



We connect and protect

Telecommunication

Comprehensive Electrical Protection & Connection Solutions



CADDY ERICO HOFFMAN ILSCO RAYCHEM SCHROFF

nVent.com

Building a More Sustainable and Electrified World

The availability and reliability of the Telecommunications Network today plays a crucial role in the operation of all other electrical systems. For over 100 years, nVent has been an essential supplier of electrical protection for critical infrastructure, providing reliable, resilient and efficient power and data infrastructure solutions that are trusted by telecommunications operators, designers and contractors worldwide.

nVent solutions protect from the following power grid risks:

Contributes to Safety

- Protects people and personnel from electrical injuries

Protects Against Outages

- Shields critical equipment and systems to prevent/mitigate catastrophic damage that could lead to system downtime

Improves Network Performance

- Reduces losses and improves efficiency



TRUSTED PARTNER IN TELECOMMUNICATIONS APPLICATIONS

Safety and Reliability

nVent provides high-quality solutions that perform reliably in service over the long-term to avoid costly replacement of equipment.

Critical Asset Protection

nVent protects valuable electrical equipment and electronic systems, with solutions designed to prevent and mitigate damage that can be extremely costly.

Trusted Expertise and Product Range

Customers trust and rely on nVent's team of experts to provide a wide range of compatible turnkey solutions for several niche electrical protection applications.

TELECOMMUNICATIONS APPLICATIONS

Core Central Office

Fixed Line Infrastructure

Wireless Infrastructure

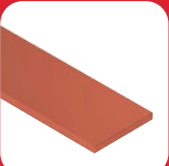
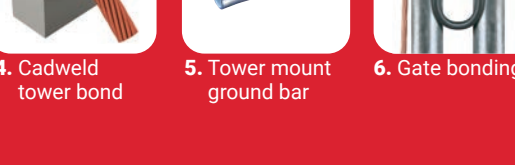
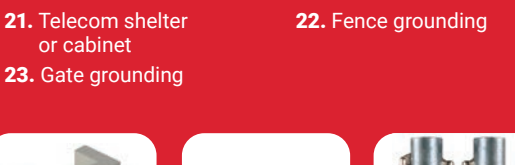
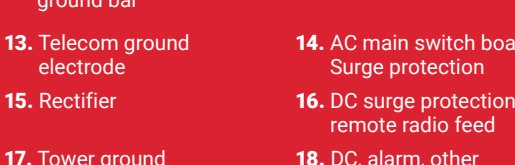
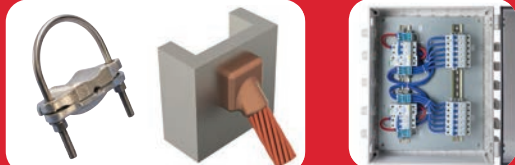
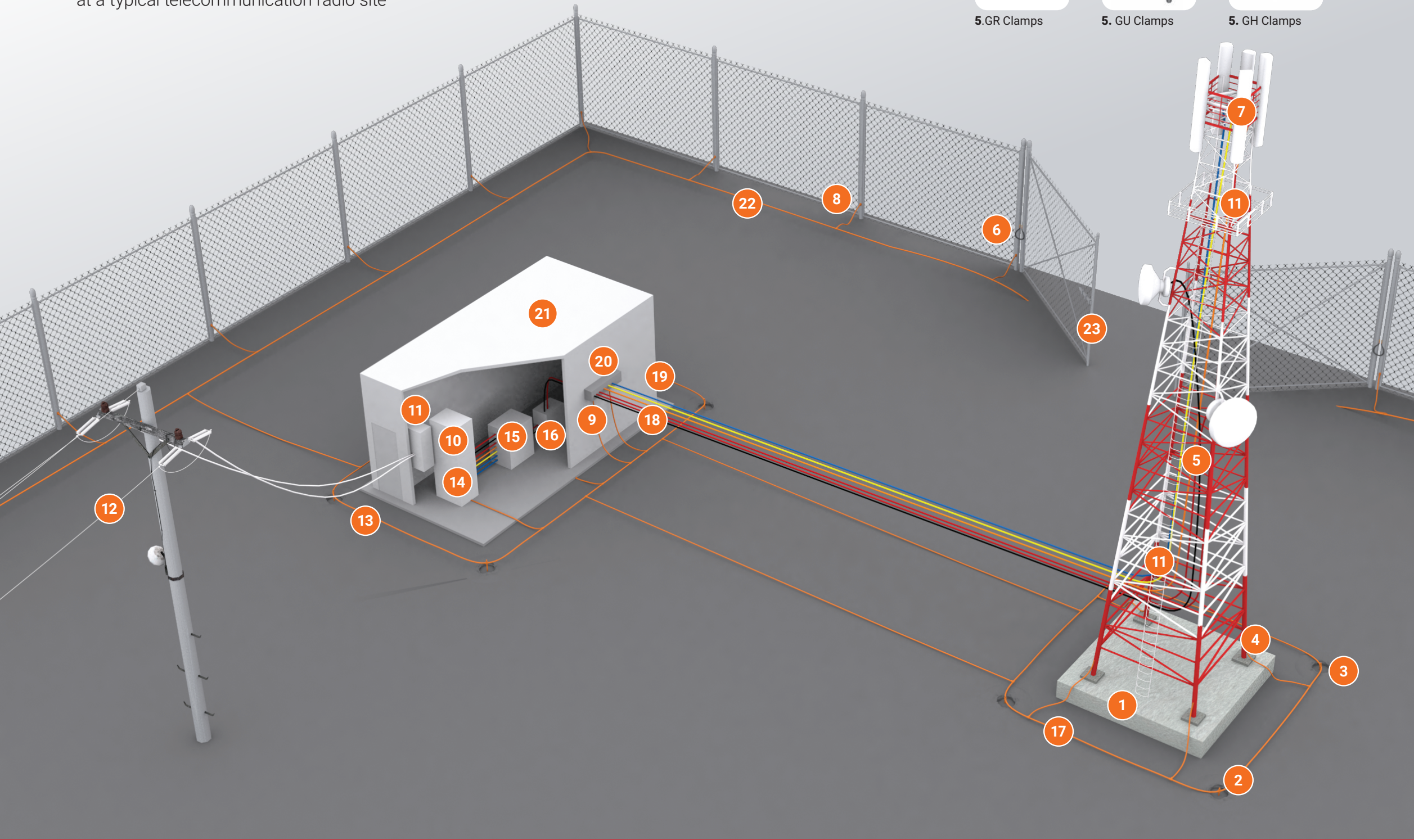
Satellite Communication

Datacenter

nVent ERICO Outdoor Grounding Solutions

Outdoor Grounding and Protection Arrangement

The outdoor arrangement of a grounding system at a typical telecommunication radio site



1. Copper tape



1. Copper bonded steel conductor, CBSC



1. Theft deterrent composite cable, TDCC



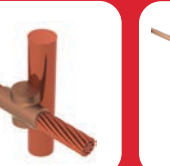
2. Ground enhancement material, GEM or Quickfill



3. Ground rod



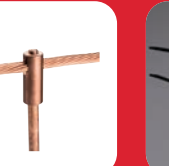
3. Cadweld connections



3. Lay-In Hammerlock



3. Hammerlock



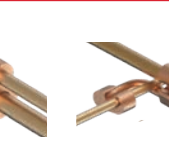
3. 3D Oneshot Cadweld



3. Compression Ground Connection



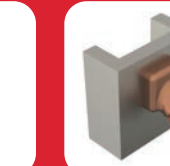
3. Mechanical connector, SP58



4. Cadweld tower bond



5. Tower mount ground bar

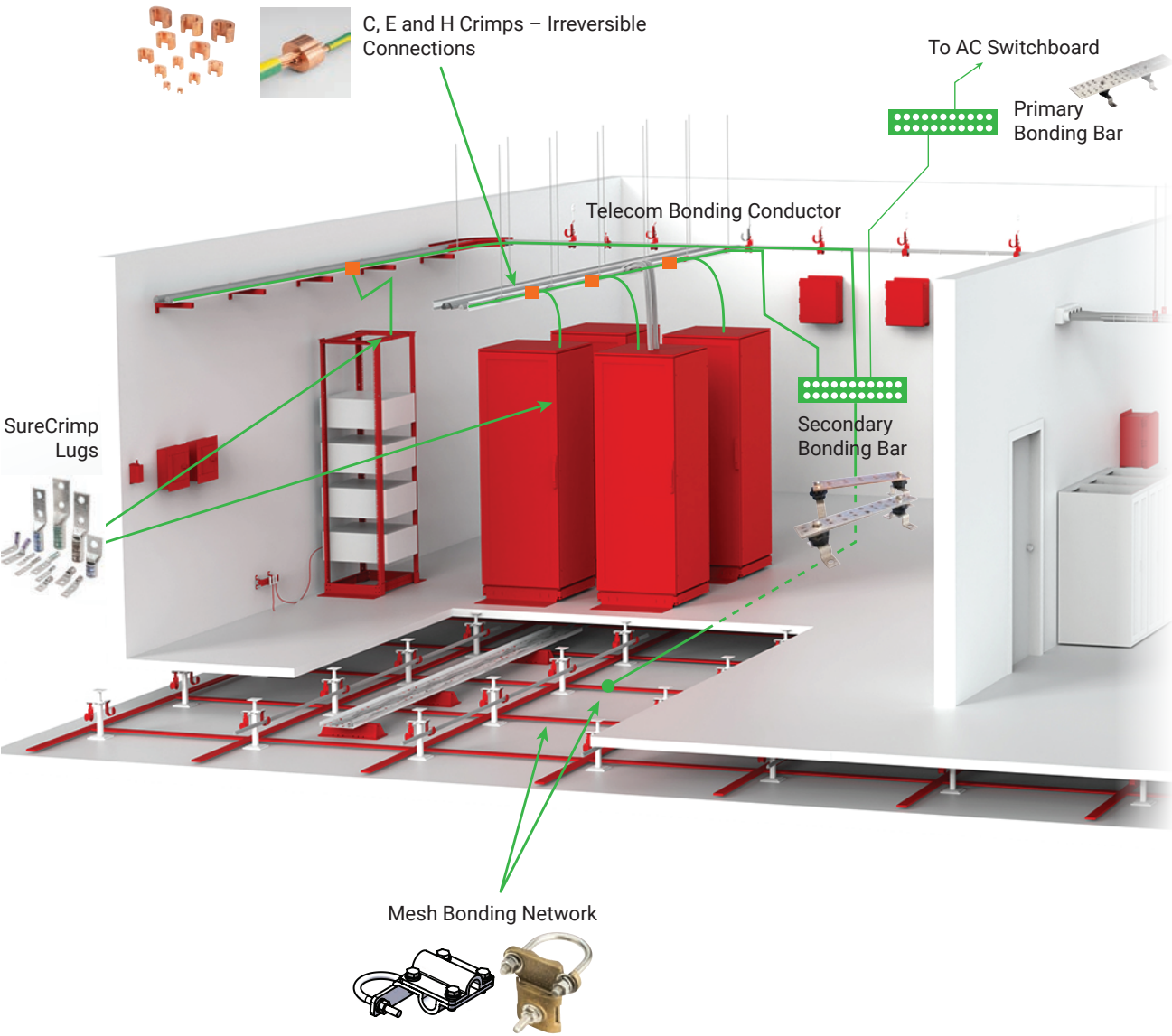


6. Gate bonding

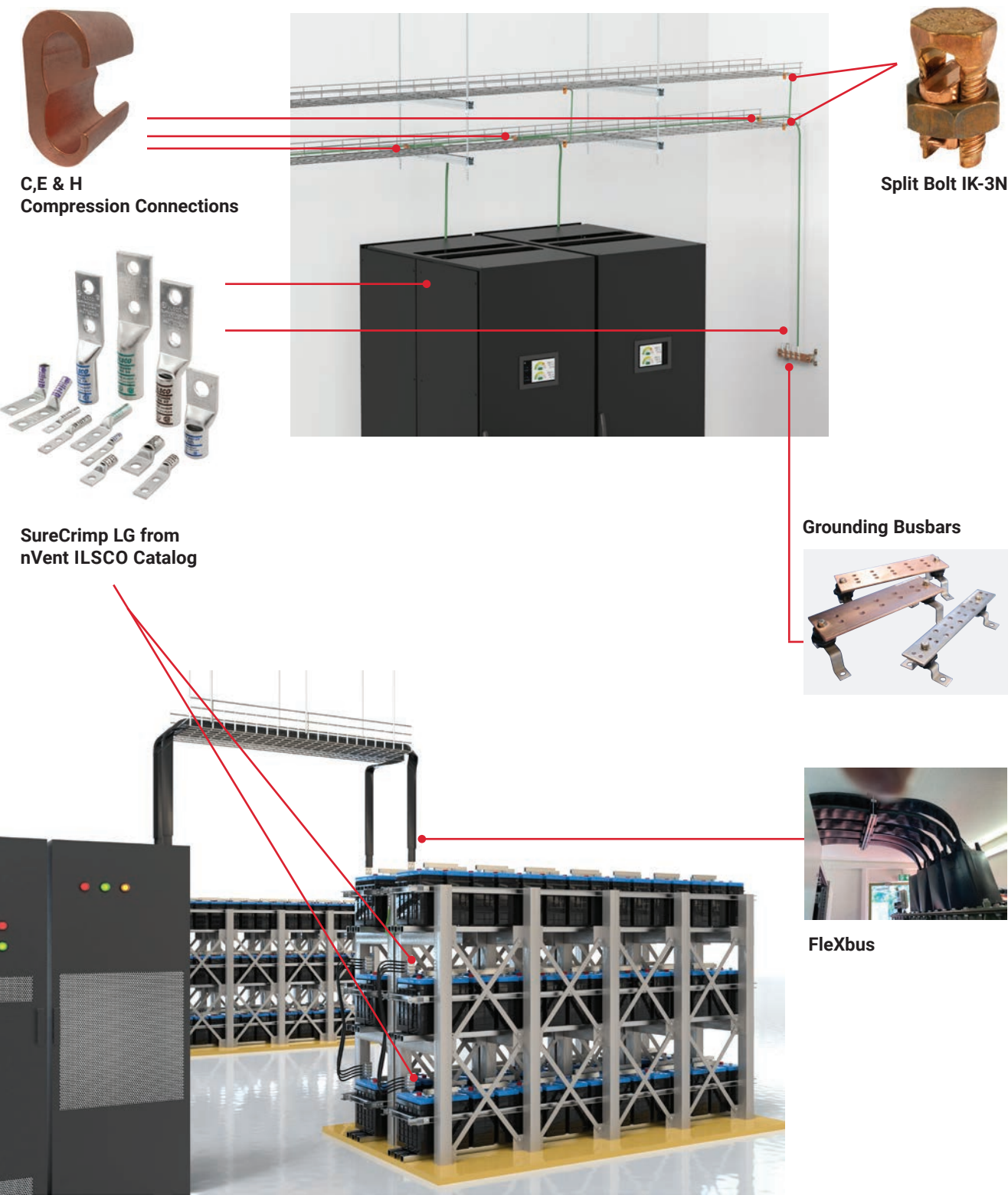
nVent Indoor Grounding Solutions

nVent ERICO indoor grounding solutions include:

- Design Assistance & Training
- Ground Bars
- Irreversible Crimp Connections
- Indoor Grounding System Design
- Mesh Bonding Network



nVent Indoor Grounding & Connection Solutions



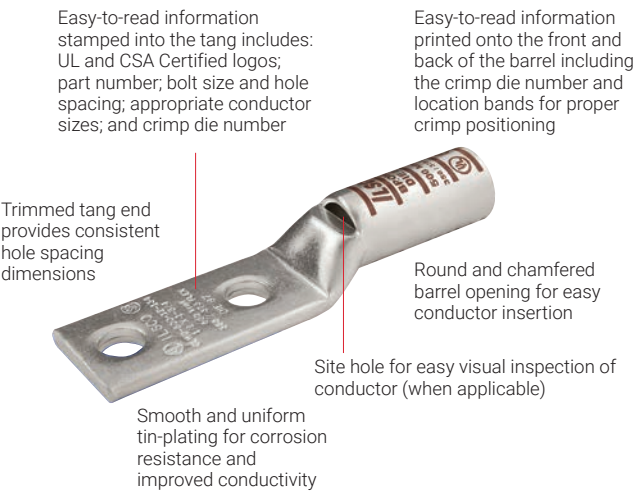
nVent ERIFLEX & nVent ILSCO provide a range of connection technologies for power connections using SureCrimp Lugs or Flexbus. nVent ERICO provides compression and mechanical grounding connections.

nVent ILSCO SureCrimp Indoor Grounding & Connection Solutions

COPPER COMPRESSION



- Accepts multiple conductor classes including fine stranded and building/code wire
- Chamfered wire entry for easy conductor insertion
- Color coded for easy die identification
- Ink marked location bands for accurate crimp positioning
- Electro-tin plated
- Manufactured from high-strength seamless copper tubing
- UL Listed and CSA Certified
- SureCrimp copper connectors are UL Listed with nVent ILSCO's and major competitors' compression tools
- UL 467 Listed for grounding and bonding: #8-#2 solid, 500 kcmil-8



ALUMINUM COMPRESSION



- Chamfered wire entry for easy conductor insertion
- Color coded end caps for easy and accurate die identification
- Ink marking to provide permanent product identification and accurate crimp positioning
- Pre-filled with nVent ILSCO De-Ox oxide inhibiting compound
- Dual rated for Aluminum and Copper conductors
- UL Listed and CSA Certified
- SureCrimp aluminum connectors are UL Listed with nVent ILSCO's and major competitors' compression tools

OPTIMUM CRIMP DESIGN PROVIDES

- Strong, long-lasting connection with tight crimp profile for greater pull-out strength
- Increased contact area reduces resistance
- Potential for flash eliminated

SURECRIMP DIES, PRODUCE STRONG AND DURABLE CIRCUMFERENTIAL CRIMPS

nVent ILSCO's dies are made out of corrosion resistant, hardened, aircraft grade stainless steel, for durability and long life.

Inspecting connections is made easy by allowing you to match the die information on the connector with the embossed die number imprinted on the front and back of the applied crimp.



nVent ERICO Cadweld Outdoor Grounding Solutions



For over 60 years, nVent ERICO Cadweld has been a trusted component of utility grounding systems, playing a critical role in grid safety, reliability, and resiliency. nVent ERICO Cadweld and Cadweld Plus exothermic welds form a permanent molecular bond that won't loosen or corrode over time, minimizing maintenance/replacement costs and system downtime. Committed to quality, nVent ERICO has a comprehensive test program for Cadweld, ensuring compliance with IEEE Standard 837-2014 "Standard for Qualifying Permanent Connections Used in Substation Grounding." This standard is key to ensuring safe and reliable grounding systems for the full life of the substations (typically 40–50 years).



NVENT ERICO CADWELD PLUS

nVent ERICO Cadweld Plus is faster and easier to use, featuring a self-contained weld material cup and electronic ignition unit.

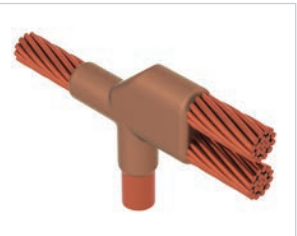
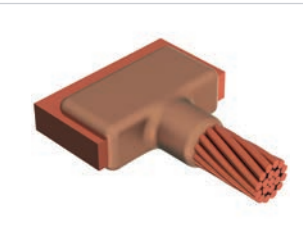
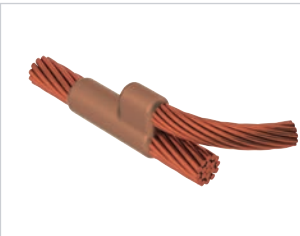
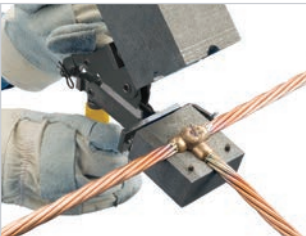
Self-Contained Weld Cup

Self-contained nVent ERICO Cadweld Plus weld cups will never spill and are resistant to degradation. This ensures that the precise formulation of weld material is always present in an nVent ERICO Cadweld Plus weld, improving weld quality.



Electronic Ignition System

The nVent ERICO Cadweld Plus Impulse electronic ignition system provides the user a standoff distance of an optional 1.8 m or 4.6 m, and includes other safety features such as an LED ignition counter and five second ignition delay.



nVent ERICO Cadweld Outdoor Grounding Solutions

NVENT ERICO CADWELD TRADITIONAL

The nVent ERICO Cadweld traditional uses weld material packed by size in the blue tube and metal disks. Welding material is at the top of the tube and starting material at the bottom of the tube. The weld material and starting material is manually poured in the mold and ignited by Cadweld flint ignitor.



NVENT ERICO CADWELD PLUS ONE SHOT

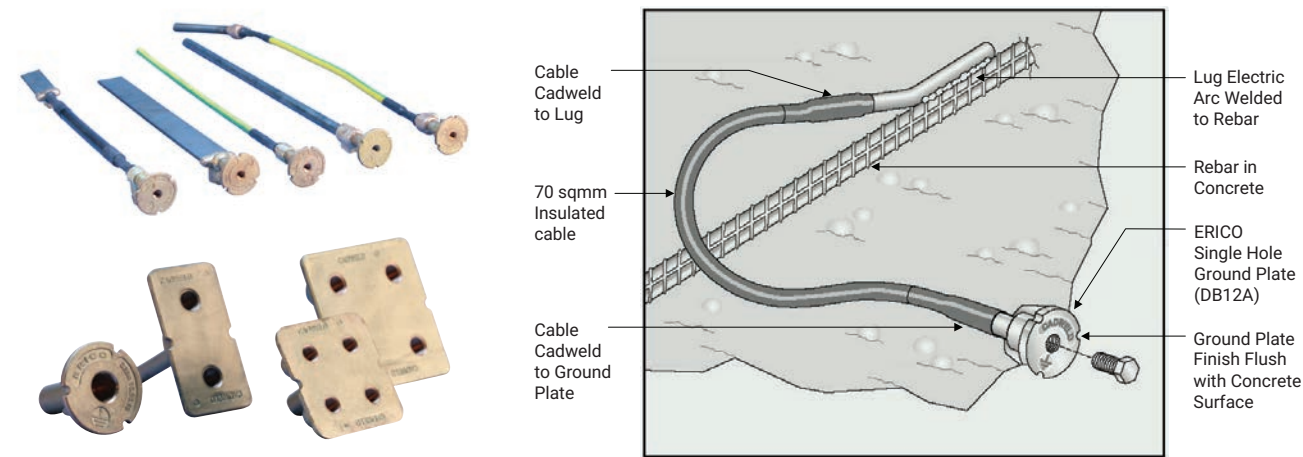
The nVent ERICO Cadweld One Shot is a convenient, single-use ceramic mold and welding material connection package. The nVent ERICO Cadweld One Shot is ideal for making permanent reliable connections to ground rods for electrical transmission and distribution and many other industrial applications.



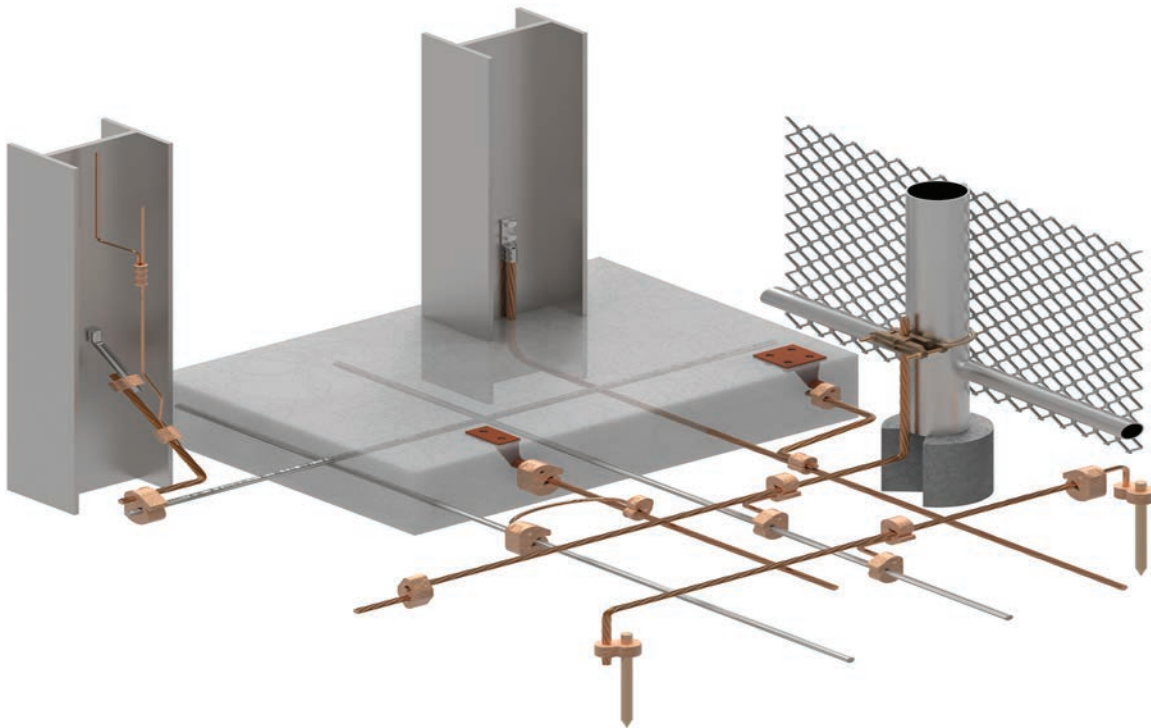
NVENT ERICO EARTH BRIDGE AND EARTH POINT

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

The connection is made to reinforcing bars prior to pouring the concrete. The steel connection plate is connected to the steel reinforcement bars by welding in place. The earthing plate is temporarily bolted or nailed to the internal surface of the formwork. When the formwork is removed, only the contact surface of the earthing plate appears. The earthing plate is equipped with a threaded hole in order to connect a standard cable lug of an earthing conductor.



nVent ERICO Compression Outdoor Grounding Solutions



nVent ERICO Compression Grounding Connectors offer a full-line of high quality copper extruded compression connector products for all your grounding applications.

The nVent ERICO Compression Grounding Connectors are used to bond grounding conductors to other grounding conductors or grounding electrodes in a grounding system. Once the grounding conductors have been inserted into the connector, they are crimped using a compression tool creating a permanent long-lasting electrical connection. This is a reliable alternative if the application is not suitable or specified for exothermic or mechanical connections.

FEATURES

- Permanent secure irreversible connection
- Each connector is designed so it can be used in multiple configurations for versatility
- Quick and easy time saving installation due to repeatable connections made in a matter of minutes
- Anti-oxidant coating pre-applied on all connectors
- Installation can be done with common tools and are the same tools used with power connections
- Full-line of compression dies compatible with different type of tools
- Connectors dual marked with imperial and metric conductor ranges, part number, required die number and number of crimps required
- Suitable for direct burial in concrete or ground





Throughout the grid, utility infrastructure requires robust grounding and bonding to protect against lightning strikes and ground faults. Grounding and bonding provides a low-resistance, controlled path for fault currents directing the current away from critical equipment and into safe ground.

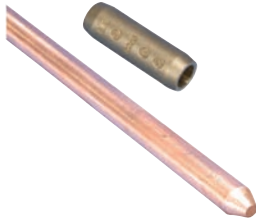
Grounding and bonding is critical to grid safety, reliability and grid resiliency. Inadequate grounding and bonding increases the likelihood of equipment being damaged during transient overvoltage events, which could lead to power outages and create unsafe conditions for people and personnel.

NVENT ERICO OFFERING

nVent ERICO offers a comprehensive range of grounding and bonding solutions for applications throughout the grid, including generation stations, substations, high-voltage transmission lines and distribution poles. The nVent ERICO offering includes ground rods, ground mats and mesh, ground enhancement material (backfill), grounding connectors and conductors. nVent ERICO grounding and bonding solutions meet key utility industry requirements, including IEEE and UL.

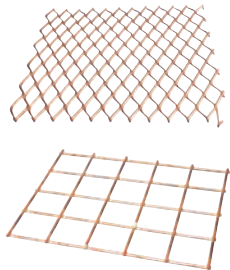
nVent ERICO Copper-Bonded Ground Rods

nVent ERICO Copper-Bonded Ground Rods are manufactured with a proprietary electro-plating process that establishes a uniform copper coating, which is the key to superior corrosion resistance. As a result, nVent ERICO Copper-Bonded Ground Rods are extremely durable with a long-lasting service life.



nVent ERICO Ground Mats and Mesh

nVent ERICO Ground Mats and Mesh are an essential component of a ground grid, reducing step potential at power plants and substations that can be hazardous to personnel. These prefabricated solutions are a high-quality, cost-effective and safe solution, and they work in conjunction with grounding elements including ground rods and conductors to create a comprehensive grounding system.



nVent ERICO Ground Enhancement Material

nVent ERICO offers a line of ground enhancement material to improve conductivity of high-resistivity native soil sites.

- 1. nVent ERICO GEM: A cement-based conductive material ideal for challenging soil conditions like rocky ground or sandy soil.
- 2. nVent ERICO Quickfill (No-Mix Ground Enhancing Backfill): A convenient, pre-mixed and low-dust solution for improving grounding.



nVent ERICO Hammerlock and Lay-in Hammerlock Ground Clamp

nVent ERICO Hammerlock is an innovative ground rod-to-conductor connector designed for utility transmission and distribution pole applications, which quickly and easily creates a permanent and reliable connection using an ordinary hammer.

nVent ERICO Lay-in Hammerlock is a variation of the Hammerlock offering that is designed to allow conductors to be laid into the clamp, eliminating process of feeding the conductor through the connector.



Hammerlock

Lay-in Hammerlock

Fence and Gate Grounding Connectors

nVent ERICO provides a variety of clamps and connectors that make it easy to affix and connect grounding system conductors to pipes, fence posts and gates, ensuring best-practice electrical protection throughout the site.



Split Bolts

- Manufactured from high strength copper alloy
- Precision tooled threads
- For use with copper conductor types: Solid, Compact, Compressed, Concentric
- Suitable for use in circuits rated 35 KV or less, proper high voltage spacing and insulation techniques must be used
- Rated to 90°C

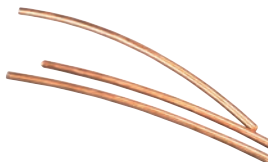


Grounding Conductors

nVent ERICO conductors are feature-rich, proprietary connection solutions well-suited for specialized grounding and bonding applications. This product line offers innovative material compositions, providing key advantages.

nVent ERICO Cu-Bond Round Conductor

nVent ERICO Cu-Bond Round Conductor is a revolutionary ground conductor featuring a steel core with a copper-bonded surface. These properties improve performance and reduce cost.



nVent ERICO Theft-Deterrent Composite Cable (TDCC)

nVent ERICO TDCC features tinplated steel wire armor that camouflages the copper cable core while also providing superior cut resistance to vandals.



Copper Clad Steel Conductor

nVent ERICO Cu-clad steel conductor is a bare conductor that consists of steel core with copper cladding individual strands. CSS combines the strength of steel core and corrosion resistance of copper making it more rugged than copper, difficult to cut with hand tools and no scrap value. Available in 30% and 40% conductivity. Bare or Insulated.



nVent ERICO Lay-In Lock Shear Connector

The nVent ERICO Lay-In Lock Shear Connector features an innovative, tamper-proof solution to tap in and create irreversible parallel connections anywhere on new or existing grounding grids. This quick, low-maintenance option increases convenience and simplifies installation with its shear-off bolt head and unique lay-in feature to hold conductors in place prior to making a secure connection.



nVent ERICO Outdoor Grounding Solutions

STREET AND POLES MOUNTED TELECOMMUNICATIONS ASSETS

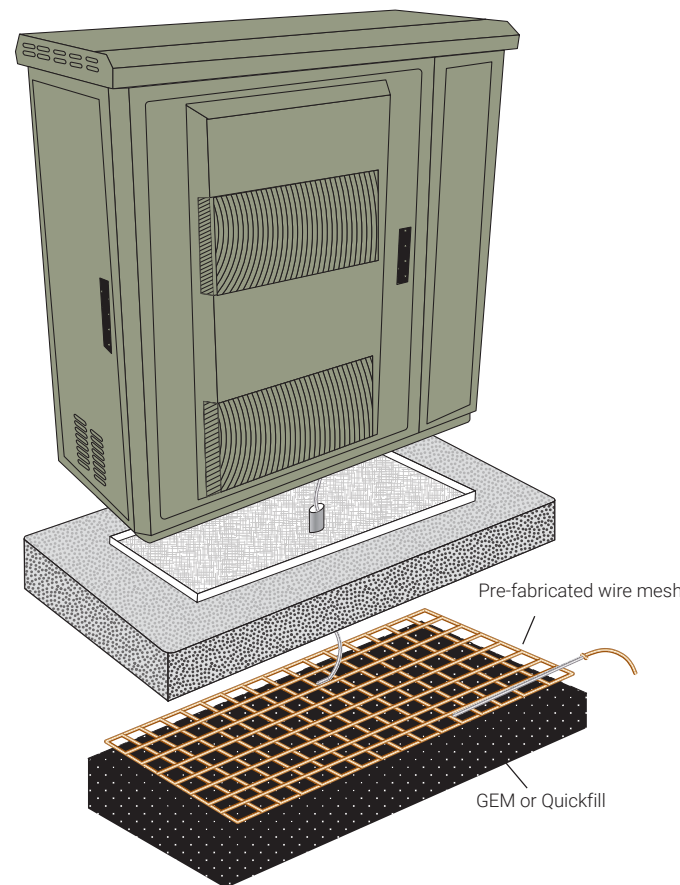
Street Cabinets

There has been a significant increase in the use of street mounted cabinets in the telecommunication industry. The challenges associated with grounding of these cabinets include risk of damaging buried services, limited footprint availability, inability to bring in heavy machinery, desire to have common design for all sites and lack of methods and standards of grounding. nVent ERICO offers several method of grounding that overcomes the challenges often faced by carries. An example of a proven method is depicted below.

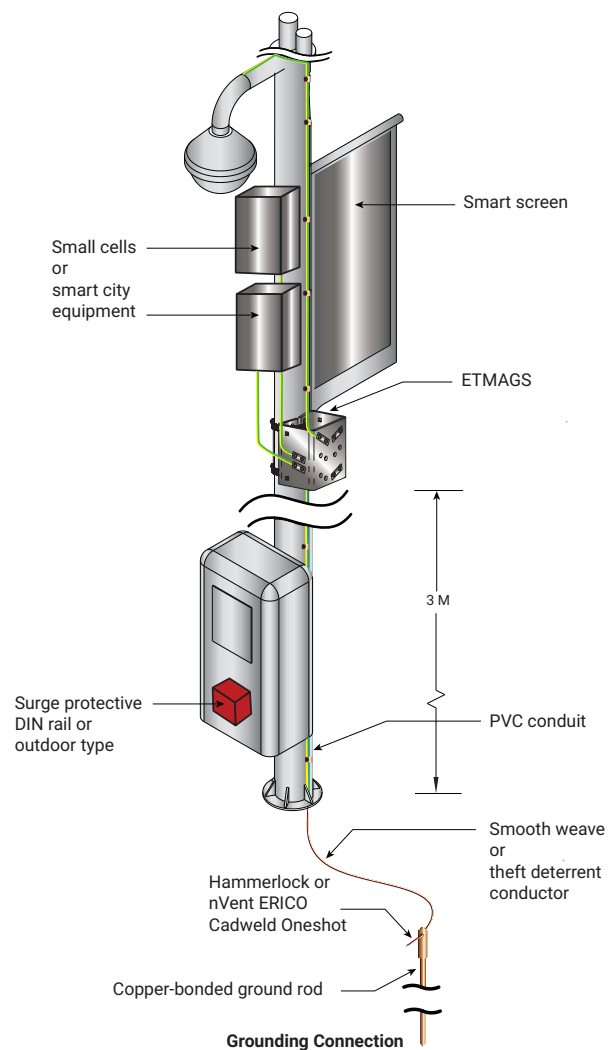
Modern telecommunications networks will see a marked increase pole mounted telecommunications equipment. Examples of these are small cells, DAS equipment and 4G and 5G antennas.

There are two methods of providing protection these assets.

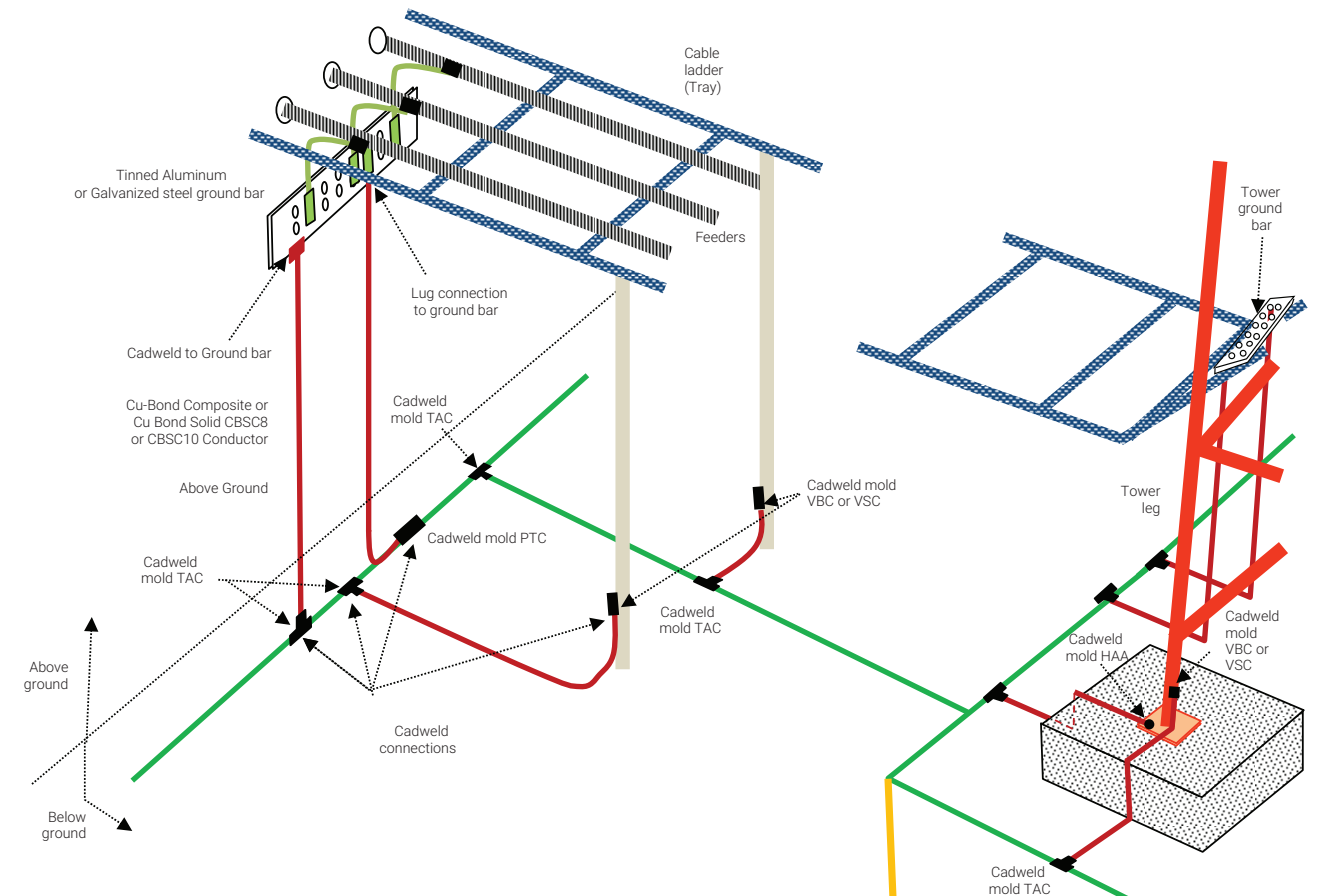
- Isolated method
- Bonding method



Mesh Method for Street Cabinet Protection



Bonding Method of Protection

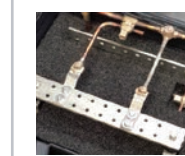


Application of nVent ERICO Theft Deterrent Grounding at Radio Site

nVent ERICO Cu-Bond Round Conductor

The Cu-Bond Round Conductor (Copper Bonded Steel Conductor, CBSC) 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.

- **Theft Deterrent:** Due to its steel core, the conductor is very difficult to cut with hand tools.
- **Cost Effective:** The cost of the conductor is minimized by reducing the total amount of copper in the cable, because the copper is bonded to a steel core.
- **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.



COMPLETE SYSTEM

- Conductor
- Mountings
- Connectors
- Design
- Installation



MEET STANDARDS

- IEC 62561-2
for conductor
- IEC 62561-4 Test criteria
for fasteners
- IEC 62561-21 Test for
mechanical connectors
- IEEE837 for Cadweld



COST EFFECTIVE

Lower Cost than
Copper System

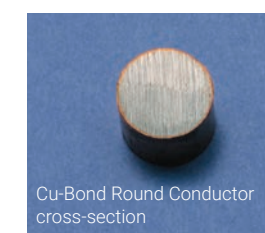
Comparable cost to
good quality GI System



PERFORMANCE

Long Life time
30-40 Years

Same Resistance
Values as for Copper
or Steel System



Cross-Sectional Area

Product Code	CBSC8	CBSC10
Conductor Cross Section in mm ²	50.27	78.52
Conductor Cross Section in in ²	0.08	0.12

nVent ERICO Theft Deterrent Grounding Solutions



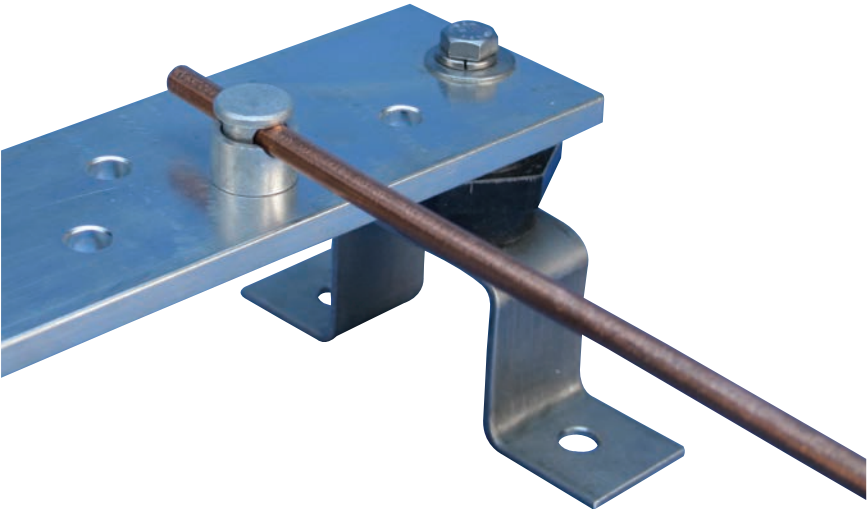
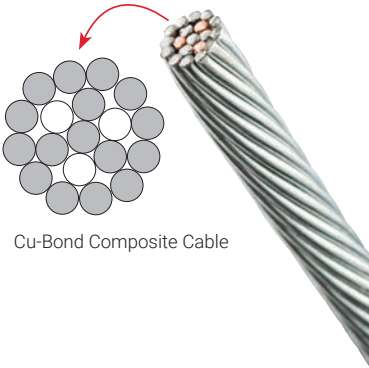
nVent ERICO Cu-Bond Composite Conductor

Cu-Bond Composite Conductor 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 is suitable for telecommunications radio sites.



Application of Cu-Bond Round



- FEATURES**
- 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
 - Copper strands are hidden by outer galvanized steel strands
 - Suitable for direct burial applications

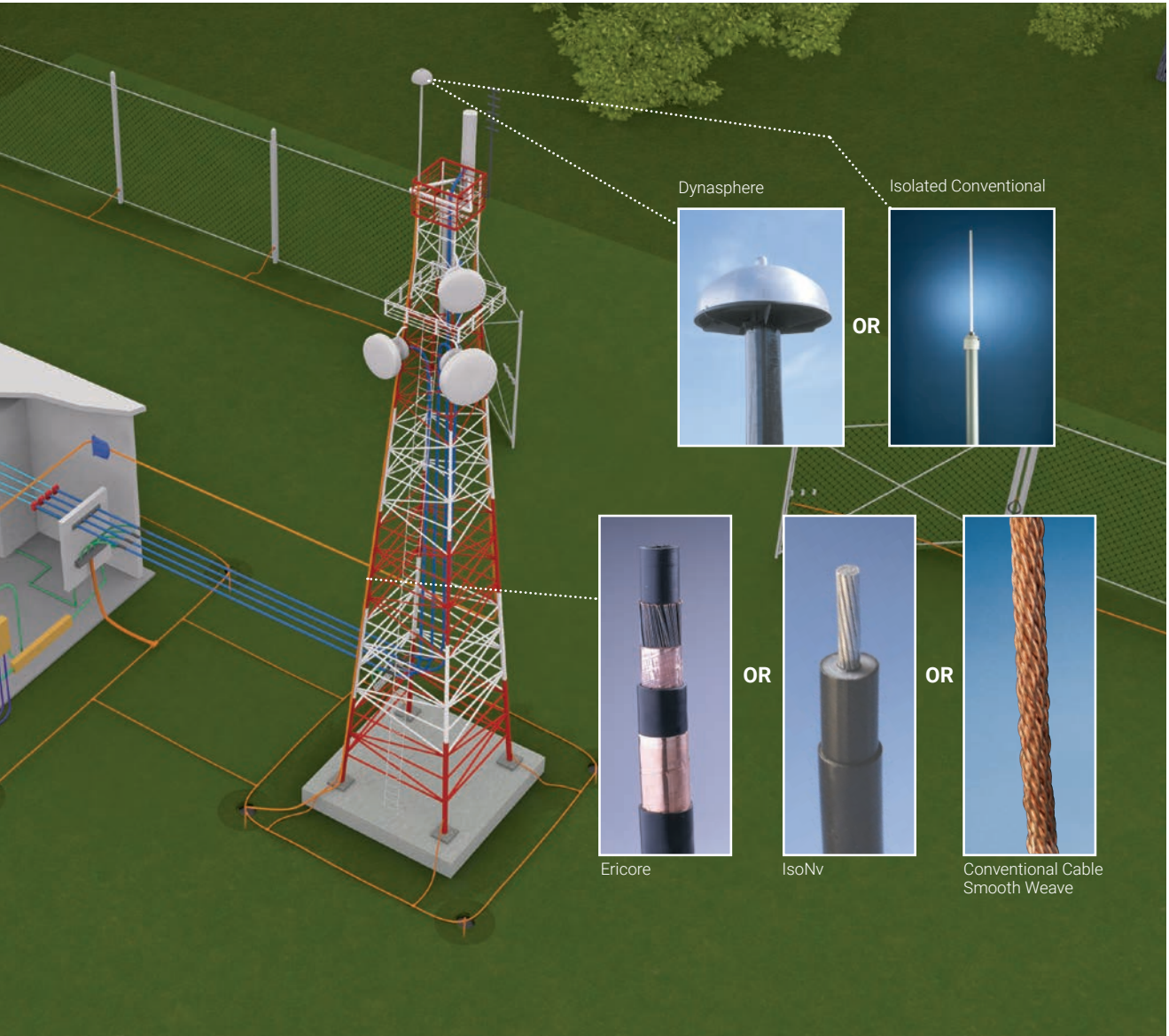
nVent ERICO Lightning Protection Solutions

Direct lightning strikes to telecommunications towers are a reasonably regular occurrence, more so on mountain tops and in certain parts of the world. The traditional approach to lightning protection on towers is to have a lightning rod on the top of the tower and having either a dedicated down conductor or use the tower as the down conductor.

A modern method is to use an optimal air terminal design, the nVent ERICO Dynasphere mounted on top of the telecommunications mast on a 3–4 metres long fibreglass reinforced pole, (FRP). The FRP provides isolation between the air terminal and the tower and helps ensure that the lightning does not flash over and electrify the mast or the antenna. A special purpose downconductor, called the nVent ERICO Ericore is routed in the core of the FRP and

connects to the bottom of the Dynasphere via a high voltage, impulse rated termination. The Ericore runs along a leg of the tower away from the routes of feeders, down to the tower grounding system.

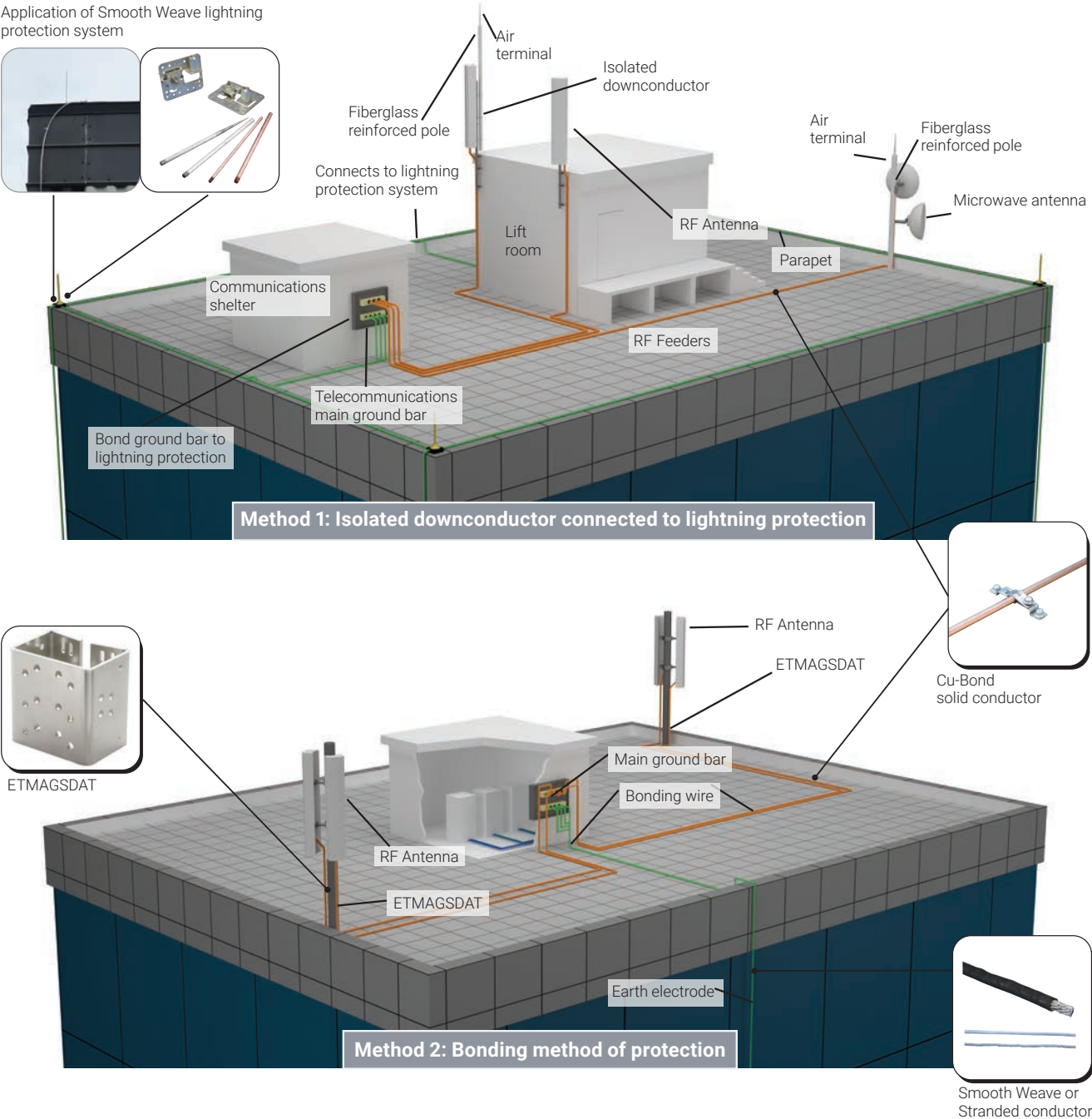
When using isolated downconductor or IsoNv system traditional lightning rod is mounted of sufficient height to ensure that the communication equipment is under a zone of protection. An insulated conductor that can contain the lightning energy for short lengths of the cable is connected to the air terminal. The conductor is then run to a distance down the pole so that it bypasses the communications equipment. The bottom end of the insulated downconductor connect to the tower some 12–15 m, 36–45 ft from the top.



nVent ERICO Lightning Protection Solutions

Traditionally, some rooftop installation have been protected by the use of air terminals (Franklin Lightning Rods), often connected to the building lightning protection system. However, the traditional building lightning protection techniques are not well suited to protect these roof top installations. Hence many telecommunications companies have opted not to provide any form of air terminal. Instead they do extensive bonding of all their roof mounted equipment.

The Isolated Downconductor System provides a modern approach to lightning protection for rooftop installations. The nVent ERICO isolated systems provide a traditional air terminal fitted to an isolated fiberglass reinforced plastic (FRP) mast. The isolated downconductor internally connects to the air terminal inside the FRP. The FRP mast has natural isolation properties, high strength for windy sites and low weight to minimize mast loading. The advantage is that this downconductor can be mounted directly on the mast or structure to be protected – without electrification of mounted equipment under lightning conditions.



nVent ERICO Surge Protection Solutions

nVent ERICO is a leader in Surge Protective Devices (SPD) solutions that protect critical assets across a range of industries, including telecommunications. We offer surge protection solutions that protect critical electronic equipment and systems in every application area, including power distribution panels, discrete signals (inputs and outputs), network communication data lines and RF signal equipment. This comprehensive offering includes standard surge suppression technologies (MOV, TOV, GDT, Spark Gap and hybrids) as well a proprietary nVent ERICO Transient Discriminating (TD) Technology that provides enhanced protection during extreme surge overvoltage events.

nVent ERICO offers surge protective devices (SPDs) with technology options of traditional, or nVent ERICO TD Technology. nVent ERICO DT series of SPDs have been designed with traditional technology to achieve high surge rating performance. nVent ERICO EDT series of SPDs utilize TD Technology to ensure continued operation during and after sustained and abnormal over-voltage events. These products have been independently tested and certified to the latest editions of both IEC and UL standards.

AC POWER DISTRIBUTION PROTECTION



- (Left) nVent ERICO DTX Modular Series Panel Mount for point on entry and distribution board protection
- (Middle) nVent SES Surge Protection for Compact Point on Entry Protection
- (Right) nVent ERICO DT/ EDT Series DIN rail power Surge Protective Devices

DC POWER DISTRIBUTION PROTECTION



- Surge protection for DC Power feeds to remote radio units on telecommunications towers

COMMUNICATIONS, DATA NETWORKS AND RF



- (Left) nVent ERICO CSP Series 20 kA – rated SPD for protecting radio/cellular antenna, camera, TV/Cable and BNC communications equipment
- (Right) nVent ERICO LAN Series ideal for protecting Cat 5/5E, Cat 6 and PoE going outside the building and on telecommunication towers

NVENT ERICO SURGE REDUCTION FILTERS

Surge Reduction Filters combine high-energy surge diversion with surge filtering, making them ideal for critical service protection applications. Their efficient low pass filtering stage dramatically reduces the rate-of-voltage rise and the let-through voltage thereby substantially reducing the risk of equipment damage.

- High-performance protection incorporating Spark Gap and Transient Discriminating (TD) technologies
- High surge rating ideal for exposed critical service entrance applications
- Reduces let-through voltages and rate-of-voltage rise (dv/dt) and helps provide optimum protection for electronic equipment
- Extreme reliability and simplified design with direct connection from input to output
- Comprehensive front panel status and internal diagnostic LEDs



nVent ILSCO TaskMaster Cutting and Crimping Tools

nVent offers a full, versatile line of high quality crimping, cutting and stripping tools for power utility installation.

NVENT ILSCO TASKMASTER

6 Ton Battery Hydraulic In-Line Crimping Tool

- Accepts all W and X type dies
- Interchangeable heads with D3 and O or BG nose die
- Available with DataTrack crimp tracking software
- Brush contact safe up to 75 kV



Battery Hydraulic In-Line Cutting Tool

- Heavy duty blades with rotating head
- Offering includes 10 cutting heads available in battery, manual and remote head configurations



12 Ton battery hydraulic pistol grip crimping tool

- Accepts U type dies
- 360 degree tool head rotation
- Integrated LED work light
- Variable speed trigger



Battery Powered Pump and Heads

- Capable of driving up to 60-ton tool head
- Can be preset to desired retraction point for faster crimp cycles
- Available with DataTrack crimp tracking software
- Closed oil system
- Digital Display screen
- Quick connect Hydraulic connection



Crimping Hand Tools

- 2 stage pump piston
- 360 degree tool head rotation
- Lightweight design



Cuting Hand Tools

- Patented Two Step Ratchet Mechanism
- Insulated Handles
- Lightweight



Hard Working

Ultra-durable nVent ILSCO TaskMaster Cutters, Crimpers, and Pumps are precisely engineered—and rigorously tested—to endure grueling use and harsh environments while delivering the power, speed, efficiency and ergonomics that make any job faster and easier. Rest assured, these rugged TaskMaster tools will provide outstanding performance with consistent results, so you can get every job done, right on time, for years to come.

Longer Lasting

From solid body designs and robust components to innovative features that protect from wear and extend life, TaskMaster tools have what it takes to hang tough, day after day—even on the long, hard jobs.

Minimal Maintenance

To maximize work time and your company's bottom line, TaskMaster tools are built to minimize maintenance time and costs. The durable components require fewer replacements and the life cycle between reconditionings is much longer. When maintenance is due, no-hassle servicing features make it fast and easy.

nVent ILSCO TaskMaster W-dies, U-dies and Dino Dies

nVent ILSCO TaskMaster dies are made out of hardened stainless steel for durability and long life. Industry leading compliance testing with nVent ILSCO and other branded lugs and compression crimps.



- W-DIES**
10 MM² TO 240 MM² DIE SET
- Dies are made out of hardened stainless steel for durability and long life
 - Dies sold separately or in copper and aluminum kits
 - Produce cUL listed crimps with connections made with the W-Dies, nVent ILSCO tool, and nVent ILSCO connectors



- U-DIES**
16 MM² TO 300 MM² DIE SET
- Dies sold separately or in copper, aluminum, or nVent ERICO PermaGround crimping kits
 - Produce cUL listed crimps with connections made with the U-Dies, nVent ILSCO tool, and nVent ILSCO connectors



- DINO-DIES**
10 MM² TO 500 MM² DIE SET
- Innovative and patented nVent ILSCO design
The 3 die halves replaces over 30 U-dies
 - Produce cUL listed crimps with connections made with the Dino Dies, nVent ILSCO tool, and nVent ILSCO connector

NVENT DATATRACK

Crimp tracking software for nVent TaskMaster tools

- What is it:**
- Visual readout of what the tool has completed
 - Provides count on all cycles completed
 - Diagnostic feedback on each cycle
- When to use:**
- When you want to provide proof that pressure was reached after making installations (crimp tool)
 - When you want to know how many cycles have been completed on any given day or for the life of the tool

- How to use:**
- Go to www.nVent.com/ILSCO to download the software
 - Connect the USB to the bottom of the tool & to your computer (battery needs to be connected)
 - Navigate the tabs for detailed information

nVent GARDNER BENDER Test and Measurement

nVent GARDNER BENDER premium range of portable testing and measurement solutions has been synonymous with quality, precision and dependability in electrical industry.



DIGITAL MULTIMETERS

- nVent GARDNER BENDER Digital multimeters combine multiple functions within the same tool.
- Professional Grade products have been developed to meet the needs of the most demanding professional.

CLAMP METERS

- Professional Grade clamp meters offer versatility and durability within the Digisnap product family. From standard Snap-Arounds to True RMS models, these units combine the safety of non-contact current measurement with multimeter functionality.
- High-impact housings and integrated protection ensure a safe and durable product.
- Each unit offers unique functionality, providing every professional with a choice based on their individual needs.

INFRARED THERMOMETER

- The IR Thermometers allow for critical temperature measurements to be taken without having to touch an energized circuit.



TONEPROBE CABLE TRACING KIT

Redefining Tone & Probe
The nVent GARDNER BENDER ToneProbe Kit takes tone and probe to the next level. Engineered for comfort over long periods, the ergonomic overmolded rubber construction of both transmitter and receiver will withstand all the punishment of everyday use. The transmitter features easy one-handed control of tone and continuity functions. Three distinct tones allow easy audible identification for multiple traces.



nVent GARDNER BENDER



NVENT GARDNER BENDER HANDTOOLS

Hand tools are a part of every tool box. With exclusive features for safety, durability, reliability and life strength, nVent GARDNER BENDER hand tools offer superior performance on every job.



NVENT GARDNER BENDER WIRE TOOLS

- Industry leader in bending & fishing
- Innovation by inventing the first aluminum hand bender, first ergonomic fish tape, and first compact fishtape
- Manufacturer of large-scale bending, B2000, and the patented B1000 Portable Cyclone
- Full line of accessories for pulling and fishing conductor applications – wire lube, foam carriers, pull line, mule tape and ropeer grip, grooves are ribbed, wipes oxides off conductors – like sweeping surface of wire
- Industry Leader in Staples and wire management

NVENT CADDY CABLE TIES

nVent CADDY offers a broad range of cable ties in a wide variety of materials, colors, styles and size options to meet your specific cable management needs. A patented design and high quality construction make cable ties a great solution for bundling wire, power cables, communications cables and countless other applications.



NVENT GARDNER BENDER NETWORKING AND COAXIAL

nVent Garnder Bender Kit includes the tools needed for cutting, stripping, and terminating coax cables, F-Type connectors , RJ-11 telephone and RJ-45 networking cables



Customized Solutions and Training



ENGINEERING AND DESIGN SERVICES

By leveraging nVent solutions and using our engineering expertise, designers and manufacturers can reduce their total installation costs while improving safety and reliability and meeting stringent customer requirements.

Let our in-house experts assist by supporting your system design, providing technical and configuration advice or quoting for complete low-voltage power solutions.

To assist with assembly manufacturing, our nVent team provides:



Design support



Our proprietary interactive panel software



Early involvement



Training and assistance during installation

ELECTRICAL ENGINEERING LAB

nVent has invested in state-of-the-art equipment and expanded the in-house Engineering Electrical Lab to meet evolving regional trends and needs. By increasing capability, nVent can support major development and commercial opportunities.

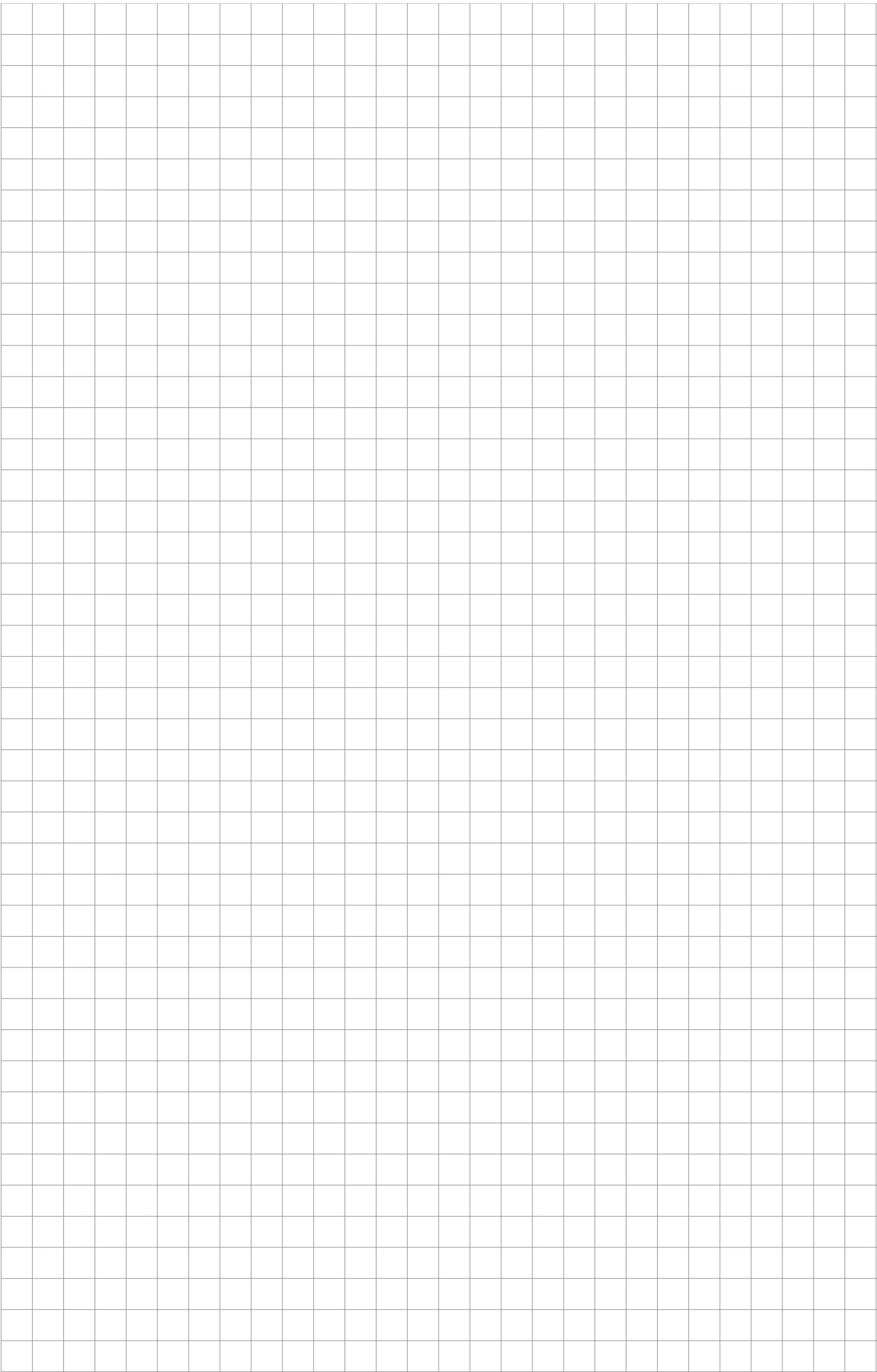
With the lab, nVent can:

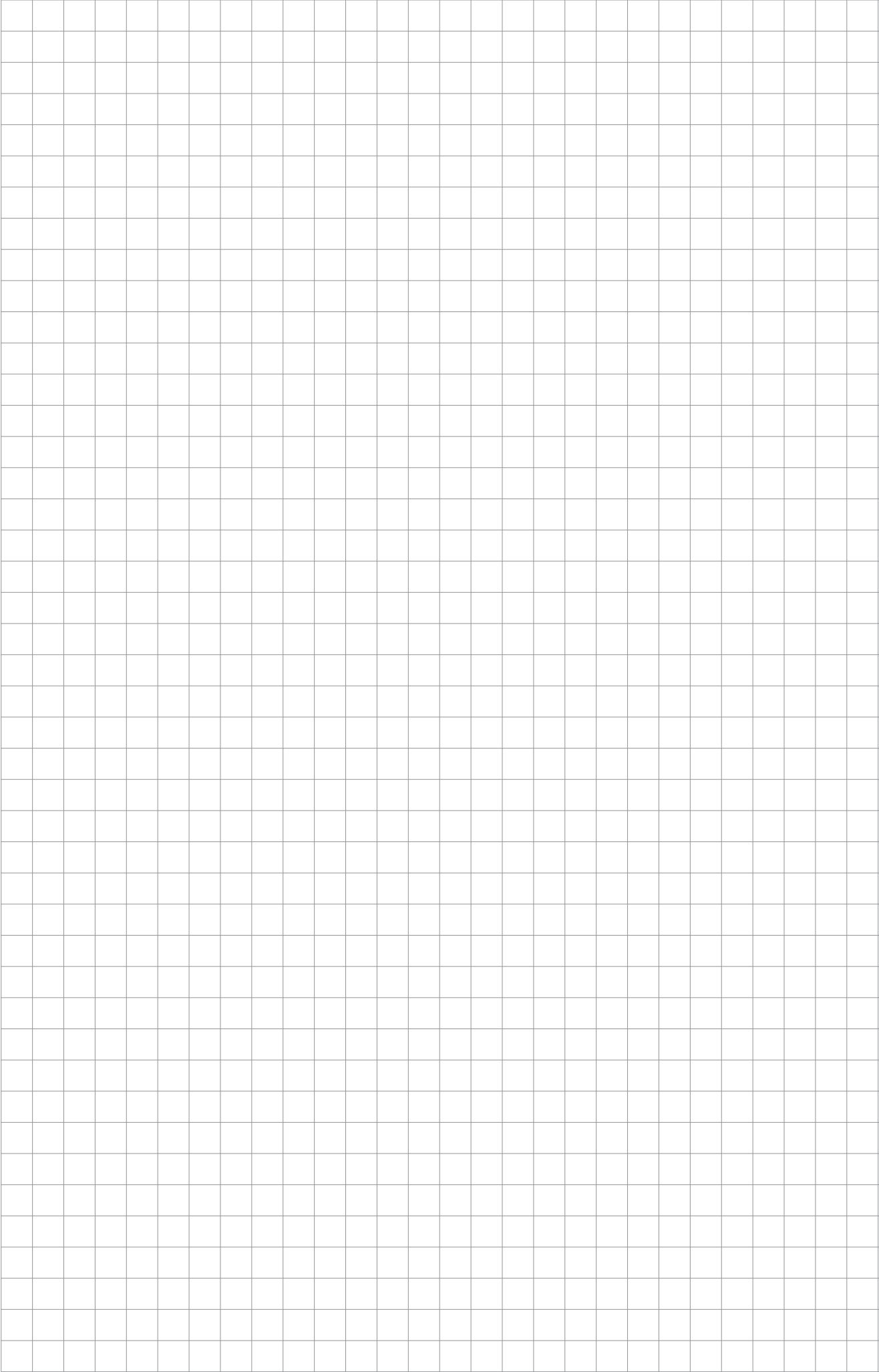
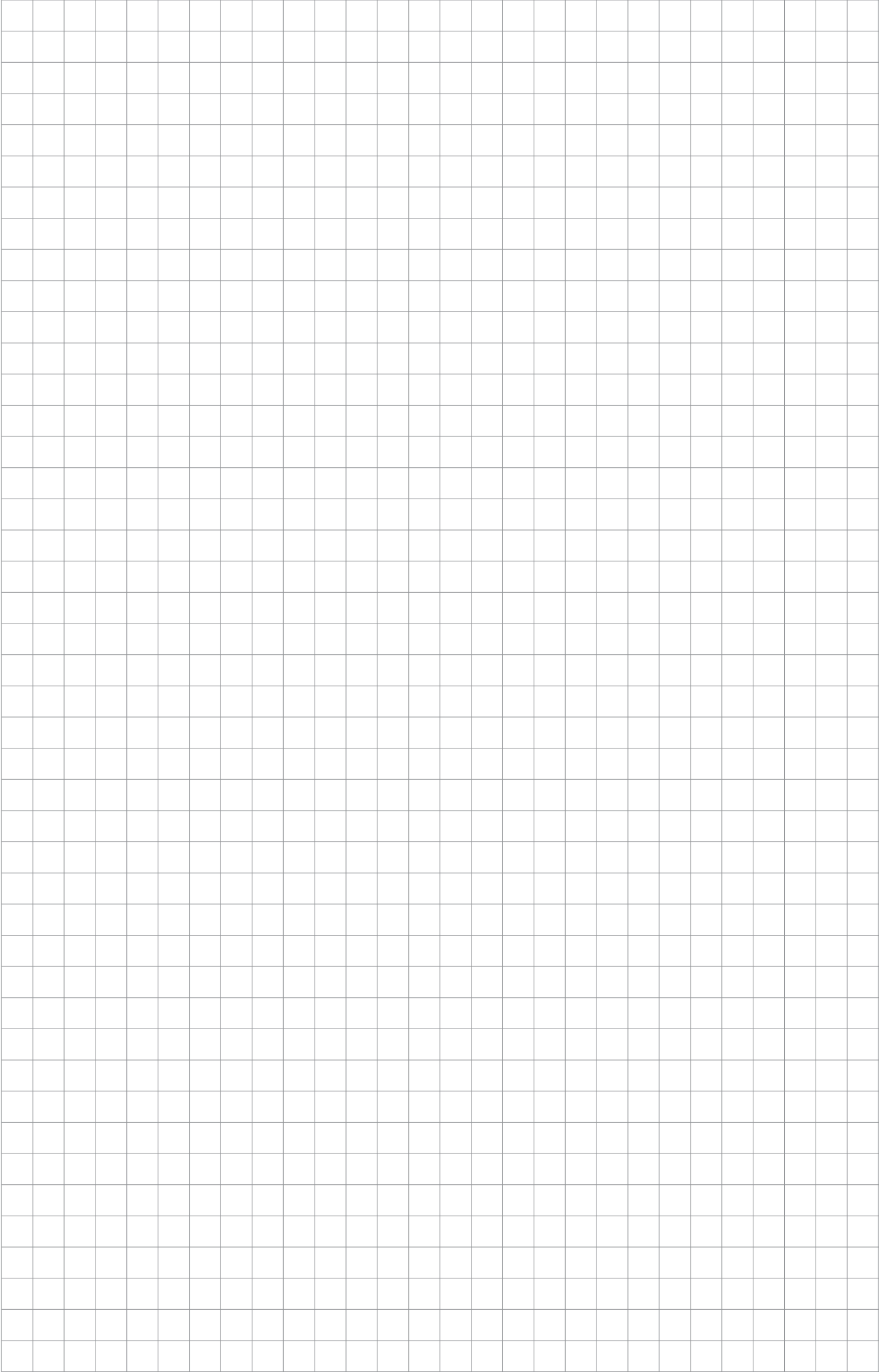
- Support the testing of new applications using nVent brand products
- Participate in the UL Client Test Data Program
- Conduct competitive product testing
- Enhance the internal development of innovative products Support key commercial opportunities
- Reduce time to market
- Test and evaluate to IEC standards

TRAINING

nVent application engineers and researchers have decades of domain expertise and continue to develop new products for improved performance and installation efficiency for the data center industry.

We are trusted to deliver cost-effective, long-term solutions through turn-key, rapid-response engineering, design and integration services for the unique demands of the data center industry.







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Our powerful portfolio of brands:

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ERICO

HOFFMAN

ILSCO

RAYCHEM

SCHROFF