WINCREST WORLDWIDE

High Performance Earthing & Lightning Accessories

Comprehensive Earthing Electrodes, Clamps, Air Termination, Bars, Bonds, Shrouds & Hardware for Global Lightning Protection & Grounding Systems

BS 7430 | IEC/BS EN 62561 | BS EN 50164 | IEC 62305 | RoHS COMPLIANT

Sourced from India's Premier Manufacturing Hub · Jamnagar, The Brass Metal Capital of India

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About Wincrest Worldwide

Global Sourcing. Verified Quality. Reliable Supply.

Wincrest Worldwide Private Limited is a specialist export trading company facilitating access to precision-manufactured earthing, lightning protection, and electrical grounding hardware from India's foremost manufacturing hubs. We work with ISO-certified facilities to deliver internationally specified earth electrodes, clamps, air terminals, earth bars, bonds, and accessories to buyers across Europe, Australia, the Middle East, East Africa, and Southeast Asia.

Comprehensive Range

From copper-bonded earth rods and air terminals to earth bars, bonds, shrouds, and hardware — single-source procurement for complete earthing and lightning protection installations.

Certified Quality

Products manufactured to BS 7430, IEC/BS EN 62561, BS EN 50164, and IEC 62305 standards, with test documentation and certificates of conformity available on request.

Global Export Ready

Established export lanes to Australia, UAE, UK, Europe, East Africa and Southeast Asia, with tariff advantages leveraged for cost-efficient delivery.

Manufacturing Excellence

Sourced from precision facilities working in copper, gunmetal, brass, bronze, and stainless steel, with in-house casting, extrusion, and plating lines.

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EARTH ROD ELECTRODES

Copper Bonded Earth Rods

Earth Rod Electrode (also known as a grounding or earthing rod) is a metal conductor driven deep into the ground to intentionally connect an electrical system to the earth. Its primary purpose is to provide a safe, low-resistance path for fault currents (from lightning strikes or electrical surges) to safely dissipate into the earth, preventing electrocution and equipment damage.

Copper-bonded Earthing Rod is an electrical grounding electrode consisting of a high-tensile steel core molecularly bonded with a thick layer of 99.9% pure electrolytic copper. It provides the durability of steel with the superior electrical conductivity and corrosion resistance of copper.

Copper bonded earth rods are most desired types of the rods because of their low cost and corrosion resistance properties and due to their combination of strength. These rods have very high tensile strength and low carbon steel core. A strong molecular bond between steel core and copper is attained by electrolytically applying 99.95% pure copper on to it.This combination makes the rod suitable for deep driving and provides a lasting resistance to corrosion. The molecularly bonded copper covering along the full length the threads.

Standard Specifications-

Core Material: Low-carbon, high-tensile steel

Copper Coating: Ranges from 100 microns to 254 microns

Diameter Options: Common sizes range from 12 mm to 58 mm depending on your load capacity

Standard Lengths: Usually available in 1 meter, 2 meters, or 3 meters

Copperbond Earth Rod Size Available

Product Code	Rod Diameter	Thread	Length	Material
AIERUT912	9.5	N/A	1200	Copperbond
AIERUT912C*	9.5	N/A	1200	Copperbond
AIERUT512	16.0	5 / 8 “	1200	Copperbond
AIERUT515	16.0	5 / 8 “	1500	Copperbond
AIERUT518	16.0	5 / 8 “	1800	Copperbond
AIERUT312	19.0	3 / 4 “	1200	Copperbond
AIERUT315	19.0	3 / 4 “	1500	Copperbond
AIERUT318	19.0	3 / 4 “	1800	Copperbond

AIERUT912C* — 9.5 x 1200mm earth rod complete with key hole damp.

02·SOLID COPPER EARTH RODS

Solid Copper Earth Rods

Solid copper earth rods are premium grounding electrodes that safely dissipate fault currents and lightning flashes into the earth. Made from 99.9% pure high-conductivity copper, they offer unparalleled corrosion resistance in harsh, high-salinity soils, though they can bend if driven forcefully into hard ground.

Features and Benefits - Solid Copper Earth Rods offer a greater resistance to corrosion. These are ideally used in application where soil conditions are very aggressive.Such as soil with high chloride contents.

Key Specifications & Features -

Material: 99.9% pure electrolytic copper (often hard-drawn) to ensure maximum conductivity.

Dimensions: Available in standard

diameters between 12 mm and 25mm and commonly 1 meter or 3 meters in length.

Jointing: Rods frequently feature internally or externally threaded ends,

allowing them to be coupled together

using a dowel to achieve deeper earth penetration.

Compliance: Usually manufactured to international standards like BS EN 50164 and IEC 62561.

Solid Earthing Rod Size Table

Dia in MM	Length in mm	Product Code
15	1200	AIERSS1512
15	1500	AIERSS1515
15	3000	AIERSS1530
16	1200	AIERSS1612
16	1500	AIERSS1615
20	1200	AIERSS2012
20	1500	AIERSS2015
20	3000	AIERSS2030

03·STAINLESS STEEL RODS

Stainless Steel Rods

Stainless steel earthing rods are highly durable metal electrodes driven deep into the ground to safely dissipate electrical faults and lightning strikes into the earth. Prized for extreme corrosion resistance, they are specifically utilized in highly acidic, saline, or chemically hostile soils where standard copper-bonded rods would quickly degrade.

Features and Benefits - are used to overcome many of the problems caused by galvanic corrosion which can take place between dissimilar metals buried in close proximity.

Material - Stainless Steel Grade 304 or 316

Stainless Steel earth Rod Size Available -

Rod Diameter mm	Length in mm	Product Code
15	1200	AIERSS 1512
15	1500	AIERSS 1515
15	3000	AIERSS 1530
20	1200	AIERSS 2012
20	1500	AIERSS 2015
20	3000	AIERSS 2030
25	1200	AIERSS 2512
25	1500	AIERSS 2515
25	3000	AIERSS 2530

Fittings – Copper, Steel

Size in mm	L	Product Code
15	**STUD**	**AIDS 15**
20		**AIDS 20**
25		**AIDS 25**
15	**DRIVING SPIKE**	**AIERCS 15**
20		**AIERCS 20**
25		**AIERCS 25**
15	**COUPLING DOWEL**	**AIERCC 10**
20		**AIERCC 12**
25		**AIERCC 25**

04·EARTH ROD COUPLER

Earth Rod Coupler

Earth rod coupler is a specialized cylindrical threaded connector used to join multiple threaded earth rods end-to-end. It allows installers to drive multiple rods deep into the ground to achieve lower electrical resistance, ensuring continuous electrical conductivity and structural strength.

Key Features and Functions - Deep Driving: Enables you to extend the length of an earth rod by screwing rods end-to-end as they are driven into the earth.

Electrical Conductivity: Ensures seamless electrical continuity between the rods so fault currents can safely dissipate into the soil.

Thread Protection: They are typically counter-bored or internally threaded to protect the rod's threads from being stripped or damaged while being hammered into the ground.

Specifications –

Couplings are available in Rod size 16, thread - 5/8” & Rod Size 19, thread - 3/ 4” UNC threading

Hexagonal Coupling Available in 5 /8” and 3 /4” UNC Threading

Material: High Copper Content Alloy (Forged)


Bronze Ground Rod Couplers

05·EARTH ROD DRIVING STUD

Earth Rod Driving Stud

Earth rod driving stud (or driving head) is a high-tensile steel accessory attached to the top of an earth rod or coupler. Its primary purpose is to act as an impact-bearing surface during installation, allowing you to drive the rod into the ground with a hammer without mushrooming or damaging the rod.

Key Features and Functions -

Thread Protection: They prevent the threads of earth rods and couplers from flattening, stripping, or deforming under the heavy force of power hammers or manual striking.

Deep Driving: When multiple rods are coupled together for deep-earth installations, the stud screws into the top of the uppermost coupler, taking all the blunt force of the blows.

Reusability: Because they are made from hardened, high-tensile steel, they can be removed and reused repeatedly across multiple jobs.

How They Work

Coupler Attachment: The stud is screwed into an earth rod coupler, which sits on top of the earth rod.

Impact Distribution: The stud protrudes slightly above the coupler, receiving the full force of the hammer strikes and safely transferring the energy down into the rod.

Continuous Extension: As the rod is driven down, the stud is removed, an additional rod is attached using the coupler, the stud is screwed into the new rod, and driving continues.

Material: High Tensile Steel

Available in Size - Rod size 16, thread - 5/8” & Rod Size 19, thread - 3/ 4” UNC threading

06·EARTHING PLATES SOLID

Earthing Plates Solid

Earthing Plates-Solid are flat, solid-metal plates buried deep underground to provide a safe, low-resistance path for dissipating electrical fault currents and lightning surges into the ground. They protect equipment, prevent electrical shocks, and are essential for industrial sites, substations, and telecommunications.

Available in Size –

Description	Size	Total Surface Area
Solid Copper	600 x 600 x 3 mm	0.73 cubic meter
Solid Copper	900 x 900 x 3 mm	1.63 cubic meter
Lattice Copper	600 x 600 x 3 mm	0.31 cubic meter
Lattice Copper	900 x 900 x 3 mm	0.65 cubic meter

07·EARTHING PLATES LATTICE

Earthing Plates Lattice

Earthing plates-lattice (or lattice earth mats) are grounding electrodes made from highly conductive metal tape (such as pure copper or galvanized iron) arranged in an open-grid or cross-hatched pattern. They are buried in the ground to provide a safe, low-resistance path to dissipate dangerous fault currents and lightning strikes into the earth

Key Functions and Benefits

Improved Safety: The open grid design is engineered specifically to minimize dangerous "step" and "touch" voltages around high-risk sites, protecting operators and workers during electrical faults.

Cost-Effective: They offer a more affordable, lightweight alternative to solid metal plates, while delivering a wider surface area for better soil contact.

Exceptional Conductivity: The grid layout provides excellent electrical and thermal conductivity, particularly in high fault-current applications.

Durability: Due to their robust material construction (often utilizing 25 mm × 3 mm copper tape), they are highly corrosion-resistant and require little to no maintenance once installed.

08·EARTHING ROD SEALS

Earthing Rod Seals

Earthing rod seals are specialized plumbing and electrical components designed to create a watertight, dust-tight seal between an electrical grounding rod and a concrete slab or Damp Proof Membrane (DPM). They prevent water, moisture, and gas from seeping into a building's foundation around the rod.

Features and benefits –

Why Are Earthing Rod Seals Necessary?

When electrical systems—including surge or lightning protection—are grounded, earthing rods must pass through a building's foundation and into the earth. Without a seal, this penetration creates a direct pathway for

Water ingress from heavy rain or rising groundwater, leading to dampness, mold, and structural damage.

Soil gases, such as radon, entering the building.

Corrosion of the earthing rod itself due to moisture exposure

How They Work

Earthing rod seals utilize compression technology to create a strong barrier without the need for messy adhesives or mastics. The standard installation involves a few key components:

Seal Tube: A high-impact plastic or PVC tube that protects the earthing rod as it passes directly through the concrete slab into the ground.

Compression Ring & Rubber O-Rings: Specially sized rings (often made of nitrile rubber) are tightened around the rod using a spanner, squeezing against the DPM to form a hermetic seal.

Inspection Pits: Lightweight enclosures placed over the top of the rod in the ground. They allow for easy, safe access to the earth rod and clamp connections for regular resistance testing and maintenance.

Availability –

Single Flange Earth Rod Seal (for most applications)

Double Flange Earth Rod Seal (for deep concrete slab layers)

09· ROD TO TAPE CLAMP – A TYPE

Rod to Tape Clamp – A Type

Earthing Rod to Tape Clamp (Type A) is a specialized mechanical connector used in electrical grounding and lightning protection systems. It is designed to securely join a vertical grounding rod (earth electrode) to a flat horizontal grounding conductor (tape), ensuring a low-resistance path to safely dissipate electrical faults. In electrical and lightning protection design, the term "Type A" designates a specific physical geometry of the clamp and earthing installation. Type A (Rod to Tape): Designed to connect a flat copper tape/strip to the earth rod.

Features and Benefits

Type A" clamps are specifically designed to physically bond a flat tape conductor to an earth rod.

Specifications –

- **Materials: They are manufactured from high-conductivity, highly corrosion-resistant materials like high-strength copper alloy, gunmetal, or aluminium bronze.**
- **Fasteners: They typically feature heavy-duty bolts or set screws (made of stainless steel or phosphor bronze) to ensure high mechanical strength and prevent loosening over time.**
- **Application: Widely used in power substations, electrical towers, and building lightning protection networks to securely anchor the lightning-strike dissipation pathway to the ground**

Available in Size – ½" – ¾" rod to 1" x 1/8" copper tape

10· ROD TO TAPE CLAMP – G TYPE

Rod to Tape Clamp – G type

Rod to Cable/Tape Clamp (Type G) is specifically designed to securely join an earth rod to a round stranded copper cable (or circular conductor) to ensure a low-resistance, corrosion-free electrical bond. In electrical and lightning protection design, the term Type G (Rod to Cable/Conductor): Refers to a clamp (often a heavy-duty U-bolt or a mechanical "G" shape) designed explicitly to connect a round, stranded copper cable to the earth rod.

Features and Specifications –

Meaning of "G": It is simply a standardized industry designation for Grounding/Grid round cables. (Note: These clamps are sometimes referred to colloquially as "G-Clamps" due to their resemblance to C/G-clamps, but Type G specifically stands for the Rod-to-Cable connection type).

How Type G Clamps Work

Mechanical Design: They usually feature a strong gunmetal or copper-alloy body with a heavy-duty set screw or U-bolt.

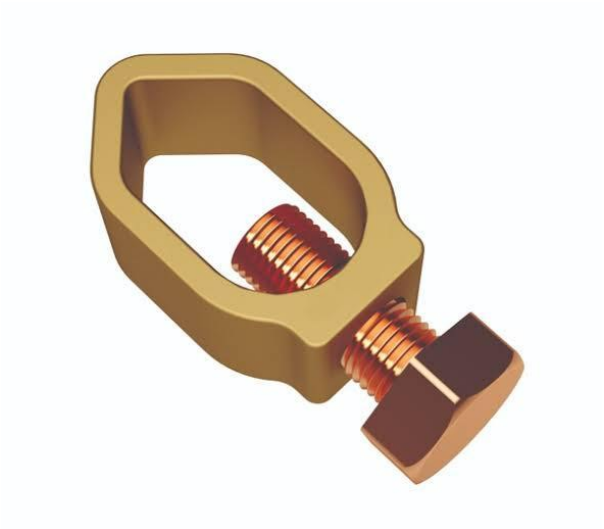
The Connection: The earth rod passes through one side of the clamp, while the round cable passes through the other. Tightening the bolt secures both tightly against each other to prevent loosening and corrosion.

Available in Sizes

14mm rod to 16-70mmsq cable

5/ 8” rod to 16-70mmsq cable

3 / 4” rod to 35-95mmsq cable



11· ROD TO TAPE CLAMP – D TYPE

Rod to Tape Clamp – D type

Rod to Cable Lug Clamp (D Type) is a specialized electrical fitting used to securely connect an earthing or lightning rod to a heavy-duty cable terminal (lug). It creates a highly durable, corrosion-resistant joint critical for grounding systems and electrical substations.

Key Features and Specifications:

□ Primary Purpose: Connects a cable lug to an earth rod, ensuring safe electrical discharge into the ground.

□ Material: Typically manufactured from high-grade copper or copper alloys (like brass or bronze) to prevent corrosion and maintain excellent electrical conductivity.

□ Design: Designed to grip the cylindrical surface of the rod on one side while providing a flat bolted surface to hitch a compression cable lug.

□ Common Sizes: Available to fit standard earthing rod diameters ranging from 3 /8 " (9.5 mm) to 3 /4 " (20 mm).

Use with threaded and unthreaded rods, suitable for connecting earth rod with cable lug

Available for Rod dia 9.5,14mm,16mm & 20mm

Key Features and Specifications:

□ Primary Purpose: Connects a cable lug to an earth rod, ensuring safe electrical discharge into the ground.

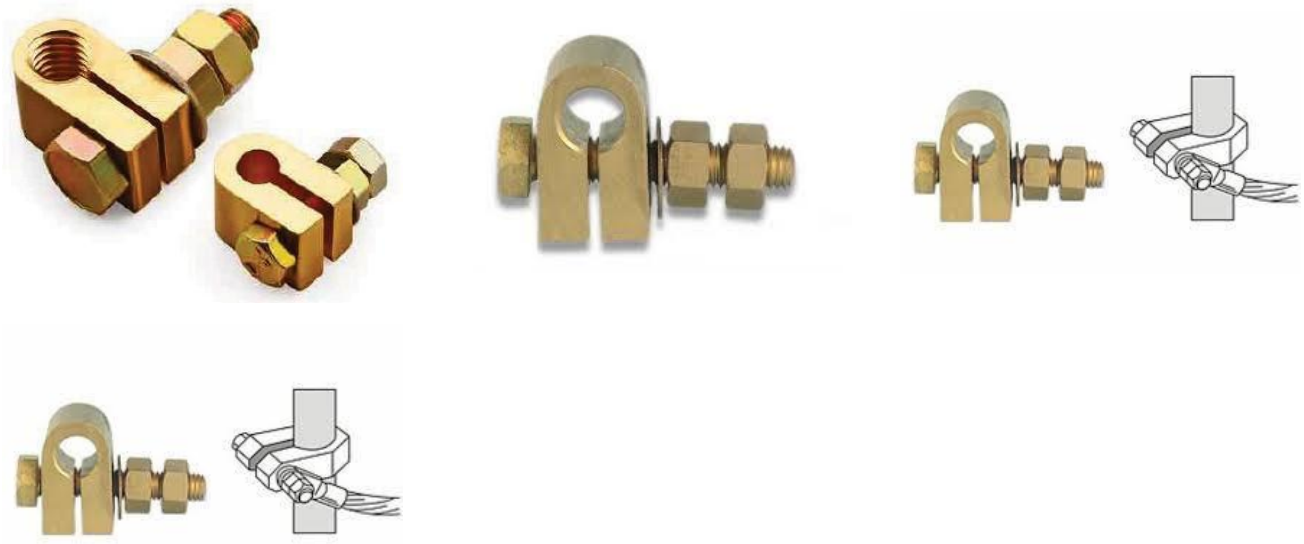
□ Material: Typically manufactured from high-grade copper or copper alloys (like brass or bronze) to prevent corrosion and maintain excellent electrical conductivity.

□ Design: Designed to grip the cylindrical surface of the rod on one side while providing a flat bolted surface to hitch a compression cable lug.

□ Common Sizes: Available to fit standard earthing rod diameters ranging from 3 /8 " (9.5 mm) to 3 /4 " (20 mm).

Use with threaded and unthreaded rods, suitable for connecting earth rod with cable lug

Available for Rod dia 9.5,14mm, 16mm & 20mm



12· COPPER EARTH TAPE

Copper Earth Tape

Copper earth tape (or copper grounding strip) is a high-conductivity, annealed flat copper conductor used in electrical grounding and lightning protection systems. It provides a robust, low-resistance path to safely dissipate fault currents and lightning strikes into the earth

Key Characteristics & Types

Material: Highly conductive, annealed, soft-drawn copper (often complying with BS EN 13601).

Design: Features rounded edges to ensure safety during on-site handling and installation.

Coatings: While usually bare, it can also be supplied with PVC coverings (e.g., green/yellow for identification), LSF (Low Smoke Zero Halogen), or lead/tinned finishes to resist corrosion in highly contaminated soils.

Standard Sizes: Commonly ranges from 25 mm x 3mm to 50mm x 6 mm, sold in continuous coils.

Primary Applications

Lightning Protection: Acts as an air termination network to capture strikes and serves as a down-conductor along exposed building corners.

Grounding Grids: Used to interconnect multiple earth rods, electrical substations, and main structural steel components.

Fault Diversion: Provides a safe, large surface-area path to channel electrical surges away from sensitive equipment and personnel

Product Code	Width	Thickness	Coil Length (m)
AICTB1215	12.0	1.5	100
AICTB123	12.0	3.0	100
AICTB2015100	20.0	1.5	100
AICTB25310	25.0	3.0	10
AICTB25325	25.0	3.0	25
AICTB25350	25.0	3.0	25
AICTB25450	25.0	4.0	50
AICTB25610	25.0	6.0	10
AICTB25640	25.0	6.0	40
AICTB32614	32.0	6.0	14
AICTB40430	40.0	4.0	30
AICTB50620	50.0	6.0	20

Product Code	Width	Thickness	Coil Length (m)
AICTP2525	25.0	3.0	25
AICTP2530	25.0	3.0	50
AICTP2560	25.0	6.0	60
AICTP50620	50.0	6.0	20

13·HARD DRAWN COPPER BARS

Hard Drawn Copper Bars

Hard Drawn Copper Bars are highly conductive copper strips used as central grounding terminals in electrical and lightning protection systems. They safely collect and dissipate fault currents and lightning strikes into the earth. The term "hard drawn" means the copper has been mechanically worked to increase its tensile strength and rigidity, making it ideal for rigid above-ground installations.

Core Function & Use Cases

Central Equipotential Bonding: They provide a single, organized point to connect multiple grounding conductors from electrical panels, generators, telecom racks, and structural steel. This keeps all metallic components at the same voltage to prevent shocks and equipment damage.

Testing & Inspection: Often equipped with disconnecting links, these bars allow engineers to temporarily isolate the earthing system from the ground rods to test the soil's resistance.

Substations & Industry: Commonly used in high-voltage and medium-voltage substations, data centers, and heavy-duty electrical rooms where robust, high-fault current tolerance is required.

Typical Earthing Bar Accessories

To make a complete and functional earthing assembly, hard drawn copper bars are combined with several standard accessories:

Insulators: Glass-reinforced polyester (GRP) or UPVC bases that safely mount the bar to a wall or electrical enclosure, preventing the electrical fault from traveling into the wall.

Connection Bolts: Pre-drilled holes fitted with stainless steel or brass bolts (e.g., M10 sizes) to tightly secure heavy-gauge earth cables and lugs.

Swan Neck Brackets: Specialized adapters used to offset the earth bar slightly from the wall, allowing easier installation and maintenance.

Disconnecting Links: Removable copper bridges that link sections of the bar so that circuits can be disconnected for routine maintenance or system testing.

Product Code	Width	Thickness
AICB253	25.0	3.0
AICB256	25.0	6.0
AICB386	38.0	6.0
AICB506	50.0	6.0

14· TAPE JUNCTION SQUARE

Tape Junction Square

Earthing tape junction square (often called a square tape clamp) is an essential grounding and lightning protection fitting used to join, cross, or T-connect flat copper or Aluminium earthing tapes. It ensures highly conductive, low-resistance, and corrosion-proof connections across a continuous tape network. These four ways connectors are used in making cross, straight through or tee joint in flat tape. The base has a countersunk hole in middle for securing the clamp to the building surface and the lid is fixed by means of four screws.

Key Features & Design

Versatile Configurations: Allows for straight-through joints, 3-way (Tee) connections, and 4-way cross junctions.

Design: Consists of a base plate (typically with a central countersunk hole for surface mounting) and a top lid secured by four bolts or screws to tightly clamp the tape.

Materials: Commonly manufactured from high-conductivity gunmetal, brass, or copper to match the earthing tape and prevent galvanic corrosion.

Bolt Materials: Fastening bolts are typically made from stainless steel, phosphor bronze, or copper-plated mild steel for durability.

Material – Gun Metal

Standard: IEC/BS/EN 62561-4

Available in Size

Product Code	Width	Thickness
AISTC253	25.0	3.0
AISTC256	25.0	6.0
AISTC506	50	6.0

15·TAPE TEST JUNCTION CLAMP

Tape Test Junction Clamp

Earthing Tape Test Junction Clamp (often called an Oblong Test Clamp) is an essential earthing accessory that connects two overlapping earthing tapes and provides an easily accessible disconnect point for periodic earth resistance testing.

Key Features

Dual Functionality: Acts as a straight-through joint for copper or aluminium tapes and can be disconnected for annual network testing.

Design: Consists of two metal plates fastened together with bolts or set screws to clamp the conductor securely.

Material Options: Typically manufactured from High-Conductivity Copper, Gunmetal (Bronze), or Brass. Bolts are usually made of Phosphor Bronze or Stainless Steel to prevent corrosion.

Common Sizes: Available in standard tape dimensions like 25 × 3 mm, 38 × 6 mm, and 50 × 6 mm.

Material – Gun Metal Standard: IEC/ BS EN 62561-4

Available in Size – 25.0mm width x 8.0 mm thickness

16·NON-METALLIC TAPE CLIPS

Non-Metallic Tape Clips

Non-Metallic DC (Distance) Clips are essential earthing and lightning protection accessories used to securely fasten bare or PVC-covered copper and aluminium tapes to exterior walls. They ensure robust structural support while preventing the bimetallic corrosion and galvanic contact caused by metallic clips.

Key Specifications

Material: Manufactured from high-grade, UV-stabilized synthetic polymers (like high-density polypropylene or PVC) to prevent cracking, fading, or embrittlement from sunlight and cold weather

Conductor Sizes: Typically designed to fit standard earthing tapes ranging from 20 × 3 mm to 60 × 6 mm.

Color Options: Usually available in multiple color variants (e.g., grey, black, brown, green, white) to visually match the conductor tape or the installation surface.

Installation: Installed using standard M6 or countersunk wood screws with wall plugs, or sometimes applied with specialized adhesives for materials that cannot be penetrated by drilling.

Primary Advantages

Corrosion Resistance: Completely eliminates the risk of galvanic corrosion that occurs when dissimilar metals come into contact (e.g., a copper tape secured with an aluminium or steel clip).

Weather & UV Protection: Highly resistant to weathering, making them ideal for long-term outdoor exposure in lightning protection networks.

Thermal Accommodation: The flexible nature of the polymer safely accommodates the natural thermal expansion and contraction of copper or aluminium tapes.

Material – polypropylene

Standard – IEC/BS EN 62561-4

Product Code	Bare Copper Width	Conductor thickness	PVC covered with	Copper Tape thickness
AIDCP203	20.0	3.0		
AIDCP253	25.0	3.0		
AIDCP506	50.0	6.0		
AIDCCP253			25.0	3.0

17·METALLIC TAPE CLIPS/DC CLIPS

Metallic Tape Clips/DC Clips

Metallic tape clips (often called DC tape clips) are specialized fasteners designed to securely anchor flat metal tape conductors—typically made of copper or aluminium—to structural surfaces. They are predominantly used in electrical earthing and structural lightning protection systems.

Why Are They Used?

Safety: They anchor the flat "tape" that safely guides lightning strikes into the ground, protecting the building and its electrical equipment from surges.

Durability: They hold conductors rigid to withstand the immense mechanical and thermal forces (expansion and contraction) caused by lightning stresses.

Clean Routing: They ensure down conductors are neatly routed along the structure at regular intervals (both vertically and horizontally)

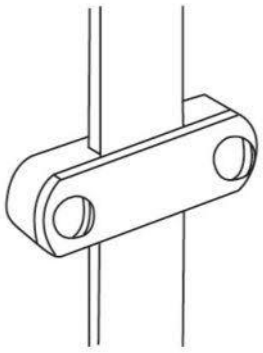
Features and Specifications –

Materials: Commonly made from high-grade copper alloy, Gun Metal, aluminium, or stainless steel to resist harsh environmental conditions.

Design: Typically feature a flat cradle-like base where the tape sits and a top plate or screw (often stainless steel bolts) that locks the tape firmly in place. The base is pre-drilled so it can be screwed or wall-plugged into the building facade.

Sizing: They are manufactured in various sizes to perfectly match the width and thickness of the grounding tape being used (e.g., 20 × 3 mm, 25 × 3 mm, or 50 × 6 mm)

Product Code	Bare Copper Width	Conductor Thickness	PVC Covered width	Copper Tape Thickness
AIDC 253	20.0	3.0		
AIDC 256	25.0	3.0		
AIDC 506	50.0	6.0		
AIDCC 253			25.0	3.0
AIDCC 253			25.0	6.0
AIDCC 506			50.0	6.0



18·EARTH ROD TO CABLE CLAMP

Earth Rod to Cable Clamp

Earthing clamp (or grounding clamp) is a mechanical connector used to safely secure an electrical conductor to a grounding electrode (like an earth rod), structural steel, or a workpiece. Its primary purpose is to establish a reliable, low-resistance path for fault and excess currents to dissipate harmlessly into the ground.

These clamps act as a vital safety measure, preventing electrical shocks, equipment damage, and fires. They are used across two main applications:-

Electrical Earthing & Lightning Protection

Purpose: Connects grounding cables, copper tapes, or electrical panels to buried earth rods or building structures.

Function: Diverts power surges, static electricity, and lightning strikes safely into the earth.

Common Types:

U-Bolt Clamps: Heavy-duty fasteners used to grip conductors firmly to flat surfaces or earth rods.

Type G Clamps: Used for joining copper cables to different sizes of earth rods.

Rebar Clamps: Used in structural earthing and foundations.

Earth rod to cable clamp is a specialized mechanical connector used in electrical grounding and lightning protection systems. It securely bonds the grounding conductor (the cable) to the driven grounding rod (the earth rod), providing a reliable, low-resistance path to safely dissipate fault currents and lightning strikes into the ground.

Earth Rods are joined to different sizes of stranded copper conductor with the help of these earth rods to cable clamp. THey possess high corrosion resistance properties. Due to their strong mechanical strength, a long lasting connection is ensured.

Materials: Typically manufactured from highly conductive and corrosion-resistant materials like gunmetal, naval brass, or copper alloys, often fitted with stainless steel or phosphor bronze bolts.

Material - Gun Metal

Standard: BS 7430

Rod Diameter	Conductor Range mmsq
9,5	6 – 35
16	16 – 70
19	35 - 95

19·EARTH ROD TO CABLE LUG CLAMP

Earth Rod to Cable Lug Clamp

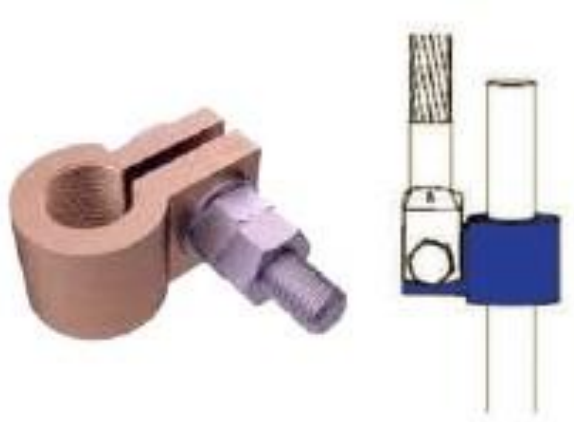
Earth Rod to Cable Lug Clamp (often called an earthing or grounding clamp) is a specialized electrical connector used to securely join an earthing/grounding cable to a vertical earth rod. It provides a reliable, low-resistance path to safely dissipate fault currents or lightning strikes deep into the ground.

Earth Rod to Cable Lug Clamp are most suitable for joining earth rods to Copper tube lugs.They possess high corrosion-resistance properties. Due to their strong mechanical strength, a long lasting connection is ensured.

Material - Gun Metal

Standard : NS 7430

Product Code	Rod Diameter	Lug Stud Size
AISPC10	9.5	8
AISPC16	16 / 5/ 8”	10
AISPC10	19 / 3 / 4”	10



20·EARTH ROD TO TAPE N CLAMP

Earth Rod to Tape N Clamp

Earth rod to tape clamp (commonly called a Type N clamp) is an electrical component used to mechanically and electrically connect a vertical grounding rod to a flat copper earthing or lightning protection tape. It creates a secure, low-resistance path to safely divert fault currents or lightning strikes into the earth.

Purpose: It bridges the gap between the copper rod driven deep into the ground and the flat copper conductor tape that runs along the building or structure.

Materials: They are typically manufactured from high-tensile, corrosion-resistant metals like gunmetal, aluminium bronze, or brass, and are secured with heavy-duty phosphor bronze or stainless steel bolts.

Design: Designed with "extra grip," they accommodate various standard tape widths and rod diameters while maintaining high clamping pressure to ensure an enduring connection.

Material - Gun Metal Standard : NS 7430

Sizes Available

Product Code	Rod Diameter	Max Conductor
AIERA1625	16 / ⅝”	26 x 12
AISPC16	16 / 5/ 8”	26 x 12

21·“B” BOND

“B” Bond

B Bond (also referred to as a B-type bond clamp) is an earthing and lightning protection accessory used to securely bond flat copper or aluminum tape conductors to flat metal surfaces, structural steel, or storage tanks

Key Features and Specifications

· Materials: Typically manufactured from high-grade copper alloys, leaded gunmetal, or aluminum to match the conductor tape.

· Bolts/Fixings: Secured with corrosion-resistant bolts (such as stainless steel or phosphor bronze).

· Design: Designed for a flat, flush fit, generally accommodating copper or aluminum tape widths up to 25 mm or 26 mm.

· Versatility: Often features a stud (e.g., M10) for bolting directly onto steel structures, vessels, or equipment frames.

Core Purpose -

Equipotential Bonding: It ensures that structural metalwork (like metal building columns, cladding, and tanks) shares the same electrical potential as the grounding and lightning protection system.

Fault Diversion: It provides a reliable, low-resistance path to safely divert fault currents and lightning strikes into the earth, preventing dangerous sparking, fire hazards, or electric shocks.

Material - Gun Metal Standard: NS 7430

Available in Size - max tape width - 26

Bolt size - M10

Copper conductor

22· “U” BOLT ROD CLAMP

“U” Bolt Rod Clamp

“U” Bolt Rod Clamps are critical components in earthing and lightning protection systems. They provide a secure, low-resistance mechanical connection between a vertical or horizontal earth rod and grounding cables, flat tapes, or rebar.

U Bolt Rod Clamps are suitable for joining different sizes of conductor tape to earth electrode. They possess high corrosion resistance properties. Due to their strong mechanical strength, a long lasting connection is ensured.

Key Features & Specifications

Primary Materials: Typically manufactured from high-conductivity Copper, Gunmetal, or Brass to ensure excellent corrosion resistance and maximum electrical fault-current capacity.

Conductor Compatibility: Designed to accommodate multiple configurations, including stranded copper cables, flat earthing tape, and rebar.

Rod Ranges: Standardized to fit earth electrodes/rods ranging from nominal sizes of 12 mm (1/2") to 25 mm (1").

Fastening: Usually utilizes a double-nut or threaded U-bolt arrangement to ensure a tight, vibration-resistant grip that stands the test of time

Body Material – High Strength Copper Alloy

“U” Bolt Material – Copper, Standard : BS 7430

Available Options

Product Code	Rod Diameter	Hole Centre
AIURC16	16 / 5/ 8”	37.0
AIURC19	19 / 3/ 4”	37.0

23· “U” BOLT DOUBLE PLATE CLAMP

“U” Bolt Double Plate Clamp

"U" Bolt Double Plate Clamp is an essential earthing and lightning protection fitting used to securely bond copper/tinned copper tapes or stranded cables to earth rods or rebar. It guarantees stable electrical continuity and prevents loosening due to vibrations or harsh environmental conditions.

Key Specifications & Features

Material: Manufactured from high-strength copper alloy, gunmetal, or brass for high corrosion resistance and low electrical impedance.

Design: Features a U-bolt (often M10 threaded) and two heavy-duty plates that sandwich the conductor.

Rod Compatibility: Typically accommodates earth rods with diameters ranging from 12 mm to 20 mm (or ½” to ¾”)

Conductor Compatibility: Designed for flat copper tapes (usually 25 mm to 50 mm) or vertical stranded cables.

To join 25x3 conductor tape, these U Bolt double plate clamps are used to earth electrodes/rebar without the need to drill the tape. They possess high corrosion resistance properties. Due to their strong mechanical strength, a long lasting connection is ensured.

Product Code	Rod Diameter	Hole Centre	Conductor Width
AIERUB16B	16 / 5/ 8”	37.0	25
AIERUB19B	19 / 3/ 4”	37.0	25

24·ROD TO CLAMP TYPE – GUV

Rod to Clamp Type – GUV

Earthing and Lightning Accessories – Rod to Clamp Type - GUV (commonly called a GUV clamp or U-bolt rod-to-cable clamp) is a specialized electrical hardware component used to securely connect down-conductor cables or reinforcing bars to vertical earth electrodes (grounding rods).

Key Features; Why It's Used

In earthing and lightning protection systems, making a joint that offers high conductivity while withstanding environmental corrosion is critical for safety. The GUV clamp creates a reliable, low-resistance, and mechanically strong physical bond between the grounding system and the deep earth rod to dissipate fault or lightning currents safely into the ground.

Design: Typically features a U-bolt accompanied by two heavy-duty metallic plates. One plate secures the circular or stranded cable, while the other grips the vertical earth rod.

Materials: Commonly manufactured from highly conductive and corrosion-resistant materials such as gunmetal, copper alloy, or high-grade brass.

Versatility: Designed to accommodate a wide variety of cable sizes and earth rod diameters (commonly ranging from 16 mm to 300 mm cable areas)

Part Number	Description
AILBM 117	5/8” to 3 /4” rod to 16-95 mmsq cable
AILBM 118	5/8” to 3 /4” rod to 70-185 mmsq cable
AILBM 119	5/8” to 3 /4” rod to 150-300 mmsq cable
AILBM 125	3 /4” to 1” rod to 150-300 mmsq cable

25·RWP BOND CLAMP

RWP Bond Clamp

RWP (Rain Water Pipe) Bond Clamp is an electrical hardware component used in earthing and lightning protection systems. Its primary function is to securely connect or "bond" a metallic rainwater pipe, handrail, or other cylindrical structure to the building's main grounding or lightning protection network

Key Characteristics

How Does It works

Equipotential Bonding: It equalizes the electrical potential between the pipe and the earthing system. This prevents dangerous voltage differences and static build up.

Fault Diversion: If a lightning strike hits the roof, the clamp provides a low-resistance path to safely divert the electrical surge along the building's exterior and dissipate it harmlessly into the earth

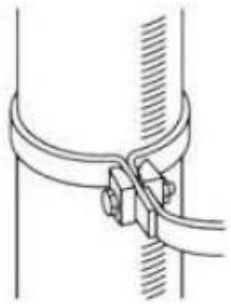
Design: It consists of a curved body (or band) with adjustable bolts, allowing it to wrap tightly around round objects like pipes or rails. It features a connecting point to attach a flat conductor tape or stranded copper cable.

Materials: To withstand outdoor environments, these clamps are typically made from highly conductive and corrosion-resistant materials like gunmetal, brass, or tinned copper.

Applications: Widely used in commercial, residential, and industrial buildings to bond exterior roof drainage and plumbing lines to the main

Material – Gun Metal, Standard: BS 7430

Size Available: Max tape Width – 26mm, Bolt Size M10, Copper Conductor.



26·PLATE TYPE TEST CLAMP

Plate Type Test Clamp

Plate Type Test Clamp is an electrical hardware fitting used to form a removable, low-resistance joint between a lightning protection down-conductor and the earthing system. It allows technicians to easily disconnect the lightning conductor from the earth electrode to safely test the system's electrical resistance.

These clamps are a standard component in structural lightning protection and grounding systems for commercial buildings, industrial plants, and substations. They ensure that fault currents are securely directed into the ground while permitting routine safety inspections required by international standards (such as IEC 62305).

Core Functions & Features

Disconnection Point: Acts as a testing point in the network, enabling workers to safely isolate the lightning/earthing network to measure soil resistivity and earth pit health.

Conductor Joining: Often used for heavy-duty applications to join flat copper or aluminium tape conductors in straight-through, Tee, or 4-way overlapping connections.

Mechanical Security: Conductors are clamped together and secured firmly by multiple bolts (typically 2 to 4 bolts) on the base plate to withstand environmental and mechanical stress.

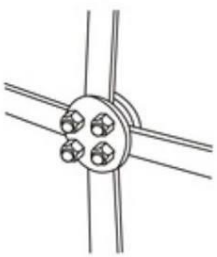
Materials: Commonly manufactured from highly conductive and corrosion-resistant materials like Gunmetal, Phosphor Bronze, or Copper Alloys.

Material :

Body: Gun Metal, Naval Brass, Aluminium

Bolt: Copper, Naval Brass, S.S

Product Code	Conductor Material	Weight each	Max Conductor Size
AIPT 201	Copper	0.62	26 x 12 mm
AIPTA 201	Aluminium	0.20	26 x 12 mm



27·TAPE CLIP

Tape Clip

Tape Clip (often called a DC Tape Clip), is a hardware component used to securely fasten flat copper or aluminium earthing conductors onto the walls or structure of a building.

These clips hold the flat tape conductor flush against the surface, ensuring the wire does not sag or disconnect due to mechanical stress, wind, or vibration.

Core Features –

Material Construction: Typically made from high-conductivity, corrosion-resistant metals like brass, gunmetal, copper, or stainless steel.

Design: Designed with pre-drilled holes for easy fixing using screws and wall plugs. The tape is threaded through the clip and held firmly in place with tightening screws.

Spacing: In professional installations, they are recommended to be placed at regular intervals (typically every 1 meter) along the building's exterior.

Primary Applications

Lightning Protection Systems: Secures the "down conductor" that safely routes high-energy lightning strikes from the roof down to the ground.

Grounding Networks: Keeps earthing tapes organized and stable for residential, commercial, and industrial electrical setups.

Safety & Code Compliance: Ensures the earthing system adheres to global lightning protection standards like IS/IEC 62305, preventing voltage build-up.

Sizes Available

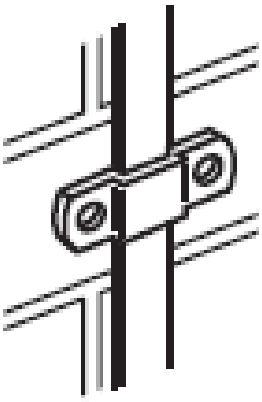
Conductor Size mm	Conductor Material	Weight each	Part Number
25 x 3	Brass	0.070	AITCT 253
31 x 3	Brass	0.085	AITCT 313
50 x 6	Brass	0.100	AITCT 506
25 x 3	Aluminium	0.130	AITCA 253
31 x 3	Aluminium	0.140	AITCA 253
50 x 6	Aluminium	0.150	AITCA 253

Tightening torque 3 Nm

Material:

Body: Extrusion Sheet

Bolt: Copper, Naval Brass, SS



28·SQUARE TAPE CLAMP

Square Tape Clamp

Earthing and Lightning Square Tape Clamp is a heavy-duty hardware fitting used in electrical grounding and lightning protection systems. It is designed to firmly secure flat metallic conductor tapes (usually made of copper or aluminium) to building structures and join them together.

Core Functions & Applications -

Securing Conductors: It pins and holds lightning protection and earth conductors flat against walls or roofs.

Joining Tapes: It acts as a connector to create straight-through, "T" branch, or cross-over joints for the tape network.

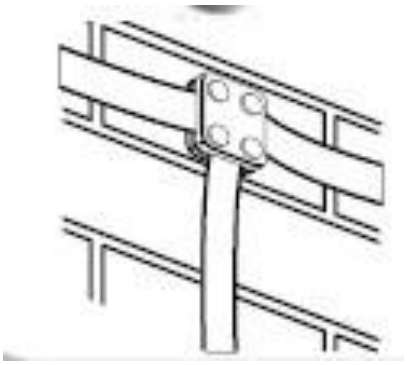
Safety & Dissipation: It ensures a low-resistance path, safely carrying fault currents or lightning strikes deep into the earth, preventing structural damage.

Key Specifications

Materials: Commonly manufactured from highly conductive and corrosion-resistant metals like brass, gunmetal, or phosphor bronze.

Dimensions: Built to accommodate standard flat tape sizes (typically ranging from 25 x 3 mm to 50 x 6 mm.

Installation: Fastened via bolts and screw-plug arrangements to concrete, steel, or brick surfaces.



Conductor Size - mm	Conductor Material	Weight each	Per Box	Part No.
25 x 3	Copper	0.22kg	10	AISTC253
25 x 6		0.25kg	10	AISTC256
31 x 3		0.32kg	5	AISTC313
38 x 6		0.40kg	5	AISTC386
50 x 6		0.60kg	5	AISTC506
25 x 3	Aluminium	0.080kg	10	AISTCA253
25 x 6		0.10kg	10	AISTCA256
31 x 3		0.12kg	5	AISTCA313
38 x 6		0.15kg	5	AISTCA386
50 x 6		0.20kg	5	AISTCA506
25 x 3	Naval Brass Forged	0.16kg	10	AISTCF253
25 x 6		0.20kg	10	AISTCF256
31 x 3		0.25kg	5	AISTCF313
38 x 6		0.32kg	5	AISTCF386
50 x 6		0.45kg	5	AISTCF506
25 x 3	Copper	0.16kg	10	AISTCN253
31 x 3		0.24kg	5	AISTCN313
50 x 6		0.50kg	5	AISTCN506

29·AIR ROD BASE

Air Rod Base

Air Rod Base (also known as an air terminal base) is a critical mounting accessory used in lightning protection systems. It physically secures and connects the pointed lightning rod (the air rod) to the roof surface and links it to the building's grounding network.

During a storm, the air rod serves as the primary strike point for lightning. The air rod base acts as the secure anchor that prevents the rod from toppling over during high winds or extreme weather. More importantly, it bridges the mechanical and electrical connection between the rod and the down-conductors, ensuring the massive electrical charge is safely diverted down to the grounding system.

Materials Used

Air rod bases are manufactured from highly conductive, corrosion-resistant metals to match the rest of the lightning protection network. Common materials include:

Copper / Gunmetal: Highly conductive and standard in the industry.

Aluminium: Lightweight and commonly used on aluminium roofing systems to prevent galvanic corrosion

Available up to -- 1” x 1/ 8” copper tape

30·DC TAPE CLIP

DC Tape Clip

DC Tape Clip is a specialized fastener used in grounding and lightning protection systems to securely mount flat metal earthing tapes (down conductors) against walls, rooftops, or structural steel.

Purpose

Secures Conductors: It pins the bare copper or aluminium earthing tape firmly in place, preventing the tape from sagging or snapping.

Withstands Stress: It provides rigid support to ensure the system can safely handle the extreme mechanical stresses generated if the structure is struck by lightning.

Maintains Alignment: It ensures the down conductor remains perfectly aligned to efficiently route electrical surges safely into the ground.

Materials

Because these clips must endure harsh weather and corrosive environments, they are usually manufactured using:

Copper / Brass: Offers excellent electrical conductivity and corrosion resistance.

Bronze / Gunmetal: Provides superior strength and long-term durability in highly demanding outdoor or industrial conditions.

Stainless Steel or Galvanized Steel: Used for high tensile strength and rust prevention.

Availability in sizes for

Copper tape 1” x 1/ 8”

Copper tape 1” x 1/ 4”

31· ADJUSTABLE DC TAPE CLIP

Adjustable DC Tape Clip

Adjustable DC tape clip is a specialized mounting accessory used in earthing and lightning protection systems. It is designed to securely anchor flat metal tape conductors (typically made of bare copper or aluminium) to the walls or roofs of buildings, guiding lightning currents safely into the ground

Key Features and Purpose -

Secure Fastening: It prevents the heavy copper or aluminium tape from sagging, bending, or detaching due to severe weather, mechanical stress, or vibrations.

Adjustability: "Adjustable" means the clip can accommodate tapes of varying thicknesses (e.g., 25 × 3 mm up to 50 × 6 mm), often utilizing a bolted, screw-down, or two-piece design

Material Quality: These clips are manufactured from highly durable, corrosion-resistant metals like gunmetal, naval brass, copper, or aluminium.

In lightning protection, earthing creates a low-resistance pathway that safely dissipates the massive electrical charge of a lightning strike into the earth. Because the flat conductor tape needs to run along the outside of structures, adjustable DC tape clips act as the critical structural link—holding the tape tightly against the masonry at regular intervals (usually every 1 meter)

Available with respect to 50 x 6 mm copper tape

32· ONBLONG TEST/JUNCTION CLAMP

Onblong Test/Junction clamp

Oblong Test/Junction Clamp is an electrical hardware fitting used in lightning protection and earthing systems. It acts as a secure, bolted connection point between down-conductor tapes (which channel lightning safely to the earth) and the grounding grid.

Why are they important?

Routine Safety Inspections: Grounding and lightning protection systems must undergo routine health checks to ensure they have not corroded and that their resistance to the ground remains optimal. The oblong clamp acts as a designated inspection breakpoint without the need to cut wires or cables.

Material Integrity: Because they are heavily exposed to weather, they are typically manufactured from highly conductive and corrosion-resistant materials like high-purity copper, brass, or gunmetal.

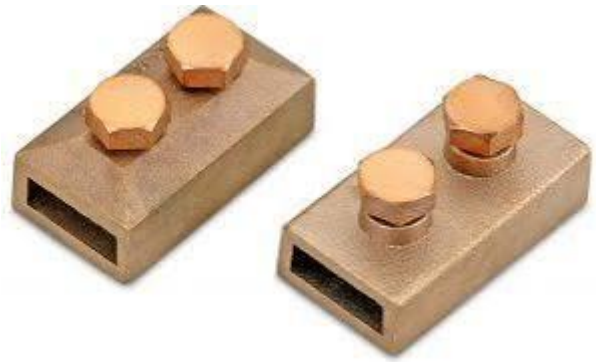
Reliability: They hold tapes (usually ranging from 20 mm × 3 mm to 50 mm × 6 mm) securely using set screws or bolts to prevent slipping during sudden, massive electrical surges.

These clamps serve two primary functions:

The "Test" Function: By loosening the bolts, the clamp allows safety engineers to easily disconnect the lightning protection system from the main earth pit. This permits testing the ground resistance of the building independently to ensure the system works safely.

The "Junction" Function: Under normal conditions, the clamp secures overlapping conductor tapes to ensure excellent electrical conductivity with the lowest possible resistance.

Available with respect to copper tape 1” x 1/ 8”



33·CROSSOVER CLAMP

Crossover Clamp

Earthing and Lightning Crossover Clamp is a heavy-duty mechanical fitting used to join overlapping lightning tapes or grounding conductors at a perpendicular angle. It securely locks intersecting conductors (forming a "+" shape) to provide a continuous, low-impedance path for safely dissipating electrical faults and lightning surges into the ground.

Key Functions

Creates Cross Joints: Allows flat copper or aluminium grounding tapes to intersect and connect securely.

Equalizes Potential: Prevents arcing and voltage differentials between different parts of the grounding grid.

System Integration: Joins structural lightning protection networks with the main external grounding system.

Common Applications

Lightning Protection: Used on roofs and exterior walls to route and cross down-conductors and air terminals.

Grounding Grids: Joins perpendicular earthing rods or structural rebar grids underground.

Substation Earthing: Bonds metallic structures and crossing cables together in high-voltage industrial yards.

Materials & Design

Materials: Highly conductive, corrosion-resistant materials like high-grade copper, copper alloys, or stainless steel.

Design: Generally consists of a top and bottom plate (or a split-body clamp) bolted together to tightly sandwich both conductors, ensuring a strong grip without damaging the metal.

Available for Copper tape of size 25 x 3 mm

34· AIR TERMINAL – AIR ROD

Air Terminal – AIR ROD

Air terminal, also known as a lightning rod or finial, is the topmost component of a lightning protection system. It acts as a dedicated interception point for lightning strikes, safely channelling the massive electrical discharge away from the building and into the earthing system.

How Air Terminals Work

Air terminals are mounted at the highest points of a structure to attract lightning before it can strike the building itself. Once struck, the terminal captures the electrical charge and routes it safely into the ground through down-conductors and earth rods, preventing structural damage, fires, and electrical surges.

A pointed, highly conductive metal rod installed on the highest point of a building to safely intercept lightning strikes. It acts as the "reception" point for lightning, channeling millions of volts of electrical current down through cables and into the ground to prevent structural damage.

AIR ROD –

Material : Extruded Section

Material – for Copper add suffix “C”

for Aluminium add suffix “C”

Finish: Electro-Tinned/Un-Tinned or Copper plated

Note: for copper plated add suffice “C”, for Tin plated add suffix “ T ”

Thread	Rod Dia x L	Material	Product Code
M16	15 – 500 mm	Cu & Al	AIAR50
M16	15 – 1000 mm	Cu & Al	AIAR100
M16	15 – 1500 mm	Cu & Al	AIAR150
M16	15 – 2000 mm	Cu & Al	AIAR200
M16	15 – 3000 mm	Cu & Al	AIAR300

35· AIR TERMINAL – MULTIPLE POINT

Air Terminal – MULTIPLE POINT

Multiple Point (Air Terminal) (also called a multi-spike lightning arrestor or multi-tip air rod) is a critical component in a structural lightning protection system. It acts as an elevated strike-receiving device that intercepts lightning strikes and safely channels the high-voltage electrical current to the ground.

What is it?

A Multi Point Air Terminal consists of a central base or rod fitted with multiple (typically 3 to 7) sharp spikes or pointed tips.

Material: Constructed from highly conductive and corrosion-resistant materials like pure copper, copper alloys, or aluminium.

How it works: The multiple sharp spikes maximize the ionization area, which effectively ionizes the air during a storm. This provides a preferential, safe pathway to attract and discharge lightning safely.

Features and Benefits –

How it Fits into the System

The multi-point terminal forms the topmost part of a broader lightning protection and earthing network, which includes:

Air Terminals: The multi-point is mounted atop the structure (using a terminal base) to capture strikes before they hit the building itself.

Down Conductors: Copper or aluminium strips/cables that connect the air terminal to the ground, acting as the highway for the lightning's energy.

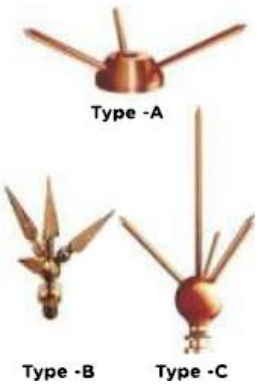
Earthing Network: An array of underground grounding rods, mats, and conductive pits that safely dissipate the massive electrical charge into the earth

Multi-point air terminals are favored in areas with a high risk of frequent or heavy lightning strikes. They are widely installed on:

Industrial chimneys, towers, and masts Commercial buildings, high-rises, and rooftops

Solar panel farms and electrical substations

Oil refineries, chemical plants, and telecom towers



Material: Extruded Section

Copper

Available for Rod dia 15mm, copper

Multiple Point Type A - Multiple point Type A is a specialized lightning protection component. Often referred to as a multi-point lightning rod or multi-spike arrestor, it features a single central rod topped with a cluster of 3 to 7 sharp spikes, designed to safely intercept and divert dangerous lightning strikes to the ground.

Multiple Point Type B is a specialized lightning rod used on buildings to intercept lightning strikes. It features a central base plate with 3 to 5 pointed spikes that increase the ionization area, and it is specifically designed to be attached to an elevation air rod to provide external protection

Multiple point Type C is a specialized lightning rod with a base crowned by multiple spikes. Designed to protect buildings by intercepting lightning strikes, it safely channels high-voltage energy into an earthing system. The "Type C" generally refers to a corrosion-resistant copper construction

36· AIR TERMINAL – FLAT SADDLE

Air Terminal – FLAT SADDLE

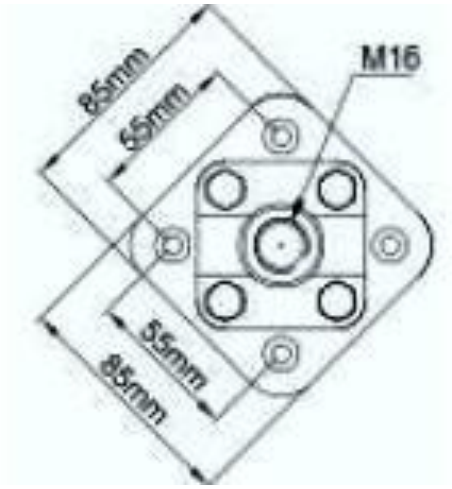
flat saddle for an air terminal is a mounting bracket used in lightning protection systems. It secures the vertical lightning rod (air terminal) to flat roof surfaces and connects it to the grounding cable or tape, safely directing strikes to the earth.

Conductor Size	Rod dia	Thread dia	Conductor Material	Product Code
50mm	15mm	16mm	Copper	AIFS50
70mm	15mm	16mm	Copper	AIFS70
95mm	15mm	16mm	Copper	AIFS95

Size Availability

Material – Body – Gun Metal, Naval Brass, Aluminium

Bolts: Copper, Naval Brass, SS



37· AIR TERMINAL – TAPER POINTED AIR ROD

Air Terminal – TAPER POINTED AIR ROD

Air Terminal - Taper Pointed Air Rod is a standard lightning rod (often called a Franklin rod or finial) used at the very top of a building's lightning protection network to safely intercept direct lightning strikes and channel them into the ground.

Key Characteristics

Design: It features a sharp, tapered end (usually a taper of less than 5°) designed to facilitate the upward discharge of lightning, making it an ideal "preferred path" for the strike. The other end is typically threaded

Material: Manufactured from highly conductive materials such as electrolytic-grade copper, brass, or aluminium.

Use with Multiple Points: While it can be used alone, it is very commonly fitted with a "multiple point" (a crown of smaller spikes) at the tapered end, which research indicates increases the effectiveness of the air rod.

How It Works

Interception: Mounted on the highest points of a structure (like a roof ridge or chimney), the rod acts as the primary point of controlled impact when lightning strikes

Safe Dissipation: The intercepted electrical current travels safely through the rod and down-conductor system into an earthing (grounding) system, preventing the massive voltage from damaging the structure or harming its occupants.

Mounting: The threaded end allows the rod to screw securely into various roof fittings, including rod brackets, ridge saddles, air rod bases, and couplings.

Thread Size	Rod Length	Material	Product Code
M16	300	Cu & Al	AITPI161
M16	500	Cu & Al	AITPI162
M16	1000	Cu & Al	AITPI163
M16	1500	Cu & Al	AITPI164
M16	2000	Cu & Al	AITPI165
M20	300	Cu & Al	AITPI201
M20	500	Cu & Al	AITPI202
M20	1000	Cu & Al	AITPI203
M20	1500	Cu & Al	AITPI204
M20	2000	Cu & Al	AITPI205

38· AIR TERMINAL – ELEVATION ROD

Air Terminal – ELEVATION ROD

Air terminal-elevation rod is a highly conductive metal rod (often made of copper or aluminium) installed at the highest point of a structure. It acts as a sacrificial strike point to safely intercept lightning and divert the massive electrical charge into the ground, protecting the building from fire and damage.

How it Functions

The Interception: During a storm, the pointed top of the rod provides a positively charged path that connects with the downward strike of lightning.

The Diversion: Instead of passing through the building's structural materials, the current is caught by the rod and channelled harmlessly through a network of cables (down-conductors) into an underground grounding system.

Available Options

Thread Size	Rod Length	Material	Product Code
M16	300	Cu & Al	AIER161
M16	500	Cu & Al	AIER162
M16	1000	Cu & Al	AIER163
M16	1500	Cu & Al	AIER164
M16	2000	Cu & Al	AIER165
M20	300	Cu & Al	AIER201
M20	500	Cu & Al	AIER202
M20	1000	Cu & Al	AIER203
M20	1500	Cu & Al	AIER204
M20	2000	Cu & Al	AIER205

39·PUDDLE FLANGE

Puddle Flange

Puddle flange in earthing and lightning protection is a specialized waterproof seal used where lightning conductors, earthing strips, or cables penetrate watertight concrete structures, such as roofs, basement walls, or floors. It prevents water from seeping along the exterior of the conductor and leaking inside

Why It’s Important

Waterproofing: It seals the small gaps where an earthing conductor enters a building, protecting the structure from water ingress, moisture, and potential dampness

Integrity: It maintains the water tightness of flat roofs and exterior walls without damaging or compromising the roof's primary waterproofing membrane.

How It Works

The flange is essentially a circular ring or collar that is tightly fitted onto the earthing tape, cable, or rod.

During construction, this assembly is embedded directly into the concrete.

The design physically blocks water from "tracking" (slipping) along the outside of the conductor and bypassing the building's waterproof barriers.

Body – Copper, Aluminium

40· AIR BASE TERMINAL

Air Base Terminal

Air Terminal Base (sometimes referred to as an air base terminal or air rod base) is a critical mounting component in an external Lightning Protection System (LPS). Its primary function is to securely hold and fix an air terminal rod (lightning rod) on rooftops or structures, providing a safe interception point for lightning strikes.

Key Functions and Features -

Structural Support: It provides a rigid, vibration-resistant mount for vertical air rods, keeping them upright against wind and extreme weather.

Connection Bridge: It acts as the mechanical junction between the vertical air rod and the horizontal earthing/down conductor tape, ensuring safe dissipation of electrical energy into the ground.

Materials: Typically manufactured from highly conductive and corrosion-resistant materials like copper, brass, gunmetal, or stainless steel.

Material :

Body – Gun Metal, Aluminium

Thread Size	Material	Max cond. Width	Product Code
M16	Copper	25	AIABT161
M16	Aluminium	25	AIABT162
M20	Copper	25	AIABT201
M20	Aluminium	25	AIABT202

41·FLAT AIR ROD SADDLE

Flat Air Rod Saddle

Flat air rod saddle is a mounting accessory used in lightning protection and earthing systems. It securely fastens a vertical air rod (or lightning terminal) to a flat surface, providing a stable connection between the air terminal and the roof's conductor network.

Key Functions

Rod Support: It firmly holds taper-pointed or blunt air rods upright on flat roofs or structures.

Conductor Connection: It connects the air rod to the stranded conductor cable or flat copper tape used to safely channel lightning strikes to the ground.

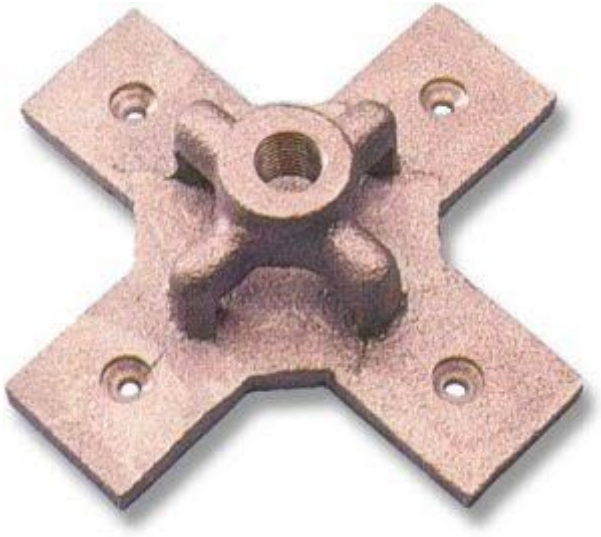
Stability: It prevents the air rod from shifting or toppling due to severe winds or vibrations.

Design & Specifications -

Materials: They are typically manufactured from highly conductive, corrosion-resistant metals like high-quality copper alloy or gunmetal to ensure electrical integrity.

Installation: The base of the saddle is usually flat and features pre-drilled holes, allowing it to be easily screwed or bolted to flat roof surfaces.

Thread Size	Material	Max cond. Width	Product Code
M16	Copper	31	AIATS16
M16	Aluminium	31	AIATSA16
M20	Copper	31	AIATS20
M20	Aluminium	31	AIATSA20



42·RIDGE SADDLE

Ridge Saddle

Ridge saddle is a specialized metal bracket (usually made of a high-quality copper alloy or aluminium) used to securely mount lightning air terminals (lightning rods) onto the apex or ridge of a roof. It is a mounting bracket in lightning protection systems or a geographical landform feature.

Purpose: It bridges the peak of the roof to create a stable, weatherproof anchor that connects the rod to the structural grounding/conductor network.

Features and Significance -

Ridge saddle (more commonly called a saddle or a col) is a low, concave depression that lies along a ridge between two higher peaks or elevations.

Appearance: Because the sides slope down and the middle drops, its shape visually mimics a traditional horseback riding saddle.

Significance: Saddles on ridges are frequently the lowest, most practical points for crossing a mountain range, which is why they are often used to lay down trails, roads, or railway passes.

Material

Body: Gunmetal, Aluminium

Thread	Max conductor Width	Material	Product Code
M16	31mm	Copper	AIRSO16
M16	31mm	Aluminium	AIRSA16
M20	31mm	Copper	AIRSO20
M20	31mm	Aluminium	AIRSA20

43·SQUARE CLAMP

Square Clamp

Square Clamp (often called a Square Tape Clamp or Square Combination Clamp) is an earthing accessory used to securely join, cross, or T-connect flat copper, aluminium, or stainless steel earthing tapes. It creates a reliable, continuous electrical network for grounding and lightning protection.

Key Features and Functions -

4-Way Connectivity: Designed for crossing over tapes, making straight-through joints, or T-joints to form a continuous grid

Design: Consists of a base (often with a countersunk hole in the center to fix the clamp to a surface) and a lid that is secured tightly with four screws.

Materials: Typically made from highly conductive and corrosion-resistant materials like brass, gunmetal, or aluminium to withstand harsh indoor and outdoor environments.

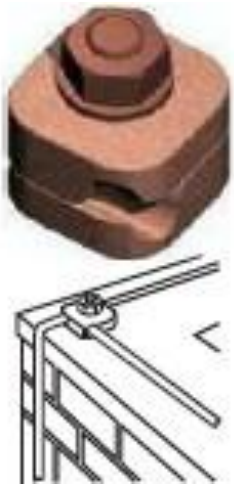
Versatility: Can accommodate various conductor-to-conductor and tape-to-tape requirements depending on your earthing layout.

Material:

Body -Gunmetal, Naval Brass, Aluminium

Bolts – Copper, Naval Brass, SS

Available in copper and Aluminium Conductor dia 8mm



44·TEE CLAMP

Tee Clamp

Tee clamp (or T-connector) in earthing and lightning protection is a specialized electrical fitting used to create secure, perpendicular (3-way) connections between two or more grounding conductors or earth rods. It ensures a mechanically robust and highly conductive path to safely divert fault currents or lightning strikes.

Key Functions and Features

Perpendicular Connections: Specifically designed to join a main continuous earthing cable (or tape) and a branching wire or earth rod at a 90° angle

Material Composition: Typically manufactured from highly conductive, corrosion-resistant metals like high-tensile brass, gunmetal, or copper alloys.

Corrosion Prevention: Because different metals can react chemically, Tee clamps use compatible or bi-metallic joints (e.g., copper to aluminium) to avoid bimetallic corrosion.

Fastening Mechanism: They utilize sturdy hex bolts, nuts, and washers (often made of stainless steel or phosphor bronze) to tightly bite into conductors, guaranteeing a low-resistance electrical bond.]

Common Applications -

Substation Grounding: Connecting equipment to the grounding grid at generating stations.

Lightning Protection: Branching lightning tape or cables across a roof or down a structure.

Earth Electrode Connection: Tying a main earth grid wire to a vertical earth rod (ground rod)

Material:

Body: Gunmetal, Naval Brass, Aluminium

Bolt: Copper, Naval Brass, SS

Available in Copper and Aluminium Conductor for conductor Diameter 8mm

45·JOINTING CLAMP

Jointing Clamp

Jointing clamp (also known as a grounding or earthing clamp) is an accessory used to physically and electrically link conductors—such as earth tapes, cables, or metallic pipes—together or to an earth rod. It ensures a highly conductive, mechanically secure, and corrosion-resistant path to safely dissipate fault currents or lightning strikes into the ground.

Why Jointing Clamps are Essential

Secure Electrical Contact: They prevent electrical resistance by holding components under high inward pressure.

Mechanical Strength: They firmly bind heavy structural components and wires to prevent them from slipping or loosening over time.

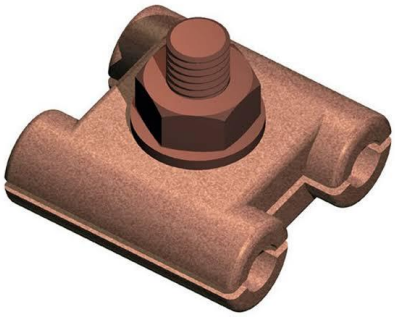
Corrosion Resistance: Typically manufactured from high-conductivity materials like gunmetal, copper, or brass (often with stainless steel or phosphor bronze hardware) to withstand underground environments and weather exposure.

Available in Copper and Aluminium conductor for 8mm dia

Material:

Body: Gunmetal, Naval Brass, Aluminium

Bolt: Copper, Naval Brass, SS



46·OBLONG TEST CLAMP

Oblong Test Clamp

Oblong test clamp is an electrical hardware component used in lightning protection and earthing systems. It joins overlapping conductor tapes (usually copper or aluminium). By simply loosening its bolts, it creates a quick, reliable disconnection point to safely test grounding system resistance.

Key Functions and Features -

Facilitates Testing: It allows technicians to temporarily disconnect the down-conductor from the earth termination network. This isolation is required for annual earth resistance testing to ensure the lightning protection system is working correctly.

Secure Jointing: It provides a low-resistance connection that can hold overlapping flat tapes firmly in place.

Material Variations: They are typically manufactured from highly conductive, corrosion-resistant materials such as copper, gunmetal, or aluminium.

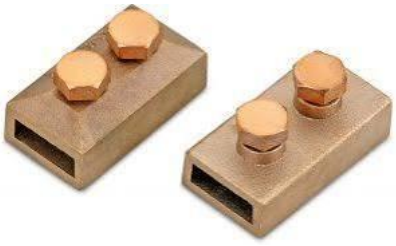
Product Code	Conductor Material	Conductor Size
AIOTC26	Copper	26 x 8
AIOTC38	Copper	38 x 10
AIOTC50	Copper	50 x 10
AIOTC26	Aluminium	26 x 8
AIOTC38	Aluminium	38 x 10
AIOTC50	Aluminium	50 x 10

Simple Design: They usually feature an oblong (elongated) block design fastened with two bolts or set screws to clamp the tape firmly together.

Material:

Body: Gunmetal, Naval Brass, Aluminium

Bolt: Copper, Naval Brass, SS



47·STATIC EARTH RECEPTACLE

Static Earth Receptacle

Static earth receptacle is a specialized grounding point embedded in roadways, runways, or aprons. It provides a safe, direct connection to safely discharge hazardous static electricity from large vehicles, aircraft, or fuel tankers before and during operations.

Key Features

Design: Typically constructed from heavy-duty, corrosion-resistant copper alloy or gunmetal. It features a built-in or removable grounding ball designed to accommodate standard industrial grounding clamps.

Placement: Set flush into concrete so heavy machinery or planes can pass over without damaging the terminal. They usually come with a protective cover to shield them from dirt and debris

Functionality: Connected to a deep-driven earth rod, the receptacle safely draws potentially lethal static voltages directly into the ground, preventing dangerous sparks in volatile environments

Common Applications

Airfields: Used on airport aprons to ground planes during refueling or maintenance.

Fuel Stations & Depots: Placed near unloading zones to discharge static build-up from tanker trucks.

Marine Docks: Provides grounding points for boats and tankers transferring flammable cargo

For setting into roadways or runway, provides a static discharge point for aircraft.

Material - Gunmetal

48·EYE BOLT

Eye Bolt

Eye Bolt is a specialized fastener with a loop at one end and a threaded shaft at the other. In Earthing and Lightning Protection systems, it serves as a critical, secure anchoring point to connect grounding cables, air terminals (lightning rods), and structural conductors to a facility

How Eye Bolts Function in the System

Eye bolts primarily act as reliable termination and support points for the wire and cable networks that manage fault currents and lightning strikes.

Cable Management: They provide a physical anchor to route, suspend, or secure heavy-duty copper and aluminium cables along walls, roofs, or towers.

Static Earthing: When attached to the top of earth rods (like threaded copper-bonded rods), they provide a convenient, static point to bond equipment, static-dissipation systems, or moving vehicles.

Guying/Rigging: They act as strong connection points for "stay sets" or tension cables that stabilize tall lightning masts and overhead structures.

Screws direct into Copperbond earth rod, offering an earth points of boats

Material : Gunmetal

Available for nominal copper bond rod diameter of 5/ 8” and 3 /4”.

49·STRAIGHT SETSCREWS TYPE CABLE SOCKET

Straight setscrews type cable socket

Straight setscrew type cable socket is a heavy-duty mechanical connector used in electrical earthing and lightning protection systems. It securely bonds copper or aluminium grounding/lightning cables to steel structures, equipment enclosures, or grounding rods using tightened screws rather than specialized crimping tools.

Key Features & Design

Design: It features a straight, tubular metal body. One end is a hollow barrel that accepts the electrical cable, while the other end is usually solid or designed for bolting.

Setscrews: The cable is held securely in the barrel by tightening one or more integrated setscrews directly against the wire, creating a strong, low-resistance mechanical clamp.

Material: They are typically manufactured from highly conductive and corrosion-resistant materials like brass, gunmetal, or copper alloys.

Typical Applications

Bonding to Steelwork: Used extensively in industrial setups to bond grounding cables to structural steel.

Lightning Protection: Forms a crucial, highly-conductive joint in structural lightning protection systems to safely divert atmospheric surges into the ground.

Cable Looping & Terminations: Used within electrical control panels and distribution boards to consolidate cables safely.

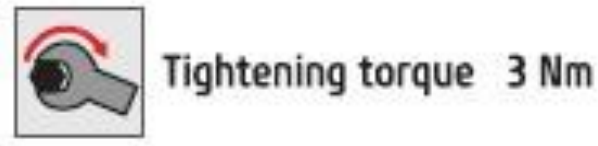
Advantages

Tool-free installation: It eliminates the need for expensive, heavy-duty hydraulic crimping tools; a simple Allen key or wrench is enough to secure the cable.

Reliability: The mechanical set-screw design provides a strong, reliable termination that resists pulling and vibrations.

Reusability: Unlike crimp lugs, which must be cut off if a cable needs adjustment, setscrew sockets can be loosened, repositioned, and re-tightened.

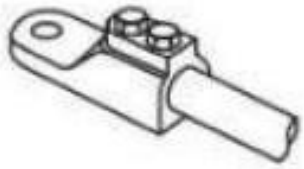
Product Code	Palma Hole dia	Conductor Material	Conductor Dia
AUSSC08	12mm	Copper	8mm
AUSSCA8	12mm	Aluminium	8mm

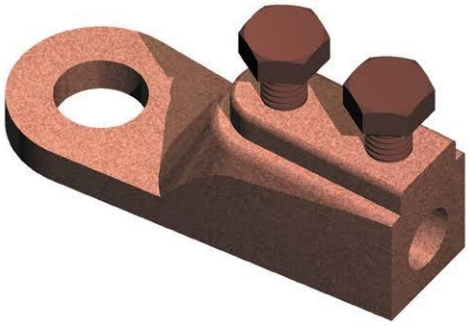


Material:

Body – Gunmetal

Bolts – Al Bronze, Phosphor bronze and SS





50·PIPE BOND

Pipe Bond

Pipe Bond refers to specialized metallic clamps and straps used to connect conductive pipework (like gas, water, or HVAC lines) to the main earthing and lightning protection system. It ensures all metalwork in a building shares the same electrical potential, preventing dangerous electric shocks and arcing during faults or lightning strikes.

Why Pipe Bonding is Critical

Equipotential Bonding: It equalizes the voltage between the structural pipe network and the earth. If a lightning strike raises the voltage of the building, the bonded pipes will rise with it, preventing electricity from flashing over and causing fires or explosions.

Shock Prevention: Prevents metallic pipes from becoming "live" during a circuit insulation fault. By bonding them to the earth, circuit breakers can immediately trip.

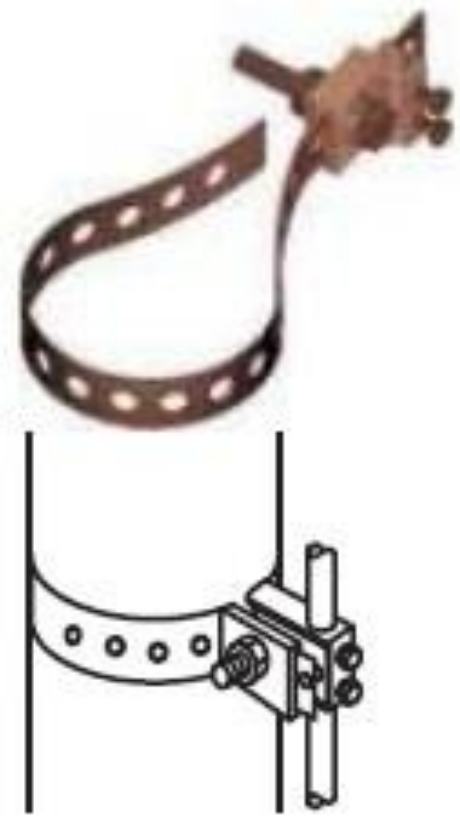
Static Dissipation: In industrial setups, it safely drains away built-up static charges from fluid-carrying pipes.

Material –

Body – Gunmetal

Bolts – Al Bronze, Phosphor Bronze & SS

Availability – Available in Copper and Aluminium material for conductor dia 8mm and Rebar dia 50 – 200mm



51·REBAR CLAMPS

Rebar Clamps

Rebar clamps are essential hardware components in electrical grounding and lightning protection systems. They provide a reliable, highly conductive, and mechanical connection between the building's structural steel (reinforcement bars or rebar) and the copper earthing or down-conductor cables

Why Rebar Clamps are Used

Foundation Earthing: They connect the structural steel in the foundation to the grounding network. Because concrete retains moisture and is in deep contact with the earth, this creates a permanent, very low-resistance earth electrode.

Lightning Protection: In the event of a lightning strike, they safely divert massive electrical surges down the building's structural columns and straight into the earth.

Equipotential Bonding: They tie all exposed metal parts (pipes, handrails, framework) to the same ground, preventing dangerous voltage differences during electrical faults.

Used for bonding to reinforced bars, Steam pipes, handrails etc.

Material: Body- Gunmetal, Bolts – Al Bronze, Phosphor bronze & SS

Product Code	Conductor dia	Rebar Diameter	Conductor material
AIRC818	8mm	8 – 18mm	Copper
AIRC838	8mm	18 – 38mm	Copper

Tightening torque 5 Nm

52·TOWER EARTH CLAMPS

Tower Earth Clamps

Tower Earth Clamps are heavy-duty mechanical connectors used to securely bond copper conductors (like grounding wires or tapes) onto steel surfaces, such as transmission or telecommunication towers. They ensure robust, low-resistance electrical continuity to safely dissipate fault currents and lightning strikes into the earth.

Key Features and Functions

Material: Usually made of highly conductive materials like copper, brass, or hot-dip galvanized iron to resist outdoor corrosion.

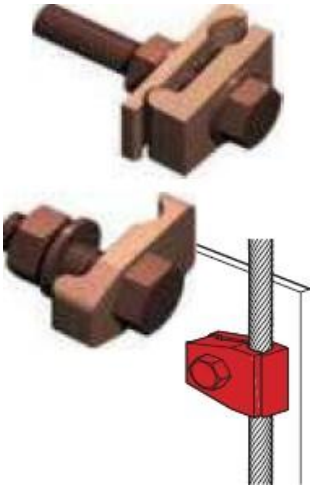
Design: Often feature a double-plate or U-bolt structure. This allows technicians to firmly sandwich the conductor against the steel framework, sometimes utilizing set-screws or bolts for installation.

Lightning and Surge Protection: By effectively bridging the copper wire to the structural steel, they provide a designated path for a lightning strike to travel safely down the tower's metallic frame and disperse into the grounding grid, bypassing electrical equipment and personnel.

Application: Widely used in electrical substations, commercial lightning protection systems, and large structural frameworks

Material: Body- Gunmetal, Bolts – Al Bronze, Phosphor bronze & SS

Conductor Material	Conductor Range	Bolt Size	Product Code
Copper	16 – 70 mmsq	M10	AITEC70
Copper	70 – 120 mmsq	M12	AITEC120
Copper	25 – 50 mmsq	M10	AITEC50
Aluminium	25 – 50 mmsq	M10	AITECA50
Copper	120 – 185 mmsq	M12	AITEC185
Copper	185 – 240 mmsq	M12	AITEC240



53·PARALLEL GROOVE CLAMPS

Parallel Groove Clamps

Parallel Groove (PG) Clamps are mechanical connectors used to securely join two parallel conductors side-by-side. In earthing and lightning protection systems, they provide a strong, low-resistance electrical and mechanical bond between down-conductors, earth cables, and grounding rods, ensuring fault currents safely dissipate into the earth.

How They Work

Design: The clamp consists of two grooved metal plates. Each groove is shaped to hold a specific wire or conductor diameter.

Connection: Conductors are placed in the grooves, and bolts are tightened to compress the metals together.

Benefits: This design provides maximum contact area without causing damage to the conductors, minimizing electrical resistance and preventing dangerous heat build-up.

Conductor Material	Conductor Range	Bolt Size	Product Code
Copper	25 – 70 mmsq	M8	AIPGC70
Copper	70 – 95 mmsq	M10	AIPGC95
Copper	95 – 185 mmsq	M10	AIPGC185
Copper	185 –240 mmsq	M10	AIPGC240
Copper	240 – 300 mmsq	M10	AITEC300

Material: Body- Gunmetal, Bolts – Al Bronze, Phosphor bronze & SS

54·PIPE CLAMPS

Pipe Clamps

Earthing and Lightning pipe clamps are essential mechanical connectors used to securely join grounding cables, conductors, or tape to metal pipes or structural earth rods. They establish a highly conductive, low-resistance path to safely dissipate fault currents and dangerous electrical surges into the earth

Why Are Pipe Clamps Essential?

Safety: They provide a secure bonding point that channels excess electricity (from power faults or lightning strikes) safely away from sensitive equipment, preventing fires and electric shocks.

Voltage Stabilization: Helps maintain stable voltage levels across power distribution systems.

Corrosion Resistance: Because these clamps are often used outdoors or buried, they are constructed from highly durable, corrosion-resistant materials like copper, brass, or stainless steel

Typical Applications

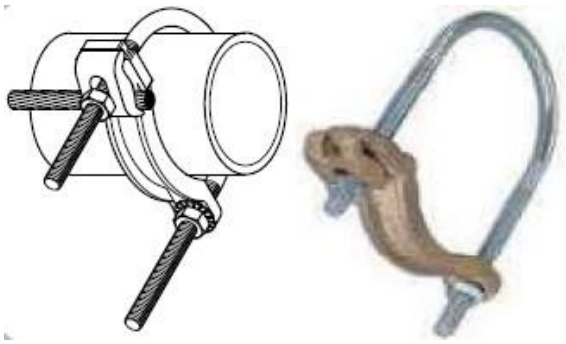
Connecting main grounding conductors to domestic or industrial water pipes.

Terminating lightning protection down-conductors to structural metal framework.

Joining heavy-gauge copper tape or stranded cables to deep-driven earth rods in electrical substations

Material: Body- Gunmetal, Bolts – Al Bronze, Phosphor bronze & SS

Pipe diameter	Pipe diameter	Conductor Range	Product Code
Mm	Inch	Conductor Range	Product Code
13-25	½” – 1”	25 – 95 mmsq	AIPC25
32-50	1”1/4” – 2”	25 – 95 mmsq	AIPC50
65 – 90	2.5” – 3.5”	25 – 95 mmsq	AIPC90
100-125	4” – 5”	25 – 95 mmsq	AIPC125
150	6”	25 – 95 mmsq	AIPC150
200	8”	25 – 95 mmsq	AIPC200
250	10”	25 – 95 mmsq	AIPC250
300	12”	25 – 95 mmsq	AIPC300



55·SINGLE HOLE EARTH POINT

Single Hole Earth Point

Earthing and Lightning Protection Single Hole Earth Point is a specialized metallic terminal designed to safely bond a building's structural steel or reinforced concrete (rebar) to its external grounding or lightning protection network. It acts as a permanent, reliable, and secure junction for directing fault currents and lightning strikes safely into the earth.

How It Works & Key Features

Structural Integration: It is typically cast directly into concrete walls, columns, or foundations during construction.

Mechanical & Electrical Bonding: Inside the concrete, it clamps or welds directly to the steel rebar matrix.

Single Connection Point: On the surface, it leaves a single, exposed hole (usually threaded for a bolt) where external lightning conductors or equipment earthing cables can be easily attached.

Why It Is Used

Provides a Safe Path: Intercepts massive electrical surges from lightning strikes and discharges them harmlessly into the ground.

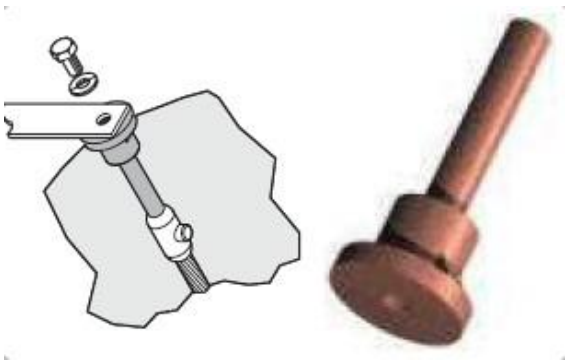
Prevents Electric Shocks: Safely drains away leaked electrical currents from appliances or structural faults.

Highly Durable: Constructed from non-ferrous, highly conductive metals (like high-grade copper or stainless steel) that resist corrosion within damp concrete.

Material: Body- Gunmetal, Bolts – Al Bronze, Phosphor bronze & SS

Hole Size	Length	Product Code
M8 x 15mm	80mm	AIEP101
M10 x 15mm	80mm	AIEP102
M12 x 15mm	80mm	AIEP103
M16 x 15mm	80mm	AIEP104

Stem Diameter – 10.7mm (70mmsq)



56·TWO HOLE EARTH POINT

Two Hole Earth Point

Two Hole Earth Point is an accessory in these systems used as a designated, highly reliable connection point to bond electrical equipment or lightning conductors to the building's grounding grid.

What is a Two Hole Earth Point?

A Two Hole Earth Point is a heavy-duty terminal block or bonding plate featuring two distinct fixing holes. It provides a dedicated spot to connect your earthing and lightning down-conductors to structural steel, reinforcing bars (rebars), or grounding cables.

How It Works & Key Features

Equipotential Bonding: It ensures that structural steel, lightning protection systems, and internal electrical equipment all share the same voltage potential, preventing dangerous voltage differences during a fault.

Concrete & Cast-in Design: They are frequently cast directly into concrete structures (like walls or foundations). The two-hole design provides excellent mechanical stability and prevents the connection from twisting or loosening.

Material: Typically made from highly conductive, non-ferrous metals like high-grade copper or gunmetal, which resist corrosion when embedded in harsh concrete or soil.

Termination Options: The two holes are generally used for securely bolting copper tape or cable lugs, while the back often features a pre-welded copper cable tail to clamp onto internal rebar. Typical Applications

Structural Safety: Connecting lightning protection down-conductors directly to the steel foundation of a building.

Industrial & Substation: Providing safe, multiple-point earthing for heavy electrical panels and transformers.

Renewable Energy: Grounding solar mounts or wind turbines to structural reinforcements.

Material: Body- Gunmetal, Bolts – Al Bronze, Phosphor bronze & SS

Hole Size	Length	Product Code
M8 x 12mm	80mm	AIEP105
M8x 12mm	80mm	AIEP106

Stem Diameter – 10.7mm (70 mmsq)

57·FOUR HOLE EARTH POINT

Four Hole Earth Point

Four Hole Earth Point is a specialized metallic terminal (typically copper, gunmetal, or stainless steel) used to securely bond electrical, earthing, and lightning protection systems. It provides a centralized, low-resistance connection for multiple cables, tapes, or clamps to safely divert dangerous fault currents and lightning strikes into the ground.

How It Works and Where It's Used

Concrete Integration: It is most commonly cast directly into reinforced concrete structures (such as walls, columns, or foundations) during the construction phase.

Connection Hub: The four holes allow engineers to bolt on up to four separate earthing conductors, down-conductors from a lightning mast, or surge protection devices simultaneously.

Rebar Bonding: They frequently feature a pre-welded, heavy-duty copper tail (cable) that clamps internally to the building's steel rebar, turning the entire structure's skeleton into an effectively grounded mesh.

Key Benefits

Safe Fault Clearance: It provides a reliable pathway to safely discharge massive electrical surges or lightning strikes without causing structural damage or fires.

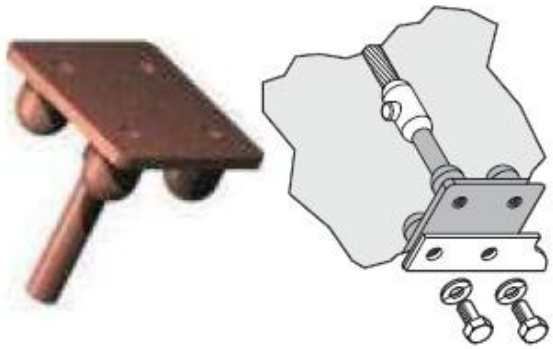
Corrosion Resistance: Because it is specifically engineered to be buried deep in concrete or soil, it is usually made from highly non-ferrous, anti-corrosive materials ensuring a long lifespan.

System Organization: Centralizing grounding leads to one junction point minimizes "ground loops" (which cause electrical noise) and makes routine electrical inspections vastly easier.

Material: Body- Gunmetal, Bolts – Al Bronze, Phosphor bronze & SS

Stem Diameter – 10.7mm (70 mmsq)

Available in Length = 75mm, Hole Size – M8 x 14mm,



58·STRIKE PAD

Strike Pad

Strike pad is a flat, plate-like terminal used in lightning protection systems as an alternative to traditional, protruding lightning rods. Installed on roofs, floors, or in concrete, it captures direct lightning strikes and safely channels the electrical energy down into the earthing system.

Why Use a Strike Pad?

Aesthetics: They sit completely flat on surfaces, making them ideal for buildings with smooth rooflines or architectural designs where tall lightning rods would look cluttered.

Height Restrictions: They provide essential lightning protection without increasing the structural height of a building, which is useful in areas with strict height limits.

Functional Spaces: They are ideal for flat, unobstructed areas like helipads or rooftop car parks where traditional vertical air terminals would physically interfere with traffic or operations.

Typical Features

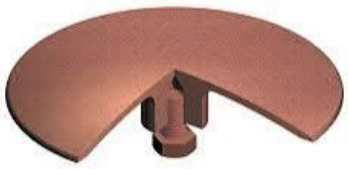
Design: Usually flat and circular or square, often made of highly conductive materials like aluminium, copper, or gunmetal.

Installation: They are typically equipped with a threaded stud and nut or pre-drilled holes, allowing them to be easily bolted onto surfaces, laid into tarmac, or embedded into masonry and concrete.

Energy Dissipation: When a lightning strike hits, the pad provides a safe, controlled interface to absorb the strike and transfer the immense current away before it damages the building's infrastructure.

Material – Body – Gunmetal, Aluminium

Available in Copper and Aluminium Conductor material



59·ROD BRACKETS

Rod Brackets

Rod brackets are specialized support fittings in earthing and lightning protection systems. They allow lightning air rods (air terminals) to be securely mounted to the vertical walls or faces of a building rather than the roof, and connect the rods to flat copper or aluminium tapes

Why and Where They Are Used

Roof Space Constraints: They are ideal for high-rise buildings or structures where installing a traditional roof saddle or base is impossible or impractical.

Wall Projection: They provide necessary clearance from the building wall to allow the air rod to be coupled safely with down-conductor tapes.

Side Mounting: When a lightning air rod has to run parallel to the side of a building, rod brackets act as the primary structural anchor. []

Construction & Material Specs

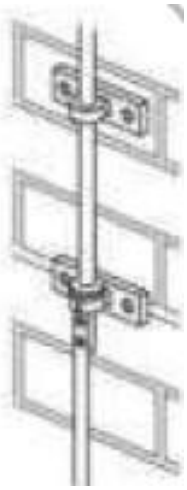
Materials: Usually manufactured from highly conductive and durable metals such as gunmetal, aluminium, or copper alloy to ensure longevity.

Design: They generally feature pre-drilled holes for easy wall mounting and come in specific sizes (e.g., 14.2mm or 17.2mm) to perfectly fit the diameter of the air rod.

Weather Resistance: Engineered to have strong structural configurations capable of enduring severe environmental conditions and weather changes.

Material – Body – Gunmetal, Aluminium

Available in Rod Material Copper and Aluminium, Rod diameter 15mm



60·ROD TO TAPE COUPLING

Rod to Tape Coupling

Rod-to-tape coupling (or clamp) is a specialized electrical accessory used in earthing and lightning protection systems. It provides a secure, low-resistance mechanical joint between vertical earth electrodes (ground rods) and flat copper or aluminium grounding tapes.

Key Functions & Specifications

Purpose: Acts as a bridge, securely directing massive electrical surges from lightning or equipment faults safely into the earth.

Materials: Commonly constructed from high-grade gunmetal, phosphor bronze, or 99.9% pure copper for maximum conductivity.

Fasteners: Uses heavy-duty nuts and bolts (often stainless steel SS304) to tightly clamp the flat tape to the rod.

Material –

Body – Gunmetal, Naval Brass, Aluminium

Bolt - Copper, Naval Brass, SS

Thread Size	Rod dia/ width	Material	Product Code
M16	15mm	Copper	AIRTO16
M16	15mm	Aluminium	AIRTA16
M20	15mm	Copper	AIRTO20
M20	15mm	Aluminium	AIRTA20

61·GLAZING BAR HOLDFAST

Glazing Bar Holdfast

Glazing Bar Holdfast is a specialized mounting bracket used in earthing and lightning protection systems. It securely attaches lightning conductors and DC clips to narrow metal flanges—such as angle irons, window mullions, or structural glazing bars—where drilling into the metal is impossible or forbidden.

Key Features and Specifications

Material: Usually made from high-quality, weather-resistant copper alloys, aluminium, or gunmetal to ensure excellent conductivity and rust prevention.

No Drilling Required: It clamps directly to narrow projections, protecting the structural integrity of the metal framework.

Mounting: Once the holdfast is fixed onto the bar, a fixing screw is used to attach standard metallic or non-metallic conductor clips.

Why are they used?

In building design, structural lightning protection requires a continuous path to route lightning strikes safely into the ground. When a lightning protection conductor needs to run along the facade of a building, installers often encounter narrow frames, window edges, or metal glazing bars. Glazing bar holdfasts act as a reliable, non-invasive anchor point to keep these cables organized and firmly in place without compromising the glass or the building envelope

Material –

Body – Gunmetal, Naval Brass, Aluminium

Bolt - Copper, Naval Brass, SS

Available in Size – 12mm

62·BACK PLATE HOLDFAST STEM

Back Plate Holdfast Stem

Back Plate Holdfast Stem is a specialized mounting component in earthing and lightning protection systems used to securely hold and anchor conductors (like copper or aluminium tape) at a specific distance away from the surface of a building or wall. It is typically assembled with a fixing screw and a metallic conductor clip, allowing the installation to navigate around architectural obstacles or structural.

Key Specifications & Features

Purpose: Ensures the lightning protection tape is kept a specific distance (usually about 75mm) away from the wall to prevent damage to the building facade during a massive electrical fault or lightning strike.

Materials: Manufactured from highly conductive and corrosion-resistant materials such as high-grade copper alloy, gunmetal, or aluminium.

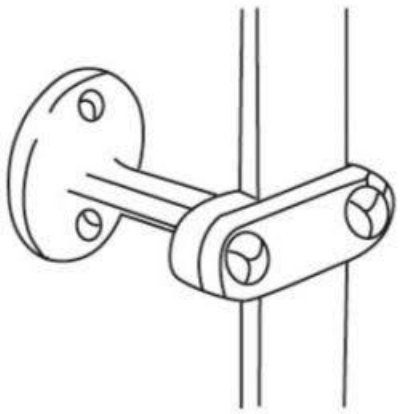
Design: Consists of a flat plate (for flush wall mounting) and a projecting stem that attaches to a DC (conductor) clip.

Material:

Body – Gunmetal, Aluminium

Bolts – Copper, Naval Brass, SS

Available in Copper and Aluminium



63·SCREWDOWN TEST CLAMP

Screwdown Test Clamp

Screwdown Test Clamp (or cable test clamp) is a vital component in earthing and lightning protection systems. It serves as an easily accessible, detachable joint that connects a building's down-conductor to the underground earthing network, allowing technicians to safely disconnect the system and test the ground's resistance.

Key Functions

Disconnection Point: It creates a breaking joint in the conductor. By unfastening the screws, engineers can isolate the air terminal and down-conductor from the actual earth rod for safety and routine inspection.

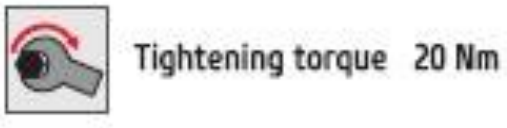
Testing Earth Resistance: Technicians use the disconnected clamp to attach testing equipment (like earth clamps or testers) to measure the ground resistance and ensure the system functions optimally.

Conductor Joining: It holds and fastens overlapping copper tapes or cables securely.

Material:

Body – Gunmetal, Aluminium

Available in Copper and Aluminium conductor material for conductor size 26x8 mm



64·BIMETALLIC CONNECTOR

Bimetallic Connector

Bimetallic connector is a specialized joint used to safely connect two dissimilar metals—typically copper and aluminium. It prevents galvanic corrosion (electrochemical decay) that occurs when these two metals touch in the presence of moisture.

Why Bimetallic Connectors are Essential

Galvanic Corrosion Prevention: When copper and aluminium are in direct contact, the difference in their electrochemical properties causes the aluminium to corrode over time, leading to high electrical resistance, overheating, and system failure.

Material Compatibility: Many modern lightning protection systems use economical and lightweight aluminium conductors, while the grounding/earthing network is predominantly made of highly conductive copper. Bimetallic connectors bridge this gap securely.

Safety & Longevity: They ensure a low-resistance path for lightning surges and fault currents to safely dissipate into the ground, safeguarding personnel and equipment.

Material:

Body – Copper, Aluminium

Bolts - Copper, Aluminium

Conductor Size	Product Code
25 x 3mm Al tape to 25 x 3mm copper tape	AIBC801
8mm diameter Al conductor to 25 x3mm copper	AIBC802
25x3mm Al tape to 25 x 3mm copper tape	AIBC803

65. ROD BRACKETS

Rod brackets are specialized mounts used in lightning protection and electrical grounding systems. They attach air terminals (lightning rods) to the vertical walls or edges of a building rather than on the roof itself. This protects the roof's structural integrity and improves aesthetics.

Key Details and Functions

- **Side Mounting:** These brackets provide clearance from the wall surface.
- **Rod-to-Tape Coupling:** They are used with a to link the vertical air rod to flat grounding tapes or cables along the building's exterior.
- **Materials:** They are built to withstand harsh weather using highly conductive, corrosion-resistant metals like copper alloy (gunmetal or brass).

Material: Body – Gun Metal, Aluminium

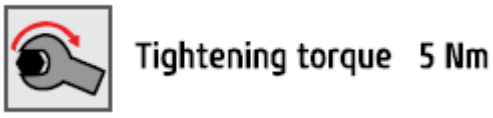
Available in Size – Rod diameter 15mm in Copper and Aluminium

66. ROD TO CABLE COUPLING

Rod to cable coupling (or clamp) is a specialized electrical fitting used in grounding (earthing) systems. Its main job is to securely link your vertical grounding rod to the horizontal electrical cables running to your building. It creates a safe path to send dangerous electricity straight into the ground

Key Details

- **How It Works:** It uses strong bolts or screws to bite into both the earth rod and the copper wire. This ensures a tight, rust-free grip.
- **Material:** Body – Gunmetal, Naval Brass, Aluminium.
- **Material: Bolts –** Copper, Naval Brass, SS
- **Types:** Common versions include the **G-clamp**, **O-clamp**, and **U-bolt clamp**



Rod Diameter	Thread Diameter	Conductor Size	Conductor Material	Product Code
15mm	16mm	50-70 mmsq	Copper	AIRCC70
15mm	16mm	95 mmsq	Copper	AIRCC95

67·ONE HOLE CABLE CLIP

One Hole Cable clip

Earthing and Lightning Accessories – One Hole Cable Clip is a specialized fastener used to securely anchor, route, and support electrical conductors and grounding cables along surfaces. It ensures earthing and lightning protection wires remain tightly fastened to walls and structures to prevent sagging and dangerous disconnections.

Key Features & Design

Design: Features a pre-drilled central or offset hole on one end used for mounting, while the other curved or loop end clasps the wire.

Materials: Commonly made of highly conductive, corrosion-resistant metals like copper, aluminium, or brass. PVC or nylon options are also available for specific lower-voltage applications.

Installation: Easily fastened to walls, panels, or structures using screws, wall plugs, or appropriate fixing fasteners.

Common Applications.

Lightning Protection: Secures bare or PVC-covered circular copper/aluminium conductors to the exterior of a building as part of a down-conductor network.

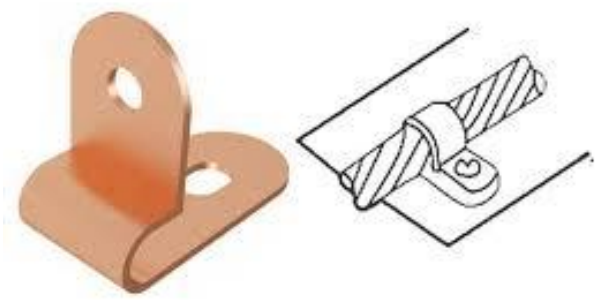
Grounding/Earthing Systems: Keeps heavy-gauge earthing cables and flat tape conductors neatly bound and grounded to structural components or switchboards.

Industrial & Telecom Wiring: Organizes grounding cables in electrical panels, commercial buildings, and industrial setups.

Material:

Body – Extrusion Sheet, Bolts – Copper, Naval Brass, SS

Conductor Size	Conductor Material	Product Code
50 mmsq	Copper	AIHCC50
70 mmsq	Copper	AIHCC70
95 mmsq	Copper	AIHCC95



68·HEAVY DUTY CAST CABLE SADDLE

Heavy Duty Cast Cable Saddle

Heavy Duty Cast Cable Saddle is a structural component used in structural lightning protection and earthing (grounding) systems. It is designed to securely anchor air terminals (lightning rods) or route heavy bare conductors and tapes along the exterior walls or roofs of a building.

Key Features & Design

Materials: Typically cast from highly durable, corrosion-resistant alloys like Gunmetal, Brass, or high-grade Aluminium.

Functionality: It acts as a heavy-duty spacer and anchor clamp. It ensures that the conductor remains safely elevated or tightly fastened, maintaining the necessary distance and structural integrity for the lightning strike to discharge safely.

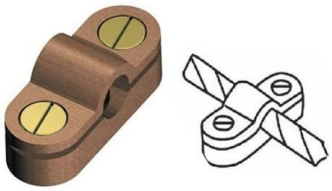
Usage: They can support 8 mm conductors, PVC-covered copper/aluminium tapes, and are used to hold vertical air rods when fixed onto a wall-mounted base.

Material : Body – Gunmetal, Naval Brass, Aluminium

Bolts: Copper, Naval Brass, SS

Product Code	Conductor Size	Conductor Material
AIHDS 35	35 mmsq	Copper
AIHDS 50	50 mmsq	Copper
AIHDS 70	70 mmsq	Copper
AIHDS 95	95 mmsq	Copper
AIHDS 120	120 mmsq	Copper

Tightening torque 5 Nm



69·TEST CLAMPS

Test Clamps

Test clamps are critical components in earthing and lightning protection systems. Their primary function is to form a removable, disconnecting joint between the structural down conductor and the building's grounding system. This allows technicians to easily isolate the lightning protection network from the earth rods to conduct routine electrical resistance and continuity testing.

Why Test Clamps are Essential

System Isolation: By unbolting the clamp, the lightning system is separated from the general grounding network, allowing accurate earth-resistance measurements.

Electrical Safety: They provide a highly secure, conductive bridge for fault and lightning currents to dissipate harmlessly into the earth.

Mechanical Strength: They firmly secure overlapping conductors (such as tape-to-tape or tape-to-round cable) to withstand mechanical stress.

Material:

Body – Gunmetal, Naval Brass, Aluminium

Bolts - Copper, Naval Brass, SS

Conductor Size	Conductor Material	Product Code
50 mmsq	Copper	AITC50
70 mmsq	Copper	AITC70
95 mmsq	Copper	AITC95

Tightening torque 12 Nm

70·MULTI-PURPOSE “B” BOND

Multi-Purpose “b” bond

"B" Bond (often called a multi-purpose "B" bond) is a specialized electrical accessory used in lightning protection and grounding systems. Its primary function is to securely bond and bridge conductors—such as copper or aluminium tape and stranded cables—to flat, non-current carrying metal surfaces.

Key Applications

Structural Bonding: Connects lightning protection conductors directly to metal building structures, steel frames, or storage tanks.

Tape-to-Metal Fixing: Fastens 25 × 3 mm flat tapes or 8 mm circular conductors to flat metal surfaces.

Equipotential Bonding: Equips various independent metal parts within a zone to the same electrical potential, preventing dangerous voltage differences during a fault or lightning strike

Design & Material

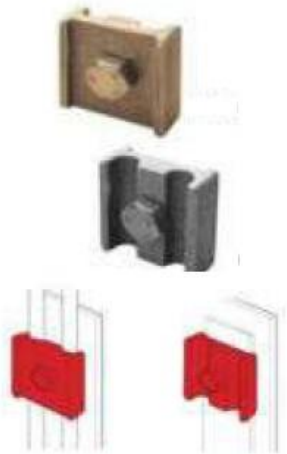
Construction: It typically consists of a high-strength metal alloy body (like copper, aluminium, or gunmetal) and corrosion-resistant hardware.

Hardware: Usually incorporates phosphor bronze, stainless steel, or copper-plated bolts to ensure excellent mechanical strength and environmental longevity

Material: Body – Gunmetal, Naval Brass, Aluminium

Bolts - Copper, Naval Brass, SS

Available in Copper and Aluminium conductor material for size 8 & 25 x 3 mm conductor diameter.



71·MULTI-PURPOSE AIR ROD SADDLES

Multi-Purpose Air Rod Saddles

Multi-Purpose Air Rod Saddles are specialized components in lightning protection systems used to securely mount vertical air terminals (lightning rods) and connect them to the building's grounding network. They safely channel high-voltage electrical strikes away from the structure and into the earth.

Core Functions & Features

Versatile Mounting: These saddles allow lightning rods to be installed on both horizontal roof surfaces and vertical walls or parapets.

Conductor Compatibility: They act as an anchor that connects the air rod to the building's down-conductor, and are typically designed to hold both standard solid circular conductors (e.g., 8 mm diameter) and flat copper or aluminium tapes (e.g., 25 × 3 mm).

Durable Materials: To ensure high electrical conductivity and resistance to harsh weather, they are commonly manufactured from high-grade materials like copper, brass, or aluminium.

Material: Body – Gunmetal, Naval Brass, Aluminium

Bolts - Copper, Naval Brass, SS

Available in Copper and Aluminium Conductor Material in 10mm thread size

Tightening torque 5 Nm

72·WATERMAIN BOND

Watermain Bond

Watermain Bond (often called a Watermain Pipe Bond or Earth Bond) is an electrical fitting used to connect metallic water pipes to a building's main grounding or lightning protection system.

It plays a critical safety role in equipotential bonding—the practice of linking all conductive elements (pipes, structural steel, and electrical equipment) so they share the exact same electrical potential (voltage).

Why are Watermain Bonds used?

Safety: If an electrical fault occurs or the building takes a lightning strike, bonded metal pipes ensure dangerous voltage differences do not build up between different parts of the structure, preventing electric shocks.

Static Discharge: They help ground and safely drain static charges that can accumulate on fluid-carrying pipes and mechanical equipment

Material: Body – Gunmetal, Naval Brass, Aluminium

Bolts - Copper, Naval Brass, SS

Available in Copper and Aluminium conductor with Bolt Size M10 and maximum tape width 26mm

73·FLEXIBLE COPPER BRAID BOND

Flexible Copper braid Bond

Flexible Copper Braid Bond is a woven, flat or circular copper conductor used to create flexible electrical and grounding connections. It ensures safe, low-resistance electrical contact between moving or misaligned parts in earthing, lightning protection, and electrical shielding systems.

Key Characteristics & Functions

Construction: Made of numerous high-conductivity, soft-annealed copper wires (often bare or tin-plated) woven into a tight mesh.

Flexibility: The braided structure allows it to bend, twist, and flex without breaking. This makes it highly resistant to fatigue caused by repeated motion or mechanical vibrations.

Durability: Typically terminated with solid pressed metal ferrules (lugs) at both ends for reliable bolting and secure installation.

Primary Applications

Bonding Moving Parts: Used to bridge across metal gates, doors, fences, and expansion joints where a rigid cable would snap or wear out.

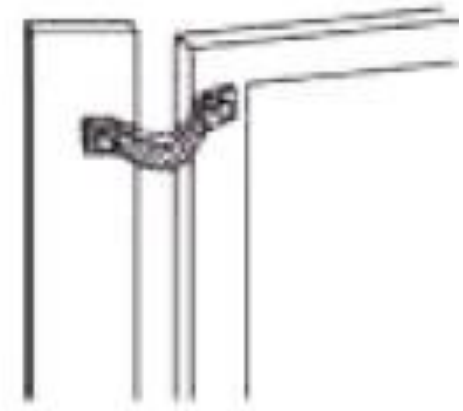
Industrial Equipment: Connects vibrating or moving heavy machinery and transformers to reduce electrical strain.

Lightning Protection: Acts as a grounding strap to safely conduct lightning surges into the earth or across structural building sections.

Electrical Shielding: Used as an EMI/RFI shielding mesh or grounding strap for sensitive electrical enclosures and switchgear.

Material: Body – Copper 99.9% EC

Braid Dimensions	Hole Size	Hole centres	Product Code
25 x 3.5mm	11mm	200mm	AIFCB200
25 x 3.5mm	11mm	400mm	AIFCB200



74·EARTHING CLAMPS BS 951

Earthing Clamps BS 951

Earthing clamps manufactured to BS 951 standards are used to connect bonding conductors to metallic pipes (such as gas, water, and heating pipes) for safe electrical grounding and equipotential bonding.

Key benefits and features

The red, blue, and green colours act as a quick identification system for both the environmental suitability and the conductor size capacity:

Red (Type EC14): Designed for dry, non-corrosive indoor atmospheres. They are typically made from brass and usually accommodate smaller terminal conductors (Sizes A-D, typically 2.5 mm² to 10 mm²).

Blue (Type EC15): Designed for damp, humid, or corrosive environments. These are manufactured from more durable, corrosion-resistant materials like phosphor bronze or bronze. They are also used for slightly larger terminal conductors (Sizes A-E, typically 2.5 mm² to 16 mm²).

Green (Type EC16): Suitable for dry, damp, or highly corrosive/harsh conditions. Green-labelled clamps are specifically built to accommodate larger earthing conductors (16 mm² or greater)

Used for large diameter circular objects like pipework and hand rails

Material:

Strap Material: Stainless Steel SS304 grade

Body Material – Phosphor Bronze

Label Material - Bronze

Size Selection Table – Earth Clamps BS 951

Pipe Diameter	Tag Colour	Features	Product Code
12 – 32mm	Red	Red colour suitable for clean dry atmospheric condition	AET14
32 – 50mm	Red	Red colour suitable for clean dry atmospheric condition	AET14/2
50 – 75mm	Red	Red colour suitable for clean dry atmospheric condition	AET14/3
12 – 32mm	Blue	Blue colour suitable for all environment	AET15
32 – 50mm	Blue	Blue colour suitable for all environment	AET15/2
50 – 75mm	Blue	Blue colour suitable for all environment	AET15/3
12 – 32mm	Green	Green Colour suitable for corrosive humid conditions	AET16
32 – 50mm	Green	Green Colour suitable for corrosive humid conditions	AET16/2
50 – 75mm	Green	Green Colour suitable for corrosive humid conditions	AET16/3

75·EARTHING BARS – STANDARD EARTH BARS

Earthing Bars – Standard Earth Bars

Standard Earth Bars without Link are centralized copper terminals used in electrical systems to provide a common, organized grounding point. They safely dissipate fault currents into the ground and eliminate dangerous voltage differences across equipment.

Core Features & Specifications

Material: Manufactured from high-conductivity hard-drawn copper (e.g., 50 × 6 mm copper bar) with a purity exceeding 99.9%.

Terminations: Equipped with brass or stainless steel stud assemblies (usually M10) for connecting cable lugs or earthing tapes.

Base: Pre-assembled on a corrosion-resistant base (like galvanised steel channel or polycarbonate) with built-in insulators rated up to 1000V AC.

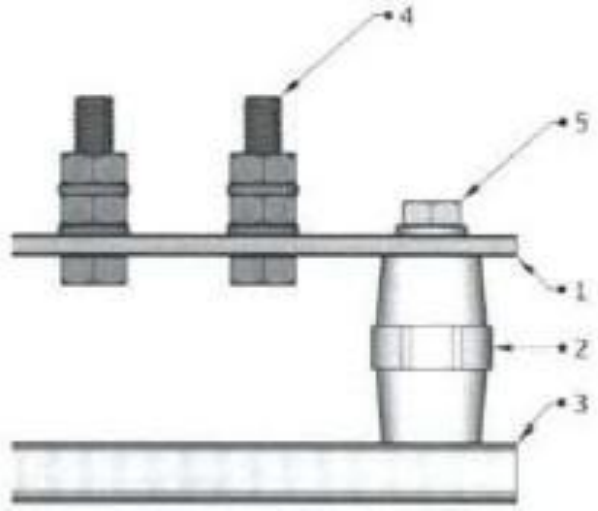
Why "Without Link"?

Permanent Connection: These bars do not feature a "disconnecting" or "test link". Test links are used to temporarily isolate the earth bar from the earth electrode for inspection.

Ideal for Equipment Bonding: Bars without links are primarily used for bonding equipment chassis, telecom racks, and power distribution systems where you want a secure, permanent, and uninterrupted connection to the central earthing system.

Sizes: Typically available in various configurations, ranging from 2-way to 30-way connection points.

Manufactured by using high conductivity 50 x6 mm hard drawn copper bar and follow the strict adherence to IEC 62305 standard



Standard Earth bars

50x6 Copper bar - HDHC Copper Bar

M10 x 36 Insulator – Glass reinforced Polyester

64x15mm base – Galvanised Steel

M10 Hex Bolt/Nut/washer – Brass

M10 Hex Bolt/Nut/washer – BZP Mild Steel

Bar Material – C101 99.9% Copper BS EN 13601:2013 / BS EN 12167:2011

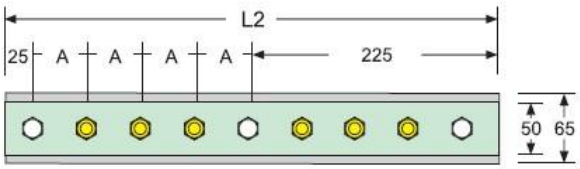
Fasteners – M10x40 Brass CZ121 / BS 3643-1:2007

Base – Galvanised Steel Channel

Standard : IEC 63205 / BS EN 62561 – 1:2012 / BS EN 7430

Product Code	Studs	Stud Size	Stud Spacing (A)	Bar Length (L2)	Base Width
AIEB4	4	M10 x40	50.0	300.0	65.0
AIEB6	6	M10 x40	50.0	450.0	65.0
AIEB8	8	M10 x40	50.0	550.0	65.0
AIEB10	10	M10 x40	50.0	650.0	65.0
AIEB12	12	M10 x40	50.0	800.00	65.0
AIEB16	16	M10 x40	50.0	1050.0	65.0
AIEB20	20	M10 x40	50.0	1250.0	65.0

Product Code	Studs	Stud Size	Stud Spacing (A)	Bar Length (L2)	Base Width
AIEBDC –Test Link	1	M10 x40	50.0	125.00	65.0



Product Code	Studs	Stud Size	Stud Spacing (A)	Bar Length (L2)	Base thickness
A1EB253-3	8	M10 x40	25.0	300.0	3.0
A1EB253 -6	10	M10 x40	25.0	600.0	3.0
A1EB506 -3	10	M10 x40	25.0	300.0	5.0
A1EB506 -6	12	M10 x40	25.0	600.0	5.0

76·EARTHING BARS – DISCONNECTING EARTH BARS

Earthing Bars – Disconnecting Earth Bars

EARTH BARS WITH DISCONNECTING LINK

EARTH BARS WITH SINGLE OR DOUBLE DISCONNECTING LINK

Earth bar with a single or double disconnecting link is a centralized grounding terminal made of high-conductivity copper. It allows for temporary electrical isolation of the main grounding network from individual earth electrodes, facilitating easy inspection, maintenance, and periodic earth resistance testing

How They Work

Single Disconnecting Link: Features one removable metallic link that separates a specific earth rod or installation from the main system.]

Double (Twin) Disconnecting Link: Contains two removable links, allowing complete isolation of the central earth bar from both the connected building system and the earth electrodes.

Testing Phase: When disconnected, engineers can safely test the true resistance and integrity of the local earth rod without the reading being skewed by the rest of the electrical system.

Key Components

Busbar: Typically made of hard-drawn electrolytic grade (ETP) copper (often sized 50x 6mm or larger), frequently pre-drilled for multiple connections.

Base & Insulators: Mounted on a durable, non-corrosive base (e.g., high-impact uPVC or powder-coated steel) using halogen-free insulators.

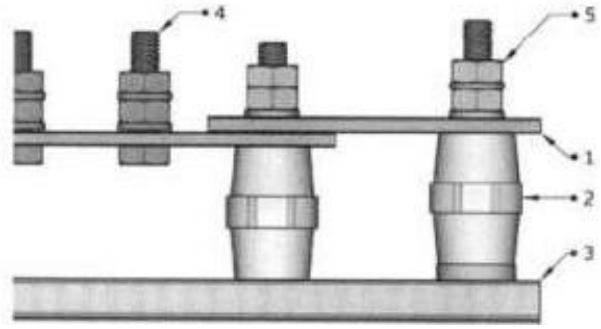
Hardware: Utilizes stainless steel or heavy-duty brass fittings (like M10 nuts and bolts) to secure the heavy copper links.

Why and Where They Are Used

Lightning Protection: Isolates lightning conductors from sensitive electrical networks during testing.

Telecommunications: Ensures clean, reliable grounding for server rooms and telecom equipment.

Compliance: Required by major electrical standards (e.g., BS EN 62305) to ensure earth electrode systems can be safely verified.



Standard Earth bars

50x6 Copper bar - HDHC Copper Bar

M10 x 36 Insulator – Glass reinforced Polyester

64x15mm base – Galvanised Steel

M10 Hex Bolt/Nut/washer – Brass

M10 Hex Bolt/Nut/washer – BZP Mild Steel

Bar Material – C101 99.9% Copper BS EN 13601:2013 / BS EN 12167:2011

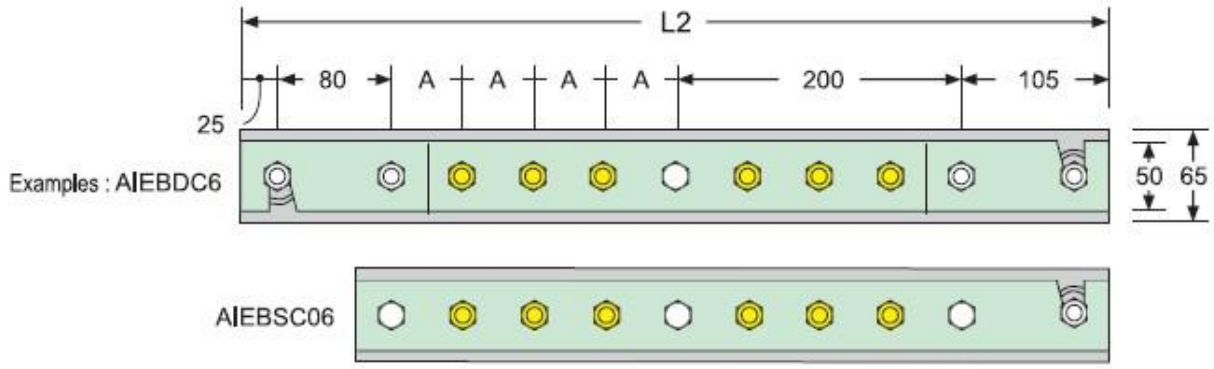
Fasteners – M10x40 Brass CZ121 / BS 3643-1:2007

Base – Galvanised Steel Channel

Standard : IEC 63205 / BS EN 62561 – 1:2012 / BS EN 7430

Product Code	Studs	Stud Size	Stud Spacing (A)	Bar Length (L2)	Base Width
AIEBSC6	6	M10 x40	50.0	525.0	65.0
AIEBSC8	8	M10 x40	50.0	620.0	65.0
AIEBSC10	10	M10 x40	50.0	725.0	65.0
AIEBSC12	12	M10 x40	50.0	875.0	65.0
AIEBSC16	16	M10 x40	50.0	1130.0	65.0
AIEBSC18	18	M10 x40	50.0	1130.0	65.0

Product Code	Studs	Stud Size	Stud Spacing (A)	Bar Length (L2)	Base Width
AIEBDC6	6	M10 x40	50.0	600.0	65.0
AIEBDC8	8	M10 x40	50.0	730.0	65.0
AIEBDC10	10	M10 x40	50.0	795.0	65.0
AIEBDC12	12	M10 x40	50.0	950.0	65.0
AIEBDC16	16	M10 x40	50.0	1210.0	65.0
AIEBDC18	18	M10 x40	50.0	1390.0	65.0



77·EARTHING BARS – TINNED EARTH BARS

Earthing Bars – TINNED EARTH BARS

Tinned Earth Bars are heavy-duty copper conductors coated with a protective layer of tin. They act as a centralized, highly reliable termination point for electrical and lightning protection systems, providing a low-impedance path to safely dissipate fault currents into the ground.

Why Tin-Plate Copper Earth Bars?

While pure copper is the industry standard for grounding, raw copper is prone to oxidation and corrosion in certain environments. Tin-plating resolves this by adding specific advantages:

Corrosion Resistance: The tin coating prevents the formation of copper oxide, greatly increasing durability in high-moisture areas, chemical plants, or saline marine/offshore environments.

Consistent Conductivity: It ensures the earth bar maintains low electrical resistance and a strong connection over time.

Easy Maintenance: Tin provides a highly polishable, non-toxic surface that prevents tarnishing from organic acids and sulphur compounds.

Key Features & Components

Material: High-conductivity hard-drawn copper, uniformly electroplated or hot-dipped in tin.

Mounting Base: Typically installed on durable, non-conductive insulators (such as Bakelite, polycarbonate, or galvanized steel channels) to prevent the bar from shorting against the wall or electrical enclosure.

Disconnecting Links: Most models feature single or twin disconnecting links, which allow engineers to safely isolate the earth bar for periodic electrical resistance testing without dismantling the whole system.

Connections: Available with varying ways (e.g., 4-way, 6-way, 8-way, etc.) utilizing pre-drilled holes and bolts to secure multiple earthing cables of various sizes.

Common Applications

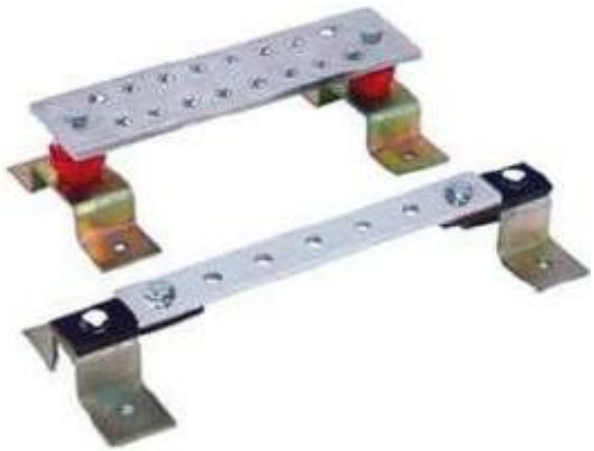
Tinned earth bars are universally specified for:

Harsh, highly humid, and corrosive industrial environments.

Marine, coastal, and offshore oil/gas projects.

Underground transit and railway networks.

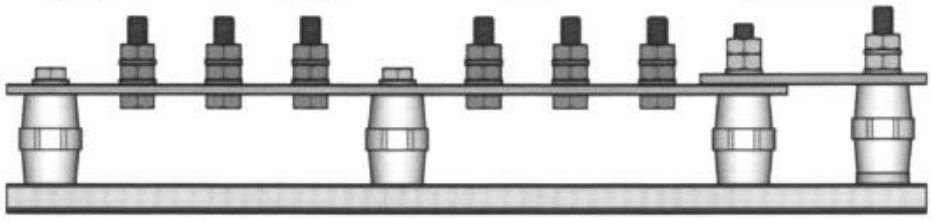
Data centres and large commercial switch rooms requiring safe testing points.



Bespoke Earth Bars

From the illustration below, make your selection and we will quote to your exact requirements.

Copper Bar Size:	☐	25 x 6mm	☐	50 x 6mm	☐	75 x 6mm	☐ Other (please specify)
Copper Bar Finish:	☐	Standard Copper	☐	Standard Tinned	☐	Electro-Tinned	☐ Other (please specify)
Stud Assemblies:	☐	Standard Brass	☐	BZP Mild Steel	☐	Phosphor Bronze	☐ Other (please specify)
Channel Base Type:	☐	None	☐	Pre-Galvanised	☐	Hot-Dip Galvanised	☐ Other (please specify)



Stud Quantity	Link Yes/No	Stud Quantity	Central Insulator Yes/No	Stud Quantity	Link Yes/No	Stud Quantity
☐	☐	☐	☐	☐	☐	☐
☐ M6		☐ M6		☐ M6		☐ M6
☐ M8		☐ M8		☐ M8		☐ M8
☐ M10		☐ M10		☐ M10		☐ M10
☐ M12		☐ M12		☐ M12		☐ M12

78·BARRELS INSULATORS

Barrels Insulators

BARRELS INSULATORS AND ASSEMBLY

Barrel insulators and assemblies are heavy-duty components used in electrical systems as insulating supports for active conductors, separating them from the ground or other metallic structures. They provide electrical insulation and structural support to electrical devices.

Key Characteristics & Material

Material: Usually made from tough Glass Reinforced Polyester (GRP) or specialized thermoset resins, offering excellent dielectric properties.

Design: Typically cylindrical ("barrel-shaped") with threaded metal inserts (like brass or stainless steel) on both ends for secure, easy mounting.

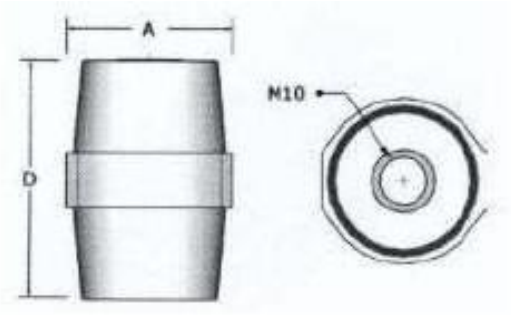
Mechanical & Thermal Strength: They offer high mechanical strength against vibrations or heavy loads and typically withstand elevated temperatures (often up to 200°C).

Typical Applications

Switchgear & Control Panels: Used to mount, space, or stiffen busbars and other electrical devices inside enclosures safely.

Grounding Systems: Act as stand-off insulators in copper earth bars and lightning protection systems.

Low/Medium Voltage Systems: Serve as physical support to isolate live components from metallic frames.



Manufactured from tough Glass Reinforcement Polyester (GRP)

Max Temperature – 200 Deg C

Material - Glass Reinforcement Polyester (GRP)

Colour – Grey as standard, Red on request

Product	Height (D)	A/F (A)	Insert thread size (C)	Insert depth	Electrical dielectiv strength	Tensile strength	Torque NM
AIIN10	51	36.0	M10	14.0	10KV/mm	3-5 kg/mmsq	>30
AIIN12	51	36.0	M10	14.0	10KV/mm	3-5 kg/mmsq	>30

AIIN12 = Insulator complete with 2 studs and 3 nuts
AIIN10 = Insulator only

79·EARTH BLOCKS

Earth Blocks

Earth blocks (also known as earth bars or grounding blocks) are essential hardware accessories in electrical earthing and lightning protection systems. Their primary function is to provide a safe, central junction point to terminate, bond, and distribute fault currents and lightning strikes deep into the ground.

Why Are Earth Blocks Used?

Centralized Safety: They gather multiple grounding or lightning conductors from various parts of a structure and connect them to a singular earthing network.

Fault Diversion: In the event of an electrical fault or a direct lightning strike, they provide a low-resistance path to safely sink massive amounts of electrical energy into the earth.

Prevents Hazards: By bonding electrical equipment and structural metalwork to the same grounding grid, they prevent dangerous voltage differences (which cause electric shocks) and protect sensitive electronics from power surges.

Where Are They Installed?

Main Distribution Boards (MDBs): To ground the electrical panel and safely divert leakage current.

Building Foundations & Roofs: To connect air terminals (lightning rods) to down-conductors and the main earth.

Substations: To tie all metallic frameworks, transformers, and fencing to a reliable grounding grid.

These are manufactured from Brass and are corrosion nickel plated surface finish

Cable Size : 16 mmsq

Material – Brass CZ121 Pb3

Finish – Nickel Plated

Product Code	Cable entry	Hole Diameter	Length (L2)	Width	
AIEB04	1 x 6.5	3 x 5.5	51.0	20.0	20.0
AIEB08	2 x 6.5	6 x 5.5	88.0	20.0	20.0

80·EARTH BOSSES

Earth Bosses

Earth bosses are specialized connection points used in earthing and lightning protection systems. They provide a secure, reliable location to bolt earthing cables or conductors to steel structures (like storage tanks, vessels, and building frameworks), ensuring fault currents and lightning strikes can safely dissipate into the ground.

How Earth Bosses Work

An earth boss acts as an engineered bridge between structural steel and the grounding system. By establishing a solid, continuous electrical connection, it prevents the build-up of dangerous static charges and electrical shocks.

Key Characteristics & Components

Construction: Typically manufactured from mild steel (for welding) or stainless steel/copper/bronze for high-corrosion environments.

Installation: They are generally welded directly onto steel surfaces.

Fittings: They usually come complete with an A2 stainless steel dowel/stud, flat washer, spring washer, and nuts to firmly clamp copper tape or cable lugs.

Why They Are Important

Safety: They divert thousands of volts from lightning strikes away from the structure and safely into the earth.

Equipment Protection: They shield sensitive electrical equipment, switchboards, and data centers from dangerous voltage spikes and surges

These bosses are easily welded into tanks, vessels and many other structures

Material: Mild Steel to 970 23OMO7 grade EN1A

Fixings: Stainless Steel 316L

Standards: BS 7430

Mid Steel Code	Stainless Steel Code	Length	Diameter	Thread Size
AIEBM225	AIEBS225	25.0	25.0	M8
AIEBM330	AIEBS330	30.0	30.0	M8
AIEBM340	AIEBS340	30.0	40.0	M10
AIEBM430	AIEBS430	40.0	30.0	M10
AIEBM440	AIEBS440	40.0	40.0	M12
AIEBM540	AIEBS540	50.0	40.0	M10
AIEBM550	AIEBS550	50.0	50.0	M12

81·SHROUDS

Shrouds

Shroud in electrical earthing and cable management is a flexible protective cover (usually made of PVC, silicone, or rubber) that fits over a cable gland. It acts as an environmental barrier and adds an extra layer of electrical insulation, safeguarding vital earthing connections against corrosion, dust, and moisture

Shrouds are primarily used in armoured cable (SWA) installations where the metallic sheath of the cable must be securely grounded to the electrical enclosure. They sit directly over the metallic cable gland and the connected earthing lug/tag

PVC Shrouds

PVC Shroud

PVC Shroud adds extra protection to cable Gland. All Cable Gland Kit includes the shroud as an accessory

Sizes Available – 20mm,25mm,32mm, 40mm, 50mm, 63mm, 75mm, 90mm.

82·SHROUDS --- PVC SHROUDS UV RESISTANCE PVC SHROUDS (ROHS)

Shrouds --- PVC Shrouds UV resistance PVC Shrouds (RoHS)

Earthing shrouds are protective covers designed to slide over cable glands, earth tags, and terminal connections in electrical systems. Their primary role is to provide secondary sealing, environmental protection, and corrosion resistance.

□ PVC (Polyvinyl Chloride): Used to make the shrouds highly flexible, electrically insulating, and resistant to chemicals, moisture, and dust accumulation.

□ UV Resistance: Shrouds formulated with UV stabilizers withstand prolonged sun exposure outdoors without cracking or becoming brittle.

□ RoHS Compliant: Signifies compliance with Restriction of Hazardous Substances directives, meaning the PVC is free from toxic heavy metals (like lead or cadmium), making it environmentally safe.

Why Use PVC Shrouds?

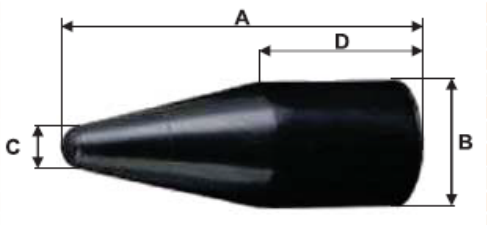
Ingress Protection (IP): They act as an extra barrier to prevent dirt, water, and debris from collecting inside or around the cable gland.

Electrical Safety: Provides additional electrical insulation at vulnerable entry points.

Long Lifespan: Protects exposed metal, such as copper or brass earth tags, from salt spray, corrosive gasses, and general weathering.

Specifications

Length A	Ø B	Ø C	Length D	Gland Fit					Product Code
				BW	A1/A2	CW / E type	A2 EX	Excel	
135	22	5	40		16/20ss/20s				AIPVC-01
73	24.5	10	32	20s	20		16/20ss/20s/20		AIPVC-02
78	28.5	12.5	33	20					AIPVC-03
123	35	18	44	25			25		AIPVC-04
160	43	26.7	53	32	32				AIPVC-05
120	56.5	32	37	40					AIPVC-06
162	74.5	35	42	50	63s		63		AIPVC-07
156	80	38	35	63	63				AIPVC-08
175	89	44	40		75s / 75				AIPVC-09
185	97	60	47	75s/75					AIPVC-10
108	24.5	12.7	50			16/20ss			AIPVC-11
116	27.5	12.2	53			20s			AIPVC-12
142	33.5	14	43		25	20			AIPVC-13
131	40	17	68			25	32		AIPVC-14
188	49	15	64		40	32	40		AIPVC-15
172	56.5	32	85.5		50s / 50	40	50		AIPVC-16
192	68	30	72			50s			AIPVC-17
192	74.5	35	71			50			AIPVC-18
195	80	38	76			63s	75s/75		AIPVC-19
234	97	60	97			75s/ 75			AIPVC-20
192	113.5	38	110			85			AIPVC-21
302	137.5	70	137						AIPVC-22
302	143.5	85	137						AIPVC-23
149	27.5	7	75					20s	AIPVC-24
170	33.5	14	71					20	AIPVC-25
140	40	17	77					25	AIPVC-26
212	49	15	86					32	AIPVC-27
189	56	32	100					40	AIPVC-28
230	74.5	35	107					50	AIPVC-29
228	80	38	107					63	AIPVC-30
260	97	60	121					75	AIPVC-31
147	27.5	6	68					16 / 20ss	AIPVC-32



83·SHROUDS – PCP SHROUDS (ROHS)

Shrouds – PCP Shrouds (RoHS)

Earthing shrouds are protective, push-on covers used primarily with cable glands in electrical and earthing installations. PCP Shrouds (made of Polychloroprene) are a highly durable, weather-resistant variation designed to protect grounding terminations from harsh environments, corrosion, and extreme temperatures.

PCP shrouds are particularly recommended for outdoor and the most hostile conditions and are not affected by ultraviolet rays contained in sunlight. PVC shrouds for use in dry indoor and most outdoor situations.

Specifications

Length A	Length B	Ø C	Ø D Max	Ø E Min	Gland Fit		Product Code
					A1 / A2	CW / E type	
73	56	11	25	22.5	20ss/20s/20	16/20ss/20s	AIPCP-01
75	57	12.4	29.5	27	25	20	AIPCP-02
81	61	16	41.5	36	32	25	AIPCP-03
93	67	22.5	46.5	41	40	32	AIPCP-04
98	71	28	59	53.5	50s / 50	40	AIPCP-05
104	76	38.5	67.5	62.5	63s	50s / 50	AIPCP-06
106	79	49.5	81	75.5	63 / 75s/ 75	63s / 63	AIPCP-07
119	89	60.5	101	94	90	75s / 75	AIPCP-08
130	95	72	111	107			AIPCP-09
85	70	7.7	29.5	27		20s Barrier	AIPCP-10
73	56	11	25	22.5			AIPCP-11
81	61	16	41.5	36			AIPCP-12

Purpose and Function

Environmental Protection: They are fitted over the cable gland to prevent moisture, dirt, dust, and corrosive substances from gathering around the gland body and the cable-to-gland interface.

Enhanced IP Rating: By sealing both the gland and the cable over sheath, they help maintain or improve the enclosure's Ingress Protection (IP) rating.

Mechanical & Chemical Safety: PCP shrouds offer superior resistance to sunlight (UV rays), oils, chemicals, and temperature fluctuations, making them ideal for outdoor and hostile industrial conditions

LSOH Shrouds Silicon LSOH Shrouds (RoHS)

LSOH Shrouds (Low Smoke Zero Halogen) are protective, flexible covers placed over electrical cable glands. Made of flame-retardant silicone or modified rubber, they prevent dust and moisture buildup. In a fire, they produce virtually no toxic smoke or corrosive acid gases

Key Characteristics

Zero Halogens: They contain no harmful halogens (like chlorine or fluorine). When burned, they do not release the toxic, acidic gases that can damage sensitive electronic equipment and threaten human life.

Low Smoke: They emit optically clear, minimal smoke in a fire. This ensures evacuation exit signs remain visible for as long as possible.

RoHS Compliant: They are certified under the European Union's Restriction of Hazardous Substances (RoHS) directive, guaranteeing they are free from banned, dangerous materials like lead, cadmium, and mercury.

Where Are They Used? / Application Areas

Because they provide maximum life-safety benefits in emergencies, these shrouds are mandatory or highly recommended in poorly ventilated areas or spaces with high human density

Underground Rail Tunnels and metro stations

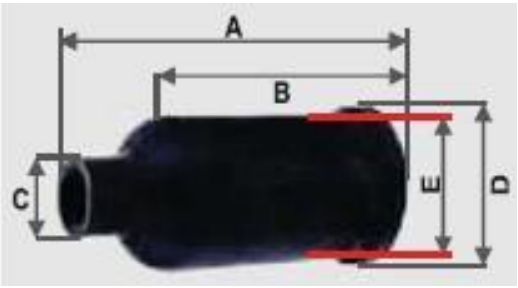
Airports, high-rise buildings, hospitals, and schools

Industrial and Offshore/Marine platforms

Enclosed commercial or residential developments

Specifications

Length A	Length B	ø C	ø D max	ø E min	Gland Fit			Product Code
					BW	A1 / A2	CW / E type	
73	56	11	25	22.5	20s	20ss/20s/20	16/20ss/20s	AILSF-01
75	57	12.4	29.5	27	20	25	20	AILSF-02
81	61	16	41.5	36	25	32	25	AILSF-03
93	67	22.5	46.5	41	32	40	32	AILSF-04
98	71	28	59	53.5	40	50s / 50	40	AILSF-05
104	76	38.5	67.5	62.5	50	63s	50s / 50	AILSF-06
106	79	49.5	81	75.5	63	63 / 75s / 75	63s / 63	AILSF-07
119	89	60.5	101	94	75s / 75		75s / 75	AILSF-08



84·SHROUDS -- LSF AND LSOH PVC SHROUD

Shrouds -- LSF and LSOH PVC Shroud

In electrical and earthing systems, a shroud is a protective, flexible cover placed over a cable gland. It acts as an environmental seal and a barrier to prevent moisture, dirt, and dust from accumulating on the gland and the cable interface.

LSF (Low Smoke & Fume) PVC Shroud

What it is: A PVC compound that has been chemically modified with additives to reduce the amount of dense black smoke and toxic gases released when exposed to a flame.

Performance: While it burns much cleaner than standard PVC, it still emits small amounts of corrosive halogen gases (such as hydrogen chloride).

Best Used For: Standard industrial environments, general outdoor electrical setups, and areas with adequate ventilation.

LSZH (Low Smoke Zero Halogen) PVC Shroud

What it is: A highly specialized thermoplastic compound free from halogens like fluorine, chlorine, bromine, and iodine.

Performance: When subjected to fire, it produces minimal smoke and emits practically zero hazardous acid gases. It is self-extinguishing and prevents the release of corrosive compounds that can damage sensitive electronic systems.

Best Used For: Highly populated, safety-critical, or enclosed public areas such as hospitals, airports, tunnels, data centers, and underground railways.

Available Sizes – 20mmsq, 25mmsq, 32mmsq, 40mmsq, 50mmsq, 63mmsq, 75mmsq & 90 mmsq

85·EARTHTAGS (BRASS & ALUMINIUM)

Earthtags (Brass & Aluminium)

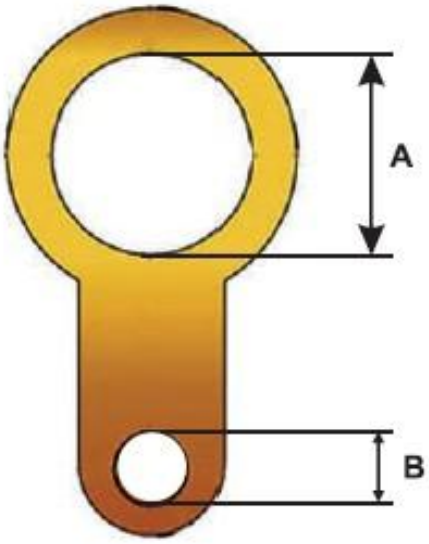
Earthtags (or earthing tags) are specialized flat metal washers installed alongside cable glands in electrical systems. Their primary function is to guarantee electrical continuity and provide a secure, low-resistance path for fault or leakage currents to safely discharge into the ground. Earthtags provide the earth bond connection between the gland and equipment.

How They Work

When a cable enters an electrical enclosure, a metallic gland is used to secure and seal it. However, the gland alone doesn't always ensure a flawless, continuous earth connection to the equipment's body.

Placement: The earthtag sits on the outside of the enclosure, sandwiched between the cable gland and the locknut.

Discharge: If an electrical fault occurs, the earthtag acts as a bridge, allowing stray currents to safely bypass the enclosure's housing and travel to the grounding system.



Thread Size (A)	Dimensions mm		Product Code		
	Bolt Hole ø B	Short Circuit Rating kA	Brass	Brass Nickel Plated	Aluminium
16	6.7	1.8	AIETB-16	AIETBN-16	AIETA-16
20	6.7	4.4	AIETB-20	AIETBN-20	AIETA-20
25	6.7	4	AIETB-25	AIETBN-25	AIETA-25
32	12.4	6.2	AIETB-32	AIETBN-32	AIETA-32
40	13.2	9.8	AIETB-40	AIETBN-40	AIETA-40
50	13.2	11.4	AIETB-50	AIETBN-50	AIETA-50
63	13.2	12	AIETB-63	AIETBN-63	AIETA-63
75	13.2	14.3	AIETB-75	AIETBN-75	AIETA-75
85/90	13.2		AIETB-85-90	AIETBN-85-90	AIETA-85-90
½"	6.5		AIETB-12	AIETBN-12	AIETA-12
¾"	6.5		AIETB-34	AIETBN-34	AIETA-34
1"	12.5		AIETB-1	AIETBN-1	AIETB-1
1 ¼"	13		AIETB-114	AIETBN-114	AIETA-114
1 ½"	13		AIETB-112	AIETBN-112	AIETA-112
2"	13		AIETB-2	AIETBN-2	AIETA-2
2 ½"	13		AIETB-212	AIETBN-212	AIETA-212
3"	13		AIETB-34	AIETBN-34	AIETA-34
4"	14		AIETB-4	AIETBN-4	AIETA-4

86·POLYMER INSPECTION PIT

Polymer Inspection Pit

Polymer Inspection Pit (also known as an earth pit chamber or inspection housing) is a heavy-duty, ready-to-install enclosure used to protect and provide access to underground electrical grounding (earthing) systems. It replaces traditional, labour-intensive concrete pits.

Core Functions

Protection: Shields earthing connections (like copper-bonded rods or strips) from soil moisture, corrosion, debris, and physical damage.

Accessibility: Provides safe access for engineers to conduct routine checks, maintenance, and electrical resistance tests on the earthing system.

Key Attributes and Benefits -

Material: Manufactured from high-performance, UV-stable, and chemically resistant engineering polymers (e.g., Polypropylene or Polyamide 6/6).

Load Rating: Designed for pedestrian or heavy-duty vehicular traffic, with standard load-bearing capacities reaching up to 5,000 kg.

Lightweight: Weighs significantly less than concrete (typically around 1.8 kg to 3 kg), making transportation and installation much easier.

Security: Features lockable, jam-free lids (often operated with an Allen-key or custom tool) to prevent tampering and vandalism.

Installation & Usage

The pit is placed directly over the buried earth electrode and connected wiring, leaving the top surface flush with the ground. This eliminates the need for on-site masonry work and allows technicians to easily open the chamber to measure earth resistance, recharge earthing chemicals, or inspect terminals

Plastic Inspection Pit complete set is supplied with Base, Lid and Allen key

Lockable Jam free Lid – Once installed the lid can be locked with the supplied allen key bolt preventing vandalism. Once locked, the design of the lid ensures debris cannot be jammed between lid and surroundings.

Screw Retention: Retentions tabs on the underside of the lid prevent loss of V Screw while in storage/transit. The screw may also be used to fit the Lid.

Shatterproof Material: The performance polymer is significantly less brittle than concrete, reducing the likelihood of wastage due to breakage.

Chemical Resistance: Resistant to most substances like petrol, diesel, oil, bitumen and concrete

UV Stable: UV additive minimising the effect of direct sunlight.

Rod Locating Hole: Central 70mm diameter hole ensuring the earth rod is centrally positioned, simplifying the connections of earthing clamps.

Standard: BS EN 62561-5 Material: UV and Chemical resistant Polymers

Product Code	Description	Dimensions	Dimensions	Dimensions	Hole Size
Product Code	Description	L	B	H	Hole Size
AIPEP245	Polymer Body and Cover	245	245	195	70
AIPEP308	Polymer Body and Cover	308	308	214	70
AIPEP500H	Polymer Body and Cover	500	500	315	70/110
AIPEP500	Polymer Body and Cover	500	500	200	70/110

AIPEP245

AIPEP500

AIPEP308

87·CONCRETE EARTH INSPECTION PIT

Concrete Earth Inspection Pit

Concrete Earth Inspection Pit (also known as an earth pit chamber or housing) is a reinforced, heavy-duty enclosure installed in the ground to protect, conceal, and provide easy access to the termination points of an electrical earthing and lightning protection system.

Core Purposes & Functions

Safe Accessibility: Allows engineers to safely reach earth electrodes (ground rods, plates) for routine maintenance and inspection.

System Testing: Provides the necessary space to perform earth resistance and continuity tests.

Maintenance: Permits the recharging of earthing salts/chemicals, watering of electrodes, and cleaning of connections to maintain required soil resistance.

Key Technical Specifications -

Load Rating: Heavy-duty variants are typically designed to support loads ranging from 1,200 kg to 5,000 kg, making them safe for pedestrianized and light-to-heavy vehicular areas.

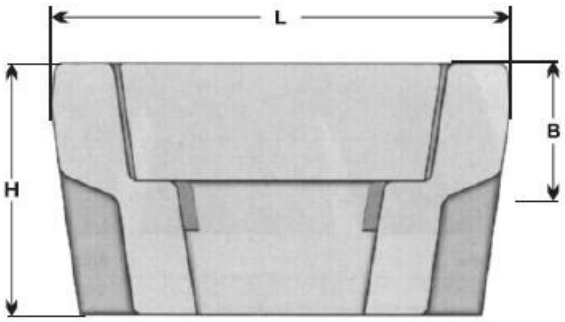
Dimensions: Common sizes range from 315 × 315 × 165 mm to 450 × 450 × 300 mm. Square designs are generally preferred over round ones as they provide more internal workspace.

Material: Constructed from steel-reinforced concrete or high-performance polymers.

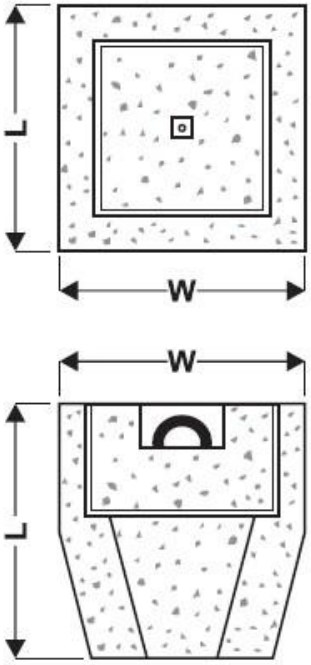
Compliance: Must conform to safety standards such as IEC 62561-5 and BS EN 50164-5

Concrete inspection pit bear load rating of 4500kg, which makes them ideal for most types of earthing and lightning protection installations. The base is technically designed to accommodate a diagonal earth bar with 5 or 7 terminations. They are suitable for most types of earthing and lightning protection installations. The inspection pit protects the earth rod connections and make it accessible for inspection.

Standard : BS EN 62561-5 Material – Concrete



Product Code	Description	Dimensions	Dimensions	Dimensions	Hole Size
Product Code	Description	L	B	H	Hole Size
AICEP310	Concrete Body and Cover	310	310	170	106
AICEP320	Concrete Body and Cover	320	320	195	106


L
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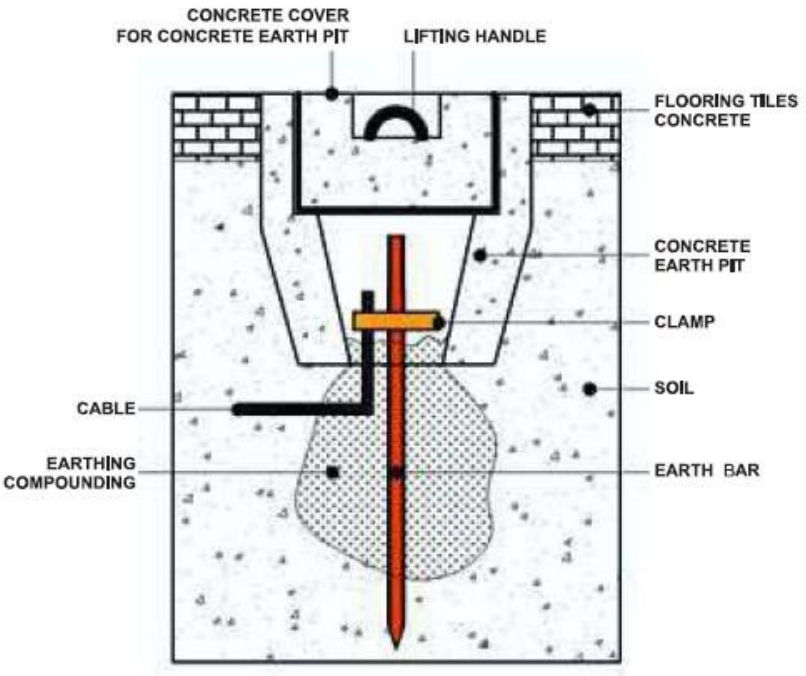
CONCRETE COVER
FOR CONCRETE EARTH PIT
LIFTING HANDLE
FLOORING TILES
CONCRETE
CONCRETE
EARTH PIT
CLAMP
SOIL
CABLE
EARTHING
COMPOUNDING
EARTH BAR

88·LOCK NUTS

Lock Nuts

Brass – Nickel Plated Brass – Steel & Aluminium

Earthing lock nuts (or grounding lock nuts) are specialized electrical fasteners used to secure cable glands, conduits, or fittings to metallic enclosures while ensuring a reliable, low-resistance electrical path. They establish a critical safety ground connection by effectively bonding the fitting to the box to prevent electrical shock.

Key Features and Functions

Metal-to-Metal Bonding: They often feature sharp teeth or serrations on the face that bite through paint, rust, or protective coatings on the enclosure to ensure solid electrical contact.

Integrated Ground Lugs: Many earthing lock nuts include a built-in lay-in lug or terminal, allowing installers to attach a grounding or bonding wire directly to the nut itself.

Vibration Resistance: The serrated design also acts as a locking mechanism, preventing the nut from loosening due to heavy vibration in industrial environments.

Thread Size		Dimensions (mm)			Product Code			
ISO mm	NPT	Thickness	A/F	A/C	Brass	Brass+nickel plated	Steel	Aluminium
16		3.4	22	24.7	AILNB16	AILNN16	AILNS16	AILNA16
20		3.4	22.5	25.5	AILNB20	AILNN20	AILNS20	AILNA20
25		3.4	32	35.8	AILNB25	AILNN25	AILNS25	AILNA25
32		3.4	41	45.2	AILNB32	AILNN32	AILNS32	AILNA32
40		4.2	50	56.7	AILNB40	AILNN40	AILNS40	AILNA40
50		4.2	60	65.7	AILNB50	AILNN50	AILNS50	AILNA50
63		6.6	75	82.7	AILNB63	AILNN63	AILNS63	AILNA63
75		9.2	85	94.7	AILNB75	AILNN75	AILNS75	AILNA75
85		9.2	98	108.5	AILNB85	AILNN85	AILNS85	AILNA85
90		9.4	104.9	115.6	AILNB90	AILNN90		
100		9.4	113.8	125.6	AILNB100	AILNN100		
110		13.5	ø 132.5		AILNB110	AILNN110		
	½"	6.8	27.9		AILNB12	AILNN12		AILNA12
	¾"	6.8	37.6		AILNB34	AILNN34		AILNA34
	1"	6.8	47.2		AILNB1	AILNN1		AILNA1
	1 ¼"	6.8	47.2		AILNB114	AILNN114		AILNA114
	1 ½"	6.8	56		AILNB112	AILNN112		AILNA112
	2"	6.8	70.1		AILNB2	AILNN2		AILNA2
	2 ½"	9.5	80		AILNB212	AILNN212		AILNA212
	3"	9.5	110		AILNB3	AILNN3		AILNA34
	3 ½"	9.5	115		AILNB312	AILNN312		AILNA312

89·IP WASHERS

IP Washers

Nylon and Fibre Sealing Washers

IP Washers (Ingress Protection washers) are sealing components used alongside cable glands in electrical and earthing installations. They are fitted between the entry component of the gland and the equipment enclosure to prevent the ingress of dust, moisture, and liquids, helping maintain high IP ratings

Why They Matter in Earthing Systems

When an electrical cable gland is mounted onto an enclosure, the drilled hole or varying surfaces can create gaps that allow environmental contaminants to enter. IP washers act as a physical barrier to seal these gaps. This protection is critical for your earthing and grounding systems because it ensures that moisture, dust, or corrosive agents do not reach the internal earthing connections, which could otherwise lead to rust, increased electrical resistance, and equipment failure

Thread Size	Inside ø mm	Outside ø mm	Thickness	Product Code	
				Nylon	Fibre
16	16.0	22.0	1.70	AIWN16	
20	20.0	26.0	1.70	AIWN20	
25	25.0	32.0	1.75	AIWN25	
32	32.0	42.0	1.75	AIWN32	
40	40.2	52.0	2.00	AIWN40	
50	51.0	66.5	2.00	AIWN50	
63	63.5	84.5	2.00	AIWN63	
75	76.0	90.0	1.50	AIWN75	
85	85.5	100.0	1.50	AIWN85	
90	90.5	125.0	1.50	AIWN90	
16	16.2	22.0	1.50		AIWF16
20	20.3	26.5	1.50		AIWF20
25	25.3	42.0	1.50		AIWF25
32	32.3	49.5	1.50		AIWF32
40	40.4	61.2	1.50		AIWF40
50	50.4	61.5	1.50		AIWF50
63	63.5	76.7	1.50		AIWF63
75	75.5	98.5	1.50		AIWF75
85	85.5	113.8	1.50		AIWF85
90	90.5	113.8	1.50		AIWF90
100	102.0	132.3	1.50		AIWF100
110	111.0	132.3	1.50		AIWF110
½"	22.5	32.0	1.60	AIWN12	
¾"	29.0	38.0	1.60"	AIWN34	
1"	34.0	45.5	1.60	AIWN1	
1 ¼"	43.0	55.0	1.50	AIWN114	
1 ½"	49.0	65.0	1.50	AIWN112	
2"	61.0	80.0	1.50	AIWN2	
2 ½"	75.0	90.0	1.50	AIWN212	
3"	89.6	115.0	1.50	AIWN34	

90· ANTI-VIBRATION WASHERS

Anti-Vibration Washers

Stainless Steel Serrated Washers

Earthing anti-vibration washers are specialized fasteners used in electrical and mechanical assemblies to maintain secure electrical conductivity while absorbing machinery vibrations. They prevent crucial earth/ground connections from loosening in high-movement or high-vibration environments

Specifications

Thread Size	Inside ø mm	Outside ø mm	Thickness	Product Code
20	21.0	33.0	4.2	AIAVW-20
25	26.2	39.7	3.4	AIAVW-25
32	32.3	49.5	4.4	AIAVW-32
40	43.0	63.0	4.8	AIAVW-40
50	52.0	80.0	4.8	AIAVW-50
63	64.0	100.0	4.8	AIAVW-63
75	77.0	112.0	4.8	AIAVW-75
85	90.5	125.0	4.8	AIAVW-85
90	90.5	125.0	4.8	AIAVW-90

Commercial Terms & Next Steps

Initiate a Supply Partnership

Why Source Earthing & Lightning Protection from India Now?

- Zero-tariff access to Australia under the India–Australia ECTA (in force Dec 2022)
- India–UK FTA in force — preferential duty rates for UK buyers
- EU–India FTA concluded Jan 2026 — tariff elimination on electrical goods incoming
- India–UAE CEPA (May 2022) — zero tariff access for GCC sourcing

Why Buyers Choose Wincrest?

- Full range manufactured to BS 7430, IEC/BS EN 62561, BS EN 50164 and IEC 62305 with test documentation — no compliance surprises
- Competitive FOB pricing from India's leading copper, brass and gunmetal manufacturing hub
- Zero-tariff access to Australia (ECTA) and preferential rates to UK & EU
- Flexible MOQs, pre-shipment samples available, private-label packaging on request

MOQ
As per product category. Trial orders welcome. Contact us for specifics.

Lead Time
4 – 6 weeks from order confirmation. Ex-works or FOB Indian port.

Payment Terms
40% advance + 60% against proof of loading at warehouse

Pricing
Quote in USD, on Ex-Works prices, However ready for any other suitable Incoterm.

Samples
Pre-shipment samples available for qualification. Courier and related expenses at buyer's cost.

Packaging
Standard export cartons / pallets. Private-label packaging available on request.

Certifications
Certificate of Conformity, IEC/BS EN test reports available per product.

Customisation
Bespoke dimensions, finishes, alloys and custom packaging on request.

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To request a quotation, product samples, or full technical datasheet — reach out today.