

# GROUNDING & BONDING

FOR ELECTRICAL SYSTEMS



[www.transnet.co.nz](http://www.transnet.co.nz)

# ABOUT TRANSNET NZ LIMITED

## TransNet Company Overview

With more than 25yrs in the industry, TransNet offers one of the largest and most diverse range of products to the Electrical Distribution, Transmission, Rail, OEM and Wholesale industry in New Zealand and the South Pacific. We have the expertise and knowledge to assist with equipment specification as well as providing hands on service, support and product training in the field.

With three stocking distribution facilities in Australasia, and 24hr contact, TransNet is able to offer local support and fast delivery.

At TransNet we pride ourselves on the ability to react quickly to any situation and have product to you whenever and wherever you need it. Our staff are knowledgeable and happy to help, we have a number of technical specialists in a range of product areas, all ready to assist if and when required.



## Cadweld Plus Installer Training



Ensuring correct installation procedures are followed is integral to longevity of a connection. As the authorised New Zealand distributor of nVent Erico products (including all Cadweld products) TransNet offer an installer training service to all our Cadweld Plus customers. Many utilities in New Zealand require staff to have a certificate of competence in order to have authorisation to carry out exothermic welding on the network.

Our training sessions can be undertaken on site, in your depot or at our head office in East Tamaki. The course material has been designed to impart detailed technical knowledge to end users and assess their competence of that knowledge. Course numbers are limited to ensure all participants get adequate attention and supervision.

Competency certificates will be issued after the training.

For more information or to book your Cadweld Plus Training, contact your local TransNet rep or phone our office 0800 442 182.

# CONTENTS

<b>ABOUT TransNet NZ Limited</b>	<b>2</b>
TransNet Company Overview	2
Cadweld Plus Installer Training	2
<b>CONTENTS</b>	<b>3</b>
<b>RODS &amp; ACCESSORIES</b>	<b>4</b>
Copper-Bonded Ground Rods	4
Galvanised & Stainless Rods	5
Pre-Terminated Rods	6
Ground Rod Tools	7
Ground Enhancement Material	8
<b>EARTH CONNECTORS</b>	<b>9</b>
Ground Clamps and Connectors	9
Wedge Pressure Connectors	10
C Crimps	11
C Crimp Tooling	13
Split Bolt Connectors	14
Ground Clamps For Water & Gas Pipes	14
Ground Clamps for Fences	16
<b>ERIFLEX</b>	<b>18</b>
Grounding & Bonding Braid	18
<b>EARTH ROD INSPECTION BOXES</b>	<b>19</b>
<b>EARTH BONDING CONNECTIONS</b>	<b>20</b>
<b>CADWELD PLUS</b>	<b>22</b>
nVent ERICO Cadweld Plus System	22
Cadweld Plus Tool Kits	22
Cadweld Plus Materials	23
Tools & Accessories	24
Cable to Cable	25
Cable to Ground Rod	27
Cable to Bus / Lug	29
Cable to Busbar	29
Busbar to Busbar	30
Cable to Steel Surface	32
Cable to Rebar	33
<b>CADWELD PLUS ONE SHOT</b>	<b>35</b>
Cadweld Plus One Shot Connections	35
<b>RECEPTACLES</b>	<b>36</b>
Aircraft Grounding Receptacles	36
<b>STATIC GROUNDING &amp; BONDING</b>	<b>38</b>
Cables	38
Clamps	39
Static Grounding Components	39
<b>EARTH RESISTANCE TESTERS</b>	<b>40</b>

# RODS & ACCESSORIES

## Copper-Bonded Ground Rods

### POINTED RODS

- 99.9% pure electrolytic copper coating
- Molecular bond to nickel-sealed high strength steel core
- Rods have a high carbon steel core and tip that provide superior strength when driving
- Copper coating will not crack when bent or tear when driven
- Minimum copper coating of 10 mils on rods listed to UL\* 467
- nVent ERICO name, length, diameter and part number is roll-stamped within 12" of chamfered end
- UL logo and control number where applicable stamped on each rod for easy inspection after installation
- Material: Copper-Bonded Steel
- Tensile Strength: 80,000 psi Min



\*\* Non-UL listed rods  
† Additional lengths available



Part Number	Industry Reference	Ground Rod Diameter	Length (mm)	Plating Thickness	Unit Weight (kg)
E/ROD/ERICO/611360	1/2"	12.8 mm	1.8m	254µm	2.01 kg
E/ROD/ERICO/615860	5/8"	14.2 mm	1.8m	254µm	2.3 kg
E/ROD/ERICO/613460	3/4"	17.3 mm	1.8m	254µm	3.4 kg

### THREADLESS COMPRESSION COUPLERS FOR COPPERBONDED POINTED RODS

- Made of high-strength silicon bronze
- Tapered so when rod is driven into coupling, parts compress to form a conductive connection



Part Number	Industry Reference	Nominal Rod Diameter (mm)	Unit Weight (g)	Standard Package
E/RCPLER/ERICO/CC12F	1/2"	12.8	109	25
E/RCPLER/ERICO/CC58	5/8"	15.9	136	25
E/RCPLER/ERICO/CC34	3/4"	19.1	204	25

# RODS & ACCESSORIES

## Galvanised and Stainless Rods

### GALVANIZED STEEL GROUND RODS

- Three styles in the range
- Cost effective earth installation in all soil conditions
- Options include plain rods, rods with a 2 hole tag and rods with a HD12A line tap tag
- Dimensions: 2000mm x 16mm OD



Part Number	Ground Rod Diameter (mm)	Length (m)	Unit Weight (kg)
E-ROD-GALV-PLAIN	16	2.00	3.12
E-ROD-GALV-16MM-TAG	16	2.00	3.18
E-ROD-GALVTAG-HD12A	16	2.00	3.18

### STAINLESS STEEL GROUND RODS

- Perfect solution for corrosive environments
- 316 Stainless Steel
- Couplers also available



Part Number	Ground Rod Diameter (Ø)	Length (m)	Stainless Steel Type
SSE/ROD13MM	13mm	1.8	316
SSE/RODCPLER13MM	fits 13mm rod	-	316

\* Other sizes available on special order.

# RODS & ACCESSORIES

## Pre-Terminated Earths

### HORIZONTAL EARTH

This horizontal earth kit is bare to insulated Green/Yellow earth, connected with Cadweld, and sealed with Raychem WCSM heatshrink. The bare cable is 7.5m x 25mm<sup>2</sup> and the insulated cable is 10m x 6mm<sup>2</sup> and dimensions are 2000mm x 16mm OD.

#### KEY FEATURES

- Meets requirements of AS/NZS 3000
- Cadweld exothermic connection
- 10m of 6mm<sup>2</sup> Green/Yellow earth wire
- 7.5m of 25mm<sup>2</sup> bare copper
- Additional sizes and lengths available on request



Part Number	Description
TNHEK25/6	Horizontal Earth Kit, 7.5m x 25mm <sup>2</sup> bare copper and 10m x 6mm Green/Yellow Earth wire

### PRE-TERMINATED EARTH STAKES

Ensure the safety and reliability of your streetlight installations with the TNSLGR3 - Complete Earth for Streetlight Poles. This high-quality grounding solution is designed to meet the rigorous demands of urban and rural lighting projects.

#### KEY FEATURES

- 13mm Copper Bonded Erico Rod
- The rod comes pre-welded with a Cadweld connection for reliability
- Designed for direct burial
- Optimised weld position allows for the use of a driving tip on the rod, facilitating easier installation
- Ample Underground Connection Space

\* Other sizes available on request.



Part Number	Description
TNSLGR3	Streetlight Grounding Rod Assembly 13mm comes with 3m x 10mm <sup>2</sup> Green/Yellow Earth Cable
TNSLGR2X13MM	2 x 13mm Erico Ground Rods with 3.7m x 50mm Green/Yellow Earth Cable
TNTRGR3M	Transformer Grounding Rod Assembly 13mm comes with 3m x 50mm <sup>2</sup> Green/Yellow Earth Cable

# RODS & ACCESSORIES

## Ground Rod Tools

### GROUND ROD DRIVER

- Usable on all types of round ground rods: copper-bonded, galvanised, stainless steel
- 5/8" and 3/4" inserts are interchangeable with standard driver body
- The driver will not deform the end of the rod, making connection of the ground conductor quick and easy
- Drive rod into place by hand using this driver



Part Number	Description	Weight (kg)
EGRD58	1.52m Driver body with insert for up to 14.3mm (5/8") ground rods	10.43
EGRD58 I *	Replacement insert for 14.3mm (5/8") copper-bonded ground rods	2.72
EGRD34	1.52m Driver body with insert for up to 19.1mm (3/4") ground rods	10.43
EGRD34 I *	Replacement insert for 19.1mm (3/4") copper-bonded ground rods and 14.3mm (5/8") galvanized ground rods	2.72

\*Both 5/8" and 3/4" inserts fit standard driver body.  
 •Meets specifications of RUS.

### MANUAL GROUND ROD DRIVING TOOLS

- Fits snugly over the end of the Earth Rod to protect from deformation
- Gives large surface area to drive the rod into the ground
- Use hammer to drive rod into place



Part Number	Ground Rod Size
ERD13	13mm O.D. ROD
ERD15	15mm O.D. ROD

### POWERTOOL GROUND ROD DRIVING TOOLS

- For use in power assisted ground rod drivers
- Fits snugly over the end of the Earth Road to protect from deformation



Part Number	Ground Rod Size	Shank Type
GRSDS625	13mm O.D. ROD	SDS+
MKP63797	16mm O.D. ROD	SDS Max
MKP63797-19MM	19mm O.D. ROD	SDS Max

# RODS & ACCESSORIES

## Ground Enhancement Material

GEM helps reduce earthing resistance and maintains low resistance permanently. GEM helps provide conductivity for the life of the grounding system.

For more than 30yrs, GEM has been used in areas of poor conductivity, such as rocky ground, mountain tops and sandy soil as well as situations where ground rods can't be driven or where limited land area makes adequate grounding difficult with conventional methods.

### **GEM is effective**

- Dramatically reduces earth resistance and impedance measurements
- Maintains constant resistance for the life of the system once in set form
- Performs in all soil conditions even during dry spells

### **GEM is easy to use**

- Easy-to-handle 11.36 kg (25 lb) bags
- Requires one person to install
- Can be easily mixed into a slurry
- Solidifies into a conductive cement in three days
- May reduce the size of the grounding system where conventional methods are unsatisfactory
- Reduces vandalism (cannot easily remove rods when set in concrete)

### **GEM is permanent**

- Does not dissolve, decompose or leach out with time
- Does not require periodic charging treatments or replacements
- Does not require maintenance
- Continuous presence of water not required to maintain conductivity



Part Number	Description
GEM25A	nVent GEM (Ground Enhancement Material) 25-lb. (11.36 kg) bag with handles

# EARTH CONNECTORS

## Ground Clamps and Connectors

### NVENT ERICO HAMMERLOCK

- Low resistance connection
- Irreversible connection with excellent mechanical strength
- Fast and simple installation
- cULus Listed

Material: Copper



Part Number	Industry Reference	Ground Rod O.D (mm)	Conductor Size (mm <sup>2</sup> )	Number of Conductors
EHL12FC1V	1/2"	12.8	25	1
EHL58C2G	5/8"	14.3	50 - 70	1

### BOLTED EARTH CONNECTORS

- Robust and easy to install
- Bolted connectors have a groove to ensure correct placement of conductor
- Designed for single conductor parallel orientation
- Can be easily removed should the need arise



H303A#1



ECPB16



E/RC13/15MM



H1826



E/RUBOLT13/16MM

Part Number	Style	Conductor Size (mm <sup>2</sup> )	Nominal Rod Diameter (mm)
H303A#1	Utilux Brass Domestic Earth Clip	6-16	13
ECPB16	Brass Earth Clamp	6-10	13, 15, 16
E/RC13/15MM	GRC5 Earth Rod Clamp 13-15mm	4-35	13-15
E/RUBOLT13/16MM	CLAMP210 U Bolt Earth Clamp	35-120	13-15
H1826-1	Cast Brass Earth Clamp	6-10	15
H1826-2	Cast Brass Earth Clamp	6-10	19
H1826-3	Cast Brass Earth Clamp	6-10	19-25

# EARTH CONNECTORS

## Wedge Pressure Connectors

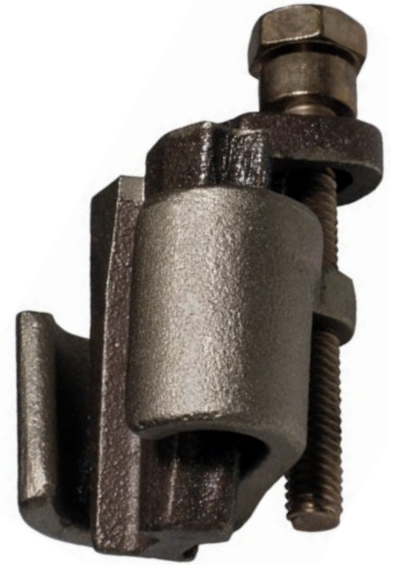
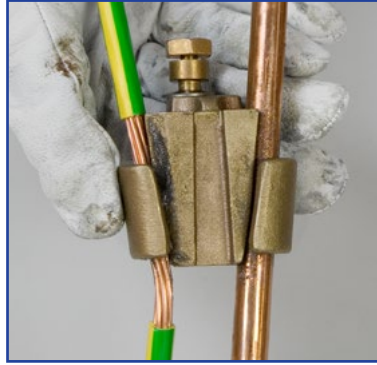
### SHEAR-LOK

AMP developed the SHEAR-LOK Copper Tap/Grounding Connector for applications in the power utility industry where connectors are required to withstand mid-range magnitudes of fault current (20kV symmetrical RMS).

SHEAR-LOK connectors utilise AMP Wedge Pressure Technology and controlled-torque-drive bolts to provide easily applied and highly reliable ground rod connections. This family of connectors is ideal for HV applications where connections must be made between conductor and rod.

#### Features

- Wedge Pressure Technology
- Shear-head bolt for controlled torque
- Removable without conductor damage
- No special tools required
- Application not inhibited by disfigured ground rod end
- Taps into existing ground conductors



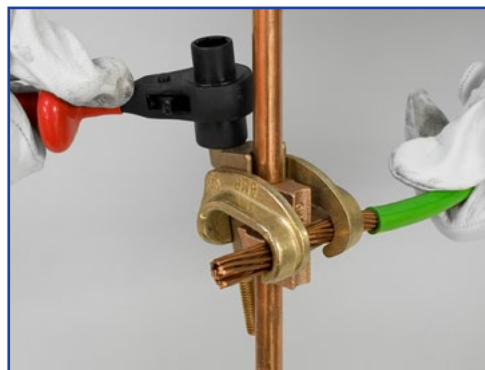
Part Number	Connections
0-80408-2	25mm <sup>2</sup> - 13mm ROD / 35mm <sup>2</sup> - 13mm ROD
0-83000-1	50mm <sup>2</sup> - 13mm ROD / 70mm <sup>2</sup> - 13mm ROD

### WRENCH-LOK

The WRENCH-LOK System uses a specially designed shear-head bolt to drive a tapered wedge into the connector body. All that's needed to apply it is a common ratchet or socket wrench. When the connection is tightened to the proper torque, the bolt head shears off, giving a positive visual indication of a perfect connection. It's that simple and sure.

WRENCH-LOK connections can be installed in any weather conditions and are very safe for the installer. This product line offers options to connect conductor to conductor or conductor to ground rod.

The WRENCH-LOK system meets the requirements of IEEE 837.



Part Number	Connections
0-83749-1	35mm <sup>2</sup> to 13mm-16mm ROD / 50mm <sup>2</sup> to 13mm-16mm ROD
0-83747-3	35mm <sup>2</sup> to 35mm <sup>2</sup> / 50mm <sup>2</sup> to 50mm <sup>2</sup> / 50mm <sup>2</sup> to 70mm <sup>2</sup>
0-83749-2	50mm <sup>2</sup> to 13mm-16mm ROD / 70mm <sup>2</sup> to 13mm-16mm ROD
0-83748-2	95mm <sup>2</sup> to 13mm-16mm ROD / 120mm <sup>2</sup> to 13mm-16mm ROD

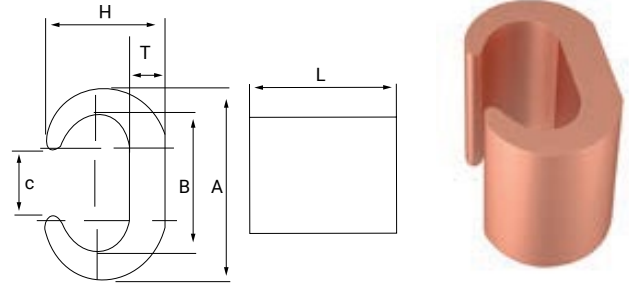
# EARTH CONNECTORS

## C Crimps

### CONTRACTOR SERIES C CRIMPS

The CCT series C type copper crimp wire connectors are used in many applications and have the following features:

- 99.9% high quality T2 type red copper material
- Superior corrosion resistance; high precision; low resistance
- Long lifetime, technology proven over many years in many soil types
- Flexible wire size option



Part Number		Wire size combined (mm <sup>2</sup> )	Pack Size	Part dimension (mm)					
Bare Copper	Tinned Copper			B	A	H	L	C	T
CCC10C	CCC10CT	4-10	50	9.5	6.3	6.2	12	4	1.6
CCC16C	CCC16CT	11-16	50	10	7	7	12.5	5	1.8
CCC20C	CCC20CT	16.5-20	50	12.8	9	10	13	6.5	2
CCC26C	CCC26CT	21-26	50	14.8	11	10	16	8	2
CCC44C	CCC44CT	27-44	50	19.3	13	14.4	18	9	4.5
CCC60C	CCC60CT	45-60	50	21	15	15	19	10.6	4.5
CCC76C	CCC76CT	60-76	50	24.3	17	17.6	20	12.5	5
CCC98C	CCC98CT	77-98	50	27.8	20.5	18.8	23	14	5.2
CCC122C	CCC122CT	99-122	50	30	22	21.4	25	14.2	5.5
CCC154C	CCC154CT	123-154	50	33.8	25.5	23.6	26.8	17.7	5.5
CCC190C	CCC190CT	155-190	50	36.4	28	24.8	33.4	17.7	5.8
CCC240C	CCC240CT	191-240	50	39.7	29.7	27.9	38	20	6.3
CCC288C	CCC288CT	241-288	50	44	34	31	44	23.2	7
CCC365C	CCC365CT	289-365	50	47.7	37	33.6	48.7	35.2	7.2
CCC450C	CCC450CT	366-450	50	55.8	41.3	40	57.8	27.8	9
CCC560C	CCC560CT	451-560	50	61.3	45.2	45	64	32.3	9
CCC700C	CCC700CT	561-700	50	88	51.8	49	66	35.5	12

### ELT SERIES C CRIMPS

- Manufactured from copper alloy
- Clearly marked with wire size and die index
- Range taking, reduces inventory
- UL pending for metrics
- May be used in ground grid applications
- Provides maximum conductivity
- Provides easy identification and tooling recommendation
- For direct burial in earth or concrete
- Flexibility in application
- **Compliance to IEEE 837 -2014 Section 7.2 with 2 Crimps in parallel (Electromagnetic force).**
- **Compliance to IEEE837-2014 Section 8.2 (Current-temperature cycling).**

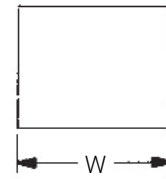
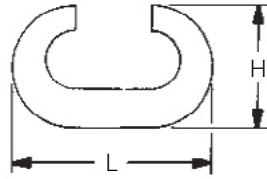


Part Number	Copper Wire Range (mm <sup>2</sup> )		Width (mm)	Die Index
	Main	Tap		
ELT-1-MM	16-35	16-35	19.1	C (U Type)
ELT-2-MM	50-70	50-70	19.1	0 (U Type)
ELT-3-MM	95-120	95-120	22.9	997 (U Type)
ELT-4-MM	50-70	16-35	19.1	0 (U Type)
ELT-5-MM	95-120	16-70	19.1	997 (U Type)
ELT-6-MM	150-240	95-120	22.2	1011 (U Type)
ELT-7-MM	150-240	16-70	22.2	1011 (U Type)
ELT-8-MM	150-240	150-240	22.2	1011 (U Type)

# EARTH CONNECTORS

## ULT SERIES C CRIMPS

- Manufactured from high conductivity copper alloy
- Clearly marked with wire size and die index
- Range taking capability reduces inventory
- Suitable for circuits rated up to 35 kV (proper HV spacing and insulation techniques must be used)
- Rated to 90°C for power applications
- UL pending for metrics
- Provides maximum conductivity, eliminates corrosion possibility
- Provides easy identification & tooling recommendation
- Direct burial in earth or concrete for grounding applications



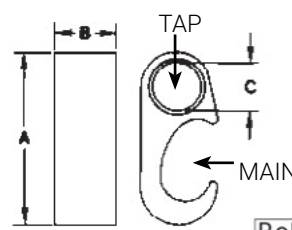
RoHS  
Compliant

Part Number	Copper Wire Range (mm <sup>2</sup> )		Die Index	Dimensions (mm)		
	Main	Tap		L	W	H
ULT-1-MM	4	4	238	9.3	7.1	8.1
ULT-2-MM	6-10	6	162	12.3	9.0	12.7
ULT-3-MM	16-25	10	BG or %	18.7	11.9	15.6
ULT-4-MM	16-25	16	BG or %	19.4	11.7	17.8
ULT-5-MM	16-25	25	BG or %	21.1	11.9	17.8
ULT-6-MM	35	10-25	C	25.1	15.6	21.1
ULT-7-MM	35	35	C	26.6	15.6	21.0
ULT-8-MM	50-70	10-35	O	34.3	20.6	23.5
ULT-9-MM	50-70	50-70	O	34.3	20.6	23.5
ULT-10-MM	95	16-25	D3	41.4	25.4	27.3
ULT-11-MM	95-120	50-70	D3	41.4	25.4	27.3
ULT-12-MM	95	95	D3	40.9	25.4	30.5

All imperial wire sizes, unless noted, are American Wire Gauge (AWG)

## TYPE GGC

- Manufactured from high strength copper alloy
- Wire size and die index markings
- Prefilled with DE-OX oxide inhibiting compound
- UL pending
- Provides maximum conductivity
- Provides easy identification and tooling recommendation
- Range Taking, reduces inventory.
- Can be used as a tap connector or as a lap splice connector
- Install in any weather. No heat or dangerous particles
- Prevents oxides from forming
- For direct burial in earth/ concrete



RoHS  
Compliant

Part Number	Wire Range		Rod Size (mm)	Main Ground Rod (mm)	Dimensions (mm)			Die Index Number
	Main	Tap			A	B	C	
GGC-1-MM	16-35 mm <sup>2</sup>	16-35 mm <sup>2</sup>	-	-	35.6	19.1	8.4	0
GGC-2-MM	50-120 mm <sup>2</sup> , 12-15 mm Rod	25-35 mm <sup>2</sup>	10-13	12-15	53.3	19.1	8.4	997
GGC-3-MM	50-120 mm <sup>2</sup> , 12-15 mm Rod	50-70 mm <sup>2</sup>	10-13	12-15	53.3	19.1	11.2	997
GGC-4-MM	50-120 mm <sup>2</sup> , 12-15 mm Rod	70-120 mm <sup>2</sup>	10-13	12-15	53.3	19.1	15.5	997
GGC-5-MM	120-240 mm <sup>2</sup> , 15-19 mm Rod	25-35 mm <sup>2</sup>	16-19	15-19	66.0	19.1	8.4	998
GGC-6-MM	120-240 mm <sup>2</sup> , 15-19 mm Rod	50-70 mm <sup>2</sup>	16-19	15-19	66.0	19.1	11.2	998
GGC-7-MM	120-240 mm <sup>2</sup> , 15-19 mm Rod	70-120 mm <sup>2</sup>	16-19	15-19	66.0	19.1	15.5	998
GGC-8-MM	120-240 mm <sup>2</sup> , 15-19 mm Rod	185-240 mm <sup>2</sup>	16-19	15-19	73.7	19.1	21.3	999/1011
GGC-9-MM	50-120 mm <sup>2</sup> , 12-16 mm Rod	16 mm <sup>2</sup>	10-13	12-15	66.0	19.1	-	997

# EARTH CONNECTORS

## C Crimp Tooling

### NVENT ILSCO U-DIES

The U-Dies fit into the jaw of the nVent ILSCO 12-Ton (130 kN) crimping tool and are made out of hardened stainless steel for durability and long life. U-Dies adhere to the highest quality standards. Effortlessly produce secure connections with the nVent ILSCO U-Dies, nVent ILSCO tools, and nVent ERICO C, E Compression Grounding Connectors.

Dies are sold individually and in kits to cover all grounding crimp Connection configurations.



Part Number	Connectors used with Dies			
ILD-C	ULT-6-MM	ULT-7-MM	ELT-1-MM	
ILD-D3	ULT-10-MM	ULT-11-MM	ULT-12-MM	
ILD-O	ULT-8-MM	ULT-9-MM	ELT-2-MM	ELT-R-MM
ILD-997	ELT-3-MM	ELT-5-MM		
ILD-1011	ELT-6-MM	ELT-7-MM	ELT-8-MM	
ILD-BG	ULT-3-MM	ULT-4-M	ULT-5-MM	
ILD-238	ULT-1-MM			
ILD-162	UTL-2-MM			

### NVENT ILSCO TASKMASTER 12-TON TOOL

nVent ILSCO TaskMaster tools – 12-Ton (130 kN) Crimping Tool is a pistol grip crimping tool for the nVent ERICO Compression Grounding Connectors line. The C, E crimps are compatible with this tool in addition with the nVent ILSCO Dies.

With the 12-Ton (130 kN) Crimping Tool it is very convenient to create secure connections that can be made in a matter of minutes, due to powerful features like 360 degrees tool head rotation, dual speed pump and a variable speed trigger.

To make the tool even more user-friendly it also comes with a left and right handed manual release, LED work light and battery charge indicator. The 12-Ton (130 kN) Tool is powered by an 18 volt battery platform cordless system providing a combination of professional grade power, light weight and high performance for all day use.



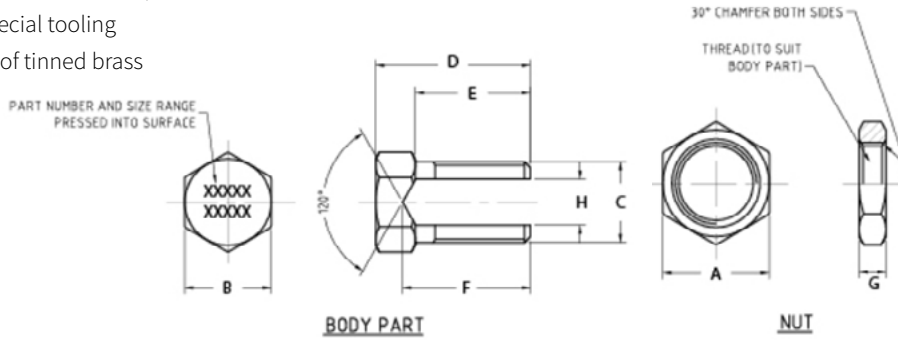
Part Number	Description
TB-12U1000-PX	12-Ton toolkit without charger and batteries
B1850EU	18V battery single 5.0 ah li-ion
BC18VEU	18V battery charger EU

# EARTH CONNECTORS

## Split Bolt Connectors

### SPLIT BOLTS - BS 32 88

- Fast, simple cost effective solution
- Range covers 2x4mm<sup>2</sup> to 2x120mm<sup>2</sup>
- Part number & cable range engraved on the connector
- Tested to meet all requirements of British Standard BS 3288
- No special tooling
- Made of tinned brass

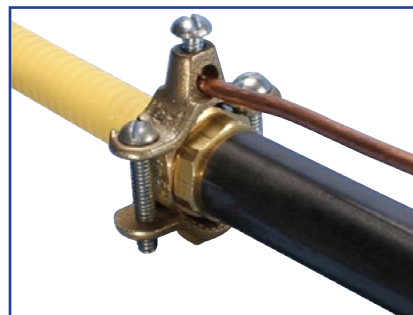


Part Number	Size Range of Each Conductor Being Joined			Dimensions (mm)							
	(mm <sup>2</sup> )	(mm) OD	Stranding	A	B	C	D	E	F	G	H
TNHD9	4-7	2.7-4.1	7/.036-7/.044	13.3	11.16	9.52	19	13.5	15.5	5	4.2
TNHD10	6-16	3.8-5.8	7/.052-7/.064	19	13.4	13	24	16	21	6.5	5.9
TNHD12	10-25	4.3-6.6	7/.064-7/.083	20.8	15.2	14.2	28.5	19.6	24	6.5	6.8
TNHD12A	16-35	5.3-8.12	7/.067-19/.064	23.3	18.05	17.8	32.5	23	28.5	7	8.2
TNHD13	25-50	6.6-10.16	7/.083-19/.072	30.4	20.8	20.5	40	29	34	8.5	10.2
TNHD14	25-70	7.3-11.17	7/.083-19/.083	30.4	23.75	22.8	41.5	29.5	36	9.5	11.2
TNHD15	35-95	8.8-13.46	7/.116-37/.072	37.4	30.5	28	46.5	33.5	38	9.5	14
TNHD18	50-120	10.5-16.10	19/0/83-37/.083	37.4	30.5	28	54.5	40.5	45	9.5	16.3

## Ground Clamps For Water & Gas Pipes

### BRONZE CLAMPS FOR WATER OR GAS PIPE (INCLUDING BRASS HEX FITTINGS)

- High-strength silicone bronze
- Conform to the requirements of the 2009 edition of NFPA<sup>®</sup> 54, NFGC<sup>®</sup> (National Fuel Gas Code) and NEC<sup>®</sup> (National Electric Code) for bonding corrugated stainless steel tubing (CSST) gas piping systems to the grounding conductor of the building's electrical system
- SH version for outdoor applications
- cULus Listed



Part Number	Water Pipe OD (mm)	Conductor Range (mm <sup>2</sup> )	Hex Width (mm)
CWP1J	12.7 - 25.4	6 - 25	25.4 - 31.75
CWP2J	31.8 - 50.8	6 - 25	38.1 - 54
CWP3J	63.5 - 101.6	6 - 16	63.5 - 79.4
CWP1JSH	12.7 - 25.4	6 - 25	25.4 - 31.75
CWP2JSH	31.8 - 50.8	6 - 25	38.1 - 54
CWP3JSH	63.5 - 101.6	6 - 16	63.5 - 79.4

# EARTH CONNECTORS

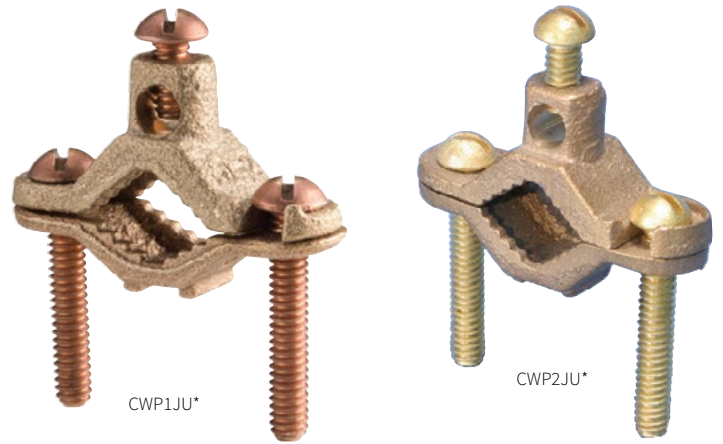
## BRONZE CLAMPS FOR WATER PIPE

- High-strength silicone bronze
- Used for connecting copper conductors to metallic water pipe or ground rods
- CSA® Listed

\* With copper screw for use in direct burial applications

\*\* UL® Listed

† Not CSA Listed



Part Number	Water Pipe Size OD (mm)	Conductor Range (mm <sup>2</sup> )
CWP1JJ†	12.7 – 25.4	6 – 25
CWP1JU**	12.7 – 25.4	6 – 35
CWP2JU**	31.75 – 50.8	6 – 35
CWP6J	108 – 152.4	6 – 25
CWP4J**	63.5 – 101.6	6 – 25

## ZINC CLAMP FOR WATER PIPE

- Zinc die cast
- cULus Listed



Part Number	Water Pipe Size OD (mm)	Conductor Range (mm <sup>2</sup> )
ZWP1J	12.7 – 25.4	6 – 16

## CAST BRASS EARTH CLAMP

- Robust and easy to install
- Can be easily removed should the need arise



Part Number	Conductor Size (mm <sup>2</sup> )	Nominal Rod Diameter (mm)
H1826-1	6-10	15
H1826-2	6-10	19
H1826-3	6-10	19-25

# EARTH CONNECTORS

## BRONZE PIPE CLAMP TO RIGID CONDUIT

- For use in grounding rigid conduit systems to metallic water pipe



Part Number	Water Pipe Size OD (mm)	Conductor Range (mm <sup>2</sup> )	Conduit Size (mm)
CWP1JH12	12.7 – 25.4	6 – 16	12.7
CWP1JH34	12.7 – 25.4	6 – 70	19.1
CWP2JH34	31.75 – 50.8	6 – 70	19.1
CWP4JH34	63.5 – 101.6	6 – 70	19.1
CWP2JH44	31.75 – 50.8	6 – 95	25.4

## Ground Clamps for Fences

### TINNED BRONZE FENCE CLAMPS

- Made from high copper-content alloy
- Theft-deterrent appearance
- Stainless steel nuts, bolts and washers included

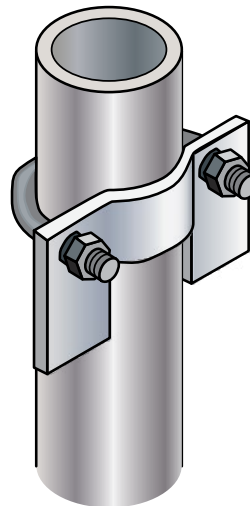


Part Number	Pipe Size OD (mm)	Conductor Size (mm <sup>2</sup> )
<b>Single Hole</b>		
FC073	38.1	25 - 70
FC074	38.1	70 - 130
FC075	50.8	25 - 70
FC076	50.8	70 - 130
FC078	63.5	70 - 130
FC079	76.2	25 - 70
FC080	76.2	70 - 130
FC082	88.9	70 - 130
<b>Dual Hole</b>		
FC076 DH	50.8	2 x 70 - 130
FC078 DH	63.5	2 x 70 - 130
FC082 DH	90	2 x 70 - 130

# EARTH CONNECTORS

## FENCE CLAMPS FOR FIELD WELDED CONNECTIONS

- Ideal for when Cadweld connections cannot be made to aluminum pipe or thin-wall steel tube
- Made of tinned, electrolytic copper
- Stainless steel hardware
- Available for field-welding or with pre-fabricated cable and ground leads



Part Number	Nominal Pipe Size (mm)
B522B	31.75
B522C	38.1
B522D	2
B522E	63.5
B522F	76.2
B522G	88.9
B522H	101.6
B522K	152.4

Cable Size (mm <sup>2</sup> )	Cadweld Mold Part Number	Welding Material
50	LCA2C002	65
70	LAC2G002	65
120	LAC2Q002	90

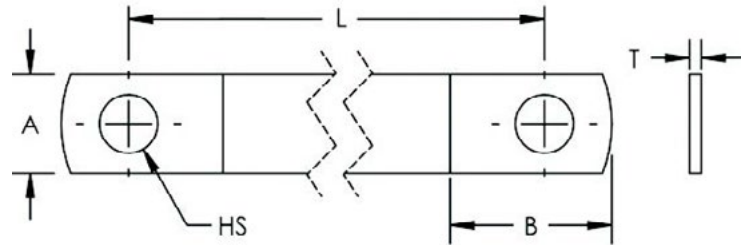
## Grounding & Bonding Braid

### MBJ - TINNED COPPER BRAID

MBJ Grounding and Bonding Braids are a reliable and convenient grounding solution for applications that require flexibility and durability. The tinned copper ground braids with massivated palms come ready to install without any additional cutting, stripping, crimping or punching and do not require the addition of tin or crimped lugs. The proprietary manufacturing process optimizes the electrical contact between each wire and helps eliminate moisture issues in the palms, preventing corrosion and lengthening the useful life of the braid.



- Complete range of earth/ground flexible connections from 6 - 100mm<sup>2</sup> cross section and from 100 - 500 mm length
- Integral palm, without tin or crimped lugs for superior electrical contact and tensile strength resistance
- Resistant to vibration and fatigue, reducing maintenance
- Quick and easy to install
- Made of Tinned Copper
- Ready to use out of the box, eliminates the need for cutting, stripping, crimping and punching
- Provides weight savings, material savings and lower impedance when compared to similar lugged cables with insulation
- Recommended by the EMC/EMI directives and less impedance than cables
- EAC compliant and RoHS compliant, complies with IEC® 60439.1, IEC® 61439.1



Part Number	m Number	Number Intensity	Cross Section (mm <sup>2</sup> )	Thickness (T)	Dimensions (mm)				Weight (kg)
					Length (L)	Hole Size (HS)	A	B	
MBJ6-150-6	556600	40 A	6	1.09	150	6.5	11	18.01	0.101
MBJ10-200-6	556930	75 A	10	1.09	200	6.5	11	18.01	0.022
MBJ10-300-6	556610	75 A	10	1.09	300	6.5	11	18.01	0.033
MBJ16-150-8	556630	120 A	16	1.5	150	8.51	15.01	19.99	0.035
MBJ16-200-8	556640	120 A	16	1.5	200	8.51	15.01	19.99	0.033
MBJ16-250-8	556650	120 A	16	1.5	250	8.51	15.01	19.99	0.04
MBJ16-300-8	556660	120 A	16	1.5	300	8.51	15.01	19.99	0.05
MBJ16-500-8	556940	120 A	16	1.5	500	8.51	15.01	19.99	0.082
MBJ25-100-10	556670	150 A	25	1.5	100	10.49	22	27.99	0.027
MBJ25-200-10	556690	150 A	25	1.5	200	10.49	22	27.99	0.052
MBJ25-300-10	556710	150 A	25	1.5	300	10.49	22	27.99	0.077
MBJ25-500-10	556950	150 A	25	1.5	500	10.49	22	27.99	0.13
MBJ30-100-10	556720	180 A	30	2.01	100	10.49	22	27.99	0.032
MBJ35-250-10	556800	197 A	35	2.11	250	10.49	22	27.99	0.089
MBJ35-300-10	556810	197 A	35	2.11	300	10.49	22	27.99	0.11
MBJ50-250-10	556850	250 A	50	2.49	250	10.49	27.99	33.02	0.127
MBJ50-300-10	556860	250 A	50	2.49	300	10.49	27.99	33.02	0.153

# EARTH ROD INSPECTION BOXES

## TNERIB - TRANSNET EARTH ROD INSPECTION BOX

TransNet Earth Rod Inspection Box (TNERIB) is designed by NZ contractors for NZ contractors. Improve the look and safety of your installation with this unit. Made in NZ, this unit is UV stable and offers a strengthened lid for longevity.

### FEATURES

- Heavy duty hinged lid
- Lid latches closed
- Safer - tool required for entry
- UV stabilised polypropylene
- Easy to identify
- Square lid shape fits in with cobblestones and pavers easily
- Designed and manufactured in NZ



Part Number	Description	External Dimensions (mm)
TNERIB	TransNet Earth Rod Inspection Box	200H x 120W x 120L

## PIT03 - ERICO EARTH ROD INSPECTION BOX

The ERITECH PIT03 offers a high level of protection for critical grounding terminations through the use of its lockable lid. ERITECH PIT03 can withstand 5 tonnes making it ideal for installation in heavy traffic areas.

### FEATURES

- Easy-locking lid only opened with security key
- Ease of maintenance due to large working aperture
- Lightweight design
- Suitable for paving and tar applications
- UV-stabilized
- Non-brittle in cold weather
- Designed to accommodate Grounding Busbar for Inspection Housing (545135)
- Security access key included



Part Number	Description	External Dimensions (mm)
PIT03	Erico Earth Rod Inspection Box	215H x 215D x 190W x 245L

## PIP308 - POLYPROPYLENE INSPECTION PIT

Polypropylene inspection pit for earth connection. Made of High Density Polyethylene (HDPE), Polymer and Fibreglass, the PIP308 is rated to sustain 5000kg (static load)

### FEATURES

- Dimensions (mm): 308 W x 308 D x 214 H
- Colour: Black/Grey
- Weight: 2.5kg



Part Number	Description	External Dimensions (mm)
PIP308	Polypropylene Inspection Pit	214 H x 308 W x 308 D

# EARTH BOND CONNECTIONS

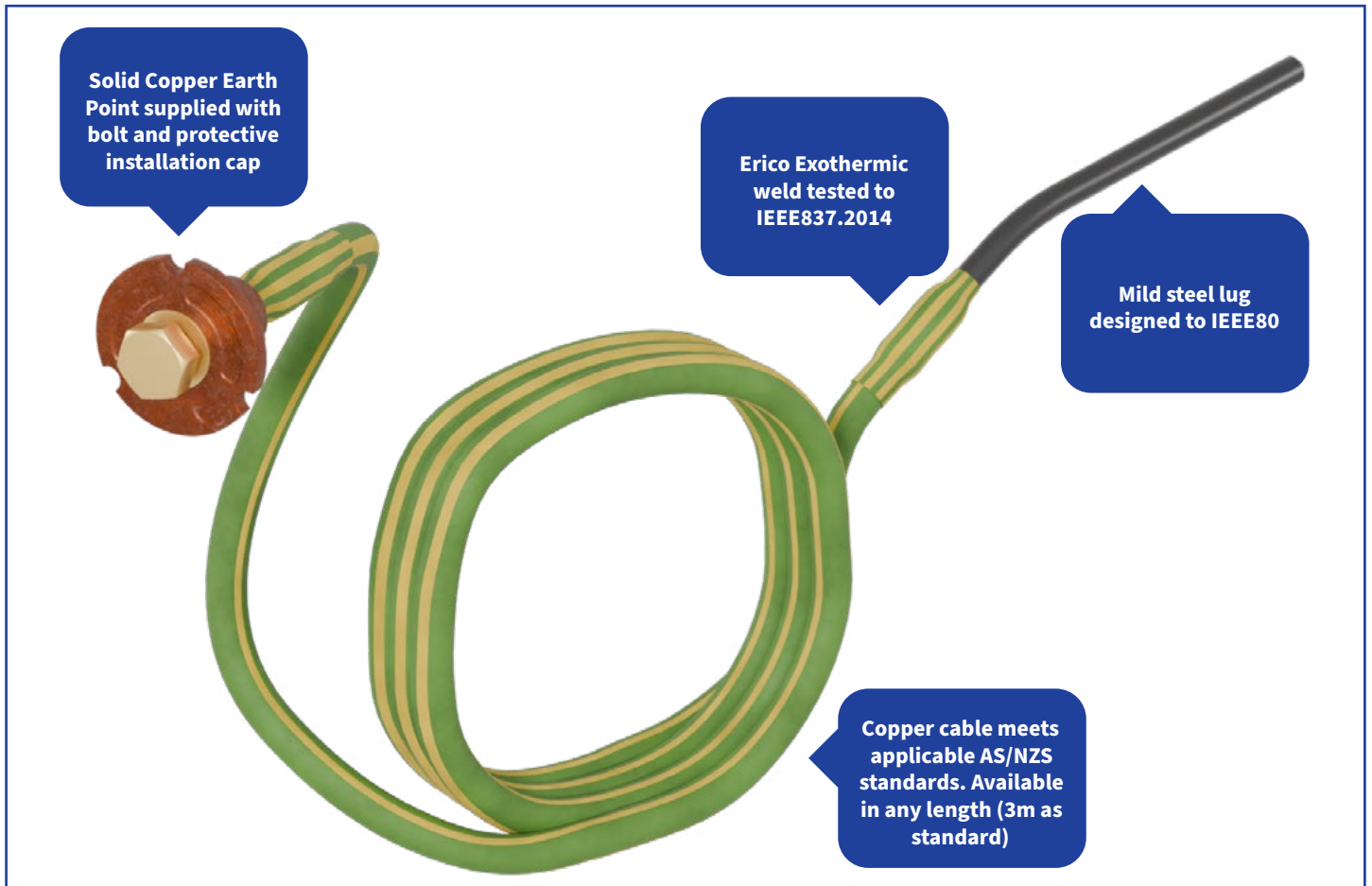
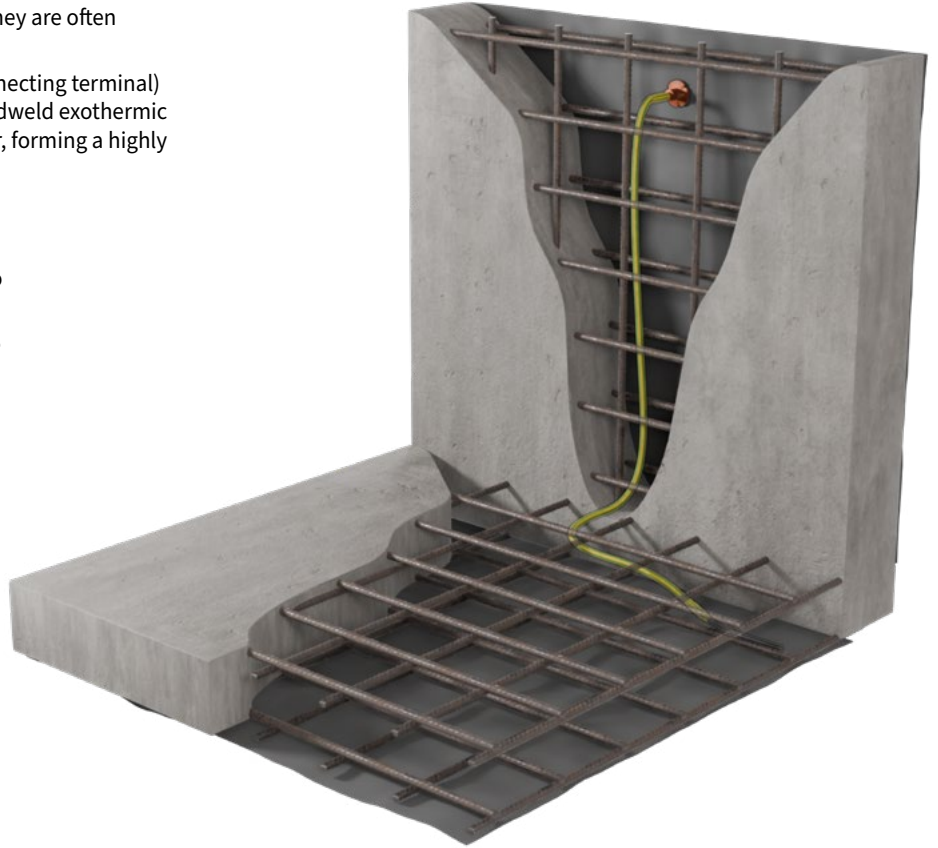
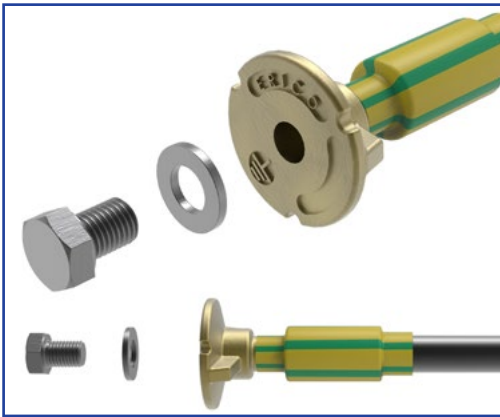
## EARTH BONDS

Earth Bonds, Wricon's or Earthbridge assemblies as they are often referred are available with a bare tail or a plate.

Made from a high-quality conductive earthpoint (connecting terminal) and various types of conductors. The nVent ERICO Cadweld exothermic connection process is used to combine them together, forming a highly corrosion resistant and long-lasting assembly.

### FEATURES

- Low ground resistance and impedance
- Superior electrical conductivity and resistance to corrosion
- Electrically and mechanically robust and reliable
- Easy to install
- Rated according to IEEE 80:2013, Annex C



# EARTH BOND CONNECTIONS

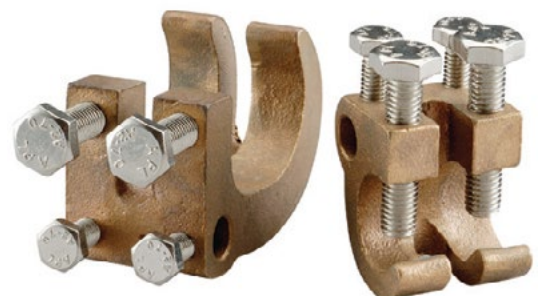
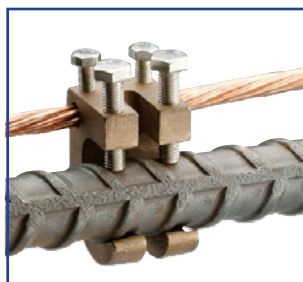
Standard stocked Earth Bonds are listed in the table below. If the size you require is not shown or the length require is different to the parts listed, please contact our customer care team. Custom sizes are available on request.



Part Number	Cable Size (mm <sup>2</sup> )	Length (m)	End Configuration	Bar Diameter (mm)	Bar Length (mm)	Earth Point Size (mm)	Short Circuit Rating to IEEE 80 (kA)
EEB-16-P-3	16	3	Plate	8	220	M10	5.48
EEB-35-P-3	35	3	Plate	12	220	M10	7.89
EEB-50-P-3	50	3	Plate	12	220	M10	7.89
EEB-70-P-3	70	3	Plate	16	220	M10	14.03
EEB-95-P-3	95	3	Plate	16	220	M10	14.03
EEB-120-P-3	120	3	Plate	20	220	M12	21.95
EEB-6-CK-10	6	10	Bare Tail with Clamp Kit	8	370	N/A	3.51
EEB-6-BT-10	6	10	Bare Tail	8	220	N/A	3.51
EEB-16-BT-3	16	3	Bare Tail	8	220	N/A	5.48
EEB-35-BT-3	35	3	Bare Tail	12	220	N/A	7.89
EEB-50-BT-3	50	3	Bare Tail	12	220	N/A	7.89
EEB-70-BT-3	70	3	Bare Tail	16	220	N/A	14.03
EEB-95-BT-3	95	3	Bare Tail	16	220	N/A	14.03
EEB-120-BT-3	120	3	Bare Tail	20	220	N/A	21.95

## HEAVY DUTY REBAR CLAMPS

- Provides two connection points to concrete encased electrodes (rebar) for states where the Authority Having Jurisdiction (AHJ) requires it.
- Meets 2005 NEC® standard requirement for bonding to rebar into the grounding system
- Has high-strength bronze alloy construction
- Easy to install
- Perfect solution for connection to structural steel is required
- UL Listed



Part Number	Conductor Range (mm <sup>2</sup> )	Rebar Size (mm)	Installation Torque Settings
RC70	10 – 70	8 – 18	M8 = 17.7 Nm
RC100	10 – 100	18 – 36	M8 = 17.7 Nm; M10 = 35.5 Nm

# CADWELD PLUS

## nVent ERICO Cadweld Plus

### NVENT ERICO CADWELD PLUS IMPULSE EXOTHERMIC WELDING CONTROL UNIT

Our latest innovation, the **nVent ERICO Cadweld Plus Impulse Exothermic Welding Control Unit**, brings you the highest level of flexibility and ease of use of any of our ignition systems. Precision engineered, the control unit lets you choose your power source: from off-the-shelf AA-batteries to the rechargeable Lithium-Ion packs you have on your job site.

Why should you choose our latest ignition system? Safety, power and ease-of-use.

#### Safety

- Self-closing trigger guard prevents accidental ignition, providing added safety
- LED ignition counter provides instant feedback on the timing of the ignition and is visible in sunny outdoor conditions
- Five second delay in ignition is a safety feature to allow the user to stop ignition, if necessary

#### Power

- Battery life indicator integrated into the unit for real-time updates on battery life; compatible with both AA and rechargeable batteries
- Includes AA alkaline batteries to power approximately 600 connections
- Rechargeable batteries from Milwaukee®

or DEWALT® can be used to power approximately 1500 connections using a 4Ah battery

- Battery adapters available for Milwaukee® or DEWALT® rechargeable batteries (sold separately)

#### Ease-of-Use

- High temperature lead with single molded insert into the control unit keeps the most-often replaced component of ignition systems more securely attached and reliable
- Easy-to-use alligator clip design clearly shows a positive connection in the viewing window
- Enhanced power tool style grip is ergonomic and easy to hold



Part Number	Description	Cable Length	Batteries	Working Temperature
PLUSCU2L6	Cadweld Plus Control Unit and lead	6'	8 Standard AA Batteries	0 – 130°F
PLUSCU2RLD6	Replacement lead only, for PLUSCU2L6	-	-	-

### NVENT ERICO CADWELD PLUS TOOL KITS

The perfect kit does exist, whether you need everything or just the control unit, we have a kit to do the job.

#### CADWELDRENTAL Kit

- PLUSCU2L6 Control unit & lead

#### CADWELDPLUSKIT & CADWELDRENTAL+HANDLE Kits

- Robust tool storage box
- PLUSCU2L6 Control unit & lead
- Mold handle clamps
- Mold putty
- Mold cleaning brush
- Earth rod driving tool

\*Cadweld Plus Molds sold separately.



Part Number	Type of Kit	Description
CADWELDPLUSKIT	For Purchase	Complete kit includes all components for Cadwelding except the mold
CADWELDRENTAL	For Rent	RENTAL KIT - Cadweld Plus Control Unit and Lead only
CADWELDRENTAL+HANDLE	For Rent	RENTAL KIT - Complete kit includes all components for Cadwelding except the mold

## Cadweld Plus Materials

### CADWELD PLUS WELDING MATERIAL

nVent ERICO Cadweld Plus Welding Material, F20, allows for an expedited, permanent grounding connection using pre-measured, self-contained cups. Each package of welding material can be easily placed into the mold and safely ignited with the nVent ERICO Cadweld Plus Impulse Exothermic Welding Control Unit to create an irreversible bond.

- Mixture consists mainly of copper oxide and aluminum
- Primarily used in grounding and bonding applications
- Integrated welding material package
- Color coding by size for easy identification
- Electronic ignition
- No starting material required
- Non-explosive
- Not subject to spontaneous ignition
- See specific nVent ERICO Cadweld connection details to determine welding material requirements



Part Number	Cap Colour	Qty. Per Carton
15PLUSF20	Black	20
25PLUSF20	Red	20
32PLUSF20	White	20
45PLUSF20	Light Blue	20
65PLUSF20		20
90PLUSF20	Grey	10
115PLUSF20	Orange	10
150PLUSF20	Dark Blue	10
200PLUSF20	Yellow	10
250PLUSF20	Purple	10
300PLUSF20	Light Green	10
400PLUSF20	Brown	10
500PLUSF20	Light Brown	10

### CADWELD ADAPTER SLEEVES

#### nVent ERICO Cadweld Adapter Sleeves

Cadweld Adapter Sleeves are used to adapt a limited range of smaller size cables to a larger size Cadweld mold.



#### nVent ERICO 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.



### ADAPTING MOLDS TO FIT CONDUCTORS

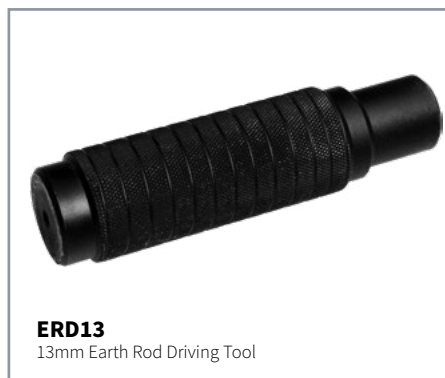
Cables smaller than indicated on mold tag can be welded by using either Wrap Sleeves or Adapter Sleeves

Cable Size	Adapter Sleeve P/N	Use in Mold for Stranded
4 mm <sup>2</sup> , 2.5 mm <sup>2</sup>	B1331H	16 mm <sup>2</sup>
10 mm <sup>2</sup> , 6 mm <sup>2</sup>	B1331L	25 mm <sup>2</sup>
16 mm <sup>2</sup>	B112	35 mm <sup>2</sup>
16 mm <sup>2</sup> , 25 mm <sup>2</sup>	B1331V	35 mm <sup>2</sup>
25 mm <sup>2</sup> , 35 mm <sup>2</sup>	B1331Y	50 mm <sup>2</sup>
35 mm <sup>2</sup>	B1332C	50 mm <sup>2</sup>
50 mm <sup>2</sup>	B1332G	70 mm <sup>2</sup>
50 mm <sup>2</sup>	B1332L	95 mm <sup>2</sup>
50 mm <sup>2</sup> , 70 mm <sup>2</sup>	B1332Q	120 mm <sup>2</sup>

*Cadweld Accessories can be of U.S. or non-U.S. origin.*

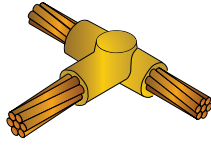
# CADWELD PLUS

## Tools & Accessories



## Cable to Cable

### TA - HORIZONTAL TEE



Cable Size mm <sup>2</sup>		Mold Part Number	Weld Metal Part Number
Run	Tap		
16*	16*	TACW3W3	32PLUSF20
25	25	TACY1Y1	32PLUSF20
	16*	TACY1W3	45PLUSF20
35	35	TACY2Y2	45PLUSF20
	25	TACY2Y1	45PLUSF20
	16*	TACY2W3	45PLUSF20
50	50	TACY3Y3	90PLUSF20
	35	TACY3Y2	45PLUSF20
	25	TACY3Y1	45PLUSF20
	16*	TACY3W3	45PLUSF20
70	70	TACY4Y4	90PLUSF20
	50	TACY4Y3	90PLUSF20
	35	TACY4Y2	45PLUSF20
	25	TACY4Y1	45PLUSF20
	16*	TACY4W3	45PLUSF20
	95	95	TACY5Y5
70		TACY5Y4	90PLUSF20
50		TACY5Y3	90PLUSF20
35		TACY5Y2	90PLUSF20
25		TACY5Y1	90PLUSF20
16*		TACY5W3	90PLUSF20
16*		TACY5W3	90PLUSF20
120	120	TACY6Y6	150PLUSF20
	95	TACY6Y5	150PLUSF20
	70	TACY6Y4	90PLUSF20
	50	TACY6Y3	90PLUSF20
150	35	TACY6Y2	90PLUSF20
	150	TACY7Y7	200PLUSF20
	120	TACY7Y6	150PLUSF20
	95	TACY7Y5	150PLUSF20
185	70	TACY7Y4	90PLUSF20
	185	TACY8Y8	200PLUSF20
	150	TACY8Y7	200PLUSF20
240	120	TACY8Y6	200PLUSF20
	240	TACY9Y9	300PLUSF20
	185	TACY9Y8	200PLUSF20
	150	TACY9Y7	200PLUSF20
8 mm Ø	8 mm Ø	TACW6W6	90PLUSF20
	10 mm Ø	TACW8W8	90PLUSF20

\*Packing: B112, sleeve

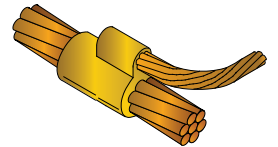
### SS - HORIZONTAL SPLICE



Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number
16*	SSCW3*	25PLUSF20
25	SSCY1	32PLUSF20
35	SSCY2	32PLUSF20
50	SSCY3	45PLUSF20
70	SSCY4	65PLUSF20
95	SSCY5	90PLUSF20
120	SSCY6	115PLUSF20
150	SSCY7	115PLUSF20
185	SSCY8	150PLUSF20
240	SSCY9	200PLUSF20
300	SSCY0	300PLUSF20
8 mm Ø	SSCW6	45PLUSF20
10 mm Ø	SSCW8	65PLUSF20

\*Packing: B112, sleeve

### PC - PARALLEL TAP



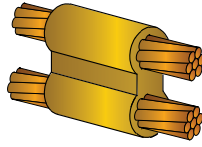
Conductor		Mold	Welding Material (Qty) P/N	Cadweld Plus Welding Material P/N
Run	Tap			
6 SOL	6 SOL	PCC1G1G	25	25PLUSF20
6	6	PCC1H1H	25	25PLUSF20
2 SOL	2 SOL	PCC1T1T	65	65PLUSF20
2	2	PCC1V1V	65	65PLUSF20
	6	PCC1T1G	32	32PLUSF20
1/0	6	PCC2C1H	45	45PLUSF20
2/0	6 SOL	PCC2G1G	65	65PLUSF20
	6	PCC2G1H	65	65PLUSF20
	2	PCC2G1V	90	90PLUSF20
3/0	6	PCC2L1H	90	90PLUSF20
4/0	6 SOL	PCC2Q1G	90	90PLUSF20
	6	PCC2Q1H	90	90PLUSF20
	2 SOL	PCC2Q1T	115	115PLUSF20
	2	PCC2Q1V	115	115PLUSF20
	4	PCC2Q1L	90	90PLUSF20
	4/0	PCC2Q2Q	150	150PLUSF20

# CADWELD PLUS

## Cable to Cable

### PT - PARALLEL HORIZONTAL TEE

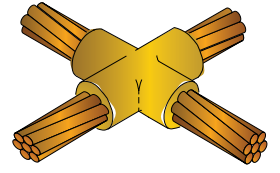
**Pro tip:** The PT connection is the most versatile mold in the Cadweld line. It can be used to make a parallel through or a splice or a "T" or "X" by bending cable.



Cable Size mm <sup>2</sup>		Mold Part Number	Weld Metal Part Number
Run	Tap		
25	25	PTCY1Y1	45PLUSF20
35	35	PTCY2Y2	65PLUSF20
	25	PTCY2Y1	65PLUSF20
50	50	PTCY3Y3	90PLUSF20
	35	PTCY3Y2	65PLUSF20
70	70	PTCY4Y4	115PLUSF20
	50	PTCY4Y3	115PLUSF20
95	95	PTCY5Y5	200PLUSF20
	70	PTCY5Y4	150PLUSF20
	50	PTCY5Y3	150PLUSF20
120	120	PTCY6Y6	250PLUSF20
	95	PTCY6Y5	200PLUSF20
	70	PTCY6Y4	150PLUSF20
150	150	PTDY7Y7	300PLUSF20
	120	PTCY7Y6	250PLUSF20
	95	PTCY7Y5	200PLUSF20
	70	PTCY7Y4	150PLUSF20
185	185	PTDY8Y8	300PLUSF20
	150	PTDY8Y7	300PLUSF20
	120	PTCY8Y6	250PLUSF20
240	240	PTDY9Y9	400PLUSF20
	185	PTDY9Y8	300PLUSF20
	150	PTDY9Y7	300PLUSF20
	120	PTCY9Y6	250PLUSF20

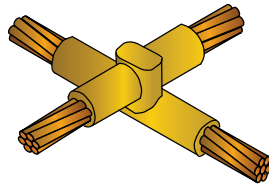
### XA - HORIZONTAL SPLICE

**Pro tip:** XB molds are preferred over XA molds, as they do not require cutting and gapping the secondary conductor.



Cable Size mm <sup>2</sup>		Mold Part Number	Weld Metal Part Number
Run	Tap		
25	25	XACY1Y1	45PLUSF20
35	35	XACY2Y2	65PLUSF20
35	25	XACY2Y1	65PLUSF20
50	50	XACY3Y3	90PLUSF20
50	35	XACY3Y2	90PLUSF20
70	70	XACY4Y4	115PLUSF20
	50	XACY4Y3	115PLUSF20
95	95	XACY5Y5	200PLUSF20
	70	XACY5Y4	150PLUSF20
	50	XACY5Y3	150PLUSF20
120	120	XACY6Y6	200PLUSF20
	95	XACY6Y5	200PLUSF20
	70	XACY6Y4	200PLUSF20
150	150	XACY7Y7	250PLUSF20
	120	XACY7Y6	250PLUSF20
	95	XACY7Y5	200PLUSF20
185	70	XACY7Y4	200PLUSF20
	185	XACY8Y8	250PLUSF20
	150	XACY8Y7	250PLUSF20
	120	XACY8Y6	250PLUSF20
240	240	XADY9Y9	500PLUSF20
	185	XADY9Y8	400PLUSF20
	150	XADY9Y7	400PLUSF20
	120	XADY9Y6	300PLUSF20

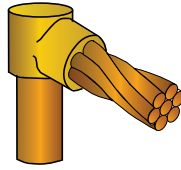
### XB - LAPPED HORIZONTAL SPLICE



Cable Size mm <sup>2</sup>		Mold Part Number	Weld Metal Part Number
Run	Tap		
25	25	XBCY1Y1	65PLUSF20
35	35	XBCY2Y2	90PLUSF20
50	50	XBQY3Y3	150PLUSF20
70	70	XBQY4Y4	200PLUSF20
95	95	XBQY5Y5	250PLUSF20
120	120	XBQY6Y6	300PLUSF20
150	150	XBZY7Y7	400PLUSF20
185	185	XBZY8Y8	500PLUSF20
240	240	XBZY9Y9	750PLUSF20

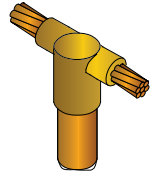
## Cable to Ground Rod

### GR - CABLE TO GROUND ROD



### GT - THROUGH CABLE TO TOP OF GROUND ROD

**Pro tip:** A GT mold can also be used to make a GR connection by stopping the cable at the outside edge of the mold.



Ground Rod Size Dia mm	Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number
12.7	25	GRCP128Y1	65PLUSF20
	35	GRCP128Y2	65PLUSF20
	50	GRCP128Y3	65PLUSF20
	70	GRCP128Y4	90PLUSF20
	95	GRCP128Y5	90PLUSF20
	120	GRCP128Y6	90PLUSF20
	150	GRCP128Y7	115PLUSF20
	185	GRCP128Y8	115PLUSF20
14.2	25	GRCP143Y1	65PLUSF20
	35	GRCP143Y2	90PLUSF20
	50	GRCP143Y3	90PLUSF20
	70	GRCP143Y4	90PLUSF20
	95	GRCP143Y5	90PLUSF20
	120	GRCP143Y6	90PLUSF20
	150	GRCP143Y7	115PLUSF20
	185	GRCP143Y8	150PLUSF20
	240	GRCP143Y9	250PLUSF20
17.2	25	GRCP173Y1	90PLUSF20
	35	GRCP173Y2	90PLUSF20
	50	GRCP173Y3	90PLUSF20
	70	GRCP173Y4	90PLUSF20
	95	GRCP173Y5	90PLUSF20
	120	GRCP173Y6	90PLUSF20
	150	GRCP173Y7	115PLUSF20
	185	GRCP173Y8	115PLUSF20
	240	GRCP173Y9	150PLUSF20

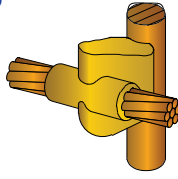
Ground Rod Size Dia mm	Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number
12.7	25	GTCP128Y1	90PLUSF20
	35	GTCP128Y2	90PLUSF20
	50	GTCP128Y3	90PLUSF20
	70	GTCP128Y4	90PLUSF20
	95	GTCP128Y5	115PLUSF20
	120	GTCP128Y6	150PLUSF20
	150	GTCP128Y7	150PLUSF20
	185	GTCP128Y8	200PLUSF20
14.2	25	GTCP143Y1	90PLUSF20
	35	GTCP143Y2	90PLUSF20
	50	GTCP143Y3	90PLUSF20
	70	GTCP143Y4	115PLUSF20
	95	GTCP143Y5	115PLUSF20
	120	GTCP143Y6	150PLUSF20
	150	GTCP143Y7	200PLUSF20
	185	GTCP143Y8	200PLUSF20
	240	GTCP143Y9	250PLUSF20
17.2	25	GTCP173Y1	90PLUSF20
	35	GTCP173Y2	90PLUSF20
	50	GTCP173Y3	90PLUSF20
	70	GTCP173Y4	115PLUSF20
	95	GTCP173Y5	115PLUSF20
	120	GTCP173Y6	150PLUSF20
	150	GTCP173Y7	200PLUSF20
	185	GTCP173Y8	200PLUSF20
	240	GTCP173Y9	250PLUSF20

# CADWELD PLUS

## Cable to Ground Rod

### GY - THROUGH CABLE TO SIDE OF GROUND ROD

**Pro tip:** The GY connection allows you to make a connection and then finish driving the ground rod.



Ground Rod Size Dia mm	Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number
12.7	25	GYRP128Y1	90PLUSF20
	35	GYRP128Y2	90PLUSF20
	50	GYRP128Y3	115PLUSF20
	70	GYRP128Y4	115PLUSF20
	95	GYRP128Y5	150PLUSF20
	120	GYRP128Y6	150PLUSF20
	150	GYRP128Y7	200PLUSF20
	185	GYRP128Y8	200PLUSF20
	14.2	25	GYRP143Y1
35		GYRP143Y2	90PLUSF20
50		GYRP143Y3	115PLUSF20
70		GYRP143Y4	115PLUSF20
95		GYRP143Y5	150PLUSF20
120		GYRP143Y6	150PLUSF20
150		GYRP143Y7	200PLUSF20
185		GYRP143Y8	250PLUSF20
240		GYFP143Y9	400PLUSF20
17.2	25	GYRP173Y1	90PLUSF20
	35	GYRP173Y2	90PLUSF20
	50	GYRP173Y3	115PLUSF20
	70	GYRP173Y4	150PLUSF20
	95	GYRP173Y5	150PLUSF20
	120	GYRP173Y6	250PLUSF20
	150	GYRP173Y7	250PLUSF20
	185	GYFP173Y8	400PLUSF20
	240	GYFP173Y9	400PLUSF20

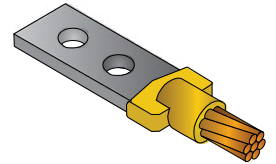
## Cable to Bus / Lug

### LQ - THROUGH CABLE TO BUSBAR



Busbar Size mm	Cable Size mm <sup>2</sup>	Mold	Weld Metal Part Number
3 mm x 25 mm	300	LQJCAJY0	500PLUSF20
3 mm x 25 mm	400	LQJCAJV1	500PLUSF20
4 mm x 50 mm and wider	120	LQJEAMY6	500PLUSF20

### LA - CABLE TO LUG

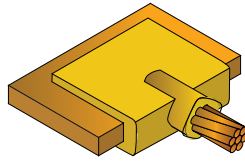


Cable Size mm <sup>2</sup>	Bus or Lug Size mm	Mold Part Number	Weld Metal Part Number
16	2 x 20	LAC-W3-BAH	32
	2 x 25	LAC-W3-BAJ	32
	3 x 20	LAC-W3-CAH	45
	3 x 25	LAC-W3-CAJ	45
25	2 x 25	LAC-Y1-BAJ	45
	3 x 20	LACY1-CAH	45
	3 x 25	LAC-Y1-CAJ	45
	4 x 25	LAC-Y1-EAJ	65
35	2 x 25	LAC-Y2-BAJ	45
	3 x 20	LACY2-CAH	45
	3 x 25	LAC-Y2-CAJ	45
	4 x 25	LAC-Y2-EAJ	45
50	2 x 25	LAC-Y3-BAJ	45
	3 x 20	LAC-Y3-CAH	45
	3 x 25	LAC-Y3-CAJ	45
	4 x 25	LAC-Y3-EAJ	65
70	3 x 25	LAC-Y4-CAJ	65
	3 x 30	LAC-Y4-CAK	65
	4 x 25	LAC-Y4-EAJ	65
	4 x 30	LAC-Y4-EAK	65
	5 x 30	LAC-Y4-FAK	90
95	3 x 25	LAC-Y5-CAJ	65
	3 x 30	LAC-Y5-CAK	90
	4 x 25	LAC-Y5-EAJ	90
	4 x 30	LAC-Y5-EAK	90
	5 x 30	LAC-Y5-FAK	90
120	3 x 25	LAC-Y6-CAJ	90
	3 x 30	LAC-Y6-CAK	90
	4 x 25	LAC-Y6-EAJ	90
	4 x 30	LAC-Y6-EAK	90
	5 x 30	LAC-Y6-FAK	90

## Cable to Bus / Lug

### LJ - CABLE TO BUSBAR

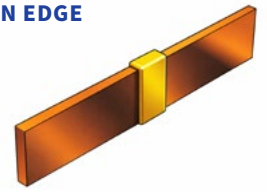
**Pro tip:** The LJ connection is the easiest, simplest connection to make to busbar.



Busbar mm	Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number
3 x 25	35	LJCCAJY2	45PLUSF20
	50	LJCCAJY3	90PLUSF20
	70	LJCCAJY4	90PLUSF20
4 x 40 & WIDER	35	LJCEALY2	45PLUSF20
	50	LJCEALY3	90PLUSF20
	70	LJCEALY4	90PLUSF20
	95	LJCEALY5	90PLUSF20
	120	LJCEALY6	90PLUSF20
	150	LJCEALY7	115PLUSF20
	185	LJCEALY8	150PLUSF20
	240	LJCEALY9	150PLUSF20
	5 x 40 & WIDER	35	LJCFALY2
50		LJCFALY3	90PLUSF20
70		LJCFALY4	90PLUSF20
95		LJCFALY5	90PLUSF20
120		LJCFALY6	115PLUSF20
150		LJCFALY7	115PLUSF20
185		LJCFALY8	150PLUSF20
240		LJCFALY9	200PLUSF20
6 x 40 & WIDER		35	LJCPALY2
	50	LJCPALY3	90PLUSF20
	70	LJCPALY4	90PLUSF20
	95	LJCPALY5	90PLUSF20
	120	LJCPALY6	115PLUSF20
	150	LJCPALY7	115PLUSF20
	185	LJCPALY8	150PLUSF20
	240	LJCPALY9	200PLUSF20

## Busbar to Busbar

### BA - HORIZONTAL, SPLICE - BUSBAR ON EDGE

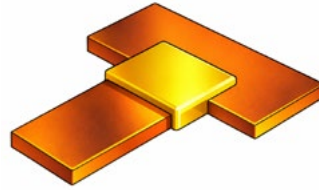


Lug/Busbar Size 1	Lug/Busbar Size 2	Mold Part Number	Weld Metal Part Number
2 mm x 20 mm	2 mm x 20 mm	BACBAH	45PLUSF20
2 mm x 25 mm	2 mm x 25 mm	BACBAJ	45PLUSF20
2 mm x 30 mm	2 mm x 30 mm	BACBAK	65PLUSF20
3 mm x 25 mm	3 mm x 25 mm	BACCAJ	65PLUSF20
3 mm x 35 mm	3 mm x 35 mm	BACCAS	115PLUSF20
3 mm x 40 mm	3 mm x 40 mm	BACCAL	115PLUSF20
4 mm x 25 mm	4 mm x 25 mm	BACEAJ	90PLUSF20
4 mm x 50 mm	4 mm x 25 mm	BACEAMEAJ	150PLUSF20
4 mm x 30 mm	4 mm x 30 mm	BACEAK	115PLUSF20
4 mm x 40 mm	4 mm x 40 mm	BACEAL	150PLUSF20
4 mm x 50 mm	4 mm x 50 mm	BACEAM	150PLUSF20
5 mm x 20 mm	5 mm x 20 mm	BACFAH	90PLUSF20
5 mm x 40 mm	5 mm x 40 mm	BACFAL	150PLUSF20
6 mm x 35 mm	6 mm x 35 mm	BACPAS	150PLUSF20
6 mm x 50 mm	6 mm x 50 mm	BACPAM	200PLUSF20

# CADWELD PLUS

## Busbar to Busbar

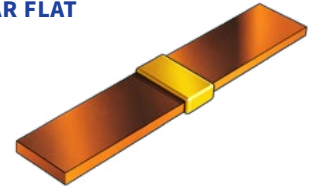
### BM – BUSBAR TO BUSBAR, HORIZONTAL



Lug/Busbar Size 1	Lug/Busbar Size 2	Mold Part Number	Weld Metal Part Number
2 mm x 25 mm	2 mm x 25 mm	BMCBAJBAJ	90PLUSF20
2 mm x 30 mm	2 mm x 30 mm	BMCBAKBAK	90PLUSF20
3 mm x 25 mm	3 mm x 25 mm	BMCCAJCAJ	90PLUSF20
3 mm x 25 mm	3 mm x 50 mm	BMDCAJCAM	90PLUSF20
3 mm x 50 mm & wider	3 mm x 25 mm	BMCCAMCAJ	90PLUSF20
3 mm x 35 mm	3 mm x 35 mm	BMCCASCAS	115PLUSF20
3 mm x 40 mm	3 mm x 40 mm	BMCCALCAL	90PLUSF20
3 mm x 50 mm	3 mm x 50 mm	BMDCAMCAM	200PLUSF20
3 mm x 25 mm	4 mm x 40 mm	BMCCAJEAL	115PLUSF20
3 mm x 25 mm	4 mm x 20 mm	BMCCAJEAH	90PLUSF20
3 mm x 50 mm	4 mm x 25 mm	BMCCAMEAJ	115PLUSF20
3.5 mm x 30 mm	3.5 mm x 30 mm	BMCDAKDAK	90PLUSF20
4 mm x 25 mm	3 mm x 25 mm	BMCEAJCAJ	150PLUSF20
4 mm x 50 mm	3 mm x 25 mm	BMCEAMCAJ	150PLUSF20
4 mm x 50 mm	3 mm x 40 mm	BMCEAMCAL	150PLUSF20
4 mm x 25 mm	3 mm x 40 mm	BMCEAJCAL	150PLUSF20
4 mm x 20 mm	4 mm x 20 mm	BMCEAHEAH	90PLUSF20
4 mm x 40 mm	4 mm x 20 mm	BMCEALEAH	90PLUSF20
4 mm x 20 mm	4 mm x 40 mm	BMCEAHEAL	115PLUSF20
4 mm x 50 mm	4 mm x 25 mm	BMCEAMEAJ	150PLUSF20
4 mm x 25 mm	4 mm x 25 mm	BMCEAJEAJ	90PLUSF20
4 mm x 30 mm	4 mm x 25 mm	BMCEAKEAJ	90PLUSF20
4 mm x 30 mm	4 mm x 30 mm	BMCEAKEAK	90PLUSF20
4 mm x 40 mm	4 mm x 40 mm	BMCEALEAL	150PLUSF20
4 mm x 50 mm	4 mm x 50 mm	BMDEAMEAM	250PLUSF20
4 mm x 30 mm	5 mm x 40 mm	BMCEAKFAL	115PLUSF20
4 mm x 40 mm	5 mm x 40 mm	BMCEALFAL	150PLUSF20
4 mm x 40 mm	5 mm x 50 mm	BMDEALFAM	250PLUSF20
4 mm x 40 mm	6 mm x 30 mm	BMCEALPAK	150PLUSF20
4 mm x 25 mm	8 mm x 60 mm	BMDEAJGAN	300PLUSF20
4 mm x 40 mm	8 mm x 60 mm	BMDEALGAN	300PLUSF20
5 mm x 60 mm	3 mm x 40 mm	BMDFANCAL	250PLUSF20
5 mm x 60 mm	4 mm x 50 mm	BMDFANEAM	250PLUSF20
5 mm x 30 mm	5 mm x 30 mm	BMCFAKFAK	115PLUSF20
5 mm x 50 mm	5 mm x 40 mm	BMCFAMFAL	150PLUSF20
5 mm x 40 mm	5 mm x 40 mm	BMCFALFAL	150PLUSF20
5 mm x 50 mm	5 mm x 50 mm	BMDFAMFAM	250PLUSF20
5 mm x 60 mm	5 mm x 60 mm	BMDFANFAN	300PLUSF20
6 mm x 50 mm	3 mm x 25 mm	BMCPAMCAJ	115PLUSF20
6 mm x 50 mm	5 mm x 40 mm	BMDPAMFAL	250PLUSF20
6 mm x 25 mm	6 mm x 25 mm	BMCPAJPAJ	90PLUSF20
6 mm x 30 mm	6 mm x 30 mm	BMCPAKPAK	115PLUSF20
6 mm x 40 mm	6 mm x 40 mm	BMCPALPAL	150PLUSF20

Lug/Busbar Size 1	Lug/Busbar Size 2	Mold Part Number	Weld Metal Part Number
6 mm x 50 mm	6 mm x 50 mm	BMDPAMPAM	250PLUSF20
6 mm x 60 mm & wider	8 mm x 60 mm	BMDPANGAN	400PLUSF20
8 mm x 50 mm	5 mm x 40 mm	BMDGAMFAL	300PLUSF20

### BB – HORIZONTAL, SPLICE – BUSBAR FLAT



Lug/Busbar Size 1	Lug/Busbar Size 2	Mold Part Number	Weld Metal Part Number
2 mm x 30 mm	2 mm x 30 mm	BBCBAK	90PLUSF20
3 mm x 10 mm	3 mm x 10 mm	BBCCAF	45PLUSF20
3 mm x 20 mm	3 mm x 20 mm	BBCCAHAHA	65PLUSF20
3 mm x 25 mm	3 mm x 25 mm	BBCCAJ	90PLUSF20
3 mm x 30 mm	3 mm x 30 mm	BBCCAK	115PLUSF20
3 mm x 40 mm	3 mm x 40 mm	BBCCAL	115PLUSF20
3 mm x 50 mm	3 mm x 50 mm	BBRCAM	150PLUSF20
3.5 mm x 30 mm	3.5 mm x 30 mm	BBCDAK	115PLUSF20
4 mm x 50 mm	4 mm x 25 mm	BBREAMEAJ	150PLUSF20
4 mm x 25 mm	4 mm x 25 mm	BBCEAJ	90PLUSF20
4 mm x 30 mm	4 mm x 30 mm	BBCEAK	115PLUSF20
4 mm x 40 mm	4 mm x 40 mm	BBCEAL	150PLUSF20
4 mm x 50 mm	4 mm x 50 mm	BBREAM	200PLUSF20
5 mm x 40 mm	3 mm x 40 mm	BBCFALCAL	150PLUSF20
5 mm x 30 mm	5 mm x 30 mm	BBCFAK	115PLUSF20
5 mm x 40 mm	5 mm x 40 mm	BBCFAL	150PLUSF20
5 mm x 50 mm	5 mm x 50 mm	BBRFAM	200PLUSF20
5 mm x 50 mm	8 mm x 50 mm	BBDFAMGAM	300PLUSF20
6 mm x 100 mm	6 mm x 100 mm	BBKPAQ	500PLUSF20
6 mm x 25 mm	6 mm x 25 mm	BBCPAJ	115PLUSF20
6 mm x 30 mm	6 mm x 30 mm	BBCPAK	115PLUSF20
6 mm x 40 mm	6 mm x 40 mm	BBCPAL	150PLUSF20
6 mm x 50 mm	6 mm x 50 mm	BBDPAMPAM	250PLUSF20
6 mm x 50 mm	8 mm x 60 mm	BBDPAMGAN	300PLUSF20
8 mm x 100 mm	8 mm x 100 mm	BBKGAQ	600PLUSF20
8 mm x 60 mm	8 mm x 60 mm	BBDGANGAN	400PLUSF20

## EB – HORIZONTAL X, FLAT BUS LAPPED



Lug/Busbar Size 1	Lug/Busbar Size 2	Mold Part Number	Weld Metal Part Number
3 mm x 10 mm	3 mm x 10 mm	EBCCAFCFAF	45PLUSF20
3 mm x 20 mm	3 mm x 20 mm	EBCCAHCACH	90PLUSF20
3 mm x 25 mm	3 mm x 25 mm	EBCCAJCAJ	115PLUSF20
3 mm x 30 mm	3 mm x 30 mm	EBCCAKCAK	115PLUSF20
3 mm x 35 mm	3 mm x 35 mm	EBCCASCAS	150PLUSF20
3 mm x 40 mm	3 mm x 40 mm	EBCCALCAL	150PLUSF20
3 mm x 50 mm & wider	3 mm x 50 mm & wider	EBCCAMCAM	150PLUSF20
3 mm x 25 mm	4 mm x 40 mm	EBCCAJEAL	150PLUSF20
3.5 mm x 30 mm	3.5 mm x 30 mm	EBCDAKDAK	150PLUSF20
4 mm x 20 mm	4 mm x 20 mm	EBCEAHEAH	115PLUSF20
4 mm x 25 mm	4 mm x 25 mm	EBCEAJEAJ	115PLUSF20
4 mm x 30 mm	4 mm x 30 mm	EBCEAKEAK	150PLUSF20
4 mm x 40 mm	4 mm x 30 mm	EBCEALEAK	150PLUSF20
4 mm x 40 mm	4 mm x 40 mm	EBCEALEAL	150PLUSF20
5 mm x 40 mm	4 mm x 30 mm	EBCFALEAK	200PLUSF20
5 mm x 60 mm & wider	4 mm x 40 mm	EBCFANEAL	200PLUSF20
5 mm x 30 mm	5 mm x 30 mm	EBCFAKFAK	200PLUSF20
5 mm x 40 mm & wider	5 mm x 40 mm & wider	EBCFALFAL	250PLUSF20
6 mm x 30 mm	6 mm x 30 mm	EBCPAKPAK	200PLUSF20
6 mm x 40 mm & wider	6 mm x 40 mm & wider	EBCPALPAL	250PLUSF20

## LE – HORIZONTAL TEE, BUS/LUG TO CABLE



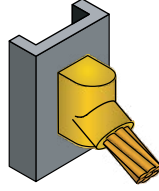
Lug/Busbar Size 1	Lug/Busbar Size 2	Mold Part Number	Weld Metal Part Number
2 mm x 30 mm	185 mm <sup>2</sup>	LECY8BAK	200PLUSF20
3 mm x 25 mm	13.2 mm Ground Wire	LECT3CAJ	150PLUSF20
3 mm x 25 mm	16 mm <sup>2</sup>	LECW3CAJ	45PLUSF20
3 mm x 25 mm	35 mm <sup>2</sup>	LECY2CAJ	65PLUSF20
3 mm x 60 mm & wider	50 mm <sup>2</sup>	LECY3CAN	150PLUSF20
3 mm x 25 mm	50 mm <sup>2</sup>	LECY3CAJ	90PLUSF20
3 mm x 40 mm	70 mm <sup>2</sup>	LECY4CAL	115PLUSF20
3 mm x 25 mm	70 mm <sup>2</sup>	LECY4CAJ	90PLUSF20
3 mm x 30 mm	70 mm <sup>2</sup>	LECY4CAK	90PLUSF20
3 mm x 40 mm	95 mm <sup>2</sup>	LECY5CAL	150PLUSF20
3 mm x 35 mm	95 mm <sup>2</sup>	LECY5CAS	150PLUSF20
3 mm x 25 mm	95 mm <sup>2</sup>	LECY5CAJ	115PLUSF20
3 mm x 25 mm	120 mm <sup>2</sup>	LECY6CAJ	115PLUSF20
3 mm x 40 mm	125 mm <sup>2</sup>	LECR6CAL	150PLUSF20
3 mm x 25 mm	150 mm <sup>2</sup>	LECY7CAJ	150PLUSF20
3 mm x 25 mm	300 mm <sup>2</sup>	LECY0CAJ	200PLUSF20
3 mm x 25 mm	400 mm <sup>2</sup>	LECV1CAJ	250PLUSF20
3.5 mm x 30 mm	70 mm <sup>2</sup>	LECY4DAK	115PLUSF20
4 mm x 40 mm	13.2 mm Ground Wire	LECT3EAL	200PLUSF20
4 mm x 25 mm	13.2 mm Ground Wire	LECT3EAJ	150PLUSF20
4 mm x 40 mm	14.2 mm Ground Wire	LECT4EAL	250PLUSF20
4 mm x 40 mm	15.6 mm Ground Wire	LECT5EAL	300PLUSF20
4 mm x 50 mm	17.6 mm Ground Wire	LECT6EAM	300PLUSF20
4 mm x 40 mm	17.6 mm Ground Wire	LECT6EAL	250PLUSF20
4 mm x 50 mm	50 mm <sup>2</sup>	LECY3EAM	200PLUSF20
4 mm x 40 mm	50 mm <sup>2</sup>	LECY3EAL	150PLUSF20
4 mm x 20 mm	50 mm <sup>2</sup>	LECY3EAH	90PLUSF20
4 mm x 50 mm	70 mm <sup>2</sup>	LECY4EAM	200PLUSF20
4 mm x 25 mm	70 mm <sup>2</sup>	LECY4EAJ	115PLUSF20
4 mm x 40 mm	70 mm <sup>2</sup>	LECY4EAL	150PLUSF20
4 mm x 50 mm	95 mm <sup>2</sup>	LECY5EAM	200PLUSF20
4 mm x 25 mm	95 mm <sup>2</sup>	LECY5EAJ	150PLUSF20
4 mm x 25 mm	120 mm <sup>2</sup>	LECY6EAJ	150PLUSF20
4 mm x 30 mm	120 mm <sup>2</sup>	LECY6EAK	150PLUSF20
4 mm x 40 mm	125 mm <sup>2</sup>	LECR6EAL	150PLUSF20
4 mm x 50 mm	150 mm <sup>2</sup>	LECY7EAM	200PLUSF20
4 mm x 40 mm	185 mm <sup>2</sup>	LECY8EAL	250PLUSF20
4 mm x 25 mm	240 mm <sup>2</sup>	LECY9EAJ	250PLUSF20
4 mm x 50 mm	240 mm <sup>2</sup>	LECY9EAM	300PLUSF20
4 mm x 40 mm	250 kcmil	LEC2VEAL	200PLUSF20
5 mm x 50 mm	17.6 mm Ground Wire	LECT6FAM	300PLUSF20
5 mm x 50 mm	95 mm <sup>2</sup>	LECY5FAM	200PLUSF20
5 mm x 30 mm	95 mm <sup>2</sup>	LECY5FAK	150PLUSF20
5 mm x 60 mm & wider	120 mm <sup>2</sup>	LECY6FAN	200PLUSF20

# CADWELD PLUS

## Cable to Steel Surface

**Pro tip:** Make sure that the steel surface is cleaned according the Cadweld mold instructions and use tools that do not leave residue on the surface.

### VS – CABLE TO VERTICAL STEEL

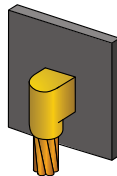


Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number
25	VSCY1	45PLUSF20
35	VSCY2	45PLUSF20
50	VSCY3	90PLUSF20
70	VSCY4	90PLUSF20
95	VSCY5	115PLUSF20
120	VSCY6	115PLUSF20
150	VSCY7	150PLUSF20
185	VSCY8	200PLUSF20
240	VSCY9	200PLUSF20

Cable	Nominal Pipe Diameter	Suffix
25 mm <sup>2</sup> thru	Less than 80 mm	Nominal Pipe Diameter
120mm <sup>2</sup>	812.8 mm and larger	None

Example: 70mm<sup>2</sup> to 102mm pipe, VSC-Y4-102V

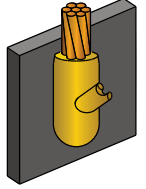
### VB – CABLE TO VERTICAL STEEL



Surface	Cable Size mm <sup>2</sup>	Mold	Weld Metal Part Number
Flat Surface	21.2	VBC1L	65PLUSF20
	33.6	VBC1T	65PLUSF20
	33.6	VBC1V	65PLUSF20
	53.5	VBC2C	115PLUSF20
	33.6	VBC2G	115PLUSF20
	85.0	VBC2L	150PLUSF20
	107.0	VBC2P	150PLUSF20
	107.0	VBC2Q	150PLUSF20
	253.3	VBC3Q	300PLUSF20
	107.0	VBC2QV3C	150PLUSF20
1-1/4" to 3-1/2" Pipe	33.6	VBC1TV3C	65PLUSF20
	107.0	VBC1KV3C	65PLUSF20
	33.6	VBC1V3C	65PLUSF20

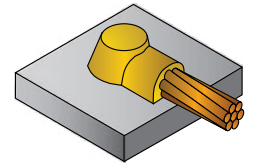
**Pro tip:** B396 magnetic handle clamp can be used for flat vertical steel, and B160V can be used for vertical steel pipes up to 4".

### VF – CABLE TO VERTICAL STEEL



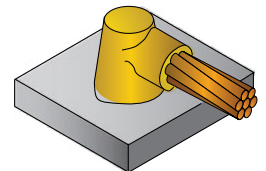
Surface	Cable Size mm <sup>2</sup>	Mold	Weld Metal Part Number
Flat Surface	21.2	VFC1L	65PLUSF20
	33.6	VFC1T	65PLUSF20
	33.6	VFC1V	65PLUSF20
	67.4	VFC2G	150PLUSF20
	85.0	VFR2L	200PLUSF20
	107.0	VFR2Q	200PLUSF20
2" to 4" Pipe	33.6	VFC1TV3C	65PLUSF20

### HA – CABLE TO HORIZONTAL STEEL



Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number
25	HAAY1	45PLUSF20
35	HAAY2	45PLUSF20
50	HAAY3	45PLUSF20
70	HAAY4	65PLUSF20

### HS – CABLE TO HORIZONTAL STEEL

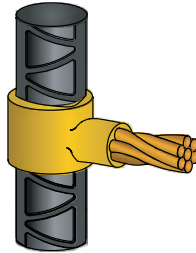


Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number
95	HSCY5	115PLUSF20
120	HSCY6	115PLUSF20
150	HSCY7	150PLUSF20
185	HSCY8	200PLUSF20

## Cable to Rebar

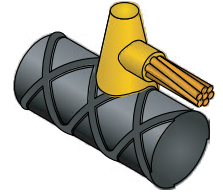
**Pro tip:** Packing of some sort is required for most rebar connections, and one is required for each weld. The packing is not optional.

### RJ - CABLE TO REBAR



Rebar Size Dia mm	Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number	Packing Material Part Number
12	25	RJC52Y1	65PLUSF20	B140A
	35	RJC52Y2	65PLUSF20	B140A
	50	RJC52Y3	115PLUSF20	B140A
	70	RJC52Y4	115PLUSF20	B140A
	95	RJC52Y5	150PLUSF20	B140A
16	25	RJC53Y1	65PLUSF20	B140A
	35	RJC53Y2	65PLUSF20	B140A
	50	RJC53Y3	115PLUSF20	B140A
	70	RJC53Y4	115PLUSF20	B140A
	95	RJC53Y5	150PLUSF20	B140A
22	35	RJE55Y2	65PLUSF20	B144E
	50	RJE55Y3	115PLUSF20	B144B
	70	RJE55Y4	115PLUSF20	B144B
	95	RJE55Y5	150PLUSF20	B144B
25	35	RJE93Y2	65PLUSF20	B144A
	50	RJE93Y3	115PLUSF20	B144B
	70	RJE93Y4	115PLUSF20	B144B
	95	RJE93Y5	150PLUSF20	B144B
32	50	RJE58Y3	115PLUSF20	B144B
	70	RJE58Y4	115PLUSF20	B144B
	95	RJE58Y5	150PLUSF20	B144E

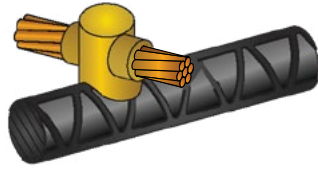
### RR - CABLE TO REBAR



Rebar Size Dia mm	Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number	Packing Material Part Number
12	25	RRA52Y1	45PLUSF20	B143A
	35	RRA52Y2	45PLUSF20	B143A
	50	RRC52Y3	90PLUSF20	B141A
	70	RRC52Y4	90PLUSF20	B141A
	95	RRC52Y5	115PLUSF20	B141A
16	25	RRA53Y1	45PLUSF20	B143A
	35	RRA53Y2	45PLUSF20	B143A
	50	RRC53Y3	90PLUSF20	B141A
	70	RRC53Y4	90PLUSF20	B141A
	95	RRC53Y5	115PLUSF20	B141A
22	35	RRA55Y2	45PLUSF20	B143B
	50	RRH55Y3	90PLUSF20	B144C
	70	RRH55Y4	90PLUSF20	B144C
	95	RRH55Y5	115PLUSF20	B144A
25	35	RRA56Y2	45PLUSF20	B143B
	50	RRH56Y3	90PLUSF20	B144C
	70	RRH56Y4	90PLUSF20	B144C
	95	RRH56Y5	115PLUSF20	B144A
32	50	RRH58Y3	90PLUSF20	B144C
	70	RRH58Y4	90PLUSF20	B144C
	95	RRH58Y5	115PLUSF20	B144A

# CADWELD PLUS

## RD – CABLE TO REBAR



Rebar Size Dia mm	Cable Size mm <sup>2</sup>	Mold Part Number	Weld Metal Part Number	Packing Material Part Number
12	25	RDC52Y1	65PLUSF20	B141A
	35	RDC52Y2	90PLUSF20	B141A
	50	RDM52Y3	115PLUSF20	B141A
	70	RDM52Y4	115PLUSF20	B141A
	95	RDM52Y5	150PLUSF20	B141A
16	25	RDC53Y1	65PLUSF20	B141A
	35	RDC53Y2	90PLUSF20	B141A
	50	RDM53Y3	115PLUSF20	B141A
	70	RDM53Y4	115PLUSF20	B141A
	95	RDM53Y5	150PLUSF20	B141A
22	35	RDH55Y2	90PLUSF20	B144C
	50	RDH55Y3	115PLUSF20	B144C
	70	RDH55Y4	115PLUSF20	B144C
	95	RDH55Y5	150PLUSF20	B144A
	25	35	RDH56Y2	90PLUSF20
50		RDH56Y3	115PLUSF20	B144C
70		RDH56Y4	115PLUSF20	B144C
95		RDH56Y5	150PLUSF20	B144A
32		50	RDH58Y3	115PLUSF20
	70	RDH58Y4	115PLUSF20	B144C
	95	RDH58Y5	150PLUSF20	B144A

## CADWELD PLUS SELECTOR TOOL

Can't find the connection type you need? nVent offers an intuitive selector tool to help you quickly and accurately identify the correct mold or one-shot solution. Scan the QR code below to access the tool. Once you've identified your requirement, please contact our Customer Care team for pricing and availability - sales@transnet.co.nz | +64 9 274 3340



**SCAN FOR  
SELECTOR**

## Rebar Packing

Part Number	Description	Qty. Per Carton
B141A*	Copper Shim, 3.3 x 76.2 x 38.1 mm	50
B144A	Ceramic Packing, for standard Cadweld molds 6.35 x 76.2 x 76.2 mm	20
B144C	Ceramic Packing, for Prefab Rebar molds 6.35 x 76.2 x 76.2 mm	20



\*Each piece of B141A includes 2 copper shims as required per rebar connection

# CADWELD PLUS ONE SHOT

## Cadweld Plus One Shot

A permanent exothermic connection without the need for a mold. The Cadweld Plus One Shot system produces a permanent exothermic connection that will not loosen, corrode or increase in resistance during its life.

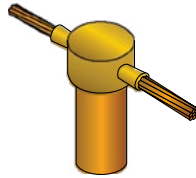
The single-use design of One Shot offers the quality of an exothermic weld without the need for molds. The Cadweld Plus Control Unit is simple to use and works seamlessly with One Shot.

The refractory ceramic body on the CADWELD PLUS ONE SHOT is durable and resists breaking.

- No starting material needed
- Extremely durable disposable ceramic outer body eliminates the graphite mold and frame
- No need to preheat the mold like conventional Cadweld Plus
- Produces a permanent connection that will not loosen or corrode
- Fits both plain and threaded copper-bonded and full-size steel and stainless steel ground rods
- NEC® compliant and cULus® Listed



### GT ONE SHOT – CABLE TO GROUND ROD



Ground Rod Size Dia mm	Cable Size mm <sup>2</sup>	Part Number Type GT
12.7	8-10	GT1141GPLUS
	14-22	GT1141LPLUS
	25	GT1141QPLUS
	30-38	GT1141VPLUS
14.2	8-10	GT1161GPLUS
	14-22	GT1161LPLUS
	25	GT1161QPLUS
	30-38	GT1161VPLUS
	50-60	GT1162CPLUS
17.2	70	GT1162GPLUS
	8-10	GT1181GPLUS
	14-22	GT1181LPLUS
	25	GT1181QPLUS
	30-38	GT1181VPLUS
	50-60	GT1182CPLUS
	70	GT1182GPLUS

Weld material included with One Shot. Sleeves not optional, must use the sleeves that come with the One Shot ordered.

**Additional nVent ERICO Cadweld One Shot connections to ground rods available on request.**

### CADWELD PLUS SELECTOR TOOL

Can't find the connection type you need? nVent offers an intuitive selector tool to help you quickly and accurately identify the correct mold or one-shot solution. Scan the QR code below to access the tool. Once you've identified your requirement, please contact our Customer Care team for pricing and availability - sales@transnet.co.nz | +64 9 274 3340



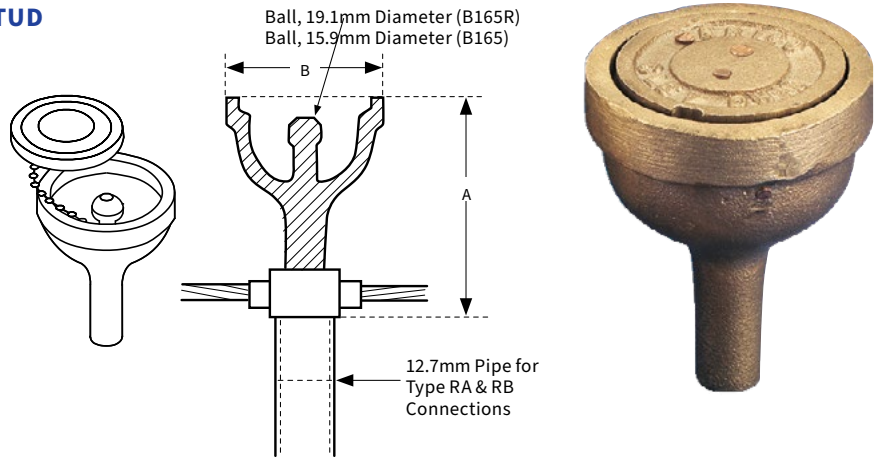
**SCAN FOR  
SELECTOR**

# RECEPTACLES

## Aircraft Grounding Receptacles

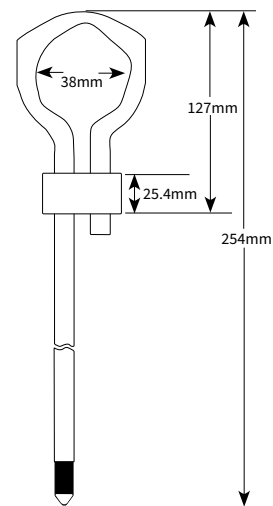
- Copper alloy castings for use in static grounding systems of aircraft refueling areas
- Easily connected to grounding system conductor and/or ground rods
- Designed for simple installation with flush paved surfaces
- Compatible with Cadweld connections

### GROUNDING RECEPTACLES WITH BALL STUD



Part Number	Attachment Point	Depth (mm) (A)	Diameter (mm) at Grade Level (B)
B165*	19.1mm Ball Stud	114.3	69.85
B165B	(Cover for B165, included)	—	69.85
B165R*	Removable 19.1mm Ball Stud	114.3	69.85
B165RS*	Removable 19.1mm Ball Stud	114.3	69.85

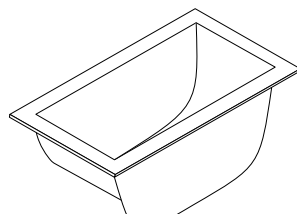
### COPPER-BONDED AIRCRAFT TIE DOWN RODS



Specifications	
663400	Nominal 19.1mm diameter x 3.05m length

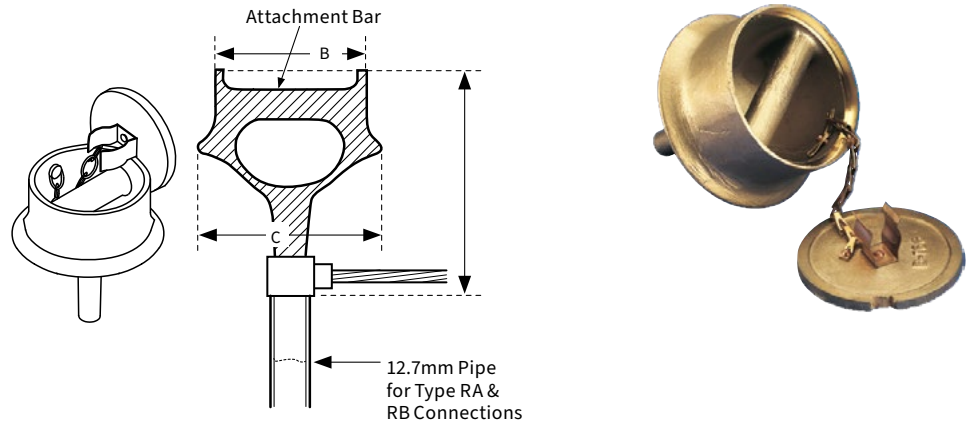
### DEPRESSION MOLD DM5834

Plastic for making 76.2 x 152.4 x 63.5mm deep depression in concrete pour around loop in aircraft tie-down.



# RECEPTACLES

## GROUNDING RECEPTACLES WITH BAR ATTACHMENT POINT

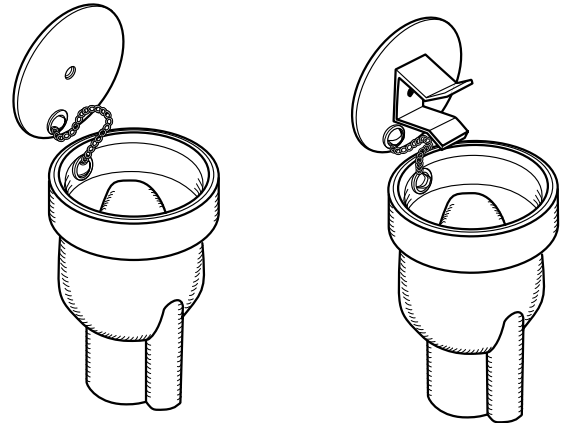


Part Number	Attachment Point	Depth (A) mm	Diameter at Grade Level (B) mm	Maximum Diameter (C) mm
B166*	19.1mm Diameter Bar	158.75	98.4	120.65
B166B	(Cover for B166, included)	—	98.4	—
B167	38.1 Diameter Bar	184.15	120.65	165.1
B167B	(Cover for B167, included)	—	120.65	—

\* Aircraft static grounding clamp B2617A can be used to connect to the B165, B165R, and B166.

## GROUNDING RECEPTACLES FOR SECTIONAL GROUND RODS

- Copper alloy castings for use in static grounding systems of aircraft refueling areas
- Easily connected to grounding system conductor and/or ground rods
- Designed for simple installation with flush paved surfaces
- Standard pin connection
- Chain-retained cover plate
- Couple directly to 19.1mm sectional or extension rod



Part Number	Standard Packaging Quantity
LPC680	1
LPC681**	1

\*\* Spring clip included to secure cover plate.

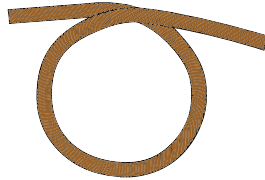
# STATIC GROUNDING & BONDING



## CABLES

### A805A01F Series

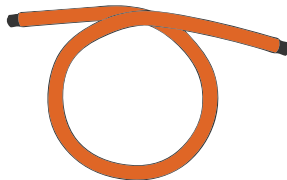
- Bare bronze cable
- Extra flexible
- 4.76mm diameter



Part Number	Length (m)
A805A01F-5	1.524
A805A01F-10	3.048
A805A01F-20	6.096

### A806A03F Series

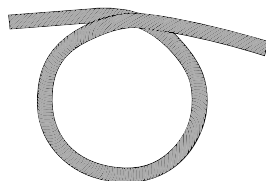
- Orange insulated bronze cable
- Extra flexible
- 4.76mm diameter



Part Number	Length (m)
A806A03F-5	1.524
A806A03F-10	3.048
A806A03F-20	6.096

### A822SAS Series

- Bare stainless steel cable
- Extra flexible
- 1/8" diameter



Part Number	Length (m)
A822SAS-5	1.524
A822SAS-10	3.048
A822SAS-20	6.096

## CABLE REELS AND COILS

### A822SA111C & A822SB11C Series

- Galvanized steel
- 3.18mm Orange insulated coiled cable



Part Number	Length (m)
A822SA111C-5	1.524
A822SA111C-10	3.048
A822SA111C-20	6.096
A822SB111C20	6.096

### 20' Cable Reel B2618A\*

- Cable length: 6.096m
- Cable size: 2.38mm diameter bare stainless steel
- Bare bronze cable
- Extra flexible



#### Features

- Two 6.35mm bolt holes to affix
- Uses only one cable terminator
- Other end of cable is grounded through metal reel case
- Plated bolting surfaces and base.

\*Static Ground Clamps Sold Separately

### 50' Cable Reel B2618B\*

- Cable length: 50'
- Cable size: 3/32" diameter bare stainless steel



#### Features

- Two 1/2" bolt holes to affix
- Uses only one cable terminator
- Other end of cable is grounded through metal reel case
- Plated bolting surfaces and base.

\*Static Ground Clamps Sold Separately

# STATIC GROUNDING & BONDING

## Static Grounding Clamps

### B2610A SPRING CLAMP



- Bare bronze cable
- Extra flexible

#### Features

Die Cast Aluminum  
 Max Jaw Opening: 25.4mm  
 Throat Depth: 25.4mm  
 Max Cable Size: 3.18mm  
 Contact Points: 2 ea., Stainless Steel  
 Release Harness: Not Available

### B2611A SPRING CLAMP



#### Features

Die Cast Aluminum  
 Max Jaw Opening: 38.1mm  
 Throat Depth: 50.8mm  
 Max Cable Size: 4.76mm  
 Contact Points: 3 ea., Stainless Steel  
 Release Harness: Included

### B2614A SPRING CLAMP



#### Features

Bronze  
 Max Jaw Opening: 25.4mm  
 Throat Depth: 635mm  
 Max Cable Size: 4.76mm  
 Length: 241.3mm  
 Contact Points: 3 ea., Stainless Steel  
 Release Harness: Included

### B2617A AIRCRAFT GROUNDING CLAMP



#### Features

Die Cast Aluminum  
 Max Jaw Opening: 19.1mm  
 Throat Depth: 4mm  
 Max Cable Size: 4.76 Contact Points: Plated Steel  
 Release Harness: Not Available  
 Fits rods up to 19.1mm and Cadweld Aircraft Grounding Receptacles B165 and B166

## "C" Clamps

### "C" CLAMP B2615B

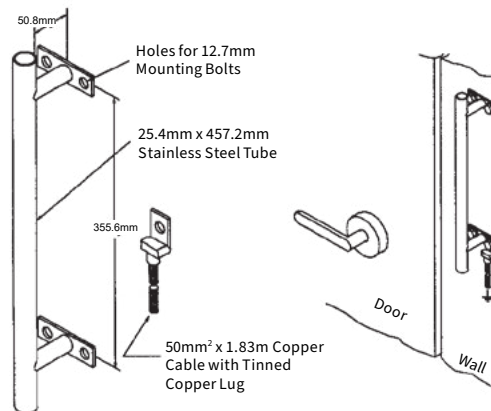


#### Features

Bronze  
 Max Jaw Opening: 1-1/4"  
 Throat Depth: 1-1/2"  
 Max Cable Size: 3/16"  
 Length: 2-1/2"  
 Contact Point: Bronze, Includes Crimp Lug

## Static Grounding Components

### B750A Static Grab Bar



- Stainless Steel
- Length: 457.2mm
- Furnished with 152.4mm of 50mm<sup>2</sup> AWG copper conductor with a tinned copper lug
- Cadweld lug attached for connecting to the ground system

Application – Touch before entry into static controlled assembly area.

# EARTH RESISTANCE TESTERS

## MI3290 Earth Analyser

MI 3290 Earth Analyser is a portable, battery or mains powered test instrument with excellent IP protection (IP 54 open case), intended for measurement of earth resistance, specific earth resistance and earth potential of various energetic and non-energetic objects.



Scan for Datasheet



### Measuring Functions

- Earth Resistance 2,3,4 -pole
- Selective Earth Resist (1 x clamp)
- Earth Resistance (2 x iron clamps)
- Specific Earth Resistance (Wenner and Schlumberger method)
- HF-Earth Resistance (25 kHz, acc. to IEEE\_Std 81)
- Earth Resistance of mono pylons with 10 m flex clamp
- Earth Resistance of multi-leg pylons with up to four flex clamps
- Current measurement (Iron, flex clamps)
- Low Ohm measurement 7 mA and 200 mA
- Earth Potential
- Step and contact measurements
- Impulse Earth measurement 10/350  $\mu$ s

Part Number	Description
MI3290	Earth Analyser

## MI3288 Earth Insulation Tester

The MI 3288 Earth Insulation Tester is a portable, battery-powered instrument with IP54 protection, designed for high-altitude use (300 V CAT III at 4000 m). It measures earth resistance, specific earth resistance, earth potential, step and touch voltages, insulation resistance, and continuity of protective conductors on energised and non-energised systems. It supports 4-wire earth resistance testing with one clamp, two-clamp earth resistance measurement, 4-wire specific earth resistance measurement, and TRMS current measurement.



Scan for Datasheet



### Measuring Functions

- Performs all main types of earth ( $R_e$ ), specific earth ( $R_o$ ), potential ( $U_s$ ), insulation ( $R_{iso}$ ), resistance ( $\mu\Omega$ ), voltage / frequency and current measurements
- Multi frequency test signal on output voltage (20/40 Vac) in earth measurement for best noise immunity (55 Hz also supported)
- Insulation resistance: From 50 V to 2500 V, resistance measuring range up to 100 G $\Omega$  with Guard terminal, automatic discharge supported and additional filtering options (OFF, 5 s, 10 s, 30 s, 60 s)
- Low Ohm ( $\mu\Omega$ ) resistance measuring range
- Resistance measurement (Four wire Kelvin method)
- Resistance ( $\mu\Omega$ ) with single, continuous and inductive mode of operation with selectable current: 10 mA, 100 mA, 1A and 2A (bidirectional)
- 4-wire / 2-wire 200 mA DC resistance measurement
- 2-wire continuity (7 mA) measurement
- 600 V CAT II, 300 V CAT III; at 4000 m above sea level
- 4.3" colour LCD display with touch screen
- Programmable AUTO SEQUENCES
- High degree of protection: IP 54
- Support for single or automated measurements
- Programmable Hi/Lo limits
- Built-in charger and rechargeable Li-Ion batteries as standard
- Built in BT for communication with PC, Android tablets/phones
- PC SW Metrel ES Manager for measurement pre and post processing: preparation of the test structure, result download, tree-view, table view and graphical view, storing and printing.

Part Number	Description
MI3288	Earth Insulation Tester

# EARTH RESISTANCE TESTERS

## MI3123 SMARTEC Earth Clamp

The MI3123 SMARTEC Earth / Clamp is an earth resistance tester with the ability to perform 4-wire earth resistance measurement and 4-wire specific earth resistance measurement. With the optional A1018 and A1019 current clamps the instrument can perform 4-wire earth resistance measurement with one current clamp, contactless earth resistance testing with two clamps and TRMS current measurement up to 20 A. Configurable limits enable a PASS / FAIL evaluation of test results. All the results can be saved on the instrument and then downloaded via the optional software for evaluation and professional report generation after testing. The lightweight design, large bright LCD screen, built-in help screens, optional downloading via RS232 or USB ports and overvoltage category CAT IV make the MI3123 an incredible earth resistance measuring instrument.



Scan for Datasheet



### Measuring Functions

- Earth Resistance 4-pole
- Selective Earth Resist (w. 1 x optional clamp)
- Earth Resistance (w. 2 x optional iron clamps)
- Specific Earth Resistance

Part Number	Description
MI3123	SMARTEC Earth Clamp

## Earth Testing Accessories

### IET15M Independent Earth Tester Reel & Spike

Designed to attach to any voltage tester, this reel and spike boasts 15m of lead and a sturdy spike to easily pierce even the hardest ground. The T handle ensures the tester cable is protected if force is required when penetrating hard ground.

Simple to use, the Independent Earth Tester Reel and Spike has a connection point on the end of the lead to simply poke the tester probe into. The beauty of this set up is if your tester or lead fail you can easily replace them without having to replace the entire unit.

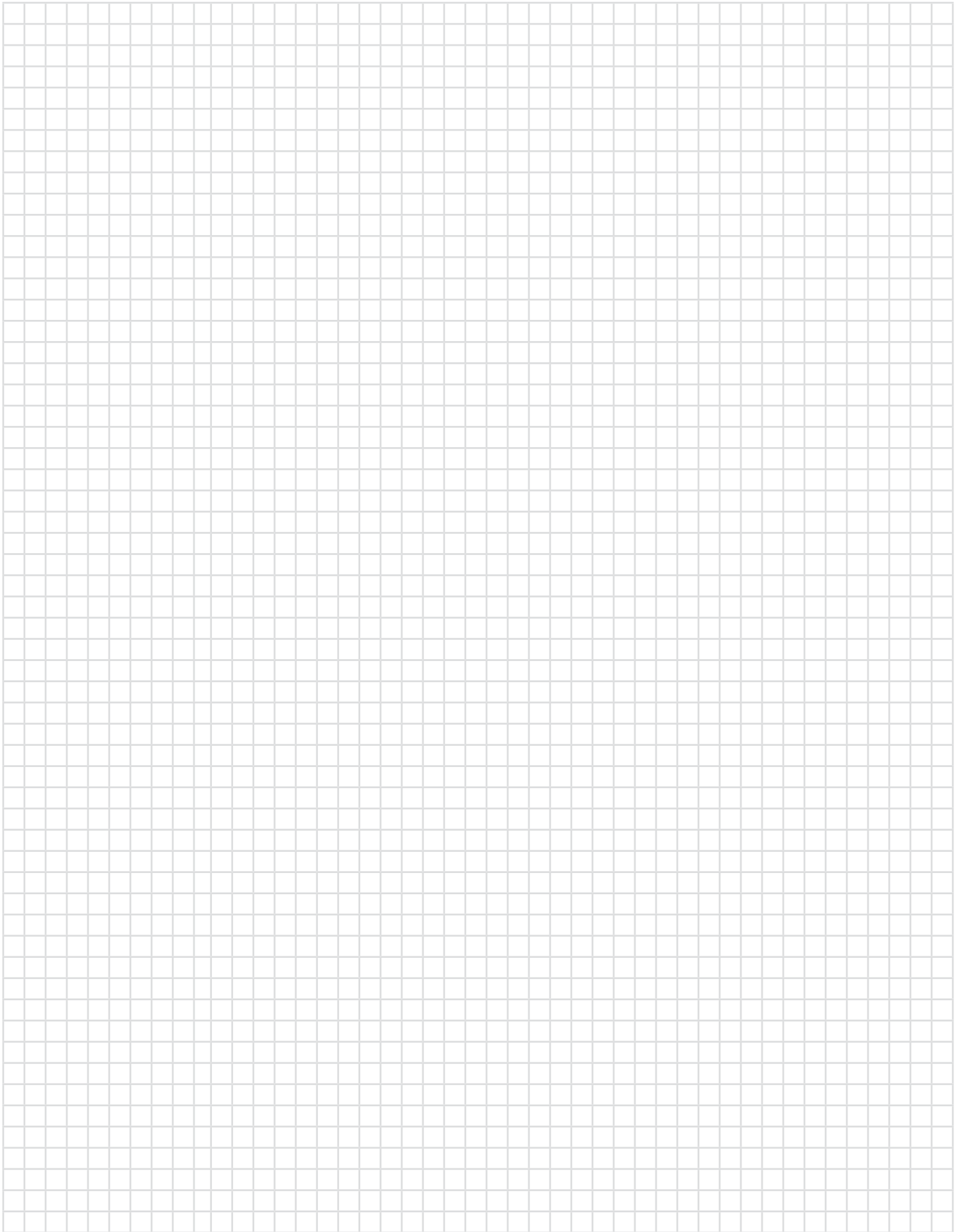
The spring operated bearing on the reel makes winding the lead user friendly and easy without twists and tangles.

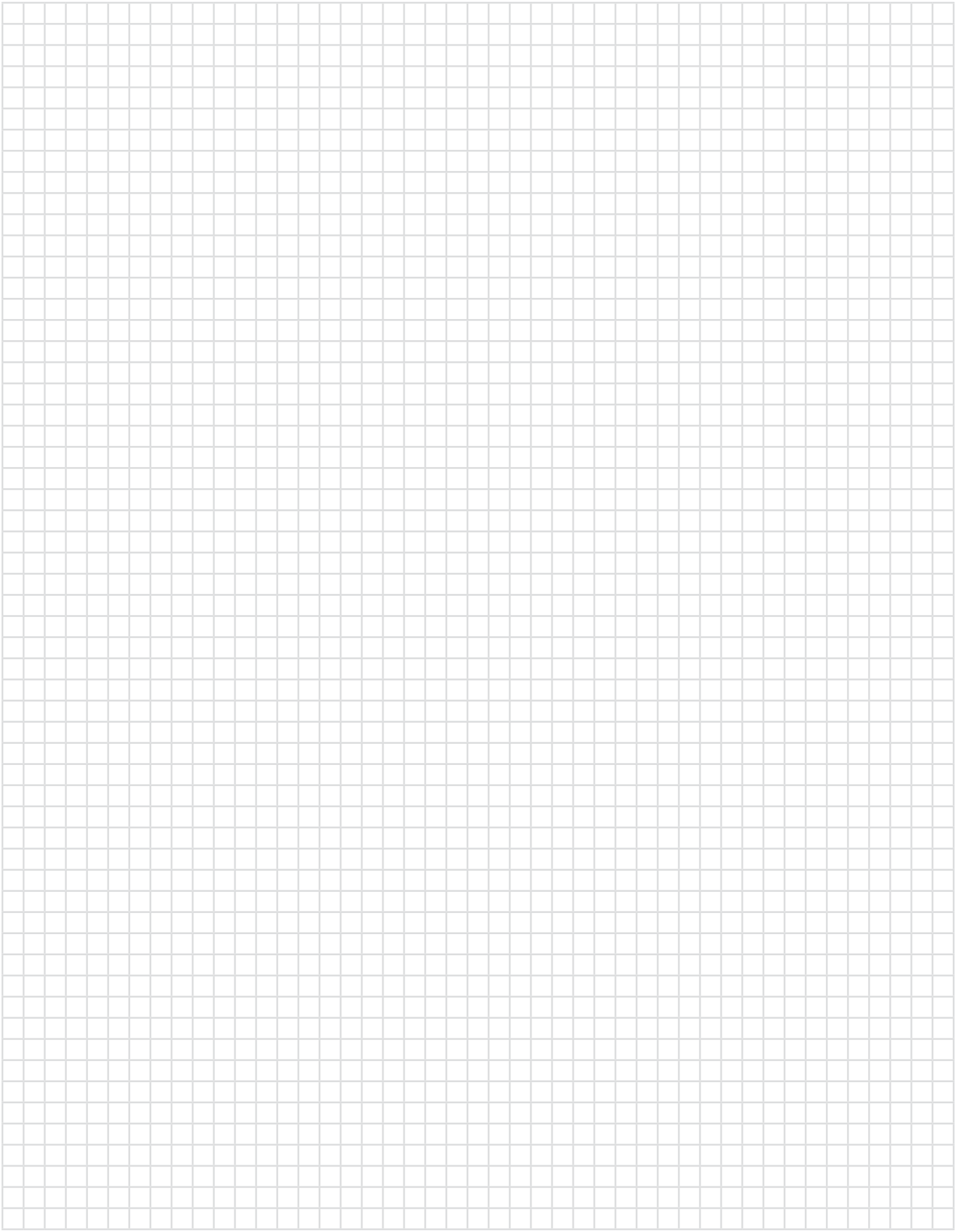
### FEATURES

- 15m green/yellow lead
- Sturdy Stainless Steel spike with 'T' handle
- Spring & bearing to help wind cable back in without twists & tangles
- Universal tester connection point (Tester sold separately)
- Comes tested and tagged for immediate use



Part Number	Description
IET15M	Independent Earth Tester Reel and Spike







TransNet NZ Ltd has made every reasonable effort to ensure the accuracy of this information and it is to the best of our knowledge correct and reliable. Under no circumstances does this constitute an assurance of any particular quality or performance and users should independently evaluate the suitability of products for their desired application. All information in this publication including pricing, drawings, illustrations, images and graphic designs are reflections of our current understanding. TransNet NZ Ltd reserves the right to make any adjustment to this information at any time. Our liability for the products outlined in this publication is set forth in our standard terms and conditions of trade. In case of any potential ambiguities or questions, please contact us for clarification.



**TRANSNET NEW ZEALAND LTD**

ISO 14001 CERTIFIED  
ISO 14064-1 CERTIFIED  
CARBON CONSCIOUS COMPANY

0800 442 182 +64 9 274 3340 sales@transnet.co.nz

**Auckland**

78 Cryers Road  
East Tamaki  
Auckland  
NEW ZEALAND  
Ph 0800 442 182  
Fax 0800 442 183  
PO Box 39 383  
Howick, Auckland  
NEW ZEALAND

**Wellington**

10 Petone Ave  
Petone  
Wellington  
NEW ZEALAND  
Ph 04 576 2530  
Fax 04 576 0040  
PO Box 39 383  
Howick, Auckland

**TRANSNET TONGA**

**Nuku'alofa**

Lakalakaimonu Multi Utility Complex  
Taufa'ahau Road, Poutaha  
Nuku'alofa  
TONGA  
Ph +67 627 939  
Fax +67 627 976  
PO Box 2932  
Nukualofa  
TONGA



TransNet@kalianet.to