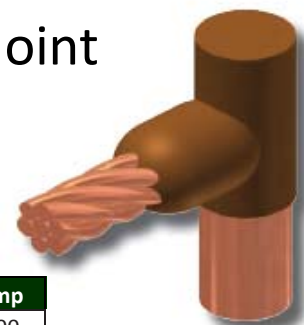
Cable Size (mm ²)		Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
Run	Tap				
10	10	K-10856	4	KW-32	KA-40010600
16	16	K-10782	4	KW-45	KA-40010600
25	25	K-3417	4	KW-45	KA-40010600
35	35	K-3148	4	KW-65	KA-40010600
	25	K-3149	4	KW-65	KA-40010600
8 mm Ø	8 mm Ø	K-2950	4	KW-90	KA-40010600
50	50	K-3150	4	KW-90	KA-40010600
	35	K-3151	4	KW-90	KA-40010600
	25	K-3152	4	KW-90	KA-40010600
10 mm Ø	10 mm Ø	K-2928	4	KW-115	KA-40010600
70	70	K-3157	4	KW-115	KA-40010600
	50	K-3159	4	KW-115	KA-40010600
	35	K-3160	4	KW-115	KA-40010600
	25	K-3161	4	KW-115	KA-40010600
95	95	K-3167	4	KW-150	KA-40010600
	70	K-3169	4	KW-150	KA-40010600
	50	K-3171	4	KW-115	KA-40010600
	35	K-3172	4	KW-115	KA-40010600
120	120	K-3173	4	KW-200	KA-40010600
	95	K-3174	4	KW-200	KA-40010600
	70	K-3176	4	KW-150	KA-40010600
	50	K-3178	4	KW-150	KA-40010600
150	150	K-3179	4	KW-250	KA-40010600
	120	K-3180	4	KW-250	KA-40010600
	95	K-3181	4	KW-200	KA-40010600
	70	K-3183	4	KW-150	KA-40010600
185	185	K-3185	4	KW-250	KA-40010600
	150	K-3186	4	KW-250	KA-40010600
	120	K-3187	4	KW-250	KA-40010600
	95	K-3188	4	KW-200	KA-40010600
240	240	K-3191	5	KW-500	KA-40010700
	185	K-3192	5	2 x KW-200	KA-40010700
	150	K-3193	5	2 x KW-200	KA-40010700
	120	K-3194	5	2 x KW-150	KA-40010700
300	300	K-3197	5	3 x KW-200	KA-40010700
	240	K-3198	5	3 x KW-200	KA-40010700
	185	K-3199	5	KW-500	KA-40010700
	150	K-3200	5	KW-500	KA-40010700
	120	K-3201	5	2 x KW-200	KA-40010700
95	K-3202	5	2 x KW-200	KA-40010700	

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Ground Rod Connection

Weld Type CR-1

Horizontal Cable Terminal to Ground Rod Joint



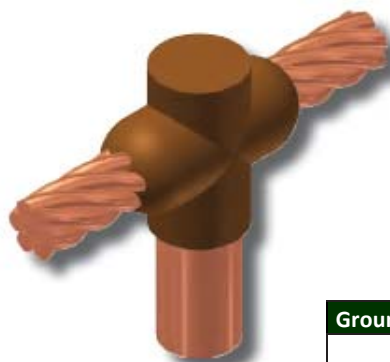
Ground Rod Size (mm)	Cable Size (mm ²)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
12.8	10	K-10786	4	KW-45	KA-40010600
	16	K-10787	4	KW-65	KA-40010600
	25	K-3321	4	KW-65	KA-40010600
	5.6 mm Ø	K-4351	4	KW-65	KA-40010600
	30	K-4352	4	KW-65	KA-40010600
	35	K-3322	4	KW-65	KA-40010600
	50	K-3323	4	KW-65	KA-40010600
	8 mm Ø	K-4644	4	KW-65	KA-40010600
	70	K-3325	4	KW-90	KA-40010600
	95	K-3327	4	KW-90	KA-40010600
	120	K-3328	4	KW-90	KA-40010600
14.3	5.6 mm Ø	K-4381	4	KW-65	KA-40010600
	25	K-3336	4	KW-65	KA-40010600
	30	K-4392	4	KW-65	KA-40010600
	35	K-3337	4	KW-65	KA-40010600
	50	K-3338	4	KW-90	KA-40010600
	8 mm Ø	K-4412	4	KW-90	KA-40010600
	70	K-3340	4	KW-90	KA-40010600
	95	K-3342	4	KW-90	KA-40010600
	120	K-3343	4	KW-90	KA-40010600
	150	K-3344	4	KW-115	KA-40010600
	185	K-3345	4	KW-115	KA-40010600
240	K-3346	4	KW-150	KA-40010600	
17.2	25	K-3354	4	KW-90	KA-40010600
	30	K-4413	4	KW-90	KA-40010600
	35	K-3355	4	KW-90	KA-40010600
	50	K-3356	4	KW-90	KA-40010600
	8 mm Ø	K-4414	4	KW-90	KA-40010600
	70	K-3358	4	KW-90	KA-40010600
	95	K-3360	4	KW-90	KA-40010600
	120	K-3361	4	KW-90	KA-40010600
	150	K-3362	4	KW-115	KA-40010600
	185	K-3363	4	KW-115	KA-40010600
	240	K-3364	4	KW-150	KA-40010600
300	K-3365	4	KW-200	KA-40010600	

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Ground Rod Connection

Weld Type CR-2

Horizontal Cable to Ground Rod Tee Joint



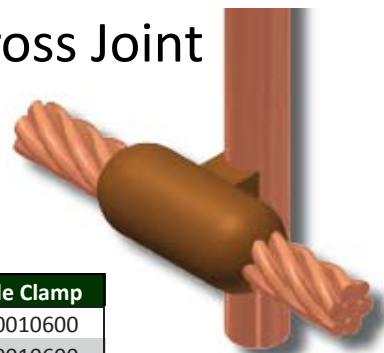
Ground Rod Size (mm)	Cable Size (mm ²)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
12.8	10	K-10788	4	KW-65	KA-40010600
	16	K-10789	4	KW-90	KA-40010600
	25	K-3372	4	KW-90	KA-40010600
	5.6 mm \emptyset	K-4486	4	KW-90	KA-40010600
	30	K-4503	4	KW-90	KA-40010600
	35	K-3373	4	KW-90	KA-40010600
	50	K-3374	4	KW-90	KA-40010600
	8 mm \emptyset	K-4881	4	KW-90	KA-40010600
	70	K-3376	4	KW-90	KA-40010600
	95	K-3378	4	KW-115	KA-40010600
	120	K-3379	4	KW-150	KA-40010600
14.3	5.6 mm \emptyset	K-4505	4	KW-90	KA-40010600
	25	K-3387	4	KW-90	KA-40010600
	30	K-4513	4	KW-90	KA-40010600
	35	K-3388	4	KW-90	KA-40010600
	50	K-3389	4	KW-90	KA-40010600
	8 mm \emptyset	K-4515	4	KW-90	KA-40010600
	70	K-3391	4	KW-115	KA-40010600
	95	K-3393	4	KW-115	KA-40010600
	120	K-3394	4	KW-150	KA-40010600
	150	K-3395	4	KW-200	KA-40010600
	185	K-3396	4	KW-200	KA-40010600
	240	K-3397	4	KW-250	KA-40010600
17.2	25	K-3405	4	KW-90	KA-40010600
	30	K-4518	4	KW-90	KA-40010600
	35	K-3406	4	KW-90	KA-40010600
	50	K-3407	4	KW-115	KA-40010600
	8 mm \emptyset	K-4645	4	KW-115	KA-40010600
	70	K-3409	4	KW-115	KA-40010600
	95	K-3411	4	KW-115	KA-40010600
	120	K-3412	4	KW-150	KA-40010600
	150	K-3413	4	KW-200	KA-40010600
	185	K-3414	4	KW-200	KA-40010600
	240	K-3415	4	KW-250	KA-40010600
	300	K-3416	5	2 x KW-150	KA-40010700

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Ground Rod Connection

Weld Type CR-3

Horizontal Thru Cable to Ground Rod Cross Joint



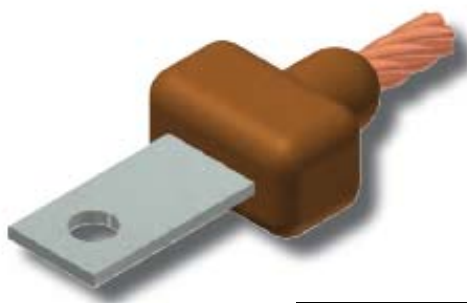
Ground Rod Size (mm)	Cable Size (mm ²)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
12.8	10	K-10790	24	KW-65	KA-40010600
	16	K-10791	24	KW-90	KA-40010600
	25	K-2804	24	KW-90	KA-40010600
	5.6 mm Ø	K-2805	24	KW-90	KA-40010600
	30	K-2808	24	KW-90	KA-40010600
	35	K-2813	24	KW-90	KA-40010600
	50	K-2815	24	KW-115	KA-40010600
	8 mm Ø	K-2816	24	KW-115	KA-40010600
	70	K-2818	24	KW-115	KA-40010600
	95	K-2819	24	KW-115	KA-40010600
	120	K-2821	24	KW-150	KA-40010600
14.3	5.6 mm Ø	K-2823	24	KW-90	KA-40010600
	30	K-2824	24	KW-90	KA-40010600
	35	K-2826	24	KW-115	KA-40010600
	50	K-2827	24	KW-115	KA-40010600
	8 mm Ø	K-2828	24	KW-115	KA-40010600
	70	K-2829	24	KW-115	KA-40010600
	95	K-2831	24	KW-115	KA-40010600
	120	K-2837	24	KW-150	KA-40010600
	150	K-2838	24	KW-150	KA-40010600
	185	K-2839	24	KW-250	KA-40010600
	240	K-2840	13	2 x KW-200	KA-40010700
17.2	30	K-2841	24	KW-90	KA-40010600
	35	K-2844	24	KW-90	KA-40010600
	50	K-2845	24	KW-115	KA-40010600
	8 mm Ø	K-2846	24	KW-115	KA-40010600
	70	K-2847	24	KW-150	KA-40010600
	95	K-2848	24	KW-150	KA-40010600
	120	K-4882	24	KW-200	KA-40010600
	150	K-2850	24	KW-255	KA-40010600
	185	K-2851	13	2 x KW-200	KA-40010700
	240	K-2852	13	KW-500	KA-40010700
	300	K-2853	13	3 x KW-200	KA-40010700

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Bar Connection

Weld Type CB-1

Horizontal Cable to Horizontal Bar Joint



Cable Size (mm ²)	Bar/Tape/Lug Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
10	20 x 2	K-10812	4	KW-32	KA-40010600
16	20 x 2	K-10813	4	KW-32	KA-40010600
25	20 x 2	K-3534	4	KW-32	KA-40010600
35	20 x 2	K-3535	4	KW-32	KA-40010600
30	25 x 2	K-3536	4	KW-45	KA-40010600
50	25 x 2	K-3537	4	KW-45	KA-40010600
	25 x 3	K-3538	4	KW-65	KA-40010600
8 mm \varnothing	25 x 2	K-3539	4	KW-45	KA-40010600
	25 x 3	K-3540	4	KW-65	KA-40010600
70	25 x 3	K-3541	4	KW-65	KA-40010600
	25 x 4	K-3544	4	KW-65	KA-40010600
10 mm \varnothing	25 x 3	K-3545	4	KW-65	KA-40010600
	25 x 4	K-3548	4	KW-65	KA-40010600
95	25 x 4	K-3549	4	KW-90	KA-40010600
	25 x 5	K-3550	4	KW-90	KA-40010600
120	25 x 5	K-3551	4	KW-90	KA-40010600
	30 x 5	K-3552	4	KW-115	KA-40010600
150	30 x 5	K-3553	4	KW-115	KA-40010600
	40 x 5	K-3554	4	KW-150	KA-40010600
185	40 x 5	K-3555	4	KW-150	KA-40010600
	50 x 5	K-3556	5	KW-200	KA-40010700
240	50 x 5	K-3557	5	KW-200	KA-40010700
	50 x 6	K-3558	5	2 x KW-150	KA-40010700
300	50 x 6	K-3559	5	2 x KW-150	KA-40010700
	50 x 8	K-3560	5	2 x KW-200	KA-40010700

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Bar Connection

Weld Type CB-4

Horizontal Cable Run to Horizontal Bar Tee Joint



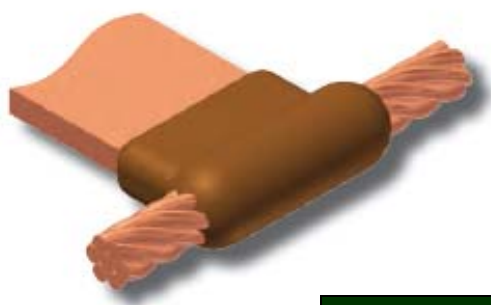
Cable Size (mm ²)	Bar/Tape Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
10	20 x 2	K-10814	4	KW-25	KA-40010600
16	20 x 2	K-10815	4	KW-32	KA-40010600
25	20 x 2	K-3563	4	KW-25	KA-40010600
35	20 x 2	K-3565	4	KW-32	KA-40010600
30	25 x 2	K-3566	4	KW-45	KA-40010600
50	25 x 2	K-3567	4	KW-45	KA-40010600
	25 x 3	K-3568	4	KW-45	KA-40010600
8 mm \varnothing	25 x 2	K-3569	4	KW-45	KA-40010600
	25 x 3	K-3570	4	KW-45	KA-40010600
70	25 x 3	K-3571	4	KW-65	KA-40010600
	25 x 4	K-3572	4	KW-65	KA-40010600
10 mm \varnothing	25 x 3	K-3575	4	KW-65	KA-40010600
	25 x 4	K-3576	4	KW-65	KA-40010600
95	25 x 4	K-3579	4	KW-90	KA-40010600
	25 x 5	K-3580	4	KW-90	KA-40010600
120	25 x 5	K-3581	4	KW-90	KA-40010600
	30 x 5	K-3582	4	KW-115	KA-40010600
150	30 x 5	K-3583	4	KW-115	KA-40010600
	40 x 5	K-3584	4	KW-115	KA-40010600
185	40 x 5	K-3585	4	KW-150	KA-40010600
	50 x 5	K-3586	4	KW-150	KA-40010600
240	50 x 5	K-3587	4	KW-200	KA-40010600
	50 x 6	K-3588	4	KW-250	KA-40010600
300	50 x 6	K-3589	5	2 x KW-150	KA-40010700
	50 x 8	K-3590	5	2 x KW-200	KA-40010700

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Bar Connection

Weld Type CB-5

Horizontal Bar Tap to Horizontal Cable Run Tee Joint



Cable Size (mm ²)	Bar/Tape Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
10	20 x 2	K-10816	4	KW-45	KA-40010600
16	20 x 2	K-10817	4	KW-45	KA-40010600
25	20 x 2	K-3595	4	KW-45	KA-40010600
35	20 x 2	K-3596	4	KW-45	KA-40010600
30	25 x 2	K-3597	4	KW-65	KA-40010600
50	25 x 2	K-3598	4	KW-65	KA-40010600
	25 x 3	K-3599	4	KW-65	KA-40010600
8 mm \varnothing	25 x 2	K-3600	4	KW-65	KA-40010600
	25 x 3	K-3601	4	KW-65	KA-40010600
70	25 x 3	K-3602	4	KW-90	KA-40010600
	25 x 4	K-3603	4	KW-115	KA-40010600
10 mm \varnothing	25 x 3	K-3606	4	KW-115	KA-40010600
	25 x 4	K-3607	4	KW-150	KA-40010600
95	25 x 4	K-3610	4	KW-150	KA-40010600
	25 x 5	K-3611	4	KW-150	KA-40010600
120	25 x 5	K-3612	4	KW-150	KA-40010600
	30 x 5	K-3613	4	KW-200	KA-40010600
150	30 x 5	K-3614	4	KW-200	KA-40010600
	40 x 5	K-3615	4	KW-250	KA-40010600
185	40 x 5	K-3616	4	KW-250	KA-40010600
	50 x 5	K-3617	5	2 x KW-150	KA-40010700
240	50 x 5	K-3618	5	2 x KW-150	KA-40010700
	50 x 6	K-3619	5	2 x KW-200	KA-40010700
300	50 x 6	K-3620	5	2 x KW-250	KA-40010700
	50 x 8	K-3621	5	2 x KW-250	KA-40010700

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Bar to Bar Connection

Weld Type BB-7

Horizontal Flat Bar End to End Joint



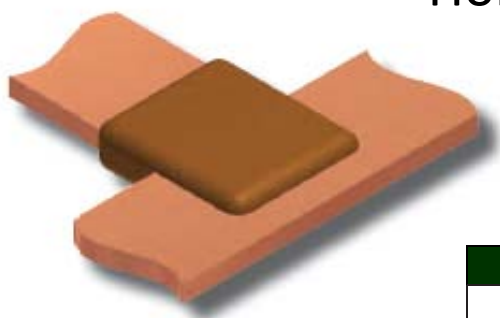
Bar/Tape Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
20 x 2	K-3804	4	KW-45	KA-40010600
25 x 2	K-3805	4	KW-45	KA-40010600
30 x 2	K-3806	4	KW-65	KA-40010600
20 x 3	K-3807	4	KW-45	KA-40010600
25 x 3	K-3808	4	KW-65	KA-40010600
30 x 3	K-3809	4	KW-65	KA-40010600
40 x 3	K-3810	4	KW-65	KA-40010600
50 x 3	K-3811	4	KW-90	KA-40010600
20 x 4	K-3812	4	KW-65	KA-40010600
25 x 4	K-3813	4	KW-90	KA-40010600
30 x 4	K-3814	4	KW-90	KA-40010600
40 x 4	K-3815	4	KW-115	KA-40010600
20 x 5	K-3816	4	KW-90	KA-40010600
25 x 5	K-3817	4	KW-90	KA-40010600
30 x 5	K-3818	4	KW-115	KA-40010600
40 x 5	K-3819	4	KW-150	KA-40010600
50 x 5	K-3820	5	KW-200	KA-40010700
25 x 6	K-3821	4	KW-115	KA-40010600
30 x 6	K-3822	4	KW-150	KA-40010600
40 x 6	K-3823	4	KW-200	KA-40010600
50 x 6	K-3824	5	KW-250	KA-40010700
60 x 6	K-3825	5	2 x KW-150	KA-40010700
50 x 8	K-3826	5	2 x KW-150	KA-40010700
60 x 8	K-3827	5	2 x KW-200	KA-40010700
50 x 10	K-3828	5	2 x KW-200	KA-40010700
60 x 10	K-3829	5	KW-500	KA-40010700

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Bar to Bar Connection

Weld Type BB-14

Horizontal Flat Bar Run and Tap Tee Joint



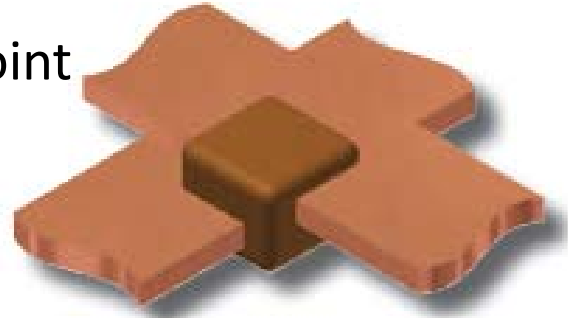
Bar/Tape Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
20 x 2	K-3831	4	KW-45	KA-40010600
25 x 2	K-3832	4	KW-45	KA-40010600
30 x 2	K-3833	4	KW-65	KA-40010600
20 x 3	K-3834	4	KW-45	KA-40010600
25 x 3	K-3835	4	KW-65	KA-40010600
30 x 3	K-3836	4	KW-65	KA-40010600
40 x 3	K-3837	4	KW-90	KA-40010600
50 x 3	K-3698	4	KW-115	KA-40010600
20 x 4	K-3838	4	KW-65	KA-40010600
25 x 4	K-3839	4	KW-90	KA-40010600
30 x 4	K-3840	4	KW-90	KA-40010600
40 x 4	K-3841	4	KW-115	KA-40010600
20 x 5	K-3842	4	KW-90	KA-40010600
25 x 5	K-3843	4	KW-90	KA-40010600
30 x 5	K-3844	4	KW-115	KA-40010600
40 x 5	K-3845	4	KW-150	KA-40010600
50 x 5	K-3846	5	KW-200	KA-40010700
25 x 6	K-2865	4	KW-115	KA-40010600
40 x 6	K-3847	4	KW-200	KA-40010600
50 x 6	K-3848	5	KW-250	KA-40010700
60 x 6	K-3849	5	2 x KW-150	KA-40010700
50 x 8	K-3850	5	2 x KW-150	KA-40010700
60 x 8	K-3851	5	2 x KW-200	KA-40010700
50 x 10	K-12212	5	2 x KW-200	KA-40010700
60 x 10	K-3852	5	KW-500	KA-40010700

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Bar to Bar Connection

Weld Type BB-41

Horizontal Flat Bar (uncut) Cross Joint



Bar/Tape Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
20 x 2	K-98074	4	KW-45	KA-40010600
25 x 2	K-4344	4	KW-65	KA-40010600
30 x 2	K-9796	4	KW-65	KA-40010600
20 x 3	K-9797	4	KW-65	KA-40010600
25 x 3	K-4935	4	KW-65	KA-40010600
30 x 3	K-9798	4	KW-90	KA-40010600
40 x 3	K-10848	4	KW-115	KA-40010600
50 x 3	K-4123	4	KW-115	KA-40010600
20 x 4	K-9811	4	KW-115	KA-40010600
25 x 4	K-9800	4	KW-90	KA-40010600
30 x 4	K-9801	4	KW-90	KA-40010600
40 x 4	K-9802	4	KW-150	KA-40010600
20 x 5	K-10849	4	KW-115	KA-40010600
25 x 5	K-6902	4	KW-115	KA-40010600
30 x 5	K-9803	4	KW-115	KA-40010600
40 x 5	K-9804	4	KW-150	KA-40010600
50 x 5	K-9805	5	KW-200	KA-40010700
25 x 6	K-9386	4	KW-200	KA-40010600
30 x 6	K-10850	4	KW-200	KA-40010600
40 x 6	K-9767	4	KW-200	KA-40010600
50 x 6	K-3370	5	KW-250	KA-40010700
60 x 6	K-10851	5	2 x KW-150	KA-40010700
50 x 8	K-10852	5	2 x KW-200	KA-40010700
60 x 8	K-10853	5	KW-500	KA-40010700
50 x 10	K-10854	5	KW-500	KA-40010700
60 x 10	K-10855	5	3 x KW-200	KA-40010700

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Rebar Connection

Weld Type CRE-1

Horizontal Parallel Cable Tap Joint



Rebar Size (mm)	Cable Size (mm ²)	Kingsweld Mould	Packing Material	Price Key	Weld Metal	Handle Clamp
12	25	K-10746	KA-38032900	4	KW-45	KA-40010600
	35	K-10747	KA-38032900	4	KW-45	KA-40010600
	50	K-8789	KA-38032900	4	KW-90	KA-40010600
	70	K-8790	KA-38032900	4	KW-90	KA-40010600
	95	K-8787	KA-38032900	4	KW-90	KA-40010600
16	25	K-10748	KA-38032900	4	KW-45	KA-40010600
	35	K-10749	KA-38032900	4	KW-45	KA-40010600
	50	K-8782	KA-38032900	4	KW-90	KA-40010600
	70	K-8793	KA-38032900	4	KW-90	KA-40010600
	95	K-8813	KA-38032900	4	KW-115	KA-40010600
22 & Larger	35	K-10750	KA-38406200	14†	KW-45	Included
	50	K-10751	KA-38406200	14†	KW-90	Included
	70	K-10752	KA-38406200	14†	KW-90	Included
	95	K-10753	KA-38406200	14†	KW-115	Included

† Sold complete with frame

PACKING MATERIAL NOTE

A packing material is necessary when making Kingsweld connections to Rebar.

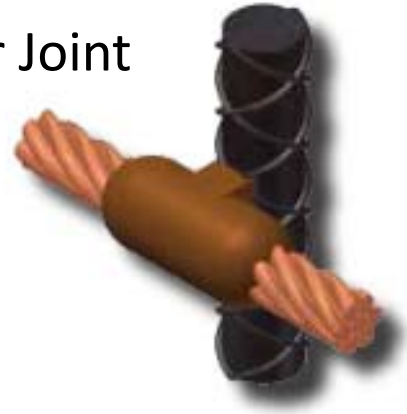
Packing Material KA-38032900 is copper shim stock. Packing Material No.'s KA- 38406100, KA-38406200 and KA-38406300 are a ceramic fiber materials and can be used for one connection only. Be sure to specify Packing Material No. when ordering mould and weld metal.

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Rebar Connection

Weld Type CRE-3

Horizontal Thru Cable to Vertical Rebar Joint



Rebar Size (mm)	Cable Size (mm ²)	Kingsweld Mould	Packing Material	Price Key	Weld Metal	Handle Clamp
12	25	K-10823	KA-38032900	24	KW-90	KA-40010600
	35	K-10824	KA-38032900	24	KW-90	KA-40010600
	50	K-10825	KA-38032900	24	KW-115	KA-40010600
	70	K-10826	KA-38032900	24	KW-115	KA-40010600
	95	K-10827	KA-38032900	24	KW-150	KA-40010600
16	25	K-10828	KA-38032900	24	KW-90	KA-40010600
	35	K-9892	KA-38032900	24	KW-90	KA-40010600
	50	K-10829	KA-38032900	24	KW-115	KA-40010600
	70	K-3297	KA-38032900	24	KW-115	KA-40010600
	95	K-3302	KA-38032900	24	KW-150	KA-40010600
22 & Larger	35	K-10830	KA-38406300	4	KW-115	KA-40010600
	50	K-9998	KA-38406300	4	KW-115	KA-40010600
	70	K-9285	KA-38406300	4	KW-115	KA-40010600
	95	K-9288	KA-38406300	4	KW-150	KA-40010600

PACKING MATERIAL NOTE

A packing material is necessary when making Kingsweld connections to Rebar.

Packing Material KA-38032900 is copper shim stock. Packing Material No.'s KA- 38406100, KA-38406200 and KA-38406300 are a ceramic fiber materials and can be used for one connection only. Be sure to specify Packing Material No. when ordering mould and weld metal.

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Rebar Connection

Weld Type CRE-6

Horizontal Cable Tap to Vertical Rebar Joint



Rebar Size (mm)	Cable Size (mm ²)	Kingsweld Mould	Packing Material	Price Key	Weld Metal	Handle Clamp
12	25	K-10766	KA-38032900	4	KW-65	KA-40010600
	35	K-10767	KA-38032900	4	KW-65	KA-40010600
	50	K-10768	KA-38032900	4	KW-115	KA-40010600
	70	K-3740	KA-38032900	4	KW-115	KA-40010600
	95	K-10769	KA-38032900	4	KW-150	KA-40010600
16	25	K-10770	KA-38032900	4	KW-65	KA-40010600
	35	K-10771	KA-38032900	4	KW-65	KA-40010600
	50	K-10772	KA-38032900	4	KW-115	KA-40010600
	70	K-4263	KA-38032900	4	KW-115	KA-40010600
	95	K-10773	KA-38032900	4	KW-150	KA-40010600
22 & Larger	25	K-10774	KA-38406300	4	KW-65	KA-40010632
	35	K-0047	KA-38406300	4	KW-65	KA-40010632
	50	K-4113	KA-38406300	4	KW-115	KA-40010632
	70	K-3876	KA-38406300	4	KW-115	KA-40010632
	95	K-8692	KA-38406300	4	KW-150	KA-40010632

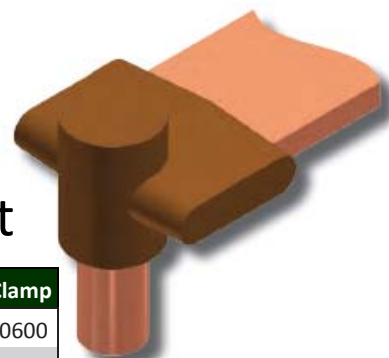
PACKING MATERIAL NOTE

A packing material is necessary when making Kingsweld connections to Rebar.

Packing Material KA-38032900 is copper shim stock. Packing Material No.'s KA- 38406100, KA-38406200 and KA-38406300 are a ceramic fiber materials and can be used for one connection only. Be sure to specify Packing Material No. when ordering mould and weld metal.

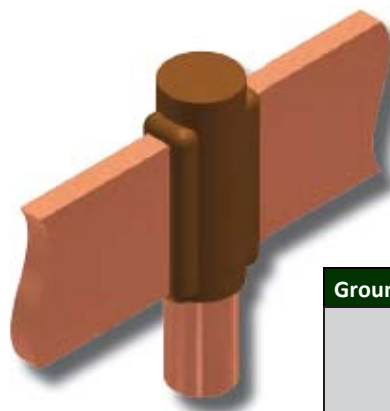
Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Bar to Ground Rod Connection Weld Type BR-1 Horizontal Bar Terminal to Ground Rod Joint



Ground Rod Size (mm)	Bar/Tape Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
14.3 (Copperbond Earth Rod)	30 x 2	K-3922	4	KW-115	KA-40010600
	20 x 3	K-3923	4	KW-90	KA-40010600
	25 x 3	K-3924	4	KW-90	KA-40010600
	30 x 3	K-3925	4	KW-115	KA-40010600
	40 x 3	K-3926	4	KW-115	KA-40010600
	50 x 3	K-3927	4	KW-150	KA-40010600
	20 x 4	K-3928	4	KW-90	KA-40010600
	25 x 4	K-3929	4	KW-115	KA-40010600
	25 x 5	K-3930	4	KW-115	KA-40010600
	30 x 5	K-3931	4	KW-150	KA-40010600
	40 x 5	K-3932	4	KW-150	KA-40010600
	50 x 5	K-3933	4	KW-200	KA-40010600
	25 x 6	K-3934	4	KW-150	KA-40010600
	30 x 6	K-3935	4	KW-150	KA-40010600
	40 x 6	K-3936	4	KW-200	KA-40010600
50 x 6	K-3937	5	KW-200	KA-40010700	
17.2 (Copperbond Earth Rod)	30 x 2	K-3938	4	KW-150	KA-40010600
	20 x 3	K-3939	4	KW-115	KA-40010600
	25 x 3	K-3940	4	KW-150	KA-40010600
	30 x 3	K-3941	4	KW-150	KA-40010600
	40 x 3	K-3942	4	KW-200	KA-40010600
	50 x 3	K-3943	5	2 x KW-150	KA-40010700
	20 x 4	K-3944	4	KW-150	KA-40010600
	25 x 4	K-3945	4	KW-150	KA-40010600
	25 x 5	K-3946	4	KW-150	KA-40010600
	30 x 5	K-3947	4	KW-200	KA-40010600
	40 x 5	K-3948	4	KW-200	KA-40010600
	50 x 5	K-3853	5	2 x KW-150	KA-40010700
	25 x 6	K-3854	4	KW-200	KA-40010600
	30 x 6	K-3855	4	KW-250	KA-40010600
	40 x 6	K-3856	5	2 x KW-150	KA-40010700
50 x 6	K-3857	5	2 x KW-200	KA-40010700	

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.



Bar to Ground Rod Connection

Weld Type BR-2

Horizontal Bar Terminal to Ground Rod Joint

Ground Rod Size (mm)	Bar/Tape Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
14.3 (Copperbond Earth Rod)	30 x 2	K-3922	4	KW-115	KA-40010600
	20 x 3	K-3923	4	KW-90	KA-40010600
	25 x 3	K-3924	4	KW-90	KA-40010600
	30 x 3	K-3925	4	KW-115	KA-40010600
	40 x 3	K-3926	4	KW-115	KA-40010600
	50 x 3	K-3927	4	KW-150	KA-40010600
	20 x 4	K-3928	4	KW-90	KA-40010600
	25 x 4	K-3929	4	KW-115	KA-40010600
	25 x 5	K-3930	4	KW-115	KA-40010600
	30 x 5	K-3931	4	KW-150	KA-40010600
	40 x 5	K-3932	4	KW-150	KA-40010600
	50 x 5	K-3933	4	KW-200	KA-40010600
	25 x 6	K-3934	4	KW-150	KA-40010600
	30 x 6	K-3935	4	KW-150	KA-40010600
	40 x 6	K-3936	4	KW-200	KA-40010600
50 x 6	K-3937	5	KW-200	KA-40010700	
17.2 (Copperbond Earth Rod)	30 x 2	K-3938	4	KW-150	KA-40010600
	20 x 3	K-3939	4	KW-115	KA-40010600
	25 x 3	K-3940	4	KW-150	KA-40010600
	30 x 3	K-3941	4	KW-150	KA-40010600
	40 x 3	K-3942	4	KW-200	KA-40010600
	50 x 3	K-3943	5	2 x KW-150	KA-40010700
	20 x 4	K-3944	4	KW-150	KA-40010600
	25 x 4	K-3945	4	KW-150	KA-40010600
	25 x 5	K-3946	4	KW-150	KA-40010600
	30 x 5	K-3947	4	KW-200	KA-40010600
	40 x 5	K-3948	4	KW-200	KA-40010600
	50 x 5	K-3853	5	2 x KW-150	KA-40010700
	25 x 6	K-3854	4	KW-200	KA-40010600
	30 x 6	K-3855	4	KW-250	KA-40010600
	40 x 6	K-3856	5	2 x KW-150	KA-40010700
50 x 6	K-3857	5	2 x KW-200	KA-40010700	

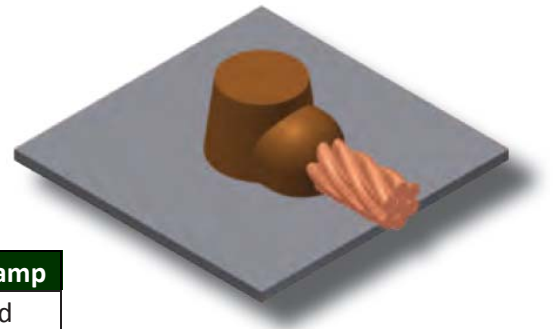
Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Surface Connection

Weld Type CS-8

Horizontal Cable to Horizontal Steel Surface Joint

Note that the cable is **ON** the surface



Cable Size (mm ²)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
10	K-10792	3†	KW-45	Included
16	K-10264	3†	KW-45	Included
25	K-3479	3†	KW-45	Included
30	K-4530	3†	KW-45	Included
35	K-3480	3†	KW-45	Included
8 mm Ø	K-4534	3†	KW-45	Included
50	K-3481	3†	KW-45	Included
10 mm Ø	K-4536	3†	KW-65	Included
70	K-3483	3†	KW-65	Included
95	K-3485	3†	KW-90	Included
120	K-3486	4	KW-115	KA-40010600
150	K-3487	4	KW-150	KA-40010600
185	K-3488	4	KW-200	KA-40010600
240	K-3489	4	KW-200	KA-40010600
300	K-3490	4	KW-250	KA-40010600

† Sold complete with frame

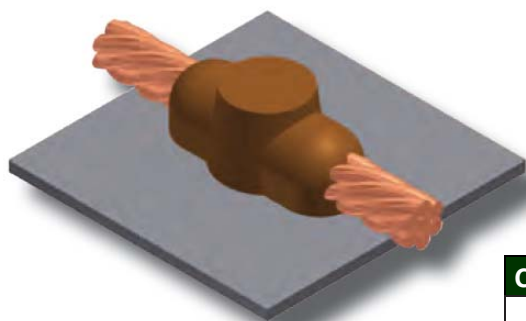
Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Surface Connection

Weld Type CS-9

Horizontal Thru Cable to Horizontal Steel Surface Joint

Note that the cable is **ON** the surface



Cable Size (mm ²)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
10	K-10793	3†	KW-45	Included
16	K-10794	3†	KW-45	Included
25	K-3496	3†	KW-45	Included
30	K-4638	3†	KW-45	Included
35	K-3497	3†	KW-45	Included
8 mm Ø	K-4641	4	KW-90	KA-40010600
50	K-3498	4	KW-90	KA-40010600
10 mm Ø	K-4653	4	KW-115	KA-40010600
70	K-3500	4	KW-115	KA-40010600
95	K-3502	4	KW-115	KA-40010600
120	K-3503	4	KW-150	KA-40010600
150	K-3504	4	KW-200	KA-40010600
185	K-3505	4	KW-250	KA-40010600
240	K-3506	5	2 x KW-150	KA-40010700

† Sold complete with frame

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Surface Connection

Weld Type CS-23

Vertical Cable Drop to Vertical Steel Surface Joint

Note that the cable is **OFF** the surface



Cable Size (mm ²)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
10	K-3070	4	KW-45	KA-40010600
16	K-10797	4	KW-65	KA-40010600
25	K-4679	4	KW-65	KA-40010600
30	K-10798	4	KW-65	KA-40010600
35	K-4114	4	KW-65	KA-40010600
8 mm Ø	K-10799	4	KW-65	KA-40010600
50	K-3140	4	KW-115	KA-40010600
70	K-4678	4	KW-115	KA-40010600
95	K-4601	4	KW-150	KA-40010600
120	K-3747	4	KW-200	KA-40010600
150	K-3080	4	KW-200	KA-40010600
185	K-9823	4	KW-250	KA-40010600
240	K-10800	17	2 x KW-150	KA-40010600
300	K-10801	17	2 x KW-150	KA-40010600

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Surface Connection

Weld Type CS-32

Horizontal Cable to Horizontal Steel Pipe Joint

Cathodic Protection



Cable Size (mm)	Pipe Dia. in mm	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
2.5, 4 & 6	up to 125	K-4146‡	3†	KW-15CP	Included
2.5, 4 & 6	over 125	K-4147‡	3†	KW-15CP	Included
10	up to 125	K-4148	3†	KW-15CP	Included
	over 125	K-4149	3†	KW-15CP	Included
16	up to 125	K-4146	3†	KW-15CP	Included
	over 125	K-4147	3†	KW-15CP	Included
25	up to 70	K-4152	3†	KW-25CP	Included
	70 to 165	K-4153	3†	KW-25CP	Included
	over 165	K-4154	3†	KW-25CP	Included
30	up to 70	K-2833	3†	KW-32CP	Included
	70 to 165	K-2834	3†	KW-32CP	Included
	165 to 250	K-2835	3†	KW-32CP	Included
	over 250	K-2836	3†	KW-32CP	Included
35	up to 70	K-4155	3†	KW-32CP	Included
	70 to 165	K-4156	3†	KW-32CP	Included
	165 to 250	K-4157	3†	KW-32CP	Included
	over 250	K-4158	3†	KW-32CP	Included
50	up to 70	K-4159	3†	KW-45CP	Included
	70 to 165	K-4160	3†	KW-45CP	Included
	165 to 250	K-4161	3†	KW-45CP	Included
	over 250	K-4162	3†	KW-45CP	Included
70	up to 70	K-4163	3†	KW-65CP	Included
	70 to 165	K-4164	3†	KW-65CP	Included
	165 to 250	K-4165	3†	KW-65CP	Included
	over 250	K-4166	3†	KW-65CP	Included

† Sold complete with frame

‡ 38-4590 Sleeve/Weld Required

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Cable to Surface Connection

Weld Type CS-34

Horizontal Thru Cable to Horizontal Steel Pipe Joint *Cathodic Protection*



Cable Size (mm)	Pipe Dia. in mm	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
2.5, 4 & 6	up to 105	K-4167‡	3†	KW-25CP	Included
2.5, 4 & 6	over 105	K-4168‡	3†	KW-25CP	Included
10	up to 105	K-10806	3†	KW-25CP	Included
	over 105	K-10807	3†	KW-25CP	Included
16	up to 105	K-10808	3†	KW-25CP	Included
	over 105	K-10809	3†	KW-25CP	Included
25	up to 70	K-4173	3†	KW-32CP	Included
	70 to 165	K-4174	3†	KW-32CP	Included
	over 165	K-4175	3†	KW-32CP	Included
35	up to 70	K-4176	3†	KW-45CP	Included
	70 to 165	K-4177	3†	KW-45CP	Included
	165 to 250	K-4178	3†	KW-45CP	Included
	over 250	K-4179	3†	KW-45CP	Included
50	up to 70	K-4180	3†	KW-65CP	Included
	70 to 165	K-4181	3†	KW-65CP	Included
	165 to 250	K-4182	3†	KW-65CP	Included
	over 250	K-4183	3†	KW-65CP	Included

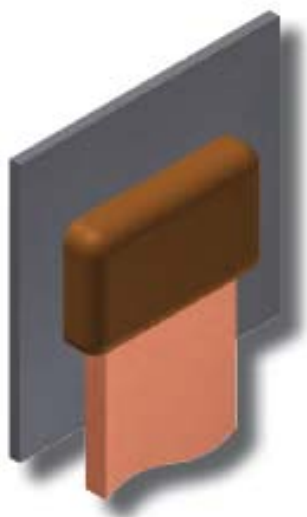
† Sold complete with frame
‡ 2 x 38-4590 Sleeve/Weld Required

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Bar to Surface Connection

Weld Type BS-1

Vertical Bar to Vertical Steel Surface Joint



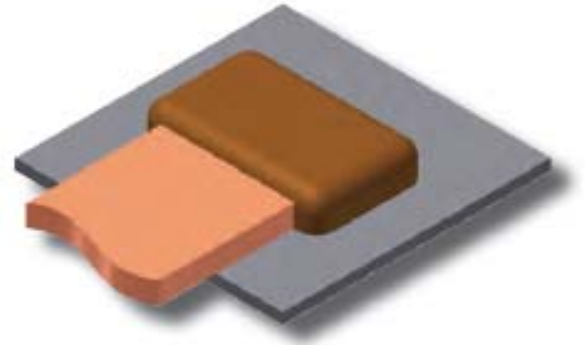
Bar/Tape Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
20 x 2	K-4066	4	KW-65	KA-40010600
25 x 2	K-4067	4	KW-90	KA-40010600
30 x 2	K-4068	4	KW-90	KA-40010600
20 x 3	K-4069	4	KW-65	KA-40010600
25 x 3	K-4070	4	KW-90	KA-40010600
30 x 3	K-4071	4	KW-90	KA-40010600
40 x 3	K-4072	4	KW-150	KA-40010600
25 x 4	K-4073	4	KW-90	KA-40010600
30 x 4	K-4074	4	KW-115	KA-40010600
40 x 4	K-4075	4	KW-200	KA-40010600
30 x 5	K-4076	4	KW-150	KA-40010600
40 x 5	K-4077	4	KW-200	KA-40010600
50 x 5	K-4078	4	KW-250	KA-40010600
40 x 6	K-4079	4	KW-250	KA-40010600
50 x 6	K-4080	5	2 x KW-150	KA-40010700
60 x 6	K-4081	5	2 x KW-200	KA-40010700
80 x 6	K-4082	5	KW-500	KA-40010700
50 x 8	K-4083	5	2 x KW-200	KA-40010700
60 x 8	K-4084	5	KW-500	KA-40010700
80 x 8	K-4085	5	3 x KW-200	KA-40010700
60 x 10	K-4086	5	3 x KW-200	KA-40010700
80 x 10	K-4087	5	3 x KW-250	KA-40010700

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Bar to Surface Connection

Weld Type BS-2

Horizontal Bar to Horizontal Steel Surface Joint



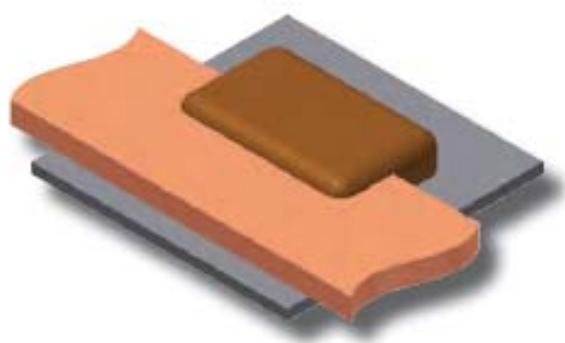
Bar/Tape Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
20 x 2	K-4090	4	KW-65	KA-40010600
25 x 2	K-4091	4	KW-90	KA-40010600
20 x 3	K-4092	4	KW-90	KA-40010600
25 x 3	K-4093	4	KW-90	KA-40010600
30 x 3	K-4094	4	KW-115	KA-40010600
40 x 3	K-4095	4	KW-115	KA-40010600
25 x 4	K-4096	4	KW-90	KA-40010600
30 x 4	K-4097	4	KW-150	KA-40010600
40 x 4	K-4098	4	KW-200	KA-40010600
30 x 5	K-4099	4	KW-200	KA-40010600
40 x 5	K-4100	4	KW-200	KA-40010600
50 x 5	K-4101	5	2 x KW-150	KA-40010700
40 x 6	K-4102	4	KW-250	KA-40010600
50 x 6	K-4103	5	2 x KW-150	KA-40010700
50 x 8	K-4104	5	2 x KW-200	KA-40010700

Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Bar to Surface Connection

Weld Type BS-3

Horizontal Thru Bar to Horizontal Steel Surface Joint
































Bar/Tape Size (WxT) (mm)	Kingsweld Mould	Price Key	Weld Metal	Handle Clamp
20 x 2	K-2892	4	KW-65	KA-40010600
25 x 2	K-2893	4	KW-90	KA-40010600
20 x 3	K-2909	4	KW-90	KA-40010600
25 x 3	K-2911	4	KW-115	KA-40010600
30 x 3	K-2912	4	KW-115	KA-40010600
40 x 3	K-2913	4	KW-150	KA-40010600
25 x 4	K-2939	4	KW-115	KA-40010600
30 x 4	K-2940	4	KW-150	KA-40010600
40 x 4	K-2954	4	KW-200	KA-40010600
30 x 5	K-2985	4	KW-200	KA-40010600
40 x 5	K-2986	4	KW-250	KA-40010600
50 x 5	K-2989	4	KW-250	KA-40010600
50 x 6	K-2990	4	KW-250	KA-40010600
60 x 8	K-4257	5	2 x KW-150	KA-40010700
60 x 10	K-4266	5	2 x KW-200	KA-40010700






















Note: If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office.

Additional Selector Chart

Cable to Cable Connections

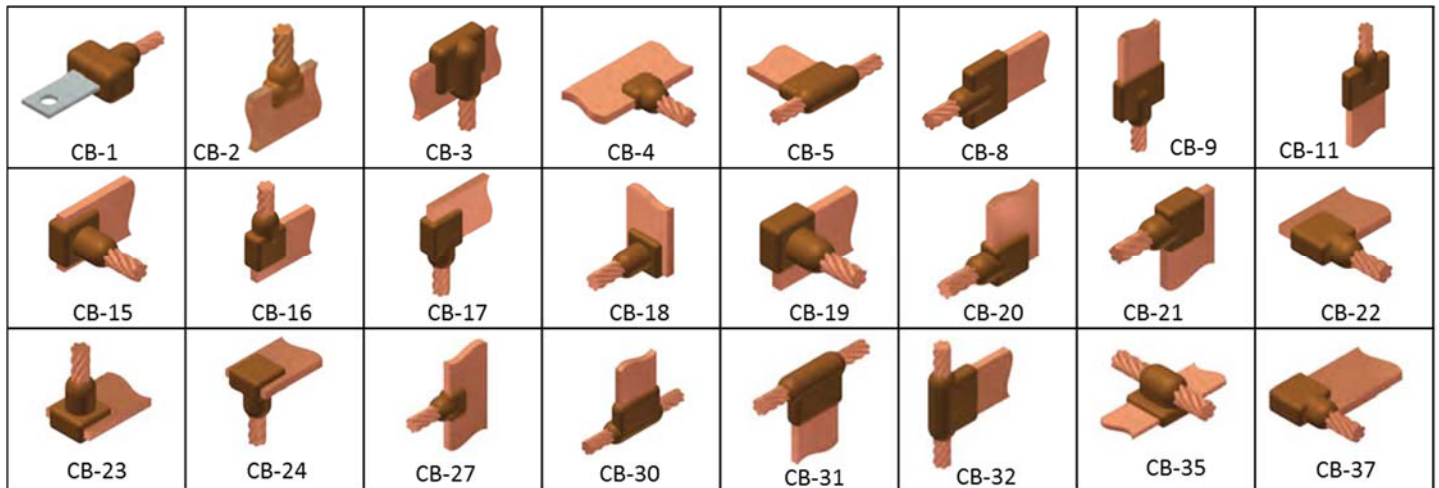
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 CC-19	 CC-20	 CC-21	 CC-22	 CC-23	 CC-24	 CC-25	 CC-26
 CC-27	 CC-28	 CC-31	 CC-33	 CC-34			

Cable to Ground Rod Connections

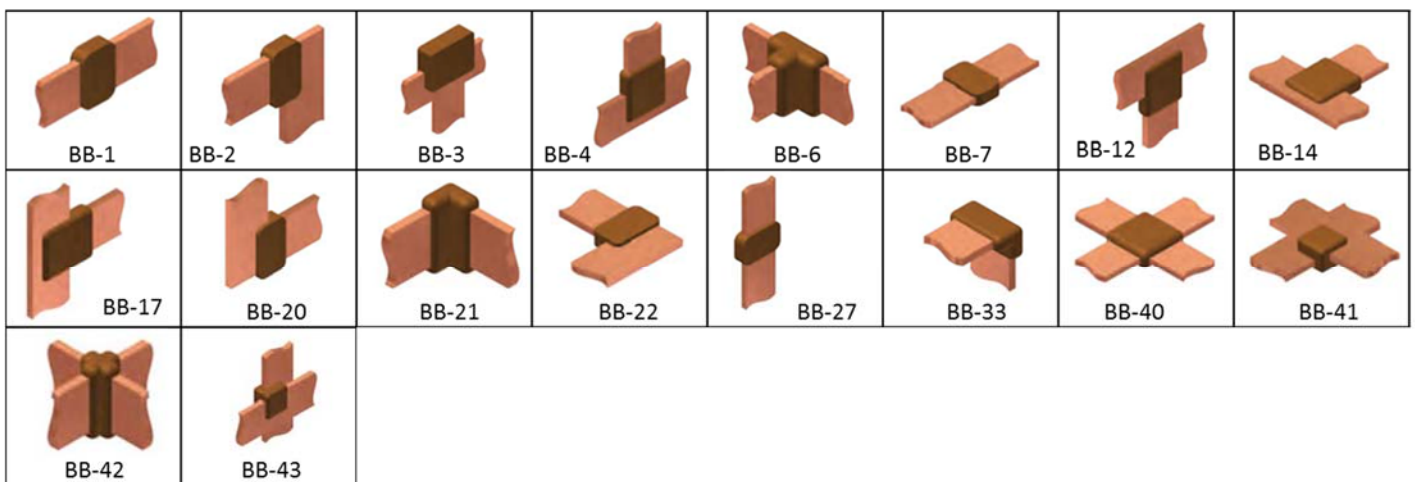
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 CR-9	 CR-11	 CR-12	 CR-13	 CR-14	 CR-15	 CR-16	 CR-17
 CR-18	 CR-19	 CR-20	 CR-24	 CR-25			

Additional Selector Chart

Cable to Bar Connections

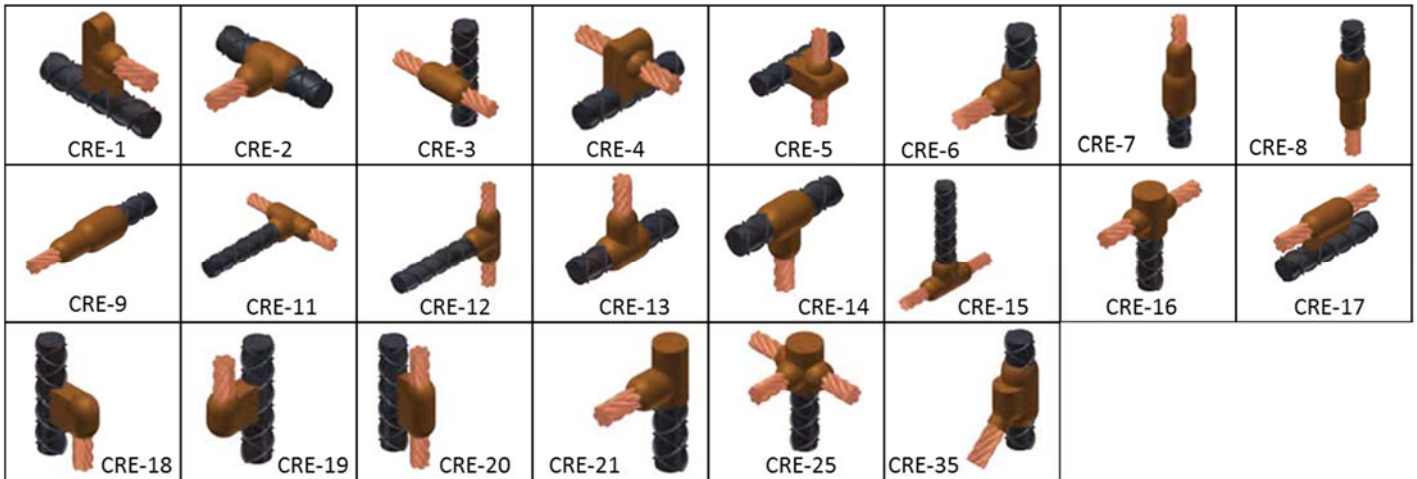


Bar to Bar Connections

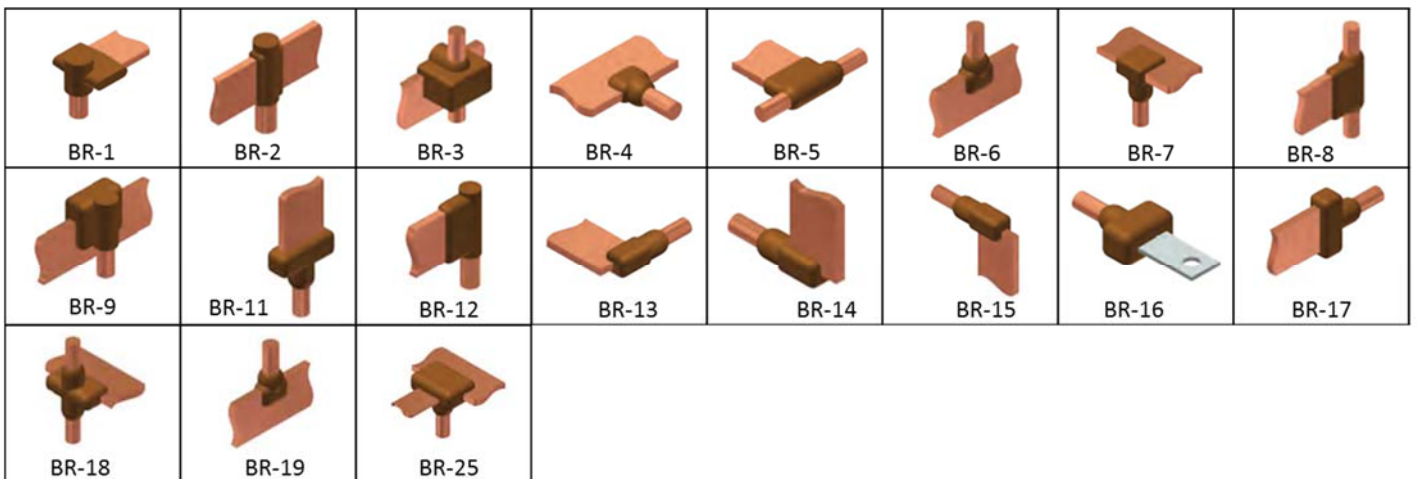


Additional Selector Chart

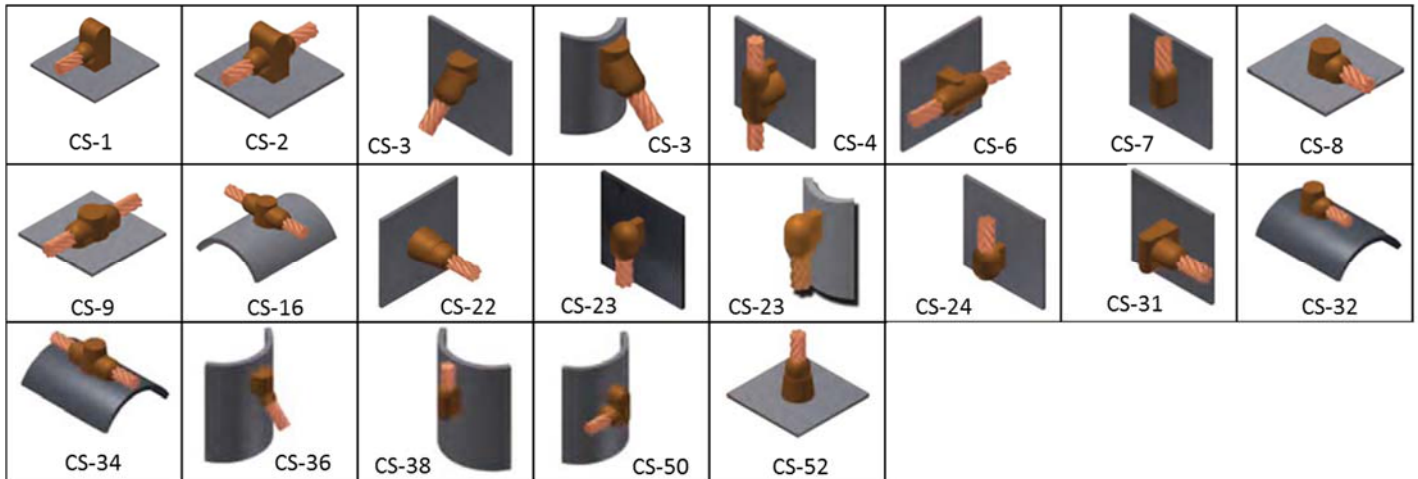
Cable to Rebar Connections



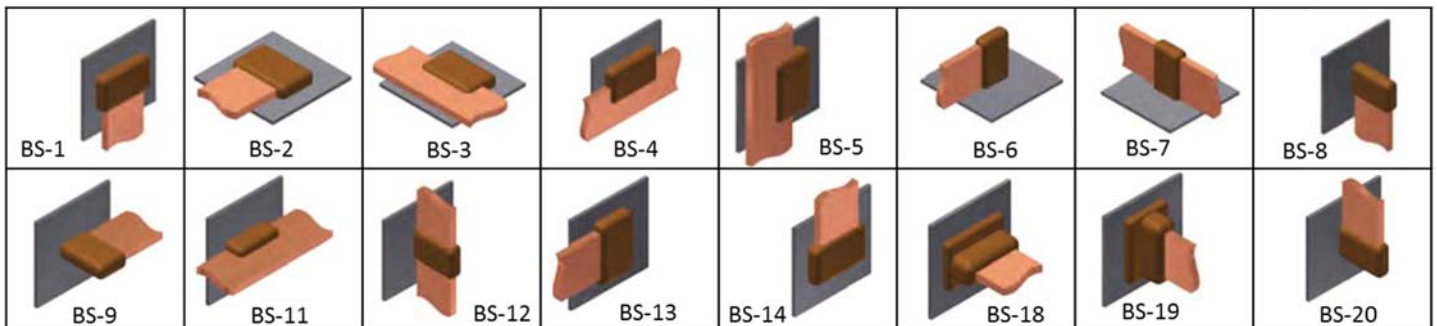
Bar to Ground Rod Connections



Additional Selector Chart Cable to Surface Connections



Bar to Surface Connections



NOTE:

The most common Kingsweld exothermic connections are listed in this product catalogue for your easy reference. However, it would not be feasible to place all the possible connections, configurations and sizes of conductor in this catalogue as the amount is simply too vast (and constantly growing.) With a database of approximately 15,000 moulds the chances are we would already of supplied a mould you require in the past. In the unlikely event that we haven't supplied the mould in the past then we will design and produce the required mould.

If you do not see the connection, configuration or size of conductor required by you mentioned in this product catalogue then please contact our sales office with the relevant information and we will advise you accordingly,

Weld Metal

Kingsweld weld metal, sometimes known as weld powder, is a high quality mixture of copper oxide and aluminium powder.

The weld metal is packed into plastic cartridges with the starting powder. The starting powder is packed tightly in the bottom of the cartridge with the weld metal on top.

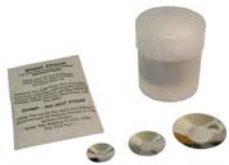
Every individual weld metal cartridge is marked with the size and weight in grams for easy identification, even when separated from the host box.

The weld metal is specially packaged in moisture-resistant plastic cartridges with special closure caps. Then the cartridges and required metal discs are packaged in moisture-resistant boxes with unique manufacturing lot codes. These lot codes provide complete traceability from raw material origination, through the multiple processing stages to shipment. Finally, a special shrink-wrap plastic is applied to every weld metal box, insuring reliable storage, positive field ignition and superior welds every time.

Note: Cathodic protection connections require a specific cathodic protection weld metal.

Weld Metal Size	Cathodic Protection Weld Metal Size	Weld Metals per Carton
KW-15	KW-15CP	20
KW-25	KW-25CP	20
KW-32	KW-32CP	10
KW-45	KW-45CP	20
KW-65	KW-65CP	20
KW-90	-	10
KW-115	-	10
KW-150	-	10
KW-200	-	10
KW-250	-	10
KW-500	-	10

Weld Metal is sold in carton quantities only



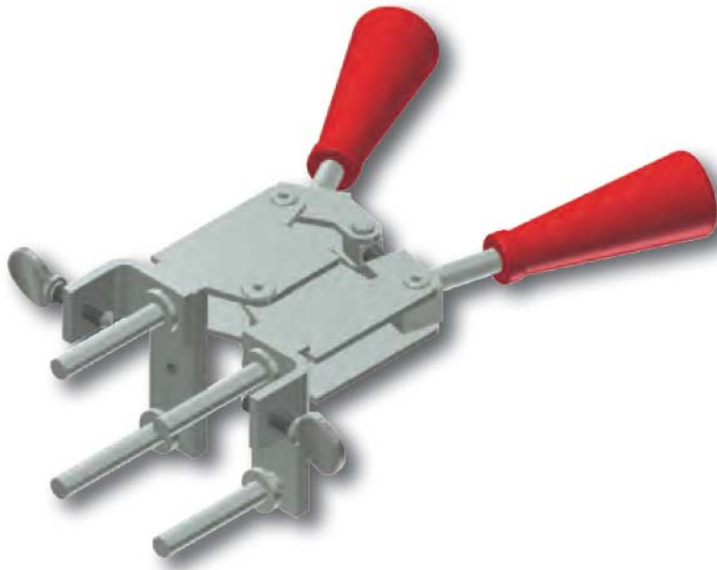
Weld Metal Discs

Weld Metal Discs are used to hold the weld metal in place until the reaction occurs. One disc per weld is required.

Discs are included with the weld metal.



Handle Clamps



KA-40010600 & KA-40010700 HANDLE CLAMPS

For most connections involving lugs, cable or rectangular bar, 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 handle clamps are Kingsweld numbers KA-40010600 and KA-40010700. These will fit 95% of all standard Kingsweld moulds.

1. Use KA-40010600 clamps for all moulds having a price key 4, 7, 17, 22 or 24. These moulds are a nominal 3 1/8" wide moulds.
2. Use KA-40010700 clamps for all moulds having a price key 5, 6, 8, 13 or 23. These moulds are a nominal 4" wide moulds.
3. All moulds having a price key 2, 3, 9, 10, 11, 12, 14, 15, 16 or 33 have an attached frame; separate handles are not required.

NOTE: A FLINT IGNITOR IS INCLUDED WITH EACH KA-40010600 & KA-40010700 HANDLE CLAMP

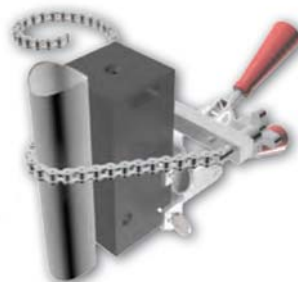
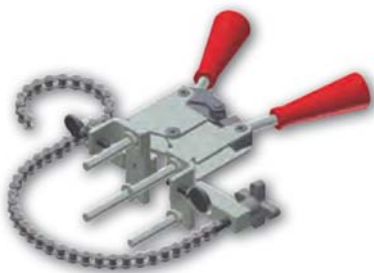
SPECIAL HANDLE CLAMPS

Horizontal & Vertical Chain Clamps

Special chain clamps are used to hold a mould in position on a horizontal or vertical pipe.

Vertical Magnetic Clamps

Special magnetic clamps are used to hold a mould in position on a vertical steel surface.



Tools & Accessories



KA-38030900 FLINT IGNITOR

The Flint Ignitor is used to ignite the starting powder.

KA-40010600 & KA-40010700 Handle Clamps are supplied c/w a Flint Ignitor included.

Each mould that is supplied complete with a frame has a Flint Ignitor included.

Replacement flints are available upon request (Code: KA-38030901)



KA-38030500 WIRE BRUSH

The Wire Brush is used to clean the conductor surfaces before making a connection.

Do not use the wire brush to clean the mould.



KA-38030600 CARD CLOTH BRUSH

The Card Cloth Brush is used to clean larger conductors and Bar surfaces before making a connection.

Do not use the card cloth brush to clean the mould.



KA-38013500 CABLE CLEANING BRUSH

The Cable Cleaning Brush is used to clean cable conductors before making a connection.

Do not use the cable cleaning brush to clean the mould.



KA-38392200 MOULD CLEANING BRUSH

The Mould Cleaning Brush is used to clean the graphite mould without causing any damage to the mould.



MOULD CLEANING SCRAPERS

The Mould Cleaning Scrapers are used to clean the slag from the moulds that are not split through the crucible.

KA-40031901—For moulds that use KA-15 through to KA-65 weld metal

KA-40031903—For moulds that use KA-90 through to KA-500 weld metal

Tools & Accessories

KA-38646201 TOOL KIT CABLE

The Tool Kit Cable consist of the following items:

- KA-38030900 FLINT IGNITOR**
- KA-38392200 MOULD CLEANING BRUSH**
- KA-40031903 MOULD CLEANING SCRAPER**
- KA-38013500 CABLE CLEANING BRUSH**



KA-38646200 TOOL KIT BAR

The Tool Kit Cable consist of the following items:

- KA-38030900 FLINT IGNITOR**
- KA-38392200 MOULD CLEANING BRUSH**
- KA-40031903 MOULD CLEANING SCRAPER**
- KA-38030600 CARD CLOTH BRUSH**



PACKING MATERIAL

Packing material is used to prevent the molten weld metal from leaking out of the mould. When cable opening becomes worn from heavy use, the packing material may be used to prolong mould use.

Packing material comes in 1 lb or 5 lb package

KA-38412900—1 lb package

KA-38412905—5 lb package



SHIM STOCK, ADAPTER SLEEVES & PACKING MATERIAL

Kingsweld moulds designed for larger cable sizes can be used on smaller diameter cables if copper adapter sleeves or shim stock are utilized. The copper shim stock, .0108" x 1-1/2" x 3", is normally wrapped around cable until the diameter is about equal to the cable 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 # **KA-38032900** Shim stock comes 100 pieces per box.

KA-38406100, KA-38406200 & KA-38406300 are ceramic fiber packing materials and can be used for one connection only.



Trouble Shooting Guide

Problem	Probable Cause	Correction To Make
Insufficient metal to make weld.	Worn mould resulting in leaking weld metal.	Replace mould or if only worn around conductor opening, use duct seal around conductor. Do not get duct seal into mould cavity.
	Wrong size cartridge for mould.	Check ID plate for mould and compare with number on bottom of cartridge.
	Too much spillage when dumping powder.	Carefully open lid while holding over crucible and dump.
	Wrong mould for conductor being used.	Replace with correct mould. In some applications, shim stock or adapter sleeves can be used to enlarge cable to fit mould.
Mould does not close tightly causing weld metal to leak out.	Handle clamps not properly adjusted.	Remove set screw between the handles of the mould and adjust handle tension by backing out the eye bolt.
	Dirt or slag stuck in parting line of mould.	Clean mould thoroughly between connections.
	Bent or out-of-round cable.	Straighten or cut out bad section of cable.
Handle clamps will not lock closed.	Handle clamps not properly adjusted.	Remove set screw between the handles of the mould and adjust handle tension by backing out the eye bolt.
Excessively high weld, bubbly or gassy appearance, poor weld.	Moisture in mould.	Pre-heat mould to above 220° F with a propane torch.
	Oil, grease, moisture or foreign material on conductors.	Pre-heat conductors with propane torch then use a clean wire brush on conductor to remove any residue left on conductors. If welding to cast iron or steel surface, weld area must be cleaned down to bright metal.
	Wrong size cartridge for mould.	Check ID plate for mould and compare with number on bottom of cartridge.
	Duct seal in weld cavity.	Take special precautions to keep duct seal out of weld cavity.
	Weld powder has gotten wet.	Replace with fresh, dry weld powder.
Weld metal blows out top of mould.	Mould worn or chipped around disc seal allowing powder to leak into mould cavity.	Replace mould.
	Forgot to use steel disc or did not seat it properly at bottom of crucible.	Make sure disc is seated at bottom of crucible before pouring the powder into crucible.

Trouble Shooting Guide

Problem	Probable Cause	Correction To Make
Cannot ignite powder.	Insufficient starting powder in ignition pocket on mould lid.	Place at least half of starting powder in ignition pocket of mould lid.
	Flint ignitor not shooting enough spark.	Clean flint ignitor according to directions on box or replace flint ignitor.
	Starting powder lumped together.	Break up starting powder on lid with edge of powder tube.
Mould wearing out too fast.	Improper cleaning of mould.	Use mould cleaner, soft natural bristle brush or clean rag to clean mould between shots. Do not use wire brush or screwdriver on moulds.
	Bent or out of round cable causes chipping and premature wear of the mould.	Use caution when closing mould. Do not force mould shut around bent, twisted or out of round conductors.
Poor weld to ground rod.	Weight of mould not supported during reaction causing mould to slip when cable melts.	Use locking pliers on ground rod under mould to support the weight of the mould during the reaction.
	Moisture or contaminant on cable or ground rod.	Pre-heat conductors with propane torch then use a clean wire brush on conductors to remove any residue left on conductors.
Weld will not stick to steel surface.	Improperly cleaned area on steel.	An area larger than the weld area should be cleaned down to bright clean metal.
	Moisture or contaminant on cable or steel surface.	Pre-heat conductors with propane torch then use a clean wire brush on conductors to remove any residue left on conductors.
	Cable is improperly positioned in mould, blocking the flow of weld metal.	Position cable in mould in accordance with directions for mould. If directions are not available, position top of cable in the center of where the liquid weld metal hits the steel.
Weld will not stick to cast iron surface.	All of the causes listed under welding to steel surface also apply to this section.	
	Not using CI (Cast Iron) powder.	Specify "CI" behind cartridge when order powder
Cable pulls out of mould when it is fired.	Cables are either twisted or under tension.	Use KA-38033000 cable clamp or other method to remove tension. Cut out severely twisted cable.

KNGSWELD
EXOTHERMIC WELDING

a brand name of

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