

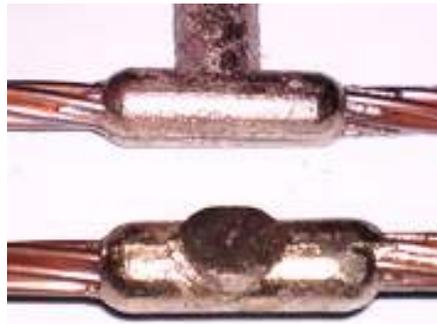
# LEEWELDs

## EXOTHERMIC WELDING CONNECTION



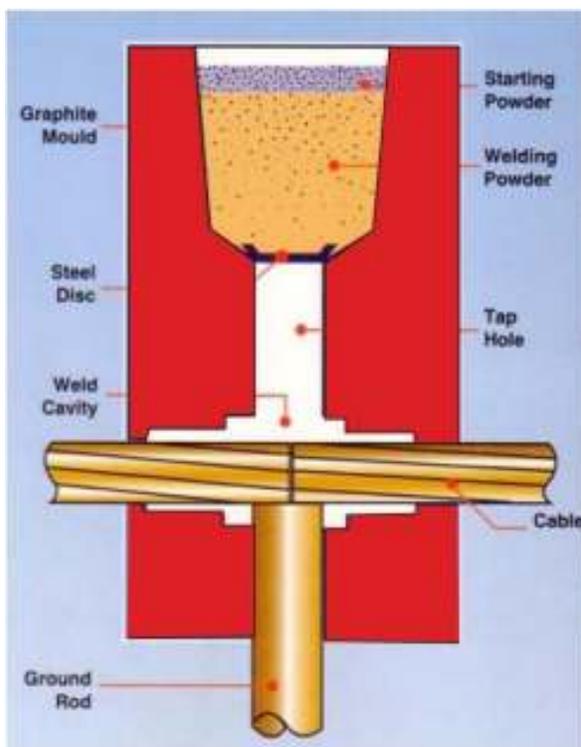
# LEEWELDS

Manufacturing of the Exothermic welding powder, Graphite Mould, One time Ceramic Mould, Ductseal and equipment for Electric, Utility, Telecom, Cathodic, and Rail Markets with the high quality and lowest price on the complete cycle of the Grounding & Lightning protection system, Industrial Buildings and Telecom, Lightning Protection, Grounding Products, Cathodic, Government as well as many other grounding needs.



## WELDING METHOD

LEEWELDS Exothermic Welding process is a molecular chemical reaction between copper oxide and aluminum, generates a tremendous superheat with molten metals reaching approximately temperatures of 4,000°F (2,600°C). The process can be completed itself automatically without external source of powder or heat.



**COMPLETE CONNECTION**

# WELD POWDER

The welding powder consists of copper oxide and aluminum which is measure into specific weight in grams for the connections should be made approximately 97 % of the contents of this cartridge is the weld metal, the remaining part is a starting powder which is tamped into the bottom of the each cartridge.



Code	Size	Tubes/Box
LW15	15g.	30
LW25	25g.	20
LW32	32g.	20
LW45	45g.	20
LW65	65g.	20
LW90	90g.	10
LW115	115g.	10
LW150	150g.	10
LW200	200g.	10
LW250	250g.	10

- ✓ **1. A** smooth metal connection that will not loosen or corrode.
- ✓ **2. IT** is not affected by high current surge or over current.
- ✓ **3. NO** needfor the external welding machine.
- ✓ **4. USE** only lightweight and cheap equipment.
- ✓ **5. Virtually** maintenance –free



## ONETIME CERAMIC

The LEEWELDS ONE TIME system is a cost effective solution when only a small number of joints are required. Unlike the graphite mould, the ONE TIME mould are single-use and are disposed of, or buried in place, with the joint once completed.

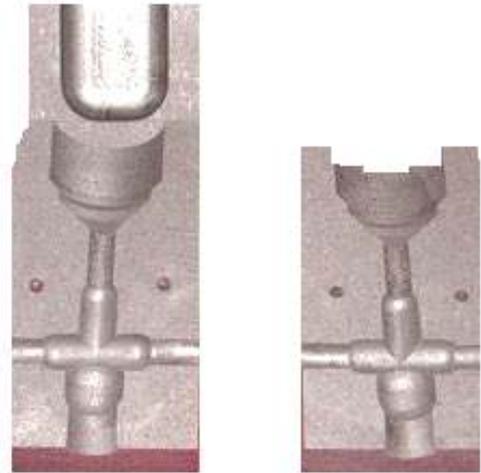


# LEEWELDS

## GRAPHITE MOULD

- A. LEEWELDS Mould is made from graphite which makes it fragile and would crack or break if not handled with care.
- B. Designed to withstand high temperatures produced from the exothermic welding.
- C. Requires pre-heating with a butane torch to ensure the mould is totally dry before every first joint regardless new or used mould. Otherwise, the mould may crack or break or a bad joint produced or cuts down the life span of the mould.
- D. Always ensure that the conductors fits snugly and sections of moulds are clamped tightly with the handle clamp to avoid leakage of weldmetal. Leakage will produced a bad joint and cuts down the life span of the mould.
- E. After every joint produced, always remove the slag with a recommended mould scrapper, then brush off the smaller particles with a proper mould cleaning brush.
- F. Caution : Do not use any other hard object and brush that would damage the mould.
- G. Always keep the mould away from water or damn areas while it is hot. Otherwise, the mould may crack or break.

- H. Do not over-heat the mould the throughout too many joints. Always either allow to rest or use a spare mould. Otherwise, the mould may crack or break or a bad joint produced or cuts down the life span of the mould



- **LONG LIFE**
- **FAST DELIVERY**
- **CAN BE DESIGN**
- **LOWEST COST**





LEEWELEDs  
EXOTHERMIC WELDING

# TOOLS AND ACCESSORIES

## HANDLE CLAMP

LEEWELEDs handle clamp make possible the use of many different size and type of graphite moulds.

- Clamp Type "HCC" for nominal size mould 3-1/8" x 3-1/8" square and distance between rod 2-5/16"
- Clamp Type "HCD" for nominal size mould 4" x 4" square and distance between rod 3"



- Clamp Type "HCX" for Chain support "X" used to hold a mould fit at its horizontal and vertical position on up to 4" pipe's diameter.



- Clamp Type "HCP" support are used to hold a mould in position on horizontal or vertical pipe



- Clamp Type "HCR" for Railway mould



LWT001

www.lee welded.com



LWT002

FLINT GUN



LWT003

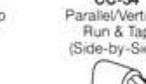
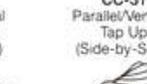
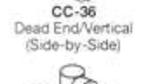
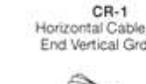
BRASS WIRE BRUSH



LWT004

V STEEL WIRE BRUSH

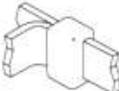
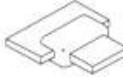
## MOULD CHART (A)

 <b>CC-1</b> Splice/Horizontal	 <b>CC-2</b> Tee/Horizontal	 <b>CC-4</b> Cross(X)/Horizontal Tap Cable Cut	 <b>CC-11</b> Cross(X) Horizontal (Uncut)	 <b>CC-6</b> Parallel Tap/Horizontal (Stacked)	 <b>CC-7</b> Parallel/Horizontal Run & Tap (Stacked)	 <b>CC-14</b> Parallel/Horizontal Run & Tap (Side-by-Side)
 <b>CC-13</b> Parallel Tap/Horizontal (Side-by-Side)	 <b>CC-5</b> Splice/Vertical	 <b>CC-22</b> Cross(X)/Vertical Tap Cable Cut	 <b>CC-3</b> Tee/Horizontal Tap Down	 <b>CC-18</b> Wye(Y)/Vertical Tap Down	 <b>CC-17</b> Wye(Y)/Vertical Tap Up	 <b>CC-8</b> Horizontal/Wye(Y) Specify Right or Left Hand
 <b>CC-19</b> Wye(Y)/Horizontal Tap Up	 <b>CC-20</b> Wye(Y)/Horizontal Tap Down	 <b>CC-23</b> Cross(X)/Vertical	 <b>CC-24</b> Tee Horizontal Tap	 <b>CC-25</b> Tee Vertical Tap Up	 <b>CC-34</b> Parallel/Vertical Run & Tap (Side-by-Side)	 <b>CC-31</b> Parallel/Vertical Tap Up (Side-by-Side)
 <b>CC-33</b> Parallel Vertical Tap Down (Side-by-Side)	 <b>CC-29</b> Dead End/Horizontal (Stacked)	 <b>CC-30</b> Dead End/Horizontal (Side-by-Side)	 <b>CC-35</b> Dead End/Vertical (Side-by-Side)	 <b>CC-28</b> Splice/Tap Up	 <b>CC-27</b> Splice/Tap Down	 <b>CC-26</b> Splice/Horizontal
 <b>CC-36</b> Dead End/Vertical (Side-by-Side)	 <b>CC-37</b> Splice/Horizontal Multiple Tap Cables	 <b>CC-38</b> Splice/Vertical (Side-by-Side)	 <b>CC-39</b> Splice/Vertical (Side-by-Side)	 <b>CR-1</b> Horizontal Cable Dead End Vertical Grd Rod	 <b>CR-2</b> Horizontal Cable Thru Vertical Grd Rod	 <b>CR-3</b> Horizontal Cable Thru Vertical Grd Rod
 <b>CR-17</b> Horizontal Parallel Cable Vertical Grd Rod Down	 <b>CR-24</b> Horizontal Parallel Cable Thru Vertical Grd Rod Down	 <b>CR-25</b> Horizontal Cable Vertical Grd Rod Down	 <b>CR-13</b> Horizontal Cable Horizontal Grd Rod	 <b>CR-8</b> Horizontal Cable Thru Horizontal Grd Rod	 <b>CR-15</b> Vertical Cable Down Horizontal Grd Rod Thru	 <b>CR-9</b> Horizontal Cable Thru Vertical Grd Rod Up
 <b>CR-6</b> Vertical Cable Down Vertical Grd Rod Up	 <b>CR-5</b> Vertical Cable Up Vertical Grd Rod Down	 <b>CR-7</b> Horizontal Cable Horizontal Grd Rod	 <b>CR-14</b> Vertical Cable Up Horizontal Grd Rod Thru	 <b>CR-12</b> Vertical Cable Thru Up Horizontal Grd Rod	 <b>CR-16</b> Horizontal Cable Vertical Grd Rod Thru	 <b>CR-20</b> Vertical Cable Down Vertical Grd Rod Thru
 <b>CR-18</b> Vertical Cable Up Vertical Grd Rod Thru	 <b>CR-19</b> Vertical Cable Thru Vertical Grd Rod Thru	 <b>CR-21</b> Horizontal Cable Horizontal Grd Rod Thru Stacked	 <b>CR-22</b> Horizontal Cable Thru Horizontal Grd Rod Thru Stacked	 <b>CR-23</b> Horizontal Cable Thru Horizontal Grd Rod Thru Side-by-Side	 <b>CR-26</b> Horizontal Cable Horizontal Grd Rod	 <b>CR-31</b> Horizontal Cable Horizontal Grd Plate w/Riser for Pipe
 <b>RR-1</b> Splice/Vertical	 <b>RR-2</b> Splice/Horizontal	 <b>RR-3</b> Vertical Thru Horizontal Tap	 <b>CR-30</b> Horizontal Cable Thru Horizontal Grd Plate	 <b>CR-27</b> Horizontal Cable Horizontal Grd Plate	 <b>CR-29</b> Horizontal Cable Inverted Grd Plate	 <b>CR-32</b> Horizontal Cable Thru Horizontal Grd Plate w/Riser for Pipe

## MOULD CHART (B)

						
<b>CS-1</b> Horizontal Cable Horizontal Steel Cable off Surface	<b>CS-5</b> Horizontal Cable Horizontal Cast Iron Cable on Surface	<b>CS-8</b> Horizontal Cable Horizontal Steel Cable on Surface	<b>CS-12</b> Vertical Cable Down 45° Steel Cable on Surface	<b>CS-13</b> Horizontal Cable Down 45° Steel Cable on Surface	<b>CS-9</b> Horizontal Cable Thru Horizontal Steel Cable on Surface	<b>CS-11</b> Horizontal Cable Thru Horizontal Cast Iron Cable on Surface
						
<b>CS-2</b> Horizontal Cable Thru Horizontal Steel Cable off Surface	<b>CS-14</b> Vertical Cable Thru 45° Steel Cable on Surface	<b>CS-15</b> Horizontal Cable Thru 45° Steel Cable on Surface	<b>CS-6</b> Horizontal Cable Thru Vertical Steel Cable off Surface	<b>CS-3</b> Vertical Cable 45° Down Vertical Steel Cable off Surface	<b>CS-4</b> Vertical Cable Thru Steel Surface Cable off Surface	<b>CS-7</b> Vertical Cable Up Vertical Steel Cable on Surface
						
<b>CS-18</b> Horizontal Cable Vertical Steel Cable on Surface/Specify Right or Left Hand	<b>CS-16</b> Horizontal Cable Thru Horizontal Steel Pipe	<b>CS-21</b> Horizontal Cable Vertical Cast Iron Cable on Surface/Specify Right or Left Hand	<b>CS-25</b> Vertical Cable Down Vertical Steel Cable on Surface	<b>CS-28</b> Vertical Cable 45° Down Vertical Cast Iron Cable off Surface	<b>CS-26</b> Vertical Cable Thru Vertical Steel Cable on Surface	<b>CS-24</b> Vertical Cable Up Vertical Steel Cable off Surface
						
<b>CS-29</b> Vertical Cable Down Vertical Cast Iron Cable on Surface	<b>CS-30</b> Vertical Cable Up Vertical Cast Iron Cable on Surface	<b>CS-42</b> Horizontal Cable Thru Horizontal Cast Iron Cable off Surface	<b>CS-45</b> Vertical Cable Vertical Cast Iron Cable off Surface	<b>CS-43</b> Horizontal Cable Thru Vertical Cast Iron Cable off Surface	<b>CS-27</b> Horizontal Cable Thru Vertical Steel Cable on Surface	<b>CS-23</b> Vertical Cable Down Vertical Steel Cable off Surface
						
<b>CS-31</b> Horizontal Cable Vertical Steel Cable off Surface/Specify Right or Left Hand	<b>CS-22</b> Horizontal Cable Vertical Steel	<b>CB-1</b> Horizontal Cable Horizontal Lug or Bus Bar	<b>CB-2</b> Vertical Cable Up Vertical Bus Bar Down over 5" clearance behind bar	<b>CB-5</b> Horizontal Cable Horizontal Bus Bar	<b>CB-6</b> Vertical Cable Up Vertical Bus Bar Down over 3/4"-5" clearance behind bar	<b>CB-9</b> Vertical Cable Down Vertical Bus Bar Up
						
<b>CB-4</b> Horizontal Cable Horizontal Bus Bar	<b>CB-3</b> Vertical Cable Down Horizontal Bus Bar on Edge over 5" clearance behind bar	<b>CB-7</b> Vertical Cable Down Horizontal Bus Bar on Edge over 3/4"-5" clearance behind bar	<b>CB-11</b> Vertical Cable Up Vertical Bus Bar Down	<b>CB-12</b> Multiple Horizontal Cables/Horizontal Bus Bar	<b>CB-8</b> Horizontal Cable Horizontal Bus Bar on Edge	<b>CB-15</b> Horizontal Cable Horizontal Bus Bar on Edge
						
<b>CB-16</b> Vertical Cable Up Horizontal Bus Bar on Edge	<b>CB-17</b> Vertical Cable Down Horizontal Bus Bar on Edge	<b>CB-18</b> Horizontal Cable Vertical Bus Bar Up	<b>CB-19</b> Horizontal Cable Vertical Bus Bar Down	<b>CB-20</b> Horizontal Cable Vertical Bus Bar Up	<b>CB-21</b> Horizontal Cable Vertical Bus Bar Down	<b>CB-22</b> Horizontal Cable Horizontal Bus Bar
						
<b>CB-23</b> Vertical Cable Up Horizontal Bus Bar	<b>CB-25</b> Horizontal Cable Vertical Bus Bar Down	<b>CB-26</b> Horizontal Cable Thru Horizontal Bus Bar on Edge	<b>CB-24</b> Vertical Cable Down Horizontal Bus Bar	<b>CB-27</b> Horizontal Cable Vertical Bus Bar Up	<b>CB-28</b> Vertical Cable Down Horizontal Bus Bar on Edge	<b>CB-29</b> Vertical Cable Thru Horizontal Bus Bar on Edge
						
<b>CB-30</b> Horizontal Cable Thru Vertical Bus Bar Up	<b>CB-31</b> Horizontal Cable Thru Vertical Bus Bar Down	<b>CB-32</b> Vertical Cable Thru Horizontal Bus Bar on Edge	<b>CB-34</b> Horizontal Cable Horizontal Copper Strip Thru			

## MOULD CHART ©

						
<b>BB-1</b> Horizontal Splice Bars on Edge	<b>BB-2</b> El/Tap Down	<b>BB-3</b> Vertical Tee/Tap Down Bars Lapped	<b>BB-4</b> Vertical Tee/Tap Up	<b>BB-5</b> Parallel/Bars on Edge	<b>BB-6</b> Horizontal Tee Bars on Edge	<b>BB-7</b> Horizontal Splice Bars Flat
						
<b>BB-8</b> Vertical Tee/Tap Down Bars Lapped /3/4'-5" Clearance Behind Bars	<b>BB-11</b> Vertical Tee/Tap Up 3/4'-5" Clearance Behind Bars	<b>BB-12</b> Vertical Tee/Tap Down	<b>BB-14</b> Horizontal Tee Bars Flat	<b>BB-17</b> Vertical Tee Tap Horizontal	<b>BB-20</b> Vertical El/Tap Up	<b>BB-21</b> Horizontal El Bars on Edge
						
<b>BB-22</b> Horizontal El Bars Flat	<b>BB-27</b> Vertical Splice	<b>BB-28</b> Horizontal Splice/Bars on Edge /3/4'-5" Clearance Behind Bars	<b>BB-29</b> Vertical Splice /3/4'-5" Clearance Behind Bars	<b>BB-40</b> Horizontal Cross Tap Cut/Bars Flat	<b>BB-41</b> Horizontal Cross Bars Uncut/Bars Flat	<b>BB-43</b> Vertical Cross Bars Uncut
						
<b>BB-44</b> Horizontal Button Weld For Copper Strip Only	<b>BB-45</b> Vertical Button Weld For Copper Strip Only	<b>BB-46</b> Horizontal Button Weld Cross/For Copper Strip Only	<b>BR-1</b> Horizontal Bars Dead End Bar Flat	<b>BR-2</b> Horizontal Bars Thru Bar on Edge	<b>BR-4</b> Horizontal Bars Thru Bar Flat	<b>BR-7</b> Horizontal Bars Thru Bar Flat
						
<b>BR-8</b> Horizontal Splice Bars on Edge	<b>BR-9</b> Horizontal Bar Thru Bar on Edge/Lapped	<b>BR-11</b> Vertical Splice/Bar Up	<b>BR-12</b> Horizontal Bar Dead End Bar on Edge	<b>BS-4</b> Horizontal Bar Thru/Bar on Edge/Vertical Steel	<b>BS-3</b> Horizontal Bar Thru Horizontal Steel	<b>BS-1</b> Vertical Bar Tap Down Vertical Steel
						
<b>BS-2</b> Horizontal Bar Tap Horizontal Steel	<b>BS-5</b> Vertical Bar Thru Vertical Steel	<b>BS-6</b> Horizontal Bar Tap/Bar on Edge/Horizontal Steel	<b>BS-7</b> Vertical Bar Thru/Bar on Edge/Horizontal Steel	<b>BS-8</b> Vertical Bar Tap/Bar on Edge/Vertical Steel	<b>BS-9</b> Horizontal Bar Tap/Bar on Edge/Vertical Steel	<b>BS-11</b> Horizontal Bar Thru/Bar on Edge/Vertical Steel
						
<b>BS-13</b> Horizontal Bar Tap/Bar on Edge/Vertical Steel	<b>RS-1</b> Horizontal Stud Vertical Steel	<b>RS-2</b> Vertical Stud Horizontal Steel	<b>CRS-1</b> Cable Down Horizontal Ground Plate Vertical Steel	<b>CRS-2</b> Cable Up Horizontal Ground Plate Vertical Steel	<b>RS-3</b> Horizontal Ground Plate Vertical Steel	<b>AC-1</b> Horizontal Cable Aircraft Receptacle
						
<b>AC-2</b> Horizontal Cable Thru Aircraft Receptacle	<b>AR-1</b> Aircraft Grounding Receptacle/Ground Rod	<b>ACR-1</b> Cable/Aircraft Grounding Receptacle/Ground Rod	<b>ACR-2</b> Cable Thru/Aircraft Grounding Receptacle Ground Rod	<b>CX-1</b> Horizontal Tap To Rail Fillet	<b>CX-2</b> Horizontal Thru To Rail Fillet	<b>CX-4</b> Horizontal Tap/Formed Cable End To Web of Rail
						
<b>CX-7</b> Horizontal Tap/Formed Cable End To Rail Foot	<b>CX-8</b> Horizontal Tap To Web of Rail	<b>CX-10</b> Horizontal Tap Thru To Web of Rail	<b>CX-11</b> Parallel/Horizontal Thru To Web of Rail	<b>BX-2</b> Horizontal Bar Tap To Rail Foot		

**MOULD CHART (D)**

					
<b>CRE-1</b> Parallel/Horizontal Cable Horizontal Rebar	<b>CRE-2</b> Tee/Horizontal Cable Horizontal Rebar	<b>CRE-3</b> Cross/Horizontal Cable Thru/Vertical Rebar	<b>CRE-4</b> Cross/Horizontal Cable Thru/Horizontal Rebar	<b>CRE-7</b> Splice/Vertical Cable Up/Vertical Rebar Down	<b>CRE-8</b> Splice/Vertical Cable Down/Vertical Rebar Up
					
<b>CRE-5</b> Cross/Vertical Cable Thru/Horizontal Rebar	<b>CRE-6</b> Tee/Horizontal Cable Vertical Rebar	<b>CRE-9</b> Splice/Horizontal Cable Horizontal Rebar	<b>CRE-11</b> Tee/Horizontal Cable Thru Horizontal Rebar	<b>CRE-12</b> Vertical Cable Thru Horizontal Rebar	<b>CRE-13</b> Tee/Vertical Cable Up/Horizontal Rebar
					
<b>CRE-15</b> Tee/Horizontal Cable Thru/Vertical Rebar Up	<b>CRE-14</b> Tee/Horizontal Cable Vertical Rebar	<b>CRE-16</b> Tee/Horizontal Cable Thru/Vertical Rebar Down	<b>CRE-17</b> Parallel/Horizontal Cable Horizontal Rebar	<b>CRE-18</b> Parallel/Vertical Cable Down/Vertical Rebar	<b>CRE-19</b> Parallel/Vertical Cable Up Vertical Rebar
					
<b>CRE-20</b> Parallel/Vertical Cable Thru/Vertical Rebar Thru	<b>RE-1</b> Splice/Horizontal	<b>RE-2</b> Splice/Vertical			