



3679 S. Huron St., Suite 404
 Englewood, CO 80110
 Phone: (303) 789-4111 FAX: (303) 789-4310

SUBMITTAL TRANSMITTAL

03 November, 2011

WGCM Submittal No. 16060 - 001

PROJECT: HAROLD D. THOMPSON W.R.F.
 9001 Birdsall Road.
 Fountain, Colorado 80817

ENGINEER: G.M.S. Inc.
 611 North Weber St. # 300
 Colorado Springs, CO 80239
 719-475-2935 Roger Sams

OWNER: Lower Fountain Metropolitan Sewage Disposal District
 901 South Santa Fe Avenue
 Fountain, CO 80817

CONTRACTOR: McDade-Woodcock, Inc.
 7222 Commerce Center Dr. Suite 245
 Colorado Springs, CO 80919
 719-264-1236 Janelle L. Smith.

SUBJECT Electrical: Grounding & Bonding Submittal

- Ground Rods;
- Mechanical Connectors;
- Exothermic Connections;
- Grounding Cable;
- Grounding Bus.

SPEC SECTION: 16060 - Grounding and Bonding
PREVIOUS SUBMISSION DATES: none

DEVIATIONS FROM SPEC: ____ YES X NO

CONTRACTOR'S STAMP: This submittal has been reviewed by Weaver General Construction and approved with respect to the means, methods, techniques, & safety precautions & programs incidental thereto. Weaver General Construction also warrants that this submittal complies with contracted documents and comprises on deviations thereto.

Contractor's Stamp:

Date: 11-03-2011
 Reviewed by: _____
 Reviewed Without Comments
 Reviewed With Comments

Engineer's Stamp:

ENGINEER'S COMMENTS: _____



**HAROLD D. THOMPSON REGIONAL
RECLAMATION FACILITY
9001 Birdsell Road
Fountain, Colorado 80817**

Section # 16060 – Grounding and Bonding
Submittal 16060-001 - Electrical Grounding & Bonding.

Submitted by: McDade Woodcock, Inc.
Foundation, Plan@ Pumping & Disinfection

Contractors Review Comments: Deviations from the Specification / Drawings,
Engineer to verify:

1. Reference: Electrical Sheets – EPD-3 & EPD-4
 - Lightning protection system and accessories to be submitted in a separate submittal.
 - Generator Ground Rods installation and details to be submitted as “As Built”. Details.

2. End of Review

McDade-Woodcock, Inc.

TRANSMITTAL

No. 00004

7222 Commerce Center Dr. Suite 245
Colorado Springs, CO 80919

Phone: 719-264-1236
Fax: 719-264-1450

PROJECT: Harold D. Thompson WRF

DATE: 11/2/2011

TO: Weaver General Construction

REF: Electrical Submittal
16060-001
Grounding & Bonding

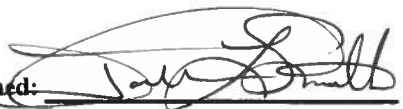
ATTN: Wes Weaver

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
<input checked="" type="checkbox"/> Shop Drawings	<input checked="" type="checkbox"/> Approval	<input type="checkbox"/> Approved as Submitted
<input type="checkbox"/> Letter	<input type="checkbox"/> Your Use	<input type="checkbox"/> Approved as Noted
<input type="checkbox"/> Prints	<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned After Loan
<input type="checkbox"/> Change Order	<input checked="" type="checkbox"/> Review and Comment	<input type="checkbox"/> Resubmit
<input type="checkbox"/> Plans		<input checked="" type="checkbox"/> Submit
<input type="checkbox"/> Samples	SENT VIA:	<input type="checkbox"/> Returned
<input type="checkbox"/> Specifications	<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Returned for Corrections
<input type="checkbox"/> Other:	<input type="checkbox"/> Separate Cover Via	<input checked="" type="checkbox"/> Due Date: 11/18/2011

ITEM	PACKAGE	SUBMITTAL	DRAWING	REV.	ITEM NO.	COPIES	DATE	DESCRIPTION	STATUS
					001	1	11/2/2011	Electrical Submittal 16060-001 Grounding & Bonding	OUT

Remarks: Electrical Submittal for Review and Approval
Via Email Only

CC:

Signed: 
Janelle L. Smith



McDADE-WOODCOCK, INC.

HAROLD D. THOMPSON RWRF
HEADWORKS BUILDING

McDADE-WOODCOCK INC.
PROJECT NUMBER - 1402

ELECTRICAL SUBMITTAL

GROUNDING & BONDING

16060-001

CORPORATE

2404 Claremont Ave. NE
Albuquerque, NM 87107

Mailing Address
P.O. Box 11592
Albuquerque, NM 87192

Ph 505-884-0155
Fax 505-884-6073

DENVER

10700 E. Geddes Avenue
Suite 170
Englewood CO 80112

Ph 303-803-1809
Fax 303-803-1818

COLORADO SPRINGS

7222 Commerce Center Drive
Suite 245
Colorado Springs, CO 80919

Mailing Address
P.O. Box 7349
Colorado Springs, CO 80933

Ph 719-264-1236
Fax 719-264-1450

Owner:

**Lower Fountain Metropolitan
Sewage District
901 S. Santa Fe Avenue
Fountain, CO 80817**

General Contractor:

**Weaver General Construction Co.
3679 S. Huron St. – Suite 404
Englewood, CO 80110**

Electrical Contractor:

**McDade-Woodcock, Inc.
7222 Commerce Center Dr.
#245
Colorado Springs, CO 80919**

Engineer:

**GMS Inc.
611 N. Weber St., Suite 300
Colorado Springs, CO 80903**



McDADE-WOODCOCK, INC.

HAROLD D. THOMPSON RWRF
HEADWORKS BUILDING

McDADE-WOODCOCK INC.
PROJECT NUMBER - 1402

ELECTRICAL SUBMITTAL

GROUNDING & BONDING

16060-001

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ERITECH® Copperbonded Ground Rods

In a grounding system, the ground electrode provides the physical connection to the earth and is the instrument used to dissipate current into it. There are two main types of electrodes.

“Natural” electrodes are intrinsic to the facility and include metal underground water pipe, the metal frame of the building (if effectively grounded), and reinforcing bar in concrete foundations.

“Made” electrodes are installed specifically to improve the performance of the grounding system and include wire meshes, metallic plates, buried copper conductor and rods or pipe driven into the ground.



The ground rod is the most widely used grounding electrode. ERICO® is the world's largest manufacturer of ground rods and offers a complete line of rods and accessories to meet the needs of every user.

Features

Copperbonded Ground Rods

- Resist corrosion better than galvanized rods allowing for a 30-year service life in most soils
- State of the art manufacturing process ensures uniform plating thickness
- Average tensile strength of 80,000 psi and straightness tolerance of .010" per linear foot
- Exceed the requirements of ANSI®/UL® 467-1984, CSA®, and ANSI/NEMA® GR-1

Pointed Copperbonded Ground Rods

- Manufactured of high strength 1035 cold drawn steel
- The ERICO preferred ground rod

Compression Couplers for Pointed Rods

- For use when coupling pointed rods

Sectional Copperbonded Ground Rods

- For use when it is necessary to deep-drive rods
- Cold-rolled threads - stronger than cut threads

Threaded Couplers for Sectional Rods

- For use when coupling sectional rods

Drive Studs for Sectional Rods

- Screws into threaded coupler while rod is being driven






Applications

ERICO has a complete line of ground rods and accessories to meet the needs of every user.

More Information

View product information by region: [North & Latin America](#) · [Europe](#) · [Asia & Australia](#)

Product Information - North & Latin America [Return to Top](#)

				
Pointed Ground Rod	Sectional Ground Rod	Compression Coupler for Pointed Rods	Threaded Coupler for Sectional Rods	Drive Stud for Sectional Rods

Pointed Copperbonded Ground Rods

Part No.	Plating Thickness (mil)	Diameter (in)	Length (ft)	Standard Package	Weight per 100
613852	5	3/8	5	5	160
613862	5	3/8	6	5	198
613880	10	3/8	8	5	270
611255	5	1/2	5	5	296
611265	5	1/2	6	5	310
611285	5	1/2	8	5	482
611380*	10	1/2	8	5	553
611205	5	1/2	10	5	557
611300*	10	1/2	10	5	738
615850	10	5/8	5	5	420
615860	10	5/8	6	5	509
615880*	10	5/8	8	5	680
615883*	13-REA	5/8	8	5	680
615800*	10	5/8	10	5	844
615803*	13-REA	5/8	10	5	844
615812*	10	5/8	12	5	1000
615815*	10	5/8	15	5	1275
613460	10	3/4	6	5	750
613480*	10	3/4	8	5	1000



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Representatives &

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Product Information Technical Not... Related Products

Copper Clad Steel Ground Rods

	Part No.	Size	Approx. Wt. Each (lbs.)	Standard Bundle	Approx. Wt. lbs./Bundle	UL Mark	With UPC Label
Add to BOM ◆	1208UPC	1/2" x 8'	6	5	30	Yes	Yes
Add to BOM ◆	1210	1/2" x 10'	7	5	35	Yes	No
Add to BOM ◆	588	5/8" x 8'	7	5	35	Yes	No
Add to BOM ◆	588RUS	5/8" x 8'	7	5	35	Yes	No
Add to BOM ◆	588UPC	5/8" x 8'	7	5	35	Yes	Yes
Add to BOM ◆	5810	5/8" x 10'	9	5	45	Yes	No
Add to BOM ◆	5810UPC	5/8" x 10'	9	5	45	Yes	Yes
Add to BOM ◆	348	3/4" x 8'	11	5	55	Yes	No
Add to BOM ◆	3410	3/4" x 10'	13	5	65	Yes	No
Add to BOM ◆	3412	3/4" x 12'	15	5	75	Yes	No
Add to BOM ◆	110	1" x 10'	23	3	69	Yes	No

◆ BOM = Bill of Materials





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Product Information Technical Not... Related Products

• NEC 2008 Article 250-53(G) (Summarized)

The electrode shall be installed so that 8' of length is in contact with the soil. It shall be driven to a depth of no less than 8' except where rock bottom is encountered. In the case of bedrock, the electrode shall be driven at an angle not to exceed 45 degrees from the vertical or shall be buried in a trench that is at least 2-1/2' deep.

• UL467 9.2.1 (Summarized)

A solid rod electrode of copper or other suitable non-ferrous metal, or a solid rod electrode of iron or steel with copper or other suitable non-ferrous metal or stainless steel jacket, shall have a diameter not less than 1/2" th

• UL 467 9.2.3 (Summarized)

The copper jacket mentioned in 9.2.1 shall not be less than .010" thick at any point.

• RUS (Rural Utilities Service) ground rods have a 13 mil copper plating thickness.

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ERITECH® Ground Rod Accessories - North & Latin America

ERICO provides a range of accessories to complement the ERITECH ground rod product line.

Features

Ground Rod Clamps

Used for attaching ground wire to rod

Compression Couplers for Copperbonded Rods

For use with pointed copperbonded ground rods

Compression Couplers for Galvanized Rods

For use with pointed galvanized ground rods

Threaded Couplers for Copperbonded Rods

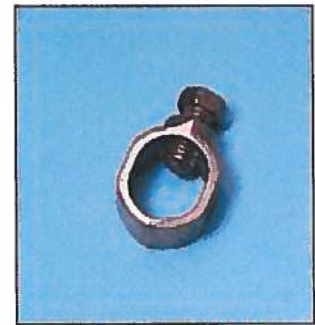
For use with sectional copperbonded ground rods

Threaded Couplers for Stainless Steel Rods

For use with sectional stainless steel ground rods

Drive Studs

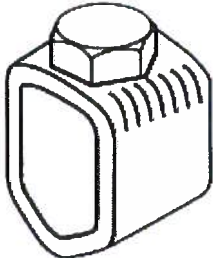



Used in conjunction with threaded couplers while driving sectional ground rods



Applications

A range of accessories to complement ERITECH ground rods.

More Information

			
Ground Rod Clamps	Compression Couplers	Threaded Couplers	Drive Studs

Ground Rod Clamps

Part No.	Description	Diameter (in)	Standard Package	Weight per 100
HDC12*	Heavy Duty, 10 Sol-2 Str	1/2	50	12
HDC58*	Heavy Duty, 8 Sol- 1/0 Str	5/8	50	13

HDC58R*	Heavy Duty, 8 Sol- 1/0 Str	5/8	50	18
HDC34*	Heavy Duty, 8 Sol- 1/0 Str	3/4	50	20
HDC34SP*	Heavy Duty, 8 Sol- 3/0 Str	3/4	50	32
HDC1*	Heavy Duty, 1 Sol- 4/0 Str	1	50	32
CP38*	Standard, 10 Sol- 4 Str	3/8	50	6
CP12*	Standard, 8 Sol- 2 Str	1/2	50	9
CP58*	Standard, 10 Sol- 2 Str	5/8	50	11
CP34*	Standard, 8 Sol- 1/0 Str	3/4	50	13
S58*	Galvanized, 14 Sol-1/0 Str	1/2- 5/8	50	16
S68*	Galvanized, 14 Sol-4/0 Str	5/8 - 3/4	50	20

*UL Listed

Compression Couplers for Copperbonded Rods

Part No.	Description	Diameter (in)	Standard Package	Weight per 100
CC12F*	Compression	1/2	25	17
CC58*	Compression	5/8	25	25
CC34*	Compression	3/4	25	40

* UL Listed

Compression Couplers for 5/8" Galvanized Rods

Part No.	Description	Diameter (in)	Standard Package	Weight per 100
GCC58	For Galv. Rods	5/8	25	31

Threaded Couplers for Copperbonded Rods

Part No.	Description	Diameter (in)	Standard Package	Weight per 100
CR12	Threaded	1/2	25	16
CR12S*	Threaded	1/2	25	17
CR58*	Threaded	5/8	25	25
CR34*	Threaded	3/4	25	40
CR100*	Threaded	1	25	85

* UL Listed

Threaded Couplers for Stainless Steel Rods

Part No.	Description	Diameter (in)	Standard Package	Weight per 100
CR58SS	Threaded	5/8	25	25
CR34SS	Threaded	3/4	25	40

Drive Studs

Part No.	Description	Diameter (in)	Standard Package	Weight per 100
DS12	Nominal	1/2	25	15
DS12S	Full Size	FS 1/2	25	15
DS58	Nominal	5/8	25	21
DS34	Nominal	3/4	25	32
DS1	Nominal	1	25	64

WARNING

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WARRANTY

ERICO products are warranted to be free from defects in material and workmanship at the time of shipment. NO OTHER WARRANTY, WHETHER EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), SHALL EXIST IN CONNECTION WITH THE SALE OR USE OF ANY ERICO PRODUCTS. Claims for errors, shortages, defects or nonconformities ascertainable upon inspection must be made in writing within 5 days after Buyer's receipt of products. All other claims must be made in writing to ERICO within 6 months from the date of shipment or transport. Products claimed to be nonconforming or defective must, upon ERICO's prior written approval in accordance with its standard terms and procedures governing returns, promptly be returned to ERICO for inspection. Claims not made as provided above and within the applicable time period will be barred. ERICO shall in no event be responsible if the products have not been stored or used in accordance with its specifications and recommended procedures. ERICO will, at its option, either repair or replace nonconforming or defective products for which it is responsible or return the purchase price to the Buyer. THE FOREGOING STATES BUYER'S EXCLUSIVE REMEDY FOR ANY BREACH OF ERICO WARRANTY AND FOR ANY CLAIM, WHETHER SOUNDING IN CONTRACT, TORT OR NEGLIGENCE, FOR LOSS OR INJURY CAUSED BY THE SALE OR USE OF ANY PRODUCT.

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ERICO excludes all liability except such liability that is directly attributable to the willful or gross negligence of ERICO's employees. Should ERICO be held liable its liability shall in no event exceed the total purchase price under the contract. ERICO SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS OF BUSINESS OR PROFITS, DOWNTIME OR DELAY, LABOR, REPAIR OR MATERIAL COSTS OR ANY SIMILAR OR DISSIMILAR CONSEQUENTIAL LOSS OR DAMAGE INCURRED BY BUYER.

Due to a policy of continued product development, specifications are subject to change without notice.

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BGRC GRD ROD CLAMP CAST

- Manufactured from cast bronze.
- Supplied with stainless steel hardware.
- UL 467 Listed and CSA Certified.
- Insures maximum strength and durability.
- Suitable for direct burial in earth or concrete.
- For Copper Conductor only.
- UL File E34440



0

Item ID	Ground Rod Size	Ground Conductor Range	Rebar Size	Conductor Range with Rebar	Length	Width	Standard Package Quantity	NAED/UPC Number
BGRC-48	1/2	2-10 AWG			0.8750	0.7500	50	78366900994
BGRC-58	5/8	1/0-8 AWG	#5 = 5/8"	1/0-8 AWG	0.9375	0.8750	25	78366900996
BGRC-68	3/4	1/0-8 AWG			1.0000	1.0000	10	78366900998

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DWG. NO.
R0728
SHEET 1 OF 1

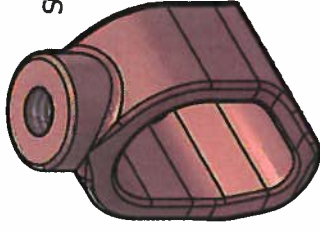
TOLERANCES UNLESS OTHERWISE SPECIFIED
2 PL. DEC. ±.030 TRUE CL. ±.015
3 PL. DEC. ±.030 ANGLES ±1
DRAWN BY: CLH SCALE: 2:1
DATE: 6/20/2008 SIZE: A

MATERIAL: BRONZE 415C-AL
PLATING: NONE
MARKING: SEE DWG

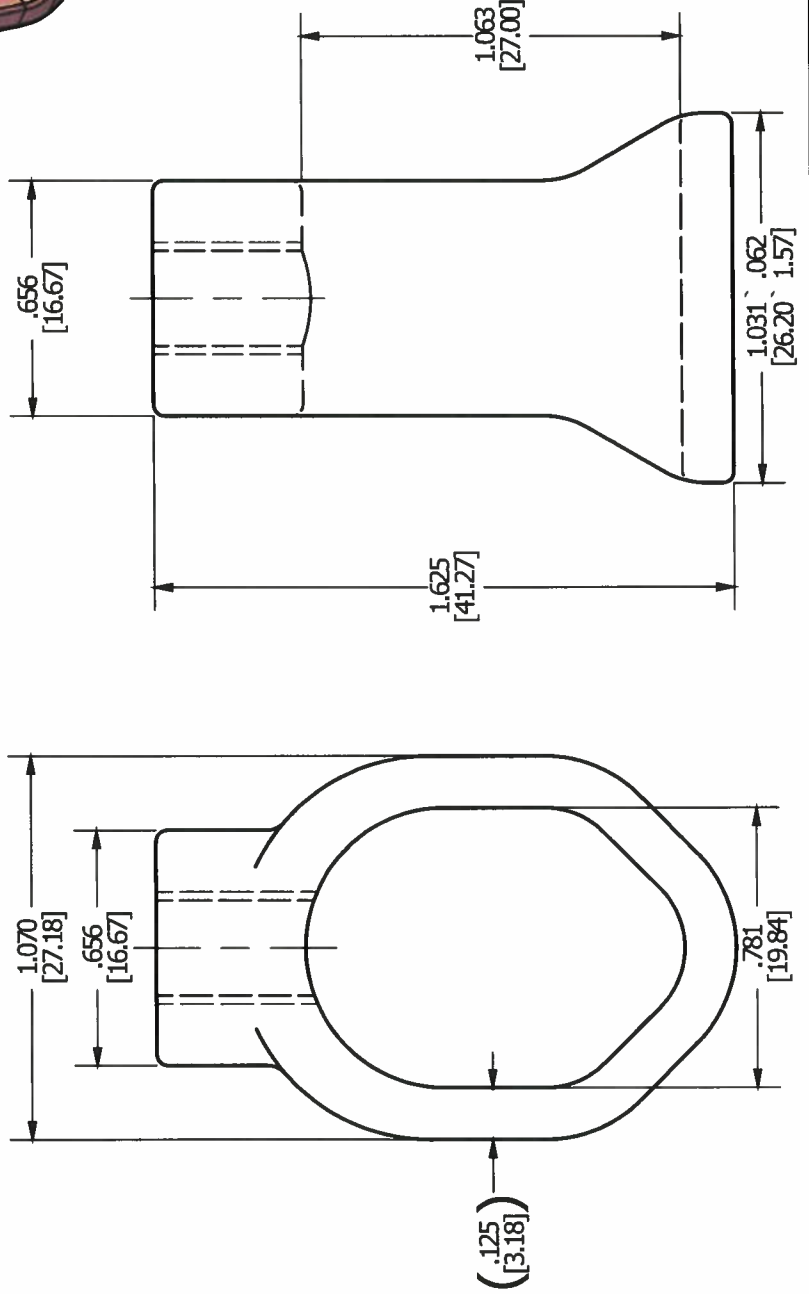
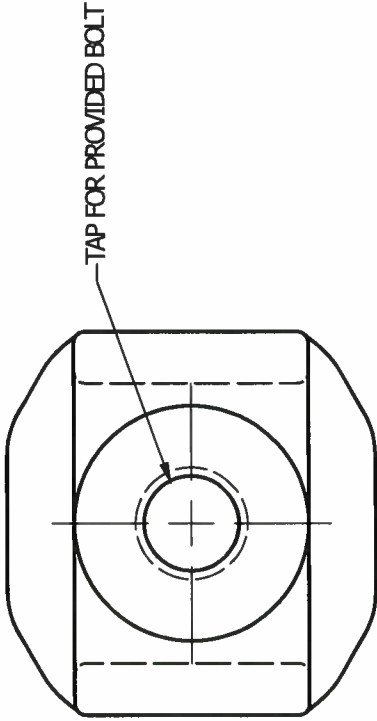
REV. DESCRIPTION

SCREW:
CAT. NO.: BGRC-68
MASS.: 1.421 LBS.
SURFACE AREA: 2
STUFFER SHIT: CELL:

Cat #: BGRC-68



SCALE 1:1



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- UL 467 Listed and CSA Certified.
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- Suitable for direct burial in earth or concrete.
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Item ID	Ground Rod Size	Ground Conductor Range	Rebar Size	Conductor Range with Rebar	Length	Width	Standard Package Quantity	NAED/UPC Number
BGRC-48	1/2	2-10 AWG			0.8750	0.7500	50	78366900994
BGRC-58	5/8	1/0-8 AWG	#5 = 5/8"	1/0-8 AWG	0.9375	0.8750	25	78366900996
BGRC-68	3/4	1/0-8 AWG			1.0000	1.0000	10	78366900998

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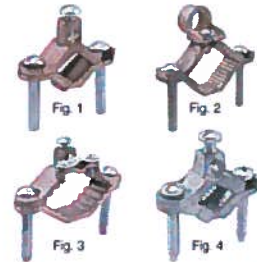
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BGC GRD ROD CLAMP CAST

- UL Listed and CSA Certified.
- Supplied
- Type BGC-1DB, BGC-2DB supplied with bronze hardware.
- DB Type Suitable for direct burial in earth or concrete.
- DB type tested to UL467.
- Type DCGC is manufactured from die cast zinc alloy.
- DCGC-1 is supplied with zinc plated steel hardware.
- Type BGC-A can be used for bare or armored cable.
- BGC-1, BGC-2, BGC-1-DB, BGC-2-DB and BGC-1A are CSA Listed.
- For Copper Conductor only.
- UL File E158587



1

Item ID	Figure Number	Pipe Size	Ground Conductor Range	Conduit Hub Size	Standard Package Quantity	NAED/UPC Number
BGC-1	1	1/2, 3/4, 1	2-10 AWG		25	78366900986
BGC-2	1	1-1/4, 1-1/2, 2	2-10 AWG		10	78366900988
BGC-1DB	1	1/2, 3/4, 1	2-10 AWG		25	78366900990
BGC-2DB	1	1-1/4, 1-1/2, 2	2-10 AWG		10	78366900991
BGC1-50	2	1/2, 1	4 AWG - 8 SOL.	1/2	25	78366901006
BGC1-75	2	1/2, 1	4 AWG - 8 SOL.	3/4	25	78366901008
BGC1-10	2	1/2, 1	4 AWG - 8 SOL.	1	25	78366901010
BGC2-50	2	1-1/4, 2	4 AWG - 8 SOL.	1/2	10	78366901012
BGC2-75	2	1, 1/4, 2	4 AWG - 8 SOL.	3/4	10	78366901014
BGC2-10	2	1, 1/4, 2	4 AWG - 8 SOL.	1	10	78366901016
BGC-1A	3	1/2, 1	4 AWG - 8 SOL.		25	78366901002
BGC-2A	3	1-1/4, 2	4 AWG - 8 SOL.		10	78366901004
DCGC-1	4	1/2, 3/4, 1	2-8 AWG		100	78366916200

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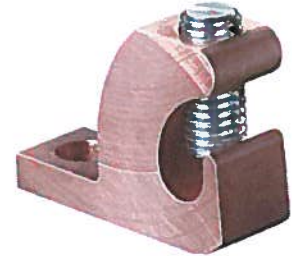
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CGBL LAY-IN DIRECT BURIAL

- Manufactured from high strength copper alloy with stainless steel screw.
- UL listed and CSA certified for direct burial in earth or concrete.
- Tested to UL 467.
- Lay-in feature for ease in installation.
- For copper conductor only.
- Rated for grounding and bonding.
- Add a T to the end of the catalog number for Tin Plated version as shown below.
- Stainless mounting hardware kits available
- GBL-MH1 contains 1 each 10-32 x 3/4 bolt, nut, star washer, lock washer, flat washer
- GBL-MH2 contains 1 each #10 x 3/4 self tapping screw, star washer, lock washer, flat washer
- GBL-MH3 contains 1 each 1/4-28 x 3/4 bolt, nut, star washer, lock washer, flat washer
- GBL-MH4 contains 1 each 1/4 x 3/4 self tapping screw, star washer, lock washer, flat washer
- UL File E34440.



2

Item ID	Ground Conductor Range	Length	Width	Height	Bolt/Stud Size	Hex Size	Plating	Standard Package Quantity	NAED/UPC Number
GBL-4DB	4-14 AWG	1.1500	0.3750	0.8250	10	S	Clear	50	78366996017
GBL-4DBT	4-14 AWG	1.1500	0.3750	0.8250	10	S	Tin	50	78366996018
GBL-4DB-14	4-14 AWG	1.1500	0.4720	0.8250	1/4	S	Clear	50	78366996019
GBL-4DBT-14	4-14 AWG	1.1500	0.4720	0.8250	1/4	S	Tin	50	78366996020

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GBL LAY-IN AL/CU

- Manufactured from high strength 6061-T6 aluminum alloy.
- Electro-tin plated.
- GBL-4 & GBL-4SS are UL 467 Listed for grounding and bonding.
- GBL-1/0 & GBL-250 are UL 467 Recognized for grounding and bonding.
- GBL-4SS is supplied with stainless steel screw.
- Lay-in feature.
- Suitable for use with either copper or aluminum.
- Provides low contact resistance.
- See IlSCO GBL-4DB for lay-in copper lug suitable for direct burial.
- UL File E34440/E6207



[10](#)

Item ID	Figure Number	Ground Conductor Range	Bolt/Stud Size	Hex Size	Standard Package Quantity	NAED/UPC Number
GBL-4	1	4-14 AWG	10	S	100	78366996005
GBL-4SS	1	4-14 AWG	1/4	S	500	78366996007
GBL-1/0	1	1/0-14 AWG	1/4	S	50	78366996010
GBL-250	2	250 kcmil-6 AWG	1/4	7/32	25	78366996015

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MECHANICAL GROUNDING CONNECTORS

More than 60 years of technological innovation has made BURNDY® mechanical grounding connectors one of the most widely used, highly respected lines in the industry. There is virtually no grounding application problem that this diversified line cannot help solve.

All BURNDY® mechanical grounding connectors have been designed for easy installation and for outstanding durability. Only the finest high copper alloys are used in their manufacture, ensuring top performance under the most extreme environmental conditions.

UL467 Listed for direct burial applications in earth or concrete.

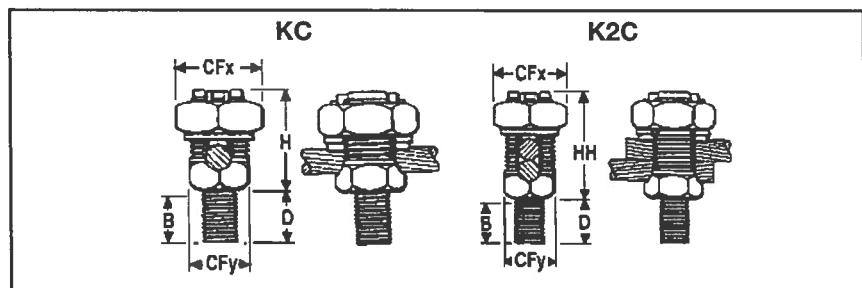
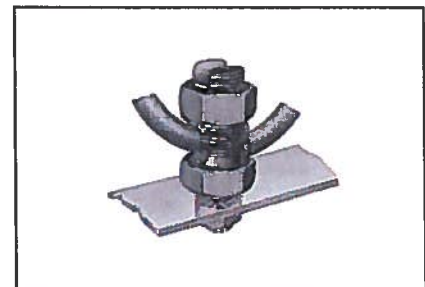
E-25

TYPES KC, K2C

SERVIT POST™

For Copper Cable to Flat

SERVIT POST™ used to ground one or two cables to steel structures, fence posts, transformers. Also used to tap one or two cables from bus bar. One-wrench installation.



Catalog Number		Conductor		Stud Diameter	B	CFx	CFy	D	H	HH
Type KC †	Type K2C ‡	Stranded	Solid							
KC15	K2C15	12 - 9	12 - 8	1/4 - 20	3/8	1/2	3/8	1/2	5/8	7/8
KC15B1	K2C15B1				7/8			1		
KC17	K2C17	10 - 7	10 - 6	1/4 - 20	3/8	5/8	7/16	1/2	7/8	1
KC17B1	K2C17B1				7/8			1		
KC20	K2C20	10 - 5	10 - 4	5/16 - 18	13/32	11/16	1/2	5/8	7/8	1-1/8
KC20B1	K2C20B1				27/32			1		
KC22	K2C22	10 - 3	10 - 2	3/8 - 16	15/32	3/4	5/8	5/8	1	1-1/4
KC22B1	K2C22B1				31/32			1-1/8		
KC23	K2C23	8 - 2	10 - 1	3/8 - 16	15/32	13/16	5/8	5/8	1	1-3/8
KC23B1	K2C23B1				31/32			1-1/8		
KC25	K2C25	2 - 1/0	2 - 2/0	1/2 - 13	9/16	15/16	3/4	3/4	1-1/8	1-5/8
KC25B1	K2C25B1				1-1/16			1-1/4		
KC26	K2C26	2 - 2/0	2 - 3/0	1/2 - 13	17/32	1	7/8	3/4	1-3/8	1-7/8
KC26B1	K2C26B1				1-1/16			1-1/4		
KC28	K2C28	1 - 4/0	1 - 4/0	5/8 - 11	3/4	1-1/2	1-3/16	1	1-3/4	2-1/4
KC28B1	K2C28B1				1-1/4			1-1/2		
KC31	K2C31	1 - 350	—	5/8 - 11	3/4	1-11/16	1-3/8	1	2-1/4	2-7/8
KC31B1	K2C31B1				1-1/4			1-1/2		
KC34	K2C34	3/0 - 500	—	3/4 - 10	1	2	1-5/8	1-1/4	2-3/8	3-1/4
KC34B1	K2C34B1				1-1/2			1-3/4		

† For 1 conductor.
 ‡ For 1 or 2 conductors.
 Add "NSP" suffix to have connector supplied w/split lock-washer and nut.

Blue highlighted items are industry standard and most frequently ordered.

Grounding

Mechanical

BURNDY®

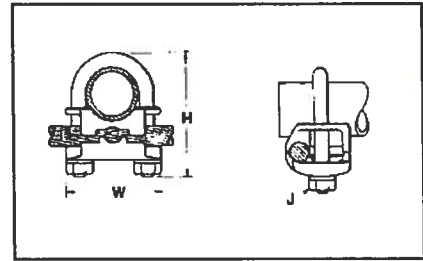
New!
Rebar to Wire
UL Listed and
CSA Certified
for Direct Burial

TYPE GAR

- Wire to Rebar
- Fence Post Grounding Connector
- Wire to Pipe



Wire to Rebar

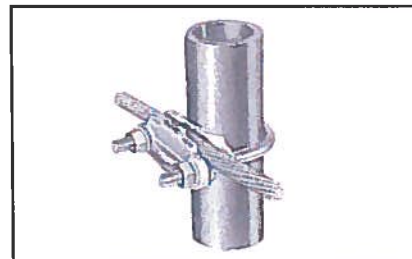


E-28

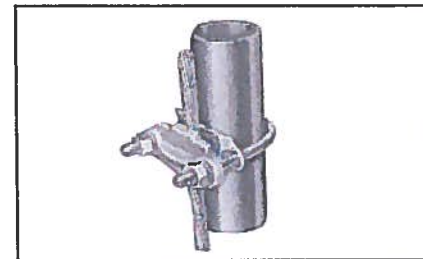
For Parallel or 90°
Copper Cable Connection
to Rod or Pipe with
the Same Connector

High copper alloy ground connector for joining a range of cable, parallel or at right angles to rod or tube. Especially good for fence posts. High copper alloy cast body with DURJUM™ U-bolts, nuts and lockwashers, permit entire connection to be buried in ground or concrete without danger of corrosion.

- One-wrench installation.
- UL467 Listed.
- Acceptable for direct burial.



Wire at Right Angle to Pipe



Wire Parallel to Pipe



Catalog Number	Conductor			Cable	H	J	W
	Tube I.P.S.	Rod Size or O.D. Range	Rebar Size				
GAR114C	1/4	1/2	—	8 Sol. - 4 Str.	2-1/2	3/8	1-7/8
GAR1126				4 Sol. - 2/0 Str.			
GAR1129				2/0 Sol. - 250			
GAR644C	3/8	5/8 - 3/4	#5 (5/8") - #6 (3/4")	8 Sol. - 4 Str.	2-7/8	3/8	2-1/8
GAR6426				4 Sol. - 2/0 Str.			
GAR6429				2/0 Sol. - 250			
GAR6434				300 - 500	3-1/2	1/2	2-1/2
GAR144C	1/2 - 3/4	7/8 - 1	#7 (7/8") - #8 (1")	8 Sol. - 4 Str.	2-3/4	3/8	2-3/8
GAR1426				4 Sol. - 2/0 Str.			
GAR1429				2/0 Sol. - 250			
GAR1434				300 - 500	3-3/4	1/2	2-3/4
GAR154C	1	1-1/8 - 1-1/4	#9 (1-1/8") - #10 (1-1/4")	8 Sol. - 4 Str.	2-7/8	3/8	2-5/8
GAR1526				4 Sol. - 2/0 Str.			
GAR1529				2/0 Sol. - 250			
GAR1534				300 - 500	4-1/2	1/2	
GAR164C	1-1/4	1-3/8 - 1-1/2	#11 (1-3/8")	8 Sol. - 4 Str.	3-1/2	3/8	3
GAR1626				4 Sol. - 2/0 Str.			
GAR1629				2/0 Sol. - 250			
GAR1634				300 - 500	4-1/4	1/2	3-3/8
GAR174C	1-1/2	1-5/8 - 1-7/8	—	8 Sol. - 4 Str.	4	3/8	3-1/4
GAR1726				4 Sol. - 2/0 Str.			
GAR1729				2/0 Sol. - 250			
GAR1734				300 - 500	4-5/8	1/2	2-5/8
GAR184C	2	2 - 2-3/8	—	8 Sol. - 4 Str.	4-1/4	3/8	3-3/4
GAR1826				4 Sol. - 2/0 Str.			
GAR1829				2/0 Sol. - 250			
GAR1834				300 - 500	5-1/4	1/2	4-1/8
GAR194C	2-1/2	2-1/2 - 2-7/8	—	8 Sol. - 4 Str.	5	3/8	4-1/4
GAR1926				4 Sol. - 2/0 Str.			
GAR1929				2/0 Sol. - 250			
GAR1934				300 - 500	5-5/8	1/2	4-5/8

Blue highlighted items are industry standard and most frequently ordered.

TYPE GAR

(Continued)

FENCE POST GROUNDING CONNECTOR

Catalog Number	Conductor			H	J	W
	Tube I.P.S.	Rod Size or O.D. Range	Cable			
GAR204C	3	3 - 3-1/2	8 Sol. - 4 Str.	5-5/8	3/8	4-3/4
GAR2026			4 Sol. - 2/0 Str.			
GAR2029			2/0 Sol. - 250			
GAR2034			300 - 500			
GAR214C	3-1/2	3-1/2 - 4	8 Sol. - 4 Str.	6-1/4	3/8	5-3/8
GAR2126			4 Sol. - 2/0 Str.			
GAR2129			2/0 Sol. - 250			
GAR2134			300 - 500			
GAR224C	4	4 - 4-1/2	8 Sol. - 4 Str.	6-3/8	3/8	5-7/8
GAR2226			4 Sol. - 2/0 Str.			
GAR2229			2/0 Sol. - 250			
GAR2234			300 - 500			
GAR244C	5	—	8 Sol. - 4 Str.	7-3/4	3/8	6-7/8
GAR2426			4 Sol. - 2/0 Str.			
GAR2429			2/0 Sol. - 250			
GAR2434			300 - 500			
GAR8629	6	—	2/0 Sol. - 250	8-5/8	1/2	7-1/4
				8-13/16	1/2	8-3/8

E-29

Contact BURNDY® for additional pipe and wire size combinations not shown.

Blue highlighted items are industry standard and most frequently ordered.

CAST BRONZE GROUND CLAMPS

With Lay-in Feature

E-36

For connecting grounding conductor to water pipe, copper tube, ground rod or rebar. The open face design allows for fast lay-in of the tap conductor without the need for cutting. Simply reverse bottom clamp for smaller size rebar or rod. Connectors are provided with Silicon Bronze hardware.



Fig. 1



Fig. 2



Catalog Number	Fig. #	Accommodates Conductor Range				Reference Dimensions			Recommended Screw Torque (Inch Pounds)
		Main		Tap		H	L	W	
		Water Pipe	Rebar	Ground Rod	Ground				
C11K16D	Fig. 1	1/2" - 1"	#4 - #6	3/8" - 1"	#10 - #2 Str.	1.64"	2.28"	0.66"	50 in.-lbs.
C11K17D	Fig. 2	[13 - 25]							

DIE CAST CLAMPS

Die cast zinc with zinc plated screws.

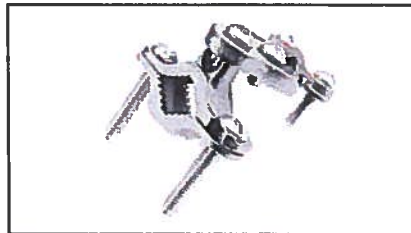


Catalog Number	Accommodates Conductor Range		Reference Dimensions				Recommended Screw Torque (Inch Pounds)	
	Water Pipe	Ground	H	L	W	C	Pipe Clamp	Wire Clamp
							50 in.-lb.	50 in.-lb.
CZ-11	1/2" - 1" [13 - 25]	10 - 2 Str.	1.56" [40]	2.25" [56]	.56" [14]	.50" [13]	50 in.-lb.	50 in.-lb.

Blue highlighted items are industry standard and most frequently ordered.

CAST BRONZE CLAMPS

To connect armored cable to water pipe. Zinc plated screws. Pressure bar grips armor or outer cable insulation. 360° swing hub for easy alignment.

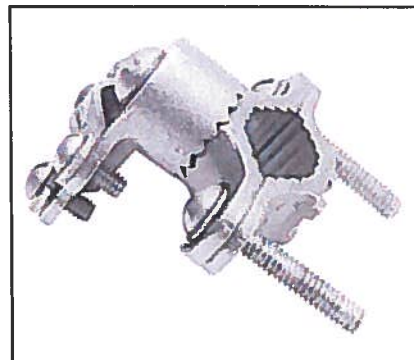


Catalog Number	Accommodates Conductor Range		Reference Dimensions			Recommended Screw Torque (Inch Pounds)	
	Water Pipe	Armored Conductor	H	L	W	Pipe Clamp	Wire Clamp
C-11JA	1/2 - 1 [13 - 25]	10 - 6 Sol.	1.38 [35]	3.05 [77]	1.41 [36]	50 in.-lb.	50 in.-lb.
C-22JA	1-1/4 - 2 [32 - 51]		2.60 [66]	3.69 [94]			
C-4JA	2-1/2 - 4 [64 - 102]		4.29 [109]	5.01 [128]			

E-37

CAST BRONZE GROUND CLAMPS

For connecting grounding conductor, EMT or rigid conduit to water pipe, copper tube, ground rod or rebar. Hub swings 360° for easy alignment. Simply reverse bottom clamp for smaller size rebar or rod. Connectors are provided with Silicon Bronze hardware.



Catalog Number	Accommodates Conductor Range				Reference Dimensions			Recommended Screw Torque (Inch Pounds)
	Main		Tap		H	L	W	
	Water Pipe	Rebar	Ground Rod	Ground				
C11HD4/ODB	1/2" - 1" [13 - 25]	#4 - #6	3/8" - 1"	#8 - 4/0 AWG	2.25	2.65	1.56	50 in.-lbs.
C22HD4/ODB	1-1/4" - 2" [32 - 51]	—	—	#8 - 4/0 AWG	2.70	3.60	1.56	50 in.-lbs.

Blue highlighted items are industry standard and most frequently ordered.

CAST BRONZE CLAMPS

For connecting armored cable to water pipe. Zinc plated screws. "D" indicates UL467 for direct burial in earth and concrete, supplied with silicon bronze hardware.



E-33



Catalog Number	Accommodates Conductor Range			Reference Dimensions				Recommended Screw Torque (Inch Pounds)	
	Water Pipe	Ground	Ground Clamp	H	L	W	C	Pipe Clamp	Wire Clamp
C-6	1/2 - 1	10 - 2	Bare Armored Unarmored Wire Cables or Cords	1.60	2.34	1.06	.63	50 in.-lb.	50 in.-lb.
C-6D	[13 - 25]	Str.		[41]	[59]	[27]	[16]		
C-7	1-1/4 - 2	10 - 2		2.38	3.62	.94	1.00		
	[32 - 51]	Str.	[60]	[92]	[24]	[25]			

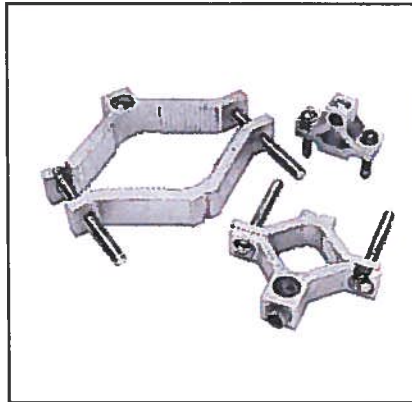
Blue highlighted items are industry standard and most frequently ordered.

TYPE GC-A

**DUAL RATED
GROUND CLAMP**

For Copper and
Aluminum Cable

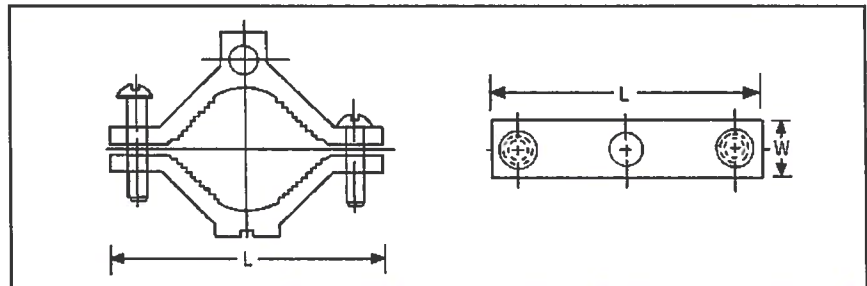
GC-A ground clamps are UL Listed for use with either copper or aluminum conductors to copper water pipe, galvanized pipe or steel conduit. All clamps are constructed from tin plated high-strength extruded aluminum alloy. PENETROX™ oxide inhibiting joint compounds are recommended for all aluminum applications.



E-41

Features and Benefits

- Clamps are dual rated for both copper and aluminum conductors.
 - ◊ Maximum flexibility of application.
- All connectors are tin plated.
 - ◊ Provide low contact resistance and prevents galvanic corrosion.
- All clamps are range taking.
 - ◊ Only 3 catalog numbers covers complete range of applications from 1/2 - 4 inches.



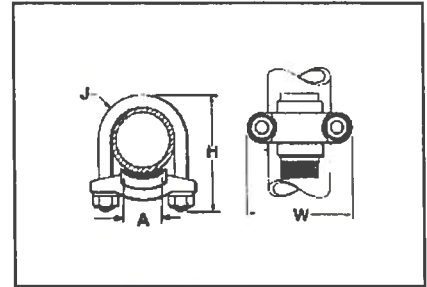
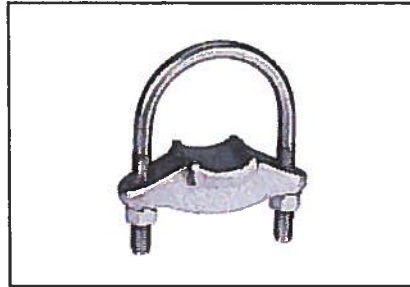
Catalog Number	Conduit, Pipe, or Water Tube Size	Wire Range	Screw Type	W	L	Hex Size
GC15A	1/2 - 3/4 - 1	1/0 - 14	Slotted	11/16	2-1/4	S
GC18A	1-1/4 - 1-1/2 - 2	250 kcmil - 6	Hex Socket	13/16	3-3/4	5/16
GC22A	2-1/2 - 3 - 3-1/2 - 4	250 kcmil - 6	Hex Socket	1	6-5/16	5/16

Blue highlighted items are industry standard and most frequently ordered.

TYPE GG

GROUND CONNECTOR

For Copper Bar, Strap, Braid or Cable to Rod or Tube



E-42

High copper alloy ground connector for joining bar, strap, braid or cable to rod or tube. High copper alloy cast body, DURIMUM™ U-bolts, nuts and lockwashers make the GG particularly effective for use with braid for ground rods, switch handles, fence posts and gates. One-wrench installation.



Catalog Number	Conductor		A	H	J	W
	Tube I.P.S.	Rod				
GG15-1	1	1-1/8 - 1-1/4	1	3-3/8	3/8	2-5/8
GG16-1	1-1/4	1-3/8 - 1-1/2		3		
GG17-1	1-1/2	1-5/8 - 1-7/8		1-1/2		3-1/4
GG17-15			1	4-1/4		3-3/4
GG18-1	2	2 - 2-3/8	1-1/2	4-3/8	1/2	4-1/8
GG18-15			2	5		4-5/8
GG18-2			2	6-3/8		
GG19-2	2-1/2	2-1/2 - 2-7/8	2-1/2	5-7/8	1/2	5-3/4
GG19-25			2			
GG20-2	3	3 - 3-1/2	2-1/2			
GG20-25			3			
GG20-3			3-1/2			
GG21-2	3-1/2	3-1/2 - 4	2	7-5/8	1/2	7-1/4
GG21-25			2-1/2			
GG21-3			3			
GG21-35			3-1/2			
GG22-2	4	4 - 4-1/2	2	6-1/2	1/2	6-1/4
GG22-25			2-1/2			
GG22-3			3			
GG22-4			4			
GG24-2	5	—	2	7-5/8		7-1/4

See note page E-1

Blue highlighted items are industry standard and most frequently ordered.

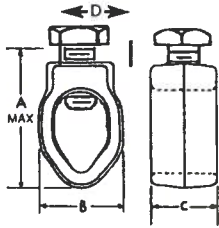
Blackburn

Ground Rod Clamps

Blackburn® Grounding

UL Listed for both copper-clad and galvanized ground rods.

Type JWR — Wide-Range Ground Rod Clamp



- UL Listed for direct burial in earth/concrete
- Constructed from bronze alloy and high-performance stainless steel bolt
- Provides wide range of connection sizes
- More than 300 lbs. torque capacity



CAT. NO.	NOMINAL ROD DIA.		WIRE RANGE			DIMENSIONS (IN.)				
	(IN.)	(MM.)	MAX.	MIN.	MAX. (MM ²)	MIN. (MM ²)	A (MAX.) BOLT	B	C	D
JWR	3/8*	9.5	1/0 Str.	10 Sol.	53.4	5.2	1.535	1.050	.812	.652
	1/2	12.7	1/0 Str.	10 Sol.	53.4	5.2	1.535	1.050	.812	.652
	3/4	15.8	1/0 Str.	10 Sol.	53.4	5.2	1.535	1.050	.812	.652
	1	19.0	1/0 Str.	8 Sol.	53.4	8.3	1.535	1.050	.812	.652

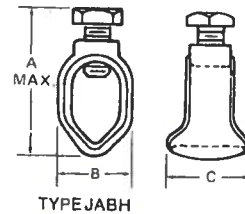
*3/8" rod not recognized/listed by UL.

Long bearing surface of clamp on ground wire secures ground connection.

Type JAB — Ground Rod Clamps



- Cast of high-strength corrosion-resistant copper alloy
- Both hex head bolts and socket set screws available
- UL Listed for direct burial



CAT. NO.	NOMINAL ROD DIA.		WIRE RANGE				DIMENSIONS (IN.)						
	SOCKET SET SCREW	HEX HEAD BOLT	(IN.)	(MM)	MAX.	MIN.	MAX. (MM ²)	MIN. (MM ²)	A (MAX.) SOCKET SCREW	A (MAX.) HEX BOLT	SCREW THREAD SIZE UNC-2A	B	C
JAB12*	JAB12H	3/8	12.7	2 Str.	10 Sol.	33.6	5.2	1 1/2	2 1/2	3/8-14	3/2	1/2	1 1/2
JAB58	JAB58H	3/8	15.8	1/0 Str.	8 Sol.	53.4	8.3	1 1/2	2 1/4	3/8-14	3/2	1	1 1/8
JAB34	JAB34H	3/8	19.0	1/0 Str.	8 Sol.	53.4	8.3	2	2 1/2	3/8-14	1 1/8	1	1 1/8
—	JAB34C	3/8 + 3/8	15.8 to 19.0	4/0 Str.	8 Sol.	95.0	8.3	—	2 1/2	3/8-14	1 1/2	1 1/2	1 1/8
JAB1	JAB1H	1	25.0	4/0 Str.	8 Sol.	107.1	8.3	2 1/2	3	3/8-14	1 1/2	1 1/8	1

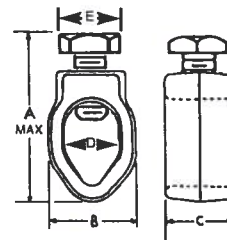
* Not CSA listed Add suffix P to Cat. No. for tin-plated clamp.

A dependable ground connection offered at a substantial savings.

Type G — Budget-Line Ground Clamps



- Cast of high-strength corrosion-resistant copper alloy
- Furnished with hex head bolts
- Simplified, compact design makes lasting, trouble-free connection
- UL Listed for direct burial



CAT. NO.	NOMINAL ROD DIA.		WIRE RANGE				DIMENSIONS (IN.)					
	(IN.)	(MM.)	MAX.	MIN.	MAX. (MM ²)	MIN. (MM ²)	A (MAX.) BOLT	SCREW THREAD SIZE UNC-2A	B	C	D	E
G3*	3/8	9.5	4 Str.	10 Sol.	21.1	5.2	1 1/4	3/8-18	1 1/8	3/8	3/4	3/4
G4	1/2	12.7	2 Str.	10 Sol.	33.6	5.2	—	3/8-16	3/2	3/8	3/4	1/2
G5*	3/4	15.8	2 Str.	10 Sol.	33.6	5.2	—	3/8-16	3/2	3/8	3/4	1/2
G6	1	19.0	2 Str.	10 Sol.	33.6	5.2	—	3/8-16	1 1/8	3/8	3/4	1/2

* Not UL Listed ¹RUS Listed Add suffix P to Cat. No. for tin-plated clamp.

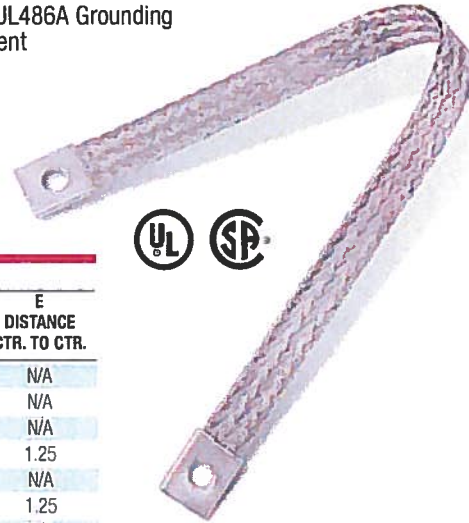
Thomas & Betts

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.362.3289

Flexible copper braids for use in substation and grounding applications.

- Tin-plated copper braids and ferrules for high conductivity and corrosion resistance
- Enables linear expansion, equipment vibration and offset connections
- Certified C22.2 No. 41 Grounding & Bonding Equipment
- Listed UL467 and UL486A Grounding & Bonding Equipment



Type FB — Flexible Braids

CAT. NO.†	CIRCULAR MILS	BOLT HOLE	NO. OF BRAIDS IN FERRULE	THICKNESS	DIMENSIONS		
					C WIDTH	D FERRULE LENGTH	E DISTANCE CTR. TO CTR.
FBB12-1*	24000	1/4	1	0.140	0.625	0.750	N/A
FBC12-1*	48000	3/16	1	0.148	1.000	1.300	N/A
FBD12-1*	76800	1/8	1	0.200	1.000	1.300	N/A
FBD12*	76800	3/16	1	0.200	1.000	2.500	1.25
FB2D12-1*	153600	1/8	2	0.250	1.250	1.500	N/A
FB2D12*	153600	3/16	2	0.250	1.250	2.500	1.25
FB3D12-1*	230400	3/16	3	0.350	1.250	1.500	N/A
FB3D12*	230400	1/4	3	0.350	1.250	2.500	1.25
FBXD12-1*	105600	3/16	1	0.250	1.250	1.500	N/A
FBXD12*	105600	3/16	1	0.250	1.250	2.500	1.25
FB2XD12-1*	211200	3/16	2	0.350	1.250	1.500	N/A
FB2XD12	211200	3/16	2	0.350	1.250	2.500	1.25
FB3XD12-1*	316800	3/16	3	0.400	1.250	1.500	N/A
FB3XD12*	316800	3/16	3	0.400	1.250	2.500	1.25
FBE12-1*	168000	3/16	1	0.500	1.250	2.500	N/A
FBE12*	168000	3/8	1	0.250	1.250	3.500	1.75
FB2E12-1*	336000	3/16	1	0.500	1.250	2.500	N/A
FB2E12*	336000	3/16	2	0.500	1.250	3.500	1.75
FB3E12	504000	3/16	3	0.750	1.250	3.500	1.75
FB4E12	672000	3/16	4	1.000	1.250	3.500	1.75
FBF12	230400	3/16	1	0.300	1.500	3.500	1.75
FB2F12	460800	3/16	2	0.450	1.500	3.500	1.75
FB3F12	691200	3/16	3	0.600	1.625	3.500	1.75
FB4F12	921600	3/16	4	0.750	1.625	3.500	1.75
FBG12	307200	3/16	1	0.380	1.500	3.500	1.75
FB2G12	614400	3/16	2	0.630	1.625	3.500	1.75
FB3G12	921600	3/16	3	0.850	1.625	3.500	1.75
FB4G12	1228800	3/16	4	1.000	1.880	3.500	1.75

† Catalog number shown in 12" lengths. Standard lengths offered in 6, 12, 18, 24, 30 and 36 inches (end to end).

Change the 12 in the above catalog numbers to the desired length. (-1) indicates 1 bolt hole per ferrule

See amperage tables on next page as a reference for grounding and bonding, or continuous current applications.

FB4 series is not listed/certified.

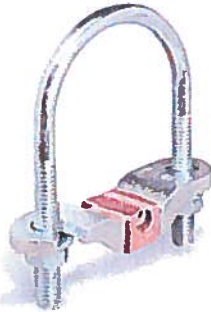
For custom flexible braids, contact Customer Service

Flexible Braid in a Roll — 10-Foot Minimum

CAT. NO.	CIRCULAR MILS.	THICKNESS (IN.)	WIDTH (IN.)
FBBRL	24000	0.140	0.625
FBCRL	48000	0.148	1.000
FBDRL	76800	0.200	1.000
FBXDRL	105600	0.250	1.250

Ferrules or lugs not included.

Waterpipe Ground Clamps



CAT. NO.	GROUND WIRE SIZE	WATER PIPE SIZE
2-TB	#6, #4, #2	½", ¾", 1" or rebar 4-10
3-TB	#6, #4, #2	1¼", 1½" or 2"
4	#6, #4, #2	2½", 3" or 3½"
5-TB	#6, #4, #2	4", 4½" or 5"
6	#6, #4, #2	6"

Malleable iron. #6 - #2 AWG ground wire

Waterpipe Ground Clamps



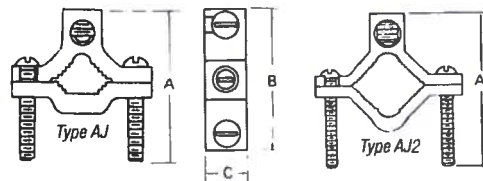
CAT. NO.	GROUND WIRE SIZE	WATER PIPE SIZE	CAT. NO.	GROUND WIRE SIZE	WATER PIPE SIZE
3902	#4-4/0 AWG	½"-1"	3902BU*	#4-4/0 AWG	½" to 1"
3903	#4-4/0 AWG	1¼"-2"	3903BU*	#4-4/0 AWG	1½" to 2"
3904	#4-4/0 AWG	2½"-3½"	3904BU*	#4-4/0 AWG	2½" to 3½"
3905-TB	#4-4/0 AWG	4"-5"	3905BU*	#4-4/0 AWG	4" to 5"
3906-TB	#4-4/0 AWG	6"	3906BU*	#4-4/0 AWG	6"
3907	#4-4/0 AWG	8"	3907BU*	#4-4/0 AWG	8"
3908	#4-4/0 AWG	10"	3908BU*	#4-4/0 AWG	10"
3909-TB	#4-4/0 AWG	12"	3909BU*	#4-4/0 AWG	12"

*UL Listed for Direct Burial

For connecting grounding conductor to either steel or copper pipe, rod or tubing.

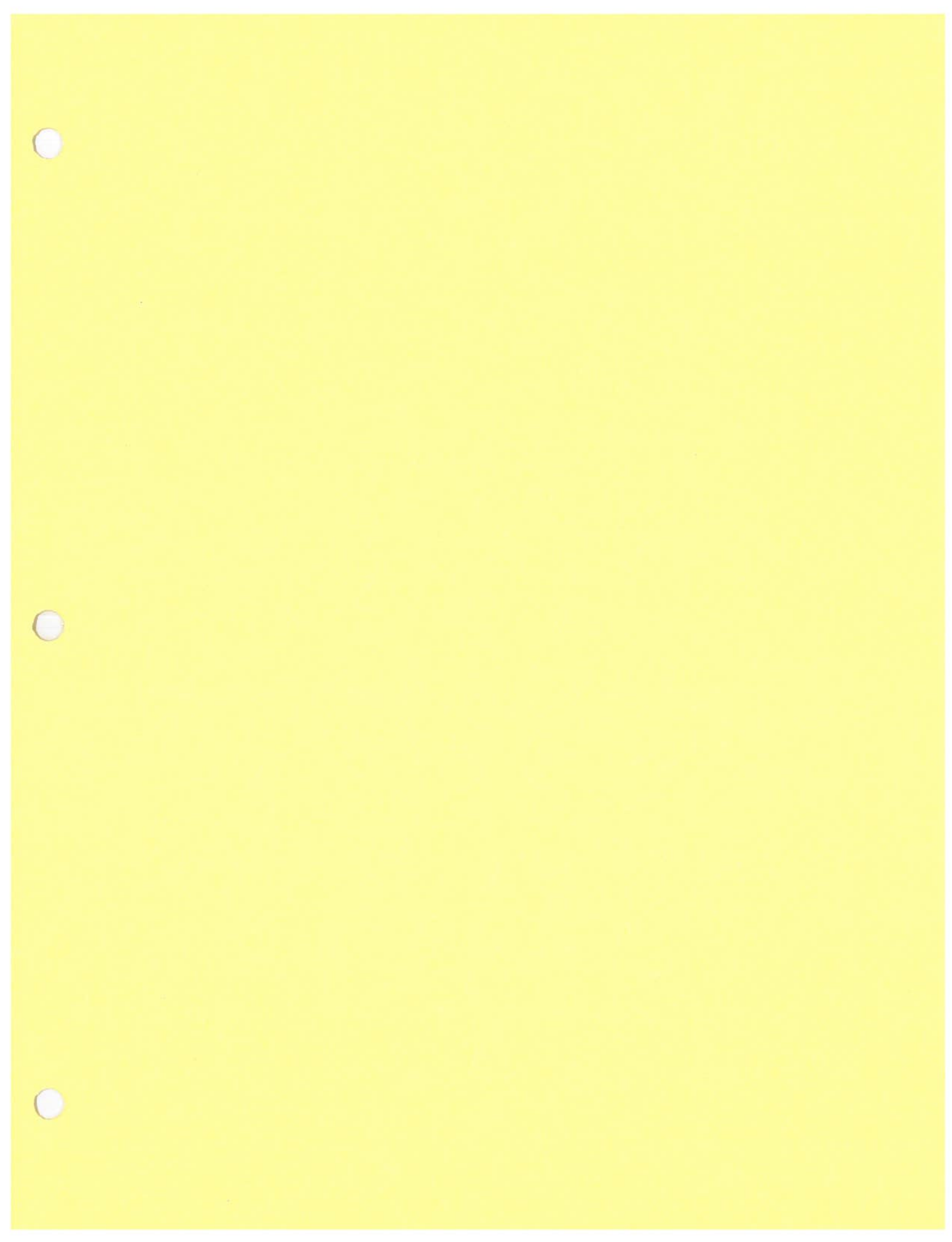
Aluminum Water Pipe Clamp

- For use with copper or aluminum conductor
- Tin plated for corrosion resistance



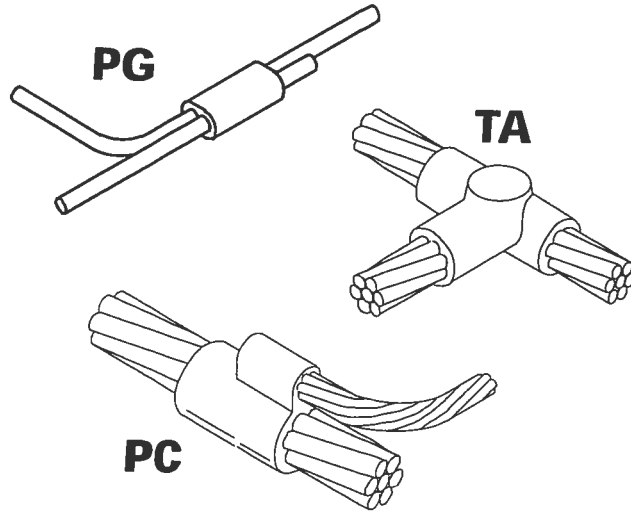
CAT. NO.	WATER PIPE SIZE	CONDUCTOR RANGE		DIMENSIONS (IN.)			STEEL CLAMP SCREW	ALUMINUM WIRE SCREW
		MAX.	MIN.	A	B	C		
AJ	½-1	1/0 Str.	#14 Sol.	2¼	2¼	¾	¼-20	¼-20 slot
AJ-2	1½-2	250 kcmil	#6	3¼	3¼	¾	¾-18	¾-20 socket
AJ-2124	2½-4	250 kcmil	#6	5¾	6¾	¾	¾-16	¾-20 socket

UL listed for both copper and aluminum conductors to steel pipe and copper water tubing



HORIZONTAL TEE

PC/PG/TA



HORIZONTAL TEE CONNECTIONS

- Tee of horizontal run and tap cables.
 - PC and PG make parallel style connections which the user can form into a tee.
 - Concentric stranded copper cable unless otherwise noted.
 - Solid conductor can be either copper or Copperweld.
 - Bold letter in mold part number is the price key.
- Note: For PC, the tap cable is on top.

REQUIRED TOOLS

Handle Clamps L160 for C Price Key Molds
L159 for D Price Key Molds
Clamps are included with T Price Key Molds

Flint Ignitor T320 (Included with Handle Clamp or frame but also available separately)

SUGGESTED TOOLS

Cable Cleaning Brush T313 or T314
 Slag Removal Spade B136A or B136B
 Mold Cleaning Brush T394
 Cable Clamp B265
 Torch Head T111

ACCESSORIES

See Section A

CABLE SIZE		MOLD PART NO.	WELD METAL	
Run	Tap			
6 SOL	6 SOL	PGT-1G1G	25	
	6	PGT-1H1H	25	
4	4	TAC-1L1L	32	
	6	PCT-1L1H	32	
	6 SOL	PCT-1L1G	32	
	8	PCT-1L1E	32	
	8 SOL	PCT-1L1D	32	
2 SOL	2	TAC-1T1V	45	
	2 SOL	TAC-1T1T	45	
	4	TAC-1T1L	45	
	6	PCT-1T1H	32	
	6 SOL	PCT-1T1G	32	
	8	PCT-1T1E	32	
	8 SOL	PCT-1T1D	32	
	2	2	TAC-1V1V	45
		2 SOL	TAC-1V1T	45
		4	TAC-1V1L	45
6		PCT-1V1H	32	
6 SOL		PCT-1V1G	32	
8		PCT-1V1E	32	
8 SOL		PCT-1V1D	32	
1		1	TAC-1Y1Y	45
		2	TAC-1Y1V	45
		2 SOL	TAC-1Y1T	45
	4	TAC-1Y1L	45	
	6	PCC-1Y1H	45	
	6 SOL	PCC-1Y1G	45	
	8	PCC-1Y1E	45	
	8 SOL	PCC-1Y1D	45	

CABLE SIZE		MOLD PART NO.	WELD METAL
Run	Tap		
1/0	1/0	TAC-2C2C	90
	1	TAC-2C1Y	45
	2	TAC-2C1V	45
	2 SOL	TAC-2C1T	45
	4	TAC-2C1L	45
	6	PCC-2C1H	45
	6 SOL	PCC-2C1G	45
	8	PCC-2C1E	45
	8 SOL	PCC-2C1D	45
	2/0	2/0	TAC-2G2G
1/0		TAC-2G2C	90
1		TAC-2G1Y	45
2		TAC-2G1V	45
2 SOL		TAC-2G1T	45
4		TAC-2G1L	45
6		PCC-2G1H	65
6 SOL		PCC-2G1G	65
8		PCC-2G1E	65
8 SOL		PCC-2G1D	65

PC/PG/TA

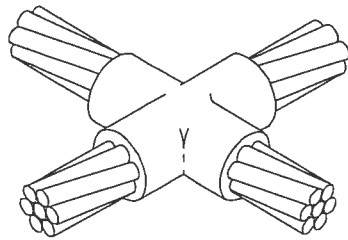
HORIZONTAL TEE

CABLE SIZE		MOLD PART NO.	WELD METAL
Run	Tap		
3/0	3/0	TAC-2L2L	115
	2/0	TAC-2L2G	90
	1/0	TAC-2L2C	90
	1	TAC-2L1Y	45
	2	TAC-2L1V	45
	2 SOL	TAC-2L1T	45
	4	TAC-2L1L	45
	6	PCC-2L1H	90
	6 SOL	PCC-2L1G	90
	8	PCC-2L1E	90
	8 SOL	PCC-2L1D	90
	4/0	4/0	TAC-2Q2Q
3/0		TAC-2Q2L	115
2/0		TAC-2Q2G	90
1/0		TAC-2Q2C	90
1		TAC-2Q1Y	90
2		TAC-2Q1V	90
2 SOL		TAC-2Q1T	90
4		TAC-2Q1L	90
6		PCC-2Q1H	90
6 SOL		PCC-2Q1G	90
8		PCC-2Q1E	90
8 SOL		PCC-2Q1D	90
250	250	TAC-2V2V	150
	4/0	TAC-2V2Q	150
	3/0	TAC-2V2L	150
	2/0	TAC-2V2G	90
	1/0	TAC-2V2C	90
	1	TAC-2V1Y	90
	2	TAC-2V1V	90
	2 SOL	TAC-2V1T	90
	4	TAC-2V1L	90
	300	300	TAC-3A3A
250		TAC-3A2V	150
4/0		TAC-3A2Q	150
3/0		TAC-3A2L	150
2/0		TAC-3A2G	90
1/0		TAC-3A2C	90
1		TAC-3A1Y	90
2		TAC-3A1V	90
2 SOL		TAC-3A1T	90
4		TAC-3A1L	90

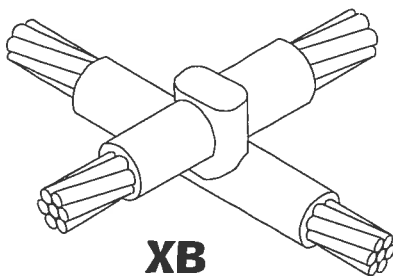
CABLE SIZE		MOLD PART NO.	WELD METAL	
Run	Tap			
350	350	TAC-3D3D	200	
	300	TAC-3D3A	200	
	250	TAC-3D2V	200	
	4/0	TAC-3D2Q	150	
	3/0	TAC-3D2L	150	
	2/0	TAC-3D2G	90	
	1/0	TAC-3D2C	90	
	1	TAC-3D1Y	90	
	2	TAC-3D1V	90	
	4	TAC-3D1L	90	
500	500	TAC-3Q3Q	2-150	
	350	TAC-3Q3D	200	
	300	TAC-3Q3A	200	
	250	TAC-3Q2V	200	
	4/0	TAC-3Q2Q	150	
	2/0	TAC-3Q2G	90	
	1/0	TAC-3Q2C	90	
	1	TAC-3Q1Y	90	
	2	TAC-3Q1V	90	
	4	TAC-3Q1L	90	
750	750	TAD-4L4L	500	
	500	TAD-4L3Q	2-200	
	350	TAC-4L3D	250	
	300	TAC-4L3A	200	
	250	TAC-4L2V	200	
	4/0	TAC-4L2Q	150	
	2/0	TAC-4L2G	150	
	1/0	TAC-4L2C	150	
	1000	1000	TAD-4Y4Y	500
		750	TAD-4Y4L	500
500		TAD-4Y3Q	2-200	
350		TAC-4Y3D	250	
300		TAC-4Y3A	200	
250		TAC-4Y2V	200	
4/0		TAC-4Y2Q	150	
2/0		TAC-4Y2G	150	
1/0		TAC-4Y2C	150	

HORIZONTAL X

XA/XB



XA



XB

HORIZONTAL X CONNECTIONS

- XA – Cross of horizontal cables, tap cable cut – cables in same plane.
- XB – Cross of horizontal cables, lapped and not cut.
- Concentric stranded copper cable unless otherwise noted.
- Solid conductor may be either copper or Copperweld[®].
- **Bold letter** in mold part number is the price key.

REQUIRED TOOLS

Handle Clamps L160 for **C** Price Key Molds
L159 for **D** Price Key Molds

Clamps are included with M, P and V Price Key Molds

Flint Ignitor T320 (Included with Handle Clamp or frame but also available separately)

SUGGESTED TOOLS

Cable Cleaning Brush	T313 or T314
Slag Removal Spade	B136A or B136B
Mold Cleaning Brush	T394
Cable Clamp	B265
Torch Head	T111

ACCESSORIES

See Section A

CABLE SIZE		TYPE XA		TYPE XB	
Run	Tap	MOLD PART NO.	WELD METAL	MOLD PART NO.	WELD METAL
6 SOL 6	6 SOL 6	USE XB	–	XBP-1G1G	32
		USE XB	–	XBP-1H1H	45
4	4	XAC -1L1L	45	XBC -1L1L	65
2	2	XAC -1V1V	65	XBC -1V1V	90
	4	XAC -1V1L	65	XBC -1V1L	65
2 SOL	2 SOL	XAC -1T1T	65	XBC -1T1T	90
1	1	XAC -1Y1Y	65	XBC -1Y1Y	115
	2	XAC -1Y1V	65	XBC -1Y1V	90
	4	XAC -1Y1L	65	XBC -1Y1L	90
1/0	1/0	XAC -2C2C	90	XBM -2C2C	150
	1	XAC -2C1Y	90	XBM -2C1Y	150
	2	XAC -2C1V	90	XBM -2C1V	115
	4	XAC -2C1L	90	XBM -2C1L	115
2/0	2/0	XAC -2G2G	115	XBM -2G2G	200
	1/0	XAC -2G2C	115	XBM -2G2C	200
	1	XAC -2G1Y	115	XBM -2G1Y	150
	2	XAC -2G1V	115	XBM -2G1V	150

XA/XB

HORIZONTAL X

CABLE SIZE		TYPE XA		TYPE XB	
Run	Tap	MOLD PART NO.	WELD METAL	MOLD PART NO.	WELD METAL
3/0	3/0	XAC-2L2L	150	XBM-2L2L	250
	2/0	XAC-2L2G	150	XBM-2L2G	200
	1/0	XAC-2L2C	115	XBM-2L2C	200
	1	XAC-2L1Y	115	XBM-2L1Y	150
	2	XAC-2L1V	115	XBM-2L1V	150
4/0	4/0	XAC-2Q2Q	200	XBM-2Q2Q	250
	3/0	XAC-2Q2L	200	XBM-2Q2L	250
	2/0	XAC-2Q2G	150	XBM-2Q2G	200
	1/0	XAC-2Q2C	150	XBM-2Q2C	200
	1	XAC-2Q1Y	115	XBM-2Q1Y	150
	2	XAC-2Q1V	115	XBM-2Q1V	150
250	250	XAC-2V2V	200	XBM-2V2V	2-150
	4/0	XAC-2V2Q	200	XBM-2V2Q	2-150
	3/0	XAC-2V2L	200	XBM-2V2L	2-150
	2/0	XAC-2V2G	150	XBM-2V2G	250
	1/0	XAC-2V2C	150	XBM-2V2C	250
	1	XAC-2V1Y	115	XBM-2V1Y	200
	2	XAC-2V1V	115	XBM-2V1V	150
	300	XAC-3A3A	250	XBV-3A3A	2-200
300	250	XAC-3A2V	250	XBV-3A2V	2-200
	4/0	XAC-3A2Q	200	XBM-3A2Q	2-150
	3/0	XAC-3A2L	200	XBM-3A2L	2-150
	2/0	XAC-3A2G	150	XBM-3A2G	250
	1/0	XAC-3A2C	150	XBM-3A2C	250
	1	XAC-3A1Y	115	XBM-3A1Y	200
	2	XAC-3A1V	115	XBM-3A1V	150
	350	XAC-3D3D	250	XBV-3D3D	500
350	300	XAC-3D3A	250	XBV-3D3A	500
	250	XAC-3D2V	250	XBV-3D2V	500
	4/0	XAC-3D2Q	200	XBV-3D2Q	2-200
	3/0	XAC-3D2L	200	XBV-3D2L	2-200
	2/0	XAC-3D2G	200	XBM-3D2G	2-150
	1/0	XAC-3D2C	200	XBM-3D2C	250
	1	XAC-3D1Y	150	XBM-3D1Y	200
	2	XAC-3D1V	150	XBM-3D1V	200
	500	XAD-3Q3Q	500	XBV-3Q3Q	3-250
	500	350	XAD-3Q3D	2-200	XBV-3Q3D
300		XAD-3Q3A	2-200	XBV-3Q3A	3-200
250		XAD-3Q2V	2-150	XBV-3Q2V	500
4/0		XAD-3Q2Q	2-150	XBV-3Q2Q	500
3/0		XAD-3Q2L	2-150	XBV-3Q2L	500
2/0		XAC-3Q2G	250	XBV-3Q2G	2-200
1/0		XAC-3Q2C	250	XBM-3Q2C	2-150

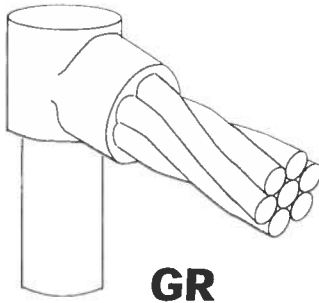
OTHER CABLE TO CABLE CONNECTIONS

The connections shown below are for use only where connections shown in this catalog are not suitable.

NAME	TYPE		EASE	SPLIT	NAME	TYPE		EASE	SPLIT		
Parallel Dead End	PJ		1	V	Tee	TC		3	V		
	PK		2	*		TD		3	*		
	PM		3	V		TE		3	*		
	PN		3	V		TF		3	V		
Parallel Tap	PA		2	*		TL		3	V		
	PB		3	V		TV		3	V		
	PD		3	V		X - Vertical Horizontal Cable Uncut	XD		3	V	
Splice	PP		1	*			X - Vertical Vertical Cable Uncut	XC		3	V
	PQ		3	V				X - Vertical Neither Cable Uncut	XF		3
	PR		2	V			X		XG		3
	SC		1	*	Y - 45° tap	YC			3	V	
	SD		3	V		YD		3	V		
	SE		3	V		YE		3	V		
	SV		3	V		YR		3	H		

CABLE TO GROUND ROD

GR



CABLE TO GROUND ROD

- Single cable to top of ground rod. Concentric strand copper cable unless otherwise noted. For copper clad, galvanized, stainless clad or stainless steel ground rods.
- **Bold letter** in mold part number is the price key.

REQUIRED TOOLS

Handle Clamps L160 for C Price Key Molds
Clamps are included with T and P Price Key Molds

Flint Ignitor T320 (Included with Handle Clamp or frame but also available separately)

SUGGESTED TOOLS

Cable Cleaning Brush	T313 or T314
Slag Removal Spade	B136A or B136B
Mold Cleaning Brush	T394
File	T329
Cable Clamp	B265
Torch Head	T111

ACCESSORIES

See Section A

GROUND ROD SIZE	CABLE SIZE	MOLD PART NUMBER			WELD METAL
		Steel	Copper Clad Plain (unthreaded)	Copper Clad Sectional (with 9/16" threads)	
1/2"	6	GRT-14C1H	GRT-14A1H	GRT-14B1H	25
	6 SOL	GRT-14C1G	GRT-14A1G	GRT-14B1G	25
	4	GRT-14C1L	GRT-14A1L	GRT-14B1L	25
	4 SOL	GRT-14C1K	GRT-14A1K	GRT-14B1K	25
	2 SOL	GRT-14C1T	GRT-14A1T	GRT-14B1T	32
	2	GRT-14C1V	GRT-14A1V	GRT-14B1V	32

		Steel or Copper Clad Sectional (with 9/16" threads)	Copper Clad Plain (unthreaded)	Copper Clad Sectional (with 1/2" threads)	
		1/2"	1	GRC-141Y	
1/0	GRC-142C		GRC-152C	GRC-132C	90
1/0 SOL	GRC-142B		GRC-152B	GRC-132B	90
2/0	GRC-142G		GRC-152G	GRC-132G	90
3/0	GRC-142L		GRC-152L	GRC-132L	90
4/0	GRC-142Q		GRC-152Q	GRC-132Q	90
250	GRC-142V		GRC-152V	GRC-132V	90
300	GRC-143A		GRC-153A	GRC-133A	90

GR

CABLE TO GROUND ROD

GROUND ROD SIZE	CABLE SIZE	MOLD PART NUMBER		WELD METAL
		Copper Clad Plain (unthreaded)	Steel or Copper Clad Sectional (threaded)	
5/8"	6	GRT-161H	GRT-311H	32
	6 SOL	GRT-161G	GRT-311G	32
	4	GRT-161L	GRT-311L	32
	4 SOL	GRT-161K	GRT-311K	32

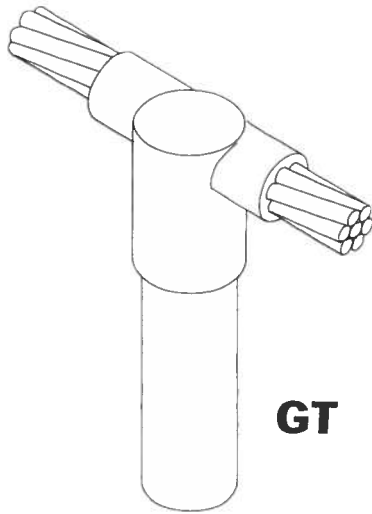
		Copper Clad Sectional (threaded) or Plain	Steel	
5/8"	2 SOL	GRC-161T	GRC-311T	65
	2	GRC-161V	GRC-311V	65
	1	GRC-161Y	GRC-311Y	65
	1/0	GRC-162C	GRC-312C	90
	1/0 SOL	GRC-162B	GRC-312B	90
	2/0	GRC-162G	GRC-312G	90
	3/0	GRC-162L	GRC-312L	90
	4/0	GRC-162Q	GRC-312Q	90
	250	GRC-162V	GRC-312V	90
	300	GRC-163A	GRC-313A	115
	350	GRC-163D	GRC-313D	115
	500	GRC-163Q	GRC-313Q	150

		Copper Clad Plain (unthreaded)	Steel or Copper Clad Sectional (threaded)	
3/4"	6	GRT-181H	GRT-331H	32
	6SOL	GRT-181G	GRT-331G	32
	4	GRP-181L	GRP-331L	45
	4 SOL	GRP-181K	GRP-331K	45

		Copper Clad Sectional (threaded) or Plain	Steel		
3/4"	2 SOL	GRC-181T	GRC-331T	90	
	2	GRC-181V	GRC-331V	90	
	1	GRC-181Y	GRC-331Y	90	
	1/0	GRC-182C	GRC-332C	90	
	1/0 SOL	GRC-182B	GRC-332B	90	
	2/0	GRC-182G	GRC-332G	90	
	3/0	GRC-182L	GRC-332L	90	
	4/0	GRC-182Q	GRC-332Q	90	
	250	GRC-182V	GRC-332V	90	
	300	GRC-183A	GRC-333A	115	
	350	GRC-183D	GRC-333D	115	
	500	GRC-183Q	GRC-333Q	150	
	1"	CONTACT FACTORY FOR ORDERING INFORMATION			

CABLE TO GROUND ROD

GT



THROUGH CABLE TO GROUND ROD

- Through cable to top of ground rod. Connections are for concentric strand copper cable unless otherwise noted. For copper clad, galvanized, stainless clad or stainless steel ground rods.
- **Bold letter** in mold part number is the price key.

REQUIRED TOOLS

Handle Clamps L160 for C Price Key Molds

Clamps are included with T or P Price Key Molds

Flint Ignitor T320 (Included with Handle Clamp or frame but also available eparately)

SUGGESTED TOOLS

Cable Cleaning Brush	T313 or T314
Slag Removal Spade	B136A or B136B
Mold Cleaning Brush	T394
File	T329
Torch Head	T111

ACCESSORIES

See Section A

GROUND ROD SIZE	CABLE SIZE	MOLD PART NUMBER			WELD METAL
		Steel	Copper Clad Plain (unthreaded)	Copper Clad Sectional (with 9/16" threads)	
1/2"	6	GTT-14C1H	GTT-14A1H	GTT-14B1H	32
	6 SOL	GTT-14C1G	GTT-14A1G	GTT-14B1G	32
	4	GTT-14C1L	GTT-14A1L	GTT-14B1L	32
	4 SOL	GTT-14C1K	GTT-14A1K	GTT-14B1K	32

		Steel or Copper Clad Sectional (with 9/16" threads)	Copper Clad Plain (unthreaded)	Copper Clad Sectional (with 1/2" threads)	
		1/2"	2 SOL	GTC-141T	
2	GTC-141V		GTC-151V	GTC-131V	90
1	GTC-141Y		GTC-151Y	GTC-131Y	90
1/0	GTC-142C		GTC-152C	GTC-132C	90
1/0 SOL	GTC-142B		GTC-152B	GTC-132B	90
2/0	GTC-142G		GTC-152G	GTC-132G	90
3/0	GTC-142L		GTC-152L	GTC-132L	115
4/0	GTC-142Q		GTC-152Q	GTC-132Q	115
250	GTC-142V		GTC-152V	GTC-132V	150
300	GTC-143A		GTC-153A	GTC-133A	200

GT

CABLE TO GROUND ROD

GROUND ROD SIZE	CABLE SIZE	MOLD PART NUMBER		WELD METAL
		Copper Clad Plain (unthreaded)	Steel or Copper Clad Sectional (threaded)	
5/8"	6	GTT-161H	GTT-311H	32
	6 SOL	GTT-161G	GTT-311G	32
	4	GTT-161L	GTT-311L	32
	4 SOL	GTT-161K	GTT-311K	32

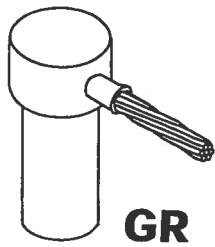
		Copper Clad Sectional (threaded) or Plain	Steel	
		2 SOL	GTC-161T	
5/8"	2	GTC-161V	GTC-311V	90
	1	GTC-161Y	GTC-311Y	90
	1/0	GTC-162C	GTC-312C	90
	1/0 SOL	GTC-162B	GTC-312B	115
	2/0	GTC-162G	GTC-312G	115
	3/0	GTC-162L	GTC-312L	115
	4/0	GTC-162Q	GTC-312Q	115
	250	GTC-162V	GTC-312V	150
	300	GTC-163A	GTC-313A	200
	350	GTC-163D	GTC-313D	200
500	GTC-163Q	GTC-313Q	250	

		Copper Clad Plain (unthreaded)	Steel or Copper Clad Sectional (threaded)	
		6	GTP-181H	
3/4"	6 SOL	GTP-181G	GTP-331G	45
	4	GTP-181L	GTP-331L	65
	4 SOL	GTP-181K	GTP-331K	65

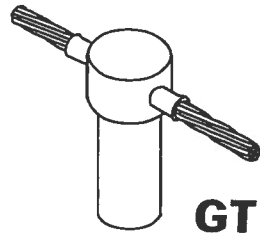
		Copper Clad Sectional (threaded) or Plain	Steel		
		2 SOL	GTC-181T		GTC-331T
3/4"	2	GTC-181V	GTC-331V	90	
	1	GTC-181Y	GTC-331Y	90	
	1/0	GTC-182C	GTC-332C	115	
	1/0 SOL	GTC-182B	GTC-332B	115	
	2/0	GTC-182G	GTC-332G	115	
	3/0	GTC-182L	GTC-332L	115	
	4/0	GTC-182Q	GTC-332Q	115	
	250	GTC-182V	GTC-332V	150	
	300	GTC-183A	GTC-333A	200	
	350	GTC-183D	GTC-333D	200	
	500	GTC-183Q	GTC-333Q	250	
	1"	CONTACT ERICO FOR ORDERING INFORMATION			

ONE-SHOT™ CABLE TO GROUND ROD

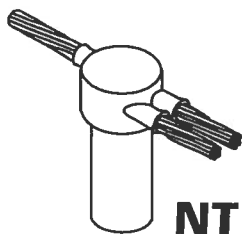
GR/GT/NT/NX



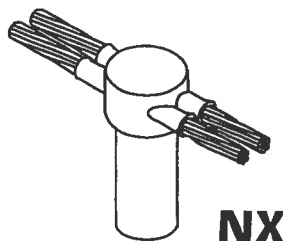
GR



GT



NT



NX

ONE-SHOT connections are available in standard packages of 12 each.

CABLE TO GROUND ROD USING CADWELD ONE-SHOT CONNECTIONS

For both plain or threaded copper clad and galvanized steel or stainless steel rods. The CADWELD ONE-SHOT case is a ceramic disposable body replacing the familiar semi-permanent graphite mold and associated Handle Clamp. Everything required is included except the flint ignitor.

R.E.A. Accepted
NEC Approved

REQUIRED TOOLS

Flint Ignitor T320

SUGGESTED TOOLS

Cable Cleaning Brush T313 or T314
File T329
Torch Head T111

ACCESSORIES







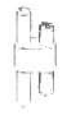










See Section A



GROUND ROD SIZE	CONDUCTOR		CONNECTOR CATALOG NUMBER			
	Solid	Stranded	TYPE GR	TYPE GT	TYPE NT	TYPE NX
1/2"	6,8	8	GR1-141G	GT1-141G	NT1-141G	NX1-141G
	3,4	4,6	GR1-141L	GT1-141L	NT1-141L	NX1-141L
	1,2	2,3	GR1-141V	GT1-141V	—	—
5/8"	6,8	8	GR1-161G	GT1-161G	NT1-161G	NX1-161G
	3,4	4,6	GR1-161L	GT1-161L	NT1-161L	NX1-161L
	1,2	2,3	GR1-161V	GT1-161V	NT1-161V	NX1-161V
	2/0, 1/0	1/0, 1	GR1-162C	GT1-162C	—	—
			GR1-162G	—	—	—
	—	2/0	GR1-162Q	—	—	—
	—	4/0	—	—	—	—
3/4"	6,8	8	GR1-181G	GT1-181G	NT1-181G	NX1-181G
	3,4	4,6	GR1-181L	GT1-181L	NT1-181L	NX1-181L
	1,2	2,3	GR1-181V	GT1-181V	NT1-181V	NX1-181V
	2/0, 1/0	1/0, 1	GR1-182C	GT1-182C	—	—
			GR1-182G	—	—	—
	—	2/0	—	—	—	—
	—	4/0	—	—	—	—

OTHER CABLE TO CABLE CONNECTIONS

The connections shown below are for use only where connections shown in this catalog are not suitable.

NAME	TYPE		EASE	SPLIT	NAME	TYPE		EASE	SPLIT	
Parallel Tap	GQ		3	V	Tee	GG		1	*	
	GS		1	V		GH		3	V	
Parallel Thru	DQ		1	V		GJ		1	*	
	GP		3	V		GK		3	V	
	GW		1	V		GM		2	V	
Splice	GD		3	V		GN		2	V	
	GE		1	V		GX		3	V	
	GF		1	V		Y - 45° Tap	VW		2	V
	GV		1	V						

CADWELD® Connections Used for Grounding Reinforcing Bars

CADWELD provides efficient and permanent connections for both grounding and attaching lightning protection conductors to rebar. When making CADWELD connections to rebar, the normal materials required are: mold, handle and weld metal. In addition, packing material is also required. These materials act as a seal between the mold and rebar to prevent leaks. One unit of packing material must be ordered for each weld.

CADWELD® Connections to Structural Reinforcing Bar and Anchor Bolts

Welding of ground conductors to reinforcing bars (rebar) by the CADWELD process should not be harmful if stresses in the rebar are below yield. As design stresses are normally only about 50% to 60% of the nominal yield strength of the rebar, welding by the CADWELD process should not be detrimental under design stresses.

As the ACI Building Code (ACI318-89 commentary, 12.15) advises, "splices should, if possible, be located away from points of maximum tensile stress." The same advice should apply to locations of CADWELD connections of a ground conductor to rebar. Where possible, locate the weld area away from areas of maximum tensile stress, e.g., near the free end of the bar in a lap splice, on the hook extension for a hooked bar, etc. The same considerations apply to CADWELD connections to anchor bolts.

NOTE:

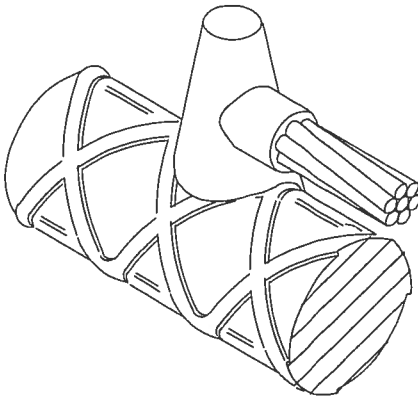
For lightning protection applications where the main lightning protection conductor is connected to the rebar, ERICO recommends a 2/0 AWG copper conductor for structures over 75 feet in height and a #2 AWG copper conductor for structures under 75 feet. For a bonding conductor, a #6 AWG copper may be used. These sizes meet NFPA78 Code requirement. Anchor bolts are connected in the same way.

**All welds to rebar requiring larger than a #150 weld metal
will be sold only after review by ERICO.**

CABLE TO REBAR

RR

RR



CABLE TO REBAR

- Horizontal cable tap to horizontal rebar.
- Rebar material characteristics and location of weld must be considered when selecting connections to rebar.
- Concentric stranded copper cable is listed.
- **Bold letter** in mold part number is the price key.

REQUIRED TOOLS

- Handle Clamps** **L160** for C Price Key Molds
Mold frame included with A and H Price Key Molds
- Flint Ignitor** **T320** (Included with Handle Clamp or frame but also available separately)
- Packing** One required for each connection - see tables which follow

SUGGESTED TOOLS

- Cable Cleaning Brush T313 or T314
Slag Removal Spade B136A or B136B
Mold Cleaning Brush T394
File T329
Torch Head T111

ACCESSORIES

See Section A

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
3	6	RRC-511H	25	None
	4	RRC-511L	32	None
	2 SOL	RRC-511T	45	None
	2	RRC-511V	45	None
	1	RRC-511Y	65	None
	1/0	RRC-512C	90	None
	2/0	RRC-512G	90	None
	3/0	RRC-512L	115	None
	4/0	RRC-512Q	115	None
	4	6*	RRA-521H	25
4		RRA-521L	32	B-143A
2 SOL		RRA-521T	45	B-143A
2		RRA-521V	45	B-143A
1		RRA-521Y	65	B-143A
1/0		RRC-522C	90	B-141A
2/0		RRC-522G	90	B-141A
3/0		RRC-522L	115	B-141A
4/0		RRC-522Q	115	B-141A

*Requires sleeve B112 (1 per connection)

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
5	6*	RRA-531H	25	B-143A
	4	RRA-531L	32	B-143A
	2 SOL	RRA-531T	45	B-143A
	2	RRA-531V	45	B-143A
	1	RRA-531Y	65	B-143A
	1/0	RRC-532C	90	B-141A
	2/0	RRC-532G	90	B-141A
	3/0	RRC-532L	115	B-141A
	4/0	RRC-532Q	115	B-141A
	6	6*	RRA-541H	25
4		RRA-541L	32	B-143B
2 SOL		RRA-541T	45	B-143B
2		RRA-541V	45	B-143B
1		RRA-541Y	65	B-143B
1/0		RRH-542C	90	B-144C
2/0		RRH-542G	90	B-144C
3/0		RRH-542L	115	B-144C
4/0		RRH-542Q	115	B-144C

*Requires sleeve B112 (1 per connection)

RR

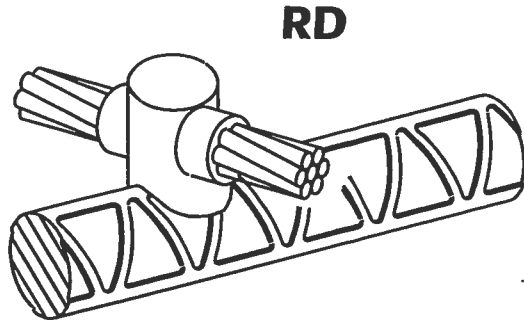
CABLE TO REBAR

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
7	4	RRA-551L	32	B-143B
	2	RRA-551V	45	B-143B
	2 SOL	RRA-551T	45	B-143B
	1	RRA-551Y	65	B-143B
	1/0	RRH-552C	90	B-144C
	2/0	RRH-552G	90	B-144C
	3/0	RRH-552L	115	B-144A
8	4/0	RRH-552Q	115	B-144A
	2 SOL	RRA-561T	45	B-143B
	2	RRA-561V	45	B-143B
	1	RRA-561Y	65	B-143B
	1/0	RRH-562C	90	B-144C
	2/0	RRH-562G	90	B-144C
	3/0	RRH-562L	115	B-144A
9	4/0	RRH-562Q	115	B-144A
	2 SOL	RRA-571T	45	B-143B
	2	RRA-571V	45	B-143B
	1	RRA-571Y	65	B-143B
	1/0	RRH-572C	90	B-144C
	2/0	RRH-572G	90	B-144C
	3/0	RRH-572L	115	B-144A
4/0	RRH-572Q	115	B-144A	

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
10	2 SOL	RRA-581T	45	B-143B
	2	RRA-581V	45	B-143B
	1	RRA-581Y	65	B-143B
	1/0	RRH-582C	90	B-144C
	2/0	RRH-582G	90	B-144C
	3/0	RRH-582L	115	B-144A
	4/0	RRH-582Q	115	B-144A
11	2 SOL	RRA-591T	45	B-143B
	2	RRA-591V	45	B-143B
	1	RRA-591Y	65	B-143B
	1/0	RRH-592C	90	B-144C
	2/0	RRH-592G	90	B-144C
	3/0	RRH-592L	115	B-144A
	4/0	RRH-592Q	115	B-144A
14	1/0	RRH-602C	90	B-144C
	2/0	RRH-602G	90	B-144C
	3/0	RRH-602L	115	B-144A
	4/0	RRH-602Q	115	B-144A
18	1/0	RRH-612C	90	B-144C
	2/0	RRH-612G	90	B-144C
	3/0	RRH-612L	115	B-144A
	4/0	RRH-612Q	115	B-144A

CABLE TO REBAR

RD



CABLE TO REBAR

- X connection horizontal cable to horizontal rebar.
- Rebar material characteristics and location of weld must be considered when selecting connections to rebar.
- Concentric stranded copper cable is listed.
- **Bold letter** in mold part number is the price key.

REQUIRED TOOLS

- Handle Clamps** **L160** for *C* Price Key Molds
Mold frame included with *M* and *H* Price Key Molds
- Flint Ignitor** **T320** (Included with Handle Clamp and frames but also available separately)
- Packing** One required for each connection - see tables which follow

SUGGESTED TOOLS

- Cable Cleaning Brush T313 or T314
Slag Removal Spade B136A or B136B
Mold Cleaning Brush T394
File T329
Torch Head T111

ACCESSORIES

See Section A

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
3	6*	RDC-511H	65	B-141A
	4	RDC-511L	65	B-141A
	2 SOL	RDC-511T	90	B-141A
	2	RDC-511V	90	B-141A
	1	RDC-511Y	90	B-141A
	1/0	RDM-512C	115	B-141A
	2/0	RDM-512G	115	B-141A
	3/0	RDM-512L	150	B-141A
	4/0	RDM-512Q	150	B-141A
	4	6*	RDC-521H	65
4		RDC-521L	65	B-141A
2 SOL		RDC-521T	90	B-141A
2		RDC-521V	90	B-141A
1		RDM-521Y	90	B-141A
1/0		RDM-522C	115	B-141A
2/0		RDM-522G	115	B-141A
3/0		RDM-522L	150	B-141A
4/0		RDM-522Q	150	B-141A

*Requires sleeve B112 (2 per connection)

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
5	6*	RDC-531H	65	B-141A
	4	RDC-531L	65	B-141A
	2 SOL	RDC-531T	90	B-141A
	2	RDC-531V	90	B-141A
	1	RDM-531Y	90	B-141A
	1/0	RDM-532C	115	B-141A
	2/0	RDM-532G	115	B-141A
	3/0	RDM-532L	150	B-141A
	4/0	RDM-532Q	150	B-141A
	6	6*	RDH-541H	65
4		RDH-541L	65	B-144C
2 SOL		RDH-541T	90	B-141C
2		RDH-541V	90	B-144C
1		RDH-541Y	90	B-144C
1/0		RDH-542C	115	B-144C
2/0		RDH-542G	115	B-144C
3/0		RDH-542L	150	B-144A
4/0		RDH-542Q	150	B-144A

*Requires sleeve B112 (2 per connection)

RD

CABLE TO REBAR

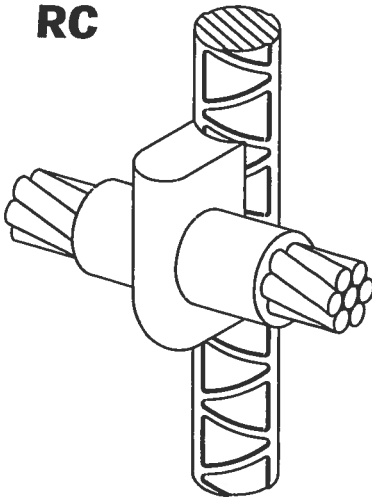
REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
7	4	RDH-551L	65	B-144C
	2 SOL	RDH-551T	90	B-144C
	2	RDH-551V	90	B-144C
	1	RDH-551Y	90	B-144C
	1/0	RDH-552C	115	B-144C
	2/0	RDH-552G	115	B-144C
	3/0	RDH-552L	150	B-144A
8	4/0	RDH-552Q	150	B-144A
	2 SOL	RDH-561T	90	B-144C
	2	RDH-561V	90	B-144C
	1	RDH-561Y	90	B-144C
	1/0	RDH-562C	115	B-144C
	2/0	RDH-562G	115	B-144C
	3/0	RDH-562L	150	B-144A
9	4/0	RDH-562Q	150	B-144A
	2 SOL	RDH-571T	90	B-144C
	2	RDH-571V	90	B-144C
	1	RDH-571Y	90	B-144C
	1/0	RDH-572C	115	B-144C
	2/0	RDH-572G	115	B-144C
	3/0	RDH-572L	150	B-144A
4/0	RDH-572Q	150	B-144A	

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
10	2 SOL	RDH-581T	90	B-144C
	2	RDH-581V	90	B-144C
	1	RDH-581Y	90	B-144C
	1/0	RDH-582C	115	B-144C
	2/0	RDH-582G	115	B-144C
	3/0	RDH-582L	150	B-144A
11	4/0	RDH-582Q	150	B-144A
	2 SOL	RDH-591T	90	B-144C
	2	RDH-591V	90	B-144C
	1	RDH-591Y	90	B-144C
	1/0	RDH-592C	115	B-144C
	2/0	RDH-592G	115	B-144C
14	3/0	RDH-592L	150	B-144A
	4/0	RDH-592Q	150	B-144A
	1/0	RDH-602C	115	B-144C
	2/0	RDH-602G	115	B-144C
18	3/0	RDH-602L	150	B-144A
	4/0	RDH-602Q	150	B-144A
	1/0	RDH-612C	115	B-144C
	2/0	RDH-612G	115	B-144C
	3/0	RDH-612L	150	B-144A
	4/0	RDH-612Q	150	B-144A

CABLE TO REBAR

RC

RC



CABLE TO REBAR

- Through connection horizontal cable to vertical rebar.
- Rebar material characteristics and location of weld must be considered when selecting connections to rebar.
- Concentric stranded copper cable is listed.
- **Bold letter** in mold part number is the price key.

REQUIRED TOOLS

Handle Clamps **L160** for *E* Price Key Molds
Frame included with *E* Price Key Molds

Flint Ignitor **T320** (Included with Handle Clamp and frame but also available separately)

Packing One required for each connection - see tables which follow

SUGGESTED TOOLS

Cable Cleaning Brush T313 or T314
Slag Removal Spade B136A or B136B
Mold Cleaning Brush T394
File T329
Torch Head T111

ACCESSORIES

See Section A

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
3	6*	RCE-511H	90	B-140A
	4	RCE-511L	90	B-140A
	2 SOL	RCE-511T	90	B-140A
	2	RCE-511V	90	B-140A
	1	RCE-511Y	115	B-140A
	1/0	RCE-512C	115	B-140A
	2/0	RCE-512G	115	B-140A
	3/0	RCE-512L	150	B-140A
	4/0	RCE-512Q	150	B-140A
	4	6*	RCE-521H	90
4		RCE-521L	90	B-140A
2 SOL		RCE-521T	90	B-140A
2		RCE-521V	90	B-140A
1		RCE-521Y	115	B-140A
1/0		RCE-522C	115	B-140A
2/0		RCE-522G	115	B-140A
3/0		RCE-522L	150	B-140A
4/0		RCE-522Q	150	B-140A

*Requires sleeve B112 (2 per connection)

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
5	6*	RCE-531H	90	B-140A
	4	RCE-531L	90	B-140A
	2 SOL	RCE-531T	90	B-140A
	2	RCE-531V	90	B-140A
	1	RCE-531Y	115	B-140A
	1/0	RCE-532C	115	B-140A
	2/0	RCE-532G	115	B-140A
	3/0	RCE-532L	150	B-140A
	4/0	RCE-532Q	150	B-140A
	6	6*	RCE-541H	90
4		RCE-541L	90	B-144B
2 SOL		RCE-541T	90	B-140B
2		RCE-541V	90	B-144B
1		RCE-541Y	115	B-144B
1/0		RCE-542C	115	B-144B
2/0		RCE-542G	115	B-144B
3/0		RCE-542L	150	B-144B
4/0		RCE-542Q	150	B-144B

*Requires sleeve B112 (2 per connection)

RC

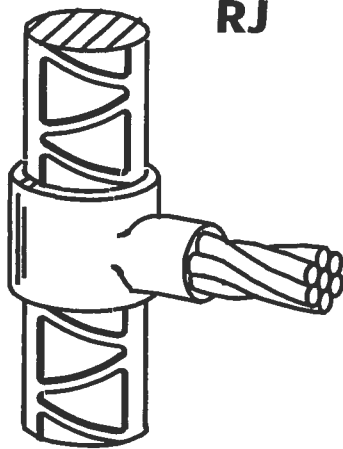
CABLE TO REBAR

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
7	4	RCE-551L	90	B-144B
	2 SOL	RCE-551T	90	B-144B
	2	RCE-551V	90	B-144B
	1	RCE-551Y	115	B-144B
	1/0	RCE-552C	115	B-144B
	2/0	RCE-552G	115	B-144B
	3/0	RCE-552L	150	B-144B
	4/0	RCE-552Q	150	B-144B
8	2 SOL	RCE-561T	90	B-144B
	2	RCE-561V	90	B-144B
	1	RCE-561Y	115	B-144B
	1/0	RCE-562C	115	B-144B
	2/0	RCE-562G	115	B-144B
	3/0	RCE-562L	150	B-144B
	4/0	RCE-562Q	150	B-144B
9	2 SOL	RCE-571T	90	B-144B
	2	RCE-571V	90	B-144B
	1	RCE-571Y	115	B-144B
	1/0	RCE-572C	115	B-144B
	2/0	RCE-572G	115	B-144B
	3/0	RCE-572L	150	B-144B
	4/0	RCE-572Q	150	B-144B

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
10	2 SOL	RCE-581T	90	B-144B
	2	RCE-581V	90	B-144B
	1	RCE-581Y	115	B-144B
	1/0	RCE-582C	115	B-144B
	2/0	RCE-582G	115	B-144B
	3/0	RCE-582L	150	B-144B
	4/0	RCE-582Q	150	B-144B
11	2 SOL	RCE-591T	90	B-144B
	2	RCE-591V	90	B-144B
	1	RCE-591Y	115	B-144B
	1/0	RCE-592C	115	B-144B
	2/0	RCE-592G	115	B-144B
	3/0	RCE-592L	150	B-144B
	4/0	RCE-592Q	150	B-144B
14	1/0	RCE-602C	115	B-144B
	2/0	RCE-602G	115	B-144B
	3/0	RCE-602L	150	B-144B
	4/0	RCE-602Q	150	B-144B
18	1/0	RCE-612C	115	B-144B
	2/0	RCE-612G	115	B-144B
	3/0	RCE-612L	150	B-144B
	4/0	RCE-612Q	150	B-144B

CABLE TO REBAR

RJ



CABLE TO REBAR

- Tee connection horizontal cable tap to vertical rebar.
- Rebar material characteristics and location of weld must be considered when selecting connections to rebar.
- Concentric stranded copper cable is listed.
- **Bold letter** in mold part number is the price key.

REQUIRED TOOLS

Handle Clamps L160 for **C** and **E** Price Key Molds
Frame included with **E** Price Key Molds

Flint Ignitor T320 (Included with Handle Clamp and frames but also available separately)

Packing One required for each connection - see tables which follow

SUGGESTED TOOLS

Cable Cleaning Brush T313 or T314
Slag Removal Spade B136A or B136B
Mold Cleaning Brush T394
File T329
Torch Head T111

ACCESSORIES

See Section A

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
3	6*	RJC -511H	45	B-140A
	4	RJC -511L	65	B-140A
	2 SOL	RJC -511T	65	B-140A
	2	RJC -511V	65	B-140A
	1	RJC -511Y	90	B-140A
	1/0	RJC -512C	115	B-140A
	2/0	RJC -512G	115	B-140A
	3/0	RJC -512L	150	B-140A
	4/0	RJC -512Q	150	B-140A
	4	6*	RJC -521H	45
4		RJC -521L	65	B-140A
2 SOL		RJC -521T	65	B-140A
2		RJC -521V	65	B-140A
1		RJC -521Y	90	B-140A
1/0		RJC -522C	115	B-140A
2/0		RJC -522G	115	B-140A
3/0		RJC -522L	150	B-140A
4/0		RJC -522Q	150	B-140A

*Requires sleeve B112 (2 per connection)

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
5	6*	RJC -531H	45	B-140A
	4	RJC -531L	65	B-140A
	2 SOL	RJC -531T	65	B-140A
	2	RJC -531V	65	B-140A
	1	RJC -531Y	90	B-140A
	1/0	RJC -532C	115	B-140A
	2/0	RJC -532G	115	B-140A
	3/0	RJC -532L	150	B-140A
	4/0	RJC -532Q	150	B-140A
	6	6*	RJC -541H	45
4		RJC -541L	65	B-140A
2 SOL		RJC -541T	65	B-140A
2		RJC -541V	65	B-140A
1		RJC -541Y	90	B-140B
1/0		RJC -542C	115	B-140B
2/0		RJC -542G	115	B-140B
3/0		RJC -542L	150	B-140B
4/0		RJC -542Q	150	B-140B

*Requires sleeve B112 (2 per connection)

RJ

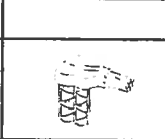
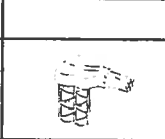
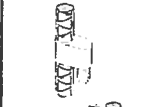
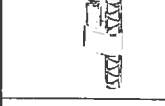
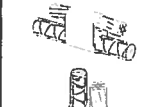
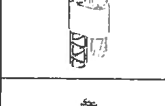



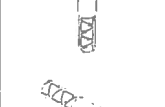
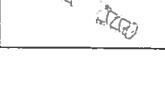
CABLE TO REBAR

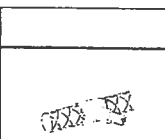
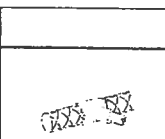
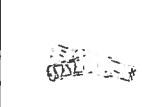
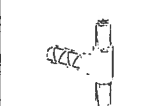

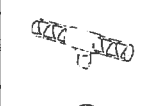

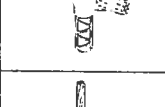

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
7	4	RJE-551L	65	B-144A
	2 SOL	RJE-551T	65	B-144A
	2	RJE-551V	65	B-144A
	1	RJE-551Y	90	B-144A
	1/0	RJE-552C	115	B-144B
	2/0	RJE-552G	115	B-144B
	3/0	RJE-552L	150	B-144B
8	4/0	RJE-552Q	150	B-144B
	2 SOL	RJE-561T	65	B-144A
	2	RJE-561V	65	B-144A
	1	RJE-561Y	90	B-144A
	1/0	RJE-562C	115	B-144B
	2/0	RJE-562G	115	B-144B
	3/0	RJE-562L	150	B-144B
9	4/0	RJE-562Q	150	B-144B
	2 SOL	RJE-571T	65	B-144A
	2	RJE-571V	65	B-144A
	1	RJE-571Y	90	B-144A
	1/0	RJE-572C	115	B-144B
	2/0	RJE-572G	115	B-144B
	3/0	RJE-572L	150	B-144B
4/0	RJE-572Q	150	B-144B	

REBAR SIZE	CABLE SIZE	MOLD PART NO.	WELD METAL	PACKING PART NO.
10	2 SOL	RJE-581T	65	B-144A
	2	RJE-581V	65	B-144A
	1	RJE-581Y	90	B-144A
	1/0	RJE-582C	115	B-144B
	2/0	RJE-582G	115	B-144B
	3/0	RJE-582L	150	B-144E
	4/0	RJE-582Q	150	B-144E
11	2 SOL	RJE-591T	65	B-144A
	2	RJE-591V	65	B-144A
	1	RJE-591Y	90	B-144A
	1/0	RJE-592C	115	B-144B
	2/0	RJE-592G	115	B-144B
	3/0	RJE-592L	150	B-144E
	4/0	RJE-592Q	150	B-144E
14	1/0	RJE-602C	115	B-144B
	2/0	RJE-602G	115	B-144B
	3/0	RJE-602L	150	B-144E
	4/0	RJE-602Q	150	B-144E
18	1/0	RJE-612C	115	B-144B
	2/0	RJE-612G	115	B-144B
	3/0	RJE-612L	150	B-144E
	4/0	RJE-612Q	150	B-144E

OTHER CABLE TO REBAR CONNECTIONS

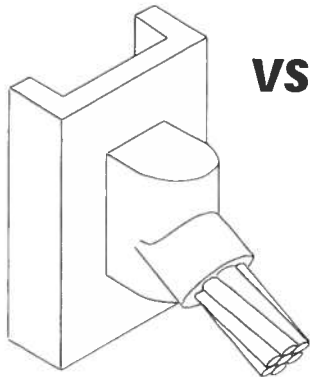
The connections shown below are for use only where connections shown in this catalog are not suitable.

NAME	TYPE		EASE	SPLIT
EII	DT		2	V
Parallel tap	DR		2	V
	RV		2	V
Parallel thru	RT		2	V
	RW		2	V
Splice	RE		2	V
	RF		2	V
	RG		1	V
	SF		2	V
	SR		1	V

NAME	TYPE		EASE	SPLIT
Tee	RH		1	*
	RK		1	*
	RL		2	V
	RM		2	V
	RN		2	V
	RP		2	V
	RQ		2	V
X	XJ		1	*

VS

VERTICAL STEEL SURFACE



VERTICAL STEEL SURFACE

- Cable down at 45° to vertical steel surface including pipe.
- Cable to vertical flat steel surface; cable to side of vertical or horizontal steel pipe.
- CADWELD also has a complete product line for cathodic protection connections. See Bulletin CA1A.
- Concentric stranded copper cable listed.
- **A test weld should be made to check the possibility of burn through on thin sections or thin wall pipe.**
- **Bold letter in mold part number is the price key.**

REQUIRED TOOLS

Handle Clamps **L160** for C Price Key Molds
L159 for D Price Key Molds

Flint Ignitor **T320** (Included with Handle Clamp but also available separately)

SUGGESTED TOOLS

Cable Cleaning Brush T313 or T314
 Slag Removal Spade B136A or B136B
 Mold Cleaning Brush T394
 Rasp T321
 Torch Head T111

ACCESSORIES

See Section A

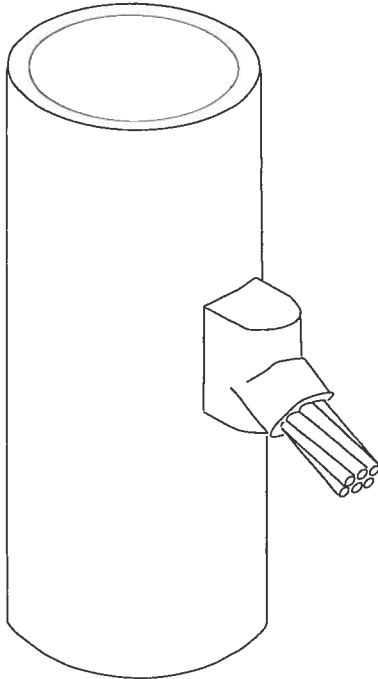
TYPE VS		
CABLE SIZE	MOLD PART NO.	WELD METAL
6*	VSC-1H	45
4	VSC-1L	45
2 SOL	VSC-1T	45
2	VSC-1V	45
1	VSC-1Y	65
1/0	VSC-2C	90
2/0	VSC-2G	90
3/0	VSC-2L	115
4/0	VSC-2Q	115
250	VSC-2V	115
300	VSC-3A	150
350	VSC-3D	200
500	VSC-3Q	200
750	VSD-4L	2-150
1000	VSD-4Y	2-200

*Requires sleeve B-112 (1 per weld)

Cable to Vertical Steel Pipe – Use Flat surface mold part number; add V and suffix.		
Cable	Nominal Pipe Size	Suffix
#6 thru 250	30" and smaller	Nominal Pipe Size
	32" and larger	None
Example: 4/0 to 4" pipe, VSC-2Q-V4		
Cable to horizontal steel pipe – Add H and nominal pipe size to flat surface mold number. Example: 2/0 to 8" pipe, VSC-2G-H8		

RANGE OF VERTICAL PIPES

VS



VS

RANGE OF VERTICAL PIPES

- Cable down at 45° to range of vertical steel pipes.
- CADWELD also has a complete product line for cathodic protection connections. See Bulletin CA1A.
- **A test weld should be made to check the possibility of burn through on thin sections or thin wall pipe.**
- When only one pipe size rather than a range of sizes is involved, see Cable to Steel Pipe Table on previous page.
- Concentric stranded copper cable is listed.
- **Bold letter** in mold part number is the price key.

REQUIRED TOOLS

Handle Clamps L160 or B160V (*chain support handle clamp*) for **C Price Key Mold**

Flint Ignitor T320 (*Included with Handle Clamp but also available separately*)

SUGGESTED TOOLS

Cable Cleaning Brush	T313 or T314
Slag Removal Spade	B136A or B136B
Mold Cleaning Brush	T394
Rasp	T321
Torch Head	T111

ACCESSORIES

See Section A

CABLE SIZE	Nominal Pipe Size	MOLD PART NO.	WELD METAL
4	1 1/2" to 4" Pipe	VSC-1L-V3C	45
	4" to 6" Pipe	VSC-1L-V5C	45
	6" to 10" Pipe	VSC-1L-V8C	45
	12" to 30" Pipe	VSC-1L-V21C	45
	32" Pipe or Larger	(1)	
2 SOL	1 1/2" to 4" Pipe	VSC-1T-V3C	45
	4" to 6" Pipe	VSC-1T-V5C	45
	6" to 10" Pipe	VSC-1T-V8C	45
	12" to 30" Pipe	VSC-1T-V21C	45
	32" Pipe or Larger	(1)	
2	1 1/2" to 4" Pipe	VSC-1V-V3C	45
	4" to 6" Pipe	VSC-1V-V5C	45
	6" to 10" Pipe	VSC-1V-V8C	45
	12" to 30" Pipe	VSC-1V-V21C	45
	32" Pipe or Larger	(1)	
1	2" to 4" Pipe	VSC-1Y-V3C	65
	4" to 6" Pipe	VSC-1Y-V5C	65
	6" to 10" Pipe	VSC-1Y-V8C	65
	12" to 30" Pipe	VSC-1Y-V21C	65
	32" Pipe or Larger	(1)	

(1) Use flat surface mold part number. See page 3-7.

CABLE SIZE	Nominal Pipe Size	MOLD PART NO.	WELD METAL
1/0	2" to 4" Pipe	VSC-2C-V3C	90
	4" to 6" Pipe	VSC-2C-V5C	90
	6" to 10" Pipe	VSC-2C-V8C	90
	12" to 30" Pipe	VSC-2C-V21C	90
	32" Pipe or Larger	(1)	
2/0	2" to 4" Pipe	VSC-2G-V3C	90
	4" to 6" Pipe	VSC-2G-V5C	90
	6" to 10" Pipe	VSC-2G-V8C	90
	12" to 30" Pipe	VSC-2G-V21C	90
	32" Pipe or Larger	(1)	
3/0	2" to 4" Pipe	VSC-2L-V3C	115
	4" to 6" Pipe	VSC-2L-V5C	115
	6" to 10" Pipe	VSC-2L-V8C	115
	12" to 30" Pipe	VSC-2L-V21C	115
	32" Pipe or Larger	(1)	
4/0	2" to 4" Pipe	VSC-2Q-V3C	115
	4" to 6" Pipe	VSC-2Q-V5C	115
	6" to 10" Pipe	VSC-2Q-V8C	115
	12" to 30" Pipe	VSC-2Q-V21C	115
	32" Pipe or Larger	(1)	

OTHER CABLE TO STEEL OR CAST IRON

The connections shown below are for use only where connections shown in this catalog are not suitable.

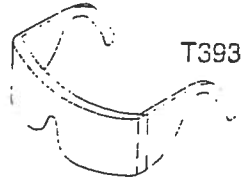
NAME	TYPE		EASE	SPLIT	NAME	TYPE		EASE	SPLIT
Tap Cast Iron	VH		1	V	Tap Steel	VA		1	V
	VJ		1	V		VC		1	V
	VK		1	V		VE		2	V
	VL		1	V	Thru Cast Iron	HE		1	*
	VR		1	V	Thru Steel	HH		2	*
Tap Steel	HF		1	*		HJ		2	*
	HG		2	*		HK		1	V
						VX		2	V

MATERIALS, TOOLS & ACCESSORIES

SECTION A

SAFETY FIRST

ERICO recommends SAFETY FIRST when making CADWELD Connections as you should consider with all tasks. We offer the following safety equipment. We recommend gloves and glasses as shown.



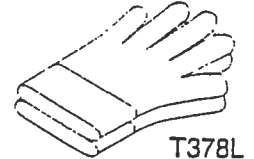
T393

Safety Glasses

These glasses may be worn separately or over prescription glasses.

Gloves

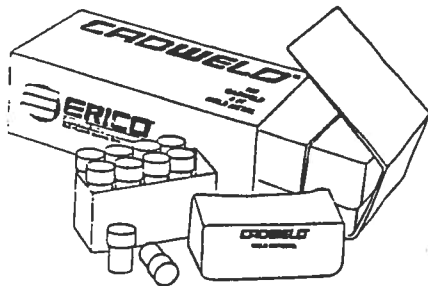
Heavy canvas gloves with leather palms.



T378L

CADWELD WELD METAL

CADWELD Weld Metal is a mixture of copper oxide and aluminum, packaged by size in plastic tubes. Each tube contains the starting material at the bottom of the plastic tube, with the Weld Metal on top. These materials are not explosive and not subject to spontaneous ignition. These containers are packaged in boxes along with metal disks. Each weld uses one disk.



Five types of CADWELD Weld Metal are used for grounding connections:

1. F20 or standard Weld Metal is used for all grounding connections with the exception of those to cast iron or to load bearing rail. The Standard Weld Metal containers have clear (or natural) caps. Standard Weld Metal is also used with most FX molds.

2. XL Weld Metal is used with EXOLON molds. EXOLON Weld Metal containers have white caps.

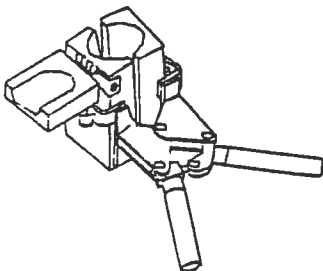
3. XF-19 Alloy Weld Metal is used for all connections to cast iron such as Type HB and others. XF-19 Weld Metal containers have orange caps.

For DUCTILE IRON, see Section 3, Cast Iron Connections

4. CADWELD F80 Alloy Weld Metal is used for all connections to load bearing rail such as Type W Bonds. F80 Weld Metal containers have yellow caps.

5. Cathodic connections require different weld metal and molds. Contact factory for cathodic connection applications.

CADWELD MOLDS

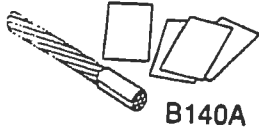


A semi-permanent graphite mold is used for making most CADWELD Connections. The mold controls the direction and speed of the molten CADWELD weld metal flow and its final shape. The graphite used in a CADWELD mold is a high temperature type that lasts for an average of 50 or more CADWELD connections under normal usage.

SECTION A MATERIALS, TOOLS & ACCESSORIES

ADAPTING MOLDS TO FIT CONDUCTORS

Cables smaller than indicated on mold tag can be welded by using either Wrap Sleeve or Adapter Sleeves.



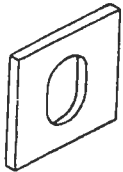
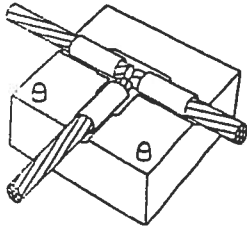
CADWELD Wrap Sleeve B140A

CADWELD Wrap Sleeve is wrapped around the cable until the diameter is about the same as the cable opening in the mold.

CADWELD Adapter Sleeves

CADWELD Adapter Sleeves are used to adapt a limited range of smaller size cables to a larger size CADWELD Mold.

CABLE SIZE		Adapter Sleeve Part No.	Use in Mold for Stranded
Concentric Strand	Solid		
#12,14	#10,12,14	B-133-1H	#6
#7,8,10	#6,8	B-133-1L	#4
#6	#5	B-112	#2
#4,5	#3,4	B-133-1V	#2
#3,4	#2	B-133-1Y	#1
#2	#1	B-133-2C	1/0
#1	1/0	B-133-2G	2/0
1/0,1	2/0	B-133-2L	3/0
2/0,1/0	3/0	B-133-2Q	4/0



Packing

Packing consists of either preformed ceramic packing or sometimes B140A or B141A copper wrap shim. Packing is required on all rebar connections.



T403

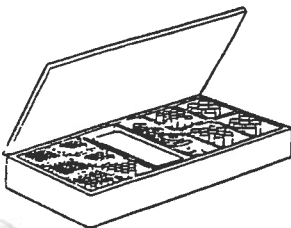
CADWELD Mold Sealer

T403 CADWELD Mold Sealer is ideal for sealing hot or cold molds to retard leakage from large stranded conductors. It is required on certain molds such as Types HA, HB, HC, VG and VN. It prolongs useful mold life when the cable opening becomes worn.

It is available in a convenient 2 pound package.

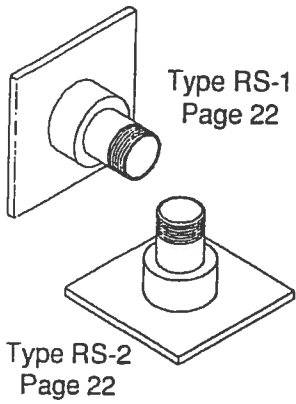
CADWELD Sleeve Kit

T427 Includes:			
Product #	Quantity	Product #	Quantity
B1331H	25	B1332L	8
B1331L	25	B1332Q	12
B112	18	B140A	10
B1331V	10	B117A	20
B1331Y	10	B117B	10
B1332C	9	B117C	10
B1332G	10	T320A	10

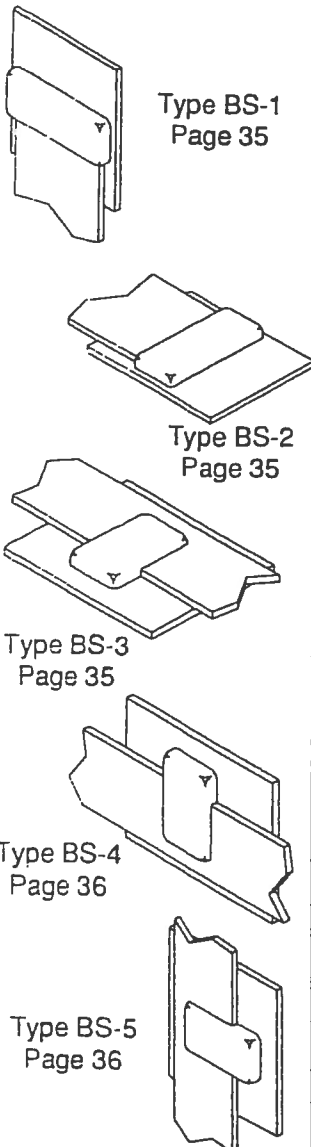


SELECTOR CHART

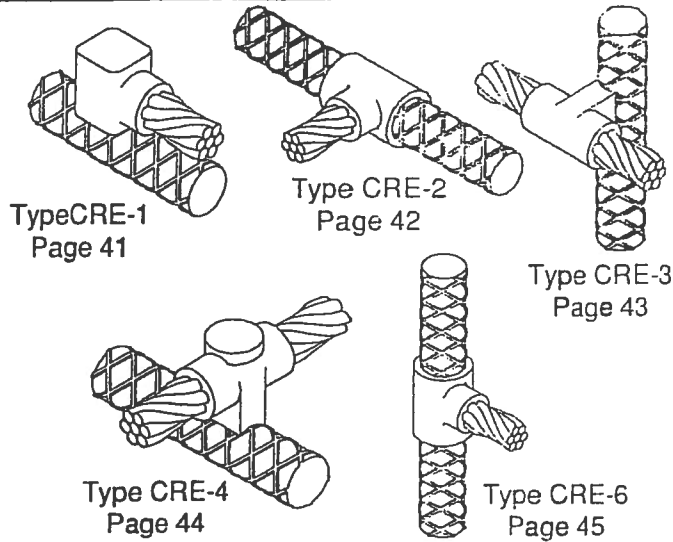
Threaded Stud to Steel Surface



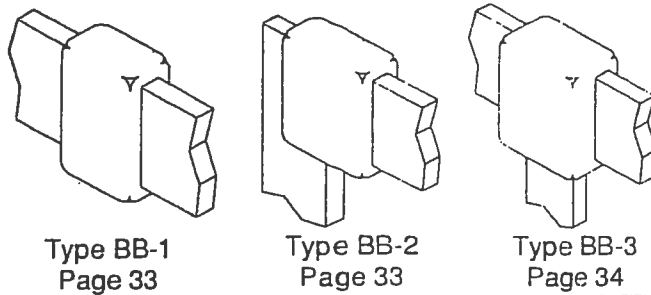
Bar to Steel Surface



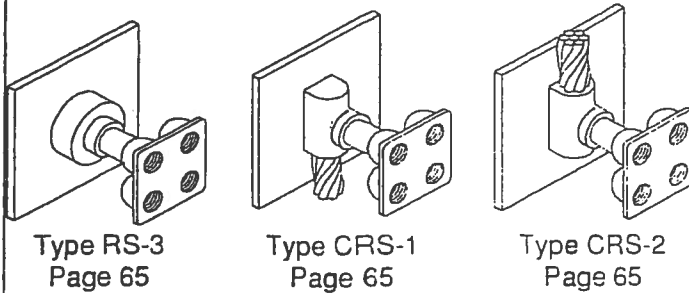
Cable to Rebar



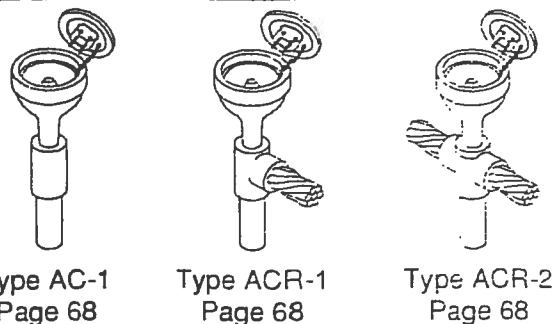
Bus Bar to Bus Bar



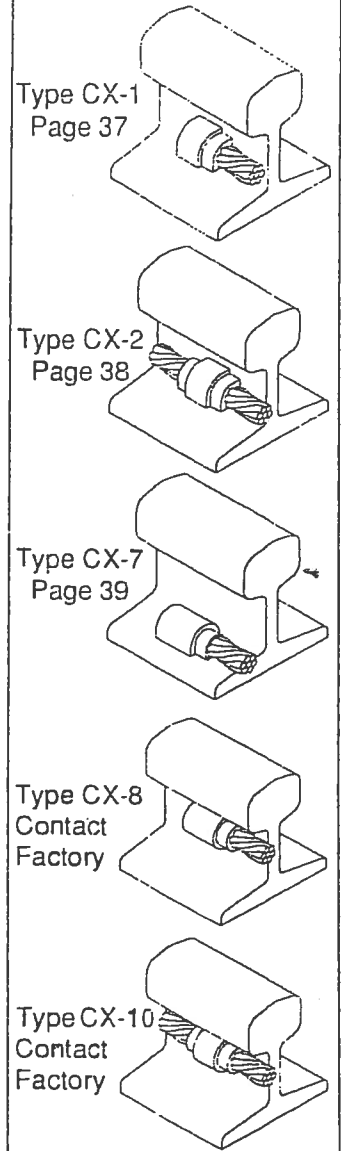
Ground Plate to Surface



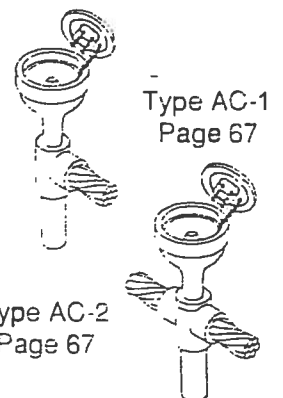
Grounding Receptacle to Ground Rod



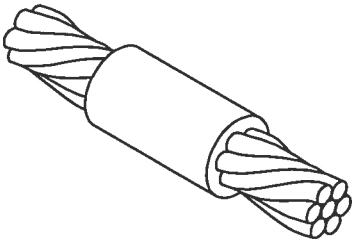
Cable to Rail

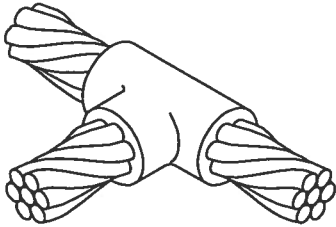


Grounding Receptacle to Cable

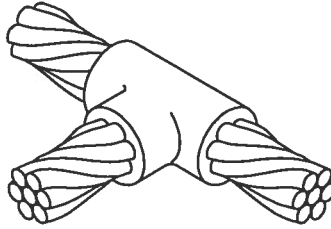


For Weld Types Not Shown Contact Factory

THERMOWELD® TYPE CC-1						CADWELD® TYPE SS			
CABLE SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
RUN	TAP	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	7/#10	M-9018	SSC-9A	32	4	M-9018-H	HDSSC-9A	65	4
7/#8	7/#8	M-9050	SSC-9B	45	4	M-9050-H	HDSSC-9B	90	4
7/#7	7/#7	M-9195	SSC-9C	65	4	M-9195-H	HDSSC-9C	115	4
7/#6	7/#6	M-9051	SSC-9D	90	4	M-9051-H	HDSSC-9D	150	4
7/#5	7/#5	M-9052	SSC-9E	115	4	M-9052-H	HDSSC-9E	200	4
19/#9	19/#9	M-9053	SSC-9F	115	4	M-9053-H	HDSSC-9F	200	4
19/#8	19/#8	M-9054	SSC-9G	115	4	M-9054-H	HDSSC-9G	200	4
19/#7	19/#7	M-9196	SSC-9H	150	4	M-9196-H	HDSSC-9H	250	4
19/#6	19/#6	M-9055	SSC-9J	200	4	M-9055-H	HDSSD-9J	2-150	5

THERMOWELD® TYPE CC-2						CADWELD® TYPE TA			
CABLE SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
RUN	TAP	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	7/#10	M-9020	TAC-9A9A	45	4	M-9020-H	HDTAC-9A9A	90	4
7/#8	7/#8	M-9060	TAC-9B9B	65	4	M-9060-H	HDTAC-9B9B	115	4
	7/#10	M-9197	TAC-9B9A	45	4	M-9197-H	HDTAC-9B9A	90	4
	2/0 STR	M-9061	TAC-9B2G	65	4	M-9061-H	HDTAC-9B2G	150	4
7/#7	4/0 STR	M-9062	TAC-9B2Q	90	4	M-9062-H	HDTAC-9B2Q	200	4
	7/#7	M-9198	TAC-9C9C	90	4	M-9198-H	HDTAC-9C9C	150	4
	7/#8	M-9022	TAC-9C9B	90	4	M-9022-H	HDTAC-9C9B	150	4
	7/#10	M-9290	TAC-9C9A	45	4	M-9290-H	HDTAC-9C9A	90	4
	2/0 STR	M-9201	TAC-9C2G	90	4	M-9201-H	HDTAC-9C2G	150	4
7/#6	4/0 STR	M-9202	TAC-9C2Q	115	4	M-9202-H	HDTAC-9C2Q	200	4
	7/#6	M-9362	TAC-9D9D	115	4	M-9362-H	HDTAC-9D9D	200	4
	7/#7	M-9023	TAC-9D9C	90	4	M-9023-H	HDTAC-9D9C	150	4
	7/#8	M-9024	TAC-9D9B	90	4	M-9024-H	HDTAC-9D9B	150	4
	7/#10	M-9025	TAC-9D9A	45	4	M-9025-H	HDTAC-9D9A	90	4
	2/0 STR	M-9382	TAC-9D9G	90	4	M-9382-H	HDTAC-9D2G	150	4
	4/0 STR	M-9063	TAC-9D2Q	115	4	M-9063-H	HDTAC-9D2Q	250	4
7/#5	7/#5	M-9064	TAC-9E9E	150	4	M-9064-H	HDTAC-9E9E	250	4
	7/#6	M-9026	TAC-9E9D	115	4	M-9026-H	HDTAC-9E9D	200	4
	7/#7	M-9213	TAC-9E9C	90	4	M-9213-H	HDTAC-9E9C	150	4

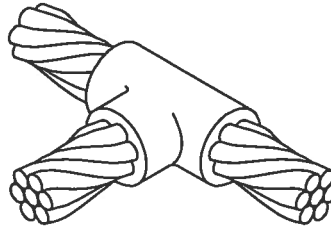
**THERMOWELD®
TYPE
CC-2**



**CADWELD®
TYPE
TA**

CABLE SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS				
RUN	TAP	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	
7/#5	7/#8	M-9065	TAC-9E9B	90	4	M-9065-H	HDTAC-9E9B	150	4	
	7/#10	M-9343	TAC-9E9A	90	4	M-9343-H	HDTAC-9E9A	150	4	
	2/0 STR	M-9321	TAC-9E2G	90	4	M-9321-H	HDTAC-9E2G	150	4	
	4/0 STR	M-9066	TAC-9E2Q	150	4	M-9066-H	HDTAC-9E2Q	250	4	
19#9	19#9	M-9067	TAC-9F9F	150	4	M-9067-H	HDTAC-9F9F	250	4	
	7/#5	M-9027	TAC-9F9E	150	4	M-9027-H	HDTAC-9F9E	250	4	
	7/#6	M-9028	TAC-9F9D	150	4	M-9028-H	HDTAC-9F9D	250	4	
	7/#7	M-9203	TAC-9F9C	90	4	M-9203-H	HDTAC-9F9C	150	4	
	7/#8	M-9030	TAC-9F9B	90	4	M-9030-H	HDTAC-9F9B	150	4	
	2/0 STR 4/0 STR	M-9031 M-9068	TAC-9F2G TAC-9F2Q	90 150	4 4	M-9031-H M-9068-H	HDTAC-9F2G HDTAC-9F2Q	150 250	4 4	
19#8	19#8	M-9069	TAC-9G9G	200	4	M-9069-H	HDTAD-9G9G	2-150	5	
	19#9	M-9032	TAC-9G9F	150	4	M-9032-H	HDTAC-9G9F	250	4	
	7/#5	M-9047	TAC-9G9E	150	4	M-9047-H	HDTAC-9G9E	250	4	
	7/#6	M-9033	TAC-9G9D	150	4	M-9033-H	HDTAC-9G9D	250	4	
	7/#7	M-9040	TAC-9G9C	90	4	M-9040-H	HDTAC-9G9C	150	4	
	7/#8	M-9070	TAC-9G9B	90	4	M-9070-H	HDTAC-9G9B	150	4	
	2/0 STR 4/0 STR	M-9071 M-9042	TAC-9G2G TAC-9G2Q	90 150	4 4	M-9071-H M-9042-H	HDTAC-9G2G HDTAC-9G2Q	150 250	4 4	
	19#7	19#7	M-9073	TAC-9H9H	200	4	M-9073-H	HDTAD-9H9H	2-200	5
19#8		M-9034	TAC-9H9G	200	4	M-9034-H	HDTAD-9H9G	2-150	5	
19#9		M-9204	TAC-9H9F	200	4	M-9204-H	HDTAD-9H9F	2-150	5	
7/#5		M-9442	TAC-9H9E	150	4	M-9442-H	HDTAD-9H9E	2-150	5	
7/#6		M-9035	TAC-9H9D	150	4	M-9035-H	HDTAC-9H9D	250	4	
7/#7		M-9074	TAC-9H9C	90	4	M-9074-H	HDTAC-9H9C	150	4	
7/#8		M-9036	TAC-9H9B	90	4	M-9036-H	HDTAC-9H9B	150	4	
2/0 STR 4/0 STR 500 MCM		M-9147 M-9148 M-9075	TAC-9H2G TAC-9H2Q TAC-9H3Q	90 150 250	4 4 4	M-9147-H M-9148-H M-9075-H	HDTAC-9H2G HDTAC-9H2Q HDTAD-9H3Q	150 250 2-200	4 4 5	
19#6		19#6	M-9076	TAC-9J9J	2-150	4	M-9076-H	HDTAD-9J9J	500	5
		19#7	M-9149	TAC-9J9H	200	4	M-9149-H	HDTAD-9J9H	2-200	5
	19#8	M-9038	TAC-9J9G	200	4	M-9038-H	HDTAD-9J9G	2-150	5	
	19#9	M-9077	TAC-9J9F	200	4	M-9077-H	HDTAD-9J9F	2-150	5	
	7/#5	M-9393	TAC-9J9E	150	4	M-9393-H	HDTAD-9J9E	2-150	5	
	7/#6	M-9289	TAC-9J9D	115	4	M-9289-H	HDTAC-9J9D	250	4	
	2/0 STR 4/0 STR 500 MCM	M-9039 M-9078 M-9011	TAC-9J2G TAC-9J2Q TAC-9J3Q	90 150 2-150	4 4 4	M-9039-H M-9078-H M-9011-H	HDTAC-9J2G HDTAD-9J2Q HDTAD-9J3Q	150 2-150 500	4 5 5	
	2/0 STR	19#6	M-9207	TAC-2G9J	115	4	M-9207-H	HDTAC-2G9J	200	4
19#7		M-9208	TAC-2G9H	115	4	M-9208-H	HDTAC-2G9H	200	4	
19#8		M-9209	TAC-2G9G	115	4	M-9209-H	HDTAC-2G9G	200	4	
19#9		M-9082	TAC-2G9F	115	4	M-9082-H	HDTAC-2G9F	200	4	
7/#5		M-9210	TAC-2G9E	115	4	M-9210-H	HDTAC-2G9E	200	4	

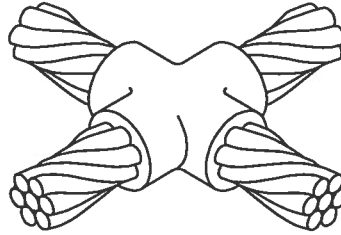
**THERMOWELD®
TYPE
CC-2**



**CADWELD®
TYPE
TA**

CABLE SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
RUN	TAP	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
2/0 STR	7/#6	M-9409	TAC-2G9D	90	4	M-9409-H	HDTAC-2G9D	150	4
	7/#7	M-9211	TAC-2G9C	90	4	M-9211-H	HDTAC-2G9C	150	4
	7/#8	M-9001	TAC-2G9B	90	4	M-9001-H	HDTAC-2G9B	150	4
	7/#10	M-9004	TAC-2G9A	65	4	M-9004-H	HDTAC-2G9A	115	4
4/0 STR	19/#6	M-9083	TAC-2Q9J	150	4	M-9083-H	HDTAC-2Q9J	250	4
	19/#7	M-9427	TAC-2Q9H	150	4	M-9427-H	HDTAC-2Q9H	250	4
	19/#8	M-9212	TAC-2Q9G	150	4	M-9212-H	HDTAC-2Q9G	250	4
	19/#9	M-9084	TAC-2Q9F	150	4	M-9084-H	HDTAC-2Q9F	250	4
	7/#5	M-9331	TAC-2Q9E	150	4	M-9331-H	HDTAC-2Q9E	250	4
	7/#6	M-9000	TAC-2Q9D	150	4	M-9000-H	HDTAC-2Q9D	250	4
	7/#7	M-9150	TAC-2Q9C	90	4	M-9150-H	HDTAC-2Q9C	150	4
	7/#8	M-9085	TAC-2Q9B	90	4	M-9085-H	HDTAC-2Q9B	150	4
	7/#10	M-9216	TAC-2Q9A	90	4	M-9216-H	HDTAC-2Q9A	150	4
	250 MCM	19/#6	M-9217	TAC-2V9J	150	4	M-9217-H	HDTAC-2V9J	250
19/#7		M-9218	TAC-2V9H	150	4	M-9218-H	HDTAC-2V9H	250	4
19/#8		M-9219	TAC-2V9G	150	4	M-9219-H	HDTAC-2V9G	250	4
19/#9		M-9220	TAC-2V9F	150	4	M-9220-H	HDTAC-2V9F	250	4
7/#5		M-9221	TAC-2V9E	150	4	M-9221-H	HDTAC-2V9E	250	4
7/#6		M-9222	TAC-2V9D	150	4	M-9222-H	HDTAC-2V9D	250	4
7/#7		M-9223	TAC-2V9C	90	4	M-9223-H	HDTAC-2V9C	150	4
7/#8		M-9087	TAC-2V9B	90	4	M-9087-H	HDTAC-2V9B	150	4
7/#10		M-9224	TAC-2V9A	90	4	M-9224-H	HDTAC-2V9A	150	4
500 MCM		19/#6	M-9154	TAD-3Q9J	2-150	5	M-9154-H	HDTAD-3Q9J	500
	19/#7	M-9155	TAC-3Q9H	250	4	M-9155-H	HDTAD-3Q9H	2-200	5
	19/#8	M-9088	TAC-3Q9G	200	4	M-9088-H	HDTAD-3Q9G	2-150	5
	19/#9	M-9156	TAC-3Q9F	200	4	M-9156-H	HDTAD-3Q9F	2-150	5
	7/#5	M-9010	TAC-3Q9E	200	4	M-9010-H	HDTAD-3Q9E	2-150	5
	7/#6	M-9241	TAC-3Q9D	150	4	M-9241-H	HDTAC-3Q9D	250	4
	7/#7	M-9157	TAC-3Q9C	115	4	M-9157-H	HDTAC-3Q9C	200	4
	7/#8	M-9090	TAC-3Q9B	115	4	M-9090-H	HDTAC-3Q9B	200	4

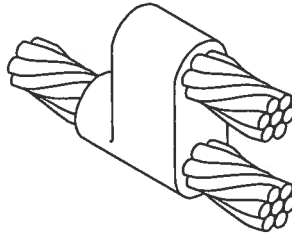
**THERMOWELD®
TYPE
CC-4**



**CADWELD®
TYPE
XA**

CABLE SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
RUN	TAP	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	7/#10	M-9243	XAC-9A9A	65	4				
7/#8	7/#8	M-9091	XAC-9B9B	90	4				
	7/#10	M-9244	XAC-9B9A	90	4				
7/#7	7/#7	M-9159	XAC-9C9C	115	4				
	7/#8	M-9292	XAC-9C9B	115	4				
	7/#10	M-9247	XAC-9C9A	115	4				
7/#6	7/#6	M-9293	XAC-9D9D	200	4				
	7/#7	M-9248	XAC-9D9C	150	4				
	7/#8	M-9249	XAC-9D9B	150	4				
	7/#10	M-9250	XAC-9D9A	115	4				
7/#5	7/#5	M-9092	XAC-9E9E	200	4				
	7/#6	M-9252	XAC-9E9D	200	4				
	7/#7	M-9281	XAC-9E9C	150	4				
	7/#8	M-9254	XAC-9E9B	150	4				
19/#9	19/#9	M-9093	XAC-9F9F	200	4				
	7/#5	M-9256	XAC-9F9E	200	4				
	7/#6	M-9257	XAC-9F9D	200	4				
	7/#7	M-9274	XAC-9F9C	150	4				
	7/#8	M-9279	XAC-9F9B	150	4				
19/#8	19/#8	M-9094	XAC-9G9G	250	4				
	19/#9	M-9300	XAC-9G9F	250	4				
	7/#5	M-9258	XAC-9G9E	250	4				
	7/#6	M-9301	XAC-9G9D	200	4				
	7/#7	M-9302	XAC-9G9C	150	4				
	7/#8	M-9303	XAC-9G9B	150	4				
19/#7	19/#7	M-9163	XAD-9H9H	2-150	5				
	19/#8	M-9306	XAD-9H9G	2-150	5				
	19/#9	M-9389	XAD-9H9F	2-150	5				
	7/#5	M-9307	XAD-9H9E	2-150	5				
	7/#6	M-9421	XAC-9H9D	250	4				
	7/#7	M-9308	XAC-9H9C	200	4				
	7/#8	M-9310	XAC-9H9B	200	4				
19/#6	19/#6	M-9284	XAD-9J9J	500	5				
	19/#7	M-9313	XAD-9J9H	500	5				
	19/#8	M-9314	XAD-9J9G	2-200	5				
	19/#9	M-9344	XAD-9J9F	2-150	5				
	7/#5	M-9345	XAD-9J9E	2-150	5				
	7/#6	M-9348	XAD-9J9D	2-150	5				
	7/#7	M-9350	XAC-9J9C	250	4				
	7/#8	M-9358	XAC-9J9B	250	4				

**THERMOWELD®
TYPE
CC-6**

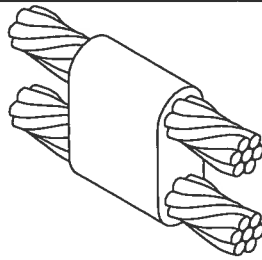


**CADWELD®
TYPE
PC**

CABLE SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
RUN	TAP	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	#2 STR	M-9384	PCC-9A1V	65	4				
	#4 STR	M-9392	PCC-9A1L	45	4				
	#6 STR	M-9700	PCC-9A1H	32	4				
	#6 SOLID	M-9407	PCC-9A1G	32	4				
	#8 SOLID	M-9423	PCC-9A1D	32	4				
7/#8	#2 STR	M-9424	PCC-9B1V	65	4				
	#4 STR	M-9425	PCC-9B1L	45	4				
	#6 STR	M-9429	PCC-9B1H	45	4				
	#6 SOLID	M-9447	PCC-9B1G	45	4				
	#8 SOLID	M-9448	PCC-9B1D	45	4				
7/#7	#2 STR	M-9449	PCC-9C1V	65	4				
	#4 STR	M-9450	PCC-9C1L	65	4				
	#6 STR	M-9451	PCC-9C1H	45	4				
	#6 SOLID	M-9452	PCC-9C1G	45	4				
	#8 SOLID	M-9453	PCC-9C1D	45	4				
7/#6	#2 STR	M-9454	PCC-9D1V	90	4				
	#4 STR	M-9455	PCC-9D1L	65	4				
	#6 STR	M-9456	PCC-9D1H	65	4				
	#6 SOLID	M-9457	PCC-9D1G	65	4				
	#8 SOLID	M-9458	PCC-9D1D	65	4				
7/#5	#2 STR	M-9459	PCC-9E1V	90	4				
	#4 STR	M-9460	PCC-9E1L	90	4				
	#6 STR	M-9461	PCC-9E1H	65	4				
	#6 SOLID	M-9462	PCC-9E1G	65	4				
	#8 SOLID	M-9463	PCC-9E1D	65	4				

Contact Factory for Information About Heavy Duty Molds.

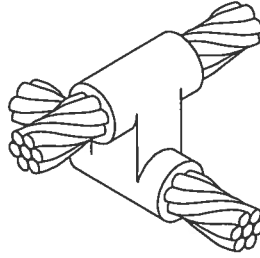
**THERMOWELD®
TYPE
CC-7**



**CADWELD®
TYPE
PT**

CABLE SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
RUN	TAP	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	7/#10	M-9437	PTC-9A9A	65	4	M-9437-H	HDPTC-9A9A	115	4
7/#8	7/#8	M-9138	PTC-9B9B	90	4	M-9138-H	HDPTC-9B9B	150	4
	7/#10	M-9464	PTC-9B9A	65	4	M-9464-H	HDPTC-9B9A	115	4
7/#7	7/#7	M-9433	PTC-9C9C	115	4	M-9433-H	HDPTC-9C9C	200	4
	7/#8	M-9465	PTC-9C9B	115	4	M-9465-H	HDPTC-9C9B	200	4
	7/#10	M-9466	PTC-9C9A	90	4	M-9466-H	HDPTC-9C9A	150	4
7/#6	7/#6	M-9408	PTC-9D9D	150	4	M-9408-H	HDPTC-9D9D	250	4
	7/#7	M-9467	PTC-9D9C	150	4	M-9467-H	HDPTC-9D9C	250	4
	7/#8	M-9468	PTC-9D9B	115	4	M-9468-H	HDPTC-9D9B	200	4
	7/#10	M-9469	PTC-9D9A	115	4	M-9469-H	HDPTC-9D9A	200	4
7/#5	7/#5	M-9470	PTC-9E9E	200	4	M-9470-H	HDPTD-9E9E	2-150	5
	7/#6	M-9471	PTC-9E9D	200	4	M-9471-H	HDPTD-9E9D	2-150	5
	7/#7	M-9472	PTC-9E9C	150	4	M-9472-H	HDPTC-9E9C	250	4
	7/#8	M-9473	PTC-9E9B	150	4	M-9473-H	HDPTC-9E9B	250	4
19/#9	19/#9	M-9379	PTC-9F9F	250	4	M-9379-H	HDPTD-9F9F	2-200	5
	7/#5	M-9474	PTC-9F9E	200	4	M-9474-H	HDPTD-9F9E	2-150	5
	7/#6	M-9475	PTC-9F9D	200	4	M-9475-H	HDPTD-9F9D	2-150	5
	7/#7	M-9432	PTC-9F9C	150	4	M-9432-H	HDPTC-9F9C	250	4
	7/#8	M-9476	PTC-9F9B	150	4	M-9476-H	HDPTC-9F9B	250	4
19/#8	19/#8	M-9136	PTD-9G9G	2-150	5	M-9136-H	HDPTD-9G9G	500	5
	19/#9	M-9477	PTC-9G9F	250	4	M-9477-H	HDPTD-9G9F	2-200	5
	7/#5	M-9478	PTC-9G9E	200	4	M-9478-H	HDPTD-9G9E	2-150	5
	7/#6	M-9479	PTC-9G9D	200	4	M-9479-H	HDPTD-9G9D	2-150	5
	7/#7	M-9417	PTC-9G9C	150	4	M-9417-H	HDPTC-9G9C	250	4
19/#7	7/#8	M-9480	PTC-9G9B	150	4	M-9480-H	HDPTC-9G9B	250	4
	19/#7	M-9481	PTD-9H9H	2-150	5	M-9481-H	HDPTD-9H9H	500	5
	19/#8	M-9482	PTD-9H9G	2-150	5	M-9482-H	HDPTD-9H9G	500	5
	19/#9	M-9431	PTC-9H9F	250	4	M-9431-H	HDPTD-9H9F	2-200	5
	7/#5	M-9483	PTC-9H9E	200	4	M-9483-H	HDPTD-9H9E	2-150	5
	7/#6	M-9484	PTC-9H9D	200	4	M-9484-H	HDPTD-9H9D	2-150	5
	7/#7	M-9430	PTC-9H9C	150	4	M-9430-H	HDPTC-9H9C	250	4
	7/#8	M-9485	PTC-9H9B	150	4	M-9485-H	HDPTC-9H9B	250	4
19/#6	19/#6	M-9486	PTD-9J9J	2-200	5	M-9486-H	HDPTF-9J9J	3-200	6
	19/#7	M-9487	PTD-9J9H	2-150	5	M-9487-H	HDPTD-9J9H	500	5
	19/#8	M-9488	PTD-9J9G	2-150	5	M-9488-H	HDPTD-9J9G	500	5
	19/#9	M-9489	PTC-9J9F	250	4	M-9489-H	HDPTD-9J9F	2-200	5
	7/#5	M-9490	PTC-9J9E	200	4	M-9490-H	HDPTD-9J9E	2-150	5
	7/#6	M-9491	PTC-9J9D	200	4	M-9491-H	HDPTD-9J9D	2-150	5
	7/#7	M-9492	PTC-9J9C	150	4	M-9492-H	HDPTC-9J9C	250	4
	7/#8	M-9493	PTC-9J9B	150	4	M-9493-H	HDPTC-9J9B	250	4

THERMOWELD®
TYPE
CC-11

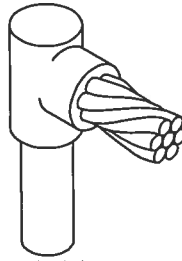


CADWELD®
TYPE
XB

CABLE SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
RUN	TAP	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	7/#10	M-9494	XBM-9A9A	90	15				
7/#8	7/#8	M-9133	XBM-9B9B	150	15				
	7/#10	M-9495	XBM-9B9A	115	15				
7/#7	7/#7	M-9443	XBM-9C9C	200	15				
	7/#8	M-9702	XBM-9C9B	200	15				
	7/#10	M-9496	XBM-9C9A	150	15				
7/#6	7/#6	M-9245	XBM-9D9D	250	15				
	7/#7	M-9497	XBM-9D9C	200	15				
	7/#8	M-9498	XBM-9D9B	200	15				
	7/#10	M-9499	XBM-9D9A	150	15				
7/#5	7/#5	M-9134	XBM-9E9E	250	15				
	7/#6	M-9500	XBM-9E9D	250	15				
	7/#7	M-9394	XBM-9E9C	200	15				
	7/#8	M-9135	XBM-9E9B	200	15				
19/#9	19/#9	M-9186	XBM-9F9F	2-150	15				
	7/#5	M-9501	XBM-9F9E	2-150	15				
	7/#6	M-9502	XBM-9F9D	2-150	15				
	7/#7	M-9503	XBM-9F9C	250	15				
	7/#8	M-9504	XBM-9F9B	250	15				
19/#8	19/#8	M-9043	XBV-9G9G	2-200	16				
	19/#9	M-9505	XBV-9G9F	2-200	16				
	7/#5	M-9048	XBM-9G9E	2-150	15				
	7/#6	M-9506	XBM-9G9D	2-150	15				
	7/#7	M-9507	XBM-9G9C	250	15				
19/#7	7/#8	M-9508	XBM-9G9B	250	15				
	19/#7	M-9444	XBV-9H9H	500	16				
	19/#8	M-9509	XBV-9H9G	500	16				
	19/#9	M-9510	XBV-9H9F	500	16				
	7/#5	M-9511	XBV-9H9E	2-200	16				
	7/#6	M-9512	XBV-9H9D	2-200	16				
	7/#7	M-9513	XBM-9H9C	2-150	15				
19/#6	7/#8	M-9514	XBM-9H9B	250	15				
	19/#6	M-9515	XBV-9J9J	3-250	16				
	19/#7	M-9516	XBV-9J9H	3-200	16				
	19/#8	M-9517	XBV-9J9G	3-200	16				
	19/#9	M-9518	XBV-9J9F	500	16				
	7/#5	M-9395	XBV-9J9E	500	16				
	7/#6	M-9519	XBV-9J9D	500	16				
	7/#7	M-9520	XBV-9J9C	2-200	16				
7/#8	M-9521	XBM-9J9B	2-150	15					

Contact Factory for information about Heavy Duty Molds

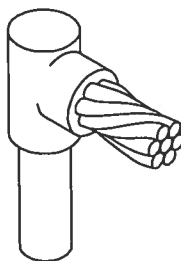
**THERMOWELD®
TYPE
CR-1**



**CADWELD®
TYPE
GR**

CABLE & GRD ROD SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
GRD ROD	CABLE	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
1/2" COPPER CLAD GRD ROD W/ 1/2" ROLLED THREAD	7/#10	M-9522-T	GRC-139A	65	4	M-9522-HT	HDGRC-139A	90	4
	7/#8	M-9523-T	GRC-139B	90	4	M-9523-HT	HDGRC-139B	115	4
	7/#7	M-9164-T	GRC-139C	90	4	M-9164-HT	HDGRC-139C	150	4
	7/#6	M-9524-T	GRC-139D	90	4	M-9524-HT	HDGRC-139D	150	4
	7/#5	M-9525-T	GRC-139E	90	4	M-9525-HT	HDGRC-139E	150	4
	19/#9	M-9165-T	GRC-139F	90	4	M-9165-HT	HDGRC-139F	150	4
19/#8	M-9526-T	GRC-139G	90	4	M-9526-HT	HDGRC-139G	150	4	
1/2" STEEL OR COPPER CLAD GRD ROD W/ 9/16" ROLLED THREAD	7/#10	M-9522-N	GRC-149A	65	4	M-9522-HN	HDGRC-149A	90	4
	7/#8	M-9523-N	GRC-149B	90	4	M-9523-HN	HDGRC-149B	115	4
	7/#7	M-9164-N	GRC-149C	90	4	M-9164-HN	HDGRC-149C	150	4
	7/#6	M-9524-N	GRC-149D	90	4	M-9524-HN	HDGRC-149D	150	4
	7/#5	M-9525-N	GRC-149E	90	4	M-9525-HN	HDGRC-149E	150	4
	19/#9	M-9165-N	GRC-149F	90	4	M-9165-HN	HDGRC-149F	150	4
19/#8	M-9526-N	GRC-149G	90	4	M-9526-HN	HDGRC-149G	150	4	
1/2" COPPER CLAD GROUND ROD	7/#10	M-9522	GRC-159A	65	4	M-9522-H	HDGRC-159A	90	4
	7/#8	M-9523	GRC-159B	90	4	M-9523-H	HDGRC-159B	115	4
	7/#7	M-9164	GRC-159C	90	4	M-9164-H	HDGRC-159C	150	4
	7/#6	M-9524	GRC-159D	90	4	M-9524-H	HDGRC-159D	150	4
	7/#5	M-9525	GRC-159E	90	4	M-9525-H	HDGRC-159E	150	4
	19/#9	M-9165	GRC-159F	90	4	M-9165-H	HDGRC-159F	150	4
19/#8	M-9526	GRC-159G	90	4	M-9526-H	HDGRC-159G	150	4	
5/8" COPPER CLAD GROUND ROD	7/#10	M-9095	GRC-169A	65	4	M-9095-H	HDGRC-169A	90	4
	7/#8	M-9096	GRC-169B	90	4	M-9096-H	HDGRC-169B	115	4
	7/#7	M-9166	GRC-169C	90	4	M-9166-H	HDGRC-169C	115	4
	7/#6	M-9294	GRC-169D	90	4	M-9294-H	HDGRC-169D	150	4
	7/#5	M-9097	GRC-169E	90	4	M-9097-H	HDGRC-169E	150	4
	19/#9	M-9167	GRC-169F	90	4	M-9167-H	HDGRC-169F	150	4
	19/#8	M-9168	GRC-169G	115	4	M-9168-H	HDGRC-169G	200	4
	19/#7	M-9098	GRC-169H	150	4	M-9098-H	HDGRC-169H	250	4
	19/#6	M-9530	GRC-169J	150	4	M-9530-H	HDGRC-169J	250	4
5/8" STEEL GROUND ROD (FULL SIZE)	7/#10	M-9095-N	GRC-319A	65	4	M-9095-HN	HDGRC-319A	90	4
	7/#8	M-9096-N	GRC-319B	90	4	M-9096-HN	HDGRC-319B	115	4
	7/#7	M-9166-N	GRC-319C	90	4	M-9166-HN	HDGRC-319C	115	4
	7/#6	M-9294-N	GRC-319D	90	4	M-9294-HN	HDGRC-319D	150	4
	7/#5	M-9097-N	GRC-319E	90	4	M-9097-HN	HDGRC-319E	150	4
	19/#9	M-9167-N	GRC-319F	90	4	M-9167-HN	HDGRC-319F	150	4
	19/#8	M-9168-N	GRC-319G	115	4	M-9168-HN	HDGRC-319G	200	4
	19/#7	M-9098-N	GRC-319H	150	4	M-9098-HN	HDGRC-319H	250	4
	19/#6	M-9530-N	GRC-319J	150	4	M-9530-HN	HDGRC-319J	250	4

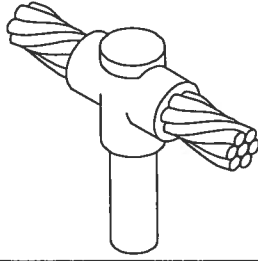
**THERMOWELD®
TYPE
CR-1**



**CADWELD®
TYPE
GR**

CABLE & GRD ROD SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
GRD ROD	CABLE	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
3/4" COPPER CLAD GROUND ROD	7/#10	M-9436	GRC-189A	90	4	M-9436-H	HDGRC-189A	115	4
	7/#8	M-9099	GRC-189B	90	4	M-9099-H	HDGRC-189B	150	4
	7/#7	M-9390	GRC-189C	90	4	M-9390-H	HDGRC-189C	150	4
	7/#6	M-9381	GRC-189D	90	4	M-9381-H	HDGRC-189D	150	4
	7/#5	M-9100	GRC-189E	90	4	M-9100-H	HDGRC-189E	150	4
	19/#9	M-9319	GRC-189F	90	4	M-9319-H	HDGRC-189F	150	4
	19/#8	M-9101	GRC-189G	115	4	M-9101-H	HDGRC-189G	200	4
	19/#7	M-9428	GRC-189H	150	4	M-9428-H	HDGRC-189H	250	4
	19/#6	M-9329	GRC-189J	150	4	M-9329-H	HDGRC-189J	250	4
3/4" STEEL GROUND ROD (FULL SIZE)	7/#10	M-9436-N	GRC-339A	90	4	M-9436-HN	HDGRC-339A	115	4
	7/#8	M-9099-N	GRC-339B	90	4	M-9099-HN	HDGRC-339B	150	4
	7/#7	M-9390-N	GRC-339C	90	4	M-9390-HN	HDGRC-339C	150	4
	7/#6	M-9381-N	GRC-339D	90	4	M-9381-HN	HDGRC-339D	150	4
	7/#5	M-9100-N	GRC-339E	90	4	M-9100-HN	HDGRC-339E	150	4
	19/#9	M-9319-N	GRC-339F	90	4	M-9319-HN	HDGRC-339F	150	4
	19/#8	M-9101-N	GRC-339G	115	4	M-9101-HN	HDGRC-339G	200	4
	19/#7	M-9428-N	GRC-339H	150	4	M-9428-HN	HDGRC-339H	250	4
	19/#6	M-9329-N	GRC-339J	150	4	M-9329-HN	HDGRC-339J	250	4
1" COPPER CLAD GROUND ROD	7/#10	M-9533	GRC-229A	150	4	M-9533-H	HDGRC-229A	200	4
	7/#8	M-9534	GRC-229B	150	4	M-9534-H	HDGRC-229B	200	4
	7/#7	M-9535	GRC-229C	150	4	M-9535-H	HDGRC-229C	200	4
	7/#6	M-9002	GRC-229D	150	4	M-9002-H	HDGRC-229D	250	4
	7/#5	M-9536	GRC-229E	150	4	M-9536-H	HDGRC-229E	250	4
	19/#9	M-9537	GRC-229F	150	4	M-9537-H	HDGRC-229F	250	4
	19/#8	M-9538	GRC-229G	200	4	M-9538-H	HDGRD-229G	2-150	5
	19/#7	M-9539	GRC-229H	200	4	M-9539-H	HDGRD-229H	2-150	5
	19/#6	M-9540	GRC-229J	200	4	M-9540-H	HDGRD-229J	2-150	5
1" STEEL GROUND ROD (FULL SIZE)	7/#10	M-9533-N	GRC-379A	150	4	M-9533-HN	HDGRC-379A	200	4
	7/#8	M-9534-N	GRC-379B	150	4	M-9534-HN	HDGRC-379B	200	4
	7/#7	M-9535-N	GRC-379C	150	4	M-9535-HN	HDGRC-379C	200	4
	7/#6	M-9002-N	GRC-379D	150	4	M-9002-HN	HDGRC-379D	250	4
	7/#5	M-9536-N	GRC-379E	150	4	M-9536-HN	HDGRC-379E	250	4
	19/#9	M-9537-N	GRC-379F	150	4	M-9537-HN	HDGRC-379F	250	4
	19/#8	M-9538-N	GRC-379G	200	4	M-9538-HN	HDGRD-379G	2-150	5
	19/#7	M-9539-N	GRC-379H	200	4	M-9539-HN	HDGRD-379H	2-150	5
	19/#6	M-9540-N	GRC-379J	200	4	M-9540-HN	HDGRD-379J	2-150	5

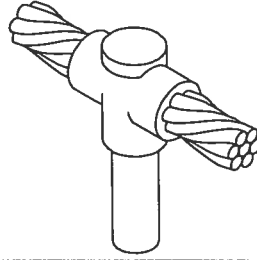
**THERMOWELD®
TYPE
CR-2**



**CADWELD®
TYPE
GT**

CABLE & GRD ROD SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
GRD ROD	CABLE	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
1/2" COPPER CLAD GRD ROD W/ 1/2" ROLLED THREAD	7/#10	M-9543-T	GTC-139A	90	4	M-9543-HT	HDGTC-139A	150	4
	7/#8	M-9544-T	GTC-139B	90	4	M-9544-HT	HDGTC-139B	150	4
	7/#7	M-9169-T	GTC-139C	90	4	M-9169-HT	HDGTC-139C	150	4
	7/#6	M-9545-T	GTC-139D	115	4	M-9545-HT	HDGTC-139D	200	4
	7/#5	M-9102-T	GTC-139E	150	4	M-9102-HT	HDGTC-139E	250	4
	19/#9	M-9170-T	GTC-139F	150	4	M-9170-HT	HDGTC-139F	250	4
19/#8	M-9546-T	GTC-139G	200	4	M-9546-HT	HDGTD-139G	2-150	5	
1/2" STEEL OR COPPER CLAD GRD ROD W/ 9/16" ROLLED THREAD	7/#10	M-9543-N	GTC-149A	90	4	M-9543-HN	HDGTC-149A	150	4
	7/#8	M-9544-N	GTC-149B	90	4	M-9544-HN	HDGTC-149B	150	4
	7/#7	M-9169-N	GTC-149C	90	4	M-9169-HN	HDGTC-149C	150	4
	7/#6	M-9545-N	GTC-149D	115	4	M-9545-HN	HDGTC-149D	200	4
	7/#5	M-9102-N	GTC-149E	150	4	M-9102-HN	HDGTC-149E	250	4
	19/#9	M-9170-N	GTC-149F	150	4	M-9170-HN	HDGTC-149F	250	4
19/#8	M-9546-N	GTC-149G	200	4	M-9546-HN	HDGTD-149G	2-150	5	
1/2" COPPER CLAD GROUND ROD	7/#10	M-9543	GTC-159A	90	4	M-9543-H	HDGTC-159A	150	4
	7/#8	M-9544	GTC-159B	90	4	M-9544-H	HDGTC-159B	150	4
	7/#7	M-9169	GTC-159C	90	4	M-9169-H	HDGTC-159C	150	4
	7/#6	M-9545	GTC-159D	115	4	M-9545-H	HDGTC-159D	200	4
	7/#5	M-9102	GTC-159E	150	4	M-9102-H	HDGTC-159E	250	4
	19/#9	M-9170	GTC-159F	150	4	M-9170-H	HDGTC-159F	250	4
19/#8	M-9546	GTC-159G	200	4	M-9546-H	HDGTD-159G	2-150	5	
5/8" COPPER CLAD GROUND ROD	7/#10	M-9550	GTC-169A	90	4	M-9550-H	HDGTC-169A	150	4
	7/#8	M-9103	GTC-169B	115	4	M-9103-H	HDGTC-169B	200	4
	7/#7	M-9171	GTC-169C	115	4	M-9171-H	HDGTC-169C	200	4
	7/#6	M-9297	GTC-169D	115	4	M-9297-H	HDGTC-169D	200	4
	7/#5	M-9104	GTC-169E	150	4	M-9104-H	HDGTC-169E	250	4
	19/#9	M-9105	GTC-169F	150	4	M-9105-H	HDGTC-169F	250	4
	19/#8	M-9106	GTC-169G	200	4	M-9106-H	HDGTD-169G	2-150	5
	19/#7	M-9172	GTC-169H	250	4	M-9172-H	HDGTD-169H	2-200	5
19/#6	M-9107	GTC-169J	250	4	M-9107-H	HDGTD-169J	2-200	5	
5/8" STEEL GROUND ROD (FULL SIZE)	7/#10	M-9550-N	GTC-319A	90	4	M-9550-HN	HDGTC-319A	150	4
	7/#8	M-9103-N	GTC-319B	115	4	M-9103-HN	HDGTC-319B	200	4
	7/#7	M-9171-N	GTC-319C	115	4	M-9171-HN	HDGTC-319C	200	4
	7/#6	M-9297-N	GTC-319D	115	4	M-9297-HN	HDGTC-319D	200	4
	7/#5	M-9104-N	GTC-319E	150	4	M-9104-HN	HDGTC-319E	250	4
	19/#9	M-9105-N	GTC-319F	150	4	M-9105-HN	HDGTC-319F	250	4
	19/#8	M-9106-N	GTC-319G	200	4	M-9106-HN	HDGTD-319G	2-150	5
	19/#7	M-9172-N	GTC-319H	250	4	M-9172-HN	HDGTD-319H	2-200	5
19/#6	M-9107-N	GTC-319J	250	4	M-9107-HN	HDGTD-319J	2-200	5	

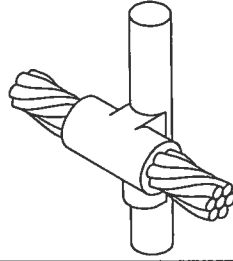
**THERMOWELD®
TYPE
CR-2**



**CADWELD®
TYPE
GT**

CABLE & GRD ROD SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
GRD ROD	CABLE	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
3/4" COPPER CLAD GROUND ROD	7/#10	M-9552	GTC-189A	90	4	M-9552-H	HDGTC-189A	150	4
	7/#8	M-9108	GTC-189B	115	4	M-9108-H	HDGTC-189B	200	4
	7/#7	M-9287	GTC-189C	115	4	M-9287-H	HDGTC-189C	200	4
	7/#6	M-9380	GTC-189D	115	4	M-9380-H	HDGTC-189D	200	4
	7/#5	M-9109	GTC-189E	150	4	M-9109-H	HDGTC-189E	250	4
	19/#9	M-9110	GTC-189F	150	4	M-9110-H	HDGTC-189F	250	4
	19/#8	M-9111	GTC-189G	200	4	M-9111-H	HDGTD-189G	2-150	5
	19/#7	M-9320	GTC-189H	250	4	M-9320-H	HDGTD-189H	2-200	5
	19/#6	M-9291	GTC-189J	250	4	M-9291-H	HDGTD-189J	2-200	5
	3/4" STEEL GROUND ROD (FULL SIZE)	7/#10	M-9552-N	GTC-339A	90	4	M-9552-HN	HDGTC-339A	150
7/#8		M-9108-N	GTC-339B	115	4	M-9108-HN	HDGTC-339B	200	4
7/#7		M-9287-N	GTC-339C	115	4	M-9287-HN	HDGTC-339C	200	4
7/#6		M-9380-N	GTC-339D	115	4	M-9380-HN	HDGTC-339D	200	4
7/#5		M-9109-N	GTC-339E	150	4	M-9109-HN	HDGTC-339E	250	4
19/#9		M-9110-N	GTC-339F	150	4	M-9110-HN	HDGTC-339F	250	4
19/#8		M-9111-N	GTC-339G	200	4	M-9111-HN	HDGTD-339G	2-150	5
19/#7		M-9320-N	GTC-339H	250	4	M-9320-HN	HDGTD-339H	2-200	5
19/#6		M-9291-N	GTC-339J	250	4	M-9291-HN	HDGTD-339J	2-200	5
1" COPPER CLAD GROUND ROD		7/#10	M-9554	GTC-229A	150	4	M-9554-H	HDGTC-229A	250
	7/#8	M-9699	GTC-229B	150	4	M-9699-H	HDGTC-229B	250	4
	7/#7	M-9555	GTC-229C	150	4	M-9555-H	HDGTC-229C	250	4
	7/#6	M-9556	GTC-229D	150	4	M-9556-H	HDGTC-229D	250	4
	7/#5	M-9557	GTC-229E	200	4	M-9557-H	HDGTD-229E	2-150	5
	19/#9	M-9558	GTC-229F	200	4	M-9558-H	HDGTD-229F	2-150	5
	19/#8	M-9559	GTC-229G	200	4	M-9559-H	HDGTD-229G	2-150	5
	19/#7	M-9560	GTC-229H	250	4	M-9560-H	HDGTD-229H	2-200	5
	19/#6	M-9561	GTC-229J	250	4	M-9561-H	HDGTD-229J	2-200	5
	1" STEEL GROUND ROD (FULL SIZE)	7/#10	M-9554-N	GTC-379A	150	4	M-9554-HN	HDGTC-379A	250
7/#8		M-9348-N	GTC-379B	150	4	M-9348-HN	HDGTC-379B	250	4
7/#7		M-9555-N	GTC-379C	150	4	M-9555-HN	HDGTC-379C	250	4
7/#6		M-9556-N	GTC-379D	150	4	M-9556-HN	HDGTC-379D	250	4
7/#5		M-9557-N	GTC-379E	200	4	M-9557-HN	HDGTD-379E	2-150	5
19/#9		M-9558-N	GTC-379F	200	4	M-9558-HN	HDGTD-379F	2-150	5
19/#8		M-9559-N	GTC-379G	200	4	M-9559-HN	HDGTD-379G	2-150	5
19/#7		M-9560-N	GTC-379H	250	4	M-9560-HN	HDGTD-379H	2-200	5
19/#6		M-9561-N	GTC-379J	250	4	M-9561-HN	HDGTD-379J	2-200	5

**THERMOWELD®
TYPE
CR-3**

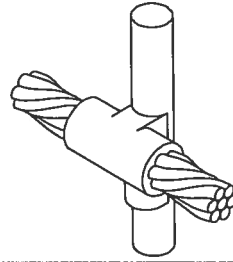


**CADWELD®
TYPE
GY**

CABLE & GRD ROD SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
GRD ROD	CABLE	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
1/2" COPPER CLAD GRD ROD W/ 1/2" ROLLED THREAD	7/#10	M-9563-T	GYE-139A	90	7				
	7/#8	M-9564-T	GYE-139B	115	7				
	7/#7	M-9439-T	GYE-139C	115	7				
	7/#6	M-9565-T	GYE-139D	150	7				
	7/#5	M-9440-T	GYE-139E	150	7				
	19/#9	M-9387-T	GYE-139F	150	7				
	19/#8	M-9566-T	GYE-139G	200	7				
1/2" STEEL OR COPPER CLAD GRD ROD W/ 9/16" ROLLED THREAD	7/#10	M-9563-N	GYE-149A	90	7				
	7/#8	M-9564-N	GYE-149B	115	7				
	7/#7	M-9439-N	GYE-149C	115	7				
	7/#6	M-9565-N	GYE-149D	150	7				
	7/#5	M-9440-N	GYE-149E	150	7				
	19/#9	M-9387-N	GYE-149F	150	7				
	19/#8	M-9566-N	GYE-149G	200	7				
1/2" COPPER CLAD GROUND ROD	7/#10	M-9563	GYE-159A	90	7				
	7/#8	M-9564	GYE-159B	115	7				
	7/#7	M-9439	GYE-159C	115	7				
	7/#6	M-9565	GYE-159D	150	7				
	7/#5	M-9440	GYE-159E	150	7				
	19/#9	M-9387	GYE-159F	150	7				
	19/#8	M-9566	GYE-159G	200	7				
5/8" COPPER CLAD GROUND ROD	7/#10	M-9567	GYE-169A	90	7				
	7/#8	M-9278	GYE-169B	115	7				
	7/#7	M-9568	GYE-169C	115	7				
	7/#6	M-9276	GYE-169D	150	7				
	7/#5	M-9143	GYE-169E	150	7				
	19/#9	M-9336	GYE-169F	150	7				
	19/#8	M-9569	GYE-169G	200	7				
	19/#7	M-9335	GYJ-169H	2-150	8				
	19/#6	M-9570	GYJ-169J	2-200	8				
5/8" STEEL GROUND ROD (FULL SIZE)	7/#10	M-9567-N	GYE-319A	90	7				
	7/#8	M-9278-N	GYE-319B	115	7				
	7/#7	M-9568-N	GYE-319C	115	7				
	7/#6	M-9276-N	GYE-319D	150	7				
	7/#5	M-9143-N	GYE-319E	150	7				
	19/#9	M-9336-N	GYE-319F	150	7				
	19/#8	M-9569-N	GYE-319G	200	7				
	19/#7	M-9335-N	GYJ-319H	2-150	8				
	19/#6	M-9570-N	GYJ-319J	2-200	8				

Contact Factory for Information About Heavy Duty Molds

**THERMOWELD®
TYPE
CR-3**

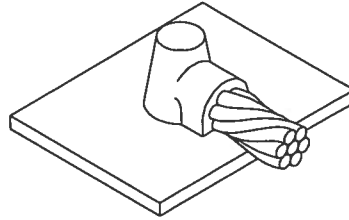


**CADWELD®
TYPE
GY**

CABLE & GRD ROD SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
GRD ROD	CABLE	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
3/4" COPPER CLAD GROUND ROD	7/#10	M-9571	GYE-189A	90	7				
	7/#8	M-9049	GYE-189B	115	7				
	7/#7	M-9271	GYE-189C	115	7				
	7/#6	M-9268	GYE-189D	150	7				
	7/#5	M-9226	GYE-189E	200	7				
	19/#9	M-9142	GYE-189F	200	7				
	19/#8	M-9572	GYE-189G	250	7				
	19/#7	M-9573	GYJ-189H	2-200	8				
	19/#6	M-9328	GYJ-189J	500	8				
3/4" STEEL GROUND ROD (FULL SIZE)	7/#10	M-9571-N	GYE-339A	90	7				
	7/#8	M-9049-N	GYE-339B	115	7				
	7/#7	M-9271-N	GYE-339C	115	7				
	7/#6	M-9268-N	GYE-339D	150	7				
	7/#5	M-9226-N	GYE-339E	200	7				
	19/#9	M-9142-N	GYE-339F	200	7				
	19/#8	M-9572-N	GYE-339G	250	7				
	19/#7	M-9573-N	GYJ-339H	2-200	8				
	19/#6	M-9328-N	GYJ-339J	500	8				
1" COPPER CLAD GROUND ROD	7/#10	M-9574	GYE-229A	90	7				
	7/#8	M-9349	GYE-229B	115	7				
	7/#7	M-9575	GYE-229C	115	7				
	7/#6	M-9576	GYE-229D	150	7				
	7/#5	M-9577	GYE-229E	200	7				
	19/#9	M-9578	GYE-229F	200	7				
	19/#8	M-9579	GYE-229G	250	7				
	19/#7	M-9580	GYJ-229H	2-200	8				
	19/#6	M-9581	GYJ-229J	500	8				
1" STEEL GROUND ROD (FULL SIZE)	7/#10	M-9574-N	GYE-379A	90	7				
	7/#8	M-9349-N	GYE-379B	115	7				
	7/#7	M-9575-N	GYE-379C	115	7				
	7/#6	M-9576-N	GYE-379D	150	7				
	7/#5	M-9577-N	GYE-379E	200	7				
	19/#9	M-9578-N	GYE-379F	200	7				
	19/#8	M-9579-N	GYE-379G	250	7				
	19/#7	M-9580-N	GYJ-379H	2-200	8				
	19/#6	M-9581-N	GYJ-379J	500	8				

Contact Factory for Information About Heavy Duty Molds

**THERMOWELD®
TYPE
CS-8**



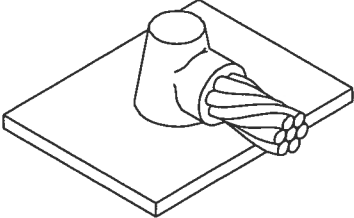
**CADWELD®
TYPE
HA**

CABLE SIZE	NOMINAL PIPE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS			
		THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	FLAT(14" & LARGER)	M-9656	HAA-9A	65	3	M-9656-H	HDHAC-9A	115	4
	1-1/4" to 2"	M-9657	HAA-9A-162C	65	3				
	3" to 4"	M-9658	HAA-9A-350C	65	3				
	6" to 8"	M-9659	HAA-9A-7C	65	3				
	10" to 12"	M-9660	HAA-9A-11C	65	3				
7/#8	FLAT(30" & LARGER)	M-9661	HAC-9B	90	4				
	3" to 4"	M-9662	HAH-9B-350C	90	14				
	6" to 10"	M-9663	HAH-9B-8C	90	14				
	12" to 28"	M-9664	HAH-9B-20C	90	14				
7/#7	FLAT(30" & LARGER)	M-9270	HAC-9C	90	4				
	3" to 4"	M-9665	HAH-9C-350C	90	14				
	6" to 10"	M-9666	HAH-9C-8C	90	14				
	12" to 28"	M-9667	HAH-9C-20C	90	14				
7/#6	FLAT(30" & LARGER)	M-9668	HAC-9D	115	4				
	3" to 4"	M-9669	HAH-9D-350C	115	14				
	6" to 10"	M-9670	HAH-9D-8C	115	14				
	12" to 28"	M-9671	HAH-9D-20C	115	14				
7/#5	FLAT(30" & LARGER)	M-9326	HAC-9E	115	4				
	3" to 4"	M-9672	HAH-9E-350C	115	14				
	6" to 10"	M-9673	HAH-9E-8C	115	14				
	12" to 28"	M-9674	HAH-9E-20C	115	14				
19/#9	FLAT	M-9341	HAC-9F	115	4				
19/#8	FLAT	M-9675	HAC-9G	150	4				
19/#7	FLAT	M-9676	HAC-9H	200	4				
19/#6	FLAT	M-9677	HAC-9J	200	4				

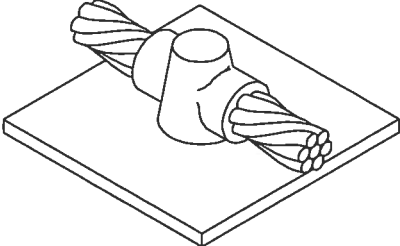
FOR LARGER CABLE SIZE
USE WELD TYPE
CS-1

NOTE: For molds to horizontal pipe not listed, add nominal pipe size to mold number.

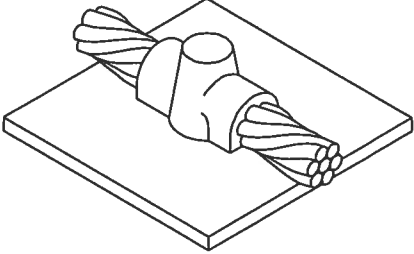
EXAMPLE: For 19/#8 Copperweld® cable to 4" horizontal pipe, the mold number would be M-9675-4".

THERMOWELD® TYPE CS-1						CADWELD® TYPE HS			
CABLE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS				
	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	
7/#8	M-9583	HSC-9B	90	4	M-9583-H	HDHSC-9B	150	4	
7/#7	M-9191	HSC-9C	90	4	M-9191-H	HDHSC-9C	150	4	
7/#6	M-9584	HSC-9D	115	4	M-9584-H	HDHSC-9D	200	4	
7/#5	M-9144	HSC-9E	115	4	M-9144-H	HDHSC-9E	200	4	
19/#9	M-9193	HSC-9F	115	4	M-9193-H	HDHSC-9F	200	4	
19/#8	M-9585	HSC-9G	150	4	M-9585-H	HDHSC-9G	250	4	
19/#7	M-9192	HSC-9H	200	4	M-9192-H	HDHSD-9H	2-150	5	
19/#6	M-9698	HSC-9J	200	4	M-9698-H	HDHSD-9J	2-150	5	

NOTE: For molds to horizontal pipe, add nominal pipe size to mold number.
 EXAMPLE: For 19/#8 Copperweld® cable to 4" horizontal pipe, the mold number would be M-9585-4".

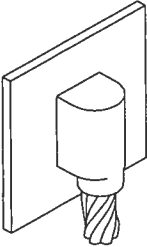
THERMOWELD® TYPE CS-2						CADWELD® TYPE HT			
CABLE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS				
	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	
7/#8	M-9587	HTC-9B	90	4	M-9587-H	HDHTC-9B	150	4	
7/#7	M-9588	HTC-9C	115	4	M-9588-H	HDHTC-9C	200	4	
7/#6	M-9141	HTC-9D	150	4	M-9141-H	HDHTC-9D	250	4	
7/#5	M-9140	HTC-9E	150	4	M-9140-H	HDHTC-9E	250	4	
19/#9	M-9589	HTC-9F	150	4	M-9589-H	HDHTC-9F	250	4	
19/#8	M-9590	HTC-9G	200	4	M-9590-H	HDHTD-9G	2-150	5	
19/#7	M-9591	HTC-9H	250	4	M-9591-H	HDHTD-9H	2-200	5	
19/#6	M-9592	HTD-9J	2-150	5	M-9592-H	HDHTD-9J	500	5	

NOTE: For molds to horizontal pipe, add nominal pipe size to mold number.
 EXAMPLE: For 19/#8 Copperweld® cable to 4" horizontal pipe, the mold number would be M-9590-4".

THERMOWELD® TYPE CS-9						CADWELD® TYPE HC		
CABLE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS			
	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	M-9629	HCA-9A	65	3				

NOTE: For molds to horizontal pipe, add nominal pipe size to mold number.

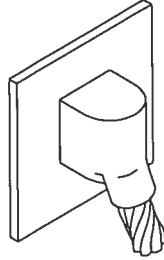
EXAMPLE: For 7/#10 Copperweld® cable to 4" horizontal pipe, the mold number would be M-9629-4"

THERMOWELD® TYPE CS-23						CADWELD® TYPE VB		
CABLE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS			
	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	M-9438	VBC-9A	65	4	M-9438-H	HDVBC-9A	115	4
7/#8	M-9601	VBC-9B	115	4	M-9601-H	HDVBC-9B	200	4
7/#7	M-9602	VBC-9C	115	4	M-9602-H	HDVBC-9C	200	4
7/#6	M-9412	VBC-9D	150	4	M-9412-H	HDVBC-9D	250	4
7/#5	M-9375	VBC-9E	150	4	M-9375-H	HDVBC-9E	250	4
19/#9	M-9603	VBC-9F	200	4	M-9603-H	HDVBR-9F	2-150	17
19/#8	M-9604	VBC-9G	200	4	M-9604-H	HDVBR-9G	2-150	17
19/#7	M-9605	VBC-9H	250	4	M-9605-H	HDVBD-9H	2-200	5
19/#6	M-9361	VBR-9J	2-150	17	M-9361-H	HDVBF-9J	500	6

NOTE: For molds to vertical pipe, add nominal pipe size to mold number.

EXAMPLE: For 19/#8 Copperweld® cable to 4" vertical pipe, the mold number would be M-9604-V4.

**THERMOWELD®
TYPE
CS-3**

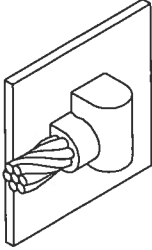


**CADWELD®
TYPE
VS**

CABLE SIZE	NOMINAL PIPE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS			
		THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	FLAT(32" & LARGER) 1-1/2" to 4" 4" to 6" 6" to 10" 12" to 30"	M-9112	VSC-9A	65	4	M-9112-H	HDVSC-9A	115	4
		M-9678	VSC-9A-V3C	65	4				
		M-9679	VSC-9A-V5C	65	4				
		M-9680	VSC-9A-V8C	65	4				
		M-9681	VSC-9A-V21C	65	4				
7/#8	FLAT(32" & LARGER) 1-1/2" to 4" 4" to 6" 6" to 10" 12" to 30"	M-9113	VSC-9B	90	4	M-9113-H	HDVSC-9B	150	4
		M-9682	VSC-9B-V3C	90	4				
		M-9683	VSC-9B-V5C	90	4				
		M-9684	VSC-9B-V8C	90	4				
		M-9685	VSC-9B-V21C	90	4				
7/#7	FLAT(32" & LARGER) 2" to 4" 4" to 6" 6" to 10" 12" to 30"	M-9173	VSC-9C	90	4	M-9173-H	HDVSC-9C	150	4
		M-9686	VSC-9C-V3C	90	4				
		M-9687	VSC-9C-V5C	90	4				
		M-9688	VSC-9C-V8C	90	4				
		M-9689	VSC-9C-V21C	90	4				
7/#6	FLAT(32" & LARGER) 2" to 4" 4" to 6" 6" to 10" 12" to 30"	M-9114	VSC-9D	115	4	M-9114-H	HDVSC-9D	200	4
		M-9690	VSC-9D-V3C	115	4				
		M-9691	VSC-9D-V5C	115	4				
		M-9692	VSC-9D-V8C	115	4				
		M-9693	VSC-9D-V21C	115	4				
7/#5	FLAT(32" & LARGER) 2" to 4" 4" to 6" 6" to 10" 12" to 30"	M-9115	VSC-9E	115	4	M-9115-H	HDVSC-9E	200	4
		M-9694	VSC-9E-V3C	115	4				
		M-9695	VSC-9E-V5C	115	4				
		M-9696	VSC-9E-V8C	115	4				
		M-9697	VSC-9E-V21C	115	4				
19/#9	SEE NOTE	M-9174	VSC-9F	115	4	M-9174-H	HDVSC-9F	200	4
19/#8	SEE NOTE	M-9116	VSC-9G	150	4	M-9116-H	HDVSC-9G	250	4
19/#7	SEE NOTE	M-9175	VSC-9H	200	4	M-9175-H	HDVSD-9H	2-150	5
19/#6	SEE NOTE	M-9117	VSC-9J	200	4	M-9117-H	HDVSD-9J	2-150	5

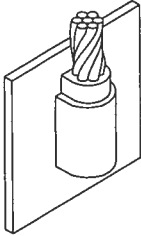
NOTE: For molds to vertical pipe not listed, add nominal pipe size to mold number.

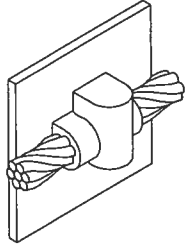
EXAMPLE: For 19/#8 Copperweld® cable to 4" vertical pipe, the mold number would be M-9116-V4.

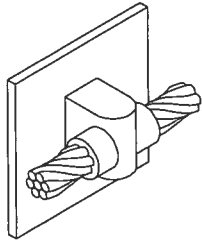
THERMOWELD® TYPE CS-18				CADWELD® TYPE VN				
CABLE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS			
	THERMO MOLD # †	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	M-9638	VNC-9A	65	4	HEAVY DUTY MOLDS NOT AVAILABLE			
7/#8	M-9639	VNC-9B	90	4				
7/#7	M-9640	VNC-9C	90	4				
7/#6	M-9641	VNC-9D	115	4				
7/#5	M-9642	VNC-9E	115	4				
19/#9	M-9643	VNC-9F	115	4				

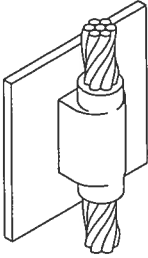
† Add (RH) to mold number for right hand mold or (LH) for left hand mold. Right hand (RH) mold will be furnished if none specified.

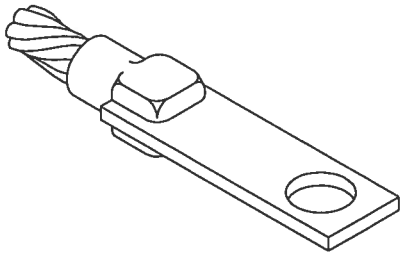
EXAMPLE: M-9640-LH

THERMOWELD® TYPE CS-7				CADWELD® TYPE VF				
CABLE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS			
	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	M-9644	VFC-9A	90	4	M-9644-H	HDVFC-9A	150	4
7/#8	M-9645	VFC-9B	150	4	M-9645-H	HDVFR-9B	250	17
7/#7	M-9397	VFC-9C	150	4	M-9397-H	HDVFR-9C	250	17
7/#6	M-9413	VFR-9D	200	17	M-9413-H	HDVFF-9D	2-150	6
7/#5	M-9398	VFR-9E	200	17	M-9398-H	HDVFF-9E	2-150	6
19/#9	M-9646	VFR-9F	200	17	M-9646-H	HDVFF-9F	2-150	6
19/#8	M-9647	VFR-9G	250	17	M-9647-H	HDVFF-9G	2-200	6
19/#7	M-9648	VFF-9H	2-150	6	M-9648-H	HDVFF-9H	500	6
19/#6	M-9649	VFF-9J	2-200	6	M-9649-H	HDVFF-9J	3-200	6

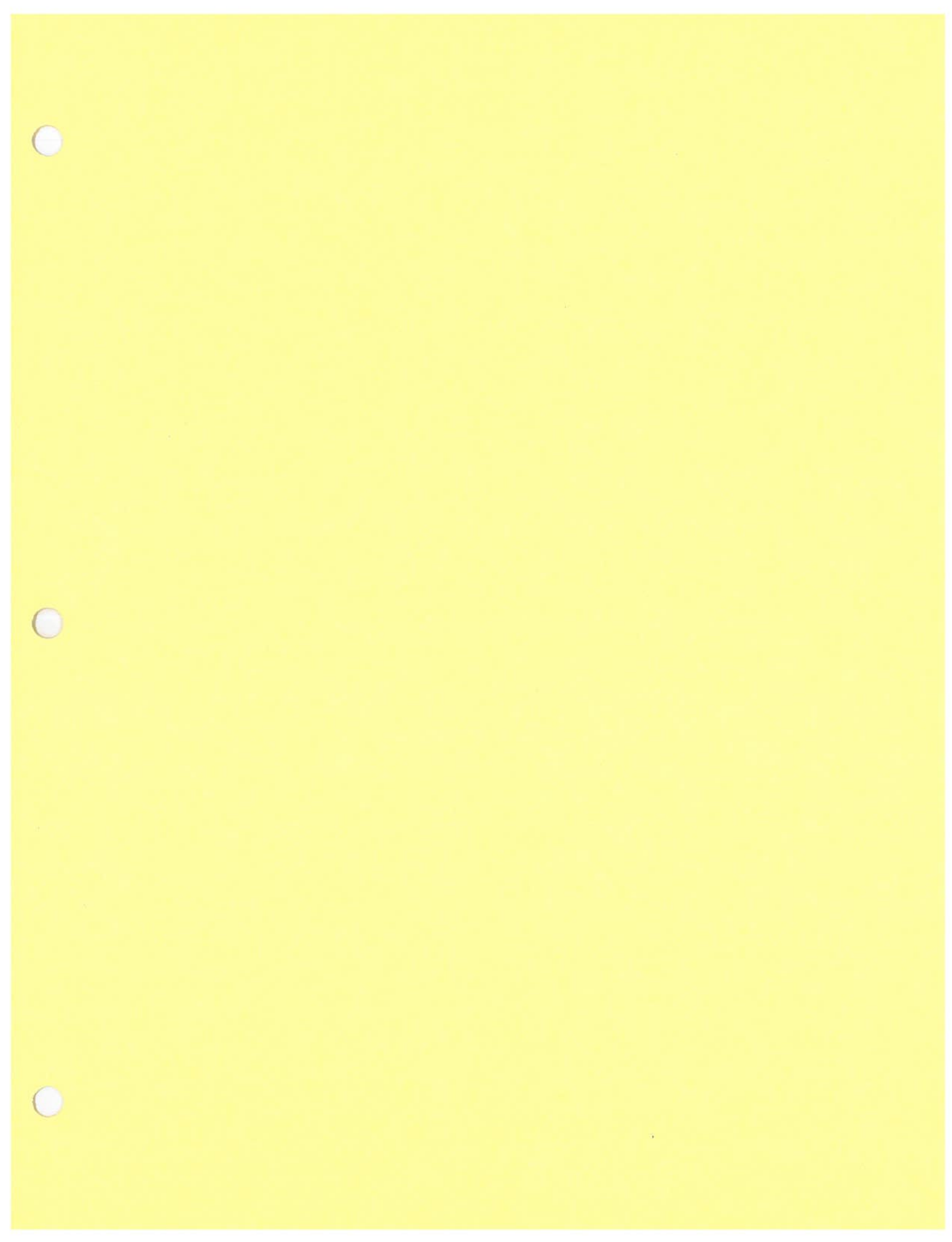
THERMOWELD® TYPE CS-27						CADWELD® TYPE VG			
CABLE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS				
	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	
7/#10	M-9650	VGC-9A	65	4		HEAVY DUTY MOLDS NOT AVAILABLE			
7/#8	M-9651	VGC-9B	115	4					
7/#7	M-9652	VGC-9C	115	4					
7/#6	M-9653	VGC-9D	150	4					
7/#5	M-9654	VGC-9E	150	4					
19/#9	M-9655	VGC-9F	150	4					

THERMOWELD® TYPE CS-6						CADWELD® TYPE VT			
CABLE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS				
	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	
7/#10	M-9597	VTC-9A	90	4		HEAVY DUTY MOLDS NOT AVAILABLE			
7/#8	M-9598	VTC-9B	115	4					
7/#7	M-9599	VTC-9C	115	4					
7/#6	M-9600	VTC-9D	150	4					
7/#5	M-9266	VTC-9E	150	4					
19/#9	M-9399	VTC-9F	150	4					

THERMOWELD® TYPE CS-4						CADWELD® TYPE VV		
CABLE SIZE	STANDARD MOLDS				HEAVY DUTY MOLDS			
	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	M-9118	VVC-9A	115	4	M-9118-H	HDVVR-9A	250	17
7/#8	M-9594	VVR-9B	200	17	M-9594-H	HDVVF-9B	2-200	6
7/#7	M-9176	VVR-9C	200	17	M-9176-H	HDVVF-9C	2-200	6
7/#6	M-9119	VVR-9D	250	17	M-9119-H	HDVVF-9D	500	6
7/#5	M-9272	VVR-9E	250	17	M-9272-H	HDVVF-9E	500	6
19/#9	M-9177	VVR-9F	250	17	M-9177-H	HDVVF-9F	500	6
19/#8	NOT AVAILABLE				M-9595-H	HDVVF-9G	3-200	6
19/#7	IN STANDARD				M-9178-H	HDVVF-9H	3-200	6
19/#6	MOLD SIZE				M-9596-H	HDVVF-9J	3-250	6

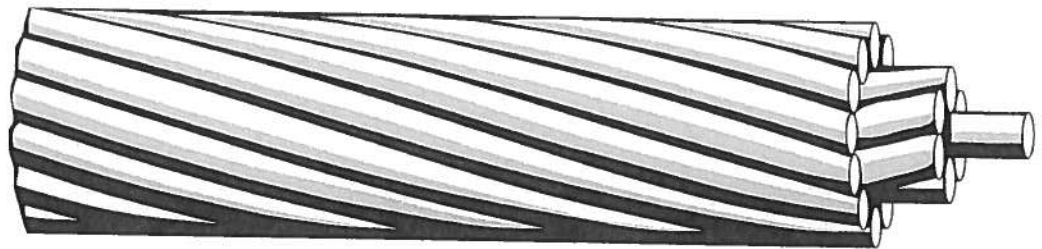
THERMOWELD® TYPE CB-1						CADWELD® TYPE LA			
CABLE & LUG SIZE		STANDARD MOLDS				HEAVY DUTY MOLDS			
CABLE	LUG	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K	THERMO MOLD #	CADWELD® MOLD #	CART. SIZE	P K
7/#10	3/16 X 1	M-9607	LAC-9ADE	65	4				
7/#8	3/16 X 1	M-9701	LAC-9BDE	65	4				
	1/4 X 1	M-9121	LAC-9BEE	65	4				
7/#7	3/16 X 1	M-9609	LAC-9CDE	90	4				
	1/4 X 1	M-9126	LAC-9CEE	90	4				
7/#6	3/16 X 1	M-9410	LAC-9DDE	90	4				
	1/4 X 1	M-9613	LAC-9DEE	90	4				
	1/4 X 1-1/2	M-9127	LAC-9DEG	90	4				
7/#5	3/16 X 1	M-9617	LAC-9EDE	90	4				
	1/4 X 1	M-9445	LAC-9EEE	90	4				
	1/4 X 1-1/2	M-9228	LAC-9EEF	90	4				
19/#9	3/16 X 1	M-9181	LAC-9FDE	90	4				
	1/4 X 1	M-9620	LAC-9FEE	90	4				
	1/4 X 1-1/2	M-9182	LAC-9FEG	90	4				
19/#8	1/4 X 1	M-9129	LAC-9GEE	115	4				
	1/4 X 1-1/2	M-9131	LAC-9GEG	115	4				
19/#7	1/4 X 1	M-9446	LAC-9HEE	150	4				
	1/4 X 1-1/2	M-9185	LAC-9HEG	150	4				
19/#6	1/4 X 1	M-9625	LAC-9JEE	200	4				
	1/4 X 1-1/2	M-9263	LAC-9JEG	200	4				

Contact Factory for Information About Heavy Duty Molds



Bare Copper Wire and Cable

Bare Copper Conductor. Solid and Stranded .



APPLICATIONS

Solid and stranded (classes AA and A) bare copper are suitable for overhead transmission and distribution applications. Stranded conductor of greater flexibility (classes B and C) are suitable for uninsulated hook up, jumpers, and grounds in electrical construction. Soft Drawn copper is unilay construction.

SPECIFICATIONS

Southwire's bare copper wire and cable meets or exceeds the following ASTM specifications:

- B-1 Hard-Drawn Copper Wire.
- B-2 Medium-Hard Copper Wire.
- B-3 Soft or Annealed Copper Wire.
- B-787 19 Wire Combination Unilay-Stranded Soft copper wire.
- B-8 Concentric-Lay-Stranded Hard, Medium-Hard or Soft Copper Conductor.

CONSTRUCTION

Bare copper, solid or stranded. Available in tempers hard, medium-hard, or soft. Stranded conductors are concentrically stranded in hard and medium-hard tempers and are Combination Unilay stranded in the soft-drawn temper.

Bare Copper

Size (AWG or kcmil)	Stranding	Stranding Class	Weight Per 1000 ft. (lbs.)	Diameter (mils)		Hard-Drawn		Medium-Hard Drawn		Soft-Drawn (Annealed)		Allowable Ampacity ⁺
				Individual Wires	Complete Cable	Rated Strength	DC Resistance Ohms/1000 ft. @ 20°C	Rated Strength	DC Resistance Ohms/1000 ft. @ 20°C	Rated Strength	DC Resistance Ohms/1000 ft. @ 20°C	
STRANDED												
8	7	B	51	49	146	777	.6663	610	.6629	499	.6408	95
6	7	B	81	61	184	1228	.4191	959	.4169	794	.4030	130
4	7	A, B	128.9	77	232	1938	.2636	1505	.2622	1320	.2534	170
3	7	A, B	162.5	87	260	2433	.2090	1885	.2079	1670	.2010	200
2	7	A, B	204.9	97	292	3050	.1660	2360	.1650	2110	.1578	230
1	7	A	258.4	109	328	3801	.1316	2955	.1309	2552	.1252	265
1/0	7	A, AA	326.1	123	368	4752	.1042	3705	.1037	3221	.1002	310
1/0	19	B	326.1	75	373	4752	.1042	3705	.1037	3221	.1002	310
2/0	7	A, AA	410.9	138	414	5926	.08267	4640	.08224	4062	.07949	355
2/0	19	B	410.9	84	418	6690	.08267	4765	.08224	4024	.07949	355
3/0	7	A, AA	518.1	155	464	7366	.06556	5812	.06522	5118	.06304	410
4/0	7	A, AA	653.3	174	522	9154	.05199	7278	.05172	6459	.04999	480
4/0	19	B	653.3	106	528	9617	.05199	7479	.05172	6453	.04999	480
250	19	A	771.9	115	574	11360	.04400	8836	.04378	7627	.04231	530
250	37	B	771.9	82	575	11600	.04400	8952	.04378	7940	.04231	530
300	19	A	926.2	126	628	13510	.03667	10530	.03648	9160	.03526	590
350	19	A	1080.6	136	679	15590	.03143	12200	.03127	10680	.03022	650
500	37	A, B	1543.8	116	814	22510	.02200	17550	.02189	15240	.02116	810
600	37	A, AA	1852.5	127	891	27020	.01834	21060	.01825	18300	.01763	910
750	61	A, B	2315.6	111	998	34090	.01467	26510	.01459	22890	.01410	1040
1000	61	A, B	3087.5	128	1152	45030	.01100	35100	.01094	30500	.01058	1240

⁺Ampacity based on 75°C conductor temperature; 25°C ambient temperature; 2 ft./sec. wind in sun.



Ground Bars

Proper bonding is essential to create an equipotential plane between service grounds and equipment during fault and transient conditions. This equipotential plane provides a near zero voltage differential and serves to protect people and equipment during these events. The most popular bonding product in use today is the ground bar or bonding bar.



Features

- Provide a convenient, single-point grounding and bonding location

Applications

ERICO offers a wide variety of stocked configurations for the wireless telecommunications industry, as well as a perimeter bus system for halo grounds.

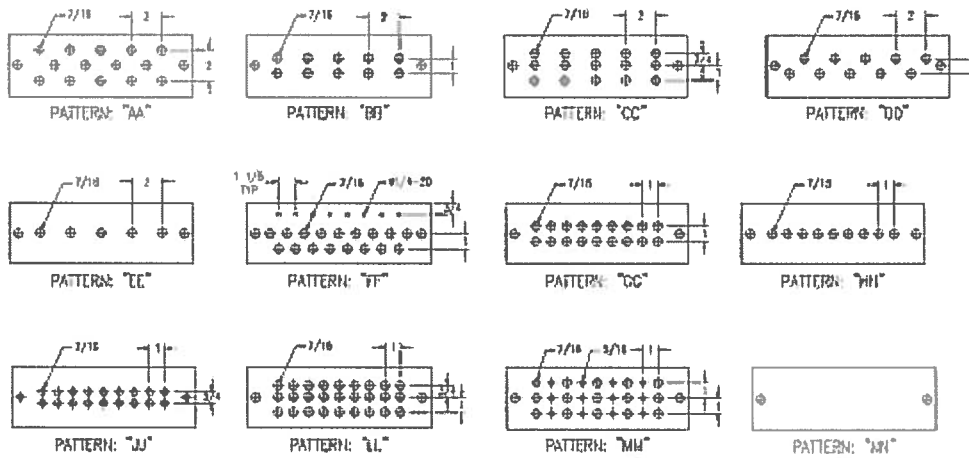
More Information

Ground Bars

Part No.	T (in)	W (in)	L (in)	Description
EGBA14112EE	1/4	1	12	Ground Bar (Insul & Brkt) with hole pattern EE
EGBA14212EE	1/4	2	12	Ground Bar (Insul & Brkt) with hole pattern EE
EGBA14212HH	1/4	2	12	Ground Bar (Insul & Brkt) with hole pattern HH
EGBA14212TES	1/4	2	12	Ground Bar (Insul & Brkt) with hole pattern GG and a pair of 5/16" holes (3/4" space) on either end
EGBA14215JJ	1/4	2	15	Ground Bar (Insul & Brkt) with hole pattern JJ
EGBA14215TES	1/4	2	15	Ground Bar (Insul & Brkt) with hole pattern GG and a pair of 5/16" holes (3/4" space) on either end
EGBA14410FF	1/4	4	10	Ground Bar (Insul & Brkt) with hole pattern FF
EGBA14412AA	1/4	4	12	Ground Bar (Insul & Brkt) with hole pattern AA
EGBA14412AA1TT	1/4	4	12	Tinned Ground Bar (Insul & Brkt) with hole pattern AA and a #2 solid tinned pigtail 26' long
EGBA14412BB	1/4	4	12	Ground Bar (Insul & Brkt) with hole pattern BB
EGBA14412CC	1/4	4	12	Ground Bar (Insul & Brkt) with hole pattern CC
EGBA14412MM	1/4	4	12	Ground Bar (Insul & Brkt) with hole pattern MM
EGBA14412NN	1/4	4	12	Ground Bar (Insul & Brkt) with no holes

EGBA14414KK	1/4	4	14	Ground Bar (Insul & Brkt) with hole pattern KK
EGBA14420CC	1/4	4	20	Ground Bar (Insul & Brkt) with hole pattern CC
EGBA14420CCSKY	1/4	4	20	Ground Bar (Insul & Brkt) with hole pattern CC and a pair of 5/16" holes on either end
EGBA14420CCT	1/4	4	20	Tinned Ground Bar (Insul & Brkt) with hole pattern CC
EGBA14420HIGT	1/4	4	20	Tinned Ground Bar (Insul & Brkt), 11 pair of 7/16" holes (13/16" between rows & 1" between columns), 2 pairs of 11/16" holes 1-334" spacing
EGBA14420NN	1/4	4	20	Ground Bar (Insul & Brkt) with no holes
EGBA14420HIG	1/4	4	20	Ground Bar (Insul & Brkt), 11 pair of 7/16" holes (13/16" between rows & 1" between columns), 2 pairs of 11/16" holes 1-334" spacing
EGBA14424CIGBE	1/4	4	24	Ground Bar (Insul & Brkt) CIGBE
EGBA14424CIGBET	1/4	4	24	Tinned Ground Bar (Insul & Brkt) CIGBE
EGBA14424MM	1/4	4	24	Ground Bar (Insul & Brkt) with hole pattern MM
EGBA14424CC	1/4	4	24	Ground Bar (Insul & Brkt) with hole pattern CC
EGBA14430CC	1/4	4	30	Ground Bar (Insul & Brkt) with hole pattern CC

Ground Bar Hole Patterns



Perimeter Bus System

Part No.	T (in)	W (in)	L (in)	Description
Straight Bus				
EPGC181120	1/8	1	120	Perimeter Ground Bus, with 7/16" Holes on 30" Centers
EPGC182120	1/8	2	120	Perimeter Ground Bus, with 7/16" Holes on 30" Centers
EPGC184120	1/8	4	120	Perimeter Ground Bus, with 7/16" Holes on 30" Centers
EPGC141120	1/4	1	120	Perimeter Ground Bus, with 7/16" Holes on 30" Centers
EPGC142120	1/4	2	120	Perimeter Ground Bus, with 7/16" Holes on 30" Centers