



**CONNECT AND PROTECT**

# nVent ERICO Cu-Bond Round Conductor



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

Substation earthing riser

## **THEFT DETERRENT**

- Due to its steel core, the conductor is very difficult to cut with hand tools.
- Cu-Bond Round Conductors are also magnetic. The magnetic properties of the steel indicate to potential thieves that the materials within the conductor 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.

## **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

**nVent ERICO Cadweld molds and mechanical connectors, as well as straightening equipment, have been designed for use with Cu-Bond Round Conductors.**

# Cu-Bond Round Conductor

**Cu-Bond Round Conductor has a unique advantage of protecting against the progression of corrosion from nicks or scratches in the coating.**

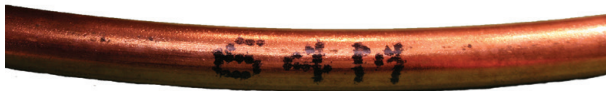
- Cu-Bond Round Conductor has a minimum copper plating thickness of 10mils (254 microns) which will not crack or tear when the conductor is bent.
- Many competitive materials have thin layers of copper that will scratch to the steel surface easily.

**Cu-Bond Round Conductor is manufactured with the highest quality materials according to internationally recognized standards.**

- UL Certified to IEC® 62561-2, Requirements for Conductors and Earth Electrodes.
- Meets the requirements of IEC® 62305-3, Edition 2, for Lightning Protection.
- Materials manufactured according to ASTM 370 to confirm steel quality and ASTM 376 to verify copper thickness.
- Meets the requirements of IEC 62305-3, Edition 2, for Lightning Protection.



*Look for part numbers and compliance markings stamped directly on the conductor to ensure genuine product and high quality standards. Beware of imitations!*



*Cu-Bond Round Conductor is marked at every meter for easy measurement during installation.*



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

## 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:

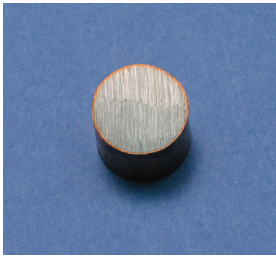
- Wireless telecom tower earthing
- Utility substation earthing; power distribution and transmission earthing
- Large scale ground mount solar farm earthing
- Industrial facility earthing, for example, petro- chemical and mining infrastructure
- Railway earthing

- Interconnecting grounding conductor between wind towers or grounding grid at base of wind tower



Telecom tower grounding

# Cu-Bond Round Conductor



Cu-Bond Round  
Conductor cross-section

## CROSS-SECTIONAL AREA

### Product Code

### Conductor Cross Section in mm<sup>2</sup>

### Conductor Cross Section in in<sup>2</sup>

| Product Code                               | CBSC8 | CBSC10 | CBSC13 | CBSC14 | CBSC16 | CBSC18 |
|--------------------------------------------|-------|--------|--------|--------|--------|--------|
| Conductor Cross Section in mm <sup>2</sup> | 50.27 | 78.52  | 138.07 | 158.90 | 199.84 | 243.27 |
| Conductor Cross Section in in <sup>2</sup> | 0.08  | 0.12   | 0.21   | 0.25   | 0.31   | 0.38   |

## GENERAL PRODUCT INFORMATION

| Product Code | Coil Length (Meters) | Coil Length (Feet) | Coil Weight (Kg) | Coil Weight (Lbs) |
|--------------|----------------------|--------------------|------------------|-------------------|
| CBSC8        | 100                  | 328                | 39.0             | 86.6              |
| CBSC8A       | 25                   | 82                 | 9.7              | 21.7              |
| CBSC8B       | 50                   | 164                | 19.5             | 43.3              |
| CBSC10       | 100                  | 328                | 62.7             | 139.4             |
| CBSC10A      | 25                   | 82                 | 15.7             | 34.9              |
| CBSC10B      | 50                   | 164                | 31.4             | 69.7              |
| CBSC13       | 100                  | 328                | 107.6            | 239.0             |
| CBSC13A      | 25                   | 82                 | 26.9             | 59.8              |
| CBSC13B      | 50                   | 164                | 53.8             | 119.5             |
| CBSC14       | 100                  | 328                | 125.0            | 277.7             |
| CBSC14A      | 25                   | 82                 | 31.2             | 69.4              |
| CBSC14B      | 50                   | 164                | 62.5             | 138.9             |
| CBSC16       | 100                  | 328                | 149.6            | 332.5             |
| CBSC16A      | 25                   | 82                 | 37.4             | 83.1              |
| CBSC16B      | 50                   | 164                | 74.8             | 166.3             |
| CBSC18       | 100                  | 328                | 192.2            | 427.0             |
| CBSC18A      | 25                   | 82                 | 48.0             | 106.8             |
| CBSC18B      | 50                   | 164                | 96.1             | 213.5             |

## CONDUCTOR DIAMETER COMPARISON

| Conductor Size     | Approx Diameter (inches) | Approx Diameter (mm) |
|--------------------|--------------------------|----------------------|
| #4AWG              | .235                     | 5.97                 |
| 25mm <sup>2</sup>  | .266                     | 6.76                 |
| #2 AWG             | .292                     | 7.42                 |
| 35mm <sup>2</sup>  | .301                     | 7.65                 |
| CBSC8              | .315                     | 8.00                 |
| 50mm <sup>2</sup>  | .350                     | 8.89                 |
| 1/0 AWG            | .373                     | 9.47                 |
| CBSC10             | .394                     | 10.00                |
| 2/0 AWG            | .419                     | 10.64                |
| 70mm <sup>2</sup>  | .421                     | 10.69                |
| 3/0 AWG            | .410                     | 10.40                |
| 95mm <sup>2</sup>  | .490                     | 12.47                |
| CBSC13             | .520                     | 13.20                |
| 4/0 AWG            | .528                     | 13.41                |
| CBSC14             | .560                     | 14.20                |
| 120mm <sup>2</sup> | .560                     | 14.22                |
| 250 MCM            | .575                     | 14.61                |
| CBSC16             | .618                     | 15.70                |
| 150mm <sup>2</sup> | .620                     | 15.75                |
| 300 MCM            | .629                     | 15.98                |
| 185mm <sup>2</sup> | .695                     | 17.65                |
| CBSC18             | .697                     | 17.70                |

## ELECTRICAL FUSING CURRENT COMPARISON

| Part Number<br>(100 meter length) | Actual Size<br>(mm) | Copper Wire Equivalent |                      |
|-----------------------------------|---------------------|------------------------|----------------------|
|                                   |                     | AWG                    | Metric Approximation |
| CBSC8                             | 8.0                 | #4                     | 25mm <sup>2</sup>    |
| CBSC10                            | 10.0                | #2                     | 35mm <sup>2</sup>    |
| CBSC13                            | 13.2                | 1/0                    | 50mm <sup>2</sup>    |
| CBSC14                            | 14.2                | 2/0                    | 70mm <sup>2</sup>    |
| CBSC16                            | 15.7                | 3/0                    | 80mm <sup>2</sup>    |
| CBSC18                            | 17.7                | 4/0                    | 95mm <sup>2</sup>    |

\*Reference only; AWG size calculations based on IEEE80 for copper-bonded steel rod (10mils; 254 microns). Time duration .5s, X/R=0.

Electrical equivalents to metric copper cables not listed in IEEE80, estimations only.

## CONDUCTIVITY COMPARISON

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

† Resistance per unit length measurements made in mΩ/m, CBSC compared with respect to AWG/Metric. To determine the %, the following formula was used:

$$\% = \frac{\frac{R}{L_{CBSC}}}{\frac{R}{L_{AWG}}}$$

# Cu-Bond Round Conductor

## IEEE® 837 STANDARDS:

The IEEE 837 standard (Annex C) provides a method of calculating the fusing current for conductors. The following chart is a reference of the calculations for copper-bonded steel conductor according to the IEEE 837 standard. This information is for reference only.

$$I = A \sqrt{\frac{\ln \left( \frac{K_0 + T_m}{K_0 + T_a} \right)}{\beta t_c}} \text{ in kA}$$

$$\beta = \frac{\alpha_r \cdot \rho_r \cdot 10^4}{TCAP}$$



Railway earthing

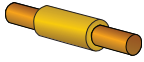
## Fusing Current I<sub>rms</sub> (kA) - IEEE® 837 Annex C

| Conductor Type<br>Copper-bonded, Steel Core, Rod <sub>a</sub>                        |                  | CBSC8   | CBSC10  | CBSC13  | CBSC14  | CBSC16  | CBSC18  |
|--------------------------------------------------------------------------------------|------------------|---------|---------|---------|---------|---------|---------|
| Conductor Cross Section in mm <sup>2</sup>                                           | A                | 50.265  | 78.520  | 138.070 | 158.903 | 199.840 | 243.270 |
| Initial Conductor Temperature in °C                                                  | T <sub>a</sub>   | 40      | 40      | 40      | 40      | 40      | 40      |
| Time of Current Flow in Seconds                                                      | t <sub>c</sub>   | 2       | 2       | 2       | 2       | 2       | 2       |
| Maximum Allowable Temperature in °C                                                  | T <sub>m</sub>   | 1084    | 1084    | 1084    | 1084    | 1084    | 1084    |
| Thermal Coefficient of Resistivity at Reference Temperature T <sub>r</sub>           | a <sub>r</sub>   | 0.00378 | 0.00378 | 0.00378 | 0.00378 | 0.00378 | 0.00378 |
| Resistivity of the Ground Conductor at Reference Temperature T <sub>r</sub> in mΩ-cm | r <sub>r</sub>   | 8.621   | 8.621   | 8.621   | 8.621   | 8.621   | 8.621   |
| 1/a <sub>0</sub> or (1/a <sub>r</sub> )-T <sub>r</sub> in °C                         | K <sub>0</sub>   | 245     | 245     | 245     | 245     | 245     | 245     |
| Thermal Capacity Factor in Joules/cm <sup>3</sup> /°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                                                           | β                | 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 <sub>90%</sub> | 4.31    | 6.74    | 11.84   | 13.63   | 17.14   | 20.87   |
|                                                                                      | I <sub>80%</sub> | 3.83    | 5.99    | 10.53   | 12.12   | 15.24   | 18.55   |

# Cu-Bond Round Conductor

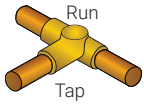
## CADWELD CONDUCTOR CODES

| Part Number    | CBSC8 | CBSC10 | CBSC13 | CBSC14 | CBSC16 | CBSC18 |
|----------------|-------|--------|--------|--------|--------|--------|
| Conductor Code | T1    | T2     | T3     | T4     | T5     | T6     |



### SS TYPE CONNECTIONS

| Part Number | Cadweld Welding Material | Cadweld Plus Welding Material | Cadweld Connection Type | Run | Tap | Handle Clamp   |
|-------------|--------------------------|-------------------------------|-------------------------|-----|-----|----------------|
| SSCT1       | 65                       | 65PLUSF20                     | SS                      | T1  | T1  | L160 or L160SM |
| SSCT2       | 90                       | 90PLUSF20                     | SS                      | T2  | T2  | L160 or L160SM |
| SSCT3       | 150                      | 150PLUSF20                    | SS                      | T3  | T3  | L160 or L160SM |
| SSCT4       | 200                      | 200PLUSF20                    | SS                      | T4  | T4  | L160 or L160SM |
| SSCT5       | 200                      | 200PLUSF20                    | SS                      | T5  | T5  | L160 or L160SM |
| SSCT6       | 250                      | 250PLUSF20                    | SS                      | T6  | T6  | L160 or L160SM |

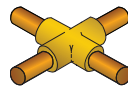


### TA TYPE CONNECTIONS

| Part Number | Cadweld Welding Material | Cadweld Plus Welding Material | Cadweld Connection Type | Run | Tap | Handle Clamp   |
|-------------|--------------------------|-------------------------------|-------------------------|-----|-----|----------------|
| TACT1       | 90                       | 90PLUSF20                     | TA                      | T1  | T1  | L160 or L160SM |
| TACT2T1     | 115                      | 115PLUSF20                    | TA                      | T2  | T1  | L160 or L160SM |
| TACT2       | 115                      | 115PLUSF20                    | TA                      | T2  | T2  | L160 or L160SM |
| TACT3T2     | 150                      | 150PLUSF20                    | TA                      | T3  | T2  | L160 or L160SM |
| TACT3       | 200                      | 200PLUSF20                    | TA                      | T3  | T3  | L160 or L160SM |
| TACT4T3     | 200                      | 200PLUSF20                    | TA                      | T4  | T3  | L160 or L160SM |
| TACT5T3     | 250                      | 200PLUSF20                    | TA                      | T5  | T3  | L160 or L160SM |
| TACT4       | 200                      | 200PLUSF20                    | TA                      | T4  | T4  | L160 or L160SM |
| TACT6T4     | 250                      | 200PLUSF20                    | TA                      | T6  | T4  | L160 or L160SM |
| TACT5       | 250                      | 250PLUSF20                    | TA                      | T5  | T5  | L160 or L160SM |
| TACT6T5     | 250                      | 250PLUSF20                    | TA                      | T6  | T5  | L160 or L160SM |
| TACT6       | 2 X 150                  | 300PLUSF20                    | TA                      | T6  | T6  | L160 or L160SM |

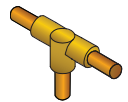


TA ERICO CADWELD connection



### XA TYPE CONNECTIONS

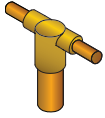
| Part Number | Cadweld Welding Material | Cadweld Plus Welding Material | Cadweld Connection Type | Run | Tap | Handle Clamp   |
|-------------|--------------------------|-------------------------------|-------------------------|-----|-----|----------------|
| XACT1       | 115                      | 115PLUSF20                    | XA                      | T1  | T1  | L160 or L160SM |
| XACT2T1     | 150                      | 150PLUSF20                    | XA                      | T2  | T1  | L160 or L160SM |
| XACT2       | 150                      | 150PLUSF20                    | XA                      | T2  | T2  | L160 or L160SM |
| XACT3T1     | 250                      | 250PLUSF20                    | XA                      | T3  | T1  | L160 or L160SM |
| XACT3T2     | 250                      | 250PLUSF20                    | XA                      | T3  | T2  | L160 or L160SM |
| XACT3       | 250                      | 250PLUSF20                    | XA                      | T3  | T3  | L160 or L160SM |
| XACT4T2     | 250                      | 250PLUSF20                    | XA                      | T4  | T2  | L160 or L160SM |
| XACT4T3     | 250                      | 250PLUSF20                    | XA                      | T4  | T3  | L160 or L160SM |
| XACT4       | 250                      | 250PLUSF20                    | XA                      | T4  | T4  | L160 or L160SM |
| XADT5T2     | 2 x 200                  | 400PLUSF20                    | XA                      | T5  | T2  | L159 or L159SM |
| XADT5T3     | 2 x 200                  | 400PLUSF20                    | XA                      | T5  | T3  | L159 or L159SM |
| XADT5       | 500                      | 500PLUSF20                    | XA                      | T5  | T5  | L159 or L159SM |
| XADT6T4     | 500                      | 500PLUSF20                    | XA                      | T6  | T4  | L159 or L159SM |
| XADT6T5     | 500                      | 500PLUSF20                    | XA                      | T6  | T5  | L159 or L159SM |
| XADT6       | 500                      | 500PLUSF20                    | XA                      | T6  | T6  | L159 or L159SM |



### TV TYPE CONNECTIONS

| Part Number | Cadweld Welding Material | Cadweld Plus Welding Material | Cadweld Connection Type | Run | Tap | Handle Clamp |
|-------------|--------------------------|-------------------------------|-------------------------|-----|-----|--------------|
| TVCT1       | 115                      | 115PLUSF20                    | TV                      | T1  | T1  | L160         |
| TVCT2       | 150                      | 150PLUSF20                    | TV                      | T2  | T2  | L160         |
| TVCT3       | 200                      | 200PLUSF20                    | TV                      | T3  | T3  | L160         |

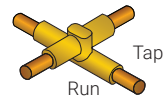
# ERICO CU-Bond Round Conductor



**GT TYPE CONNECTIONS**

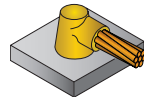
| Part Number | ERICO CADWELD Welding Material | ERICO CADWELD PLUS Welding Material | ERICO CADWELD Connection Type | Run | Tap | Handle Clamp   |
|-------------|--------------------------------|-------------------------------------|-------------------------------|-----|-----|----------------|
| GTC14T1     | 115                            | 115PLUSF20                          | GT                            | 14  | T1  | L160 or L160SM |
| GTC14T2     | 150                            | 150PLUSF20                          | GT                            | 14  | T2  | L160 or L160SM |
| GTC14T3     | 250                            | 250PLUSF20                          | GT                            | 14  | T3  | L160 or L160SM |
| GTC14T4     | 250                            | 250PLUSF20                          | GT                            | 14  | T4  | L160 or L160SM |
| GTC14T5     | 2 X 150                        | 300PLUSF20                          | GT                            | 14  | T5  | L160 or L160SM |
| GTC14T6     | 2 X 150                        | 300PLUSF20                          | GT                            | 14  | T6  | L160 or L160SM |
| GTC16T1     | 115                            | 115PLUSF20                          | GT                            | 16  | T1  | L160 or L160SM |
| GTC16T2     | 150                            | 150PLUSF20                          | GT                            | 16  | T2  | L160 or L160SM |
| GTC16T3     | 250                            | 250PLUSF20                          | GT                            | 16  | T3  | L160 or L160SM |
| GTC16T4     | 250                            | 250PLUSF20                          | GT                            | 16  | T4  | L160 or L160SM |
| GTC16T5     | 2 X 150                        | 300PLUSF20                          | GT                            | 16  | T5  | L160 or L160SM |
| GTC16T6     | 2 X 150                        | 300PLUSF20                          | GT                            | 16  | T6  | L160 or L160SM |
| GTC18T1     | 115                            | 115PLUSF20                          | GT                            | 18  | T1  | L160 or L160SM |
| GTC18T2     | 150                            | 150PLUSF20                          | GT                            | 18  | T2  | L160 or L160SM |
| GTC18T3     | 250                            | 250PLUSF20                          | GT                            | 18  | T3  | L160 or L160SM |
| GTC18T4     | 250                            | 250PLUSF20                          | GT                            | 18  | T4  | L160 or L160SM |
| GTC18T5     | 2 X 150                        | 300PLUSF20                          | GT                            | 18  | T5  | L160 or L160SM |
| GTC18T6     | 2 X 150                        | 300PLUSF20                          | GT                            | 18  | T6  | L160 or L160SM |

14 = 1/2" (12.8 mm) copper-bonded ground rod, 16 = nominal 5/8" (14.3 mm) copper-bonded ground rod, 18 = nominal 3/4" (17.3 mm) copper-bonded ground rod



**XB TYPE CONNECTIONS**

| Part Number | ERICO CADWELD Welding Material | ERICO CADWELD PLUS Welding Material | ERICO CADWELD Connection Type | Run | Tap | Handle Clamp |
|-------------|--------------------------------|-------------------------------------|-------------------------------|-----|-----|--------------|
| XB3T1T1     | 250                            | 250PLUSF20                          | XB                            | T1  | T1  | L163         |
| XB3T2T1     | 2X 150                         | 300PLUSF20                          | XB                            | T2  | T1  | L163         |
| XB3T2T2     | 2X 150                         | 300PLUSF20                          | XB                            | T2  | T2  | L163         |
| XB4T3T1     | 2 X 200                        | 400PLUSF20                          | XB                            | T3  | T1  | L164         |
| XB4T3T2     | 2 X 200                        | 400PLUSF20                          | XB                            | T3  | T2  | L164         |
| XB4T3T3     | 2 X 200                        | 400PLUSF20                          | XB                            | T3  | T3  | L164         |
| XB4T4T2     | 500                            | 500PLUSF20                          | XB                            | T4  | T2  | L164         |
| XB4T4T3     | 500                            | 500PLUSF20                          | XB                            | T4  | T3  | L164         |
| XB4T4T4     | 500                            | 500PLUSF20                          | XB                            | T4  | T4  | L164         |
| XB4T5T2     | 500                            | 500PLUSF20                          | XB                            | T5  | T2  | L164         |
| XB4T5T3     | 500                            | 500PLUSF20                          | XB                            | T5  | T3  | L164         |
| XB4T5T5     | 500                            | 500PLUSF20                          | XB                            | T5  | T5  | L164         |
| XB4T6T4     | 3 X 200                        | 600PLUSF20                          | XB                            | T6  | T4  | L164         |
| XB4T6T5     | 3 X 200                        | 600PLUSF20                          | XB                            | T6  | T5  | L164         |
| XB4T6T6     | 3 X 200                        | 600PLUSF20                          | XB                            | T6  | T6  | L164         |



**HS TYPE CONNECTIONS**

| Part Number | Cadweld Welding Material | Cadweld Plus Welding Material | Cadweld Connection Type | Tap | Handle Clamp |
|-------------|--------------------------|-------------------------------|-------------------------|-----|--------------|
| HSCT1       | 90                       | 90PLUSF20                     | HS                      | T1  | L160         |
| HSCT2       | 115                      | 115PLUSF20                    | HS                      | T2  | L160         |
| HSCT3       | 150                      | 150PLUSF20                    | HS                      | T3  | L160         |

Please contact your nVent Customer Service Representative for other Cadweld configurations.

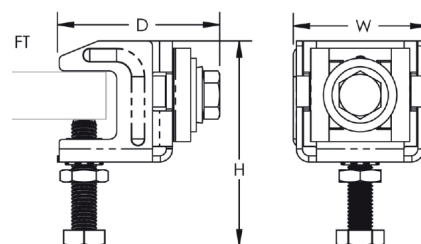
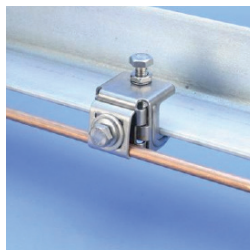
# Cu-Bond Round Conductor Accessories

## CONNECTORS AND SPLICERS

### BEAM BONDING CLAMP

- Clamp for bonding solid round conductor such as 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

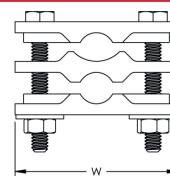
Material: Stainless Steel 316



| Part Number | Width W      | Height H     | Depth D      | Flange Thickness FT | Cu-Bond Conductor | Unit Weight        | Complies With |
|-------------|--------------|--------------|--------------|---------------------|-------------------|--------------------|---------------|
| SBCS0810    | 2.17" / 55mm | 3.35" / 85mm | 2.76" / 70mm | 1/4"-1" / 6-25mm    | CBSC8, CBSC10     | 0.61 lb / 0.277 kg | IEC 62561-4   |
| SBCS1314    | 2.17" / 55mm | 3.54" / 90mm | 2.76" / 70mm | 1/4"-1" / 6-25mm    | CBSC13, CBSC14    | 0.61 lb / 0.277kg  | IEC 62561-4   |

### UNIVERSAL CLAMP

- For parallel connections of Cu-Bond Round Conductor

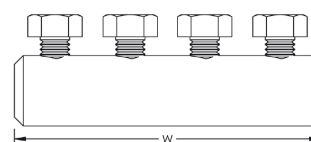


Material: Brass

| Part Number | Depth D         | Width W         | Cu-Bond Conductor | Unit Weight         | Complies With |
|-------------|-----------------|-----------------|-------------------|---------------------|---------------|
| LPC466B     | 1 1/4" / 31.7mm | 2 1/2" / 63.5mm | CBSC10, CBSC13    | 0.615 lb / 0.279 kg | IEC 62561-1   |

### IN-LINE CABLE CONNECTOR

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

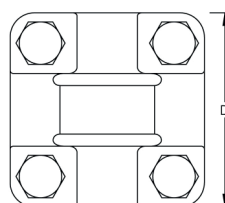
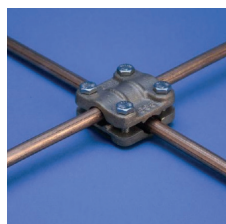


Material: Copper

| Part Number | Diameter 1 O1 | Diameter O2     | Width W           | Cu-Bond Conductor     | Unit Weight        | Complies With |
|-------------|---------------|-----------------|-------------------|-----------------------|--------------------|---------------|
| LPC513      | 3/4" / 19.1mm | 0.563" / 14.3mm | 3 1/4" / 82.55 mm | CBSC8, CBSC10, CBSC13 | 0.37 lb / 0.168 kg | IEC 62561-1   |

### CROSS-RUN CABLE CONNECTORS

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



Material: Brass

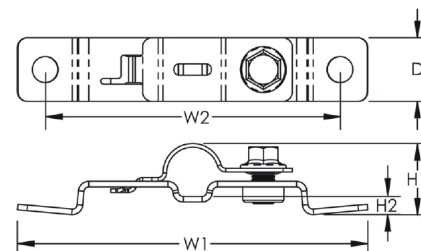
| Part Number | Depth D     | Width W     | Height H         | Cu-Bond Conductor | Unit Weight        | Complies With |
|-------------|-------------|-------------|------------------|-------------------|--------------------|---------------|
| LPC595NB    | 2" / 50.8mm | 2" / 50.8mm | 1" / 25.4mm      | CBSC8, CBSC10     | 0.62 lb / 0.281 kg | IEC 62561-1   |
| LPC595NB13  | 2" / 50.8mm | 2" / 50.8mm | 1 1/4" / 31.75mm | CBSC13            | 0.62 lb / 0.281 kg | IEC 62561-1   |

# Cu-Bond Round Conductor Accessories

## POSITIONING DEVICES

### FLUSH MOUNT POSITIONER

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

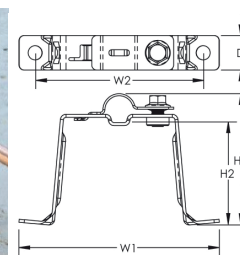


Material: Stainless Steel 18-8; Stainless Steel 316

| Part Number | Width 1<br>W1 | Width 2<br>W2 | Height 1<br>H1 | Height 2<br>H2 | Depth<br>D   | Cu-Bond Conductor | Unit Weight       | Complies With |
|-------------|---------------|---------------|----------------|----------------|--------------|-------------------|-------------------|---------------|
| CSS0810000  | 3.74" / 95mm  | 3.15" / 80mm  | 0.79" / 20mm   | 0.2" / 5mm     | 0.67" / 17mm | CBSC8, CBSC10     | 0.2 kg / 0.009 kg | IEC 62561-4   |
| CSS1314000  | 3.74" / 95mm  | 3.15" / 80mm  | 0.79" / 20mm   | 0.2" / 5mm     | 0.67" / 17mm | CBSC13, CBSC14    | 0.2 kg / 0.009 kg | IEC 62561-4   |
| CSS1618000  | 3.15" / 80mm  | 3.15" / 80mm  | 0.98" / 25mm   | 0.2" / 5mm     | 0.67" / 17mm | CBSC16, CBSC18    | 0.2 kg / 0.009 kg | IEC 62561-4   |

### 50MM OFFSET POSITIONER

- Positioning clamps with 50 mm (1.97") offset for use with solid round conductors, including Cu-Bond Round Conductor
- For use with copper-bonded, copper, or stainless steel solid conductors

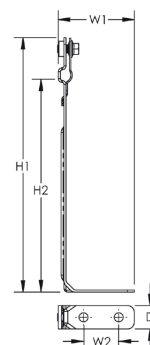


Material: Stainless Steel 18-8; Stainless Steel 316

| Part Number | Width 1<br>W1 | Width 2<br>W2 | Height 1<br>H1 | Height 2<br>H2 | Depth<br>D   | Cu-Bond Conductor | Unit Weight        | Complies With |
|-------------|---------------|---------------|----------------|----------------|--------------|-------------------|--------------------|---------------|
| CSS0810050  | 3.94" / 100mm | 3.15" / 80mm  | 2.56" / 65mm   | 1.97" / 50mm   | 0.67" / 17mm | CBSC10, CBSC8     | 0.24 lb / 0.011 kg | IEC 62561-4   |
| CSS1314050  | 3.94" / 100mm | 3.15" / 80mm  | 2.56" / 65mm   | 1.97" / 50mm   | 0.67" / 17mm | CBSC13, CBSC14    | 0.24 lb / 0.011 kg | IEC 62561-4   |
| CSS1618050  | 3.94" / 100mm | 3.15" / 80mm  | 2.75" / 70mm   | 1.97" / 50mm   | 0.67" / 17mm | CBSC16, CBSC18    | 0.24 lb / 0.011 kg | IEC 62561-4   |

### 150MM OFFSET POSITIONER

- Positioning clamps with 150 mm (5.9") offset for use with solid round conductors, including Cu-Bond Round Conductor
- For use with copper-bonded, copper, or stainless steel solid conductors
- Ideal for use in positioning solid round conductor in a horizontal orientation, such as on a roof or parapet



Material: Stainless Steel 18-8; Stainless Steel 316

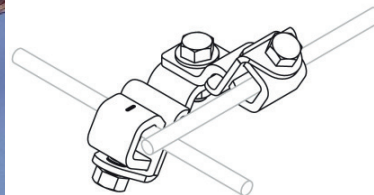
| Part Number | Width 1<br>W1 | Width 2<br>W2 | Height 1<br>H1 | Height 2<br>H2 | Depth<br>D   | Cu-Bond Conductor | Unit Weight       | Complies With |
|-------------|---------------|---------------|----------------|----------------|--------------|-------------------|-------------------|---------------|
| CSS0810150  | 2.17" / 55mm  | 1" / 25mm     | 7.28" / 185mm  | 5.9" / 150mm   | 0.67" / 17mm | CBSC10, CBSC8     | 0.29 kg / 0.013mm | IEC 62561-4   |
| CSS1314150  | 2.17" / 55mm  | 1" / 25mm     | 7.28" / 185mm  | 5.9" / 150mm   | 0.67" / 17mm | CBSC13, CBSC14    | 0.29 kg / 0.013mm | IEC 62561-4   |

# Cu-Bond Round Conductor Accessories

## BONDING LUGS

### MESH BONDING NETWORK CONNECTOR

- 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

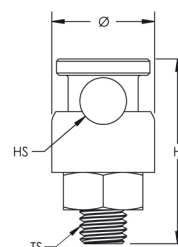


Material: Copper; Stainless Steel 304

| Part Number | Cu-Bond Conductor     | Complies With |
|-------------|-----------------------|---------------|
| MBNC240     | CBSC8, CBSC10, CBSC13 | IEC 62561-1   |

### GROUNDING BUSBAR CONNECTOR

- Used to connect Cu-Bond Round Conductor to grounding busbars



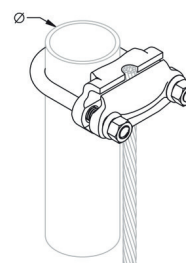
Material: Copper Alloy; Stainless Steel 18-8 / Finish: Tinned

| Part Number | Height H       | Diameter Ø   | Hole Size HS  | Thread Size TS | Cu-Bond Conductor | Complies With |
|-------------|----------------|--------------|---------------|----------------|-------------------|---------------|
| BCR8T       | 1.56" / 39.5mm | 0.79" / 20mm | 0.37" / 9.5mm | M10            | CBSC8             | IEC 62561-1   |

## FENCE AND GATE CLAMPS

### FENCE CLAMP

- 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 / Finish: Tinned

| Part Number | Article Number | Fence Post Size, Nominal | Fence Post Outside Diameter, Actual Ø | Cu-Bond Conductor | Complies With |
|-------------|----------------|--------------------------|---------------------------------------|-------------------|---------------|
| FC075       | 198403         | 2"                       | 2.38" / 60mm                          | CBSC8             | IEC 62561-1   |
| FC076       | 198404         | 2"                       | 2.38" / 60mm                          | CBSC10, CBSC13    | IEC 62561-1   |

# Cu-Bond Round Conductor Accessories

## STRAIGHTENING TOOLS AND EQUIPMENT

### CU-BOND ROUND CONDUCTOR MANUAL STRAIGHTENING TOOL

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



| Part Number | Length             | Cu-Bond Conductors    |
|-------------|--------------------|-----------------------|
| EGRA15      | 53 1/2 " / 1,359mm | CBSC8, CBSC10, CBSC13 |

### CU-BOND ROUND CONDUCTOR POWERED STRAIGHTENING TOOL



### FEATURES

| Part Number | Length 1<br>L1 | Length 2<br>L2 | Width 1<br>W1 | Width 2<br>W2 | Height 1<br>H1 | Height 2<br>H2 | Operating Voltage   | Unit Weight |
|-------------|----------------|----------------|---------------|---------------|----------------|----------------|---------------------|-------------|
| CBSCSSM     | 43 1/4"        | 44 1/2"        | 20"           | 44 1/2"       | 39 1/4"        | 40"            | 220/240V            | 507 lb      |
| CBSCSSMT    | 43 1/4"        | 44 1/2"        | 20"           | 44 1/2"       | 39 1/4"        | 40"            | 110/120V - 220/240V | 507 lb      |

Spare parts are available for order. Contact your nVent representative for more information.

### SPECIFICATIONS

- Operates on 220/240V (single phase) or 110/120V with step-up transformer included on CBSCSSMT
- Two operating modes: Automatic with speed control and manual forward/reverse
- Interchangeable rollers allow the machine to straighten CBSC8, CBSC10, and CBSC13
- Manual straightening bar straightens the first few sections of Cu-Bond Round Conductor prior to feeding it into the machine
- Enclosure covers moving internal parts
- Safety switch for emergency shutoff
- Includes control rod to calibrate setup of the straightening machine
- Designed to be able to be moved on site by a forklift
- Wheels and collapsible handles allow for easy movement on the jobsite
- Add-on uncoiler holds Cu-Bond Round Conductor coils and provides a method of feeding material into the machine and gives repeatable and precise straightness results



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