



PENTA
ELECTRICAL SAFETY PRODUCTS

Your life,
Our work.



**ELECTRICAL SAFETY
PRODUCTS FROM
PENTA P&B**

A Word from Our Managing Director

With a heritage spanning over 80 years, PENTA P&B (P&B Weir Electrical Limited) is recognised globally as a Designer, Manufacturer and Supplier of temporary portable earthing, voltage detectors, Buchholz Relays and electrical safety equipment.

PENTA P&B has developed extensive experience in designing tailored solutions to meet the needs and requirements of our end users working within the Electrical Supply Industry and Rail sectors in the UK and our products have been proven and tested around the world. We have worked closely with some of the UK's biggest household names such as National Grid, Network Rail and all of the DNOs such as Scottish Power.



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Our design capability is supported by our manufacturing facility in Corsham where we use cutting-edge technology and highly skilled engineers to ensure all of our products are of the highest quality to provide absolute safety for our customers.

The latest exciting development for PENTA P&B occurred in April 2018 when the business was acquired by the Novarc Group and joined their Electrical Safety Products division (ESP).

With values aligned to those of PENTA P&B, Novarc / ESP saw a great opportunity to put PENTA P&B on a new and dynamic growth path by being able to bring a broader product range to the UK market. This short form catalogue will hopefully give you an insight into what PENTA P&B can now offer, and I would encourage you to explore this further via our website.

On behalf of our entire team, we thank you for the confidence you have shown in us and continue to do so on a daily basis.

Mike Credicott



Our Brands



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THREE PHASE KIT WITH REFLECT CABLE

THREE PHASE EARTH KIT
WITH REFLECT CABLE

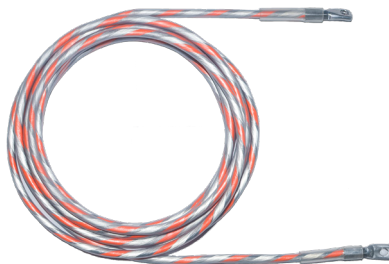
Distribution Line Earthing kits can be fully customised depending upon requirements. Illustrated is a typical standard kit for reference, please contact us with your specific requirement.

- 3 x S9B Short Taper Line End Clamp
- 3 x 3m Long Reflect 120 sqmm Aluflex Leads
- 1 x Type A Terminal Plate
- 1 x 15m Long Reflect 50 sqmm Aluflex Lead
- 1 x S9A Short Handle Earth End Clamp
- 1 x PVC Carrying Bag
- 1 x 1.22m (4') Top Section Pole
- 1 x 1.22m (4') Bottom Section Pole
- 1 x P331 Socket
- 1 x Earth Rod



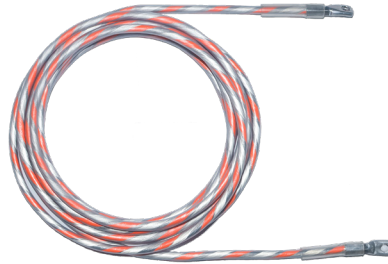
Short Circuit Rating: 20kA/1s
(Phase to Phase)

50 sqmm REFLECT
ALUFLEX CABLE



Short Circuit Rating: 8.9kA/1s
Cont. Current Rating: 150A
Weight per m: 0.19kg
Part Number: EBL-19133

120 sqmm REFLECT
ALUFLEX CABLE



Short Circuit Rating: 20kA/1s
Cont. Current Rating: 300A
Weight per m: 0.45kg
Part Number: EBL-19137

P&B LV EARTHING KIT

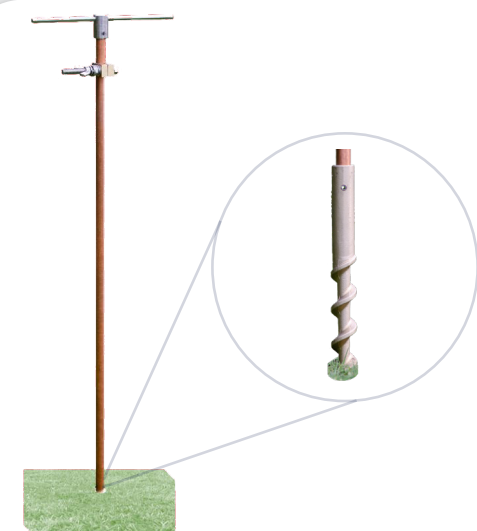
The PENTA P&B LV kit can be applied by hand using the S9B Long Handle Clamps. The LV kit can be provided with up to 5 clamps (3- Phases, 1- Neutral and 1- Earth) and supplied with a heavy-duty pvc carry bag to protect the equipment when transporting. The length of the 50sqmm leads is usually 1.5m, although these can be made to any lengths/colour depending upon requirements.



SCREW TYPE EARTH ROD

The 1.5m Screw Type Earth Rod x 17.2mm diameter copper-clad steel core, with stainless steel sliding tommy bar for screwing into the ground. A bronze screw profile casting is rigidly fixed to the earth rod for strength and provides an excellent conductive path to Earth. Earth rods come pre-fitted with split connectors, and two variants are available:

- Single split connector for nest applications
- Double split connectors to allow daisy-chaining



EARTH SPIKE

Steel welded construction and galvanised finish.

Weight: 3.8kg



CE80 LINK BOX SHORT TERM TEMPORARY EARTH KIT

The PENTA P&B CE80 Link Box Earthing Kit comprises four off CE80 sprung loaded insulated bronze clamps connected by flexible copper stranded cables. To be used upon a Link Box for temporary earthing whilst the main earthing kit is applied.



Current Rating: 150A/5mins
Short Circuit Rating: 4.9kA/ 1s
Insulating Rating: Typically 2kV/ 1min

CE78/A LINK BOX TEMPORARY EARTH KIT

The CE78/A Link Box Earthing Kit is used upon underground Earth Link boxes (modern metric-type). The kit is denoted by black handles and M12 threaded aluminium clamps and supplied with an aluminium temporary junction plate in a yellow fabric reinforced PVC carrying bag for easy and safe handling.

Current Rating: 150A
Short Circuit Rating: 7.9kA/ 1sec
Insulating Rating: Typically 2kV/ 1min



CE78/C LINK BOX TEMPORARY EARTH KIT

For use on traditional underground 'Diving Bell Style' imperial link boxes. The kit is denoted by red handles and 1/2" BSW threaded copper clamps. Supplied with a temporary copper junction plate in a fluorescent orange reinforced PVC carry bag for easy and safe handling.



Current Rating: 150A
Short Circuit Rating: 8.0kA/ 1sec
Insulating Rating: Typically 2kV/ 1min

A retro-fit option to allow earth potential to be maintained for the whole vehicle from Earth Tape or Earth Spike. Traditionally Mobile Elevated Work Platforms (MEWP) are integrally earthed for Electrical Supply Industry applications, however it is simple to retro-fit existing units with an external system to allow their continued use or to convert a stock MEWP for specialist applications.



During Day



During Night



Utilising Reflect cable to ensure high visibility on-site at day or night to ensure cables are kept free from obstructions.



Pan handles are supplied to allow simple modification of the chassis and platform areas for fitting of earth leads as required as well as a vehicle earth to connect to Earth.

CONTACT US FOR MORE INFORMATION

DOUBLE DISCHARGE ROD

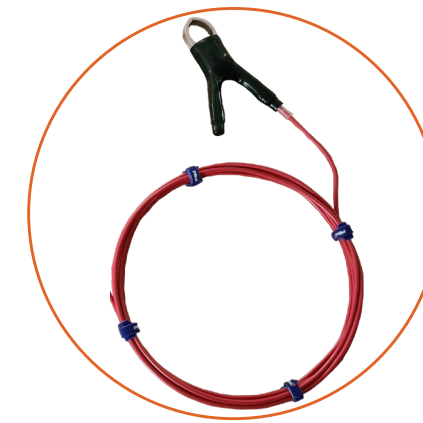
For the safe discharging of capacitor units with two bushings according to NSI 11. Having a common clip-on earth end clamp and two insulated crook ends to discharge both termination bushings simultaneously.



Lightweight and Simple to Use



Conductive "Crook" End for Discharge



Insulated Spring Loaded Earth End Clamp



INSULATOR CLEANING BRUSH

The Insulator Cleaning Brush is designed to easily remove grime and particulates from the surface of polymeric and porcelain insulators.



Benefits:

It helps insulators to maintain their insulated rating.

Fits onto standard insulated operating poles.

Quick and simple to use without the need to access platforms as work can be carried out from the ground.

Spring-loaded application with replaceable nylon brushes.

CE90 HORIZONTAL CROSS OVER LINK KIT

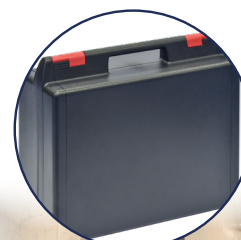
A horizontal link for use within a distribution cabinet where the fuse has been removed during scheduled maintenance. Having a fully insulated clear cover to allow clear vision and aid correct fitment before securing using the insulated knobs.



**NON-CONDUCTIVE HANDLE
AND LOCKING SCREWS**



**ACRYLIC SHROUD
FOR IMPROVED VISIBILITY
TO AID FITTING**



**PROTECTIVE CASE
FOR TRANSPORTATION**



ALADIN PERSONAL ALARM

ALADIN is designed to provide an extra safety level for workers operating near energised equipment (during maintenance, rescue operations, painting, pruning etc.) in electrical environments. This device acts as a personal voltage alarm with a built-in headlight.

ALADIN PERSONAL ALARM 2kV - 400kV



PART NUMBER: FE-ALADINCEFC

ALADIN PERSONAL ALARM 50kV - 400kV



PART NUMBER: FE-ALADINHVCEFC

ALADIN PERSONAL ALARM 10kV - 69kV



PART NUMBER: FE-ALADINMVOHCEFC

PENTA-POLE INSULATING STICK

Telescopic insulating stick with a pentagonal shape

- Operation of disconnect switches
- Use with voltage detectors
- Application of LV/ MV earthing devices
- Maintenance work (tree trimming, conductor cleaning)

Telescopic insulating stick comprised of:

- 2 to 8 pentagonal shaped tubes compliant with standards IEC 62193 and ASTM F1826
- 1 foam-cored upper tube, 28 mm in diameter compliant with standards IEC 608551 and ASTM F711
- 1 base to protect the end of the stick
- 1 universal end fitting to fix multiple accessories and adapters
- 1 operating hook



**ERGONOMICALLY
DESIGNED GRIP**



**UNRIVALLED
LIGHTWEIGHT**



**EXCEPTIONAL
RIGIDITY**

ONE MAN OPERATION

MTag VOLTAGE DETECTOR

The MTag voltage detectors are designed to confirm the absence of line voltage, making sure that nominal voltage is absent on a circuit in an MV distribution system between 1kV and 69kV (no-voltage verification).

Specifications

- Permanent standby status with automatic wake up function.
- The presence of voltage within the calibrated range or above is indicated by a RED light and a beeping sound.
- Designed for outdoor and indoor use
Operating temperature : -25° C to 55°C
- Humidity 96 max
- Power supply voltage 9V alkaline cell IEC 6 LR 61
- Dimensions Ø 59 mm, L 280 mm without the contact electrode
- Net weight 0.39 kg with stick adaptor
* Proving unit available separately



Contact us for live video or onsite demonstration

HTag VOLTAGE DETECTOR

The HTag voltage detector is designed to check the absence of nominal voltage in a circuit of high voltage and extra-high voltage systems from 50kV to 765kV (Voltage range according to IEC recommendation)

- The HTag detects any nominal voltage on overhead lines or substations.
- The HTag has been developed to satisfy the needs and comments collected from users and experts.

Specifications

- Optimum sound indication clearly audible in all working conditions.
- 100 dB sound signal (from 1 metre)
- Can be heard above traffic noise or strong wind, thanks to natural amplification by an acoustic horn.
- Easy change of the battery on the job, even when working at height.
- Direct access to the battery and sealed electronics compartment.
- Lighting indication is clearly visible in sunlight and fog conditions with a wide visibility angle.



A successful self-test (device ready for use) and the absence of nominal voltage in the calibrated range is indicated by the lighting up of the GREEN light.



The presence of nominal voltage in the calibrated range or higher voltage is indicated with a RED light and simultaneously triggers the sound signal.



IProbe

CABLE CURRENT FLOW METER



The IProbe is designed to quickly locate insulated cables without the need for emergency isolations. Cables are traced through the identification of the nominal frequency of the current flow. It is additionally useful for cable mapping operations.

Operation

- Allows identification in cable trenches or pipes
- Allows you to sample a bundle of cables and to locate the charged cable (s) in particular quickly when observing a scheduled disconnection.

Specifications

- Three sensitivity levels
- Visual and audible indications of the current intensity
- Can be used with headphone (not supplied)
- Network frequency: 50 and 60Hz
- A single probe for any type of cable
- Robust and waterproof storage case supplied for ease of transportation



Daily workwear for electrical workers designed for intensive use.

ARC FLASH

JACKET AND TROUSERS

COVERALL WITH REFLECTIVE TAPES, ATPV 10 CAL/CM², CLASS 1

High collar and double non-metallic zip with flap

50mm reflective tapes on shoulders, elbows and legs

EN 13034
Protection against liquid chemicals

IEC 61 482-2
Protection against thermal effects of an electric arc

EN ISO 11611
Protection against welding and other related applications



Protection against static electricity
EN 1149-5

Protection against Heat and flames
EN ISO 11612

The double non-metallic zip with flap on the entire length of the garment makes it easy for fitting and doffing even over everyday work clothing.

Multiple pockets

Knee pocket

Specifications

- Fabric composition: 79% cotton, 20% polyester, 1% antistatic, 260 g/m²
- Flame resistant and anti-static
- Available colours: orange, blue or grey
- Available in sizes: XS to 3XL

SAFETY EQUIPMENT



EN ISO 20347 / E HRO SRA FO /
EN 50321 Class 0 / ASTM F1117

DIELECTRIC OVERBOOTS

Dielectric overboots provide protection of up to 20kV over the complete boot for up to 3 minutes. To be worn over shoes or boots.

Ideal for personnel who have to enter frequently and exit hazardous areas.

Boot Shaft

- Quick and easy to fit and remove
- REACH Compliant

Boot Sole

- Vulcanised rubber sole for maximum grip
- 2 to 3 times the wear resistance of conventional soles
- Fuel and oil resistant
- Resistance to hot contact 60 seconds at 300°C

E-SHARK HELMET

Helmet : EN 397 / EN 50365 1000 V
Face shield: EN 166 / EN 167 /
EN 168 / EN 170
Helmet and face shield : GS-ET-29

The E-Shark helmet is specifically designed for electrical engineers in all working environments. The integrated face shield provides an optimal protection against arc flash.

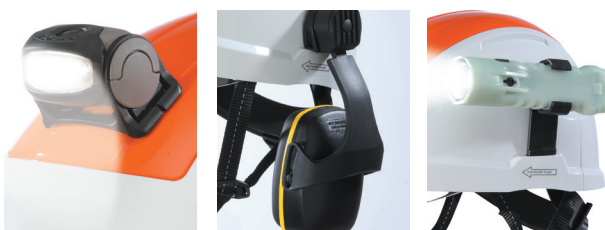
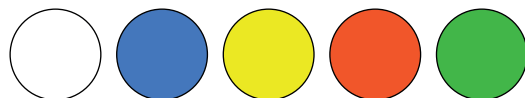
- The screen is ergonomically designed to allow for wearing of glasses
- The crash box absorbs shocks up to 40% of the kinetic energy from an impact to minimise head injury.
- Screen is easy to manipulate with insulated gloves.
- 6-point chinstrap provides an excellent fit for the helmet.
- Automatic buckle on chinstrap for rapid closing and opening.
- Automatic release of the screen by lateral pressure.
- Head size adjustment made by turning the adjustable headband.

Specifications

- Replaceable black textile harness.
- Head size: 53 - 62cm.
- The screen is made from Polycarbonate material
- Thickness : 1.5mm.



* The white E-Shark helmet comes with an integrated face shield and central piece of different colours, which houses attachments and other accessories. Contact us for more details.



ELECTRICAL RESCUE KIT

WALL-MOUNTED RESCUE KIT LV/25 kV/ 36 kV

A kit that is necessary and rapidly accessible with all the essential safety equipment for rescue in the event of an incident with or near low or medium voltage electrical installations.

Compact
Heavy Duty
Case



LV, 25kV & 36kV
Wall-mount Rescue
Kits Available

25kV TYPE KIT



INSULATING RESCUE STICK

The insulating rescue sticks are designed to rescue an injured person close to a voltage source (electric shock or arc flash). These rescue sticks make it possible to pull the injured worker to a safe zone.

Advantages

The rescue sticks are lightweight, portable, and robust, which can be used in a wide temperature range (-25 to 55 °C). In addition, the length of the handle defined by a hand limit mark gives an efficient and comfortable grip.



NEVER TRY TO REMOVE
A VICTIM WITHOUT
APPROPRIATE EQUIPMENT

REMOVE THE VICTIM (OR
CABLE) WITH A RESCUE KIT

Three types
available 45kV,
90kV and 225kV



INSULATED UNIVERSAL PLIERS

EN 60900 / IEC 60900 / ISO 5743 /
ISO 5744 / ISO 5746

Reinforcements on extremities to protect against shocks. Induction treatment of the cutting edges, allowing an extended life of jaws. Chrome finish for high corrosion protection.

Cutting edge hardening: 60 HRC



INSULATED COMPOSITE CABLE-CUTTING PLIERS

EN 60900 / IEC 60900

These pliers are particularly suited to live work on low-voltage systems in enclosed spaces, where the risk of short circuits can have severe consequences for workers and equipment.



INSULATED ADJUSTABLE SPANNER

EN 60900 / IEC 60900 / ISO 5743 /
ISO 5744 / ISO 5746

Milli-metre graduation on the front finish of the head intended for pre-setting the key without contact with the part. Chrome finish with layer (2Ni + 1Cr) for a perfect chrome adhesion and better corrosion resistance.

These are specially designed for electrical engineers.



AND MANY MORE

EN 60903 / IEC 60903



INSULATING LATEX GLOVES GLE

- Insulation of hands by class and according to the nominal supply voltage.
- Must be used with a pair of leather over gloves for mechanical protection.
- Wide range of glove sizes available.
- Its ergonomic shape and lightly powdered interior make the glove easy to slip on and off.

INSULATING COMPOSITE GLOVES

EN 60903 / IEC 60903

- Natural latex insulating glove with outside in orange/red elastomer cut edges.
- Special properties (RC category) with mechanical protection.
- The chemical formula of the exterior cladding ensures exceptional grip in a humid environment.
- The outer orange elastomer layer provides excellent mechanical resistance for use without leather over the glove.



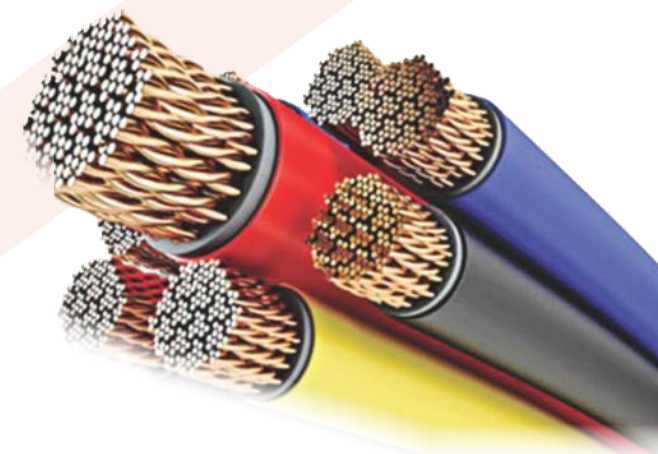
EN 60903 / CEI 60903

ARC FLASH COMPOSITE INSULATING GLOVES

- Composite insulating gloves with dielectric and arc flash protection for working in complete safety without leather protectors.
- 3 protections in 1 glove: dielectric, mechanical and thermal protection.
- Special formula outer coating provides an exceptional grip even in wet conditions.
- Latex glove with a reddish-orange outer coating of unique high-performance elastomer formula, black inner coating, cut edges, length 41 cm.
- Special properties (RC category) with mechanical protection.



For more than 30 years, Alroc has been the leading designer and manufacturer of a range of tools and solution in the cable preparation areas, including LV cable, MV cable, HV cable, optical fibre cable, telecom cable, coaxial cable, gas tube steel, cable holding and hanging solution.



COMPOSITE PLIER FOR LV CABLE

EN 60900:2012 - Approved by ENEDIS



The PG3EC/2020 enables the user to make a circular and longitudinal cut to remove the cable's outer sheath.

Benefits

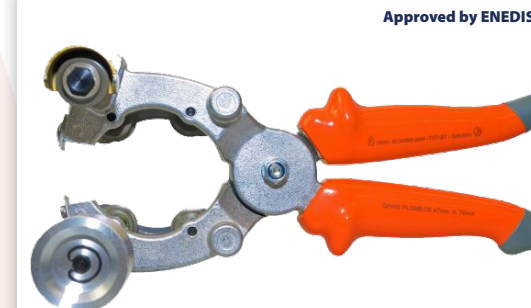
- Made of insulating material
- Safety, light and easy to use

1000V INSULATED PLIERS DEDICATED TO LEAD SHEATH STRIPPING

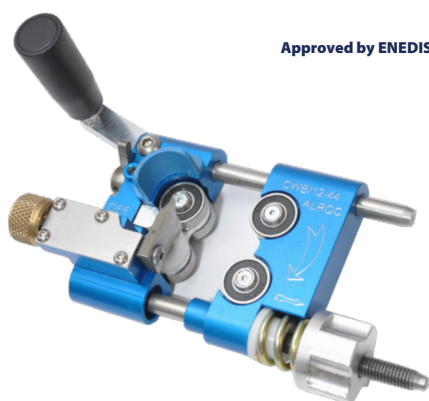
The AGPB4-1000V enables the user to strip the lead sheath on low voltage cables by scoring circularly and longitudinally the lead sheath with preset scoring depth, thus increasing user safety.

Benefits

- Non-cutting blade, unique design to creep in the lead
- 1000V insulation performed on pliers handles by dipping



Approved by ENEDIS



Approved by ENEDIS

TOOL TO REMOVE BONDED SEMICONDUCTOR WITH CHAMFER

The CWB/12-44 enables the user to remove the bonded semicon with a chamfer on the semiconductor cutback.

Benefits

- No silicon needed
- Fine-tuning of the blade with a 'click' for each 1/10 mm
- Low roughness over insulation
- No Clamp stopper needed

MULTIFUNCTION TOOL

FOR OUTER SHEATH, PEELABLE SEMICONDUCTOR AND INSULATION

The MF3/60 tools enable users to:

1. Remove the outer sheath (PE-PVC-PR) with a straight and neat cut.
2. Score the peelable semiconductor (with the SR scoring stylus delivered with the tool).
3. Set the length to be removed and remove the insulation with a straight and neat cut.

Benefits

- Tuning of the pitch of the tool



Approved by ENEDIS

ORACL TOOL TO PERFORM CONTROLLED LONGITUDINAL SCORING ON PEELABLE SEMICONDUCTOR

The ORACL enables the user to score longitudinally the peelable semiconductive layer to peel off the layer by hand. Adjustable scoring depths (0.4 / 0.6 / 0.9 / 1.1 mm).

Benefits

- 4 adjustable scoring depth
- Easy catch of the semicon
- Lightweight



Approved by ENEDIS

AND MANY MORE

CONTACT US FOR MORE INFORMATION

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NF EN 361: 2002 /
NF EN 358: 2000

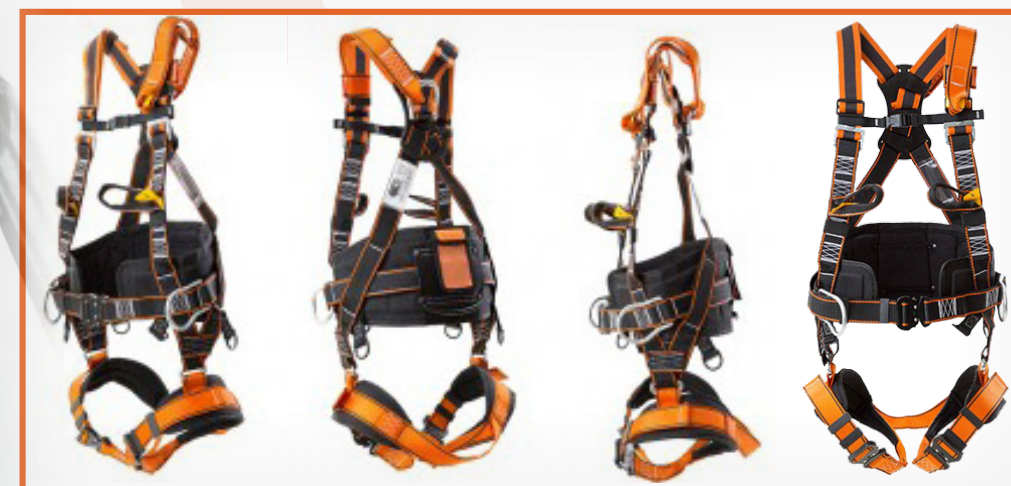
180 ° FALL ARREST HARNESS FOR ELECTRICIAN WORK

Harness with three fall arrest attachment points (two dorsal and one sternal) incorporating a work positioning belt with 180 ° rotation and two side attachment points.

A first dorsal attachment point with a metal thimble and a second dorsal point with a strap extension (to be used exclusively to facilitate connection to an EN 360 automatic retractable fall arrester). Sternal attachment by two webbing loops to join. Straps adjustment by metal buckles. Adjustment and closure of the belt and thigh loops by an automatic metal buckle.

Bavarian strap with adjustment and automatic plastic buckle closure. Four plastic accessory holders at the waist and a transparent pocket. Harness delivered in plastic packaging.

Personal protective equipment against falls from height.
A fall arrest harness suitable for electrical workers.



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FLEXIBLE TINNED COPPER EARTH BRAIDS



Manufactured from flat tinned Copper Braided Mesh (strands of 15/100 or 20/100mm) with crimped and punched tinned copper connectors at both ends.

Within a short lead-time, Maltep can manufacture on-demand flexible tinned copper earth braids according to your own drawings and specification, with a cross section ranging from 6 to 240mm² and more.

COPPER ALUMINIUM COMPRESSION LUGS

Copper/Aluminium compression lugs with long barrel connector

Manufactured according to NFC33-090-1 and according to EDF HN.68.S.90.

Material: barrel in aluminium (1050A) and terminals in copper (CuA1).

Welded by friction and tested one by one.



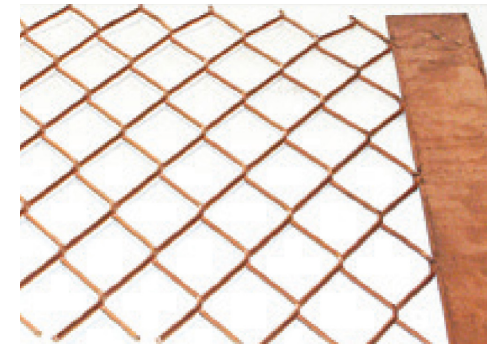
EXOTHERMIC WELDING

Fireproof leather gloves with sleeves.

Protective facial screen.



COPPER EARTH GRIDS AND PLATES



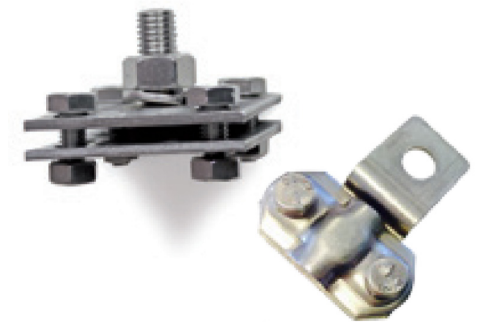
Copper earth grid with connecting band. Manufactured with pure electrolytic copper. Full band on the length to ease connection.

FIXED EARTH TERMINALS CLAMPS

Clamp for tape conductor to fixed earth terminal

Stainless steel clamp for tape conductor with a width of 30mm on fixed earth terminal. Tightening done using 4xM8 stainless steel bolts. On demand : M10 central stud available

A2 stainless steel clamp (also available in A4) for round (dia 8-10mm) and flat (width of 30mm) conductor.



NEW



CRIMPING TOOLS

Crimping tool for MALTEP's lugs and compression sleeves Crimp our products with our range of efficient and portable crimping tools



Meet our team



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Handwriting practice area with 20 horizontal dotted lines.



**Your life,
Our work.**

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