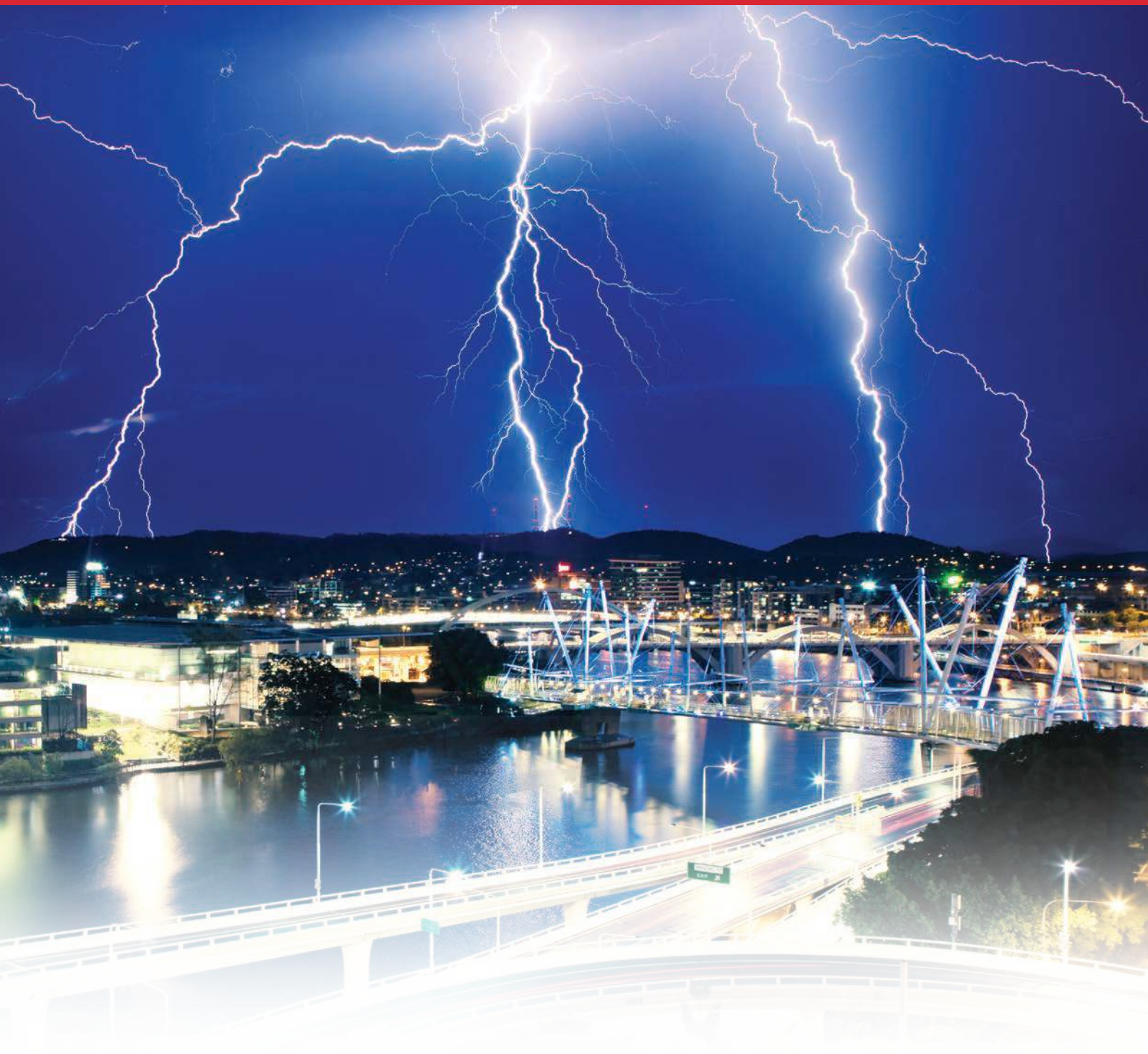
nVent ERICO

We connect and protect

# Grounding, Bonding and nVent ERICO Cadweld

Solutions Guide



nVent.com/ERICO

# SUPERIOR SOLUTIONS

**Over 100 years of industry experience**

**Global support network**

**Comprehensive design and engineering services**

**Complete range of electrical protection solutions**



## nVent ERICO

### CUSTOMIZED SOLUTIONS FOR THE MODERN WORLD

Since 1903, nVent ERICO has been a leading designer, manufacturer and marketer of precision-engineered solutions serving global niche product markets in a diverse range of telecom, commercial construction, utility and rail applications.

As a trusted industry leader, our products and services are recognized for providing labor and cost-saving solutions for customers throughout the world, while also providing the unparalleled service our customers have come to expect.

**Visit nVent.com/ERICO for up-to-date product information available in many languages and the ability to filter product searches with one click.**

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# Facility Electrical Protection for the 21st Century

Lightning strikes and the dangerous over-voltage surges caused by lightning and man-made events represent a direct threat to people, buildings and sensitive electronic equipment.

Today, the consequences of an unexpected lightning strike or power surge can be catastrophic for a company. Proper protection can save thousands of dollars in damage, operational downtime and lost business opportunities.

## TOTAL FACILITY PROTECTION

The consequences of an unexpected lightning strike or power surge can be catastrophic for a facility:

- Personnel are at risk.
- Critical equipment may be damaged or destroyed.
- Data can be corrupted.
- The costs of operational downtime and lost revenue can be very substantial.

As industries become more dependent on increasingly sensitive equipment, proper protection from lightning and dangerous over-voltage transients is necessary.

With over 60 years of research, testing and product development, nVent ERICO has acknowledged that no single technology can totally eliminate vulnerability to lightning and surges.

The nVent ERICO Six Point Plan of Protection is designed to provide total facility protection by integrating several concepts.

The Six Point Plan will minimize the risk of damage to facilities through:

- Direct Strike Protection
- Grounding and Bonding
- Surge and Over-voltage Transient Protection

## THE SIX POINT PLAN OF PROTECTION

**1 Capture the lightning strike.**
Capture the lightning strike to a known and preferred attachment point using a purpose-designed air terminal system.

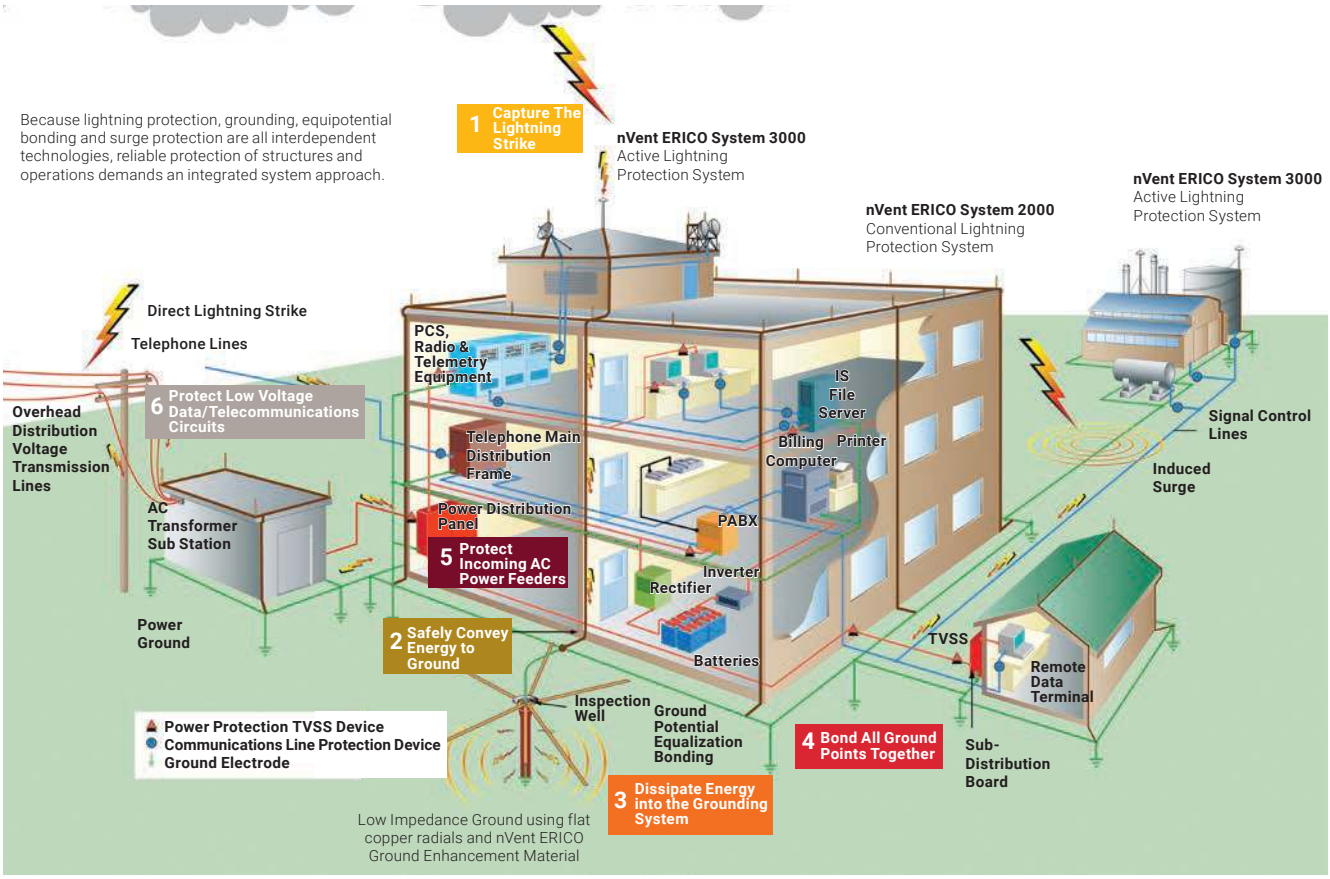
**2 Convey this energy to ground.**
Conduct the energy to the ground via a purpose-designed downconductor.

**3 Dissipate energy into the grounding system.**
Dissipate energy into a low impedance grounding system.

**4 Bond all ground points together.**
Bond all ground points to eliminate ground loops and create an equipotential plane.

**5 Protect incoming AC power feeders.**
Protect equipment from surges and transients on incoming power lines to prevent equipment damage and costly operational downtime.

**6 Protect low voltage data/telecommunications circuits.**
Protect equipment from surges and transients on incoming telecommunications and signal lines to prevent equipment damage and costly operational downtime.

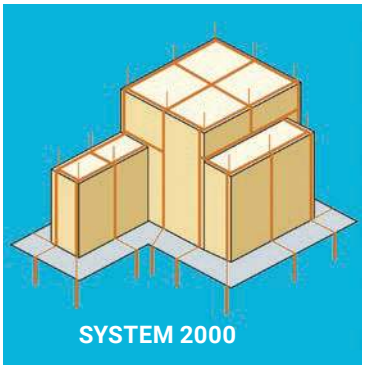


# Facility Electrical Protection for the 21st Century

## DIRECT STRIKE PROTECTION

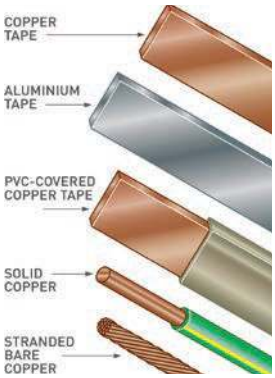
nVent ERICO's innovative technology provides two systems for capturing lightning energy: nVent ERICO System 2000 and nVent ERICO System 3000. System 2000 provides conventional air terminal technology to meet traditional needs.

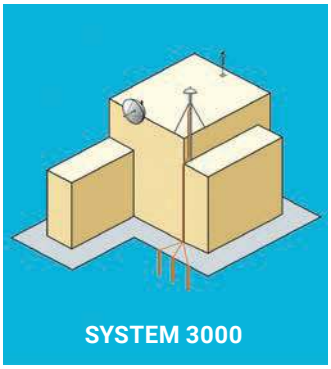
An alternative approach to lightning protection is the System 3000, which utilizes the collection volume method to determine the effective placement of lightning protection to ensure the safe conveyance and dissipation of the lightning energy into the ground. Over 7000 facilities worldwide, including some of the tallest and most vulnerable buildings, are protected by System 3000.



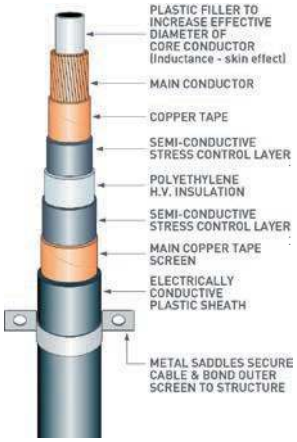



- Well known technology of passive rods or air terminals, familiar to installers
- Air terminals available in aluminum, copper and stainless
- IEC®, B.S., and U.S. Standard Compliant
- Precision manufacturing helps ensure easy assembly and installation
- Computer-aided design to IEC62305,NFPA®-780, AS/NZS1768






- Advanced lightning protection system based on latest lightning research and technology
- Enhanced area of protection, fewer air terminals needed
- Economical and easy to install
- Fewer downconductors are required
- Designed to protect all types of structures and "open areas"
- Computer-aided design using Collection Volume method

## EARTHING AND BONDING

For the efficient performance of a lightning protection system, it is essential that a low impedance ground be provided to facilitate the dissipation of the lightning energy into the earth mass.

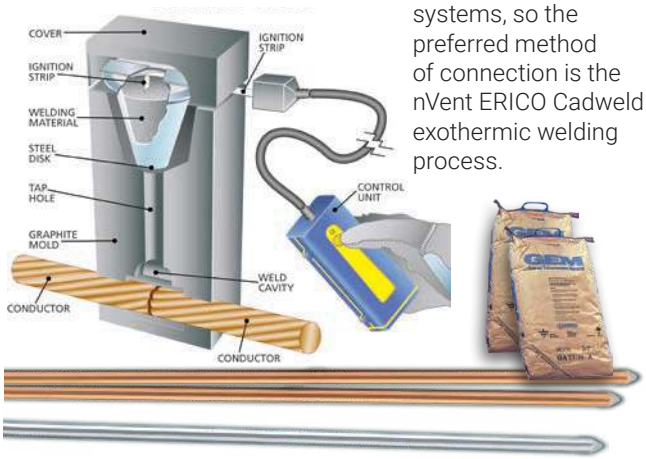
Because soil conditions and seasonal patterns vary from site to site, the methods of grounding need to be considered on an individual basis.

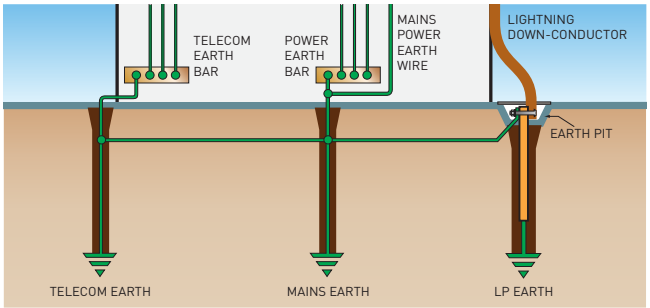
As a grounding specialist, nVent ERICO provides a range of grounding systems to suit any application.



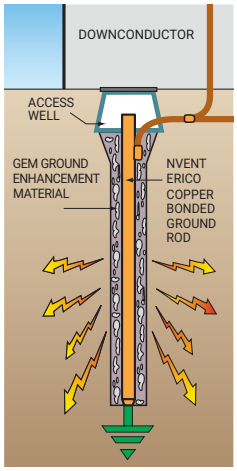
Connections are often the most critical element of grounding systems, so the preferred method of connection is the nVent ERICO Cadweld exothermic welding process.

**nVent ERICO Cadweld Plus**



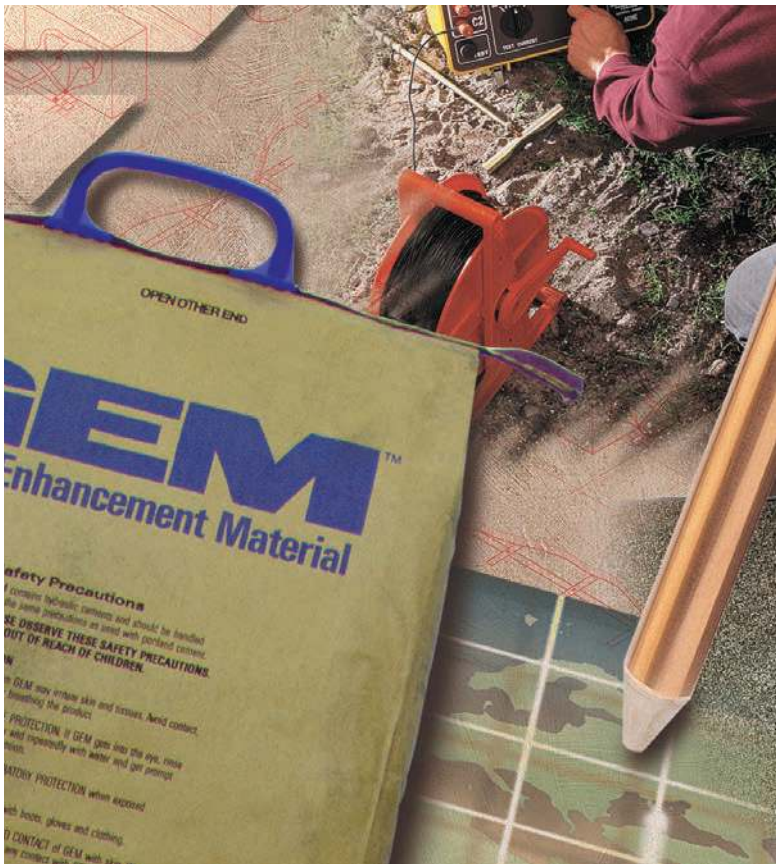




nVent ERICO offers a variety of products, such as ground bars, signal reference grids, ground plates and potential equalization clamps, which are designed to create an equipotential plane and help protect personnel and valuable equipment. nVent ERICO copper-bonded or stainless steel earth rods and nVent ERICO GEM facilitate the transfer of surges and fault currents into the earth, and provide a very long service life due to superior construction and quality.






# Earthing Principles




## INTRODUCTION

Grounding and bonding are an integral part of any modern electrical protection system design. An effective, low-impedance ground system is a key element of this system.

It is crucial to help provide personnel safety, as well as reliable protection for vital equipment and to minimize interruptions of service and costly downtime.

With over a century of experience in the design and manufacture of bonding and grounding products, nVent ERICO, a single source provider, offers what we believe is the best range of long lasting and cost-effective grounding products available.

## BASIC DEFINITIONS

**Earth:** A conducting connection, whether intentional or accidental, between an electrical circuit or equipment and the earth, or to some conducting body that serves in place of the earth.

**Bonding:** The permanent joining of metallic parts to form an electrically conductive path that will ensure electrical continuity and the capacity to conduct any current likely to be imposed.

## THE NEED FOR EARTHING!

There are important reasons why a grounding system should be installed.

1. The most important reason is to help protect people!
2. For protection and safety in the event of unintentional contact with live conductors.
3. To help support maximum safety from electrical system faults and lightning.

It is a fundamental fact that current always flows to the point of lowest potential. The goal of any properly designed earthing system is to ensure that current generated by electrical faults or lightning events flows to this point. A good grounding system results in minimum voltage drop providing maximum safety to people while maintaining the reliability of equipment.

## EARTHING CODES AND STANDARDS

Earthing systems vary according to application. For example, the earthing requirements for power systems vary from lightning protection systems or telecommunication systems.

Proper installation of appropriate earthing systems requires knowledge of the needs and layout of the facility. Soil characteristics, grounding conductor materials grounding connections and terminations, are significant factors determining the design of a grounding system. Applicable standards and codes must be followed.

While many codes and standards contain minimum grounding and bonding requirements, the design and installation of electrical grounding systems is one of the most important aspects of any electrical distribution system. However, grounding systems can be misunderstood and therefore improperly designed and installed.

# Earthing Principles

## WHY IS EARTHING IMPORTANT?

The transient nature of lightning with its associated fast rise times and large magnitude currents mean that special consideration needs to be given to earthing, for lightning protection to be effective. Many factors such as soil resistivity variations, installation accessibility, layout and existing physical features are all site specific and tend to affect decisions on earthing methods. The primary goal of an earthing system for direct strike lightning protection is to:

- Efficiently dissipate lightning energy into the ground
- Help protect equipment and personnel
- Provide equipotential control

## EARTHING PRINCIPLES

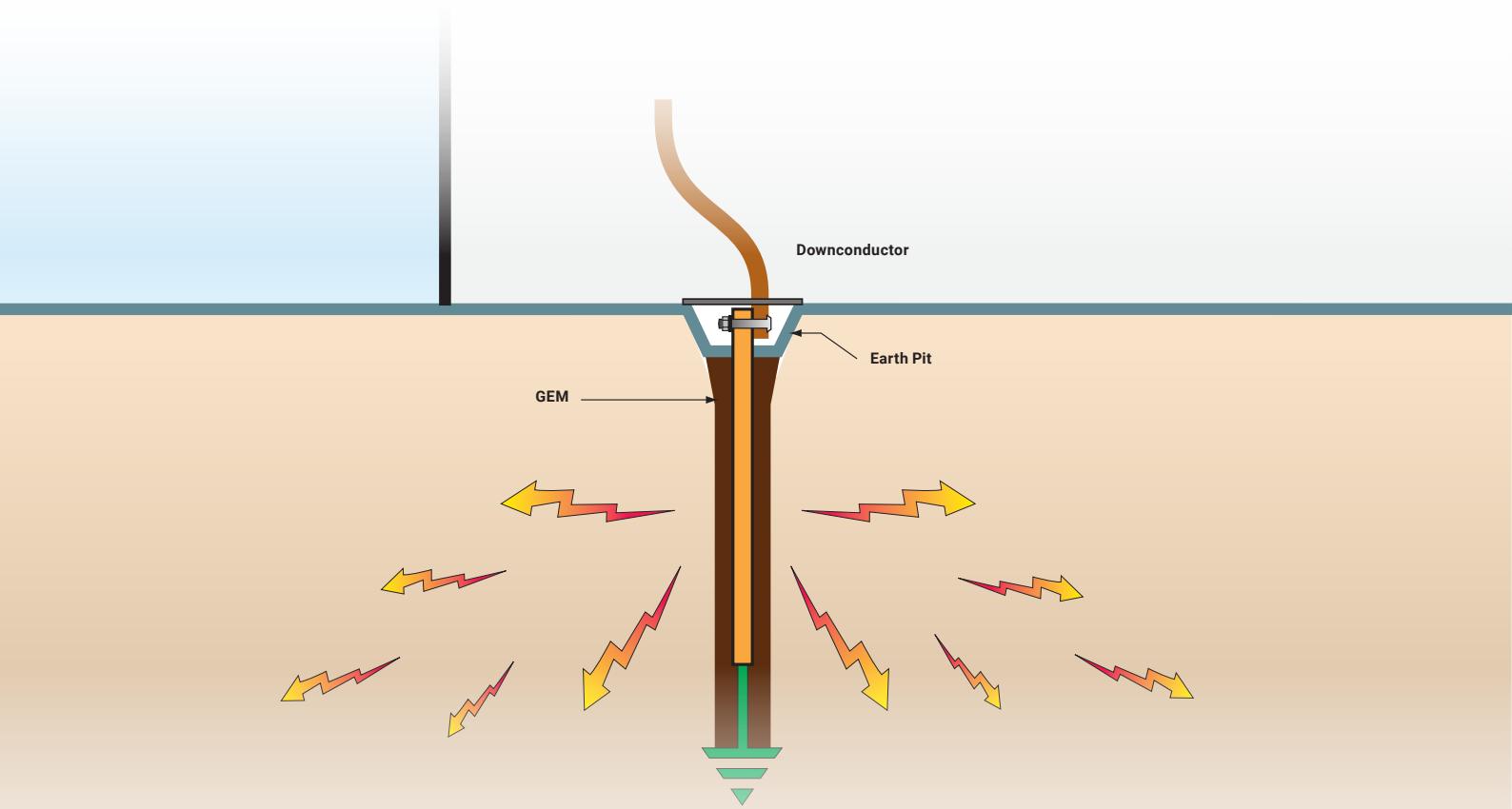
Low impedance is the key to lightning protection. All grounding conductors should be as short and direct as possible to minimize inductance and reduce peak voltages induced in the system. The earth electrode system must efficiently dissipate lightning surges into the ground by minimizing the impedance of the electrode to earth.

## SOIL RESISTIVITY

Soil resistivity is an important design consideration. The resistivity varies markedly for different soil types, moisture content and temperatures and gives rise to variations in ground impedances.

## SHORT, DIRECT EARTH CONNECTIONS

The voltage generated by a lightning discharge depends primarily on the risetime of the current and the impedance (primarily inductance) of the path to ground. Extremely fast rise times result in significant voltage rises due to any series inductance resulting from long, indirect paths, or sharp bends in the routing of ground conductors. This is why short, direct ground connections are important.



# Earthing Principles

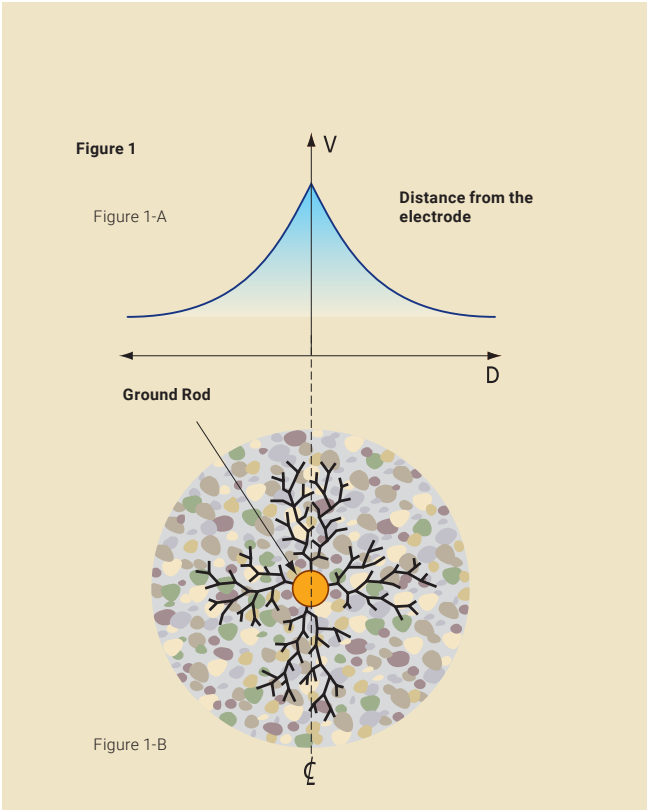



**Figure 1:** illustrates current flow from a single earth electrode. The current paths are shown in Figure 1-B. Figure 1-A illustrates the voltage gradient that is produced as a result of this current flow. This gradient levels off at some distance from the earth electrode. The voltage gradients are determined by the earth electrode impedance and the soil resistivity.

**Characteristics of good earthing systems include:**

- **High electrical conductivity**
- **Long life — robust and capable of withstanding fault and lightning currents**
- **Low ground resistance and impedance**

High electrical conductivity helps minimize system impedance and reduces potential differences between bonded metallic water services, power systems, telecommunication systems and the earth reference point. High electrical conductivity also minimizes step and touch potential in substation earthing applications.

## LONG LIFE

The earth electrode system should be corrosion resistant, and compatible with other conductors that are buried and bonded to the earthing system. Copper is commonly used for earthing conductors. When accessible, some form of maintenance or inspection procedure should be adopted to ensure the long-term effectiveness of an earthing system.

Mechanical connectors are sometimes used to join earthing conductors, however they are more susceptible to corrosion, especially when dissimilar metals are used. In addition to mechanical strength, Cadweld connections provide excellent low impedance, long life electrical connections with excellent corrosion resistance.

## GROUND RESISTANCE

When current flows from an earth electrode into the surrounding soil, it can be described as flowing through a series of concentric shells of increasing diameter.

Each successive shell has a greater area for current flow and consequently, lower resistance. At some point distant from the earth conductor the current dissipation becomes so large and current density so small, that the resistance becomes negligible.

The equations for systems of electrodes are very complex and often expressed only as approximations. For example uniform earth (or soil) resistivity is assumed, although this is seldom the case in nature. The most commonly used formula for single ground electrode systems, developed by Professor H.R. Dwight of the Massachusetts Institute of Technology, is the following:

$$R = P\frac{\rho}{2\pi L}\left\{(\ln\frac{4L}{r}) - 1\right\}$$

R = resistance in ohms of the ground rod to the earth (or soil)

L = grounding electrode length

r = grounding electrode radius

ρ = average resistivity in ohms-cm.

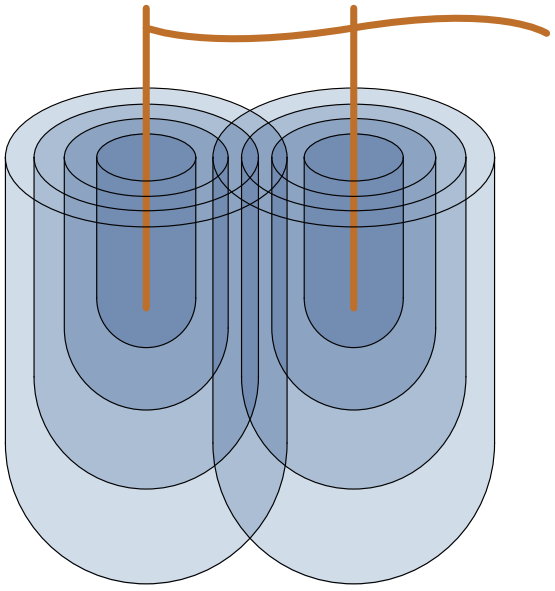
# Earthing Principles

## CONDITIONS INFLUENCING SOIL RESISTIVITY

The resistance of the earth itself (soil resistivity) can significantly impact the overall impedance of the grounding system. Several factors, such as soil composition, moisture content, mineral content, contaminants, etc., determine the overall resistivity of the earth.

| SOIL TYPE | Resistivity ohm-cm | | |
|---|---|---|---|
| | Average | Min. | Max. |
| Fills – ashes, cinders, brine wastes | 2,370 | 590 | 7,000 |
| Clay, shale, gumbo, loam | 4,060 | 340 | 16,300 |
| Clay, shale, gumbo, loam with varying proportions of sand and gravel | 15,800 | 1,020 | 135,000 |
| Gravel, sand, stones, with little clay or loam | 94,000 | 59,000 | 458,000 |

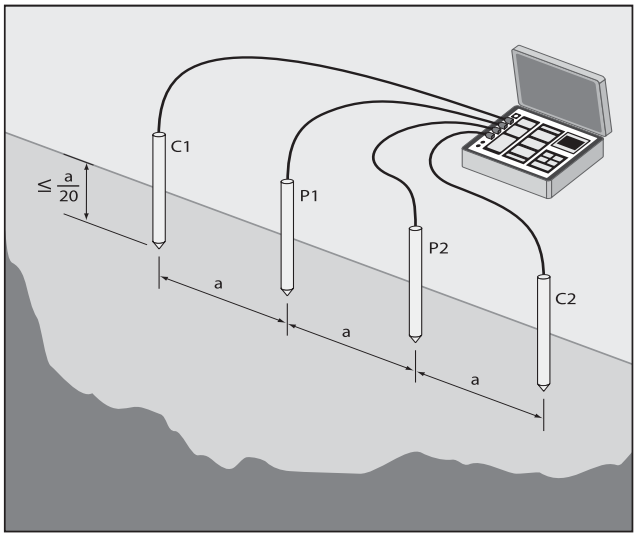
U.S. Bureau of Standards Technical Report 108



Sphere of Influence - parallel earth electrodes need to be properly spaced to minimize ground resistance due to sphere of influence. The distance between earth electrodes should be greater than or equal to the length of the electrodes.

## SOIL RESISTIVITY TESTING

To properly design a grounding system, it is essential to test soil resistivity. There are a few methods that can be used to measure earth resistivity. The four point method is the most common and accurate and the one that nVent recommends.




## THE FOUR-POINT METHOD (EQUALLY SPACED OR WENNER METHOD)

1. Four test stakes are positioned in a straight line an equal distance apart and are installed into the ground as shown in Figure 2.
2. A resistance tester is connected as shown in Figure 2. A test current is passed between the outer probes, C1 and C2, and the voltage is measured between the two inner probes, P1 and P2.
3. With this arrangement the apparent resistivity is determined using the following equation:

R = the resistance value in ohms, measured from the test instrument

$$\rho = \frac{4\pi aR}{\frac{1 + 2a}{\sqrt{(a^2 + 4b^2)}} - \frac{2a}{\sqrt{(a^2 + 4b^2)}}}$$

Where:

a = distance between the electrodes in centimeters

b = electrode depth in centimeters

If a > 20 b, the formula can be simplified to:

ρ = 2π aR (with a in cm)

ρ = Soil resistivity (ohm-cm)

This value is average resistivity of the ground at a depth equivalent to the distance “a” between two electrodes.

# Earthing Principles



Avoid hazardous Step and Touch Potentials (shock) or even death by low impedance grounding and bonding between metallic equipment, chassis, piping, and other conductive objects so that currents, due to faults, do not result in hazardous voltage rise.

## STEP AND TOUCH POTENTIAL

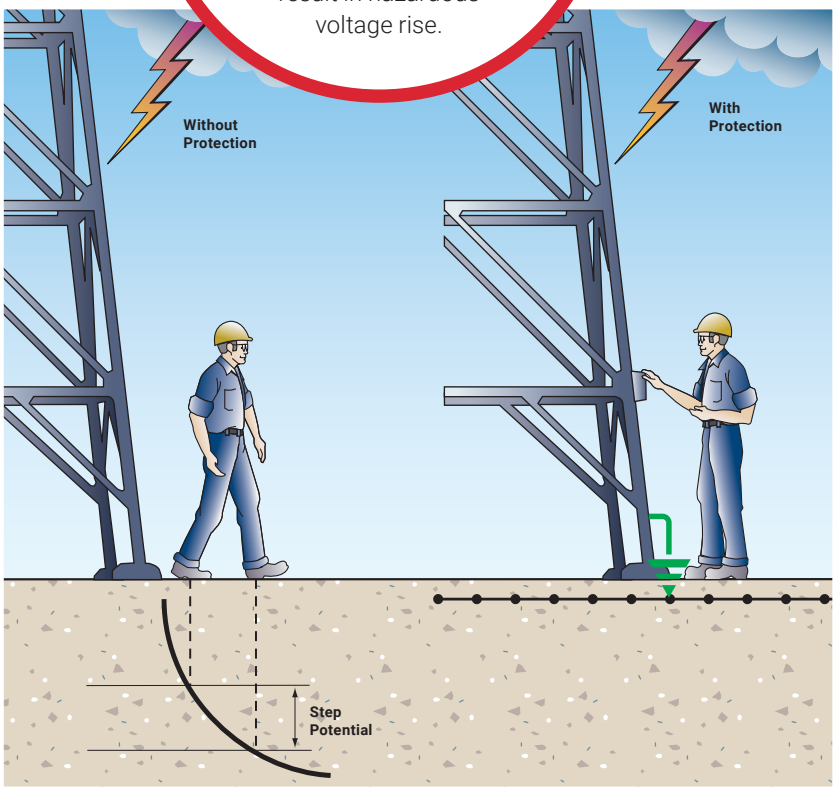
### STEP POTENTIAL

Step potential is the voltage difference between a person's feet caused by the dissipation gradient of a fault entering the earth.

### TOUCH POTENTIAL

Touch potential is similar to "Step potential" except that the fault current passes through the person's arm and torso on the way to the ground.

With proper installation of grounding systems these step and touch potentials can be minimized to a safe level. See IEEE Std 80, IEEE Guide for Safety in AC Substation Grounding.



# Earthing Principles

## GROUNDING/EARTHING SYSTEM DESIGN

Earthing systems are important. It is far more economical to design and install an appropriate earthing system during initial construction than it is to expand, augment or replace an earthing system after the facility is in service. Care should be taken to design a system that is appropriate both for clearing earth faults and dissipating lightning energy. The system must have a long performance life, meet applicable codes/standards for safety, and have sufficient bonding points to make it easy to expand the earthing system for future growth.

A proper facility earthing system incorporates these necessities in the most cost-effective manner that will last for the design life of the facility.

nVent is a manufacturer and marketer of earthing, bonding, lightning protection and surge protection products and systems under the nVent ERICO sub-brand. nVent ERICO has many knowledgeable and experienced engineers on staff with the training and the tools (including some of the latest design software) to design appropriate earthing systems. These engineers can assist facility owners, engineers and contractors in designing the most appropriate system for the facility in question.

**DESIGN CONSIDERATIONS INCLUDE:**

- Purpose of facility
- Design life of facility
- Soil resistivity
- Corrosive nature of soil
- Shape and available area of facility site
- Existing structures and their grounding systems
- Seasonal variations in moisture and temperature for facility site
- Public access & personnel use
- Adjacent facilities and electrical systems
- Future uses, additions, equipment for facility

For proper operation of overcurrent devices it is important to have a low impedance path for the return current.

For dissipation of direct or indirect lightning currents, it is better to have many horizontal ground conductors in the soil, preferably in a radial array. This provides a low impedance path of dissipation to the high frequency component of the lightning energy.

For personnel, particularly where equipment operators will be located or where accessible by the public, it is important to have a grid system or other equipotential plane to reduce “step potential” and have equipment and metal structures bonded to the earth system to reduce “touch potential”.



# Earthing Principles

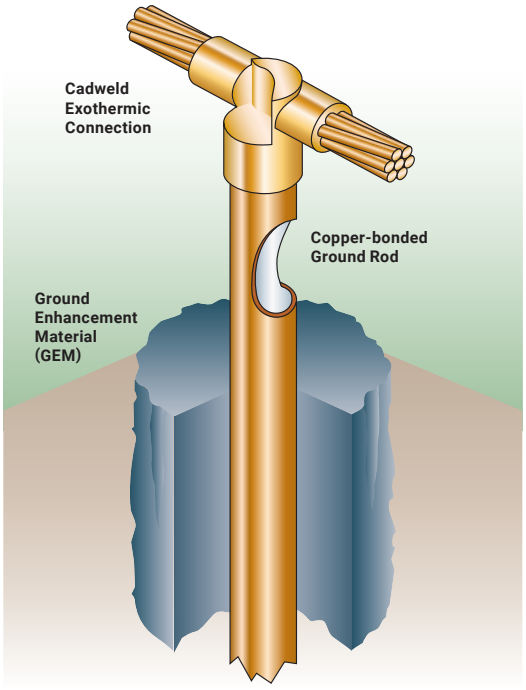
## THE EARTHING CHAIN

The performance of the earthing system is determined by the quality of the following five components all of which are of equal importance.

1. The Earthing Electrode Conductor. Commonly made from copper or copper-bonded steel, the earthing electrode conductor must be large enough to withstand the maximum available fault current over the maximum clearing time.
2. The Earthing Connections. Often overlooked, the earthing connections are used to tie the elements of the electrode system together. Exothermically welded connections provide a molecular bond that will never loosen or corrode. Mechanical connectors, such as crimp, bolted, and wedge type, rely on physical point-to-point surface contact to maintain the integrity of the electrical connection. IEEE® Standard 837-2014 provides detailed information on the application and testing of permanent grounding connections. nVent ERICO can provide an independent, third-party test report evaluating the performance of these connectors in accordance with the testing procedures set forth in IEEE Standard 837-2014, Standard for Qualifying Permanent Substation Grounding Connections.
3. The Earthing Electrode. The earthing electrode provides the physical connection to the earth and is 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, and reinforcing steel in concrete foundations. “Made” electrodes are installed specifically to improve the performance of the earthing system and include wire meshes, metallic plates, buried conductor and rods or pipes driven into the ground. The ground rod is the most widely used electrode.
4. Electrode to Soil Resistance. Rod surface area, depth and placement are the controlling factors. Doubling diameter reduces resistance by only 10% and is not cost effective. Doubling rod length, however, theoretically reduces resistance up to 40%. The most common solution is proper placement of multiple rods that are driven to the required depths.
5. The Soil. The soil resistivity, measured in ohm-centimeters or ohm-meters, plays the most significant role in determining the overall performance of the grounding system and must be known before a proper grounding system can be engineered.



The earthing system will carry little or no current for long periods of time until a fault or lightning strike occurs. When this happens the components will conduct a large amount of current and should be expected to perform like new. Most of the earthing system is concealed below grade, making inspection of the grounding components difficult or impossible. The underground environment is a harsh one. The initial selection of the components used in the grounding system is of critical importance to its long-term effectiveness.



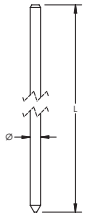
# Ground Rods and Accessories

## COPPER-BONDED GROUND ROD, POINTED

### FEATURE

- 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" (304,8 mm) 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: 552 MPa Min

| Part Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Length | Plating Thickness | Unit Weight | UPC Label | Complies With | Certifications |
|---|---|---|---|---|---|---|---|---|
| 613840 | 3/8" | 9.0 mm | 1.2 m | 254 µm | 0.570 kg | No | | |
| 613850 | 3/8" | 9.0 mm | 1.5 m | 254 µm | 0.730 kg | No | | |
| 613860 | 3/8" | 9.0 mm | 1.8 m | 254 µm | 0.900 kg | No | | |
| 613870 | 3/8" | 9.0 mm | 2.1 m | 254 µm | 1.076 kg | No | | |
| 613880 | 3/8" | 9.0 mm | 2.4 m | 254 µm | 1.230 kg | No | | |
| 611330 | 1/2" | 12.7 mm | 0.9 m | 254 µm | 0.980 kg | No | | |
| 6113330 | 1/2" | 12.7 mm | 1.0 m | 254 µm | 1.003 kg | No | IEC® EN 62561-2 | |
| 611340 | 1/2" | 12.7 mm | 1.2 m | 254 µm | 1.260 kg | No | | |
| 611350 | 1/2" | 12.7 mm | 1.5 m | 254 µm | 1.570 kg | No | | |
| 611353 | 1/2" | 12.7 mm | 1.5 m | 330 µm | 1.670 kg | No | | |
| 611360 | 1/2" | 12.7 mm | 1.8 m | 254 µm | 2.010 kg | No | | |
| 611370 | 1/2" | 12.7 mm | 2.1 m | 254 µm | 2.108 kg | No | IEC® EN 62561-2 | |
| 611380 | 1/2" | 12.7 mm | 2.4 m | 254 µm | 2.510 kg | No | ANSI®/NEMA® GR1 | UL |
| 611300 | 1/2" | 12.7 mm | 3.0 m | 254 µm | 3.110 kg | No | ANSI®/NEMA® GR1 | CSA, cULus |
| 611303 | 1/2" | 12.7 mm | 3.0 m | 330 µm | 3.350 kg | No | ANSI®/NEMA® GR1 | cULus |
| 615830 | 5/8" | 14.2 mm | 0.9 m | 254 µm | 1.130 kg | No | IEC® EN 62561-2 | |
| 6158330 | 5/8" | 14.2 mm | 1.0 m | 254 µm | 1.237 kg | No | IEC® EN 62561-2 | |
| 615840 | 5/8" | 14.2 mm | 1.2 m | 254 µm | 1.540 kg | No | IEC® EN 62561-2 | |
| 615843 | 5/8" | 14.2 mm | 1.2 m | 330 µm | 1.540 kg | No | IEC® EN 62561-2 | |
| 615850 | 5/8" | 14.2 mm | 1.5 m | 254 µm | 1.920 kg | No | IEC® EN 62561-2 | |
| 615853 | 5/8" | 14.2 mm | 1.5 m | 330 µm | 2.040 kg | No | IEC® EN 62561-2 | |
| 615860 | 5/8" | 14.2 mm | 1.8 m | 254 µm | 2.300 kg | No | IEC® EN 62561-2 | |
| 615863 | 5/8" | 14.2 mm | 1.8 m | 330 µm | 2.450 kg | No | IEC® EN 62561-2 | |
| 6158660 | 5/8" | 14.2 mm | 2.0 m | 254 µm | 2.477 kg | No | IEC® EN 62561-2 | |
| 615870 | 5/8" | 14.2 mm | 2.1 m | 254 µm | 2.600 kg | No | | |
| 615880 | 5/8" | 14.2 mm | 2.4 m | 254 µm | 3.070 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | UL |
| 615883 | 5/8" | 14.2 mm | 2.4 m | 330 µm | 3.080 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | UL |
| 615800 | 5/8" | 14.2 mm | 3.0 m | 254 µm | 3.850 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | CSA, cULus |

| Part Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Length | Plating Thickness | Unit Weight | UPC Label | Complies With | Certifications |
|---|---|---|---|---|---|---|---|---|
| 615803 | 5/8" | 14.2 mm | 3.0 m | 330 µm | 3.830 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | cULus |
| 615812 | 5/8" | 14.2 mm | 3.7 m | 254 µm | 4.540 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | cULus |
| 615815 | 5/8" | 14.2 mm | 4.6 m | 254 µm | 5.780 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | cULus |
| 615950 | 5/8" | 16.0 mm | 1.5 m | 254 µm | 2.350 kg | No | | |
| 615980 | 5/8" | 16.0 mm | 2.4 m | 254 µm | 3.870 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | UL |
| 615900 | 5/8" | 16.0 mm | 3.0 m | 254 µm | 4.760 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | cULus |
| 613440 | 3/4" | 17.3 mm | 1.2 m | 254 µm | 2.550 kg | No | IEC® EN 62561-2 | |
| 613450 | 3/4" | 17.3 mm | 1.5 m | 254 µm | 2.810 kg | No | IEC® EN 62561-2 | |
| 613460 | 3/4" | 17.3 mm | 1.8 m | 254 µm | 3.400 kg | No | IEC® EN 62561-2 | |
| 613470 | 3/4" | 17.3 mm | 2.1 m | 254 µm | 3.835 kg | No | IEC® EN 62561-2 | |
| 613480 | 3/4" | 17.3 mm | 2.4 m | 254 µm | 4.560 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | UL |
| 613483 | 3/4" | 17.3 mm | 2.4 m | 330 µm | 4.540 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | UL |
| 613400 | 3/4" | 17.3 mm | 3.0 m | 254 µm | 5.720 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | CSA, cULus |
| 613403 | 3/4" | 17.3 mm | 3.0 m | 330 µm | 5.630 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | cULus |
| 613412 | 3/4" | 17.3 mm | 3.7 m | 254 µm | 6.770 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | cULus |
| 613415 | 3/4" | 17.3 mm | 4.6 m | 254 µm | 8.390 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | cULus |
| 693400 | 3/4" | 19.1 mm | 3.0 m | 254 µm | 5.600 kg | No | IEC® EN 62561-2, ANSI®/NEMA® GR1 | cULus |
| 693450 | 3/4" | 19.1 mm | 1.5 m | 254 µm | 2.800 kg | No | | |
| 614400 | 1" | 23.2 mm | 3.0 m | 254 µm | 10.000 kg | No | ANSI®/NEMA® GR1 | CSA, cULus |

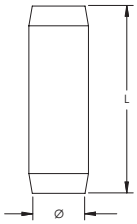
*For rods to be listed to UL® 467, they must be at least 8' (2.43 m) in length.*
*IEC® EN 62561-2 supercedes EN 50164-2.*
*Additional lengths available.*

## COMPRESSION COUPLER FOR COPPER-BONDED GROUND ROD, POINTED

### FEATURE

- Threadless compression coupler for use with pointed copper-bonded ground rods
- Inside of coupler is tapered so ground rod compresses during installation to form an irreversible conductive connection






| Part Number | Article Number | Ground Rod Diameter, Nominal | Length | Unit Weight | Complies With | Certifications |
|---|---|---|---|---|---|---|
| **Material: Brass** | | | | | | |
| 156650 | 156650 | 1/2" | 70.0 mm | 0.13 kg | | |
| **Material: Silicon Bronze** | | | | | | |
| CC12F | 158000 | 1/2" | 69.8 mm | 0.13 kg | | CSA, cULus |
| CC58 | 158010 | 5/8" | 69.8 mm | 0.15 kg | IEC® EN 62561-2 | CSA, cULus |
| CC34 | 158020 | 3/4" | 69.8 mm | 0.20 kg | IEC® EN 62561-2 | CSA, cULus |

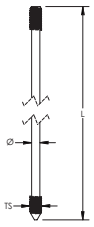
*IEC® EN 62561-2 supercedes EN 50164-2.*

## COPPER-BONDED GROUND ROD, THREADED

### FEATURE

- Cold-rolled threads with continuous, unbroken grain flows preserve copper coating and are stronger than cut threads
- 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" (304,8 mm) 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: 552 MPa Min
Thread Location: Pointed and Chamfered Ends

| Part Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Thread Size | Length | Plating Thickness | Unit Weight | Complies With | Certifications |
|---|---|---|---|---|---|---|---|---|
| 631340 | 1/2" | 12.8 mm | 9/16 UNC | 1.2 m | 254 µm | 1.200 kg | | |
| 631350 | 1/2" | 12.8 mm | 9/16 UNC | 1.5 m | 254 µm | 1.600 kg | | |
| 631360 | 1/2" | 12.8 mm | 9/16 UNC | 1.8 m | 254 µm | 1.900 kg | | |
| 631380 | 1/2" | 12.8 mm | 9/16 UNC | 2.4 m | 254 µm | 2.400 kg | ANSI®/NEMA® GR1 | UL |
| 631300 | 1/2" | 12.8 mm | 9/16 UNC | 3.0 m | 254 µm | 3.100 kg | ANSI®/NEMA® GR1 | CSA, cULus |
| 631303 | 1/2" | 12.8 mm | 9/16 UNC | 3.0 m | 330 µm | 3.200 kg | ANSI®/NEMA® GR1 | cULus |
| 635830 | 5/8" | 14.2 mm | 5/8 UNC | 0.9 m | 254 µm | 1.200 kg | IEC® EN 62561-2 | |
| 635840 | 5/8" | 14.2 mm | 5/8 UNC | 1.2 m | 254 µm | 1.500 kg | IEC® EN 62561-2 | |

| Part Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Thread Size | Length | Plating Thickness | Unit Weight | Complies With | Certifications |
|---|---|---|---|---|---|---|---|---|
| 635843 | 5/8" | 14.2 mm | 5/8 UNC | 1.2 m | 330 µm | 1.500 kg | IEC® EN 62561-2 | |
| 635850 | 5/8" | 14.2 mm | 5/8 UNC | 1.5 m | 254 µm | 1.900 kg | IEC® EN 62561-2 | |
| 635860 | 5/8" | 14.2 mm | 5/8 UNC | 1.8 m | 254 µm | 2.300 kg | IEC® EN 62561-2 | |
| 6358660 | 5/8" | 14.2 mm | 5/8 UNC | 2.0 m | 254 µm | 2.484 kg | IEC® EN 62561-2 | |
| 635870 | 5/8" | 14.2 mm | 5/8 UNC | 2.1 m | 254 µm | 2.900 kg | IEC® EN 62561-2 | |
| 635880 | 5/8" | 14.2 mm | 5/8 UNC | 2.4 m | 254 µm | 3.000 kg | ANSI®/NEMA® GR1, IEC® EN 62561-2 | UL |
| 635883 | 5/8" | 14.2 mm | 5/8 UNC | 2.4 m | 330 µm | 3.000 kg | ANSI®/NEMA® GR1, IEC® EN 62561-2 | UL |
| 635800 | 5/8" | 14.2 mm | 5/8 UNC | 3.0 m | 254 µm | 3.800 kg | ANSI®/NEMA® GR1, IEC® EN 62561-2 | CSA, cULus |
| 635803 | 5/8" | 14.2 mm | 5/8 UNC | 3.0 m | 330 µm | 3.900 kg | ANSI®/NEMA® GR1, IEC® EN 62561-2 | cULus |
| 633430 | 3/4" | 17.3 mm | 3/4 UNC | 0.9 m | 254 µm | 1.700 kg | IEC® EN 62561-2 | |
| 6334330 | 3/4" | 17.3 mm | 3/4 UNC | 1.0 m | 254 µm | 2.793 kg | IEC® EN 62561-2 | |
| 633440 | 3/4" | 17.3 mm | 3/4 UNC | 1.2 m | 254 µm | 2.200 kg | IEC® EN 62561-2 | |
| 633450 | 3/4" | 17.3 mm | 3/4 UNC | 1.5 m | 254 µm | 2.800 kg | IEC® EN 62561-2 | |
| 633460 | 3/4" | 17.3 mm | 3/4 UNC | 1.8 m | 254 µm | 3.200 kg | IEC® EN 62561-2 | |
| 633463 | 3/4" | 17.3 mm | 3/4 UNC | 1.8 m | 330 µm | 3.200 kg | IEC® EN 62561-2 | |
| 633470 | 3/4" | 17.3 mm | 3/4 UNC | 2.1 m | 254 µm | 3.900 kg | IEC® EN 62561-2 | |
| 633480 | 3/4" | 17.3 mm | 3/4 UNC | 2.4 m | 254 µm | 4.400 kg | ANSI®/NEMA® GR1, IEC® EN 62561-2 | UL |
| 633400 | 3/4" | 17.3 mm | 3/4 UNC | 3.0 m | 254 µm | 5.700 kg | ANSI®/NEMA® GR1, IEC® EN 62561-2 | CSA, cULus |
| 633403 | 3/4" | 17.3 mm | 3/4 UNC | 3.0 m | 330 µm | 5.700 kg | ANSI®/NEMA® GR1, IEC® EN 62561-2 | cULus |
| 633415 | 3/4" | 17.3 mm | 3/4 UNC | 4.6 m | 254 µm | 8.500 kg | ANSI®/NEMA® GR1, IEC® EN 62561-2 | cULus |
| 634400 | 1" | 23.2 mm | 1 UNC | 3.0 m | 254 µm | 10.000 kg | ANSI®/NEMA® GR1 | CSA, cULus |

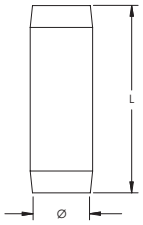
*For rods to be listed to UL® 467, they must be at least 8' (2.43 m) in length.*
*IEC® EN 62561-2 supercedes EN 50164-2.*

## THREADED COUPLER FOR COPPER-BONDED GROUND ROD, THREADED

### FEATURE

- High-strength couplings are threaded and chamfered at both ends for easy driving
- Corrosion-resistant couplings ensure permanent, low resistance copper-to-copper connections





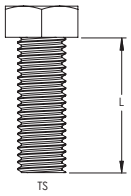

| Part Number | Article Number | Ground Rod Diameter, Nominal | Length | Thread Size | Unit Weight | Complies With | Certifications |
|---|---|---|---|---|---|---|---|
| **Material: Bronze** | | | | | | | |
| CR58 | 158040 | 5/8" | 61.0 mm | 5/8 UNC | 0.10 kg | IEC® EN 62561-2 | CSA, cULus |
| SC34 | 158050 | 3/4" | 71.0 mm | 3/4 UNC | 0.17 kg | IEC® EN 62561-2 | |
| CR34 | – | 3/4" | 76.2 mm | 3/4 UNC | 0.15 kg | | CSA, cULus |
| **Material: Silicon Bronze** | | | | | | | |
| CR100 | – | 1" | 99.1 mm | 1 UNC | 0.35 kg | | cULus |

## GROUND ROD DRIVING STUD FOR THREADED GROUND RODS

### FEATURE

- Used in conjunction with threaded couplers while driving threaded ground rods






Material: Steel

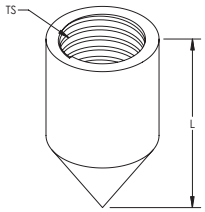
| Part Number | Ground Rod Diameter, Nominal | Thread Size | Length |
|---|---|---|---|
| 710090 | 3/8" | M10 | 18.0 mm |
| 710100 | 3/8" | M10 | 21.0 mm |
| DS12 | 1/2" | 1/2 UNC | 38.1 mm |
| 158100 | 5/8" | 5/8 UNC | 31.8 mm |
| DS58 | 5/8" | 5/8 UNC | 44.5 mm |
| 158110 | 3/4" | 3/4 UNC | 38.1 mm |
| DS34 | 3/4" | 3/4 UNC | 50.8 mm |

## GROUND ROD DRIVING POINT FOR THREADED GROUND RODS

### FEATURE

- Threaded ground rod driving tip to assist in driving threaded ground rods into the earth






Material: Steel

| Part Number | Ground Rod Diameter, Nominal | Thread Size | Length |
|---|---|---|---|
| SDT34 | 3/4" | 3/4 UNC | 42 mm |
| SDT58 | 5/8" | 5/8 UNC | 42 mm |

## GALVANIZED GROUND ROD, POINTED

### FEATURE

- Meets ANSI®/NEMA® GR1
- Zinc-coated exteriors are hot-dip galvanized for solid protection against corrosion, in accordance with ASTM® specification A123
- Surfaces are rigidly inspected to eliminate seams, slivers and other defects






Material: Steel
Finish: Hot-Dip Galvanized
Tensile Strength: 552 MPa Min

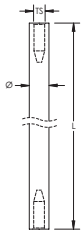
| Part Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Length | Unit Weight | UPC Label |
|---|---|---|---|---|---|
| 815800 | 5/8" | 16 mm | 3.05 m | 4.8 kg | No |

## STAINLESS STEEL GROUND ROD, SECTIONAL INTERNAL THREAD

### FEATURE

- Stainless steel sectional ground rod with internal threading





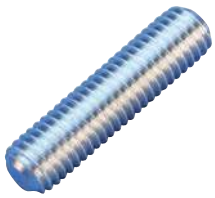

Material: Stainless Steel 316 (EN 1.4401)
Tensile Strength: 483 MPa Min

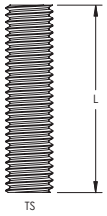
| Part Number | Article Number | Ground Rod Diameter, Actual | Thread Size | Length | Unit Weight |
|---|---|---|---|---|---|
| SSR16 | 710010 | 16 mm | M10 | 1.2 m | 1.8 kg |

## THREADED COUPLER FOR STAINLESS STEEL GROUND ROD, INTERNAL THREAD

### FEATURE

- For use with SSR16 stainless steel ground rod, sectional internal thread






Material: Stainless Steel 304 (EN 1.4301)

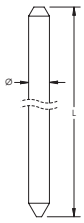
| Part Number | Article Number | Length | Thread Size | Unit Weight |
|---|---|---|---|---|
| SSD10 | 710115 | 40 mm | M10 | 0.02 kg |

## SOLID COPPER GROUND ROD, POINTED

### FEATURE

- Solid copper ground rods made of high conductive hard drawn bare copper






Material: Copper
Tensile Strength: 290 MPa Min

| Part Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Length | Unit Weight |
|---|---|---|---|---|
| LPC706 | 5/8" | 15.9 mm | 3.05 m | 5.35 kg |
| LPC711 | 3/4" | 19.1 mm | 3.05 m | 7.70 kg |

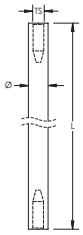
*Due to the inherent softness of the copper material, special consideration should be given when driving this product into the soil.*

## SOLID COPPER GROUND ROD, SECTIONAL INTERNAL THREAD

### FEATURE

- Solid copper sectional ground rod with internal threading






Material: Copper
Tensile Strength: 50 MPa

| Part Number | Article Number | Ground Rod Diameter, Actual | Thread Size | Length | Unit Weight |
|---|---|---|---|---|---|
| SCR15 | 710070 | 15 mm | M10 | 1.2 m | 1.64 kg |
| SCR20 | 710080 | 20 mm | M10 | 1.2 m | 3.34 kg |

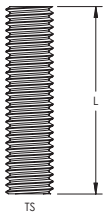
*Due to the inherent softness of the copper material, special consideration should be given when driving this product into the soil.*

## THREADED COUPLER FOR SOLID COPPER GROUND ROD, INTERNAL THREAD

### FEATURE

- Internal coupling for SCR15 and SCR20 copper ground rods






Material: Phosphor Bronze

| Part Number | Length | Thread Size | Unit Weight |
|---|---|---|---|
| PBD10 | 40 mm | M10 | 0.02 kg |

## CHEMICAL GROUND ELECTRODE

### FEATURES

- Contains natural electrolytic salts, which permeate into the surrounding soil to condition the soil and increase its conductivity
- Easy connection to ground electrode conductor using the factory provided pigtail (up or down orientation)
- Provides decades of reliable services due to rugged construction and high-quality metals with a 30-year minimum service life
- 2-1/8" (54 mm) outside diameter copper pipe with 0.083" (2.1 mm) wall
- Available in continuous sections up to 10' (3.05 m) in length; longer rods can be field assembled using 5' (1.52 m) or 10' (3.05 m) extensions
- Optional factory-attached radial strips are available to reduce impedance to high-frequency lightning energy and to control the direction of the dissipation
- L-shaped rods are available for horizontal installation applications where it is impractical to auger deep vertical holes
- Access segment on horizontal (L-shaped) chemical ground electrodes is 32" (813 mm) deep



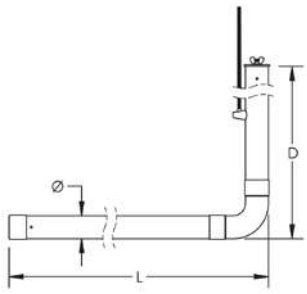
Chemical ground electrodes provide a low impedance ground in locations of high soil resistivity and dry soil conditions. Used in conjunction with a bentonite backfill and nVent ERICO's unique GEM material, the nVent ERICO chemical ground rod electrode systems provide a method to improve soil resistivity directly surrounding the electrode, and can replace multiple conventional ground rods. It maintains a low ground resistance, maintenance-free installation that dissipates lightning energy and other dangerous electrical fault currents, even in sandy or rocky soil conditions. The chemical ground electrode is useful for providing an effective earth in poor soil conditions where space for electrodes is limited. Applications include telecommunications, power generation and distribution, commercial and industrial, manufacturing, transportation (rail and aviation), lightning protection, recreational facilities, and defense. The nVent ERICO chemical ground rod electrode systems are most effective when installed as part of a total system that includes high conductivity backfill materials, access/inspection wells, and permanent, reliable nVent ERICO Cadweld connections. They may be installed either vertically or horizontally.

Material: Copper

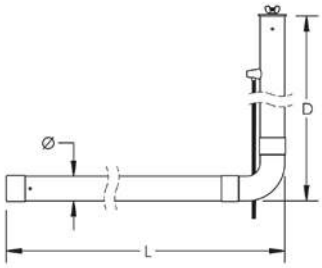
### ECR V 10 2Q 4 U B

| ECR | ERICO Chemical Ground Electrode System | |
|---|---|---|
| V | Installation | H: Horizontal<br>HE: Horizontal Extended<br>V: Vertical<br>E: Vertical Extended |
| 10 | Electrode Length (') | |
| 2Q | Cable Size | 1G: #6 Sol, 1L: #4 Str, 1T: #2 Sol, 1V: #2 Str<br>2C: 1/0 Str, 2G: 2/0 Str, 2K: 3/0 Sol, 2L: 3/0 Str, 2Q: 4/0 Str<br>2V: 250 kcmil Str, 3D: 350 kcmil Str, 3Q: 500 kcmil Str, 4L: 750 kcmil Str |
| 4 | Pigtail Length (') | |
| U | Pigtail Orientation | U: Up, D: Down |
| B* | Rod assembly only | Add "B" for rod assembly only. Leave blank for kit. |

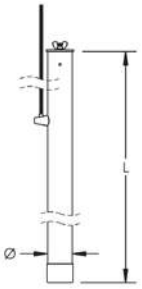
* Empty if none



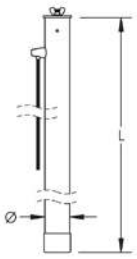

Horizontal with Pigtail Up




Horizontal with Pigtail Down




Vertical with Pigtail Up




Vertical with Pigtail Down

| Part Number | Electrode Length | Pigtail Length | Depth | Conductor Size | Kit |
|---|---|---|---|---|---|
| **Installation: Horizontal with Pigtail Up** | | | | | |
| ECRH082C4U | 2.4 m | 1.2 m | 813 mm | 1/0 Stranded | Yes |
| ECRH101T4U | 3.1 m | 1.2 m | 813 mm | #2 Solid | Yes |
| ECRH102C4U | 3.1 m | 1.2 m | 813 mm | 1/0 Stranded | Yes |
| ECRH102G4U | 3.1 m | 1.2 m | 813 mm | 2/0 Stranded | Yes |
| ECRH101T5U | 3.1 m | 1.5 m | 813 mm | #2 Solid | Yes |
| **Installation: Horizontal with Pigtail Down** | | | | | |
| ECRH101T4DB | 3.1 m | 1.2 m | 813 mm | #2 Solid | No |
| ECRH101T4D | 3.1 m | 1.2 m | 813 mm | #2 Solid | Yes |
| ECRH102C4D | 3.1 m | 1.2 m | 813 mm | 1/0 Stranded | Yes |
| ECRH102G4D | 3.1 m | 1.2 m | 813 mm | 2/0 Stranded | Yes |
| **Installation: Vertical with Pigtail Up** | | | | | |
| ECRV101T2U | 3.1 m | 0.6 m | – | #2 Solid | Yes |
| ECRV101T4U | 3.1 m | 1.2 m | – | #2 Solid | Yes |
| ECRV102C4U | 3.1 m | 1.2 m | – | 1/0 Stranded | Yes |
| ECRV102V4U | 3.1 m | 1.2 m | – | 250 kcmil Stranded | Yes |
| ECRV102Q5U | 3.1 m | 1.5 m | – | 4/0 Stranded | Yes |
| ECRV122Q4U | 3.7 m | 1.2 m | – | 4/0 Stranded | Yes |
| ECRE152Q4U | 4.6 m | 1.2 m | – | 4/0 Stranded | Yes |
| ECRE201T4U | 6.1 m | 1.2 m | – | #2 Solid | Yes |
| ECRE202G4U | 6.1 m | 1.2 m | – | 2/0 Stranded | Yes |
| ECRE352L1UB | 10.7 m | 0.3 m | – | 3/0 Stranded | No |
| **Installation: Vertical with Pigtail Down** | | | | | |
| ECRV102Q4DB | 3.1 m | 1.2 m | – | 4/0 Stranded | No |
| ECRE102Q4D | 3.1 m | 1.2 m | – | 4/0 Stranded | Yes |
| ECRE202C4DB | 6.1 m | 1.2 m | – | 1/0 Stranded | No |
| ECRE202C4D | 6.1 m | 1.2 m | – | 1/0 Stranded | Yes |

## CHEMICAL GROUND ELECTRODE SALT MIX

### FEATURE

- Individual packages of salt mix are available for sale separately from the chemical ground rod assembly



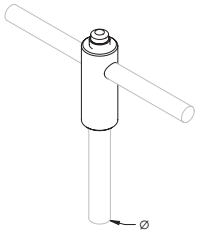
| Part Number | Unit Weight |
|---|---|
| ECRCHM15LB | 6.8 kg |

## NVENT ERICO HAMMERLOCK GROUND CLAMP

### FEATURE

- Irreversible connection with excellent mechanical strength
- Fast and simple installation requires only a hammer
- No special training required
- Low resistance connection
- Provides a visual indication of completed connection
- Allows for “T” or pass-through connections





Ground Rod Type: Copper-bonded
Material: Copper

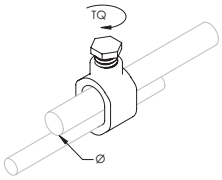
| Part Number | Article Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Conductor Size | Number of Conductors | Certifications |
|---|---|---|---|---|---|---|
| EHL12FC1K | 166958 | 1/2" | 12.7 mm | #6 Solid - #4 Solid, 16 mm² Stranded | 1 | cULus |
| EHL12FC1K1K | 166959 | 1/2" | 12.7 mm | #6 Solid - #4 Solid, 16 mm² Stranded | 2 | |
| EHL12FC1V | 166962 | 1/2" | 12.7 mm | #4 Stranded - #2 Stranded, 25 mm² Stranded | 1 | cULus |
| EHL12FC2G | - | 1/2" | 12.7 mm | 1/0 Stranded - 2/0 Stranded | 1 | cULus |
| EHL58C1K | 166973 | 5/8" | 14.2 mm | #6 Solid - #4 Solid, 16 mm² Stranded | 1 | cULus |
| EHL58C1K1K | 166974 | 5/8" | 14.2 mm | #6 Solid - #4 Solid, 16 mm² Stranded | 2 | |
| EHL58C1V | 166977 | 5/8" | 14.2 mm | #4 Stranded - #2 Stranded, 25 mm² Stranded | 1 | cULus |
| EHL58C2G | 166978 | 5/8" | 14.2 mm | 1/0 Stranded - 2/0 Stranded | 1 | cULus |
| EHL34C1K | 166988 | 3/4" | 17.3 mm | #6 Solid - #4 Solid, 16 mm² Stranded | 1 | cULus |
| EHL34C1V | 166991 | 3/4" | 17.3 mm | #4 Stranded - #2 Stranded, 25 mm² Stranded | 1 | cULus |
| EHL34C2G | 166992 | 3/4" | 17.3 mm | 1/0 Stranded - 2/0 Stranded | 1 | cULus |

## GROUND ROD CLAMP, ROD TO CONDUCTOR, BRONZE

### FEATURE

- For use with copper-bonded ground rods
- Parts that are UL Listed are suitable for direct burial in earth or concrete





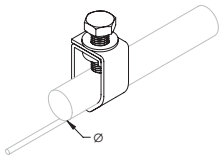

| Part Number | Article Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Conductor Size | Wrench Size | Complies With | Certifications |
|---|---|---|---|---|---|---|---|
| **Torque: 16.9 to 33.9 N-m — Material: Silicon Bronze** | | | | | | | |
| CP38 | 158155 | 3/8" | 9.7 mm | #10 Solid - #2 Stranded, 6 mm² Solid - 25 mm² Stranded | 3/8" | | cULus |
| CP58 | 158165 | 1/2" – 5/8" | 12.5 – 14.2 mm | #10 Solid - #2 Stranded, 6 mm² Solid - 25 mm² Stranded | 1/2" | IEC® EN 62561-1 | CSA, cULus |
| CP34 | 158175 | 1/2" – 3/4" | 12.5 – 17.3 mm | #10 Solid - 1/0 Stranded, 6 mm² Solid - 50 mm² Stranded | 1/2" | IEC® EN 62561-1 | CSA, cULus |
| **Torque: 16.9 to 50.8 N-m — Material: Silicon Bronze** | | | | | | | |
| HDC1 | 158250 | 1" | 25.4 mm | #8 Solid - 4/0 Stranded, 10 mm² Solid - 95 mm² Stranded | 9/16" | | cULus |
| **Torque: 25.0 N-m Max — Material: Gunmetal** | | | | | | | |
| C12 | 158260 | 1/2" – 1/2" | 12.5 – 12.7 mm | 50 mm² Stranded Max | 14 mm | | |
| C58 | 158160 | 1/2" – 5/8" | 12.5 – 15.0 mm | 70 mm² Stranded Max | 14 mm | IEC® EN 62561-1 | |
| **Torque: 33.9 N-m Max — Material: Gunmetal** | | | | | | | |
| C34 | 158170 | 5/8" – 3/4" | 14.2 – 17.2 mm | 70 mm² Stranded Max | 14 mm | IEC® EN 62561-1 | |
| C19 | 156900 | 5/8" – 3/4" | 14.2 – 19.0 mm | 70 mm² Stranded Max | 14 mm | | |
| C200 | 156910 | 5/8" – 3/4" | 14.2 – 20.0 mm | 70 mm² Stranded Max | 24 mm | | |

## GROUND ROD CLAMP, ROD TO CONDUCTOR, STAINLESS STEEL

### FEATURE

- Unique stamped body design will not crack from excessive torque
- Provides a greater surface area contact to allow improved performance of the connector
- Compatible with copper, copper bonded, galvanized, stainless steel, rebar and plain steel ground rods and electrodes






Material: Stainless Steel 304 (EN 1.4301)
Torque: 16.9 to 33.9 N-m

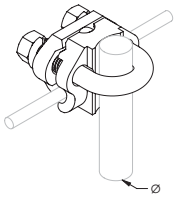
| Part Number | Article Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Conductor Size | Wrench Size |
|---|---|---|---|---|---|
| SP58 | 158185 | 1/2" – 5/8" | 12.7 – 15.9 mm | #10 Stranded - #2 Stranded, 6 mm² Stranded - 25 mm² Stranded | 1/2" |

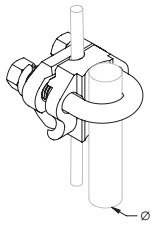
## GROUND ROD CLAMP, U-BOLT, TINNED, ONE CONDUCTOR

### FEATURE

- Tinned finish provides a theft-deterrent appearance
- Accepts conductors in both parallel and perpendicular orientations







Material: Bronze, Stainless Steel 304 (EN 1.4301)
Finish: Tinned

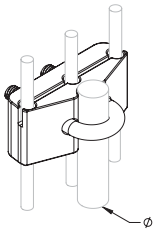
| Part Number | Ground Rod Diameter, Nominal | Conductor Size, UL |
|---|---|---|
| GC064 | 5/8" – 3/4" | #4 Sol - 2/0 Str, 16 mm² Str - 50 mm² Str |
| GC065 | 5/8" – 3/4" | 2/0 Sol - 250 kcmil Str, 70 mm² Str - 120 mm² Str |

## GROUND ROD CLAMP, U-BOLT, THREE CONDUCTORS

### FEATURE

- Ground rod clamp that allows up to three separate conductors to be connected to a ground rod
- Bronze material is a copper alloy with high copper content
- Tinned bronze has theft-deterrent appearance





Material: Bronze
Finish: Tinned

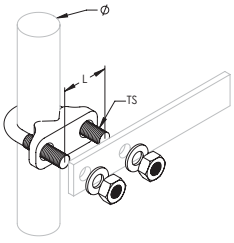
| Part Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Conductor Size |
|---|---|---|---|
| GC065TH | 5/8" – 3/4" | 15.9 – 19.1 mm | 2/0 Solid - 250 kcmil Stranded, 70 mm² Stranded - 120 mm² Stranded |

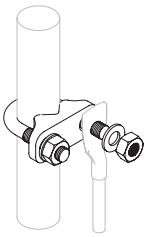
## GROUND ROD CLAMP, U-BOLT, TYPE E

### FEATURE

- Designed to accommodate tape or bar in either a horizontal or vertical position
- Can also be used with a lug connection from a round conductor
- Can be used to connect to ground rods or rebar





Material: Gunmetal, Brass

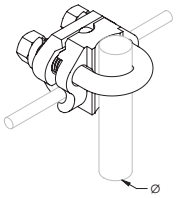
| Part Number | Article Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Rebar Size, Metric | Rebar Size, US | Rebar Size, Canada | Length | Thread Size | Complies With |
|---|---|---|---|---|---|---|---|---|---|
| UB16 | 710370 | 5/8" | 14.2 mm | 12 mm | #4 | 10M | 38 mm | M10 | IEC® EN 62561-1 |
| UB20 | 710380 | 3/4" | 17.3 mm | 16 mm | #5 | 15M | 38 mm | M10 | IEC® EN 62561-1 |
| UB25 | 710390 | 1" | 25.0 mm | 25 mm | #8 | 25M | 38 mm | M10 | |

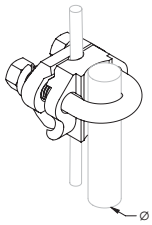
## GROUND ROD CLAMP, U-BOLT, BARE, ONE CONDUCTOR

### FEATURE

- Accepts conductors in both parallel and perpendicular orientations
- For use with copper-bonded ground rods






Material: Copper, Bronze, Brass

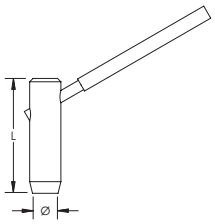
| Part Number | Article Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Conductor Size | Complies With |
|---|---|---|---|---|---|
| GUV16070 | 710400 | 5/8" – 1" | 14.2 – 23.2 mm | #4 Solid - 2/0 Stranded, 16 mm² Stranded - 70 mm² Stranded | IEC® EN 62561-1 |
| GUV70185 | 710410 | 5/8" – 1" | 14.2 – 23.2 mm | #4 Solid - 300 kcmil Stranded, 16 mm² Stranded - 185 mm² Stranded | IEC® EN 62561-1 |

## GROUND ROD CLAMP WITH PREFABRICATED PIGTAIL

### FEATURE

- Prefabricated assembly including grounding clamp with pigtail
- Fast and simple installation requires only a hammer






Material: Copper
Insulation: Green and Yellow Insulated Cable

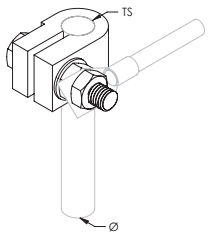
| Part Number | Article Number | Ground Rod Diameter, Nominal | Length | Pigtail Length | Conductor Size | Unit Weight |
|---|---|---|---|---|---|---|
| EPT1225300 | 158610 | 1/2" | 70 mm | 300 mm | 25 mm² Stranded | 0.5 kg |
| EPT1425350 | 158675 | 5/8" | 75 mm | 350 mm | 25 mm² Stranded | 0.5 kg |
| EPT1450350 | 158290 | 5/8" | 75 mm | 350 mm | 50 mm² Stranded | 0.5 kg |

## GROUND ROD SPLIT CLAMP, ROD TO TAPE

### FEATURE

- Used to connect a ground rod to a lug or to tape with a punched hole






Material: Gunmetal

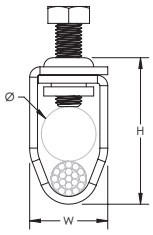
| Part Number | Article Number | Ground Rod Diameter, Actual | Thread Size |
|---|---|---|---|
| RCC10 | 710420 | 9.2 mm Max | M8 |
| RCC16 | 710430 | 14.2 mm Max | M10 |
| SRC15 | 710440 | 14.8 mm Max | M10 |
| SRC20 | 710450 | 19.0 mm Max | M12 |

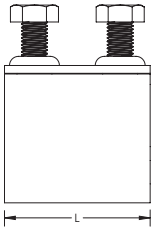
## GROUND ROD CLAMP

### FEATURE

- Unique stamped body design will not crack as mechanical forces are increased
- Stainless steel threads will not strip if over-tightened
- Unique internal profile offers pull-out load in excess of four times the UL® 96 requirement
- Listed to UL® 96






Material: Copper

| Part Number | Conductor Size, UL | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Height | Length | Width | Unit Weight |
|---|---|---|---|---|---|---|---|
| LPC790 | Class 1 - Class 2 (4/0 Max) | 1/2" – 3/4" | 12.7 – 17.3 mm | 42 mm | 44.5 mm | 23.8 mm | 0.152 kg |

nVent | ERICO

CONNECTORS AND POSITIONERS

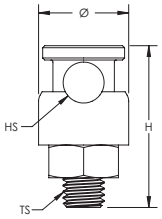
# Connectors & Positioners

## GROUNDING BUSBAR CONNECTOR, SOLID ROUND CONDUCTOR

### FEATURE

- Used to connect solid round conductors, including ERICO-CU-BOND Round Conductor, to grounding busbars






Material: Copper Alloy, Stainless Steel 18-8 (EN 1.4305)
Finish: Tinned

| Part Number | Height | Diameter | Hole Size | Thread Size | nVent ERICO Cu-Bond Conductor | Complies With |
|---|---|---|---|---|---|---|
| BCR8T | 50 mm | 20 mm | 9.5 mm | M10 | CBSC8 | IEC® 62561-1 |

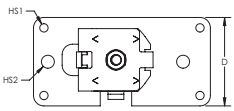
*IEC compliance is valid only for nVent ERICO Cu-Bond Conductors listed.*

## STAMPED BONDING PLATE

### FEATURE

- Stamped bonding plate suitable for structural steel applications
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max)

| Part Number | Contact Area | Depth | Height | Width | Hole Size 1 | Hole Size 2 | Unit Weight |
|---|---|---|---|---|---|---|---|
| **Material: Aluminum — Finish: Bare** | | | | | | | |
| LPA540 | 51.6 cm² Min | 53.98 mm | 31.75 mm | 107.95 mm | 5.1 mm | 7.9 mm | 0.088 kg |
| **Material: Copper — Finish: Tinned** | | | | | | | |
| LPC540L | 51.6 cm² Min | 53.98 mm | 31.75 mm | 107.95 mm | 5.1 mm | 7.9 mm | 0.254 kg |
| **Material: Copper, Aluminum, Stainless Steel 304 (EN 1.4301) — Finish: Bare** | | | | | | | |
| LPC540A | 51.6 cm² Min | 53.98 mm | 31.75 mm | 107.95 mm | 5.1 mm | 7.9 mm | 0.104 kg |

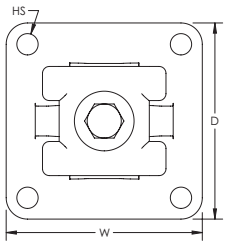
*Stainless steel separator included with LPC540A for bi-metallic applications.*

## BONDING PLATE

### FEATURE

- Cast bonding plate for structural steel applications
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max)
Material: Brass

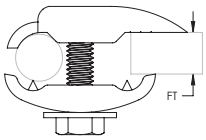
| Part Number | Contact Area | Depth | Height | Width | Hole Size | Unit Weight |
|---|---|---|---|---|---|---|
| LPC532 | 51.6 cm² Min | 73.03 mm | 16.76 mm | 73.025 mm | 79.38 mm | 0.29 kg |

## CAST BEAM BONDING CLAMP

### FEATURE

- Clamp for bonding cable to flat metal objects such as I-beams, angle irons and channel irons
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max)

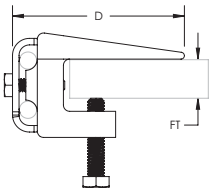
| Part Number | Flange Thickness | Depth | Width | Unit Weight |
|---|---|---|---|---|
| **Material: Aluminum — Finish: Bare** | | | | |
| LPA559 | 6.4 mm Max | 57.15 mm | 40.6 mm | 0.061 kg |
| **Material: Copper — Finish: Bare** | | | | |
| LPC559 | 6.4 mm Max | 57.15 mm | 40.6 mm | 0.175 kg |
| **Material: Copper — Finish: Tinned** | | | | |
| LPC559L | 6.4 mm Max | 57.15 mm | 40.6 mm | 0.175 kg |

## CAST TWO BOLT BEAM BONDING CLAMP

### FEATURE

- Clamp for bonding cable to flat metal objects such as I-beams, angle irons and channel irons
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max)

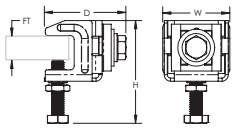
| Part Number | Flange Thickness | Depth | Height | Width | Contact Area | Unit Weight |
|---|---|---|---|---|---|---|
| **Material: Aluminum** | | | | | | |
| LPA557 | 25.4 mm Max | 69.85 mm | 50.8 mm | 101.6 mm | 51.613 mm² Min | 0.315 kg |
| **Material: Copper** | | | | | | |
| LPC557 | 25.4 mm Max | 69.85 mm | 50.8 mm | 101.6 mm | 51.613 mm² Min | 0.932 kg |
| **Material: Copper — Finish: Tinned** | | | | | | |
| LPC557L | 25.4 mm Max | 69.85 mm | 50.8 mm | 101.6 mm | 51.613 mm² Min | 0.932 kg |

## BEAM CLAMP FOR SOLID ROUND CONDUCTOR

### FEATURE

- Clamp for attaching solid round conductor such as nVent ERICO Cu-Bond Round Conductor to flat metal objects such as I-beams, angle irons and channel irons
- For use with copper-bonded, copper, or stainless steel solid conductors






Material: Stainless Steel 316 (EN 1.4401)

| Part Number | Width | Height | Depth | Flange Thickness | nVent ERICO Cu-Bond Conductor | Unit Weight | Complies With |
|---|---|---|---|---|---|---|---|
| SBCS0810 | 55 mm | 85 mm | 70 mm | 6 – 25 mm | CBSC8, CBSC10 | 0.277 kg | IEC® 62561-4 |
| SBCS1314 | 55 mm | 90 mm | 70 mm | 6 – 25 mm | CBSC13, CBSC14 | 0.277 kg | IEC® 62561-4 |

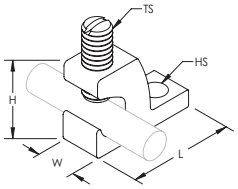
*IEC compliance is valid only for nVent ERICO Cu-Bond Conductors listed.*

## LAY-IN LUG

### FEATURE

- Often used in solar bonding lug applications
- Lay-in features allows for easy positioning
- Set screw hardware made of 304 stainless steel






Material: Copper, Stainless Steel 304 (EN 1.4301)
Finish: Tinned

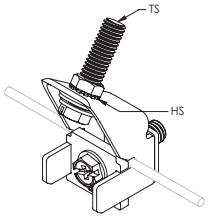
| Part Number | Length | Width | Height | Hole Size | Thread Size | Conductor Size |
|---|---|---|---|---|---|---|
| EL6CADB | 26.4 mm | 9.9 mm | 19.3 mm | 5.58 mm | 1/4 NF | #14 Solid - #4 Stranded, 2.5 mm² Stranded - 16 mm² Stranded |

## SOLAR BONDING LUG

### FEATURE

- Bonds the frames and mounting structures of solar photo voltaic systems in accordance with NEC® requirements
- Copper alloy is corrosion resistant and galvanically compatible with copper grounding conductors and aluminum photovoltaic module frames
- Lay-in feature allows for easy positioning along multiple frames






Material: Bronze, Stainless Steel 18-8 (EN 1.4305)
Finish: Tinned

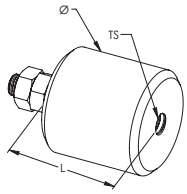
| Part Number | Direct Burial | Conductor Size | Hole Size | Screw Included |
|---|---|---|---|---|
| EL6CSNH | No | #14 Solid - #6 Stranded | 5.61 mm | No |

## EARTH BOSS

### FEATURE

- Provides preferential equipotential bonding connection point
- Stainless steel hardware included






Material: Steel

| Part Number | Article Number | Length | Diameter | Thread Size |
|---|---|---|---|---|
| 50010EBOSS | 710160 | 50 mm | 50 mm | M10 |

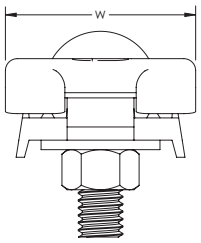
*Apply dry-to-touch oil on earth boss to prevent rust. Welding procedures vary, depending on the type of steel used.*

## 516 PARALLEL CABLE CONNECTOR

### FEATURE

- Cable splice with positive single bolt tension grip on cable or wire
- For use with all full size cables on Class I/II structures
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max)

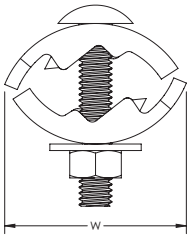
| Part Number | Depth | Width | Unit Weight |
|---|---|---|---|
| **Material: Aluminum — Finish: Bare** | | | |
| LPA516 | 46.74 mm | 38.1 mm | 0.064 kg |
| **Material: Copper — Finish: Bare** | | | |
| LPC516 | 46.74 mm | 38.1 mm | 0.181 kg |
| **Material: Copper — Finish: Tinned** | | | |
| LPC516L | 46.74 mm | 38.1 mm | 0.181 kg |
| **Material: Copper, Aluminum, Stainless Steel 18-8 (EN 1.4305) — Finish: Bare** | | | |
| LPC516A | 46.74 mm | 38.1 mm | 0.120 kg |

## 517 PARALLEL CABLE CONNECTOR

### FEATURE

- Cable splice with positive two bolt tension grip on cable or wire
- For use with all full size cables on Class I/II structures
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max)
Material: Copper

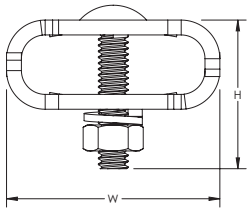
| Part Number | Depth | Width | Unit Weight |
|---|---|---|---|
| LPC517 | 48.51 mm | 42.16 mm | 0.233 kg |

## STAMPED BOLTED PARALLEL CABLE CONNECTOR

### FEATURE

- For positive bolt tension cable clamping
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max)

| Part Number | Depth | Height | Width | Unit Weight |
|---|---|---|---|---|
| **Material: Aluminum** | | | | |
| LPA502 | 38.1 mm | 38.1 mm | 45.2 mm | 0.039 kg |
| **Material: Copper** | | | | |
| LPC502 | 38.1 mm | 38.1 mm | 45.2 mm | 0.087 kg |
| **Material: Copper — Finish: Tinned** | | | | |
| LPC502L | 38.1 mm | 38.1 mm | 45.2 mm | 0.087 kg |
| **Material: Copper, Aluminum, Stainless Steel 304 (EN 1.4301)** | | | | |
| LPC502A | 38.1 mm | 38.1 mm | 45.2 mm | 0.088 kg |

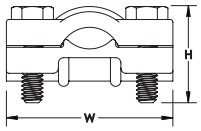
*Stainless steel separator included with LPC502A for bi-metallic applications.*

## CROSS-RUN CABLE CONNECTORS, SOLID ROUND CONDUCTOR

### FEATURE

- Can be used as a cross-run cable connector
- Four bolts for positive bolt tension grip on cables
- For use with nVent ERICO Cu-Bond Round Conductors






Material: Brass

| Part Number | Depth | Height | Width | nVent ERICO Cu-Bond Conductor | Unit Weight | Complies With |
|---|---|---|---|---|---|---|
| LPC595NB | 50.8 mm | 25.40 mm | 50.8 mm | CBSC8, CBSC10 | 0.281 kg | IEC® 62561-1 |
| LPC595NB13 | 50.8 mm | 31.75 mm | 50.8 mm | CBSC13 | 0.281 kg | IEC® 62561-1 |

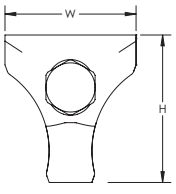
*IEC compliance is valid only for nVent ERICO Cu-Bond Conductors listed.*

## T-CONNECTOR

### FEATURE

- For 90° conductor connections






Material: Brass

| Part Number | Conductor Size | Depth | Height | Width | nVent ERICO Cu-Bond Conductor | Unit Weight | Complies With |
|---|---|---|---|---|---|---|---|
| CTR8CU | 8 mm Solid, 10 mm Solid | 21 mm | 46 mm | 40 mm | CBSC10 | 0.168 kg | IEC® 62561-1 |

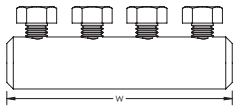
*IEC compliance is valid only for nVent ERICO Cu-Bond Conductors listed.*

## IN-LINE CABLE CONNECTOR

### FEATURE

- Cable splicer with four bolts for pressure on each cable
- LPC513 is compatible with nVent ERICO Cu-Bond Round Conductors





Conductor Size, UL: Class 1 - Class 2 (4/0 Max)

| Part Number | Diameter 1 | Diameter 2 | Width | nVent ERICO Cu-Bond Conductor | Unit Weight | Complies With |
|---|---|---|---|---|---|---|
| **Material: Aluminum** | | | | | | |
| LPA513 | 19.1 mm | 14.3 mm | 82.55 mm | | 0.086 kg | |
| **Material: Copper** | | | | | | |
| LPC513 | 19.1 mm | 14.3 mm | 82.55 mm | CBSC8, CBSC10, CBSC13 | 0.168 kg | IEC® 62561-1 |

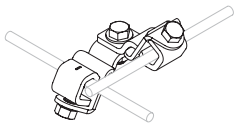
*IEC compliance is valid only for nVent ERICO Cu-Bond Conductors listed.*

## MESH BONDING NETWORK CONNECTOR, MBNC240

### FEATURE

- Allows for fast, simple and economical field connection of grounding and bonding wires
- Heavy duty clamps with stainless steel hardware are suitable for direct burial
- Can accommodate additional pigtails that can be used to connect to building steel and equipment
- Can be combined with Universal Pedestal Clamp for bonding to various pedestal sizes for mesh bonding networks





Material: Copper, Stainless Steel 304 (EN 1.4301)

| Part Number | Conductor Size | nVent ERICO Cu-Bond Conductor | Complies With | Standard Packaging Quantity |
|---|---|---|---|---|
| MBNC240 | #2 Solid - 4/0 Stranded, 35 mm² - 100 mm² | CBSC8, CBSC10, CBSC13 | IEC® 62561-1 | 25 pc |

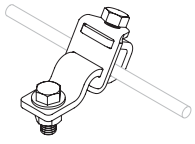
*IEC compliance is valid only for nVent ERICO Cu-Bond Conductors listed.*

## MESH BONDING NETWORK CONNECTOR, MBNC240A

### FEATURE

- Allows for fast, simple and economical field connection of grounding and bonding wires
- Heavy duty clamps with stainless steel hardware are suitable for direct burial
- Can be combined with Universal Pedestal Clamp for bonding to various pedestal sizes for mesh bonding networks





Material: Copper, Stainless Steel 304 (EN 1.4301)

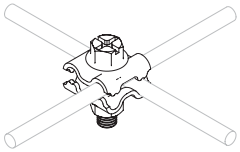
| Part Number | Conductor Size | Standard Packaging Quantity |
|---|---|---|
| MBNC240A | #2 Solid - 4/0 Stranded, 35 mm² - 100 mm² | 25 pc |

## MESH BONDING NETWORK CONNECTOR, MBNC82

### FEATURE

- Allows for fast, simple and economical field connection of grounding and bonding wires
- Heavy duty clamps with stainless steel hardware are suitable for direct burial
- Can accommodate additional pigtails that can be used to connect to building steel and equipment
- Can be combined with Universal Pedestal Clamp for bonding to various pedestal sizes for mesh bonding networks





Material: Bronze, Stainless Steel 304 (EN 1.4301)

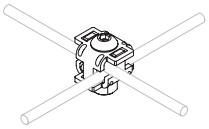
| Part Number | Conductor Size | Standard Packaging Quantity |
|---|---|---|
| MBNC82 | #8 Solid - #2 Stranded,<br>10 mm² Solid - 35 mm² Stranded | 25 pc |

## SRG CONNECTOR

### FEATURE

- Allows for fast, simple and economical field connection of grounding and bonding wires
- Heavy duty clamps with stainless steel hardware are suitable for direct burial
- Can accommodate additional pigtails that can be used to connect to building steel and equipment
- Can be combined with Universal Pedestal Clamp for bonding to various pedestal sizes for mesh bonding networks





Material: Bronze, Stainless Steel 304 (EN 1.4301)

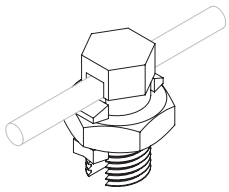
| Part Number | Article Number | Conductor Size |
|---|---|---|
| SRGC46 | 167905 | #6 Solid - #4 Stranded, 16 mm² Stranded |

## SPLIT BOLT CONNECTOR

### FEATURE

- Unplated high-strength silicon bronze accommodates copper to copper connections
- Tin plated, high-strength copper alloy split bolt with spacer separates dissimilar conductors and accommodates copper-to-copper, copper-to-aluminum and aluminum-to-aluminum connections





Material: Silicon Bronze

| Part Number | Conductor Size | Torque | Certifications |
|---|---|---|---|
| **Tin Plating: No** | | | |
| ESB8 | #16 Stranded - #8 Stranded, 1.5 mm² Stranded - 6 mm² Stranded | 18.6 N-m | cULus |
| ESB6 | #10 Solid - #6 Stranded, 6 mm² Stranded - 10 mm² Stranded | 18.6 N-m | cULus |
| ESB4 | #8 Solid - #4 Solid, 10 mm² Stranded - 16 mm² Stranded | 18.6 N-m | cULus |
| ESB2 | #6 Solid - #2 Stranded, 16 mm² Stranded - 25 mm² Stranded | 31.1 N-m | cULus |
| ESB2/0 | #2 Solid - 2/0 Stranded, 35 mm² Stranded - 50 mm² Stranded | 43.5 N-m | UL |
| ESB4/0 | 1/0 Solid - 250 kcmil Stranded, 70 mm² Stranded - 120 mm² Stranded | 73.4 N-m | |
| **Tin Plating: Yes** | | | |
| ESBP8 | #14 Stranded - #8 Stranded, 2.5 mm² Stranded - 6 mm² Stranded | 18.6 N-m | UL |
| ESBP6 | #10 Stranded - #6 Stranded, 6 mm² Stranded - 10 mm² Stranded | 18.6 N-m | UL |
| ESBP4 | #8 Solid - #3 Stranded, 10 mm² Stranded - 25 mm² Stranded | 18.6 N-m | UL |
| ESBP2 | #8 Solid - #2 Stranded, 10 mm² Stranded - 25 mm² Stranded | 31.1 N-m | UL |
| ESBP2/0 | #8 Solid - 2/0 Stranded, 10 mm² Stranded - 50 mm² Stranded | 43.5 N-m | UL |
| ESBP1/0 | #6 Solid - 1/0 Stranded, 16 mm² Stranded - 50 mm² Stranded | 43.5 N-m | UL |
| ESBP4/0 | #4 Stranded - 250 kcmil Stranded, 25 mm² Stranded - 120 mm² Stranded | 73.4 N-m | |
| ESBP350 | 3/0 Stranded - 350 kcmil Stranded, 95 mm² Stranded - 150 mm² Stranded | 73.4 N-m | |

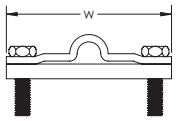
*Oxide inhibitor recommmended when used on aluminum conductor.*

## MULTI-PURPOSE GROUNDING CLAMP

### FEATURE

- Cross connector for round-to-round, round-to-tape, and tape-to-tape connections



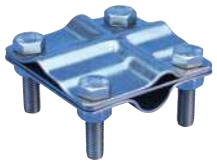


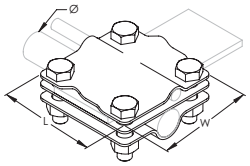

| Part Number | Article Number | Conductor Size | Tape Size | Depth | Width | Unit Weight |
|---|---|---|---|---|---|---|
| **Material: Brass** | | | | | | |
| CCFR308 | 545270 | 8 mm Stranded, 8 mm Solid | 25 x 3 mm, 30 x 2 mm | 56 mm | 56 mm | 0.15 kg |
| **Material: Stainless Steel 304 (EN 1.4301)** | | | | | | |
| CCS-308 | 545180 | 8 mm Stranded, 8 mm Solid | 25 x 3 mm, 30 x 2 mm | 56 mm | 56 mm | 0.15 kg |
| **Material: Steel — Finish: Hot-Dip Galvanized** | | | | | | |
| CCG308 | 545170 | 8 mm Stranded, 8 mm Solid | 25 x 3 mm, 30 x 2 mm | 56 mm | 56 mm | 0.15 kg |

## MULTI-PURPOSE GROUNDING CLAMP, STAINLESS STEEL

### FEATURE

- Convenient multi-purpose clamp designed to accommodate round conductors, flat conductors, ground rods and rebar
- Stainless steel material with inner plate allows compatibility between most dissimilar metals






Material: Stainless Steel 304 (EN 1.4301)
Conductor Size: 35 mm² Stranded - 50 mm² Stranded, #2 Stranded - 1/0 Solid
Tape Size: 40 x 4 mm Max

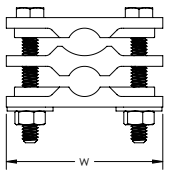
| Part Number | Article Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Rebar Size, Metric | Rebar Size, US | Rebar Size, Canada | Length | Width |
|---|---|---|---|---|---|---|---|---|
| MPSC404SS | 120319 | 5/8" – 3/4" | 14.2 – 19.0 mm | 16 – 20 mm | #5 – #6 | 15M – 20M | 65 mm | 65 mm |

## UNIVERSAL CLAMP, SOLID ROUND CONDUCTOR

### FEATURE

- For parallel connections of nVent ERICO Cu-Bond Round Conductor






Material: Brass

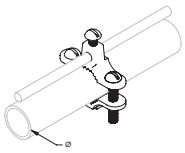
| Part Number | Depth | Width | nVent ERICO Cu-Bond Conductor | Unit Weight | Complies With |
|---|---|---|---|---|---|
| LPC466B | 31.7 mm | 63.5 mm | CBSC10, CBSC13 | 0.279 kg | IEC® 62561-1 |

## WATER PIPE GROUND CLAMP

### FEATURE

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





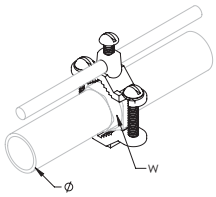

| Part Number | Article Number | Pipe Size, Nominal | Pipe Size, Actual | Conductor Size | Certifications |
|---|---|---|---|---|---|
| **Material: Silicon Bronze** | | | | | |
| CWP1JJ | 710262 | 1/2" – 1" | 12.7 – 25.4 mm | #10 Solid - #4 Stranded, 6 mm² Stranded - 16 mm² Stranded | |
| CWP1JU | 710266 | 1/2" – 1" | 12.7 – 25.4 mm | #10 Solid - #2 Stranded, 6 mm² Stranded - 25 mm² Stranded | CSA, cULus |
| CWP2JU | 710267 | 1 1/4" – 2" | 31.8 – 50.8 mm | #10 Solid - #2 Stranded, 6 mm² Stranded - 25 mm² Stranded | CSA, cULus |
| CWP4J | 710264 | 2 1/2" – 4" | 63.5 – 101.6 mm | #10 Solid - #4 Stranded, 6 mm² Stranded - 16 mm² Stranded | CSA, cULus |
| CWP6J | 710265 | 4 1/2" – 6" | 108.0 – 152.4 mm | #10 Solid - #4 Stranded, 6 mm² Stranded - 16 mm² Stranded | CSA |
| **Material: Zinc Alloy** | | | | | |
| ZWP1J | 710268 | 1/2" – 1" | 12.7 – 25.4 mm | #10 Solid - #6 Solid, 6 mm² Stranded - 10 mm² Stranded | cULus |

## WATER/GAS PIPE GROUND CLAMP

### FEATURE

- High-strength silicone bronze
- Used for connecting copper conductors to metallic water pipe, ground rods, or flexible gas pipe (CSST) with brass hex fittings
- Conform to the requirements of the 2009 edition of NFPA® 54, NFGC® (National Fuel Gas Code) and NEC® (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






Material: Silicon Bronze
For Outdoor Use: No

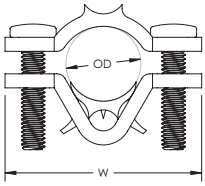
| Part Number | Article Number | Pipe Size, Nominal | Pipe Size, Actual | Hex Width | Conductor Size |
|---|---|---|---|---|---|
| CWP1J | 710261 | 1/2" – 1" | 12.7 – 25.4 mm | 25.4 – 31.8 mm | #10 Solid - #2 Solid, 6 mm² Solid - 25 mm² Stranded |
| CWP2J | 710263 | 1 1/4" – 2" | 31.8 – 50.8 mm | 38.1 – 54.0 mm | #10 Solid - #2 Stranded, 6 mm² Stranded - 25 mm² Stranded |

## CAST PIPE CLAMP

### FEATURE

- Clamp for bonding horizontal or vertical pipes to the lightning protection system
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max), Secondary
Material: Brass
Finish: Tinned

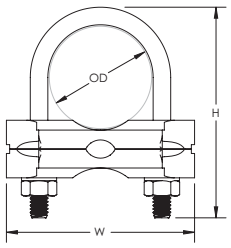
| Part Number | Outer Diameter | Depth | Width | Unit Weight |
|---|---|---|---|---|
| LPC580L | 19.1 – 33.5 mm | 38.1 mm | 69.85 mm | 0.268 kg |

## CAST U-BOLT PIPE CLAMP

### FEATURE

- Clamp for bonding conductor to handrails, pipes and rebar to lightning protection system
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max), Secondary
Material: Brass

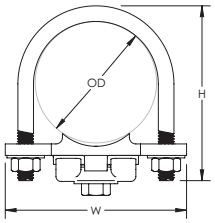
| Part Number | Outer Diameter | Depth | Height | Width | Unit Weight |
|---|---|---|---|---|---|
| **Finish: Bare** | | | | | |
| LPC570 | 17.3 – 38.1 mm | 45.72 mm | 76.2 mm | 67.818 mm | 0.324 kg |
| **Finish: Tinned** | | | | | |
| LPC570L | 17.3 – 38.1 mm | 45.72 mm | 76.2 mm | 67.818 mm | 0.324 kg |

## NOTCHED CAST U-BOLT PIPE CLAMP

### FEATURE

- Clamp for bonding of handrails and pipes to the lightning protection system
- Notched hole makes assembly easy and eliminates loose hardware
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max)
Material: Brass
Finish: Bare

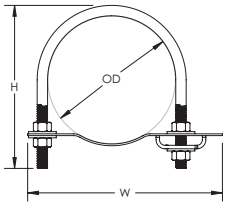
| Part Number | Outer Diameter | Depth | Height | Width | Unit Weight |
|---|---|---|---|---|---|
| LPC571 | 50.8 – 63.5 mm | 49.78 mm | 88.9 mm | 92.2 mm | 0.379 kg |

## STAMPED U-BOLT PIPE CLAMP

### FEATURE

- Clamp for bonding of pipes and exhaust stacks to the lightning protection system
- Listed to UL® 96






Material: Copper, Stainless Steel 304 (EN 1.4301)

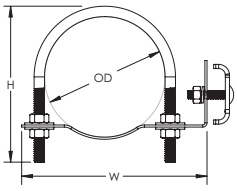
| Part Number | Outer Diameter | Depth | Height | Width | Unit Weight |
|---|---|---|---|---|---|
| LPC5964 | 99.1 – 108.0 mm | 50.8 mm | 147.64 mm | 158.75 mm | 0.401 kg |
| LPC5966 | 111.1 – 174.2 mm | 50.8 mm | 223.84 mm | 211.15 mm | 0.372 kg |

## STAMPED U-BOLT PIPE CLAMP, 90°

### FEATURE

- Clamp for bonding of pipes, handrails and exhaust stacks to the lightning protection system
- Listed to UL® 96






Conductor Size, UL: Class 1 - Class 2 (4/0 Max)
Material: Copper, Stainless Steel 304 (EN 1.4301)

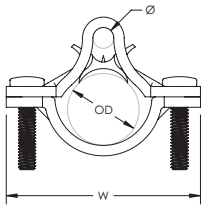
| Part Number | Outer Diameter | Depth | Height | Width | Unit Weight |
|---|---|---|---|---|---|
| LPC5962 | 48.3 – 66.7 mm | 50.8 mm | 92.00 mm | 118.745 mm | 0.234 kg |
| LPC5963 | 66.8 – 92.2 mm | 50.8 mm | 119.19 mm | 139.700 mm | 0.346 kg |

## CABLE/POINT PIPE SUPPORT

### FEATURE

- Clamp for bonding horizontal or vertical pipes to the lightning protection system
- May be used as a vertical support for air terminals
- Listed to UL® 96






Material: Brass
Finish: Tinned

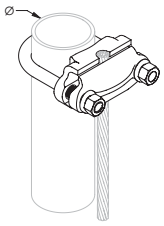
| Part Number | Diameter | Outer Diameter | Depth | Width | Unit Weight |
|---|---|---|---|---|---|
| LPC331L | 9.5 mm | 44.5 – 63.5 mm | 41.28 mm | 99 mm | 0.379 kg |

## FENCE CLAMP, ONE CONDUCTOR

### FEATURE

- Theft-deterrent appearance
- Stainless steel hardware included
- Tin plating minimizes the risk of corrosion
- The clamp accepts the conductor either in parallel or at right angles to the pipe






Material: Bronze, Stainless Steel 304 (EN 1.4301)
Finish: Tinned

| Part Number | Article Number | Fence Post Size, Nominal | Fence Post Outside Diameter, Actual | Conductor Size | nVent ERICO Cu-Bond Conductor | Complies With | Certifications |
|---|---|---|---|---|---|---|---|
| FC073 | 198401 | 1 1/2" | 48 mm | #4 Solid - 2/0 Stranded, 16 mm² Stranded - 70 mm² Stranded | | | |
| FC074 | 198402 | 1 1/2" | 48 mm | 2/0 Solid - 250 kcmil Stranded, 50 mm² Stranded - 120 mm² Stranded | | | |
| FC075 | 198403 | 2" | 60 mm | #4 Solid - 2/0 Stranded, 16 mm² Stranded - 70 mm² Stranded | CBSC8 | IEC® 62561-1 | cULus |
| FC076 | 198404 | 2" | 60 mm | 2/0 Solid - 250 kcmil Stranded, 50 mm² Stranded - 120 mm² Stranded | CBSC10, CBSC13 | IEC® 62561-1 | |
| FC078 | 198406 | 2 1/2" | 73 mm | 2/0 Solid - 250 kcmil Stranded, 16 mm² Stranded - 120 mm² Stranded | | | |
| FC079 | 198407 | 3" | 89 mm | #4 Solid - 2/0 Stranded, 16 mm² Stranded - 70 mm² Stranded | | | |
| FC080 | 198408 | 3" | 89 mm | 2/0 Solid - 250 kcmil Stranded, 50 mm² Stranded - 120 mm² Stranded | | | |
| FC082 | 198411 | 3 1/2" | 102 mm | #4 Solid - 2/0 Stranded, 16 mm² Stranded - 120 mm² Stranded | | | |

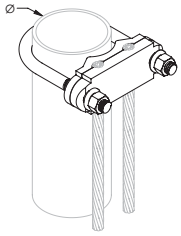
*IEC compliance is valid only for nVent ERICO Cu-Bond Conductors listed.*

## FENCE CLAMP, TWO CONDUCTORS

### FEATURE

- Theft-deterrent appearance
- Stainless steel hardware included
- Tin plating minimizes the risk of corrosion





Material: Copper Alloy, Stainless Steel 304 (EN 1.4301)
Finish: Tinned

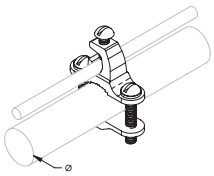
| Part Number | Fence Post Size, Nominal | Fence Post Outside Diameter, Actual | Conductor Size |
|---|---|---|---|
| FC082DH | 3 1/2" | 101.6 mm | #4 Solid - 2/0 Stranded, 16 mm² Stranded - 120 mm² Stranded |

## REBAR GROUNDING CLAMP, PARALLEL

### FEATURE

- Universal use for rebar, rods or pipes
- Lay-in feature cuts installation time
- Bronze alloy construction with Stainless Steel 304 screws
- Approved for direct burial in earth and concrete





Material: Bronze, Stainless Steel 304 (EN 1.4301)
Connection Type: Parallel
Conductor Size:

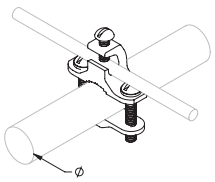
| Part Number | Article Number | Ground Rod Diameter, Actual | Water Pipe Size | Rebar Size, Metric | Rebar Size, US | Rebar Size, Canada |
|---|---|---|---|---|---|---|
| EK16 | 710355 | 12.7 – 25.4 mm | 12.7 – 25.4 mm | 12 – 25 mm | #4 – #8 | 10M – 25M |

## REBAR GROUNDING CLAMP, PERPENDICULAR

### FEATURE

- Universal use for rebar, rods or pipes
- Lay-in feature cuts installation time
- Bronze alloy construction with Stainless Steel 304 screws
- Approved for direct burial in earth and concrete





Material: Bronze, Stainless Steel 304 (EN 1.4301)
Connection Type: Perpendicular
Conductor Size:

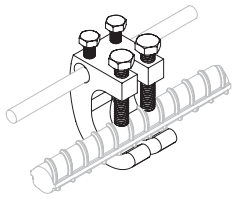
| Part Number | Article Number | Ground Rod Diameter, Actual | Water Pipe Size | Rebar Size, Metric | Rebar Size, US | Rebar Size, Canada |
|---|---|---|---|---|---|---|
| EK17 | 710365 | 12.7 – 25.4 mm | 12.7 – 25.4 mm | 12 – 25 mm | #4 – #8 | 10M – 25M |

## REBAR GROUNDING CLAMP, HEAVY DUTY

### FEATURE

- 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
- Suitable for direct burial applications
- Has high-strength bronze alloy construction
- Easy to install





Material: Bronze

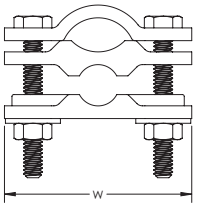
| Part Number | Article Number | Rebar Size, Metric | Rebar Size, US | Rebar Size, Canada |
|---|---|---|---|---|
| **Conductor Size: #8 Solid - 2/0 Stranded, 10 mm² Stranded - 70 mm² Stranded** | | | | |
| RC70 | 710325 | 8 – 18 mm | #3 – #6 | 10M – 20M |
| **Conductor Size: #8 Solid - 4/0 Stranded, 10 mm² Stranded - 100 mm² Stranded** | | | | |
| RC100 | 710335 | 18 – 36 mm | #6 – #11 | 20M – 35M |

## REBAR BONDING CLAMP

### FEATURE

- Provides bond from lightning protection system to rebar






Material: Brass
Conductor Size, UL: Class 2 (4/0 Max)

| Part Number | Rebar Size, Canada | Rebar Size, Metric | Rebar Size, US | Depth | Width | Unit Weight |
|---|---|---|---|---|---|---|
| LPC466 | 10M Max | 29 mm Max | #9 Max | 31.7 mm | 63.5 mm | 0.279 kg |

## ARC WELDABLE BOND

### FEATURE

- 19-strand concentric cable flash-welded to steel rod for a bonding connection to structural steel and to rebar
- Economical alternative to exothermic welding when only a few connections need to be made and an arc welder is available on site
- Rod is sized to match the ampacity of the cable for fault currents



Material: Copper, Steel

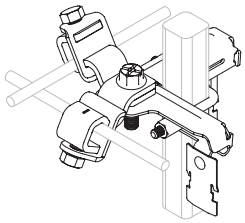
| Part Number | Conductor Size | Cable Length | Rod Size | Rod Length |
|---|---|---|---|---|
| EWB2G9164 | 2/0 Stranded | 1.2 m | 14 mm | 203 mm |
| EWB2L584 | 3/0 Stranded | 1.2 m | 16 mm | 203 mm |
| EWB2Q344 | 4/0 Stranded | 1.2 m | 19 mm | 203 mm |

## UNIVERSAL PEDESTAL CLAMP WITH CABLE MANAGEMENT, MBNUPCJ240

### FEATURE

- Only one attachment required for both mesh bonding and cable management
- Eliminates the need for separate mounting brackets for different pedestal types or sizes
- Stainless steel construction of bracket and hardware reduces potential for galvanic corrosion
- Mesh bonding conductors do not have to bend around each pedestal to conform to grid pattern
- Suitable for round or square pedestals





Material: Copper, Steel, Stainless Steel 304 (EN 1.4301)
Finish: nVent CADDY Armour, Electrogalvanized

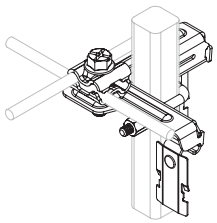
| Part Number | Conductor Size | Pedestal Size | Standard Packaging Quantity |
|---|---|---|---|
| MBNUPCJ240 | #2 Solid - 4/0 Stranded, 35 mm² - 100 mm² | 22 - 51 mm Round or Square | 25 pc |

## UNIVERSAL PEDESTAL CLAMP WITH CABLE MANAGEMENT, MBNUPCJ82

### FEATURE

- Only one attachment required for both mesh bonding and cable management
- Eliminates the need for separate mounting brackets for different pedestal types or sizes
- Stainless steel construction of bracket and hardware reduces potential for galvanic corrosion
- Mesh bonding conductors do not have to bend around each pedestal to conform to grid pattern
- Suitable for round or square pedestals





Material: Bronze, Steel, Stainless Steel 304 (EN 1.4301)
Finish: nVent CADDY Armour, Electrogalvanized

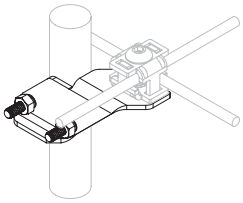
| Part Number | Conductor Size | Pedestal Size | Standard Packaging Quantity |
|---|---|---|---|
| MBNUPCJ82 | #8 Solid - #2 Stranded, 10 mm² Solid - 35 mm² Stranded | 22 - 51 mm Round or Square | 25 pc |

## SRG CONNECTOR PEDESTAL MOUNTING BRACKET

### FEATURE

- Mounts SRGC46 connector to square or round pedestals
- Simplifies retrofit installations





Material: Stainless Steel 304 (EN 1.4301), Bronze

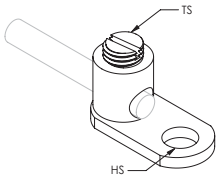
| Part Number | Article Number | Pedestal Size | Standard Packaging Quantity |
|---|---|---|---|
| SRGC46BR | 167906 | 22 mm Square; 25 mm Round | 10 pc |

## COPPER LUG MECHANICAL CONNECTOR

### FEATURE

- Simple to use and install
- Suitable for telecom and equipotential bonding applications






Material: Copper

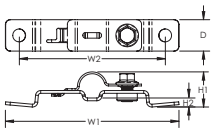
| Part Number | Conductor Size | Thread Size | Hole Size |
|---|---|---|---|
| EL4 | #14 Solid - #4 Stranded, 2.5 mm² Stranded - 16 mm² Stranded | 5/16 UNF | 7.2 mm |

## FLUSH MOUNT POSITIONER, SOLID ROUND CONDUCTOR

### FEATURE

- Flush-mount positioning clamps for use with solid round conductors, including nVent ERICO Cu-Bond Round Conductor
- For use with copper-bonded, copper, or stainless steel solid conductors






Material: Stainless Steel 18-8 (EN 1.4305), Stainless Steel 316 (EN 1.4401)

| Part Number | Width 1 | Width 2 | Height 1 | Height 2 | Depth | nVent ERICO Cu-Bond Conductor | Unit Weight | Complies With |
|---|---|---|---|---|---|---|---|---|
| CSS0810000 | 95 mm | 80 mm | 20 mm | 5 mm | 17 mm | CBSC8, CBSC10 | 0.009 kg | IEC® 62561-4 |

*IEC compliance is valid only for nVent ERICO Cu-Bond Conductors listed.*

# Conductors

## NVENT ERICO CU-BOND COMPOSITE CABLE

### FEATURE

- Outer strands comprised of tinned copper-bonded steel for theft deterrence and improved corrosion resistance
- Inner copper stranding is tinned for superior corrosion resistance
- Copper stranding inside of conductor increases conductivity and conductor flexibility
- Available in three sizes/configurations with electrical equivalency to 4, 2/0 and 4/0 AWG copper
- Suitable for direct burial applications
- More flexible and easier to work with than copper clad steel conductors



nVent ERICO Cu-Bond is a bare concentric stranded conductor that consists of peripheral tinned copper plated steel which protects and conceals the internal copper stranding. This conductor is ideal for exposed electrical grounding applications where copper theft may occur due to its tinned outer strands. The conductor is difficult to cut with hand tools, but the copper core makes it easier to install than other theft deterrent conductors. The outer stranding is magnetic, which further deters thieves looking for copper. The CC5A05CB (19 strand) is electrically equivalent to a 4 AWG (25 mm²), the CC5A20CB is electrically equivalent to a 2/0 AWG (70 mm²) and the CC5A40CB is electrically equivalent to a 4/0 AWG (120 mm²). These conductors are ideal for transmission tower, distribution pole and a wide range of above and below grade grounding applications.

Material: Copper, Copper-Bonded Steel
Finish: Tinned
Insulated: No

| Part Number | Stranding | Resistance | Fusing Capacity Equivalency | Cable Diameter | Cable Length | Conductor Code | nVent ERICO Hammerlock | Unit Weight |
|---|---|---|---|---|---|---|---|---|
| CC5A05CB | (19) Strands: (3) Tinned Copper, (16) Tin Plated Copper-Bonded Steel | 1,227.000 Ω/km | 25 mm² | 8.1 mm | 76.2 m | S1 | EHL58C2G, EHL34C2G | 28 kg |
| CC5A20CB | (154) Strands: (133) Tinned Copper, (21) Tin Plated Copper-Bonded Steel | 0.285 Ω/km | 70 mm² | 13.3 mm | 61.0 m | S5 | | 51 kg |
| CC5A40CB | (161) Strands: (133) Tinned Copper, (27) Tinned Copper-Bonded Steel | 0.182 Ω/km | 120 mm² | 16.5 mm | 61.0 m | S7 | | 79 kg |

*Weight does not include reel.*
*Please contact your nVent ERICO Customer Service Representative for other nVent ERICO Cadweld configurations.*

| nVent ERICO CADWELD Connections for nVent ERICO CU-BOND Composite Cable | | | | | | |
|---|---|---|---|---|---|---|
| Part Number | nVent ERICO CU-BOND Composite Cable | nVent ERICO CADWELD Welding Material | nVent ERICO CADWELD PLUS Welding Material | nVent ERICO CADWELD Connection Type | Connects To | Handle Clamp |
| SSCS1 | CC5A05CB | 32 | 32PLUSF20 | SS | T1 Cable | L160 |
| SSCS5 | CC5A20CB | 90 | 90PLUSF20 | SS | T2 Cable | L160 |
| SSCS7 | CC5A40CB | 150 | 150PLUSF20 | SS | T3 Cable | L160 |
| GRC16S1 | CC5A05CB | 65 | 65PLUSF20 | GR | 5/8" Copper- Bonded Ground Rod | L160 |
| GRC16S5 | CC5A20CB | 90 | 90PLUSF20 | GR | 5/8" Copper- Bonded Ground Rod | L160 |
| GRC16S7 | CC5A40CB | 115 | 115PLUSF20 | GR | 5/8" Copper- Bonded Ground Rod | L160 |
| GRC18S1 | CC5A05CB | 90 | 90PLUSF20 | GR | 3/4" Copper- Bonded Ground Rod | L160 |
| GRC18S5 | CC5A20CB | 90 | 90PLUSF20 | GR | 3/4" Copper- Bonded Ground Rod | L160 |
| GRC18S7 | CC5A40CB | 115 | 115PLUSF20 | GR | 3/4" Copper- Bonded Ground Rod | L160 |
| GLCCES1 | CC5A05CB | 32 | 32PLUSF20 | GL | B121CE or B122CE Lug | L160 |
| GLCCES5 | CC5A20CB | 45 | 45PLUSF20 | GL | B121CE or B122CE Lug | L160 |
| GLCCES7 | CC5A40CB | 65 | 65PLUSF20 | GL | B121DE or B122DE Lug | L160 |
| GTC16S1 | CC5A05CB | 90 | 90PLUSF20 | GT | 5/8" Copper- Bonded Ground Rod | L160 |
| GTC16S5 | CC5A20CB | 115 | 115PLUSF20 | GT | 5/8" Copper- Bonded Ground Rod | L160 |
| GTC16S7 | CC5A40CB | 200 | 200PLUSF20 | GT | 5/8" Copper- Bonded Ground Rod | L160 |
| GTC18S1 | CC5A05CB | 90 | 90PLUSF20 | GT | 3/4" Copper- Bonded Ground Rod | L160 |
| GTC18S5 | CC5A20CB | 115 | 115PLUSF20 | GT | 3/4" Copper- Bonded Ground Rod | L160 |
| GTC18S7 | CC5A40CB | 200 | 200PLUSF20 | GT | 3/4" Copper- Bonded Ground Rod | L160 |
| LACS1CE | CC5A05CB | 45 | 45PLUSF20 | LA | B101CEOL or B102CEOL Lug | L160 |
| LACS5CE | CC5A20CB | 65 | 65PLUSF20 | LA | B101CEOL or B102CEOL Lug | L160 |
| LACS7DE | CC5A40CB | 90 | 90PLUSF20 | LA | B101DEOL or B102DEOL Lug | L160 |

| Conductor Sizes | | | |
|---|---|---|---|
| Cable | Diameter (Inches) | Diameter (mm) | Cross Sectional Area (mm²) |
| 35 mm² | 0.305 | 7.8 | 35 |
| CCA05CB | 0.32 | 8.1 | 33.2 (Steel) / 6.8 (Copper) |
| 1 AWG | 0.332 | 8.4 | 42.4 |
| 50 mm² | 0.365 | 9.3 | 50 |
| 95 mm² | 0.505 | 12.8 | 95 |
| CC5A20CB | 0.524 | 13.3 | 43.6 (Steel) / 49.9 (Copper) |
| 4/0 AWG | 0.528 | 13.4 | 107.2 |
| 120 mm² | 0.567 | 14.4 | 120 |
| 300 kcmil | 0.63 | 16 | 152.1 |
| 150 mm² | 0.63 | 16 | 150 |
| CC5A40CB | 0.651 | 10.5 | 56.0 (Steel) / 86.9 (Copper) |
| 350 kcmil | 0.681 | 17.3 | 177.3 |
| 185 mm² | 0.7 | 17.8 | 185 |

## CU-BOND ROUND CONDUCTOR



Substation earthing riser

For decades, nVent ERICO has provided the market with high quality copper-bonded ground rods.

nVent ERICO has taken that same concept in ground rods and made this into a revolutionary new grounding conductor. The Cu-Bond Round Conductor is comprised of an electro-plated coating of copper deposited over a layer of nickel surrounding a steel core. This process helps ensure a long-lasting molecular bond between the copper layer and the steel.

The conductor core consists of a low-carbon steel grade for improved flexibility in the field. The copper surface of the conductor provides high conductivity and corrosion-resistance properties.

### CARACTÉRISTIQUES

- Copper-bonded coating will not crack or tear when the conductor is bent
- High resistance to corrosion and provides a low resistance path to Earth
- Available in standard packaging lengths of 100 meters, 50 meters, and 25 meters
- Minimum copper plating thickness of 254 microns
- Available in nominal diameters of 8, 10, 13, 14, 16, and 18 mm
- Meets the requirements of IEC® 62305-3 Edition 2 and IEC/EN 62561-2 for lightning protection applications
- Cu-Bond Round conductors are UL certified to IEC® 62561-2
- Many sizes of Cu-Bond Round Conductors are listed to UL 467

## BENEFITS AS AN ALTERNATIVE TO COPPER CONDUCTOR

- **Theft deterrent:** Copper theft is a problem everywhere. Cu-Bond Round Conductor is hard to cut with hand tools due to its steel core. They are also magnetic, notifying potential thieves that the materials within are of little scrap value.
- **Cost-effective:** Because the copper is bonded to a steel core, the cost of the conductor is minimized by reducing the total amount of copper in the cable.

## BENEFITS AS AN ALTERNATIVE TO GALVANIZED STEEL CONDUCTOR

- **Superior corrosion resistance:** In comparison to other steel-based products, Cu-Bond Round Conductor provides excellent application life of typically 30-40 years in most soil conditions.



Equipotential grounding conductor



GT Cadweld connection

## CU-BOND ROUND CONDUCTOR



Lightning protection

## ABOVE GRADE APPLICATIONS

The unique properties of Cu-Bond Round Conductor make it ideal for both horizontal and vertical placement. Above grade, the conductor is well-suited as a lightning-protection conductor when applied in accordance with the IEC 62305-3 Edition 2.0 standard.

- **Utility**
  - Distribution down-lead conductor and assemblies
  - Bonding kits for substation fence or equipment ground risers back to the grid
- **Commercial and Industrial**
  - Alternative conductors to solid copper rod and tapes in grounding and lightning protection
- **Telecom**
  - Conductor for connecting equipment ground to ground grid, and riser (down-lead) conductors for tower
  - Grounding conductor for datacenter mesh bonding
- **Rail**
  - Trackside bonding conductor and stray current conductor
  - Grounding kits for trackside equipment,electrical traction power
  - Substation, wayside shelters, communication antenna equipment



Telecom tower grounding

## BELOW GRADE APPLICATIONS

Copper-bonded steel conductors are ideal as earthing and bonding conductors where copper theft on-site may occur. Cu-Bond is ideal for use in a variety of applications including power distribution earthing and bonding; substation earthing; commercial, industrial, and railway earthing.

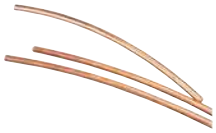
- Buried ground grid conductors and electrodes:
  - Wireless telecom tower earthing
  - Utility substation earthing; power distributionand transmission earthing
  - Large scale ground mount solar farm earthing
  - Industrial facility earthing, for example, petro-chemical and mining infrastructure
  - Railway earthing
- Interconnecting grounding conductor

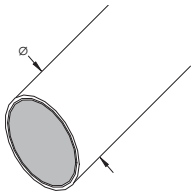


**Cu-Bond Round Conductor is stamped with compliance markings directly on the product to ensure genuine product and high quality standards. Beware of imitations.**

## CONDUCTEUR ROND NVENT ERICO CU-BOND








For decades, nVent ERICO has provided the market with high quality copper-bonded ground rods. nVent ERICO has taken that same concept in ground rods and made this into a revolutionary new grounding conductor. The core of the nVent ERICO Cu-Bond Round Conductor is a low carbon steel grade for improved flexibility in the field. The steel core is plated with nickel then electroplated with a coating of copper. This electro-plating process helps ensure a long-lasting molecular bond between the copper layer and the steel. The steel core of the conductor provides theft-deterrent benefits, making the conductor difficult to cut with hand tools. With this steel core, nVent ERICO Cu-Bond Round Conductor is a cost-effective alternative to 100% copper conductor. The copper surface of the conductor provides high conductivity and corrosion resistance properties. Above grade, the unique properties of nVent ERICO Cu-Bond Round Conductor make it ideal for both horizontal and vertical placement. The conductor is well-suited as a lightning protection conductor when applied in accordance with the IEC 62305-3 Edition 2.0 standard. In the utility industry, the product can be used as a distribution down-lead conductor or as part of a bonding kit for substation fences or equipment ground risers back to the grid. In telecom applications, the product can be used to connect an equipment ground to the ground grid, as a riser (down-lead) for towers, or as a grounding conductor for datacenter mesh bonding. They are also well suited for rail applications such as trackside bonding conductors and stray current conductors, grounding kits for trackside equipment, electrical traction power, as well as in substation, wayside shelters, and communication antenna equipment. Below grade, nVent ERICO Cu-Bond Round Conductors are ideal as earthing and bonding conductors where copper theft may occur. They may be used as a buried ground grid conductor or electrode for wireless telecom towers, power distribution and transmission grounding in utility substations, large scale ground mount solar farms, petro-chemical and mining infrastructure in industrial facilities, and railway pplications. The conductor also can be used as an interconnecting grounding conductor between wind towers or as a grounding grid at the base of a wind tower.

- Dissuasif contre le vol ; le noyau acier est difficile à couper avec des outils à main.
- Économique ; la liaison du cuivre à un noyau acier permet d'en réduire le volume dans le câble.
- Meilleure résistance à la corrosion, la durée d'utilisation est généralement de 30 à 40 ans dans la plupart des conditions de sol
- Le revêtement à liaison cuivre ne se fissure pas ni ne se déchire lorsque le conducteur est plié
- Forte résistance à la corrosion et chemin à faible résistance vers la terre
- Le conducteur rond nVent ERICO Cu-Bond dispose d'un marquage à chaque mètre (3,28') pour une mesure facile sur site
- Conforme aux exigences d'IEC® 62305-3 Édition 2 et IEC/EN 62561-2 pour les applications de protection contre la foudre
- Les conducteurs ronds nVent ERICO Cu-Bond sont certifiés UL selon IEC® 62561-2

Matériau: Composite de cuivre et acier
Épaisseur du placage: 254 µm
Conformité à:

| Part Number | Diamètre | Longueur | Équivalent de la capacité de fusion | Code du conducteur nVent ERICO Cadweld | Poids unitaire | Détails de la certification | Certifications |
|---|---|---|---|---|---|---|---|
| CBSC8 | 8,0 mm | 100 m | 25 mm² | T1 | 39,0 kg | IEC® 62561-2 | UL (IEC) |
| CBSC10 | 10,0 mm | 100 m | 35 mm² | T2 | 62,7 kg | IEC® 62561-2 | UL (IEC) |
| CBSC13 | 13,2 mm | 100 m | 50 mm² | T3 | 107,6 kg | IEC® 62561-2, UL® 467, CSA C22.1 No 41 | cULus, UL (IEC) |
| CBSC14 | 14,2 mm | 100 m | 70 mm² | T4 | 125,0 kg | IEC® 62561-2, UL® 467, CSA C22.1 No 41 | cULus, UL (IEC) |
| CBSC16 | 15,7 mm | 100 m | 80 mm² | T5 | 149,6 kg | IEC® 62561-2, UL® 467, CSA C22.1 No 41 | cULus, UL (IEC) |
| CBSC18 | 17,7 mm | 100 m | 95 mm² | T6 | 192,2 kg | IEC® 62561-2, UL® 467, CSA C22.1 No 41 | cULus, UL (IEC) |

*La résistance par mesure d'unités de longueur effectuée en mΩ/m, CBSC par rapport à AWG/Métrique.La norme IEEE® 837 (Annexe C) prévoit une méthode de calcul de l'intensité du courant de fusion des conducteurs. Ce diagramme sert de référence aux calculs concernant le conducteur acier soudé cuivre selon la norme IEEE 837. Ces informations sont fournies uniquement à titre de référence.*

| Conductor Physical Size Comparison | | |
|---|---|---|
| **Conductor Size** | **Approximate Diameter** | **Cross Section** |
| 25 mm² | 6.76 mm | - |
| 35 mm² | 7.65 mm | - |
| CBSC8 | 8.00 mm | 50.27 mm² |
| 50 mm² | 8.89 mm | - |
| CBSC10 | 10.00 mm | 78.52 mm² |
| 70 mm² | 10.69 mm | - |
| 95 mm² | 12.47 mm | - |
| CBSC13 | 13.20 mm | 138.07 mm² |
| CBSC14 | 14.20 mm | 158.90 mm² |
| 120 mm² | 14.22 mm | - |
| CBSC16 | 15.70 mm | 199.84 mm² |
| 150 mm² | 15.75 mm | - |
| 185 mm² | 17.65 mm | - |
| CBSC18 | 17.70 mm | 243.27 mm² |

| Conductivity Comparison | | | | |
|---|---|---|---|---|
| **Part Number** | **AWG (Ω/km)** | **CBSC Resistance per Length Comparison** | **mm² (Ω/km)** | **CBSC Resistance per Length Comparison** |
| CBSC18 | 1/0 AWG | 118.52% | 50 mm² | 110.82% |
| | 2 AWG | 74.54% | 35 mm² | 77.57% |
| CBSC16 | 2 AWG | 102.20% | 35 mm² | 106.36% |
| | 4 AWG | 64.27% | 25 mm² | 75.97% |
| CBSC14 | 2 AWG | 137.78% | 25 mm² | 102.42% |
| | 4 AWG | 86.65% | 16 mm² | 65.55% |
| CBSC13 | 2 AWG | 134.46% | 25 mm² | 99.95% |
| | 4 AWG | 84.56% | 16 mm² | 63.97% |
| CBSC10 | 4 AWG | 132.25% | 16 mm² | 100.05% |
| | 6 AWG | 83.17% | 10 mm² | 62.53% |
| CBSC8 | 6 AWG | 107.85% | 16 mm² | 129.73% |
| | 8 AWG | 67.83% | 10 mm² | 81.08% |

| Fusing Current Irms (kA) - IEEE® 837 Annex C | | | | | | | |
|---|---|---|---|---|---|---|---|
| Conductor Type Copper-bonded, Steel Core, Rod $_a$ | | CBSC8 | CBSC10 | CBSC13 | CBSC14 | CBSC16 | CBSC18 |
| Conductor Cross Section in mm $_2$ | A | 50.265 | 78.52 | 138.07 | 158.903 | 199.84 | 243.27 |
| Initial Conductor Temperature in °C | $T_a$ | 40 | 40 | 40 | 40 | 40 | 40 |
| Time of Current Flow in Seconds | $t_c$ | 2 | 2 | 2 | 2 | 2 | 2 |
| Maximum Allowable Temperature in °C | $T_m$ | 1084 | 1084 | 1084 | 1084 | 1084 | 1084 |
| Thermal Coefficient of Resistivity at Reference Temperature $T_r$ | $a_r$ | 0.00378 | 0.00378 | 0.00378 | 0.00378 | 0.00378 | 0.00378 |
| Resistivity of the Ground Conductor at Reference Temperature $T_r$ in m&-cm | $r_r$ | 8.621 | 8.621 | 8.621 | 8.621 | 8.621 | 8.621 |
| $1/a_0$ or $(1/a_r)-T_r$ in °C | $K_0$ | 245 | 245 | 245 | 245 | 245 | 245 |
| Thermal Capacity Factor in Joules/cm $_3$/°C | TCAP | 3.846 | 3.846 | 3.846 | 3.846 | 3.846 | 3.846 |
| Material Conductivity (%) | % | 24.5 | 20.4 | 18.8 | 15.9 | 16.3 | 17.7 |
| Fusing Current Calculation | ß | 84.73 | 84.73 | 84.73 | 84.73 | 84.73 | 84.73 |
| | I | 4.79 | 7.48 | 13.16 | 15.15 | 19.05 | 23.19 |
| | $I_{90\%}$ | 4.31 | 6.74 | 11.84 | 13.63 | 17.14 | 20.87 |
| | $I_{80\%}$ | 3.83 | 5.99 | 10.53 | 12.12 | 15.24 | 18.55 |

Resistance per unit length measurements made in mΩ/m, CBSC compared with respect to AWG/Metric.The IEEE® 837 standard (Annex C) provides a method of calculating the fusing current for conductors. This chart is a reference of the calculations for copper-bonded steel conductor according to the IEEE 837 standard. This information is for reference only.

## NVENT ERICO CU-BOND ROUND CONDUCTOR MANUAL STRAIGHTENING TOOL

### FEATURE

- Hand tool used to reduce curvature in nVent ERICO Cu-Bond Round Conductor
- Can be used with nVent ERICO Cu-Bond Round Conductors CBSC8, CBSC10, and CBSC13



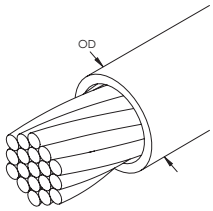
| Part Number | Length |
|---|---|
| EGRA15 | 1,359 mm |

## INSULATED COPPER CONDUCTOR

### FEATURE

- Insulated copper conductor is compacted, so the diameter is smaller than conventional insulated copper conductor
- Green and yellow insulation protects the strands of the conductor






Material: Copper, Polyvinylchloride
Conductor Type: Concentric, Compacted

| Part Number | Conductor Size | Number of Wires | Wire Diameter | Cable Diameter | Outer Diameter | Cable Length | Insulation Thickness | Unit Weight |
|---|---|---|---|---|---|---|---|---|
| ICECH50C | 50 mm² Stranded | 10 | 2.67 mm | 8.15 mm | 11.0 mm | 50 m | 1 mm | 26 kg |
| ICECH70C | 70 mm² Stranded | 14 | 2.67 mm | 9.65 mm | 12.5 mm | 500 m | 1 mm | 360 kg |

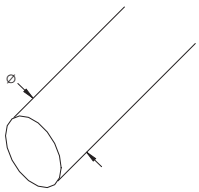
*Outer diameter dimensions are approximate.*

## NON-INSULATED SOLID CONDUCTOR

### FEATURE

- Solid cable for a variety of applications
- Available in smaller spool sizes for convenience
- LPA and LPC parts are used for lightning protection system downconductor or grounding applications






| Part Number | Article Number | Conductor Size | Cross Section | Diameter | Length | Unit Weight | Complies With |
|---|---|---|---|---|---|---|---|
| **Material: Aluminum — Finish: Bare** | | | | | | | |
| RSCCA830 | 197698 | 1/0 Solid | 50.3 mm² | 8 mm | 30 m | 0.140 kg | |
| ASC0850 | 711530 | 1/0 Solid | 50.3 mm² | 8 mm | 50 m | 0.140 kg | |
| RSCCA1330 | 197705 | 5/0 Solid | 132.7 mm² | 13 mm | 30 m | 0.359 kg | |
| RSCCA1350 | 197706 | 5/0 Solid | 132.7 mm² | 13 mm | 50 m | 0.359 kg | |
| **Material: Copper — Finish: Bare** | | | | | | | |
| RC-EC-8 | 198160 | 1/0 Solid | 50.2 mm² | 8 mm | 100 m | 0.449 kg | IEC® EN 62561-2 |
| RCEC6 | 198150 | 6 mm² Solid | 28.3 mm² | 6 mm | 100 m | 0.250 kg | |

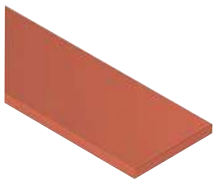
| Part Number | Article Number | Conductor Size | Cross Section | Diameter | Length | Unit Weight | Complies With |
|---|---|---|---|---|---|---|---|
| **Material: Copper — Finish: Tinned** | | | | | | | |
| RC-ET-8 | 198210 | 1/0 Solid | 50.2 mm² | 8 mm | 100 m | 0.449 kg | |
| **Material: Stainless Steel 304 (EN 1.4301) — Finish: Bare** | | | | | | | |
| RSCC2SS830 | 197685 | 1/0 Solid | 50.3 mm² | 8 mm | 30 m | 0.400 kg | |
| RSCC2SS850 | 197686 | 1/0 Solid | 50.3 mm² | 8 mm | 50 m | 0.400 kg | |
| **Material: Stainless Steel 316L (EN 1.4404) — Finish: Bare** | | | | | | | |
| RSCC4SS830 | 197692 | 1/0 Solid | 50.3 mm² | 8 mm | 30 m | 0.400 kg | |
| RSCC4SS850 | 197693 | 1/0 Solid | 50.3 mm² | 8 mm | 50 m | 0.400 kg | |
| RSCC4SS1030 | 197695 | 3/0 Solid | 78.6 mm² | 10 mm | 30 m | 0.630 kg | |
| RSCC4SS1050 | 197696 | 3/0 Solid | 78.6 mm² | 10 mm | 50 m | 0.630 kg | |
| **Material: Steel — Finish: Hot-Dip Galvanized** | | | | | | | |
| RSCC8100 | 197860 | 1/0 Solid | 50.3 mm² | 8 mm | 125 m | 0.400 kg | |
| RSCC1030 | 197682 | 3/0 Solid | 78.5 mm² | 10 mm | 30 m | 0.630 kg | |
| RSCC1050 | 197683 | 3/0 Solid | 78.5 mm² | 10 mm | 50 m | 0.630 kg | |

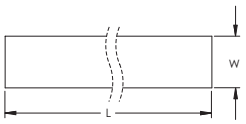
*Unit weight is per foot (0.3048 m).Cut-to-order (CTO) lengths are available for an additional charge.*

## TAPE CONDUCTOR

### FEATURE

- Lower impedance than equivalent sized round conductor
- Used for lightning protection system downconductor or grounding applications






| Part Number | Article Number | Width | Thickness | Length | Unit Weight | Complies With |
|---|---|---|---|---|---|---|
| **Material: Aluminum — Finish: Bare** | | | | | | |
| FAT-253-50 | 710740 | 25.0 mm | 3.0 mm | 50.0 m | 0.210 kg | |
| **Material: Copper — Finish: Bare** | | | | | | |
| TCEC25230 | 197656 | 25.0 mm | 2.0 mm | 30.0 m | 0.445 kg | |
| TCEC25250 | 197657 | 25.0 mm | 2.0 mm | 50.0 m | 0.445 kg | |
| TCEC25325 | 710515 | 25.0 mm | 3.0 mm | 25.0 m | 0.671 kg | IEC® EN 62561-2 |
| TC-EC-2530-50 | 710510 | 25.0 mm | 3.0 mm | 50.0 m | 0.671 kg | IEC® EN 62561-2 |
| TCEC25430 | 197662 | 25.0 mm | 4.0 mm | 30.0 m | 0.890 kg | |
| TCEC25450 | 710520 | 25.0 mm | 4.0 mm | 50.0 m | 0.890 kg | |
| TCEC30230 | 197650 | 30.0 mm | 2.0 mm | 30.0 m | 0.530 kg | |
| TCEC30250 | 197652 | 30.0 mm | 2.0 mm | 50.0 m | 0.530 kg | |
| TCEC38510 | 710555 | 38.0 mm | 5.0 mm | 10.0 m | 1.700 kg | |
| TCEC38630 | 710560 | 38.0 mm | 6.0 mm | 30.0 m | 2.040 kg | |
| TCEC405030 | – | 40.0 mm | 5.0 mm | 30.0 m | 1.780 kg | |
| TCEC50430 | 197665 | 50.0 mm | 4.0 mm | 30.0 m | 1.780 kg | |
| TCEC50450 | 197666 | 50.0 mm | 4.0 mm | 50.0 m | 1.780 kg | |
| TCEC50620 | 710580 | 50.0 mm | 6.0 mm | 20.0 m | 2.670 kg | |
| TCEC50630 | 197668 | 50.0 mm | 6.0 mm | 30.0 m | 2.670 kg | |
| TCEC50650 | 197669 | 50.0 mm | 6.0 mm | 50.0 m | 2.670 kg | |
| A811A26F500 | – | 50.8 mm | 0.4 mm | 152.4 m | 0.226 kg | |
| **Material: Copper — Finish: Lead Covered** | | | | | | |
| LCT25350 | 710625 | 25.0 mm | 3.0 mm | 25.0 m | 2.560 kg | |
| **Material: Copper — Finish: Tinned** | | | | | | |
| TCECT25230 | 197659 | 25.0 mm | 2.0 mm | 30.0 m | 0.450 kg | |
| TCECT25250 | 197661 | 25.0 mm | 2.0 mm | 50.0 m | 0.450 kg | |
| TC-ECT-253 | 197720 | 25.0 mm | 3.0 mm | 30.0 m | 0.670 kg | IEC® EN 62561-2 |
| TCECT25350 | 197715 | 25.0 mm | 3.0 mm | 50.0 m | 0.670 kg | IEC® EN 62561-2 |
| TCECT30230 | 197710 | 30.0 mm | 2.0 mm | 30.0 m | 0.530 kg | IEC® EN 62561-2 |
| TCECT30250 | 197654 | 30.0 mm | 2.0 mm | 50.0 m | 0.530 kg | |
| TCECT30275 | 545200 | 30.0 mm | 2.0 mm | 75.0 m | 0.530 kg | IEC® EN 62561-2 |
| TCECT3850 | – | 38.0 mm | 5.0 mm | 30.0 m | 1.700 kg | |
| TCECT5060 | – | 50.0 mm | 6.0 mm | 20.0 m | 2.680 kg | IEC® EN 62561-2 |

| Part Number | Article Number | Width | Thickness | Length | Unit Weight | Complies With |
|---|---|---|---|---|---|---|
| **Material: Stainless Steel 304 (EN 1.4301) — Finish: Bare** | | | | | | |
| TCHSSP303530 | 197674 | 30.0 mm | 3.5 mm | 30.0 m | 0.840 kg | |
| TCHSSP303550 | 197675 | 30.0 mm | 3.5 mm | 50.0 m | 0.840 kg | |
| **Material: Stainless Steel 316L (EN 1.4404) — Finish: Bare** | | | | | | |
| TCHSS303530 | 197676 | 30.0 mm | 3.5 mm | 30.0 m | 0.840 kg | |
| TCHSS303550 | 197677 | 30.0 mm | 3.5 mm | 50.0 m | 0.840 kg | |
| **Material: Steel — Finish: Hot-Dip Galvanized** | | | | | | |
| TCHGSP303530 | 197810 | 30.0 mm | 3.5 mm | 30.0 m | 0.820 kg | |
| TCHGSP303550 | 197672 | 30.0 mm | 3.5 mm | 50.0 m | 0.840 kg | |
| TCHGS40430 | 197890 | 40.0 mm | 4.0 mm | 30.0 m | 1.292 kg | |

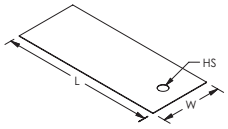
*Cut-to-order (CTO) lengths are available for an additional charge.Unit weight is per meter (3.28').*

## LOW IMPEDANCE RISER

### FEATURE

- Used to connect the signal reference grid to equipment
- Welded to the SRG using nVent ERICO Cadweld mold type TW
- Has a lower impedance than a 4/0 AWG copper conductor






Material: Copper

| Part Number | Length | Width | Thickness | Hole Size |
|---|---|---|---|---|
| B802D01A72 | 1,829 mm | 50 mm | 0.4 mm | 7.9 mm |

nVent | ERICO

GROUNDING AND BONDING

# Grounding and Bonding

## NVENT ERICO GROUND ENHANCEMENT MATERIAL (GEM)




Ground Enhancement Material (GEM) is a superior conductive material that solves your toughest grounding problems. It is the ideal material to use in areas of poor conductivity, such as rocky ground, mountain tops and sandy soil. GEM dramatically reduces earth resistance and impedance measurements. Furthermore, GEM may reduce the size of the grounding system where conventional methods are unsatisfactory. Once installed, GEM is maintenance-free, not requiring periodic charging or the presence of water to maintain its conductivity. Third-party testing has been completed to verify that GEM conforms to IEC® 62561-7. This standard introduces a benchmark for electrical performance and corrosion of earth enhancement materials that has been absent from the industry to date. nVent ERICO offers GEM Calculator software that provides resistivity values for common GEM applications and can help estimate the amount of GEM required for an installation. It operates in four languages - English, Spanish, French and German - and performs calculations in Imperial or Metric units. The GEM Calculator is available for download on our website at erico.com.

**FEATURE**

- Maintains constant resistance for the life of the system once in its set form
- Performs in all soil conditions even during dry spells
- Does not require periodic charging treatments or placement
- Does not require the continuous presence of water to maintain its conductivity
- Fully sets within 3 days, fully cures within 28 days
- Does not dissolve, decompose, or leach out with time
- Non-corrosive
- Reduces vandalism and theft since conductors are hard to remove from concrete
- Easy-to-handle 25 lb (11.3kg) bags or buckets
- Requires only one person to install
- Exceeds IEC® 62561-7 which sets the benchmark for corrosion, leaching, sulfur content, and other environmental regulations
- Complies to the U.S. Environmental Protection Agency (EPA) Toxicity Characteristic Leaching Procedure (TCLP), EPA test method 1311
- Can be installed using trench or ground rod backfill methods

Unit Weight: 11.36 kg

| Part Number | Article Number | Packaging | Complies With |
|---|---|---|---|
| GEM25A | 163670 | Bag with handles | IEC® 62561-7 |
| GEM25ABKT | – | Plastic bucket with locking lid | IEC® 62561-7 |

| Suggested Specifications | | |
|---|---|---|
| **Parameter** | **Recommended Values** | **Test Method** |
| Standards Compliance | | Full compliance to IEC 62561-7 EPA Toxicity Characteristic Leaching Procedure (TCLP), test method 1311 |
| Leaching | Arsenic < 1.5 mg/L, Barium < 60 mg/L, Cadmium < 0.15 mg/L, Chromium < 3.0 mg/L, Lead < 1.5 mg/L, Mercury < 0.06 mg/L, Elenium < 1.0 mg/L | EC 62561-7<br>EN 12457-2 |
| Sulfur Content | < 2% | ISO 14869-1 |
| Resistivity | <2 Ω-cm for powder<br><20 Ω-cm for mixed and cured material | Compressed powder according to ASTM G187-12<br>Mixed and cured per ASTM D991-89 |
| Corrosion Performance | For copper-plated earth electrodes, the polarization resistance shall be IEC 62561-7, Sec 5.5, aggressive environment erico.com 3 Suggested Specifications > 8 Ω x m2 for aggressive environments<br>For galvanized earth electrodes, the polarization resistance shall be > 7.6Ω x m2 for aggressive environments | IEC 62561-7, Sec 5.5, aggressive environment |
| Flexural Strength | 300-450 psi [2070-3100 kPa] | ASTM C293 |
| Compressive Strength | 100-200 psi [690-1390 kPa] after 672 hours curing time | ASTM C109 |

| Estimated Linear Feet of Ground Conductor Covering with Each Bag of GEM | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Trench Width** | | **Total Thickness of GEM** | | | | | |
| | | **in** | **cm** | **in** | **cm** | **in** | **cm** |
| **Inches** | **Centimeters** | 4 | 10.2 | 5 | 12.7 | 6 | 15.2 |
| 4 | 10 | 3.5 | 1.0m | 2.8 | 0.8m | 2.3 | 0.7m |
| 6 | 15.2 | 9.3 | 0.7m | 1.8 | 0.5m | 1.5 | 0.4m |
| 8 | 20.3 | 7 | 0.5m | 1.4 | 0.4m | 1.1 | 0.3m |
| 10 | 25.4 | 5.6 | 0.4m | 1.1 | 0.3m | 0.9 | 0.3m |
| 12 | 30.5 | 4.7 | 0.3m | 0.9 | 0.3m | 0.7 | 0.2m |

| Estimated Bags of GEM for Backfilling Around Ground Rods to a Density of 63.5 lb/ft ³ (1,017 kg/m³) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Diameter of Hole** | | **ft** | **m** | **ft** | **m** | **ft** | **m** | **ft** | **m** | **ft** | **m** | **ft** | **m** |
| **Inches** | **Centimeters** | 5 | 1.5 | 6 | 1.8 | 8 | 2.4 | 10 | 3 | 15 | 4.6 | 20 | 6.1 |
| 4 | 10.2 | 2 | | 2 | | 2 | | 3 | | 4 | | 5 | |
| 6 | 15.2 | 3 | | 3 | | 4 | | 5 | | 8 | | 10 | |
| 8 | 20.3 | 5 | | 6 | | 8 | | 9 | | 14 | | 18 | |
| 10 | 25.4 | 7 | | 9 | | 12 | | 14 | | 21 | | 28 | |
| 12 | 30.5 | 10 | | 12 | | 16 | | 20 | | 30 | | 40 | |

## NVENT ERICO QUICKFILL NO-MIX GROUND ENHANCING BACKFILL – QF25

### FEATURE

- Lowers system resistance to ground
- Low-dust formulation
- Water not needed to install or perform
- Fast installation with no mixing or cure time required
- Can be installed in below-freezing temperatures
- Does not dissolve, decompose, or leach out with time
- Corrosion-resistant
- Sulfur content below 2% per IEC 62561-7
- Easy-to-handle 25 lb (11.3 kg) bags
- Requires only one person to install
- Resistance measurements can be taken immediately after installation
- Complies to the U.S. Environmental Protection Agency (EPA) Toxicity Characteristic Leaching Procedure (TCLP), EPA test method 1311
- Complies to EN 12457-2 Characterization of Waste Leaching Procedure, ENV 12506 and ENV 13370

Unit Weight: 11.3 kg




nVent ERICO Quickfill is a no-mix ground-enhancing backfill that reduces resistance to ground and enables convenient installations. Quickfill is designed to minimize dust and eliminate mixing. It is the ideal material to use in areas of poor conductivity such as rocky ground, mountain tops, and sandy soil. Once installed, Quickfill is maintenance-free, not requiring periodic charging.

Dry ground enhancement materials are more sensitive to seasonal variability than cement-based materials.

| Part Number | Quantité Standard d'Emballage | UPC | EAN-13 |
|---|---|---|---|
| QF25 | 1 pc | 78285695596 | 0782856955962 |

| Specifications | | |
|---|---|---|
| **Parameter** | **Values** | **Test Method** |
| Resistivity | < 15 Ω-cm when mixed with 40% water by weight<br>< 25 Ω-cm when tested dry | 4-Electrode method per ASTM G57-06 |
| Sulfur Content | < 2% | ISO 4689-3 |
| Leaching | < reporting limit for all substances | EN 12457-2 TCLP per EPA 1311 |
| Density | 993 kg/m3 | - |

| Estimated Trench Length per Bag of Quickfill | | | |
|---|---|---|---|
| | **Total Thickness of Quickfill** | | |
| **Trench Width** | 10 cm | 13 cm | 15 cm |
| 10 cm | 1.10 m | 0.88 m | 0.73 m |
| 15 cm | 0.73 m | 0.58 m | 0.49 m |
| 20 cm | 0.55 m | 0.43 m | 0.37 m |
| 25 cm | 0.43 m | 0.34 m | 0.27 m |
| 30 cm | 0.37 m | 0.27 m | 0.24 m |

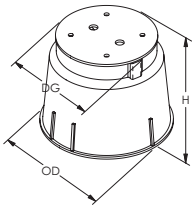
| Estimated Bags of Quickfill for Backfilling Around Ground Rods | | | | | | |
|---|---|---|---|---|---|---|
| | **Depth** | | | | | |
| **Diameter** | 1.5 m | 1.8 m | 2.4 m | 3.0 m | 4.6 m | 6.1 m |
| 10 cm | 1.1 | 1.3 | 1.8 | 2.2 | 3.3 | 4.4 |
| 15 cm | 2.5 | 3.0 | 3.9 | 4.9 | 7.4 | 9.8 |
| 20 cm | 4.4 | 5.2 | 7.0 | 8.7 | 13.0 | 17.4 |
| 25 cm | 6.8 | 8.2 | 10.9 | 13.6 | 20.3 | 27.1 |
| 30 cm | 9.8 | 11.7 | 15.6 | 19.5 | 29.3 | 39.0 |

## INSPECTION HOUSING, HIGH DENSITY POLYETHYLENE (HDPE)

### FEATURE

- Pedestrian load rating
- Suitable for lighter load rating applications in turf
- Chemical, UV and corrosion resistant
- 3/8" x 2 1/2" (64 mm) stainless steel lock bolt included
- Boxes and covers nest in 3 1/4" (83 mm) increments
- Two 3 1/2" x 1 1/2" (89 x 38 mm) knockouts per box
- T416BH includes four additional holes in the cover to allow water to enter the inspection well, typically for use with chemical ground rods






Material: High Density Polyethylene (HDPE)
Color: Green
Load Rating: 0.15 kg/cm2

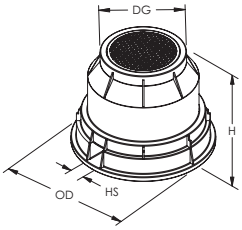
| Part Number | Diameter, Grade Level | Outer Diameter | Height | Unit Weight |
|---|---|---|---|---|
| T416B | 260 mm | 333 mm | 254 mm | 2 kg |

## INSPECTION HOUSING WITH CONDUIT CUTOUT, HIGH DENSITY POLYETHYLENE (HDPE)

### FEATURE

- Suitable for lighter load rating applications in turf
- Chemical, UV and corrosion resistant






Material: High Density Polyethylene (HDPE)
Color: Black
Load Rating: 0.15 kg/cm2

| Part Number | Diameter, Grade Level | Outer Diameter | Height | Hole Size | Unit Weight |
|---|---|---|---|---|---|
| T416C | 362 mm | 619 mm | 464 mm | 70 mm | 7.3 kg |

## INSPECTION HOUSING, POLYOLEFIN

### FEATURE

- Lightweight design and multiple handholes allow for easy handling and installation by one person
- Durable, single-piece body engineered to resist bowing during installation and withstand heavy loads
- Unique material blend resists chipping and cracking
- Tier 15 Design Load of 15,000 lbs (6,804 kg) with a test load of 22,500 lbs (10,206 kg)



Material: Polyolefin

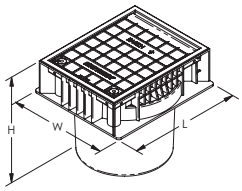
| Part Number | Height | Length | Width | Unit Weight |
|---|---|---|---|---|
| IH1250D | 305 mm | 305 mm | 305 mm | 5.58 kg |
| IH1250F | 584 mm | 305 mm | 305 mm | 17.28 kg |
| IH1324A | 457 mm | 610 mm | 330 mm | 11.75 kg |
| IH2600E | 457 mm | 305 mm | 305 mm | 7.67 kg |

## INSPECTION HOUSING, HIGH-IMPACT POLYPROPYLENE

### FEATURE

- Offers a high level of protection for critical grounding terminations through the use of its lockable lid
- Easy-locking lid only opened with security key
- Ease of ground termination maintenance due to large working aperture
- Lightweight design allows easy handling, storage and transportation
- Suitable for both paving and hot tar applications
- UV-stabilized against degredation by sunlight
- Non-brittle to prevent cold weather damage
- Base designed to accommodate Grounding Busbar for Inspection Housing (545135)






Material: High-Impact Polypropylene

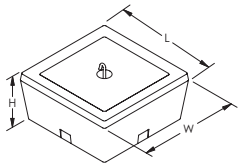
| Part Number | Article Number | Height | Length | Width | Unit Weight |
|---|---|---|---|---|---|
| PIT03 | 710180 | 216 mm | 241 mm | 207 mm | 1.3 kg |

## INSPECTION HOUSING, CONCRETE

### FEATURE

- Concrete design for higher load rating
- Available with a central lifting hook
- Flush-fitting lid with plain surface minimizes slipping
- Suitable for most grounding and lightning protection installations
- Base designed to accept 545140 Grounding Busbar for Inspection Housings
- Square shape




Material: Concrete
Color: Gray

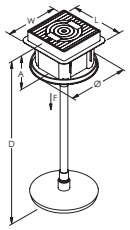
| Part Number | Article Number | Height | Length | Width | Unit Weight |
|---|---|---|---|---|---|
| IP900C | 103450 | 152 mm | 330 mm | 330 mm | 25.9 kg |

## INSPECTION HOUSING, SEAL KIT

### FEATURE

- Prevents the ingress of ground water into and surrounding the inspection housing
- Waterproofing is achieved by enclosing an upper section of copper-bonded ground rod within a plastic pipe with seals located on both sides of the concrete pour
- The two plate-style flange serves to reduce pressure, which may occur from the capillary effect of water on the outside of the seal and inspection housing
- The flanges are intended to prevent water pressure from "popping" the inspection pit out of the concrete
- Delivered as a kit, including a 3.9 foot (1.2 meter) PVC pipe, to be adjusted to site conditions
- Earth seal can be used with 5/8" (15.9 mm) ground rod only





Material: Thermoplastic

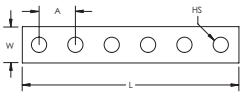
| Part Number | Article Number | Length | Width | Depth | A | Diameter | Water Pressure | Working Load | Unit Weight |
|---|---|---|---|---|---|---|---|---|---|
| WGRS200 | 158922 | 248 mm | 248 mm | 1.4 m | 210 mm | 350 mm | 550 kPa Max | 6,000 kgf | 4.3 kg |

## GROUNDING BUSBAR FOR INSPECTION HOUSING

### FEATURE

- Grounding busbar for use in conjunction with ground rod inspection housings









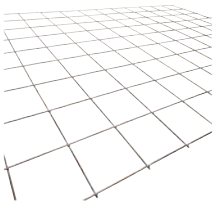
Material: Copper

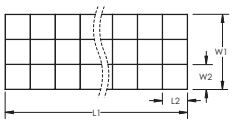
| Part Number | Length | Width | Thickness | A | Hole Size | Number of Holes | Inspection Housing | Unit Weight |
|---|---|---|---|---|---|---|---|---|
| 545530 | 150 mm | 25 mm | 5 mm | 25 mm | 10.5 mm | 6 | 103470, 103480 | 0.167 kg |
| 545135 | 200 mm | 25 mm | 5 mm | 25 mm | 10.5 mm | 8 | PIT03 | 0.222 kg |
| 545140 | 300 mm | 25 mm | 5 mm | 25 mm | 10.5 mm | 12 | IP-900-C | 0.333 kg |

## GROUND MESH

### FEATURE

- Prefabricated ground mesh wound into a roll format for shipping
- Silver brazed joints (35% silver alloy brazing material) provide strength to resist separation during installation and bear the traffic of heavy vehicles
- Conductor spacing in many rectangular configurations up to 24" x 48" (610 mm x 1219 mm) in 2" (51 mm) increments
- Normally supplied in sections with standard overhang for interconnecting half conductor spacing + 2" (51 mm)






Material: Copper, Copper-Bonded Steel

| Part Number | Length 2 | Width 1 | Width 2 | Conductor Size | Overhang | Unit Weight |
|---|---|---|---|---|---|---|
| MESH | 51 – 610 mm | 6.1 m Max | 51 – 1,219 mm | #6 Solid Copper, #6 Copper-Clad Steel (30% or 40% Conductivity), #8 Solid Copper, #8 Copper-Clad Steel (30% or 40% Conductivity), #10 Solid Copper | Standard: Half Conductor Spacing + 2" (51 mm), None, Half Conductor Spacing | 227 kg Max |

| Net Weight (kg) per 93 Square Meters (1,000 Square Feet) | | | | | | |
|---|---|---|---|---|---|---|
| Conductor Spacing (W2 x L2) | Copper-clad Steel Conductor (AWG) | | | Solid Copper Wire (AWG) | | |
| | #6 | #8 | #10 | #6 | #8 | #10 |
| 51 mm x 51 mm | 403 kg | 253 kg | 159 kg | 442 kg | 276 kg | 174 kg |
| 102 mm x 102 mm | 201 kg | 127 kg | 79 kg | 221 kg | 138 kg | 87 kg |
| 152 mm x 152 mm | 134 kg | 84 kg | 53 kg | 147 kg | 92 kg | 58 kg |
| 203 mm x 203 mm | 101 kg | 63 kg | 40 kg | 110 kg | 69 kg | 44 kg |
| 305 mm x 305 mm | 67 kg | 42 kg | 27 kg | 74 kg | 46 kg | 29 kg |
| 610 mm x 610 mm | 34 kg | 21 kg | 13 kg | 41 kg | 23 kg | 15 kg |

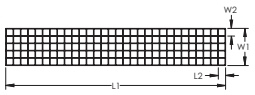
*Add 34 kg per roll for approximate shipping weight.*
*Length 1 (L1) is unlimited, up to 500 lbs. (227 kg) maximum. Length 2 (L2) and Width 2 (W2) are available in 2" (51 mm) increments only.*

## SIGNAL REFERENCE GRID

### FEATURE

- Provides a low impedance equipotential plane to protect sensitive electronic equipment from transient noise
- Pre-engineered welded grid of 26 gauge copper strips reduces voltage differences between interconnected electronic equipment
- Welded connections do not deteriorate, corrode or loosen with time
- Can be easily field-welded to suit any size computer room
- Complies with IEEE® Standard 1100-1992






Material: Copper

| Part Number | Article Number | Length 1 | Width 1 | Grid Spacing | Thickness | Strip Width |
|---|---|---|---|---|---|---|
| 167900 | 167900 | 36,570 mm | 2.4 m | 610 mm x 610 mm | 0.4 mm | 50.4 mm |
| SRGBD100 | 167901 | 30,500 mm | 3.0 m | 610 mm x 610 mm | 0.4 mm | 50.4 mm |
| SRGBE100 | 167902 | 30,480 mm | 3.7 m | 610 mm x 610 mm | 0.4 mm | 50.4 mm |
| SRGBG100 | 167904 | 30,480 mm | 4.9 m | 610 mm x 610 mm | 0.4 mm | 50.4 mm |

*Custom sizes available upon request. Contact your nVent ERICO representative for more information.*

## COPPER GROUND PLATE

### FEATURE

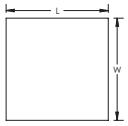
- Provides a large surface area to dissipate current into the ground
- Available in a variety of sizes and pigtail configurations



| GPE-C-E-A-H-024-1L-024-(T) | | |
|---|---|---|
| **GPE** | **Ground Plate Electrode** | |
| C | Material | A: Steel (HRS M1020)<br>B: Stainless Steel (SS304)<br>C: Copper (C11000)<br>D: Galvanized Steel |
| E | Pigtail Connection | C: Continuous (2 x "L J" nVent ERICO CADWELD Connection)<br>E: End ("L J" nVent ERICO CADWELD Connection Style)<br>N: No Pigtail |
| A | Plate Thickness Code (Stock Tolerance) | A: 1/32" (Min. for Lightning – Cu)<br>B: 1/16" (Min. for Power – Cu)<br>C: 3/32"<br>D: 1/8"<br>E: 1/4" (Min. for Power – Stl.)<br>F: 3/8"<br>G: 1/2"<br>H: 1/64" (26 GA)<br>J: 3/16" |
| H | Plate Width Code | A: 1" · B: 2" · C: 3" · D: 4" · E: 5" · F: 6" · G: 9" · H: 12" · J: 18"<br>K: 24" · L: 30" · M: 36" · N: 42" · P: 48" · Q: 17" · R: 10" |
| 24 | Plate Length Code (inches) (3 digits required) | |
| 1L* | Pigtail Cable Type (nVent ERICO Cable Code) | |
| 024* | Pigtail Length (inches) | |
| (T)* | Tinned | |

* Empty if none

### Pigtail Connection




None

Material: Copper

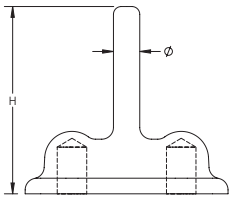
| Part Number | Width | Length | Pigtail Connection | Pigtail Length | Conductor Size | Thickness |
|---|---|---|---|---|---|---|
| 710190 | 600 mm | 600 mm | None | – | – | 1.5 mm |
| 710200 | 600 mm | 600 mm | None | – | – | 3.0 mm |
| 710210 | 900 mm | 900 mm | None | – | – | 1.5 mm |
| 504590 | 900 mm | 900 mm | None | – | – | 3.0 mm |
| 504550 | 1,000 mm | 2,000 mm | None | – | – | 2.0 mm |

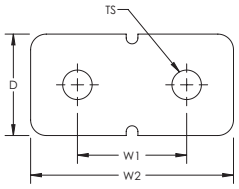
## B162 EARTHPOINT, TWO STUD

### FEATURE

- Long-lasting design
- Low ground resistance and impedance
- Superior electrical conductivity and resistance to corrosion
- Electrically and mechanically robust and reliable
- Easy to install as a Prefabricated Earthbridge once nVent ERICO Cadweld welded to a piece of conductor






Material: Brass

| Part Number | Width 1 | Width 2 | Depth | Height | Diameter | Thread Size |
|---|---|---|---|---|---|---|
| B1622Q | 44.5 mm | 82.6 mm | 41.28 mm | 76.2 mm | 13.5 mm | 1/2 UNC |

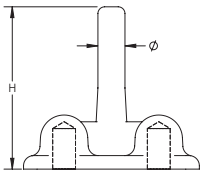
*Assemblies require conductors and nVent ERICO Cadweld connections, which must be ordered separately.*

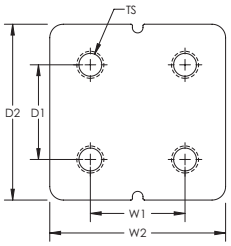
## B161/B164 EARTHPOINT, FOUR STUD

### FEATURE

- Long-lasting design
- Low ground resistance and impedance
- Superior electrical conductivity and resistance to corrosion
- Electrically and mechanically robust and reliable
- Easy to install as a Prefabricated Earthbridge once nVent ERICO Cadweld welded to a piece of conductor






Material: Copper

| Part Number | Article Number | Width 1 | Width 2 | Depth 1 | Depth 2 | Height | Diameter | Thread Size |
|---|---|---|---|---|---|---|---|---|
| B16110B | 166030 | 30.0 mm | 65 mm | 30.0 mm | 65 mm | 42 mm | 14.0 mm | M10 |
| B16412A | 166060 | 44.5 mm | 85 mm | 44.5 mm | 85 mm | 70 mm | 10.7 mm | M12 |

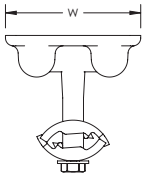
*Assemblies require conductors and nVent ERICO Cadweld connections, which must be ordered separately.*

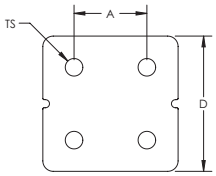
## GROUND POINT

### FEATURE

- Cast grounding plate for equipment, machinery, or structure grounding points
- May be installed flush in concrete floor or wall
- Cable connection under bolt tension






Material: Brass

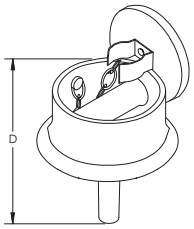
| Part Number | Conductor Size, UL | Thread Size | Depth | Width | A | Unit Weight |
|---|---|---|---|---|---|---|
| LPC682 | Class 1 - Class 2 (4/0 Max) | 1/2 UNC | 82.55 mm | 82.55 mm | 44.45 mm | 0.696 kg |

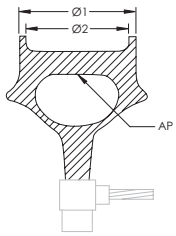
## AIRCRAFT GROUNDING RECEPTACLE WITH BAR ATTACHMENT POINT

### FEATURE

- Castings for use in static grounding systems of refueling areas
- Suitable as a combination tie down and static ground point
- Easily connected to grounding system conductor and/or ground rods
- Designed for simple installation with flush paved surfaces
- Compatible with nVent ERICO Cadweld connections






Material: Phosphor Bronze

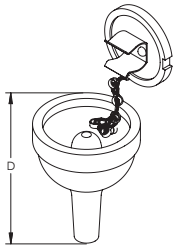
| Part Number | Article Number | Diameter 1 | Diameter 2 | Depth | Attachment Point | Pipe Size | Connection Type |
|---|---|---|---|---|---|---|---|
| B166 | 165220 | 98 mm | 92 mm | 158.8 mm | 19 mm Diameter Bar | 1/2" | RA, RB |
| B167 | 165230 | 120 mm | 112 mm | 184.2 mm | 38 mm Diameter Bar | 1/2" | RA, RB |

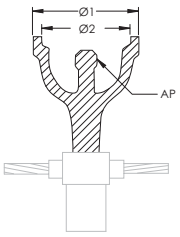
## AIRCRAFT GROUNDING RECEPTACLE WITH BALL STUD

### FEATURE

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






Material: Phosphor Bronze

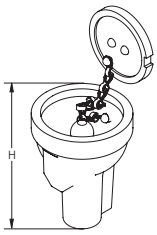
| Part Number | Article Number | Diameter 1 | Diameter 2 | Depth | Attachment Point | Pipe Size | Connection Type |
|---|---|---|---|---|---|---|---|
| B165 | 165180 | 69.9 mm | 55.6 mm | 114.3 mm | Permanent 16 mm Ball Stud | 1/2" | RA, RB |
| B165R | – | 69.9 mm | 55.6 mm | 114.3 mm | Removable 16 mm Ball Stud | 1/2" | RA, RB |

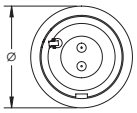
## AIRCRAFT GROUNDING RECEPTACLE FOR THREADED GROUND RODS

### FEATURE

- Castings for use in static grounding systems of refueling areas
- Designed for simple installation with flush paved surfaces
- Standard pin connection
- Chain-retained cover plate
- Couple directly to 3/4" (nominal) threaded or extension rod
- LPC681 includes spring clip to secure the cover plate






Material: Bronze

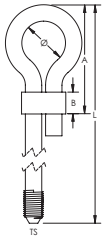
| Part Number | Diameter | Height | Attachment Point | Spring Clip Included |
|---|---|---|---|---|
| LPC680 | 69.9 mm | 88.9 mm | Permanent 19 mm Ball Stud | No |
| LPC681 | 69.9 mm | 88.9 mm | Permanent 19 mm Ball Stud | Yes |

## AIRCRAFT GROUNDING TIE DOWN

### FEATURE

- Used as an attachment point for static grounding
- Complies with UL 467






Material: Copper-Bonded Steel, Bronze

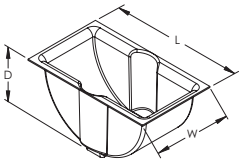
| Part Number | Diameter | Length | Thread Size | A | B |
|---|---|---|---|---|---|
| 663400 | 50.8 mm | 3,048 mm | 3/4 UNC | 127 mm | 25.4 mm |

## AIRCRAFT GROUNDING TIE DOWN MOLD

### FEATURE

- Plastic mold for making depression in concrete pour around loop in Aircraft Grounding Tie Down






Material: High-Impact Polystyrene

| Part Number | Length | Width | Depth |
|---|---|---|---|
| DM5834 | 152 mm | 76 mm | 74 mm |

## AIRCRAFT GROUNDING CLAMP

**FEATURE**

- Fits ground rods up to 3/4" nominal and nVent ERICO Aircraft Grounding Receptacles B165 and B166
- Cast aluminum construction with plated steel jaws
- Aviation industry standard for bonding and grounding aircraft and refueling vehicles
- Ideal for attaching to landing gear, posts, ground balls, ground rods and other curved unpainted surfaces
- Complies with Mil Spec M83413/7-1



Material: Aluminum, Steel

| Part Number | Article Number | Jaw Opening | Throat Depth | Harness Included |
|---|---|---|---|---|
| B2617A | 165620 | 19 mm Max | 19.2 mm | No |

## STATIC GROUNDING CLAMP FOR DRUMS

**FEATURE**

- Designed specifically for grounding or bonding small containers, drums, totes, machinery or personnel in areas containing flammable liquids or dust
- Plier-type clamp has a die cast aluminum body with two stainless steel points and a hefty 55 pound (25 kg) spring compression
- Design allows the clamp to penetrate multiple layers of paint or corrosion build-up so that proper contact is made to bare metal



Material: Aluminum, Stainless Steel 416 (EN 1.4005)

FM APPROVED

| Part Number | Article Number | Jaw Opening | Throat Depth | Harness Included |
|---|---|---|---|---|
| B2610A | 165410 | 25.4 mm Max | 25.4 mm | No |

## STATIC GROUNDING CABLE REEL, BARE CABLE

**FEATURE**

- Includes a stop at the end of the retractable cable
- Includes removable clamp at the end of the retractable cable
- Typically used with B2610A Static Grounding Clamp For Drums (sold separately)



Material: Steel
Finish: Electrogalvanized

| Part Number | Product | Diameter | Length |
|---|---|---|---|
| B2618B | Cable for grounding tanker trucks and rail cars | 2.4 mm | 15.2 m |

*Containers with flammable liquid should remain closed until bonding and grounding is complete, because an initial spark may occur during the connection of grounding equipment which could ignite vapors or gases.*

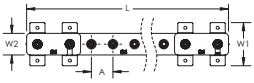
# Grounding Busbars

## ELECTRICAL EARTH BAR

### FEATURE

- Provides a convenient, single-point grounding and bonding location
- Busbars with disconnect links allow for convenient testing of the earth termination system
- High conductivity, hard drawn, electrolytic tough pitch copper per EN 13601
- Includes halogen-free polyamide insulators, stainless steel (EN 1.4401) hardware and mounting brackets
- Custom bars can be designed and manufactured to customer specifications









Material: Copper

| Part Number | Number of Connections | Number of Disconnects | Thread Size | Height | Length | Width 1 | Width 2 | Thickness | A |
|---|---|---|---|---|---|---|---|---|---|
| **Finish: Bare** | | | | | | | | | |
| EEB04C506D0A | 4 | 0 | M10 | 94 mm | 300 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB04C506D1A | 4 | 1 | M10 | 94 mm | 375 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB04C506D2A | 4 | 2 | M10 | 94 mm | 450 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB06C506D0A | 6 | 0 | M10 | 94 mm | 400 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB06C506D1A | 6 | 1 | M10 | 94 mm | 475 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB06C506D2A | 6 | 2 | M10 | 94 mm | 550 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB08C506D0A | 8 | 0 | M10 | 94 mm | 500 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB08C506D1A | 8 | 1 | M10 | 94 mm | 575 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB08C506D2A | 8 | 2 | M10 | 94 mm | 650 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB10C506D0A | 10 | 0 | M10 | 94 mm | 600 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB10C506D1A | 10 | 1 | M10 | 94 mm | 675 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB10C506D2A | 10 | 2 | M10 | 94 mm | 750 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB12C506D0A | 12 | 0 | M10 | 94 mm | 700 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB12C506D1A | 12 | 1 | M10 | 94 mm | 775 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB12C506D2A | 12 | 2 | M10 | 94 mm | 850 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB14C506D0A | 14 | 0 | M10 | 94 mm | 850 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB14C506D1A | 14 | 1 | M10 | 94 mm | 925 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB14C506D2A | 14 | 2 | M10 | 94 mm | 1,000 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB16C506D0A | 16 | 0 | M10 | 94 mm | 950 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB16C506D1A | 16 | 1 | M10 | 94 mm | 1,025 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB16C506D2A | 16 | 2 | M10 | 94 mm | 1,100 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB18C506D0A | 18 | 0 | M10 | 94 mm | 1,050 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB18C506D1A | 18 | 1 | M10 | 94 mm | 1,125 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB18C506D2A | 18 | 2 | M10 | 94 mm | 1,200 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB20C506D0A | 20 | 0 | M10 | 94 mm | 1,150 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB20C506D1A | 20 | 1 | M10 | 94 mm | 1,225 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB20C506D2A | 20 | 2 | M10 | 94 mm | 1,300 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB22C506D0A | 22 | 0 | M10 | 94 mm | 1,250 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB22C506D1A | 22 | 1 | M10 | 94 mm | 1,325 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB22C506D2A | 22 | 2 | M10 | 94 mm | 1,400 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB24C506D0A | 24 | 0 | M10 | 94 mm | 1,350 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB24C506D1A | 24 | 1 | M10 | 94 mm | 1,425 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB24C506D2A | 24 | 2 | M10 | 94 mm | 1,500 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB26C506D0A | 26 | 0 | M10 | 94 mm | 1,500 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB26C506D1A | 26 | 1 | M10 | 94 mm | 1,575 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB26C506D2A | 26 | 2 | M10 | 94 mm | 1,650 mm | 100 mm | 50 mm | 6 mm | 50 mm |

| Part Number | Number of Connections | Number of Disconnects | Thread Size | Height | Length | Width 1 | Width 2 | Thickness | A |
|---|---|---|---|---|---|---|---|---|---|
| EEB28C506D0A | 28 | 0 | M10 | 94 mm | 1,600 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB28C506D1A | 28 | 1 | M10 | 94 mm | 1,675 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB28C506D2A | 28 | 2 | M10 | 94 mm | 1,750 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB30C506D0A | 30 | 0 | M10 | 94 mm | 1,700 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB30C506D1A | 30 | 1 | M10 | 94 mm | 1,775 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB30C506D2A | 30 | 2 | M10 | 94 mm | 1,850 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| **Finish: Tinned** | | | | | | | | | |
| EEB04T506D0A | 4 | 0 | M10 | 94 mm | 300 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB04T506D1A | 4 | 1 | M10 | 94 mm | 375 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB04T506D2A | 4 | 2 | M10 | 94 mm | 450 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB06T506D0A | 6 | 0 | M10 | 94 mm | 400 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB06T506D1A | 6 | 1 | M10 | 94 mm | 475 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB06T506D2A | 6 | 2 | M10 | 94 mm | 550 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB08T506D0A | 8 | 0 | M10 | 94 mm | 500 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB08T506D1A | 8 | 1 | M10 | 94 mm | 575 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB08T506D2A | 8 | 2 | M10 | 94 mm | 650 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB10T506D0A | 10 | 0 | M10 | 94 mm | 600 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB10T506D1A | 10 | 1 | M10 | 94 mm | 675 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB10T506D2A | 10 | 2 | M10 | 94 mm | 750 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB12T506D0A | 12 | 0 | M10 | 94 mm | 700 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB12T506D1A | 12 | 1 | M10 | 94 mm | 775 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB12T506D2A | 12 | 2 | M10 | 94 mm | 850 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB14T506D0A | 14 | 0 | M10 | 94 mm | 850 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB14T506D1A | 14 | 1 | M10 | 94 mm | 925 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB14T506D2A | 14 | 2 | M10 | 94 mm | 1,000 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB16T506D0A | 16 | 0 | M10 | 94 mm | 950 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB16T506D1A | 16 | 1 | M10 | 94 mm | 1,025 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB16T506D2A | 16 | 2 | M10 | 94 mm | 1,100 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB18T506D0A | 18 | 0 | M10 | 94 mm | 1,050 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB18T506D1A | 18 | 1 | M10 | 94 mm | 1,125 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB18T506D2A | 18 | 2 | M10 | 94 mm | 1,200 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB20T506D0A | 20 | 0 | M10 | 94 mm | 1,150 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB20T506D1A | 20 | 1 | M10 | 94 mm | 1,225 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB20T506D2A | 20 | 2 | M10 | 94 mm | 1,300 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB22T506D0A | 22 | 0 | M10 | 94 mm | 1,250 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB22T506D1A | 22 | 1 | M10 | 94 mm | 1,325 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB22T506D2A | 22 | 2 | M10 | 94 mm | 1,400 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB24T506D0A | 24 | 0 | M10 | 94 mm | 1,350 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB24T506D1A | 24 | 1 | M10 | 94 mm | 1,425 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB24T506D2A | 24 | 2 | M10 | 94 mm | 1,500 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB26T506D0A | 26 | 0 | M10 | 94 mm | 1,500 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB26T506D1A | 26 | 1 | M10 | 94 mm | 1,575 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB26T506D2A | 26 | 2 | M10 | 94 mm | 1,650 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB28T506D0A | 28 | 0 | M10 | 94 mm | 1,600 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB28T506D1A | 28 | 1 | M10 | 94 mm | 1,675 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB28T506D2A | 28 | 2 | M10 | 94 mm | 1,750 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB30T506D0A | 30 | 0 | M10 | 94 mm | 1,700 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB30T506D1A | 30 | 1 | M10 | 94 mm | 1,775 mm | 100 mm | 50 mm | 6 mm | 50 mm |
| EEB30T506D2A | 30 | 2 | M10 | 94 mm | 1,850 mm | 100 mm | 50 mm | 6 mm | 50 mm |

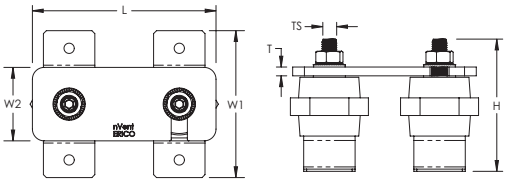
*Tinned finish is 8 microns according to ASTM B545 Service Class "C" for corrosive environments.*

## DISCONNECTING LINK

### FEATURE

- Allows for quick and easy disconnection of the earthing system to facilitate testing of the earth in isolation
- High conductivity, hard drawn, electrolytic tough pitch copper per EN 13601
- Includes halogen-free polyamide insulators, stainless steel (EN 1.4401) hardware and mounting brackets






Material: Copper

| Part Number | Finish | Thread Size | Height | Length | Width 1 | Width 2 | Thickness | Unit Weight |
|---|---|---|---|---|---|---|---|---|
| DLINKC | Bare | M10 | 90 mm | 125 mm | 100 mm | 50 mm | 6 mm | 0.77 kg |
| DLINKT | Tinned | M10 | 90 mm | 125 mm | 100 mm | 50 mm | 6 mm | 0.77 kg |

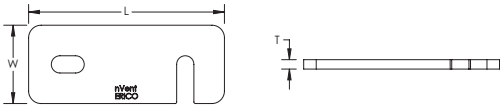
*Tinned finish is 8 microns according to ASTM B545 Service Class "C" for corrosive environments.*

## SWAN-NECK LINK

### FEATURE

- Standalone link that joins two or more nVent ERICO electrical earth bars
- High conductivity, hard drawn, electrolytic tough pitch copper per EN 13601






Material: Copper

| Part Number | Finish | Length | Width | Thickness | Unit Weight |
|---|---|---|---|---|---|
| EEBDLC | Bare | 125 mm | 50 mm | 6 mm | 0.3 kg |
| EEBDLT | Tinned | 125 mm | 50 mm | 6 mm | 0.3 kg |

*Tinned finish is 8 microns according to ASTM B545 Service Class "C" for corrosive environments.*

## GROUNDING BUSBAR

### FEATURE

- Provides a convenient, single-point grounding and bonding location
- Conductors are welded to the bar using a nVent ERICO Cadweld exothermic connection or are mechanically fastened by using lugs
- Custom bars can be designed and manufactured to customer specifications



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 grounding busbar is the most popular bonding product in use today.

| EGB-A-14-4-12-CC-T-1T-K | | |
|---|---|---|
| EGB | nVent ERICO Grounding Busbar Designation | |
| A | Configuration | A = Busbar, Insulators and Brackets<br>B = Busbar and Brackets<br>C = Busbar Only<br>D = Busbar and Insulators |
| 14 | Thickness (") | 18: 1/8" · 14: 1/4" · 38: 3/8" · 12: 1/2" · 58: 5/8" · 34: 3/4" |
| 4 | Width (") | |
| 12 | Length (") | Rounded to the nearest inch, 144" max |
| CC | Hole Pattern | Diagrams are representative of the hole pattern. The number of holes is dependent on the length of the grounding busbar. |
| T* | Tin Plating | |
| 1T* | nVent ERICO Cable Code | 1K: #4 Sol Tin · 1T: #2 Sol Tin<br>2C: 1/0 · 2G: 2/0 · 2L: 3/0 · 2Q: 4/0<br>2V: 250 kcmil · 3D: 350 kcmil · 3Q: 500 kcmil · 4L: 750 kcmil |
| K* | Pigtail Length (') | A:1 · B:2 · C:3 · D:4 · E:5 · F:6 · G:7 · H:8 · J:9 · K:10 · L:12 · M:14 · N:16<br>P:18 · Q:20 · R:22 · S:24 · T:26 · U:28 · V:30 · W:32 · X:34 · Y:36 · Z:38 |

Material: Copper

| Part Number | Article Number | Hole Pattern | Mounting Hole Size | Length | Width | Thickness | Tin Plating | Pigtail Included | Certifications |
|---|---|---|---|---|---|---|---|---|---|
| **Busbar Configuration: Busbar and Brackets** | | | | | | | | | |
| EGBB14212JJ | – | JJ | 11.1 mm | 305 mm | 51 mm | 6.4 mm | No | No | cULus |
| **Busbar Configuration: Busbar and Insulators** | | | | | | | | | |
| EGBD14224BB | – | BB | 11.1 mm | 610 mm | 51 mm | 6.4 mm | No | No | cULus |
| **Busbar Configuration: Busbar Only** | | | | | | | | | |
| EGBC14212NN | – | NN | 11.1 mm | 305 mm | 51 mm | 6.4 mm | No | No | cULus |
| EGBC14412LLT | – | LL | 11.1 mm | 305 mm | 102 mm | 6.4 mm | Yes | No | cULus |
| **Busbar Configuration: Busbar, Insulators and Brackets** | | | | | | | | | |
| EGBA14412CC | – | CC | 11.1 mm | 305 mm | 102 mm | 6.4 mm | No | No | cULus |
| EGBA14436CC | – | CC | 11.1 mm | 914 mm | 102 mm | 6.4 mm | No | No | cULus |
| EGBA14612AA | – | AA | 11.1 mm | 305 mm | 152 mm | 6.4 mm | No | No | cULus |
| EGBA14416AAT | – | AA | 11.1 mm | 406 mm | 102 mm | 6.4 mm | Yes | No | cULus |
| EGBA14618AA | – | AA | 11.1 mm | 457 mm | 152 mm | 6.4 mm | No | No | cULus |
| EGBA14212BBT | – | BB | 11.1 mm | 305 mm | 51 mm | 6.4 mm | Yes | No | cULus |
| EGBA14424DDT | – | DD | 11.1 mm | 610 mm | 102 mm | 6.4 mm | Yes | No | cULus |
| EGBA14220DGT | – | DG | 11.1 mm | 508 mm | 51 mm | 6.4 mm | Yes | No | cULus |
| EGBA14206EET | – | EE | 11.1 mm | 152 mm | 51 mm | 6.4 mm | Yes | No | cULus |
| EGBA14212EET | – | EE | 11.1 mm | 305 mm | 51 mm | 6.4 mm | Yes | No | cULus |
| EGBA14215EET | – | EE | 11.1 mm | 381 mm | 51 mm | 6.4 mm | Yes | No | cULus |
| EGBA14224EET | – | EE | 11.1 mm | 610 mm | 51 mm | 6.4 mm | Yes | No | cULus |
| EGBA14240EET | – | EE | 11.1 mm | 1,016 mm | 51 mm | 6.4 mm | Yes | No | cULus |
| EGBA14224GGT | – | GG | 11.1 mm | 610 mm | 51 mm | 6.4 mm | Yes | No | cULus |

| Part Number | Article Number | Hole Pattern | Mounting Hole Size | Length | Width | Thickness | Tin Plating | Pigtail Included | Certifications |
|---|---|---|---|---|---|---|---|---|---|
| EGBA14212HH | – | HH | 11.1 mm | 305 mm | 51 mm | 6.4 mm | No | No | cULus |
| EGBA14216HH | – | HH | 11.1 mm | 406 mm | 51 mm | 6.4 mm | No | No | cULus |
| EGBA14420HIG | – | HIG | 11.1 mm | 508 mm | 102 mm | 6.4 mm | No | No | cULus |
| EGBA14215JJ | – | JJ | 11.1 mm | 381 mm | 51 mm | 6.4 mm | No | No | cULus |
| EGBA14420LL | – | LL | 11.1 mm | 508 mm | 102 mm | 6.4 mm | No | No | cULus |
| EGBA14412MM | – | MM | 11.1 mm | 305 mm | 102 mm | 6.4 mm | No | No | cULus |
| EGBA14424MM | – | MM | 11.1 mm | 610 mm | 102 mm | 6.4 mm | No | No | cULus |
| EGBA14212TES | – | TES | 11.1 mm | 305 mm | 51 mm | 6.4 mm | No | No | cULus |
| EGBA14215TES | – | TES | 11.1 mm | 381 mm | 51 mm | 6.4 mm | No | No | cULus |
| **Busbar Configuration: Busbar, Insulators, Brackets and Fasteners** | | | | | | | | | |
| SEB-06 | 545010 | EE | 11.1 mm | 400 mm | 50 mm | 5.0 mm | No | No | |
| 545020 | 545020 | EE | 11.1 mm | 475 mm | 50 mm | 5.0 mm | No | No | |
| SEB08 | – | EE | 11.1 mm | 500 mm | 50 mm | 5.0 mm | No | No | |
| SEB-10 | 545030 | EE | 11.1 mm | 600 mm | 50 mm | 5.0 mm | No | No | |

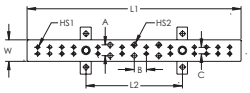
*Diagrams are representative of the hole pattern. The number of holes is dependent on the length of the grounding busbar.Additional configurations are available by special order. Note special orders may incur additional lead time.*

## TELECOM GROUNDING BUSBAR

### FEATURE

- Meets TIA-607-C and conforms to BICSI® recommendations
- Complies with NEMA® standards
- Accepts two hole lugs with 5/16" or 7/16" bolt holes (hardware not included)
- Telecom grounding busbar splice kits are available to extend the length of the busbar






Material: Copper
Width: 50.8 mm
Thickness: 6.35 mm

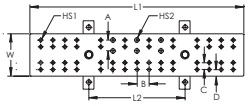
| Part Number | Length 1 | Length 2 | Hole Size 1 | Hole Size 1 Number of Pairs | Hole Size 2 | Hole Size 2 Number of Pairs | A | B | C |
|---|---|---|---|---|---|---|---|---|---|
| **Tin Plating: No** | | | | | | | | | |
| TGBA12L06P | 305 mm | 229 mm | 8 mm | 6 | 11 mm | 3 | 25.4 mm | 28.6 mm | 15.9 mm |
| TGBA24L14P | 610 mm | 457 mm | 8 mm | 14 | 11 mm | 5 | 25.4 mm | 28.6 mm | 15.9 mm |
| **Tin Plating: Yes** | | | | | | | | | |
| TGBA12L06PT | 305 mm | 229 mm | 8 mm | 6 | 11 mm | 3 | 25.4 mm | 28.6 mm | 15.9 mm |
| TGBA20L12PT | 508 mm | 229 mm | 8 mm | 12 | 11 mm | 3 | 25.4 mm | 28.6 mm | 15.9 mm |
| TGBA24L14PT | 610 mm | 457 mm | 8 mm | 14 | 11 mm | 5 | 25.4 mm | 28.6 mm | 15.9 mm |
| TGBA29L18PT | 737 mm | 457 mm | 8 mm | 18 | 11 mm | 5 | 25.4 mm | 28.6 mm | 15.9 mm |

## TELECOM MAIN GROUNDING BUSBAR

### FEATURE

- Meets TIA-607-C and conforms to BICSI® recommendations
- Complies with NEMA® standards
- Accepts two hole lugs with 5/16" or 7/16" bolt holes (hardware not included)
- Telecom grounding busbar splice kits are available to extend the length of the busbar





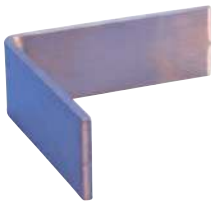

Material: Copper
Width: 101.6 mm
Thickness: 6.35 mm

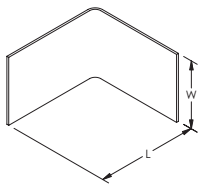
| Part Number | Length 1 | Length 2 | Hole Size 1 | Hole Size 1 Number of Pairs | Hole Size 2 | Hole Size 2 Number of Pairs | A | B | C |
|---|---|---|---|---|---|---|---|---|---|
| **Tin Plating: No** | | | | | | | | | |
| TMGBA12L15P | 305 mm | 229 mm | 5/16" | 15 | 7/16" | 3 | 25.4 mm | 28.6 mm | 15.9 mm |
| TMGBA20L27P | 508 mm | 229 mm | 5/16" | 27 | 7/16" | 3 | 25.4 mm | 28.6 mm | 15.9 mm |
| **Tin Plating: Yes** | | | | | | | | | |
| TMGBA12L15PT | 305 mm | 229 mm | 5/16" | 15 | 7/16" | 3 | 25.4 mm | 28.6 mm | 15.9 mm |
| TMGBA24L33PT | 610 mm | 457 mm | 5/16" | 33 | 7/16" | 5 | 25.4 mm | 28.6 mm | 15.9 mm |
| TMGBA29L41PT | 737 mm | 457 mm | 5/16" | 41 | 7/16" | 5 | 25.4 mm | 28.6 mm | 15.9 mm |

## PERIMETER GROUNDING BUSBAR FOR CORNERS

### FEATURE

- For use in installing perimeter grounding busbar system to fit within or around 90° corners






Material: Copper

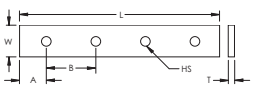
| Part Number | Length | Width | Thickness |
|---|---|---|---|
| EPGC1426X6 | 152.4 mm | 50.8 mm | 6.4 mm |

## PERIMETER GROUNDING BUSBAR FOR WALLS

### FEATURE

- Perimeter grounding busbars are used to terminate ground wires and cables from equipment and other devices
- For busbars that include insulators and brackets, eight individual brackets and insulators are provided






Material: Copper
Busbar Configuration: Busbar Only

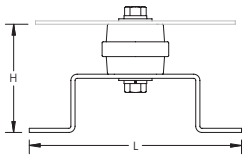
| Part Number | Length | Width | Thickness | A | B | Hole Size |
|---|---|---|---|---|---|---|
| EPGC142144 | 3.66 m | 50.8 mm | 6.4 mm | 381 mm | 762 mm | 11.11 mm |

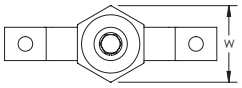
## GROUNDING BUSBAR MOUNTING KIT

### FEATURE

- Includes hardware, fasteners, insulators and brackets





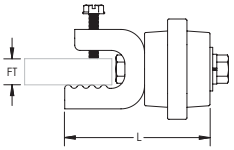

| Part Number | Busbar Width | Height | Length | Width |
|---|---|---|---|---|
| **Material: Stainless Steel 304 (EN 1.4301), Polyamide — Finish: Bare** | | | | |
| B548A41 | 25 – 51 mm | 67 mm | 108 mm | 51 mm |
| **Material: Steel, Polyamide — Finish: Electrogalvanized** | | | | |
| FEB35M10 | 100 mm | 59 mm | 100 mm | 51 mm |

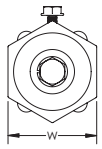
## GROUNDING BUSBAR MOUNTING KIT WITH BEAM CLAMP

### FEATURE

- Mounting kit for grounding busbars to steel beam
- Includes stainless steel hardware, fasteners, insulators and brackets






Material: Polyamide, Stainless Steel 304 (EN 1.4301)

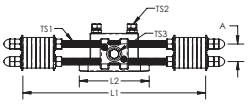
| Part Number | Flange Thickness | Length | Width |
|---|---|---|---|
| B548A39 | 22.2 mm Max | 85.7 mm | 50.4 mm |

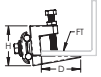
## THEFT-DETERRENT GROUNDING BUSBAR, FLANGE MOUNT ASSEMBLY

### FEATURE

- Mounts to a typical structural beam flange on a telecom tower without cutting or drilling the flange
- Accepts standard telecommunication grounding lugs (lugs not included)
- Includes 14 Standard Spacers (TDSGAS)






Material: Copper, Stainless Steel 18-8 (EN 1.4305), Nylon
Finish: Tinned
Spacer Thickness: 6.4 mm

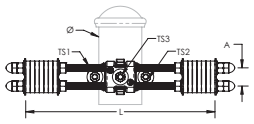
| Part Number | Length 1 | Length 2 | Depth | Height | A | Flange Thickness | Thread Size 1 | Thread Size 2 | Thread Size 3 |
|---|---|---|---|---|---|---|---|---|---|
| TDSGABC14 | 266 mm | 101.6 mm | 54.1 mm | 69 mm | 25.4 mm | 6.4 – 25.4 mm | 3/8 UNC | 5/16 UNC | 5/16 UNC |

## THEFT-DETERRENT GROUNDING BUSBAR, POST MOUNT ASSEMBLY

### FEATURE

- Mounts to a Schedule 40 pipe or post without cutting or drilling the pipe
- Accepts standard telecommunication grounding lugs (lugs not included)
- Includes 14 Standard Spacers (TDSGAS)






Material: Copper, Stainless Steel 304 (EN 1.4301), Stainless Steel 18-8 (EN 1.4305)
Finish: Tinned
Spacer Thickness: 6.4 mm

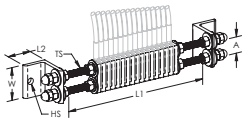
| Part Number | Length | A | Fence Post Size, Nominal | Fence Post Outside Diameter, Actual | Thread Size 1 | Thread Size 2 | Thread Size 3 |
|---|---|---|---|---|---|---|---|
| TDSGAPC14 | 266 mm | 25.4 mm | 1 1/2" – 2" | 48.0 – 63.5 mm | 3/8 UNC | 5/16 UNC | 5/16 UNC |

## THEFT-DETERRENT GROUNDING BUSBAR, WALL MOUNT ASSEMBLY

### FEATURE

- Utilizes a utility or telecom tower's or other mounting structure's connection to a ground ring to provide equipotential bonding and a low-impedance path to ground
- Can be used for any mounting application and in any configuration
- Accepts standard telecommunication grounding lugs (lugs not included)
- Includes 17 Standard Spacers (TDSGAS)






Material: Copper, Aluminum, Stainless Steel 304 (EN 1.4301)
Finish: Tinned
Spacer Thickness: 6.4 mm

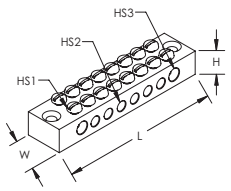
| Part Number | Length 1 | Length 2 | Width | Height | A | Hole Size | Thread Size |
|---|---|---|---|---|---|---|---|
| TDSGAWB17 | 235 mm | 38.1 mm | 50.8 mm | 50.8 mm | 25.4 mm | 9.8 mm | 3/8 UNC |

## EARTH BLOCK

### FEATURE

- Used to connect multiple earthing cables to a single point which then connects to the earthing system
- Two holes available (countersink M5) for installation of the earth block





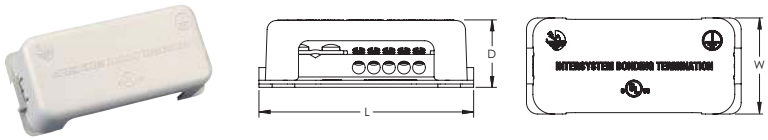

Material: Brass
Finish: Tinned

| Part Number | Article Number | Length | Width | Height | Hole Size 1 | Hole Size 2 | Hole Size 3 |
|---|---|---|---|---|---|---|---|
| EBL08 | 711470 | 88 mm | 20 mm | 13 mm | 4 mm | 5.2 mm | 6.5 mm |

## INTERSYSTEM BONDING TERMINATION BAR

### FEATURE

- Interconnects and terminates grounding conductors from telephone, CATV, radio and TV antennas
- Ideal for residential and small commercial applications
- Meets requirements of 2008 NEC® Article 250.94
- Accomodates five connectors for conductor sizes #14 Solid – #6 Stranded (1,5 – 25 mm²)
- Accomodates one connector for conductor sizes #6 Solid – #2 Stranded (16 – 35 mm²)
- Integral mounting base enables easy installation
- Includes mounting hardware
- Connects to grounding electrode conductor – does not rely on meter base enclosure bonding connection




The Intersystem Bonding Termination (IBTB), part of the nVent ERICO line of Facility Electrical Protection products, is designed to meet the requirements of the 2008 NEC® Article 250.94 "Bonding for Other Systems." The IBTB is mounted adjacent to the meter base or service entrance equipment and is a convenient way to interconnect and terminate grounding conductors from telephone, CATV or radio and television antennas. The IBTB includes corrosion-resistant, stainless steel mounting hardware and is easily accessible for connection and inspection. The lay-in connection clamp (#6- #2 AWG, or 16-35 mm²) allows easy installation of the grounding electrode conductor in one continuous length, where possible. The polymeric base and housing is impact-resistant, UVstabilized and meets UL® requirements for weatherability performance.

| Part Number | Depth | Length | Width |
|---|---|---|---|
| IBTB | 36 mm | 102 mm | 51 mm |

nVent | ERICO

GROUNDING TOOLS

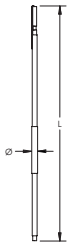
# Grounding Tools

## GROUND ROD DRIVER

### FEATURE

- Usable on all types of round ground rods: copper-bonded, galvanized, and stainless steel
- Inserts are interchangeable with standard ground rod driver body
- The driver will not deform the end of the rod, making connection of the ground conductor quick and easy





| Part Number | Article Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Length | Unit Weight |
|---|---|---|---|---|---|
| EGRD34 | 158520 | 3/4" Max | 17.2 mm Max | 1,500 mm | 10.4 kg |
| EGRD58 | 158500 | 5/8" Max | 14.2 mm Max | 1,500 mm | 10.4 kg |

## GROUND ROD DRIVER REPLACEMENT INSERT

### FEATURE

- For use with the EGRD Ground Rod Driver
- Inserts are interchangeable with standard ground rod driver body



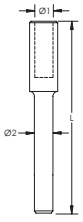
| Part Number | Article Number | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Unit Weight |
|---|---|---|---|---|
| EGRD34I | 158530 | 3/4" | 17.2 mm Max | 2.7 kg |
| EGRD58I | 158510 | 5/8" | 14.2 mm Max | 2.7 kg |

## GROUND ROD DRIVING HEAD FOR POWER TOOLS

### FEATURE

- For use in power-assisted ground rod drivers





Material: Steel
Ground Rod Type: Copper-bonded, Galvanized

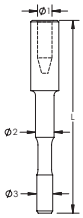
| Part Number | Ground Rod Diameter, Nominal | Diameter 1 | Diameter 2 | Length |
|---|---|---|---|---|
| DH58 | 5/8" | 14.7 mm | 21.6 mm | 178 mm |
| DH34 | 3/4" | 19.8 mm | 21.6 mm | 178 mm |

## GROUND ROD DRIVING HEAD FOR ROTARY HAMMER

### FEATURE

- Ground rod driving head for use with a rotary hammer






Material: Steel
Ground Rod Type: Copper-bonded, Galvanized

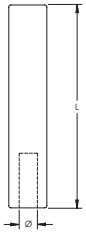
| Part Number | Ground Rod Diameter, Nominal | Diameter 1 | Diameter 2 | Diameter 3 | Length |
|---|---|---|---|---|---|
| B13716RH15 | 5/8" | 14.7 mm | 18.8 mm | 16.3 mm | 196 mm |

## GROUND ROD DRIVE SLEEVE FOR POINTED GROUND RODS

### FEATURE

- For use with unthreaded ground rods
- Slides on top of ground rod to prevent mushrooming while driving into ground






Material: Steel
Ground Rod Type: Copper-bonded, Galvanized

| Part Number | Ground Rod Diameter, Nominal | Diameter | Length |
|---|---|---|---|
| DH12M | 1/2" | 13.5 mm | 100 mm |
| DH58M | 5/8" | 16.0 mm | 100 mm |
| DH34M | 3/4" | 20.0 mm | 100 mm |
| B13722 | 1" | 23.9 mm | 152 mm |

## 2-, 3- AND 4-POINT GROUND RESISTANCE TESTER KIT



### FEATURE

- Measures ground resistance (2- and 3-Point) Fall-of-Potential method and soil resistivity (4-Point)
- Fuse protection of 0.1A, >250V, 0.25 x 1.25" with 30kA Interrupt Capacity
- Both models will perform over 2,000 measurements of the 15-second tests between recharging or battery replacement
- Provides a response time of approximately four to eight seconds for a stabilized measurement
- Step voltage tests and touch potential measurements
- Auto-ranging: automatically selects the optimum resistance range and test current
- Designed to reject high levels of noise and interference
- Extremely simple to operate: connect – press – hold – read
- May also be used for continuity tests on bonding
- Large easy-to-read backlit display
- LED on faceplate informs operator of high input noise, high auxiliary rod resistance and fault connections
- Rugged dustproof and rainproof field case
- Color-coded terminals
- Low battery indication

CE

| Part Number | Measurement Range | Resolution | Open Voltage | Test Current | Operating Frequency | Accuracy | Auxillary Electrode Influence | Withstanding Voltage | Power Source |
|---|---|---|---|---|---|---|---|---|---|
| EST4620 | 0 – 2,000 Ω | 10 mΩ – 1 Ω | 42 V Max | 10.0 – 0.1 mA | 128 Hz square wave | 2% of Reading +/- 1ct, 5% of Reading +/- 3ct | 3 – 50 kΩ | 250 VAC, 100 VDC | Battery-powered, with eight C cell batteries included |
| EST4630 | 0 – 2,000 Ω | 10 mΩ – 1 Ω | 42 V Max | 10.0 – 0.1 mA | 128 Hz square wave | 2% of Reading +/- 1ct, 5% of Reading +/- 3ct | 3 – 50 kΩ | 250 VAC, 100 VDC | AC-powered with rechargeable NiMH battery pack |

*Kit includes: Two 300' (91.4 m) color-coded leads on spools (red and blue), two 5' (1.5 m) color-coded leads (red and blue), two 100' (30.5 m) color-coded leads (green and black), four 14.5" (368 mm) T-shaped auxiliary ground electrodes, one set of five-spaded lugs, one 100' (30.5 m) tape measure, and one carrying bag.*

## 2-, 3- AND 4-POINT GROUND RESISTANCE TESTER KIT WITH DATAVIEW® SOFTWARE



### FEATURE

- Measures Ground Impedance at frequencies up to 5kHz to test lightning strike protection
- Ground Resistance testing using the 2 clamp method (no auxiliary rods needed) using optional current probes
- Includes DataView® software for data storage, real-time display, analysis, report generation and system configuration
- 3-Point Fall-of-Potential measurement with manual or automatic frequency selection
- Used under difficult conditions such as the presence of high-stray currents that normally affect accuracy
- Automatic report generation including the fall of potential plot
- 4-Point soil resistivity measurement with automatic calculation of Rho and user selection of Wenner or Schlumberger test method
- 3-Point earth coupling measurement
- Manual and automatic frequency scan from 41 to 5,078Hz for optimum test accuracy in electrically-noisy environments
- Selectable test voltage of 16 or 32V up to 250mA of test current
- 2- and 4-Wire Bond Resistance/Continuity Measurement (DC Resistance) with automatic polarity reversal
- Stores up to 512 complete test results in internal memory
- Optically isolated USB communication included
- Display with automatic backlight when entering a function
- Rugged dustproof and rainproof field case - IP53 rated in closed position
- AC-powered with rechargeable NiMH batteries from wall charger or vehicle power
- Auto-off power management

CE

| Part Number |
| --- |
| EST6472 |

| Ground Resistance Tester Information | | | | | |
|---|---|---|---|---|---|
| **3-Point Measurement** | | | | | |
| **Range (Auto-Ranging)** | **Resolution** | **Test Voltage** | **Operating Frequency** | **Test Current** | **Accuracy** |
| 0.09Ω to 99.9kΩ | 0.01Ω to 100Ω | Nominal 16 or 32Vrms user selectable | 41 to 5078Hz automatic or user selectable | Up to 250mA | ±2% of Reading + 1ct @ 128Hz |
| **2-Clamp Measurement** | | | | | |
| **Range** | **Resolution** | **Operating Frequency** | | | |
| 0.1 to 500Ω | 0.01 to 1Ω | Auto: 1367Hz; Manual: 128Hz-1367Hz-1611Hz-1758Hz | | | |
| **Soil Resistivity 4-Point Measurement** | | | | | |
| **Test Method** | **Range (Auto-Ranging)** | **Resolution** | **Test Voltage** | **Operating Frequency** | |
| Wenner or Schlumberger selectable with automatic calculation of test results in Ω-meters | 0.01 to 99.99kΩ; ρ max: 999kΩm | 0.01 to 100Ω | 16 or 32V user selectable | From 41 to 128Hz selectable | |
| **External Voltage Measurement** | | | | | |
| **Range (Auto-Ranging)** | **Accuracy** | | | | |
| 0.1 to 65.0VAC/DC – DC to 440Hz | ±2% of Reading + 1ct | | | | |
| **Resistance Measurement (Bond Testing)** | | | | | |
| **Measurement Type** | **Range (Auto-Ranging)** | | **Accuracy** | **Test Voltage** | **Test Current** |
| 2-Pole (with lead resistance compensation) or 4-Pole (Kelvin sensing) user selectable | 2-Pole 0.02Ω to 99.99kΩ; 4-Pole 0.02Ω to 99.99kΩ | | ±2% of Reading + 2cts | 16VDC (+, - or auto polarity) | Up to 250mA max |
| **Data Storage** | | | | | |
| **Memory Capacity** | | | | | |
| 512 test results (64KB) | | | | | |
| **Power** | | | | | |
| **Power Source** | **Recharging Source** | | | | |
| 9.6V rechargeable battery pack (included) | 110/220 50/60Hz external charger with 18Vdc, 1.9A output | | | | |

*Kit includes: Two 300' (91.4 m) color-coded leads on spools (red and blue), two 5' (1.5 m) color-coded leads (red and blue), two 100' (30.5 m) color-coded leads (green and black), four 14.5" (368 mm) T-shaped auxiliary ground electrodes, one set of five-spaded lugs, one 100' (30.5 m) tape measure, and one carrying bag. Ground Resistance Tester Clamp-On Probe is not included and must be ordered separately.*

## HANDHELD CLAMP-ON GROUND RESISTANCE TESTER

### FEATURE

- Measures earth resistance without need to disconnect from the electrical system or need for auxillary ground electrodes or reels
- Ground Resistance is auto-ranging from 1 to 199Ω
- Current Measurement is auto-ranging from 1mA to 40A
- Ground voltage indication - warns of unsafe conditions
- Clamping diameter of 1.4" (35 mm) with large jaw design
- Stores up to 300 measurements
- Includes a hard carrying case, calibration loop, four 1.5V AA batteries and a user manual



CE

| Part Number | Article Number | Ground Resistance Measurement Range | Ground Resistance Resolution | Ground Resistance Accuracy | Current Measurement Range | Current Measurement Resolution | Current Measurement Accuracy | Current Measurement Frequency | Operating Frequency | Loop Impedance Measurement |
|---|---|---|---|---|---|---|---|---|---|---|
| EST401 | 702390 | 0.01 – 1,500.00 Ω | 0.001 – 50.000 Ω | Approx. 1.5% - 25% | 0.20 mA – 39.99 A | 1 µA – 10 mA | +/- 2% | 47 – 800 Hz | 2,083 Hz | 10 to 100µH; 100 to 500µH |

## GROUND RESISTANCE TESTER CLAMP-ON PROBE

### FEATURE

- AC Clamp-on probe for use with EST6472
- Extends use of EST6472 to be used as a clamp-on ground resistance tester



CE

| Part Number | Unit Weight |
|---|---|
| ESR182 | 1.36 kg |

## GROUND RESISTANCE TESTER CABLE REEL

### FEATURE

- Includes two reels of silicone rubber insulated wire—one reel is red and the other reel is blue—for easy stake identification
- The far end of test lead remains attached to the reel base, which eliminates tangling and speeds up the process of test stake deployment
- Each reel includes 500' (152.4 m) of cable, a screwdriver and a lead that connects the reel to the test meter



| Part Number | Article Number | Cable Length | Unit Weight |
|---|---|---|---|
| ESTREELKIT500 | 702350 | 152.4 m | 7.7 kg |

nVent ERICO

CADWELD MOLDS

# nVent ERICO Cadweld Molds

## HOW TO ORDER NVENT ERICO CADWELD PRODUCTS

This catalog lists the most popular nVent ERICO Cadweld connections using solid or concentric stranded copper conductor, insulated or bare. Look in the index for the connection you need. To save time and money, avoid non-catalog items or specials whenever possible.

If you cannot find the connection you need, contact nVent ERICO or your local distributor or agent. We have designed over 45,000 connections, and "specials" are designed every day.

### 1. What connection do you want?

We strongly recommend that wherever possible you use molds listed in this catalog. After selecting the connection, turn to the appropriate page and select the mold, weld metal and tools you need.

### 2. Only the most popular Cadweld connections are listed in this catalog.

For a complete listing of Cadweld Exolon connections, please refer to nVent.com/ERICO or your local nVent ERICO representative.

### 3. What are the conductor sizes?

This catalog covers connections between solid or concentric stranded copper conductors to each other, to lugs, to ground rods, to rebar, to rail and to special grounding accessories. For sizes not listed, contact your local Cadweld distributor, agent, or nVent ERICO.

Note: Other publications describe connections to conductors of copperclad, high voltage copper, aluminum, busbar, lightning protection cable, steel cable, etc.

### 4. You must have the following to make a weld:

4.1 Mold to fit your conductors

4.2 Weld metal required by your mold

4.3 Handle clamps on frame

4.4 Flint ignitor (included with handle clamps and frames)

4.5 If using Cadweld Exolon, you need a Relia-Start™ battery instead of a flint ignitor.

4.6 Lugs, sleeves, packing material listed on the page with the mold.

## OTHER INFORMATION

Certain tools may be required for various connections. If required, these tools are listed on the same pages as the connection and in Section A. Some tools in section A can save you a lot of time. Also refer to A9E, Contractor Tips, to make your job easier, and learn about labor saving ideas.

For complete pricing information, please visit nVent.com/ERICO or contact and nVent ERICO Representative

For Cadweld literature, guides, instructional videos, and more, visit nVent.com/ERICO.

For all your connection needs — we're only a phone call away.

Phone: 800-677-9089

Fax: 800-677-8131

or call your local Cadweld distributor, agent, or Cadweld regional sales manager

**Required tools summary:**

Required tools are listed with each mold. For your reference, handle clamps and/or frame are summarized below.

| Mold | Required |
|---|---|
| A* | Includes frame with handle |
| C, Q & R | Requires L160 |
| D, F & Z | Requires L159 |
| E* | Includes frame but also requires L160 |
| J* | Includes frame but also requires L159 |
| K*, M* & V* | Includes frame with handles |

* To order mold only — without handles or frame — add suffix "M" to mold part number.

### Heavy Duty Electrical Connections for Stranded Concentric Copper Conductors

Heavy Duty connections were developed to be used on reclaimd cable. Heavy Duty connections use a larger size connection cavity in the mold and a larger size weld metal than the equivalent standard connections.

The larger size weld metal supplies extra BTU's (but not a higher temperature) to melt the heavy oxide coating on the conductor and to overcome severe field conditions.

**Heavy Duty connections offer the following advantages:**

- Eliminates cutting the run conductor on certain types of connections.
- Reduces cable cleaning requirements for old or reclaimed cable.
- Increases reliability under adverse field conditions.

## 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 (ACI318-14 Commentary, 25.5.2.1) advises, "splice requirements encourage splicing bars at points of minimum stress … encourage the location of splices away from regions of high 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, nVent 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 nVent ERICO.**

## GROUNDING CONNECTION SPECIFICATION

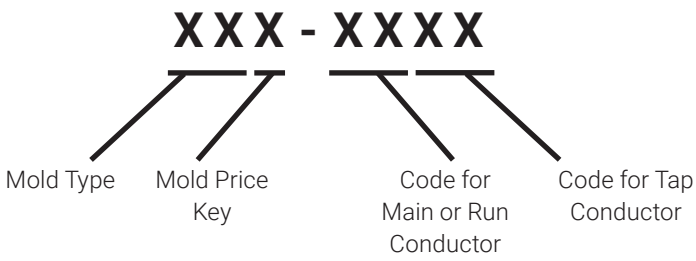
This specification covers the Cadweld exothermic welding system for use in making electrical connections. The Cadweld system supplied under this specification shall include welding material, molds, tools and accessories as required.

Unless otherwise specified, Cadweld exothermic welding system shall be used for all electrical grounding connections of copper to copper and copper to steel conductors. Cadweld connections shall be suitable for exposure to the elements of direct burial in earth or concrete without degradation over the lifetime of the grounding system.

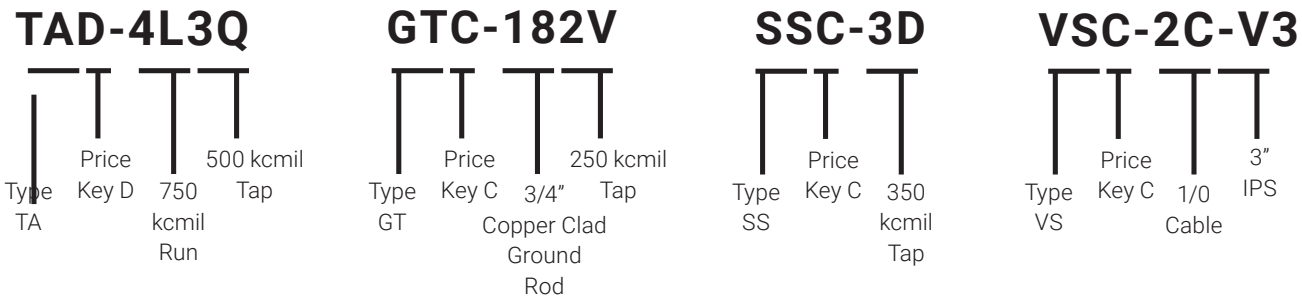
The Cadweld exothermic welding system furnished under this specification shall meet the applicable requirements of IEEE Standard 80 "IEEE Guide for Safety in AC Substation Grounding" and IEEE Standard 837 IEEE "Standard for Qualifying Permanent Connections Used in Substation Grounding". Independent test data showing conformance to IEEE Std. 837 shall be readily available.

### The Cadweld Mold Numbering System

The Cadweld mold part number gives, in code, the complete information about the mold.
Type of connection, mold price key, and conductor size(s)




Examples:



A graphite mold is used for making most Cadweld connections. Cadweld molds will generally last an average of 50 or more connections under normal usage.

## PRICE KEY AND HANDLE CLAMP AND/OR FRAMES

Handle clamps are required for most molds. Specialized frames with handles are used on some molds. Flint igniters are included with handle clamps. The following handle clamps are most widely used.

L160 for all molds having a "C", "E", "R" and "Q" mold price key (3" wide molds)

L159 for all molds having a "D", "F", "J" and "Z" mold price key (4" wide molds)

Handle Clamps with an "XL" prefix are for use with the Cadweld Exolon system and do not come with a flint igniter. Mini E-Z Change Clamps for use with mini-welders.

Pictured below are the molds and handle clamps / and or frames and handles for the various price key molds:



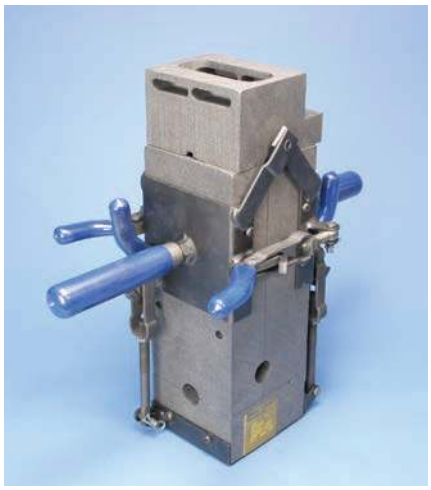
"A" Price Key Mold
Includes Hold Down Frame



"C", "D", "F", "R", "Q" and "Z" Price Key Mold L160 or L159
Handle Clamp Required



"E" and "J" Price Key Mold
L160 or L159 Handle Clamp
Required



"M" and "V" Price Key Mold
Includes Frame with Handles



"H" Price Key Mold
Includes Hold Down Frame
with Handles



"G", "K", and "L" Price Key
Mold Includes Frame with Handles



"T", "P" and "N" Price Key Mold
Includes Mini-EZ Handle Clamp

To order mold only, add an "M"
suffix to the part number
(for example, SST1TM)

## MOLD OPTIONS



### SPLIT CRUCIBLE MOLDS

Molds made with a horizontal opening and solid crucible section may be specified as a split crucible type. The advantage of the split crucible mold is easier cleaning.

To order a mold with a split crucible, add an "L" suffix to the mold part number (for example, TAC2G2GL).



### WEAR PLATES

Wear Plates reduce mechanical abrasion of molds at cable entry points and help prevent leakage of molten metal (particularly on larger 7 strand conductor). These features prolong mold life.

To order a mold with wear plates, add a "W" suffix to the mold part number (for example, PTC2G2GW).

## CADWELD EXOLON

### CADWELD EXOLON REDUCED-EMISSION MOLDS

Developed in 1988, Cadweld Exolon connections represented a significant advancement in welded electrical connections for sensitive indoor applications like data centers, hospitals, and other clean room environments. The virtual elimination of smoke and a unique electronic starting system makes this an ideal solution for sensitive applications. Each Cadweld Exolon package contains ceramic filters that produce an extremely low emission connection.





**How to order CADWELD EXOLON:**

1. To order Cadweld Exolon products, just specify molds and weld metal from the catalog and add an "XL" prefix.

**Example:** TAC2Q2Q becomes XLTAC2Q2Q, and 150 becomes XL150.

2. If the weld metal shown in the catalog shows more than one tube required such as 2-#200, you must specify #XL400 to get the correct size filters.

**Example:** XLTAD-4L3Q: XL400

3. The following molds require a price key change:
   - "C" price key molds using 2-#150 weld metals change to XLD price key.
   - "E" price key molds using 2-#150 weld metals change to XLJ price key.
   - "H" price key molds using 2-#150 weld metals, contact ERICO.
   - "M" price key molds using 2-#150 weld metals change to XLV price key.
   - "R" price key molds using 2-#150 weld metals change to XLF price key.
   - "T" price key molds, ALL change to XLP price key.

**Example:** TAC3Q3Q using 2-#150 weld metals change to XLTAD3Q3Q using #XL300 weld metal

4. Filters and ignitors are included with the weld metal. XL filters and ignitors are not sold separately.
5. The ignitor can be used only once and then must be discarded. Filters will last as specified in the instructions supplied with each mold.
6. A Relia-Start electric starter, part number XLB971A1 (battery, charger, carrying case and connecting cable), is required for XL weld metal. Ther eis no starting material in the XL weld metal tube. Batteries operate about 200 starts before recharging from 120 VAC is required. The charger, all electrical connections and instructions are included in the battery case.
7. Baffle with cover is required for larger molds. Estimated life of the baffle is 500 welds.
   - XLB972A1 Baffle is required for molds using XL200 and XL250 weld metals.
   - XLB973A1 Baffle is required for molds using XL300 to XL750 weld metals.
8. For EZ Change Handles, add XL prefix. (Flint ignitor not included.)
9. Welding Tray, part number XLB974B2, is used under the mold to protect cables and equipment from hot materials.

## CABLE TO CABLE



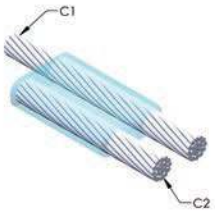
- Forms a permanent, low resistance connection
- Provides a molecular bond
- nVent ERICO Cadweld Exothermic Connections are rated with the same current capacity as the conductor
- Portable installation equipment with no external source of power required
- Installers can be easily trained to make nVent ERICO Cadweld Exothermic Connections
- Connections can be visually inspected

nVent ERICO Cadweld graphite molds are designed and engineered for thousands of connection styles and conductor combinations.

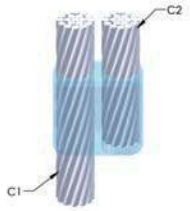
| XX-X-XX-XX-L-M-W | | |
|---|---|---|
| XX | Mold Family | |
| X | Price Key | |
| XX | Conductor Code 1 | |
| XX | Conductor Code 2 | |
| L* | Split Crucible | Crucible section is split on molds designed with horizontal opening for easier cleaning |
| M* | Mold Only | |
| W* | Wear Plates | Reduce mechanical abrasion of molds at cable entry points |

* Empty if none

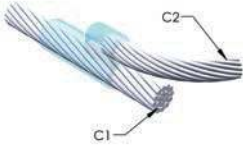
## MOLD FAMILY



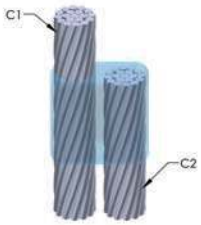

PA



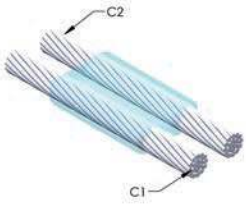

PB



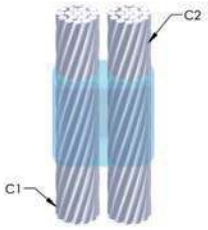

PC



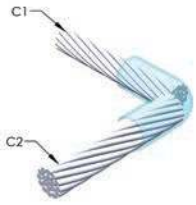

PD



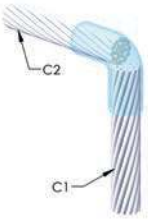

PG




PH



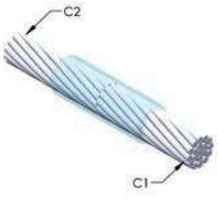

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PR



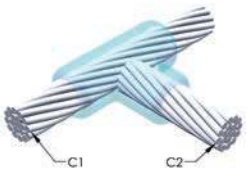

PT




SS




SV



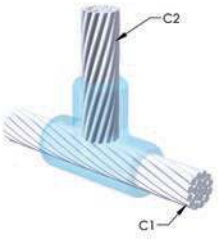

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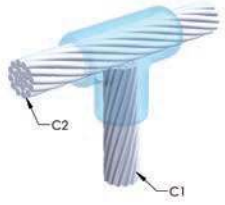

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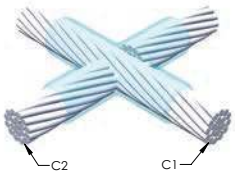

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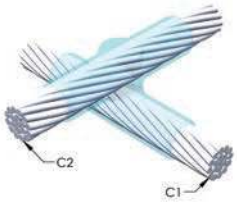

TL



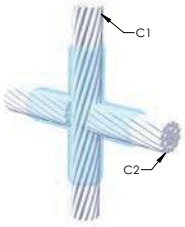

TV



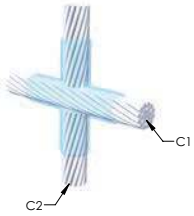

XA



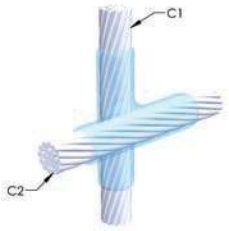

XB



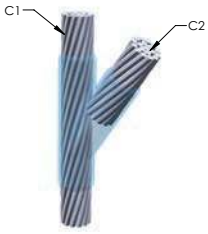

XC




XD



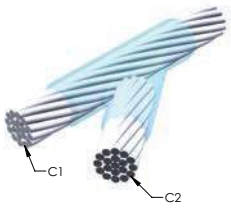

XG




YC

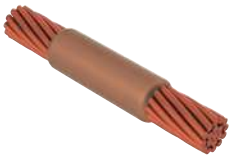


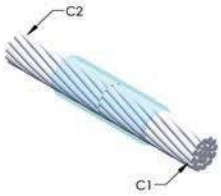

YD




YR

## SS MOLDS

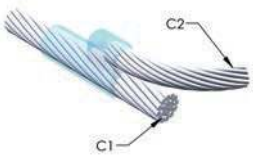





| Global Part Number | Conductor 1 | Conductor 2 | Ease of Use | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| SSCY6 | 120 mm² Concentric | 120 mm² Concentric | Preferred | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| SSCY4 | 70 mm² Concentric | 70 mm² Concentric | Preferred | C | 65 or 65PLUSF20, Sold Separately | L160, Sold Separately |
| SSCY2 | 35 mm² Concentric | 35 mm² Concentric | Preferred | C | 32 or 32PLUSF20, Sold Separately | L160, Sold Separately |
| SSCY5 | 95 mm² Concentric | 95 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| SSCY8 | 185 mm² Concentric | 185 mm² Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |

## PC MOLDS






| Global Part Number | Conductor 1 | Conductor 2 | Ease of Use | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| PCC2Q1H | 4/0 Concentric | #6 Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |

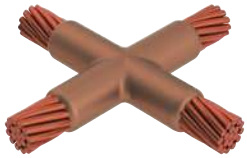
## TA MOLDS

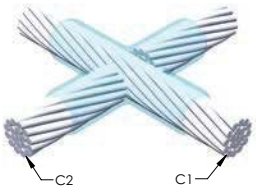



| Global Part Number | Conductor 1 | Conductor 2 | Ease of Use | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| TACY5Y3 | 95 mm² Concentric | 50 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| TACY6Y1 | 120 mm² Concentric | 25 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| TACY6Y5 | 120 mm² Concentric | 95 mm² Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| TACY1Y1 | 25 mm² Concentric | 25 mm² Concentric | Preferred | C | 32 or 32PLUSF20, Sold Separately | L160, Sold Separately |
| TACY4Y2 | 70 mm² Concentric | 35 mm² Concentric | Preferred | C | 45 or 45PLUSF20, Sold Separately | L160, Sold Separately |
| TACY8Y7 | 185 mm² Concentric | 150 mm² Concentric | Preferred | C | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| TACY4Y6 | 70 mm² Concentric | 120 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| TACY6Y3 | 120 mm² Concentric | 50 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| TACY5Y6 | 95 mm² Concentric | 120 mm² Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| TACY7Y7 | 150 mm² Concentric | 150 mm² Concentric | Preferred | C | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| TACY9Y6 | 240 mm² Concentric | 120 mm² Concentric | Preferred | C | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| TAC2Q1L | 4/0 Concentric | #4 Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| TACY3Y3 | 50 mm² Concentric | 50 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| TACY2Y2 | 35 mm² Concentric | 35 mm² Concentric | Preferred | C | 45 or 45PLUSF20, Sold Separately | L160, Sold Separately |
| TACY4Y1 | 70 mm² Concentric | 25 mm² Concentric | Preferred | C | 45 or 45PLUSF20, Sold Separately | L160, Sold Separately |
| TAC2Q2Q | 4/0 Concentric | 4/0 Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| TACY4Y4 | 70 mm² Concentric | 70 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| TACY5Y2 | 95 mm² Concentric | 35 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| TACY5Y7 | 95 mm² Concentric | 150 mm² Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| TACY8Y8 | 185 mm² Concentric | 185 mm² Concentric | Preferred | C | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| TACY8Y5 | 185 mm² Concentric | 95 mm² Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| TACY6Y4 | 120 mm² Concentric | 70 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| TACY6Y2 | 120 mm² Concentric | 35 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| TACY6Y6 | 120 mm² Concentric | 120 mm² Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| TACY5Y5 | 95 mm² Concentric | 95 mm² Concentric | Preferred | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |

| Global Part Number | Conductor 1 | Conductor 2 | Ease of Use | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| TACY9Y9 | 240 mm² Concentric | 240 mm² Concentric | Preferred | C | 150 x 2 or 300PLUSF20, Sold Separately | L160, Sold Separately |
| HDTAC2G1L | 2/0 Concentric | #4 Concentric | Preferred | C | 65 or 65PLUSF20, Sold Separately | L160, Sold Separately |
| HDTAC2Q2G | 4/0 Concentric | 2/0 Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| HDTAC2Q2Q | 4/0 Concentric | 4/0 Concentric | Preferred | C | 250 or 250PLUSF20, Sold Separately | L160, Sold Separately |
| HDTAC2G1V | 2/0 Concentric | #2 Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| HDTAC2Q1V | 4/0 Concentric | #2 Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| HDTAC2Q1L | 4/0 Concentric | #4 Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| HDTAC2G2G | 2/0 Concentric | 2/0 Concentric | Preferred | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| HDTAC1L1L | #4 Concentric | #4 Concentric | Preferred | C | 65 or 65PLUSF20, Sold Separately | L160, Sold Separately |

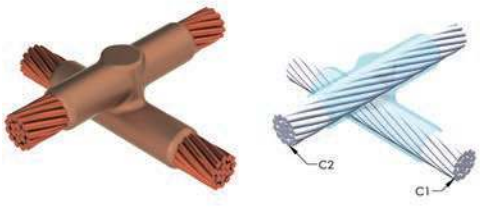
## XA MOLDS






| Global Part Number | Conductor 1 | Conductor 2 | Ease of Use | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| XAC2Q2Q | 4/0 Concentric | 4/0 Concentric | Preferred | C | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| XACY6Y5 | 120 mm² Concentric | 95 mm² Concentric | Preferred | C | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| XADY9Y9 | 240 mm² Concentric | 240 mm² Concentric | Preferred | D | 500 or 500PLUSF20, Sold Separately | L159, Sold Separately |
| XACY4Y4 | 70 mm² Concentric | 70 mm² Concentric | Preferred | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| XACY7Y7 | 150 mm² Concentric | 150 mm² Concentric | Preferred | C | 250 or 250PLUSF20, Sold Separately | L160, Sold Separately |
| XACY3Y3 | 50 mm² Concentric | 50 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| XACY6Y6 | 120 mm² Concentric | 120 mm² Concentric | Preferred | C | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| XACY5Y5 | 95 mm² Concentric | 95 mm² Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| XADY9Y6 | 240 mm² Concentric | 120 mm² Concentric | Preferred | D | 150 x 2 or 300PLUSF20, Sold Separately | L159, Sold Separately |

## XB MOLDS



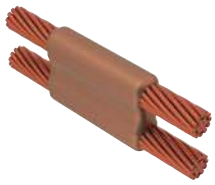

| Global Part Number | Conductor 1 | Conductor 2 | Ease of Use | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| XB3Y6Y6 | 120 mm² Concentric | 120 mm² Concentric | Preferred | 3 | 150 x 2 or 300PLUSF20, Sold Separately | L163, Sold Separately |
| XBQY5Y5 | 95 mm² Concentric | 95 mm² Concentric | Preferred | Q | 250 or 250PLUSF20, Sold Separately | L160, Sold Separately |
| XBZY8Y8 | 185 mm² Concentric | 185 mm² Concentric | Preferred | Z | 500 or 500PLUSF20, Sold Separately | L159, Sold Separately |
| XBQY4Y4 | 70 mm² Concentric | 70 mm² Concentric | Preferred | Q | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| XB4Y8Y8 | 185 mm² Concentric | 185 mm² Concentric | Preferred | 4 | 500 or 500PLUSF20, Sold Separately | L164, Sold Separately |
| XBQY6Y6 | 120 mm² Concentric | 120 mm² Concentric | Preferred | Q | 150 x 2 or 300PLUSF20, Sold Separately | L160, Sold Separately |

## PG MOLDS




| Global Part Number | Conductor 1 | Conductor 2 | Ease of Use | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| PGCY5Y5 | 95 mm² Concentric | 95 mm² Concentric | Easy | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| PGCY6Y6 | 120 mm² Concentric | 120 mm² Concentric | Easy | C | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| PGCY4Y4 | 70 mm² Concentric | 70 mm² Concentric | Easy | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |

## PT MOLDS






| Global Part Number | Conductor 1 | Conductor 2 | Ease of Use | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| PTCY4Y2 | 70 mm² Concentric | 35 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY8Y8 | 185 mm² Concentric | 185 mm² Concentric | Preferred | C | 150 x 2 or 300PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY1Y1 | 25 mm² Concentric | 25 mm² Concentric | Preferred | C | 45 or 45PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY5Y4 | 95 mm² Concentric | 70 mm² Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY6Y6 | 120 mm² Concentric | 120 mm² Concentric | Preferred | C | 250 or 250PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY3Y1 | 50 mm² Concentric | 25 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY4Y4 | 70 mm² Concentric | 70 mm² Concentric | Preferred | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY2Y2 | 35 mm² Concentric | 35 mm² Concentric | Preferred | C | 65 or 65PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY3Y3 | 50 mm² Concentric | 50 mm² Concentric | Preferred | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY4Y3 | 70 mm² Concentric | 50 mm² Concentric | Preferred | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY5Y5 | 95 mm² Concentric | 95 mm² Concentric | Preferred | C | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY5Y3 | 95 mm² Concentric | 50 mm² Concentric | Preferred | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| PTCY8Y6 | 185 mm² Concentric | 120 mm² Concentric | Preferred | C | 250 or 250PLUSF20, Sold Separately | L160, Sold Separately |

## ND MOLDS






| Global Part Number | Conductor 1 | Conductor 2 | Ease of Use | Ground Rod Diameter, Nominal <Nom> | Ground Rod Type | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|---|---|
| NDF332Q | 4/0 Concentric | 4/0 Concentric | Preferred | 3/4" | Steel | F | 150 x 2 or 300PLUSF20, Sold Separately | L159, Sold Separately |

## GROUND ROD SPLICE/GROUNDING RECEPTACLE



- Forms a permanent, low resistance connection
- Provides a molecular bond
- nVent ERICO Cadweld Exothermic Connections are rated with the same current capacity as the conductor
- Portable installation equipment with no external source of power required
- Installers can be easily trained to make nVent ERICO Cadweld Exothermic Connections
- Connections can be visually inspected

nVent ERICO Cadweld graphite molds are designed and engineered for thousands of connection styles and conductor combinations

| XX-X-XX-XX-L-M-W | | |
|---|---|---|
| XX | Mold Family | |
| X | Price Key | |
| XX | Ground Rod Code | |
| XX | Ground Plate/Grounding Receptacle | |
| L* | Split Crucible | Crucible section is split on molds designed with horizontal opening for easier cleaning |
| M* | Mold Only | |
| W* | Wear Plates | Reduce mechanical abrasion of molds at cable entry points |

* Empty if none

## MOLD FAMILY



GB



GE

| Global Part Number | Connects To | Ease of Use | Ground Rod Diameter, Nominal <Nom> | Ground Rod Type | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|---|
| GEC16 | Identical Ground Rod | Preferred | 5/8" | Copper-bonded | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |

# CABLE TO GROUND ROD OR OTHER ROUNDS



nVent ERICO Cadweld graphite molds are designed and engineered for thousands of connection styles and conductor combinations.

- Forms a permanent, low resistance connection
- Provides a molecular bond
- nVent ERICO Cadweld Exothermic Connections are rated with the same current capacity as the conductor
- Portable installation equipment with no external source of power required
- Installers can be easily trained to make nVent ERICO Cadweld Exothermic Connections
- Connections can be visually inspected

| XX-X-XX-XX-L-M-W | | |
|---|---|---|
| XX | Mold Family | |
| X | Price Key | |
| XX | Ground Rod Code | |
| XX | Ground Plate/Grounding Receptacle | |
| L* | Split Crucible | Crucible section is split on molds designed with horizontal opening for easier cleaning |
| M* | Mold Only | |
| W* | Wear Plates | Reduce mechanical abrasion of molds at cable entry points |

* Empty if none

## MOLD FAMILY



DQ



GC



GD



GF



GG



GH



GJ



GM



GN



GP



GQ



GR



GS



GT



GV



GW



GX



GY



VW

## GR MOLDS





| Global Part Number | Conductor Size | Ease of Use | Ground Rod Diameter, Nominal <Nom> | Ground Rod Type | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|---|
| GRC18Y6 | 120 mm² Concentric | Preferred | 3/4" | Copper-bonded | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| GRC16Y3 | 50 mm² Concentric | Preferred | 5/8" | Copper-bonded | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |

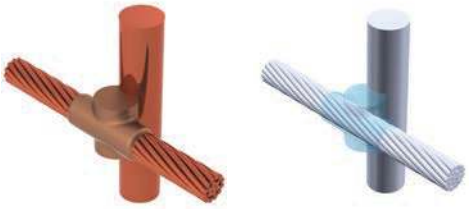
## GT MOLDS





| Global Part Number | Conductor Size | Ease of Use | Ground Rod Diameter, Nominal <Nom> | Ground Rod Type | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|---|
| GTCP200Y6 | 120 mm² Concentric | Preferred | 20.000 mm | Steel | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| GTC16Y3 | 50 mm² Concentric | Preferred | 5/8" | Copper-bonded | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| GTC18Y4 | 70 mm² Concentric | Preferred | 3/4" | Copper-bonded | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| GTC16Y5 | 95 mm² Concentric | Preferred | 5/8" | Copper-bonded | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| GTC162Q | 4/0 Concentric | Preferred | 5/8" | Copper-bonded | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| GTC16Y6 | 120 mm² Concentric | Preferred | 5/8" | Copper-bonded | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| GTC18Y6 | 120 mm² Concentric | Preferred | 3/4" | Copper-bonded | C | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| GTC16Y2 | 35 mm² Concentric | Preferred | 5/8" | Copper-bonded | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| GTC16Y4 | 70 mm² Concentric | Preferred | 5/8" | Copper-bonded | C | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| GTC18Y8 | 185 mm² Concentric | Preferred | 3/4" | Copper-bonded | C | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |

## GY MOLDS



| Global Part Number | Conductor Size | Ease of Use | Ground Rod Diameter, Nominal <Nom> | Ground Rod Type | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|---|
| GYR181H | #6 Concentric | Preferred | 3/4" | Copper-bonded | R | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |

## GF MOLDS



| Global Part Number | Conductor Size | Ease of Use | Ground Rod Diameter, Nominal <Nom> | Ground Rod Type | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|---|
| GFC16Y3 | 50 mm² Concentric | Preferred | 5/8" | Copper-bonded | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |

## CABLE TO STEEL



- Forms a permanent, low resistance connection
- Provides a molecular bond
- nVent ERICO Cadweld Exothermic Connections are rated with the same current capacity as the conductor
- Portable installation equipment with no external source of power required
- Installers can be easily trained to make nVent ERICO Cadweld Exothermic Connections
- Connections can be visually inspected

nVent ERICO Cadweld graphite molds are designed and engineered for thousands of connection styles and conductor combinations.

| W-XX-X-XX-LH-XX-L-M | | |
|---|---|---|
| W* | Wear Plates | Reduce mechanical abrasion of molds at cable entry points |
| XX | Mold Family | |
| X | Price Key | |
| XX | Conductor Code | |
| LH | Weld End | "LH = Weld on left end of conductor<br>RH = Weld on right end of conductor<br>(For Mold Families HG, VL, and VN only)" |
| XX | Pipe Size | |
| L* | Split Crucible | Crucible section is split on molds designed with horizontal opening for easier cleaning |
| M* | Mold Only | |

* Empty if none

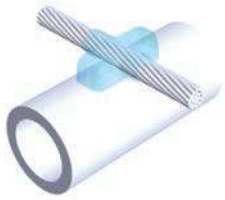
## MOLD FAMILY


HA


HC


HF


HG

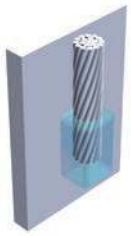

HK


HS

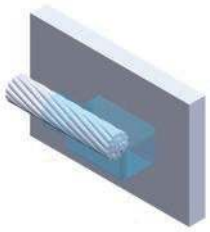

HT

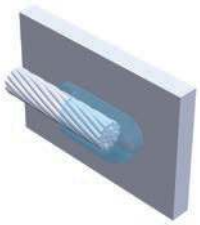

VA


VB

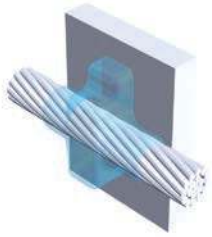

VF

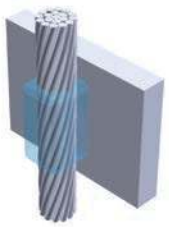

VG


VL

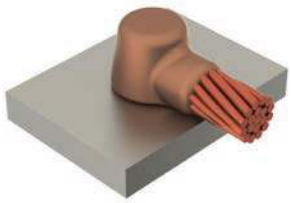

VN


VS


VT


VV

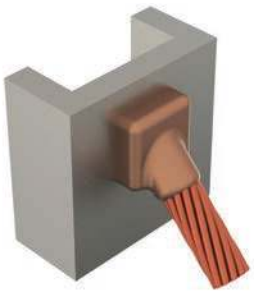
## HA MOLDS





| Global Part Number | Conductor Size | Connects To | Ease of Use | Price Key | Pipe Size <Min> | Pipe Size <Max> | Outer Diameter (mm) <Min> | Outer Diameter (mm) <Max> | NB/DN (mm) <Min> | NB/DN (mm) <Max> | Welding Material |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HAH2G8C | 2/0 Concentric | Steel Pipe | Preferred | H | 6" | 10" | 158.8 mm | 273.1 mm | 150 | 250 | 90 or 90PLUSF20, Sold Separately |
| HAH2G20C | 2/0 Concentric | Steel Pipe | Preferred | H | 12" | 24" | 323.9 mm | 609.6 mm | 300 | 600 | 90 or 90PLUSF20, Sold Separately |

## VS MOLDS





| Global Part Number | Conductor Size | Connects To | Ease of Use | Price Key | Pipe Size <Min> | Outer Diameter (mm) <Min> | NB/DN (mm) <Min> | Welding Material | Handle Clamp | Mold Family |
|---|---|---|---|---|---|---|---|---|---|---|
| VSCY3 | 50 mm² Concentric | Steel Pipe or Flat Surface | Preferred | C | 24" | 609.6 mm | 600 | 90 or 90PLUSF20, Sold Separately | L160 and B396, Sold Separately | VS |
| VSCY4 | 70 mm² Concentric | Steel Pipe or Flat Surface | Preferred | C | 24" | 609.6 mm | 600 | 90 or 90PLUSF20, Sold Separately | L160 and B396, Sold Separately | VS |

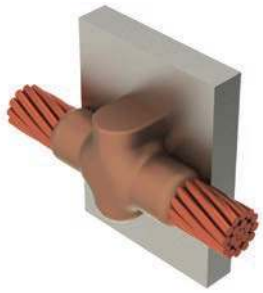
## VB MOLDS

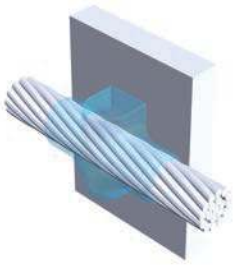




| Global Part Number | Conductor Size | Connects To | Ease of Use | Price Key | Pipe Size <Min> | Outer Diameter (mm) <Min> | NB/DN (mm) <Min> | Welding Material | Handle Clamp | Mold Family |
|---|---|---|---|---|---|---|---|---|---|---|
| VBC2G | 2/0 Concentric | Steel Pipe or Flat Surface | Easy | C | 24" | 609.6 mm | 600 | 115 or 115PLUSF20, Sold Separately | L160 and B396, Sold Separately | VB |
| VBCY6 | 120 mm² Concentric | Steel Pipe or Flat Surface | Easy | C | 24" | 609.6 mm | 600 | 200 or 200PLUSF20, Sold Separately | L160 and B396, Sold Separately | VB |

## VG MOLDS





| Global Part Number | Conductor Size | Connects To | Ease of Use | Price Key | Pipe Size <Min> | Outer Diameter (mm) <Min> | NB/DN (mm) <Min> | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|---|---|---|
| VGCY2 | 35 mm² Concentric | Steel Pipe or Flat Surface | Preferred | C | 24" | 609.6 mm | 600 | 45 or 45PLUSF20, Sold Separately | L160, Sold Separately |
| VGCY4 | 70 mm² Concentric | Steel Pipe or Flat Surface | Preferred | C | 24" | 609.6 mm | 600 | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| VGPY1M | 25 mm² Concentric | Steel Pipe or Flat Surface | Preferred | P | 24" | 609.6 mm | 600 | 45 or 45PLUSF20, Sold Separately | B399A, Sold Separately |
| VGCY3 | 50 mm² Concentric | Steel Pipe or Flat Surface | Preferred | C | 24" | 609.6 mm | 600 | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |
| VGCY1 | 25 mm² Concentric | Steel Pipe or Flat Surface | Preferred | C | 24" | 609.6 mm | 600 | 45 or 45PLUSF20, Sold Separately | L160, Sold Separately |

# CABLE TO LUG OR BUSBAR



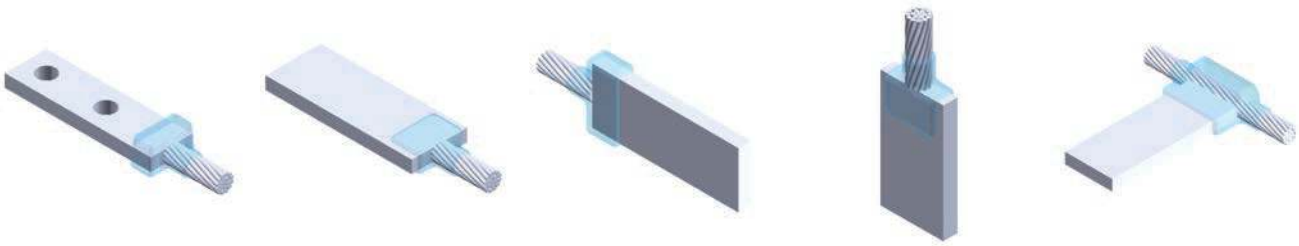
- Forms a permanent, low resistance connection
- Provides a molecular bond
- nVent ERICO Cadweld Exothermic Connections are rated with the same current ca pacity as the conductor
- Portable installation equipment with no external source of power required
- Installers can be easily trained to make nVent ERICO Cadweld Exothermic Connections
- Connections can be visually inspected
- Mold Families LA and LE can be used with straight or offset lugs

nVent ERICO Cadweld graphite molds are designed and engineered for thousands of connection styles and conductor combinations.

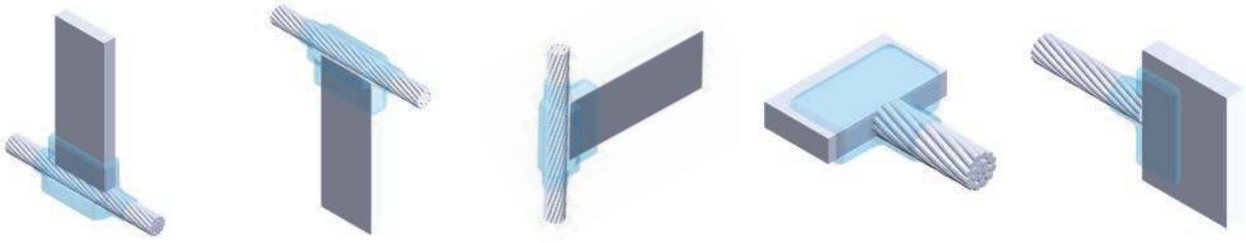
| XX-X-XX-XX-L-M-W | | |
|---|---|---|
| XX | Mold Family | |
| X | Price Key | |
| XX | Lug/Busbar Size | |
| XX | Conductor Code | |
| L* | Split Crucible | Crucible section is split on molds designed with horizontal opening for easier cleaning |
| M* | Mold Only | |
| W* | Wear Plates | Reduce mechanical abrasion of molds at cable entry points |

* Empty if none

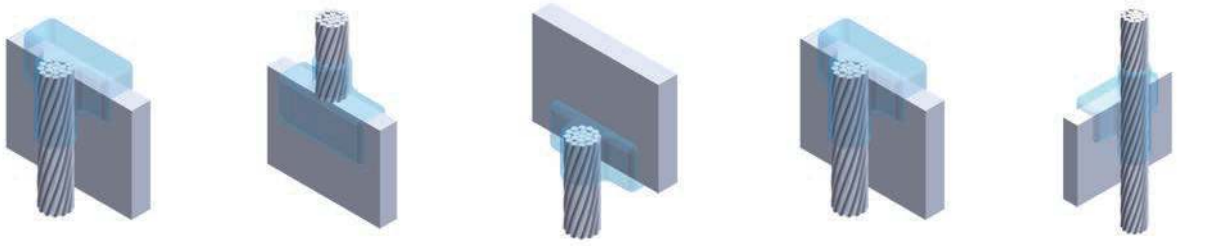
## MOLD FAMILY



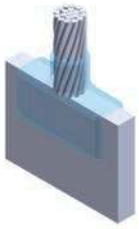
GL LA LB LD LE



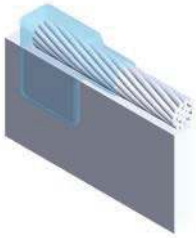
LF LG LH LJ LK



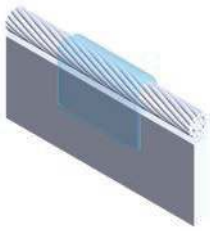
LL LM LN LP LQ



LR



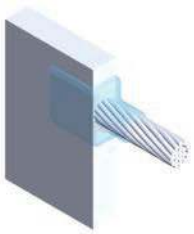
LV



LW



LX



MG

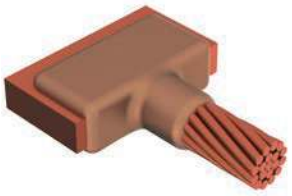
## LA MOLDS

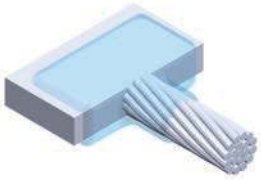




| Global Part Number | Conductor Size | Ease of Use | Lug/Busbar Size | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| LACY5CAJ | 95 mm² Concentric | Preferred | 3 mm x 25 mm | C | 65 or 65PLUSF20, Sold Separately | L160, Sold Separately |

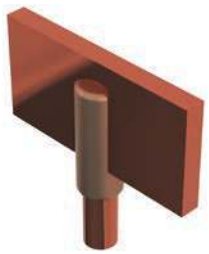
## LJ MOLDS





| Global Part Number | Conductor Size | Ease of Use | Lug/Busbar Size | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| LJCEALY4 | 70 mm² Concentric | Preferred | 4 mm x 40 mm and wider | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| LJCEALY3 | 50 mm² Concentric | Preferred | 4 mm x 40 mm and wider | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| LJCEALY2 | 35 mm² Concentric | Preferred | 4 mm x 40 mm and wider | C | 65 or 65PLUSF20, Sold Separately | L160, Sold Separately |
| LJCPALY4 | 70 mm² Concentric | Preferred | 6 mm x 40 mm and wider | C | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |

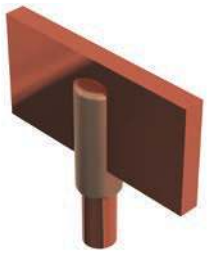
## GROUND ROD TO LUG OR BUSBAR

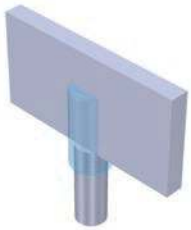


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- Provides a molecular bond
- nVent ERICO Cadweld Exothermic Connections are rated with the same current capacity as the conductor
- Portable installation equipment with no external source of power required
- Installers can be easily trained to make nVent ERICO Cadweld Exothermic Connections
- Connections can be visually inspected
- Mold Families LA and LE can be used with straight or offset lugs

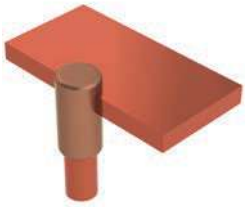
## CM MOLDS





| Global Part Number | Ease of Use | Ground Rod Diameter, Nominal <Nom> | Ground Rod Type | Lug/Busbar Size | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|---|
| CMC16EAJ | Difficult | 5/8" | Copper-bonded | 4 mm x 25 mm | C | 115 or 115PLUSF20, Sold Separately | L160 and B399P, Sold Separately |

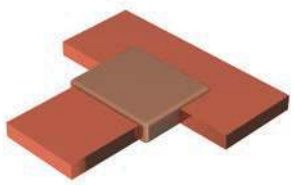
## CP MOLDS





| Global Part Number | Ease of Use | Ground Rod Diameter, Nominal <Nom> | Ground Rod Type | Lug/Busbar Size | Price Key | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|---|
| CPC16EAJ | Easy | 5/8" | Copper-bonded | 4 mm x 25 mm and wider | C | 150 or 150PLUSF20, Sold Separately | L160 and B399P, Sold Separately |

# BUSBAR TO BUSBAR



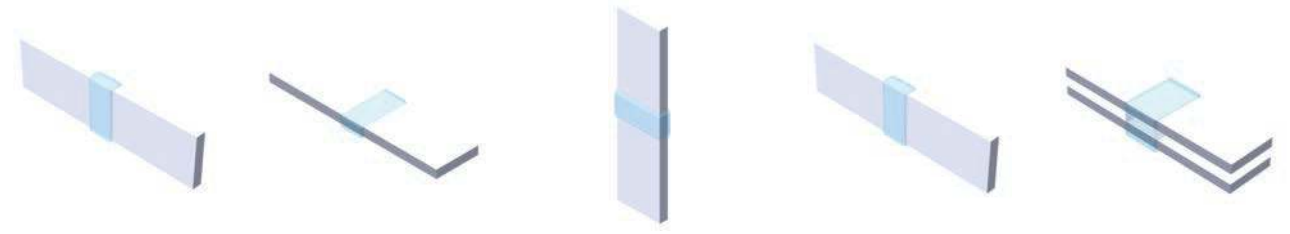
- Forms a permanent, low resistance connection
- Provides a molecular bond
- nVent ERICO Cadweld Exothermic Connections are rated with the same current capacity as the conductor
- Portable installation equipment with no external source of power required
- Installers can be easily trained to make nVent ERICO Cadweld Exothermic Connections
- Connections can be visually inspected

nVent ERICO Cadweld graphite molds are designed and engineered for thousands of connection styles and conductor combinations.

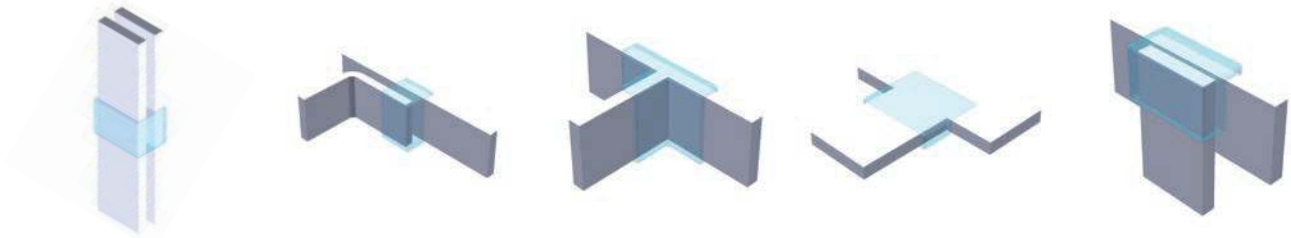
| XX-X-XX-XX-L-M-W | | |
|---|---|---|
| XX | Mold Family | |
| X | Price Key | |
| XX | Lug/Busbar Size 1 | |
| XX | Lug/Busbar Size 2 | |
| L* | Split Crucible | Crucible section is split on molds designed with horizontal opening for easier cleaning |
| M* | Mold Only | |
| W* | Wear Plates | Reduce mechanical abrasion of molds at cable entry points |

* Empty if none

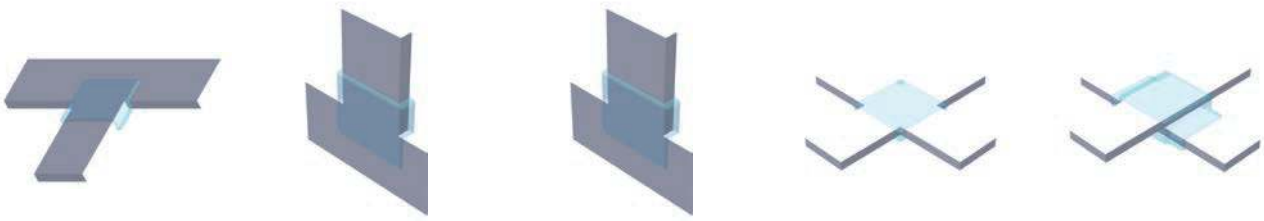
## MOLD FAMILY



BA BB BC BD BG



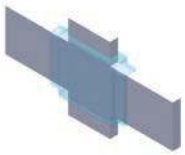
BH BJ BK BM BQ



BT BV DE EA EB



EC



ED



EE



EN



EP

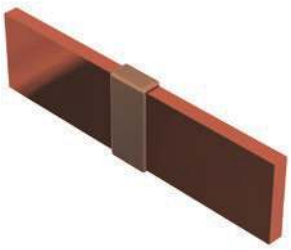


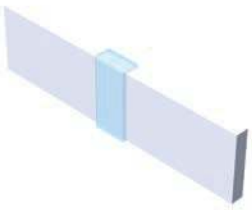
ER



TW

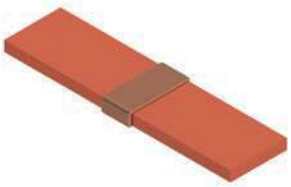
## BA MOLDS





| Global Part Number | Ease of Use | Price Key | Lug/Busbar Size 1 | Lug/Busbar Size 2 | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| BACEAL | Preferred | C | 4 mm x 40 mm | 4 mm x 40 mm | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |

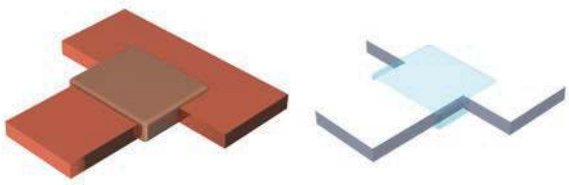
## BB MOLDS





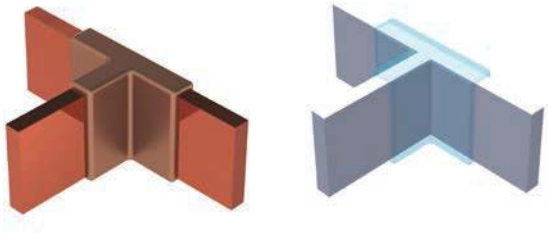
| Global Part Number | Ease of Use | Price Key | Lug/Busbar Size 1 | Lug/Busbar Size 2 | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| BBREAM | Easy | R | 4 mm x 50 mm | 4 mm x 50 mm | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |
| BBCEAL | Easy | C | 4 mm x 40 mm | 4 mm x 40 mm | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| BBCCAJ | Easy | C | 3 mm x 25 mm | 3 mm x 25 mm | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| BBCPAJ | Easy | C | 6 mm x 25 mm | 6 mm x 25 mm | 115 or 115PLUSF20, Sold Separately | L160, Sold Separately |

## BM MOLDS



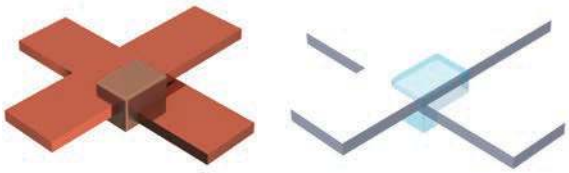
| Global Part Number | Ease of Use | Price Key | Lug/Busbar Size 1 | Lug/Busbar Size 2 | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| BMCEAJEAJ | Easy | C | 4 mm x 25 mm | 4 mm x 25 mm | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| BMCFALFAL | Easy | C | 5 mm x 40 mm | 5 mm x 40 mm | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| BMDPAMPAM | Easy | D | 6 mm x 50 mm | 6 mm x 50 mm | 250 or 250PLUSF20, Sold Separately | L159, Sold Separately |
| BMCEALEAL | Easy | C | 4 mm x 40 mm | 4 mm x 40 mm | 150 or 150PLUSF20, Sold Separately | L160, Sold Separately |
| BMCCAJCAJ | Easy | C | 3 mm x 25 mm | 3 mm x 25 mm | 90 or 90PLUSF20, Sold Separately | L160, Sold Separately |
| BMDEAMEAM | Easy | D | 4 mm x 50 mm | 4 mm x 50 mm | 250 or 250PLUSF20, Sold Separately | L159, Sold Separately |

## BK MOLDS



| Global Part Number | Ease of Use | Price Key | Lug/Busbar Size 1 | Lug/Busbar Size 2 | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| BKEEALEAL | Easy | E | 4 mm x 40 mm | 4 mm x 40 mm | 200 or 200PLUSF20, Sold Separately | L160, Sold Separately |

## EB MOLDS



| Global Part Number | Ease of Use | Price Key | Lug/Busbar Size 1 | Lug/Busbar Size 2 | Welding Material | Handle Clamp |
|---|---|---|---|---|---|---|
| EBCFALFAL | Most Difficult | C | 5 mm x 40 mm and wider | 5 mm x 40 mm and wider | 250 or 250PLUSF20, Sold Separately | L160, Sold Separately |

nVent ERICO

CADWELD WELDING MATERIAL, TOOLS AND ACCESSORIES

# nVent ERICO Cadweld Welding Material, Tools and Accessories

# nVent ERICO Cadweld Plus

Cadweld Plus connections offer all the benefits of conventional Cadweld connections:

- Current carrying capacity equal to or greater than that of the conductor
- Withstand repeated fault currents without failing during operation
- Permanent, molecular bond that will not loosen or corrode, resulting in a connection with a lifetime equal to that of the installation
- Join copper to copper, copper to galvanized or plain steel, copper to copper clad steel, copper to bronze/ brass/ stainless steel, steel to steel, etc.
- No external power or heat source required
- Quality Assurance Inspection is easy and visual
- Minimal installation training required
- Exceed requirements of "IIEEE Std. 837-2014 -Std. for Qualifying Permanent Connections Used In Substation Grounding"





The Cadweld molecular bond will last the lifetime of the conductors.

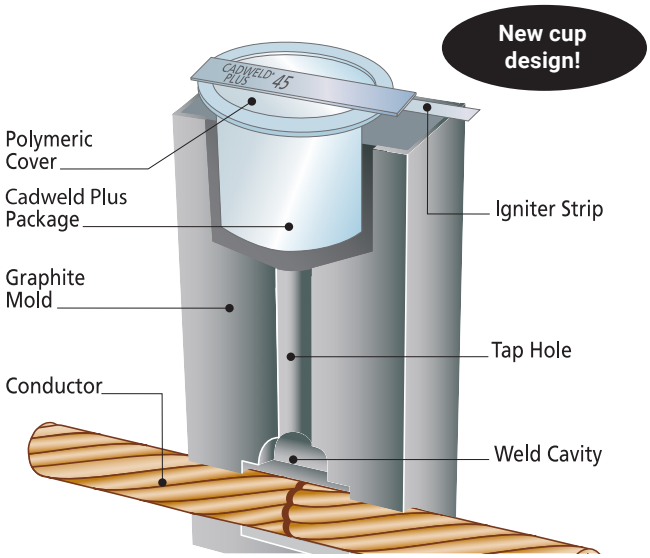
## CADWELD PLUS

**The ultimate welded connection that will never loosen, corrode or increase in resistance.**

nVent ERICO is dedicated to continuous product improvement to meet its customers' needs and maintain the highest level of satisfaction. The introduction of Cadweld electrical connections in 1938 enabled them to be quickly recognized as the ultimate connection for rail, cathodic, power and grounding applications.

Continuing the tradition of technical leadership, Cadweld Plus was developed as a simplified method of performing exothermically welded electrical connections. This trusted system now features a new Cadweld Plus cup design for the integrated welding material package which has streamlined the installation process by eliminating ignition materials.

The tamper proof, integrated welding material package consists of a steel cup containing Cadweld patented welding material alloys and an ignition source. This newly shaped welding material package is designed for use in all standard Cadweld molds, including Cadweld Multi. Once placed in the Cadweld mold, the welding material is electronically ignited using a simple battery-powered control unit with a six-foot lead.




| Feature | Benefits |
|---|---|
| Integrated Welding Material Package | • Simplifies training and set up<br>• Saves labor<br>• Simplifies cleaning |
| Color Coded Welding Material | • Helps reduce risk of misapplication<br>• Simple visual verification of correct welding material size |
| Electronic Control Unit | • No starting material required<br>Easy ignition |
| Replaceable Six or Fifteen Foot Control Unit Lead | • Increased flexibility in hard to reach areas |

# Cadweld Plus

- Consists of a tamper proof, disposable, moisture-resistant welding material cup. The welding material, disk and ignition source are incorporated into the self-contained package
- Long shelf life
- Completes welds at distances of up to 6 ft/1.8 meters (up to 15 ft/4.6 meters with optional lead)
- Requires minimum components – no starting material, no disks, no flint igniters
- Easy to handle, store and transport – by air, land or sea in unlimited quantities
- Reduces installation time by 20%
- Has color-coded welding material containers – by size and alloy type – for easy identification
- Has electronic ignition with a CE/UL battery powered controller box that is designed for 600 connections with one set of 8 standard AA batteries (included) – requiring no special batteries or chargers
- Designed for use in standard Cadweld molds including Cadweld Multi



**Self contained welding material package**

**Installation Is Easy!**
**4 Simple Steps For Permanently Welded Electrical Connections**




Insert Cadweld Plus cup into mold (may require use of a cover/baffle)




Attach control unit termination clip to ignition strip




Press and hold control unit switch and wait for the ignition




Open the mold and remove the expended steel cup – no special disposal required

Cadweld Plus Control Unit initiates the reaction of the metal crucible. The standard unit includes a 6-foot (1.8 meter) high temperature control unit lead. The lead attaches to the ignition strip using a custom made, purpose-designed termination clip.

After the termination clip is installed on the ignition strip, the installer pushes and holds the ignition button to start a charging and discharging sequence. Within a few seconds the control unit sends a predetermined voltage to the ignition strip and the reaction is initiated.

## NVENT ERICO CADWELD WELDING MATERIAL, F20

### FEATURE

- Mixture consists mainly of copper oxide and aluminum
- Primarily used in grounding and bonding applications
- Welding material is in the top of the tube and starting material is in the bottom of the tube
- Packaged by size in plastic tubes with clear caps
- Tubes packaged in plastic boxes along with metal disks
- Each welded connection uses a single disk
- Non-explosive
- Not subject to spontaneous ignition
- See specific nVent ERICO Cadweld connection details to determine welding material requirements



| Part Number | Article Number | Standard Packaging Quantity |
|---|---|---|
| 115 | 163590 | 10 pc |
| 15 | 163000 | 20 pc |
| 150 | 163010 | 10 pc |
| 200 | 163020 | 10 pc |
| 25 | 163030 | 20 pc |
| 250 | 163040 | 10 pc |
| 32 | 163050 | 20 pc |
| 45 | 163060 | 20 pc |
| 500 | 163070 | 10 pc |
| 65 | 163080 | 20 pc |
| 90 | 163090 | 10 pc |

## NVENT ERICO CADWELD PLUS WELDING MATERIAL, F20

### FEATURE

- 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 | Article Number | Color Code Ring | Certifications | Standard Packaging Quantity |
|---|---|---|---|---|
| 115PLUSF20 | 165706 | Orange | cULus | 10 pc |
| 150PLUSF20 | 165707 | Dark Blue | cULus | 10 pc |
| 15PLUSF20 | 165700 | Black | cULus | 20 pc |
| 200PLUSF20 | 165708 | Yellow | cULus | 10 pc |
| 250PLUSF20 | 165709 | Purple | cULus | 10 pc |
| 25PLUSF20 | 165701 | Red | cULus | 20 pc |
| 300PLUSF20 | 165710 | Light Green | cULus | 10 pc |
| 32PLUSF20 | 165702 | White | cULus | 20 pc |

| Part Number | Article Number | Color Code Ring | Certifications | Standard Packaging Quantity |
|---|---|---|---|---|
| 400PLUSF20 | 165711 | Brown | | 10 pc |
| 45PLUSF20 | 165703 | Light Blue | cULus | 20 pc |
| 500PLUSF20 | 165712 | Light Brown | | 10 pc |
| 600PLUSF20 | – | White | | 10 pc |
| 65PLUSF20 | 165704 | Dark Green | cULus | 20 pc |
| 750PLUSF20 | 164996 | White | | 5 pc |
| 90PLUSF20 | 165705 | Gray | cULus | 10 pc |

## NVENT ERICO CADWELD EXOLON WELDING MATERIAL, F20

### FEATURE

- Mixture consists mainly of copper oxide and aluminum
- Primarily used in grounding and bonding applications
- Designed for applications where low smoke emission is required
- Welding material packaged in tubes without starting material
- Tubes packaged with filters and igniters
- Electronic ignition
- Each weld uses one igniter
- Not subject to spontaneous ignition
- See specific nVent ERICO Cadweld connection details to determine welding material requirements




| Part Number |
|---|
| XL115 |
| XL15 |
| XL25 |
| XL32 |
| XL45 |
| XL90 |

## NVENT ERICO CADWELD ONE SHOT, CABLE TO GROUND ROD

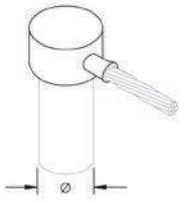








Mold Family



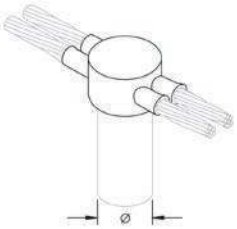
GR (ONE SHOT)



GT (ONE SHOT)



NT (ONE SHOT)



NX (ONE SHOT)

### FEATURE

- Single use ceramic mold which eliminates the need for a graphite mold and handle clamp/frame
- Produces a permanent connection that will not loosen or corrode
- Fits plain copper-bonded, threaded copper-bonded, full-size galvanized and stainless steel ground rods
- NEC® compliant

| Part Number | Article Number | Mold Family | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Connection, Solid | Connection, Stranded |
|---|---|---|---|---|---|---|
| **Welding Material Type: nVent ERICO Cadweld Plus** | | | | | | |
| GR1141GPLUS | 165750 | GR (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 10 mm² | 10 mm² |
| GR1141LPLUS | 165751 | GR (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | | 16 mm² |
| GR1141VPLUS | 165752 | GR (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 50 mm² | 25 mm², 35 mm² |
| GR1161GPLUS | 165753 | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 10 mm² | 10 mm² |
| GR1161LPLUS | 165754 | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 16 mm² |
| GR1161VPLUS | 165755 | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 50 mm² | 25 mm², 35 mm² |
| GR1162CPLUS | 165756 | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 50 mm² |
| GR1162GPLUS | 165757 | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 70 mm² | 70 mm² |
| GR1162QPLUS | 165758 | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 95 mm² |
| GR1181GPLUS | 165759 | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 10 mm² | 10 mm² |
| GR1181LPLUS | 165760 | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 16 mm² |
| GR1181VPLUS | 165761 | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 50 mm² | 25 mm², 35 mm² |
| GR1182CPLUS | 165762 | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 50 mm² |
| GR1182GPLUS | 165763 | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 70 mm² | 70 mm² |
| GR1182QPLUS | 165764 | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 95 mm² |
| GT1141GPLUS | 165765 | GT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 10 mm² | 10 mm² |
| GT1141LPLUS | 165766 | GT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | | 16 mm² |
| GT1141VPLUS | 165767 | GT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 50 mm² | 25 mm², 35 mm² |
| GT1142GPLUS | – | GT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 70 mm² | 70 mm² |
| GT1161GPLUS | 165768 | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 10 mm² | 10 mm² |
| GT1161LPLUS | 165769 | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 16 mm² |
| GT1161VPLUS | 165770 | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 50 mm² | 25 mm², 35 mm² |

| Part Number | Article Number | Mold Family | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Connection, Solid | Connection, Stranded |
|---|---|---|---|---|---|---|
| GT1162CPLUS | 165771 | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 50 mm² |
| GT1162GPLUS | 165772 | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 70 mm² | 70 mm² |
| GT1181GPLUS | 165773 | GT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 10 mm² | 10 mm² |
| GT1181LPLUS | 165774 | GT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 16 mm² |
| GT1181VPLUS | 165775 | GT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 50 mm² | 25 mm², 35 mm² |
| GT1182CPLUS | 165776 | GT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 50 mm² |
| GT1182GPLUS | – | GT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 70 mm² | 70 mm² |
| NT1141GPLUS | 165777 | NT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 10 mm² | 10 mm² |
| NT1141LPLUS | 165778 | NT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | | 16 mm² |
| NT1141VPLUS | 165779 | NT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 50 mm² | 25 mm², 35 mm² |
| NT1161G1TPLUS | – | NT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 10 mm² |
| NT1161GPLUS | 165780 | NT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 10 mm² | 10 mm² |
| NT1161LPLUS | 165781 | NT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 16 mm² |
| NT1161VPLUS | 165782 | NT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 50 mm² | 25 mm², 35 mm² |
| NT1181GPLUS | 165783 | NT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 10 mm² | 10 mm² |
| NT1181LPLUS | 165784 | NT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 16 mm² |
| NT1181VPLUS | 165785 | NT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 50 mm² | 25 mm², 35 mm² |
| NX1141GPLUS | 165786 | NX (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 10 mm² | 10 mm² |
| NX1141LPLUS | 165787 | NX (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | | 16 mm² |
| NX1161G1TPLUS | – | NX (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 10 mm² |
| NX1161GPLUS | 165788 | NX (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 10 mm² | 10 mm² |
| NX1161LPLUS | 165789 | NX (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 16 mm² |
| NX1161VPLUS | 165790 | NX (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 50 mm² | 25 mm², 35 mm² |
| NX1181GPLUS | 165791 | NX (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 10 mm² | 10 mm² |
| NX1181LPLUS | 165792 | NX (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 16 mm² |
| NX1181VPLUS | 165793 | NX (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 50 mm² | 25 mm², 35 mm² |
| **Welding Material Type: Traditional** | | | | | | |
| GR1141G | – | GR (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 10 mm² | 10 mm² |
| GR1141L | – | GR (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | | 16 mm² |
| GR1141V | – | GR (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 50 mm² | 25 mm², 35 mm² |
| GR1161G | – | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 10 mm² | 10 mm² |
| GR1161GF | – | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 10 mm² | 10 mm² |
| GR1161L | – | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 16 mm² |
| GR1161V | – | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 50 mm² | 25 mm², 35 mm² |
| GR1162C | – | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 50 mm² |
| GR1162G | – | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 70 mm² | 70 mm² |
| GR1162Q | – | GR (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 95 mm² |
| GR1181G | – | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 10 mm² | 10 mm² |
| GR1181L | – | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 16 mm² |
| GR1181V | – | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 50 mm² | 25 mm², 35 mm² |
| GR1182C | – | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 50 mm² |
| GR1182G | – | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 70 mm² | 70 mm² |
| GR1182Q | – | GR (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 95 mm² |
| GT1141G | – | GT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 10 mm² | 10 mm² |
| GT1141L | – | GT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | | 16 mm² |
| GT1141V | – | GT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 50 mm² | 25 mm², 35 mm² |
| GT1161G | – | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 10 mm² | 10 mm² |
| GT1161L | – | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 16 mm² |
| GT1161LF | – | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 16 mm² |
| GT1161V | – | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 50 mm² | 25 mm², 35 mm² |
| GT1161VF | – | GT (ONE SHOT) | 5/8" | 15.6 – 16.1 mm | 50 mm² | 25 mm², 35 mm² |
| GT1162C | – | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 50 mm² |
| GT1162G | – | GT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 70 mm² | 70 mm² |
| GT1181G | – | GT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 10 mm² | 10 mm² |
| GT1181L | – | GT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 16 mm² |

| Part Number | Article Number | Mold Family | Ground Rod Diameter, Nominal | Ground Rod Diameter, Actual | Connection, Solid | Connection, Stranded |
|---|---|---|---|---|---|---|
| GT1181V | – | GT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 50 mm² | 25 mm², 35 mm² |
| GT1182C | – | GT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 50 mm² |
| GT1182G | – | GT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 70 mm² | 70 mm² |
| NT1141G | – | NT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 10 mm² | 10 mm² |
| NT1141L | – | NT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | | 16 mm² |
| NT1141V | – | NT (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 50 mm² | 25 mm², 35 mm² |
| NT1161G | – | NT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 10 mm² | 10 mm² |
| NT1161L | – | NT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 16 mm² |
| NT1161V | – | NT (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 50 mm² | 25 mm², 35 mm² |
| NT1181G | – | NT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 10 mm² | 10 mm² |
| NT1181L | – | NT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 16 mm² |
| NT1181V | – | NT (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 50 mm² | 25 mm², 35 mm² |
| NX1141G | – | NX (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | 10 mm² | 10 mm² |
| NX1141L | – | NX (ONE SHOT) | 1/2" | 11.2 – 12.9 mm | | 16 mm² |
| NX1161G | – | NX (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 10 mm² | 10 mm² |
| NX1161G1T | – | NX (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 10 mm² |
| NX1161L | | NX (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | | 16 mm² |
| NX1161V | – | NX (ONE SHOT) | 5/8" | 14.1 – 16.1 mm | 50 mm² | 25 mm², 35 mm² |
| NX1181G | – | NX (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 10 mm² | 10 mm² |
| NX1181L | – | NX (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | | 16 mm² |
| NX1181V | – | NX (ONE SHOT) | 3/4" | 17.1 – 19.4 mm | 50 mm² | 25 mm², 35 mm² |

*A gap between conductors may be required. See mold tag for more information.*

# nVent ERICO Cadweld One Shot




## PERMANENT EXOTHERMIC CONNECTIONS WITHOUT THE MOLD

Cadweld One Shot produces a permanent exothermic connection to a ground rod that will not loosen, corrode or increase in resistance for the life of the installation. The convenient single-use package makes the connection to the ground rod without a mold or starting material.

Thanks to the electronic Cadweld One Shot Control Unit, welds can now be completed up to 6 ft. (1.8 m) away, increasing weld flexibility in hard-to reach areas. The refractory ceramic body on the Cadweld One Shot is more durable than conventional ceramic and resists breaking.

### INSTALLATION IS EASY!



1. After preparing the ground rod and wire, position the Cadweld One Shot and attach the lead to the control unit.



2. Ignite the Cadweld One Shot with the electronic Cadweld Plus Control Unit.



3. After one minute, break off the ceramic crucible. It can also be left in place, if desired.

### FEATURES

- Easy-to-use electronic ignition. No starting material needed
- Extremely durable disposable ceramic outer body eliminates the graphite mold and frame
- 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
- cULus® Listed

# nVent ERICO Cadweld Multi



## CADWELD MULTI

**The complete welding system for improving grounding system performance, reliability, and installation convenience.**

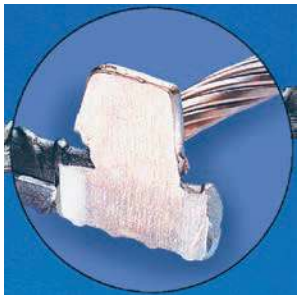
Cadweld Multi simplifies the exothermic welding process. Make over 30 separate connection types with a single, universal mold, which now enables you to make connections to a ground rod.

Welding material
sold separately.



## EXOTHERMIC WELDED CONNECTIONS

Exothermic welded connections are immune to thermal conditions which can cause mechanical and compression joints to become loose or corrode. They are recognized for their durability and longevity.



## CADWELD CONNECTION

The Cadweld Plus exothermic welding process fuses conductors together to form a molecular bond with a current-carrying capacity equal to that of the conductor. Grounding systems incorporating this type of connection therefore operate as a continuous conductor with lower resistivity.

### CADWELD MULTI OFFERS ENHANCED USER BENEFITS:

- Performs welds to ground rods
- Versatile mold produces an unlimited variety of connections
- Compact compression structure enables easy alignment of conductors
- Language-free instruction guide
- Lightweight kit for easy transportation
- Easy-to-use system completes weld in seconds
- Video available on nVent.com/ERICO

### STANDARD COMPLIANCE

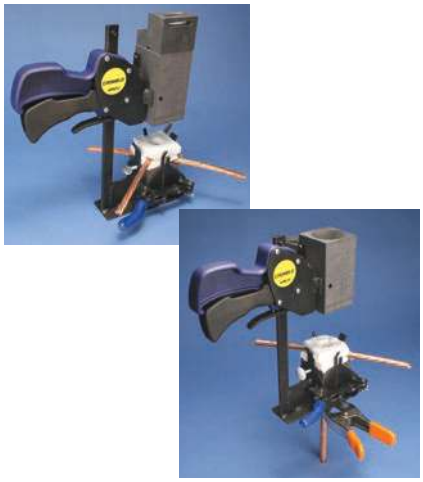
**Cadweld Multi satisfies the requirements of:**

- BS 6651
- BS 7430
- NFC 15-100
- IEEE® 837-2014
- IEEE 80-2000
- IEC 1025-1 (ENV 61024-1)

# nVent ERICO Cadweld Multi



## 4 EASY STEPS FOR MULTIPLE, PERMANENTLY WELDED, ELECTRICAL CONNECTIONS



**Step 1:** Layer batting and variable conductor sizes to be welded into dry mold.



**Step 2:** Add Cadweld Plus welding material.



**Step 3:** Close cover and connect Cadweld Plus control unit.



**Step 4:** Press and hold operate button. Open mold after 10 seconds.

## HOW DOES IT WORK?

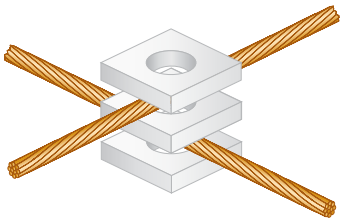
Cadweld Multi combines a versatile mold block and a range of gaskets (batting) to allow numerous different welded connections to be produced without the need to change the mold for each connection type

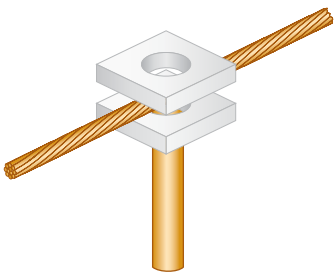


The process is similar to the Cadweld with one distinct difference...

there is no need to change the mold for different connection types.

The whole process is complete in about one minute. Page 31 details the gasket quantities required for each weld.





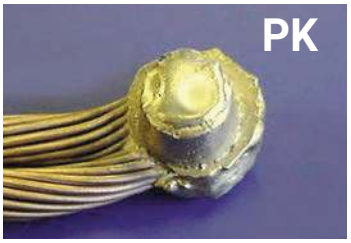
# nVent ERICO Cadweld Multi

**CADWELD MULTI OFFERS ALL OF THE BENEFITS OF CADWELD CONNECTIONS:**

- Current-carrying capacity equal to that of the conductor
- Permanent molecular bond that will not loosen or corrode
- Works with Cadweld traditional welding material
- Works with Cadweld Plus welding material
- Will withstand repeated fault currents
- No external power or heat required
- Ground rod capabilities
- Visual inspection possible
- Requires minimal training



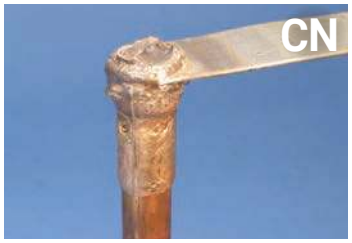






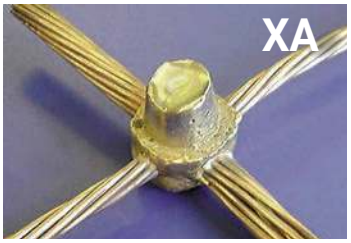










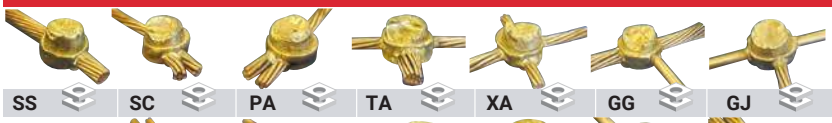




# nVent ERICO Cadweld Multi

## CADWELD MULTI CONNECTION CAPABILITIES

### Copper Cable/Solid to Copper Cable/Solid



SS SC PA TA XA GG GJ



TD TE TF

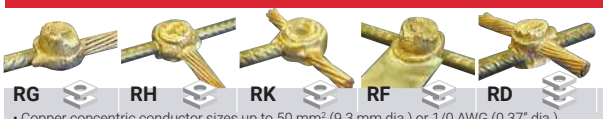
• Copper concentric conductor sizes up to 25 mm² (6.6 mm dia.) or #3 AWG (0.26" dia.)



GF GW XB PP PK GE PG

• Copper concentric con ductor sizes up to 50 mm² (9.3 mm dia.) or 1/0 AWG (0.37" dia.)

### Copper Cable/Solid Strip to Rebar



RG RH RK RF RD

• Copper concentric conductor sizes up to 50 mm² (9.3 mm dia.) or 1/0 AWG (0.37" dia.)
• Copper or steel strip sizes up to 30 x 3,5 mm (1.2" x 0.14")
• Rebar sizes up to 10 mm (#3)

### Copper Strip to Copper Strip



BB CG BG EB

• BB and CG: Copper strip sizes up to 30 x 3,5 mm (1.2" x 0.14")
• BG and EB: Copper strip sizes up to 30 x 3,0 mm (1.2" x 0.12")

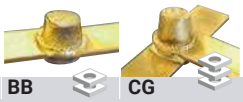
### Copper Cable/Solid to Copper or Steel Strip/Lug



HA HC HS HT GL LA LJ LE

• Copper concentric conductor sizes up to 50 mm2 (9.3 mm dia.) or 1/0 AWG (0.37" dia.)
• Copper or steel lug / strip sizes up to 30 x 3,5 mm (1.2" x 0.14")

### Galvanized Steel Strip to Galvanized Steel Strip



BB CG

• Galvanized steel strip sizes up to 30 x 3,5 mm (1.2" x 0.14")

### Ground Rod Connections



TG GT CN CP GR

• Copper concentric conductor sizes up to 10 mm2 (4.2 mm dia.) or #6 AWG (0.18" dia.)
• Copper strip sizes up to 30 x 2,0 mm (1.2" x 0.08"



GT CN CP GR

• Copper concentric conductor sizes greater than 10 mm2 (4.2 mm dia.) or #6 AWG (0.18" dia.)
• Copper strip sizes 30 x (2,5 - 3,0 mm) or 1.2" x (0.10" – 0.12")
• Steel strip sizes 30 x (0,5 - 3,5 mm) or 1.2" x (0.02" – 0.14"

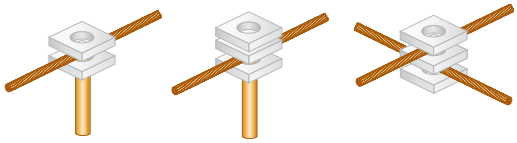
### Cadweld Multi Available Items

| Part Nr | Article Nr | Description | | Weight (kg) |
|---|---|---|---|---|
| KITCDMV01 | 167782 | Cadweld Multi Kit | 1 | 25.000 |
| The Cadweld Multi kit (KITCDMV01) contains the following list of items: | | | | |
| FMCDMV01 | 120883 | Handle Clamp | 1 | 1.800 |
| CDMV01H | 240399 | Mold for H welds | 1 | 1.200 |
| CDMV0112 | 240398 | Mold for welds on 1/2 rods | 1 | 1.200 |
| CDMV0158 | 240397 | Mold for welds on 5/8 rods | 1 | 1.200 |
| CDMV0134 | 240396 | Mold for welds on 3/4 rods* | 1 | 1.200 |
| SCDM01 | 120886 | Set of 33 batting/gaskets | 2 | 0.200 |
| B399P | 162070 | SKK1 clamp | 1 | 0.500 |
| TSCSTP | 197295 | Toolset | 1 | 2.000 |
| B136B | 182030 | Slag Removal Spade | 1 | 0.144 |
| | | Language free instruction sheet | 1 | |
| The following items can be used with the Cadweld Multi Kit (KITCDMV01). They are sold separately. | | | | |
| T320 | 165000 | Flint Ignitor T320 | 1 | 0.090 |
| 90 | 163040 | 10 | 10 | 0.090 |
| 115 | 163050 | 10 | 10 | 0.115 |
| PLUSCU | 165745 | Control Unit | 1 | 1.088 |
| PLUS#90F20 | 165705 | Cadweld Plus welding material | 10 | 0.158 |

Symbol denotes number of batting (gaskets) required for each connection.

Requires 2 batting layers for weld

Requires 3 batting layers for weld



**NOTES:**

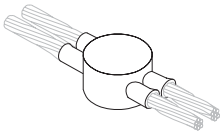
- *For connections using a 3/4" ground rod, it is necessary to use #115 / 115PLUSF20 weld material (sold separately).
- For all other connection types, use #90 or 90PLUSF20.
- For connections using galvanized material, remove galvanizing before welding, for a better connection.

## NVENT ERICO CADWELD ONE SHOT, CABLE TO CABLE

### FEATURE

- Single use ceramic mold which eliminates the need for a graphite mold and handle clamp/frame
- Produces a permanent connection that will not loosen or corrode
- NEC® compliant





| Part Number | Mold Family | Connection, Solid | Connection, Stranded |
|---|---|---|---|
| **Welding Material Type: nVent ERICO Cadweld Plus** | | | |
| PG11LPLUS | PG (ONE SHOT) | | 16 mm² |
| **Welding Material Type: Traditional** | | | |
| PG11L | PG (ONE SHOT) | | 16 mm² |
| PG11V | PG (ONE SHOT) | 50 mm² | 25 mm², 35 mm² |

## 1 HOLE LUG

### FEATURE

- Provides an efficient bolting surface for grounding and power applications
- Electrolytic grade copper
- For use with nVent ERICO Cadweld type LA connections only






Material: Copper
Finish: Tinned
Type: Non-NEMA®

| Part Number | Article Number | Length | Width | Thickness | A | Hole Size | Equivalent Conductor Size |
|---|---|---|---|---|---|---|---|
| KA102 | 183010 | 49.987 mm | 24.994 mm | 2.01 mm | 12 mm | 8.50 mm | 50 mm² |
| KA103 | 183020 | 49.987 mm | 24.994 mm | 3.00 mm | 12 mm | 8.50 mm | 75 mm² |
| KA115 | 183140 | 94.996 mm | 49.987 mm | 5.99 mm | 25 mm | 10.49 mm | 300 mm² |

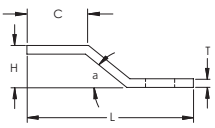
*For sizes not listed, contact us.*

## 1 HOLE OFFSET LUG

### FEATURE

- Provides an efficient bolting surface for grounding and power applications
- Electrolytic grade copper
- For use with nVent ERICO Cadweld type LA connections only






| Part Number | Article Number | H | L | W | T | A | B | C | HS | a |
|---|---|---|---|---|---|---|---|---|---|---|
| **Material: Copper — Finish: TinnedType — NEMA®:** | | | | | | | | | | |
| B101CEOL | – | 15.88 | 63.500 | 25.400 | 3.18 | 12.7 | 25.4 | 22.2 | 11.11 | 45 |
| B101DEOL | – | 17.53 | 68.326 | 25.400 | 4.76 | 14.3 | 28.6 | 22.2 | 14.29 | 45 |

| Part Number | Article Number | H | L | W | T | A | B | C | HS | a |
|---|---|---|---|---|---|---|---|---|---|---|
| B101EEOL | – | 19.05 | 76.200 | 25.400 | 6.35 | 15.9 | 32.5 | 26.9 | 14.29 | 45 |
| **Material: Copper — Finish: TinnedType — Non-NEMA®:** | | | | | | | | | | |
| B305TC | – | 20.00 | 91.400 | 30.000 | 5.00 | 15.0 | 33.8 | 39.9 | 17.00 | 45 |
| KOF103 | 183200 | 13.00 | 54.999 | 24.994 | 3.00 | 10.0 | 20.0 | 25.0 | 8.50 | 45 |
| **Material: Stainless Steel 304 (EN 1.4301) — Type: Non-NEMA®** | | | | | | | | | | |
| B305SS | – | 20.07 | 91.440 | 29.972 | 5.08 | 15.0 | 33.8 | 39.9 | 17.00 | 45 |

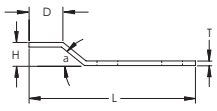
*For sizes not listed, contact us.*

## 2 HOLE OFFSET LUG

### FEATURE

- Provides an efficient bolting surface for grounding and power applications
- Electrolytic grade copper
- For use with nVent ERICO Cadweld type LA connections only






Material: Copper
Finish: Tinned
Type: NEMA®

| Part Number | H | L | W | T | A | B | C | D | HS |
|---|---|---|---|---|---|---|---|---|---|
| B102CEOL | 15.88 | 114.300 | 25.400 | 3.18 | 15.9 | 44.5 | 76.2 | 22.2 | 14.29 |
| B102EEOL | 19.05 | 120.650 | 25.400 | 6.35 | 15.9 | 44.5 | 76.2 | 26.9 | 14.29 |

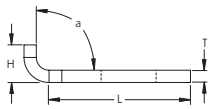
*For sizes not listed, contact us.*

## 1 HOLE LUG, GL STYLE

### FEATURE

- Provides an efficient bolting surface for grounding and power applications
- Electrolytic grade copper
- For use with nVent ERICO Cadweld type GL connections only






Material: Copper
Finish: Tinned
Type: NEMA®

| Part Number | Article Number | Height | Length | Width | Thickness | A | Hole Size | Angle | Equivalent Conductor Size |
|---|---|---|---|---|---|---|---|---|---|
| B121CE | 183650 | 11.18 mm | 36.576 mm | 25.400 mm | 3.18 mm | 15.9 mm | 14.29 mm | 90° | 81 mm² |
| B121DE | – | 11.18 mm | 37.338 mm | 25.400 mm | 4.76 mm | 15.9 mm | 14.29 mm | 105° | 121 mm² |

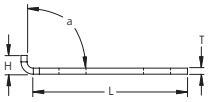
*For sizes not listed, contact us.*

## 2 HOLE LUG, GL STYLE

### FEATURE

- Provides an efficient bolting surface for grounding and power applications
- Electrolytic grade copper
- For use with nVent ERICO Cadweld type GL connections only






Material: Copper
Finish: Tinned
Type: NEMA®

| Part Number | Article Number | H | L | W | T | A | B | HS | a | Equivalent Conductor Size |
|---|---|---|---|---|---|---|---|---|---|---|
| B122CE | 183660 | 11.18 | 81.026 | 25.400 | 3.18 | 15.9 | 44.5 | 14.29 | 90 | 81 |
| B122DE | – | 11.18 | 82.550 | 25.400 | 4.76 | 15.9 | 44.5 | 14.29 | 90 | 121 |

*For sizes not listed, contact us.*

## HANDLE CLAMP FOR THREE-PIECE VERTICAL SPLIT MOLDS

### FEATURE

- Opens the mold in two directions
- Provides more convenience and further simplifies the installation process



| Part Number | Price Key |
|---|---|
| L163 | 3 |
| L164 | 4 |

## HANDLE CLAMP, MAGNETIC

### FEATURE

- Designed to securely hold an nVent ERICO Cadweld mold to a large flat or slightly curved vertical steel surface
- Used on vertically split molds



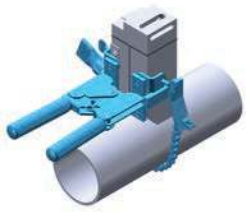
| Part Number | Article Number | Price Key |
|---|---|---|
| B159M | 161631 | D, F |
| B396 | 161632 | C, R |

## HANDLE CLAMP WITH CHAIN SUPPORT

### FEATURE

- Securely holds the nVent ERICO Cadweld mold to a pipe
- See specific nVent ERICO Cadweld mold requirements





| Part Number | Article Number | Price Key | Connection Type |
|---|---|---|---|
| **Pipe Orientation: Horizontal** | | | |
| B160H | – | C, R | HA, HC, HS, HT |
| **Pipe Orientation: Vertical** | | | |
| B159V | – | D, F | VS, VF, VB, VV |
| B160V | – | C, R | VS, VF, VB, VV |
| L160VG | 161660 | C, R | VG |

## HANDLE CLAMP CHAIN

### FEATURE

- Handle clamp accessory used on specific clamps to securely hold the nVent ERICO Cadweld mold to a pipe
- See specific nVent ERICO Cadweld mold requirements



| Part Number | Mold Family | Handle Clamp | Chain Length | Pipe Orientation | Pipe Size |
|---|---|---|---|---|---|
| B158 | HA, HC, HS, HT, VB | B159V, B160V, B159VT, B160VT, B159H, and B160H | 508 mm | Horizontal, Vertical | 4" – 10" |

## MAGNETIC ASSEMBLY



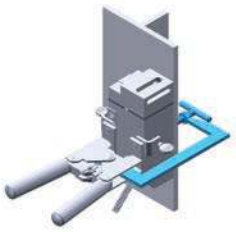
### FEATURE

- Powerful welding magnet securely positions the mold during the connection process to a flat steel surface or steel pipe
- Helps with mold stability to reduce the chance of welding material leakage
- Quickly and easily attaches to hold down “A” Price Key molds (new or retrofit)
- Assembly is adjustable
- Ideal when used with nVent ERICO Cadweld Plus to allow for use of full extension of control unit lead

| Part Number | Article Number |
|---|---|
| B323N2 | 161630 |

## SUPPORT CLAMP FOR VERTICAL FLAT STEEL SURFACE





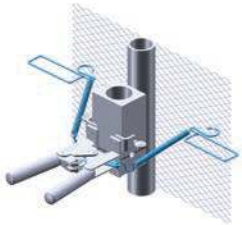
### FEATURE

- Securely supports an nVent ERICO Cadweld mold to a vertical "H" column or angle
- Easily attaches to an L160 or L159 handle clamp
- For use with type VF molds for up to 3/4" (19.1 mm) thick steel
- For use with type VB, VG, VN, and VS molds for up to 1" (25.4 mm) thick steel

| Part Number | Article Number | Handle Clamp |
|---|---|---|
| B134 | 161740 | L160, Sold Separately |
| B135 | 161780 | L159, Sold Separately |

## FENCE FABRIC ATTACHMENT ASSEMBLY





### FEATURE

- Fastens to an L160 or L159 handle clamp
- Firmly holds the mold to the fence post after the fence fabric is in place
- Ideal for retrofit jobs

| Part Number | Article Number | Connection Type |
|---|---|---|
| B827A | 161635 | VS, VF, VB, VV |

## HANDLE CLAMP, MINI EZ

### FEATURE

- Mini EZ Handle Clamps are typically included with the mold
- See specific nVent ERICO Cadweld mold or nVent ERICO Cadweld kit requirements to determine the handle clamp requirements



| Part Number | Article Number | Price Key |
|---|---|---|
| B399A | – | N, P, T |
| B399B | – | N, P, T |
| B399Q | 161080 | N, P, T |
| L161 | 161010 | N, P, T |

## HANDLE CLAMP, MINI EZ WITH CHAIN SUPPORT

### FEATURE

- Securely holds the nVent ERICO Cadweld mold to a rod or rebar in a vertical position



| Part Number | Article Number | Price Key | Connection Type |
|---|---|---|---|
| L161A | 161090 | P | GYP, GY35 Compact kit, RC35 and GY35 Maxikit |

## HANDLE CLAMP, MINI EZ, MAGNETIC

### FEATURE

- Designed to securely hold an nVent ERICO Cadweld mold to a large flat or slightly curved vertical steel surface
- Allows for simple placement of the nVent ERICO Cadweld mold in the desired connection location
- See specific nVent ERICO Cadweld mold or nVent ERICO Cadweld kit requirements to determine the handle clamp requirements



| Part Number | Article Number | Price Key | Mold Size |
|---|---|---|---|
| B399AM | 161633 | N, P, T | 38.1 mm |
| B399BM | 161634 | N, P, T | 51 mm |

## CABLE CLAMP ASSEMBLY

### FEATURE

- Designed for use with hard-drawn copper cable, copper-bonded conductors or any cable under tension
- Use of the clamp aids in preventing cable movement and prolongs mold life



| Part Number | Article Number |
|---|---|
| B265 | 165020 |

## GROUND ROD CLAMPING TOOL

### FEATURE

- Must be used to provide the correct positioning of ground rods and mold while splicing the rods with nVent ERICO Cadweld for HDGB and GB type connections

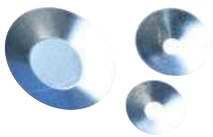


| Part Number | Article Number |
|---|---|
| B120 | 161750 |

## DISK

### FEATURE

- Required each time a traditional nVent ERICO Cadweld connection is made
- Placed at the bottom of the crucible, holding the welding material until the reaction takes place



Material: Steel

| Part Number | Article Number | Welding Material | Diameter |
|---|---|---|---|
| B117A | 141154 | 15 - 32, Sold Separately | 19.1 mm |
| B117B | 141156 | 45 - 115, Sold Separately | 25.4 mm |
| B117C | 141157 | 150 - 500, Sold Separately | 38.1 mm |

## DISK KIT

### FEATURE

- Contains three disk sizes for common nVent ERICO Cadweld connection applications
- Convenience item for replacing lost or damaged disks



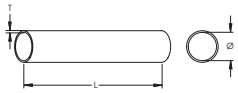
| Part Number | Material |
|---|---|
| T328D | Steel |

## CONDUCTOR SLEEVE

### FEATURE

- Used to adapt a limited range of smaller size cables to a larger size nVent ERICO Cadweld Mold
- Provides strength and stability on finely-stranded copper conductors





Material: Copper
Finish: Tinned

| Part Number | Article Number | Length | Thickness | Diameter |
|---|---|---|---|---|
| **Type: Flared** | | | | |
| 180380 | 180380 | 25.000 mm | 2.40 mm | 5.3 mm |
| H102F | 180390 | 26.000 mm | 1.05 mm | 4.3 mm |
| H106AF | 180260 | 35.000 mm | 1.00 mm | 15.0 mm |
| H106F | 180250 | 26.000 mm | 1.00 mm | 15.0 mm |
| H113F | 180360 | 26.000 mm | 1.00 mm | 8.0 mm |
| H11F | 180320 | 26.000 mm | 1.00 mm | 13.0 mm |
| PBS24F | – | 38.100 mm | 0.79 mm | 20.2 mm |
| S02F | – | 25.400 mm | 0.79 mm | 15.5 mm |
| S03F | – | 25.400 mm | 0.79 mm | 11.6 mm |
| S05F | – | 25.400 mm | 0.79 mm | 9.9 mm |
| S07F | – | 25.400 mm | 0.79 mm | 17.0 mm |
| S17F | – | 25.400 mm | 0.79 mm | 8.7 mm |
| S429F2J16 | – | 25.400 mm | 0.51 mm | 12.2 mm |
| S429F2N16 | – | 25.400 mm | 0.51 mm | 13.7 mm |
| S429F3S20 | – | 31.750 mm | 0.64 mm | 23.6 mm |
| **Type: Straight** | | | | |
| B112 | – | 26.988 mm | 0.79 mm | 5.4 mm |
| B1331K | – | 25.400 mm | 0.79 mm | 3.6 mm |
| H101 | 180140 | 26.000 mm | 1.00 mm | 6.0 mm |
| H102 | 180170 | 25.000 mm | 1.05 mm | 4.3 mm |
| H103 | 180180 | 25.000 mm | 1.20 mm | 5.3 mm |
| H105 | 180230 | 23.500 mm | 1.00 mm | 3.0 mm |
| H117 | 180430 | 25.000 mm | 1.00 mm | 7.0 mm |

## SLEEVE KIT

### FEATURE

- Contains a variety of adapter sleeves that allow a buildup of smaller conductors to fit the opening of larger sized conductors in a nVent ERICO Cadweld mold
- Includes shim stock for wrapping around a conductor, increasing the diameter to fit larger conductor openings in a nVent ERICO Cadweld mold
- Contains extra disks for all sizes of traditional welding material
- Includes extra flints for nVent ERICO Cadweld Flint Ignitors



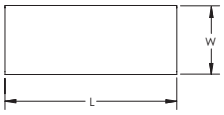
| Part Number | Article Number |
|---|---|
| T427 | 162423 |

## COPPER SHIM

### FEATURE

- Wrapped around the cable until the diameter is about the same as the cable opening in the mold






Material: Copper

| Part Number | Article Number | Length | Width | Thickness |
|---|---|---|---|---|
| B140A | – | 38.100 mm | 76.200 mm | 0.33 mm |
| B140N | 165610 | 76.200 mm | 38.100 mm | 0.33 mm |
| B141A | – | 38.100 mm | 76.200 mm | 0.33 mm |

## BATTING/PACKING MATERIAL

### FEATURE

- Preformed ceramic packing material
- Seals mold conductor openings
- Prevents welding material leakage
- See nVent ERICO Cadweld mold requirements for specific batting part number



| Part Number | Article Number |
|---|---|
| B144B | – |
| B144C | – |
| B144M | 159790 |
| B144Q | 159780 |

| Part Number | Article Number |
|---|---|
| S2904A | 185010 |
| S2904B | 185020 |
| S2904C | 185030 |

## GALVANIZING BAR

### FEATURE

- Used to repair a galvanized surface that has been damaged by welding or drilling
- Low-temperature self-fluxing material
- The bar may be melted using the heat produced after making a nVent ERICO Cadweld connection, or a small torch may be used



| Part Number | Article Number | Material |
|---|---|---|
| T319 | 162426 | Zinc Alloy |

## GALVANIZING SPRAY

### FEATURE

- Easy-to-use galvanizing paint in a spray can
- Used to touch up heat affected areas on galvanized steel surfaces after welding




| Part Number | Unit Weight |
|---|---|
| T372A | 453 g |

## HAMMER DIE

### FEATURE

- Hardened steel die
- Used to form the end of a field-made bond
- Formed end designed to fit specific nVent ERICO Cadweld mold



Material: Steel

| Part Number | Article Number | Conductor Size | nVent ERICO Sleeve |
|---|---|---|---|
| **Type: Power** | | | |
| PBWD102 | 184200 | 120 mm² Concentric | H106F |
| PBWD106 | 184090 | 240 mm² Concentric | S429FY922 |

| Part Number | Article Number | Conductor Size | nVent ERICO Sleeve |
|---|---|---|---|
| **Type: Signal** | | | |
| SBD50 | – | 3/16" Bondstrand | SBS12C |
| SBD51 | – | 5/16" Bondstrand | SBS09C |
| SBD55 | – | 35 mm² Concentric | S17F |

## MOLD SEALER

### FEATURE

- Ideal for sealing hot or cold molds to retard leakage from large stranded conductors
- Prolongs useful mold life when the cable opening becomes worn
- Required on certain nVent ERICO Cadweld molds such as Types HA, HB, HC, VG and VN



| Part Number | Article Number | Unit Weight |
|---|---|---|
| T403 | 165280 | 0.907 kg |

## NVENT ERICO CADWELD PLUS CONTROL UNIT

### FEATURE

- Battery-powered controller box designed for 600 connections with one set of batteries
- Requires no special batteries or charger
- Comes standard with high temperature lead
- Connects to the welding material ignition strip with a custom made, purpose-designed termination clip
- Sends a predetermined voltage to the ignition strip and initiates the reaction
- The PBPLUSCU control unit electronic ignitor is primarily designed for ignition of nVent ERICO Cadweld Plus WELDING MATERIAL, F80
- PBPLUSCU meets AREMA® C&S Manual Recommendations; Part 8.1.34, 2013



| Part Number | Article Number | Cable Length | Batteries | Working Temperature | Certifications |
|---|---|---|---|---|---|
| PBPLUSCU | – | 1.8 m | 8 Lithium AA Batteries | -40 to 60 °C | CE, ERICO PLUSCU, cURus, NOM |
| PLUSCU | 165738 | 1.8 m | 8 Standard AA Batteries | -18 to 55 °C | CE, ERICO PLUSCU, cURus |

*All nVent ERICO Cadweld Plus connections on rail properties must be installed using nVent ERICO Cadweld Plus Welding Material, F80.*

## FLINT IGNITOR

### FEATURE

- Used to ignite the starting material when making a traditional nVent ERICO Cadweld connection or a nVent LENTON Cadweld rebar connection



| Part Number | Article Number |
|---|---|
| T320 | 165000 |

## REPLACEMENT FLINT

### FEATURE

- Replacement flints for T320 Flint Ignitor



| Part Number | Article Number | Standard Packaging Quantity |
|---|---|---|
| T320A | 165010 | 10 pc |

## FLINT IGNITOR EXTENSION

### FEATURE

- Attaches to T320 Flint Ignitor and allows the installer to be approximately 30" (762 mm) away from the mold
- Ideal for applications such as making a mold in a narrow trench while the installer is at ground level



| Part Number | Article Number |
|---|---|
| B32130 | 162429 |

## BATTERY PACK

**FEATURE**

- Battery, charger, and carrying case required for the ignition of nVent ERICO Cadweld Exolon welding material
- Battery operates approximately 200 connections before requiring a recharge
- Charger, all electrical connections and instructions are included in the battery case



| Part Number |
|---|
| XLB971A1 |

## TORCH HEAD

**FEATURE**

- Self-igniting propane torch head
- Squeezing the control knob produces an instant flame; releasing it extinguishes the flame
- No flame adjusting
- Burn tip remains cool during normal use
- Operates on its side or upside down
- Can withstand 60 MPH (96 KPH) winds without flareout
- Fits all standard 14.1 and 16.4 ounce (400 and 465 gram) propane cylinders



| Part Number | Article Number |
|---|---|
| T111 | 165170 |

## CARD CLOTH BRUSH

**FEATURE**

- Aids in removing oxides from conductor surfaces
- Made of short, stiff bristles
- Generally preferred for cleaning concentric conductors and busbars which are not heavily oxidized



| Part Number | Article Number |
|---|---|
| T313 | 165040 |

## WIRE BRUSH

**FEATURE**

- Aids in removing oxides from conductor surfaces
- Useful for cleaning coarse or very dirty conductors

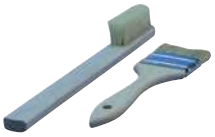


| Part Number | Article Number | Product |
|---|---|---|
| T314 | 165130 | Brush with Replaceable Brush Heads |
| T314A | 165270 | Replacement Brush Heads |

## MOLD CLEANING BRUSH

**FEATURE**

- Ideal for cleaning nVent ERICO Cadweld molds
- Soft bristles minimize wear of graphite during the cleaning process
- Removes slag and particles from mold cavity, tap hole, crucible and cover



| Part Number | Article Number | Type |
|---|---|---|
| T302A | 165260 | Wide |
| T394 | 162427 | Narrow |

## MOLD CLEANER

**FEATURE**

- Used to remove the slag from the crucible area of the mold after making a nVent ERICO Cadweld connection



| Part Number | Article Number | Mold Type |
|---|---|---|
| B136A | 182125 | Most nVent ERICO Cadweld molds using #65 welding material and smaller |
| B136B | 182130 | Most nVent ERICO Cadweld molds using #90 welding material and larger |
| B136F | 182135 | Specific nVent ERICO Cadweld molds only (See mold requirements to determine need) |

## RASP

**FEATURE**

- Used to remove rust from steel surfaces or to remove galvanizing from hot dipped galvanized steel to expose the bare steel for welding
- Curved blade makes it an efficient tool for flat surfaces



| Part Number | Article Number | Product |
|---|---|---|
| T321 | 162630 | Rasp |
| T321A | 162430 | Replacement Blade |

## CANVAS GLOVE WITH LEATHER PALM

**FEATURE**

- Heavy canvas gloves with leather palms



| Part Number | Article Number |
|---|---|
| T378L | 162422 |

*As with all tasks, it is recommended that users consider safety first when making nVent ERICO Cadweld connections and wear appropriate safety equipment.*

## SAFETY GLASSES

**FEATURE**

- Provides protection against moderate impact hazards
- May be worn separately or over prescription glasses



Material: Polycarbonate

| Part Number | Article Number |
|---|---|
| T393 | 162421 |

*As with all tasks, it is recommended that users consider safety first when making nVent ERICO Cadweld connections and wear appropriate safety equipment.*

## DISK CONTAINER

### FEATURE

- Metal container for holding disks and small nVent ERICO Cadweld accessories



| Part Number | Article Number | Diameter | Height |
|---|---|---|---|
| T328 | 162428 | 76.2 mm | 25.4 mm |

## NVENT ERICO CADWELD TOOL KIT

### FEATURE

- Convenient tool kits for nVent ERICO Cadweld connection installations



| Part Number | Article Number | Product |
|---|---|---|
| T315A | 162437 | Complete Kit |
| T343 | – | Heavy-Duty Kit |

## TOOL BOX

### FEATURE

- Metal box with removable tote tray
- Recommended for carrying tools, molds, welding material and propane torch used to make nVent ERICO Cadweld connections



| Part Number | Article Number | Length | Width | Height |
|---|---|---|---|---|
| T396 | 162436 | 482.6 mm | 177.8 mm | 190.5 mm |

## WELDING TRAY

### FEATURE

- Recommended when using nVent ERICO Cadweld overhead or over expensive equipment
- Designed to contain a potential spill of molten weld metal



| Part Number | Article Number | Height | Length | Width |
|---|---|---|---|---|
| XLB974B2 | 162435 | 82.55 mm | 336.55 mm | 177.8 mm |

## CERAMIC BLANKET

### FEATURE

- Woven ceramic blanket that can be used to hold a hot mold or keep the work surface free of slag when cleaning the mold



| Part Number | Article Number |
|---|---|
| T306 | 162431 |

# Technical Charts

## CONCENTRIC STRANDED CONDUCTOR SIZES

| Size (AWG/MCM/mm2) | Circular Mils | Stranding | Nominal O.D. of Strand | Approx, O.D. (inches) | Approx, O.D. (mm) | Weight (lbs/mft) | Cadweld Cable Code |
|---|---|---|---|---|---|---|---|
| 8 AWG | 16,510 | Solid | – | 0.1285 | 3.26 | 50.0 | 1D |
| 8 AWG | 16,510 | 7/.0486” | 0.0486 | 0.1460 | 3.71 | 50.1 | 1E |
| 6 AWG | 26,240 | Solid | – | 0.1620 | 4.11 | 79.5 | 1G |
| 6 AWG | 26,240 | 7/.0612” | 0.0612 | 0.1840 | 4.67 | 81.1 | 1H |
| 16 mm2 | 31,600 | 7/1.17 | 0.0461 | 0.2010 | 5.11 | 96.1 | W3 |
| 4 AWG | 41.740 | Solid | – | 0.2043 | 5.19 | 126.3 | 1K |
| 4 AWG | 41,740 | 7/.0772” | 0.0772 | 0.2320 | 5.89 | 129.0 | 1L |
| 4 AWG | 41,740 | 19/.0469” | 0.0469 | 0.2350 | 5.97 | 129.0 | 1L |
| 25 mm2 | 49,300 | 7/2.14 mm | 0.0843 | 0.2530 | 6.43 | 152.5 | Y1 |
| 25 mm2 | 49,300 | 19/1.35 | 0.0531 | 0.2660 | 6.76 | 152.5 | Y1 |
| 2 AWG | 66,360 | Solid | – | 0.2576 | 6.54 | 200.9 | 1T |
| 2 AWG | 66,360 | 7/.0974” | 0.0974 | 0.2920 | 7.42 | 204.9 | 1V |
| 2 AWG | 66,360 | 19/.0591” | 0.0591 | 0.2920 | 7.42 | 205.0 | 1V |
| 35 mm2 | 66,360 | 19/1.53 mm | 0.0602 | 0.3010 | 7.65 | 211.0 | Y2 |
| 50 mm2 | 98,500 | 19/1.78 mm | 0.0701 | 0.3500 | 8.89 | 287.6 | Y3 |
| 1/0 AWG | 105,600 | Solid | – | 0.3249 | 8.25 | 319.5 | 2B |
| 1/0 AWG | 105,600 | 7/.1228” | 0.1228 | 0.3690 | 9.37 | 326.0 | 2C |
| 1/0 AWG | 105,600 | 19/.0745” | 0.0745 | 0.3730 | 9.47 | 326.0 | 2C |
| 2/0 AWG | 133,100 | Solid | – | 0.3648 | 9.27 | 402.8 | 2F |
| 2/0 AWG | 133,100 | 7/.1379” | 0.1379 | 0.4140 | 10.52 | 410.9 | 2G |
| 2/0 AWG | 133,100 | 19/.0837” | 0.0837 | 0.4190 | 10.64 | 410.9 | 2G |
| 70 mm2 | 138,000 | 19/2.14 mm | 0.0843 | 0.4210 | 10.69 | 415.3 | Y4 |
| 3/0 AWG | 167,800 | Solid | – | 0.4096 | 10.40 | 507.8 | 2K |
| 3/0 AWG | 167,800 | 7/.1548” | 0.1548 | 0.4650 | 11.81 | 518.0 | 2L |
| 3/0 AWG | 167,800 | 19/.0940” | 0.0940 | 0.4700 | 11.94 | 518.0 | 2L |
| 95 mm2 | 187,000 | 37/1.78 mm | 0.0700 | 0.4910 | 12.47 | 576.5 | Y5 |
| 95 mm2 | 187,000 | 19/2.52 | 0.0992 | 0.4960 | 12.60 | 576.5 | Y5 |
| 4/0 AWG | 211,600 | Solid | – | 0.4600 | 11.68 | 610.5 | 2P |
| 4/0 AWG | 211,600 | 7/.1739” | 0.1739 | 0.5220 | 13.26 | 653.0 | 2Q |
| 4/0 AWG | 211,600 | 19/.1055” | 0.1055 | 0.5280 | 13.41 | 653.0 | 2Q |
| 120 mm2 | 237,000 | 37/2.03 mm | 0.0799 | 0.5600 | 14.22 | 737.1 | Y6 |
| 250 MCM | 250,000 | 19/.1147” | 0.1147 | 0.5750 | 14.61 | 771.0 | 2V |
| 250 MCM | 250,000 | 37/.0822” | 0.0822 | 0.5750 | 14.61 | 771.0 | 2V |
| 150 mm2 | 296,000 | 37/2.25 mm | 0.0886 | 0.6200 | 15.75 | 896.4 | Y7 |
| 300 MCM | 300,000 | 19/.1257” | 0.1257 | 0.6290 | 15.98 | 926.9 | 3A |
| 300 MCM | 300,000 | 37/.0900” | 0.0900 | 0.6290 | 15.98 | 926.9 | 3A |
| 185 mm2 | 365,000 | 27/2.52 mm | 0.0992 | 0.6950 | 17.65 | 1124.1 | Y8 |
| 400 MCM | 400,000 | 37/.1040 | 0.1040 | 0.7200 | 18.29 | 1235.2 | 3H |
| 240 mm2 | 474,000 | 61/2.25 mm | 0.0886 | 0.7970 | 20.24 | 1478.2 | Y9 |
| 500 MCM | 500,000 | 19/.1622” | 0.1622 | 0.8130 | 20.65 | 1544.0 | 3Q |
| 500 MCM | 500,000 | 37/.1162” | 0.1162 | 0.8130 | 20.65 | 1544.0 | 3Q |
| 750 MCM | 750,000 | 61/.1109” | 0.1109 | 0.9980 | 25.35 | 2316.0 | 4L |
| 500 mm2 | 987,000 | 61/3.20 mm | 0.1260 | 1.1340 | 28.80 | 2990.8 | W1 |
| 1000 MCM | 1,000,000 | 61/.1280” | 0.1280 | 1.1520 | 29.26 | 3088.0 | 4Y |

## DSA COPPER-CLAD CONDUCTOR

| Cable Stranding | Nominal Diameter | kcmil | Equivalent Copper Size* | Cadweld Cable Code |
|---|---|---|---|---|
| 7/#10 | .306 | 72.7 | 3 AWG | 9A |
| 7/#8 | .385 | 115.6 | 1 | 9B |
| 7/#7 | .433 | 145.7 | 1/0 | 9C |
| 7/#6 | .486 | 183.8 | 2/0 | 9D |
| 7/#5 | .546 | 231.7 | 3/0 | 9E |
| 19/#9 | .572 | 248.8 | 3/0 | 9F |
| 7/#4 | .613 | 292.2 | 4/0 | 9L |
| 19/#8 | .642 | 313.7 | 4/0 | 9G |
| 19/#7 | .721 | 395.5 | 250 Kcmil | 9H |
| 37/#9 | .801 | 484.4 | 300 | 7W |
| 19/#6 | .810 | 498.8 | 350 | 9J |
| 37/#8 | .899 | 610.9 | 400 | 7V |
| 19/#5 | .910 | 628.9 | 450 | 9K |
| 37/#7 | 1.010 | 770.3 | 500 | 9M |

*Approximate based on fusing current calculations

## RECTANGULAR COPPER BUSBAR

| Thickness (inches) | Width (inches) | Circular Mil Size | Weight (lbs per foot) | Cadweld Busbar Code |
|---|---|---|---|---|
| | 1 | 159,200 | .484 | CE |
| 1/8 | 1-1/2 | 238,700 | .726 | CG |
| | 2 | 318,300 | .969 | CH |
| 3/16 | 1 | 238,700 | .727 | DE |
| | 2 | 477,500 | 1.45 | DH |
| | 1 | 318,300 | .969 | EE |
| | 1-1/2 | 477,500 | 1.45 | EG |
| 1/4 | 2 | 636,600 | 1.94 | EH |
| | 3 | 954,900 | 2.91 | EK |
| | 4 | 1,273,000 | 3.88 | EM |
| | 1 | 477,500 | 1.45 | GE |
| | 1-1/2 | 716,200 | 2.18 | GG |
| 3/8 | 2 | 954,900 | 2.91 | GH |
| | 3 | 1,432,000 | 4.36 | GK |
| | 4 | 1,910,000 | 5.81 | GM |
| | 2 | 1,273,000 | 3.88 | JH |
| 1/2 | 3 | 1,910,000 | 5.81 | JK |
| | 4 | 2,546,000 | 7.75 | JM |

## GROUND RODS

| Nominal Size | Material | Type | Thread Size | Body Dia. | Cadweld Ground Rod Code |
|---|---|---|---|---|---|
| 1/2" | Copper-bonded | Threaded | 9/16" | .505 | 14 |
| | Steel* | Plain | | .500 | 14 |
| | Copper-bonded | Plain | | .475 | 15 |
| | Copper-bonded | Threaded | 1/2" | .447 | 13 |
| | Copper-bonded | Threaded | 5/8" | .563 | 16 |
| 5/8" | Steel* | Plain | | .625 | 31 |
| | Copper-bonded | Plain | | .563 | 16 |
| | Copper-bonded | Threaded | 3/4" | .682 | 18 |
| 3/4" | Steel* | Plain | | .750 | 33 |
| | Copper-bonded | Plain | | .682 | 18 |
| | Copper-bonded | Threaded | 1" | .914 | 22 |
| 1" | Steel* | Plain | | 1.000 | 37 |
| | Copper-bonded | Plain | | .914 | 22 |

*Plain steel, stainless steel, stainless clad rods or galvanized steel.

## REINFORCING BARS

| Rebar Sizes | Nominal Dimensions | | Equivalent Copper Sizes* | Cadweld Rebar Code |
|---|---|---|---|---|
| | Dia. (inches) | Cross-Secitonal Area (Sq. inches) | | |
| 3 | .375 | .11 | 9 AWG | 51 |
| 4 | .500 | .20 | 7 | 52 |
| 5 | .625 | .31 | 5 | 53 |
| 6 | .750 | .44 | 3 | 54 |
| 7 | .875 | .60 | 2 | 55 |
| 8 | 1.000 | .79 | 1 | 56 |
| 9 | 1.128 | 1.00 | 1/0 | 57 |
| 10 | 1.270 | 1.27 | 2/0 | 58 |
| 11 | 1.410 | 1.56 | 3/0 | 59 |
| 14 | 1.693 | 2.25 | 250 kcmil | 60 |
| 18 | 2.257 | 4.00 | 450 | 61 |

* Based on 8% IACS, rounded to the next higher commercial copper size.

### Useful Conversions

**Area**

Square Inches x 1273 = kcmil
Square Millimeters x 1.974 = kcmil
kcmil x 0.5067 = Square Millimeters

**Density**

Copper: 0.323 lb/in3
Steel: 0.283 lb/in3

## STEEL PIPE SIZES

Standard Weight (Schedule 40)

ASTM® A53-90-B
ANSI®/ASME® B36.10M-1985

| Nominal Size (inches) | O.D. (inches) | OD (mm) | Wall Thickness (inches) | Cadweld Mold Code |
|---|---|---|---|---|
| 1 | 1.315 | 33.4 | .133 | 1 |
| 1-1/4 | 1.660 | 42.1 | .140 | 1.25 |
| 1-1/2 | 1.900 | 48.2 | .145 | 1.50 |
| 2 | 2.375 | 60.3 | .154 | 2 |
| 2-1/2 | 2.875 | 73.0 | .203 | 2.50 |
| 3 | 3.500 | 88.9 | .216 | 3 |
| 3-1/2 | 4.000 | 101.6 | .226 | 3.50 |
| 4 | 4.500 | 114.3 | .237 | 4 |
| 5 | 5.563 | 141.3 | .258 | 5 |
| 6 | 6.625 | 168.2 | .280 | 6 |
| 8 | 8.625 | 219.0 | .322 | 8 |
| 10 | 10.750 | 273.0 | .365 | 10 |

## OTHER STANDARD SECTIONS USED FOR FENCE POSTS

*For D or F mold price only.

| Section | Cadweld Mold Code |
|---|---|
| 1-1/2" square | PS15 |
| 2" square | PS20 |
| 2-1/2" square | PS25 |
| 3" square | PS30* |
| 1.875 x 1.625 x .133 "H" | PH1 |
| 2.25 x 1.95 .143 "H" | PH2 |

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