

EXOTHERMIC WELDING SYSTEMS
CADWELD®



ERICO TURKEY REPRESENTATIVE

WHAT IS EXOTHERMIC SOURCE?



Reactions that release heat during their occurrence are called exothermic reactions. The high heat generated as a result of this reaction permanently bonds the molten metal powders and conductors together.



It was developed in 1938 by Dr. Charles Cadwell in Ohio, USA.

Long-Lasting, Permanent Connection



Provides permanent mounting on at the molecular level, ensuring stability underground, under load, and in corrosive environments. No loosening occurs over time at the attachment point. Achieves a service life as long as the installation itself.

Long-Lasting, Permanent Connection



It creates a homogeneous current path and can carry as much current as the conductors it connects. The contact resistance is negligible.

IEEE 837 CURRENT TEST

The Only Method That Can Weld Different Metals Together



Easy and Fast

- Anyone can do it with simple training.
- No external power source required.
- Easy and quick to build.



QUALITY

Powder Quality

- The purity and homogeneity of the powders in the powder mixture are critical factors affecting weld quality.
- Using scrap or recycled powders instead of pure powders results in incomplete, spiked welds.
- Inadequately mixed powders prevent heat from forming homogeneously, causing the weld zone to fill unevenly and creating more thermal effects on a conductor.
- Low-quality powders easily become damp on site and fail to ignite.

Crucible Quality

If the appropriate type and quality of crucible raw material is not used:

- Molten metal cannot flow smoothly through the channels and cannot properly fill the welding chamber.
- The crucible cannot cool quickly and evenly.
- If not manufactured with precision, the crucible will be damaged by the molten metal and the resulting pressure.
- The crucible's life will be very short.

Why High Quality?

- Using low-quality casing material causes work delays.
- The molecular bonding required for mounting does not occur sufficiently; contact resistance increases.
- Corrosion occurs due to gaps between conductors.
- If quality control is not performed on the joints, defective joints cannot be detected.
- The pot deforms very quickly and leads to additional costs.
 - Labor costs increase,
 - Dust consumption increases,
 - Pot consumption increases.

CADWELD CLASSIC



- The powder sources are contained in tubes.
- Gunpowder is located at the bottom of the tubes.
- The powder mixture is of the highest purity.
- The powder mixture is homogeneous.

4 STEPS AFTER CRUCIBLE INSTALLATION



Empty the Dust



Empty the Gunpowder



Light your lighter



Open the crucible

CADWELD PLUS



Welding powders and gunpowder are contained in sealed capsules.

- The powder mixture is of the highest purity.
- The powder mixture is homogeneous.
- Since the capsule remains unopened, welding is performed with the correct amount.
- Production time is 30% shorter.
- Can be stored for a very long time. Does not absorb moisture.
- It is safe for use. Welding is performed from a distance of 1 meter.

4 STEPS AFTER SETTING UP THE CRUCIBLE



Place the Plus Powder in Place



Put the Plus Lighter On



Open the Crucible

AKSESUARLAR



Cadweld Classic



Crucible



Cadweld Plus



Classic Lighter



Electronic Cigarette Lighter



Putty







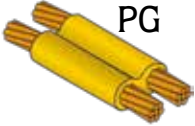
Scraper



Brush

QUALITY CONTROL


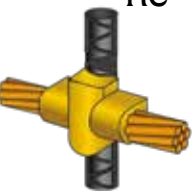
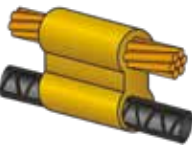


Supplement Shapes	Conductor Cross Section		Thermoweld Dimensions	Pliers Type	Code
	A (mm ²)	B (mm ²)			
 SS	50 (8mm round)	50 (8mm round)	45	L-160	SSC-W6
	70 (10mm round)	70 (10mm round)	65	L-160	SSC-W8
	25	25	32	L-160	SSC-Y1
	35	35	32	L-160	SSC-Y2
	50	50	45	L-160	SSC-Y3
	70	70	65	L-160	SSC-Y4
	95	95	90	L-160	SSC-Y5
	120	120	115	L-160	SSC-Y6
 TA	25	25	32	L-160	TAC-Y1
	35	35	45	L-160	TAC-Y2
	35	25	45	L-160	TAC-Y2-Y1
	50	50	90	L-160	TAC-Y3
	8mm round	8mm round	65	L-160	TAC-W6
	70	70	90	L-160	TAC-Y4
	70	35	45	L-160	TAC-Y4-Y2
	95	95	115	L-160	TAC-Y5
	95	120	150	L-160	TAC-Y5-Y6
	120	120	150	L-160	TAC-Y6
	120	70	90	L-160	TAC-Y6-Y4
	150	150	200	L-160	TAC-Y7
	185	185	200	L-160	TAC-Y8
 XA	25	25	45	L-160	XAC-Y1
	35	35	65	L-160	XAC-Y2
	50	50	90	L-160	XAC-Y3
	8mm round	8mm round	65	L-160	XAC-W6
	70	70	115	L-160	XAC-Y4
	95	95	150	L-160	XAC-Y5
	120	120	200	L-160	XAC-Y6
 XBD	50	50	115	L-160	XBC-Y3-Y3
	95	95	250	L-160	XBC-Y5-Y5
	120	120	2x150	L-160	XBQ-Y6-Y6
 PG	25	25	45	L-160	PGC-Y1
	35	35	65	L-160	PGC-Y2
	50	50	90	L-160	PGC-Y3
	8mm round	8mm round	90	L-160	PGC-W6
	70	70	115	L-160	PGC-Y4
	70	25	90	L-160	PGC-Y4-Y1
	95	95	150	L-160	PGC-Y5
	120	120	200	L-160	PGC-Y6

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Supplement Shapes	Conductor Cross Section		Thermoweld Dimensions	Pliers Type	Code
	A (mm ²)	B (mm ²)			
HA 	25	-	45	M-129	HAA-Y1
	35	-	45	M-129	HAA-Y2
	50	-	45	M-129	HAA-Y3
	70	-	65	M-129	HAA-Y4
VG 	25	-	45	L-160	VGC-Y1
	35	-	45	L-160	VGC-Y2
	50	-	115	L-160	VGC-Y3
	8mm round	-	65	L-160	VGC-W6
	70	-	115	L-160	VGC-Y4
	95	-	150	L-160	VGC-Y5
	120	-	150	L-160	VGC-Y6
VS 	50	-	90	L-160	VSC-Y3
	70	-	90	L-160	VSC-Y4
	95	-	115	L-160	VSC-Y5
	120	-	115	L-160	VSC-Y6
BM 	2x30	2x30	65	L-160	BMP-BAK
	3x30	3x30	65	L-160	BMP-CAK
	3x40	3x40	90	L-160	BMC-CAL
EB 	2x30mm	2x30mm	90	L-161	EB-BGP-BAK
	2x25mm	2x25mm	65	L-161	EBP-CAJ
	3,5x25mm	3,5x25mm	65	L-161	G-EBP-DAJ
CC 	2x30mm	-	90	L-161	CCP-BAK
GR 	20mm	50mm ²	90	L-160	GRC-P20-Y3
	20mm	70mm ²	90	L-160	GRC-P20-Y4
	20mm	95mm ²	90	L-160	GRC-P20-Y5
	20mm	120mm ²	90	L-160	GRC-P20-Y6
	18mm	50mm ²	90	L-160	GRC-P18-Y3
	18mm		90	L-160	GRC-P18-Y4
	18mm	95mm ²	90	L-160	GRC-P18-Y5
	18mm	120mm ²	90	L-160	GRC-P18-Y6

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Supplement Shapes	Conductor Cross Section		Thermoweld Dimensions	Pliers Type	Code
	A (mm ²)	B (mm ²)			
 GT	20mm	50mm ²	90	L-160	GTC-P20-Y3
	20mm		90	L-160	GTC-P20-Y4
	20mm	95mm ²	115	L-160	GTC-P20-Y5
	20mm	120mm ²	150	L-160	GTC-P20-Y6
	18mm	50mm ²	90	L-160	GTC-P18-Y3
	18mm		90	L-160	GTC-P18-Y4
	18mm	95mm ²	115	L-160	GTC-P18-Y5
	18mm	120mm ²	150	L-160	GTC-P18-Y6
 RC	20-40mm	25	45	L-161A	RCP-Y1
	20-40mm	35	45	L-161A	RCP-Y2
	20-40mm	50	65	L-161A	RCP-Y3
	20-40mm	70	90	L-161A	RCP-Y4
	20-40mm	95	90	L-161A	RCP-Y5
	20-40mm	120	90	L-161A	RCP-Y6
 RT	20-40mm	25	45	SMK21	RTP-Y1
	20-40mm	35	45	SMK21	RTP-Y2
	20-40mm	50	90	SMK21	RTP-Y3
	20-40mm	70	90	SMK21	RTP-Y4
	20-40mm	95	90	SMK21	RTP-Y5
	20-40mm	120	115	SMK21	RTP-Y6

MAIN MATERIAL

A=Aluminium, B=Copper, D=Iron-Steel,
F=Bronze, G=Gray Cast Iron,
N=Stainless, P=Plastic, S=Brass

COATINGS

1=Electrogalvanizing, 2=Hot Dip Galvanizing, 3=Electrodeposited Copper,
4=Electrodeposited Tin, 5=Electrodeposited Chromium-Nickel,
6=Black Insulation, 7=Yellow-Green Insulation

SCREW NUT

DC=Galvanizing,
NC=Stainless,
SC=Brass