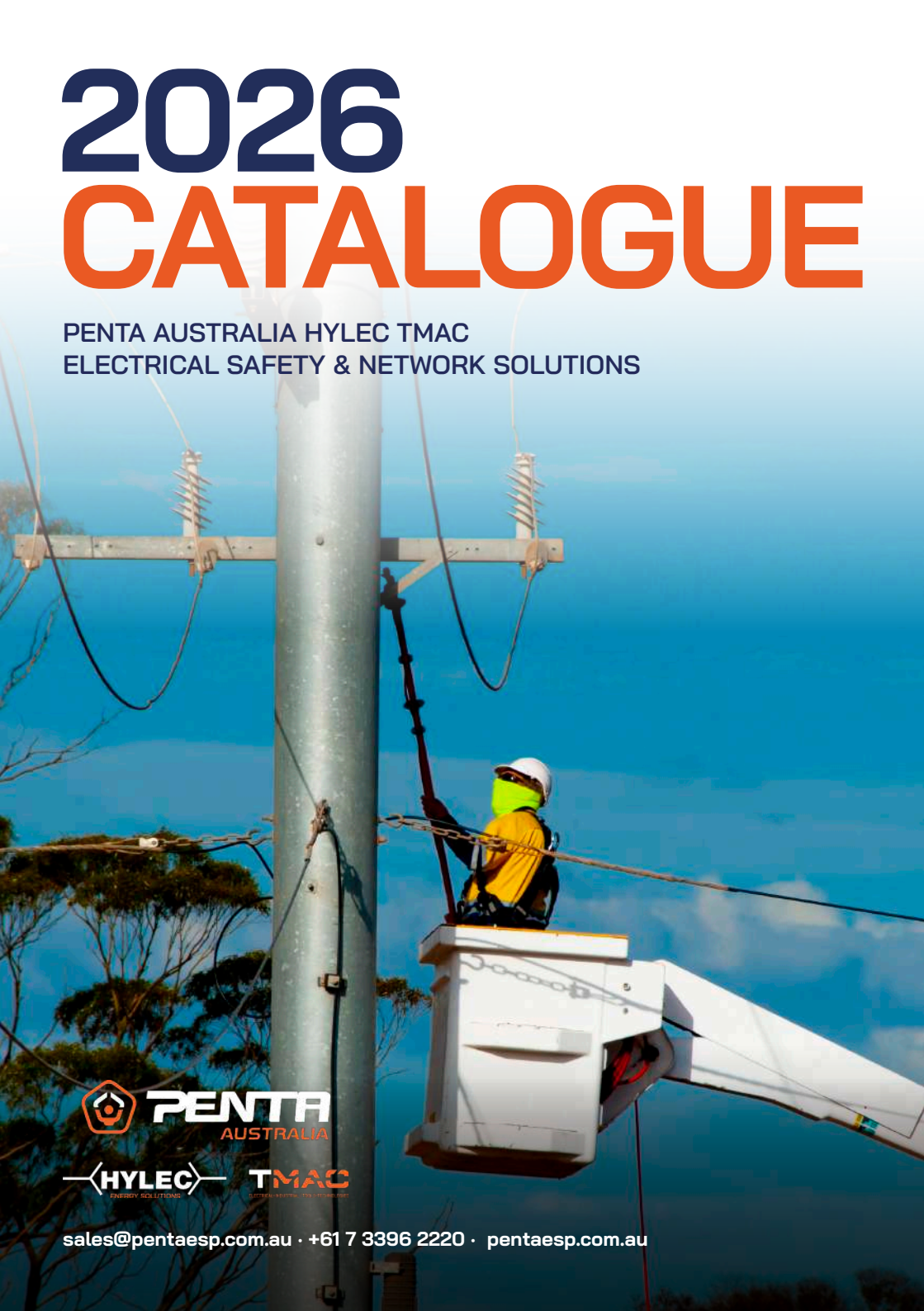
2026 CATALOGUE

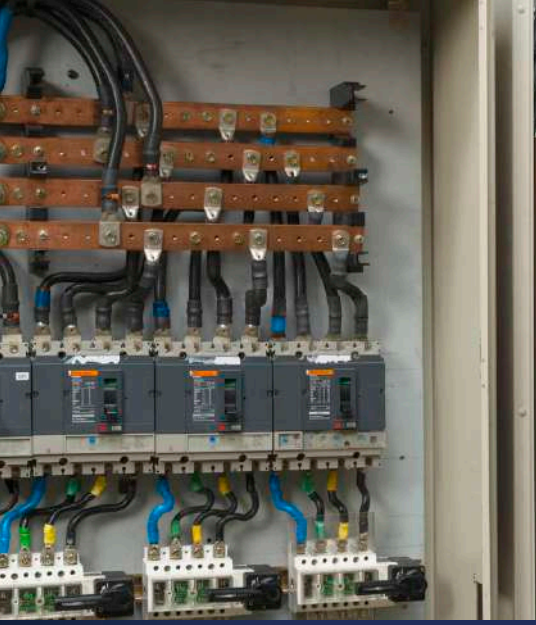
PENTA AUSTRALIA HYLEC TMAC
ELECTRICAL SAFETY & NETWORK SOLUTIONS



PENTA AUSTRALIA
HYLEC ENERGY SOLUTIONS
TMAC

sales@pentaesp.com.au · +61 7 3396 2220 · pentaesp.com.au







All Things Electrical Safety, All In One Place.

At PENTA Australia HYLEC TMAC, our mission is to support the people who build, maintain, and power Australia's electrical networks with solutions that prioritise safety, reliability, and performance.

This catalogue presents a selection of the tools, equipment, and engineered solutions we provide to utilities, contractors, and industry professionals across the country. From live working equipment and portable earthing devices to insulated tools, PPE, and network construction hardware, each product is designed with real field conditions in mind.

Formed from the union of Hylec Energy Solutions and Thew & McCann (TMAC Group), PENTA Australia HYLEC TMAC combines decades of local expertise with the global strength of the PENTA ESP and NOVARC network. This connection allows us to bring leading innovations to the Australian market while maintaining strong local engineering and support.

Thank you for your continued trust in PENTA Australia HYLEC TMAC.

PENTA AUSTRALIA

HYLEC ENERGY SOLUTIONS TMAC

Table of Contents

PROTECT 03


HAND PROTECTION 04


ARC FLASH PROTECTION 12


RESCUE EQUIPMENT 17

LIVE WORKING 19


INSULATED HAND TOOLS 20


INTRINSIC ANTI-SPARK TOOLS 32


INSULATED MATS & OTHER INSULATED TOOLS 34

SECURE 38


HOT STICK & ACCESSORIES 39


VOLTAGE DETECTORS 49


CABLE IDENTIFICATION & PHASING 57


PORTABLE EARTHING 62

SECURE 38


CABLE CUTTING & CRIMPING TOOLS 70

WORK 74


CABLE PREPARATION TOOLS 75

NETWORK CONSTRUCTION 84


OVERHEAD LINE & PROTECTION 85


BUILDING EQUIPMENT 90


INSULATORS & WILDLIFE DETERRENTS 91

LINDSEY USA PRODUCTS 93


JEAN MÜLLER PRODUCTS 97

TEST & MEASUREMENT 102


DIAGNOSTIC INSTRUMENTS 103


TEST LEADS & ACCESSORIES 106



PROTECT

When working near live electrical hazards, protection is non-negotiable. Our PROTECT range brings together insulating gloves, arc-rated PPE apparel, and electric rescue equipment designed to safeguard personnel in low and high voltage environments, ensuring compliance, confidence, and safety when it matters most.

HAND PROTECTION

RESCUE EQUIPMENT

ARC FLASH PROTECTION

HAND
PROTECTION

DISCOVER OUR RANGE OF **RUBBER INSULATING & SAFETY GLOVES**

Our range of rubber insulating gloves and safety gloves is produced in ISO 9001:2015 certified facilities, ensuring consistent control across every stage of production. This delivers dependable quality, safety, and reliability you can trust in every pair.

/GENERAL INFORMATION

According to applicable standards EN 60903 and IEC 60903.

Class	Alternating Current	Direct Current
00	500 V	750 V
0	1000 V	1500 V
1	7500 V	11250 V
2	17000 V	25500 V
3	26500 V	39750 V
4	36000 V	54000 V

/NORMATIVE MARKINGS

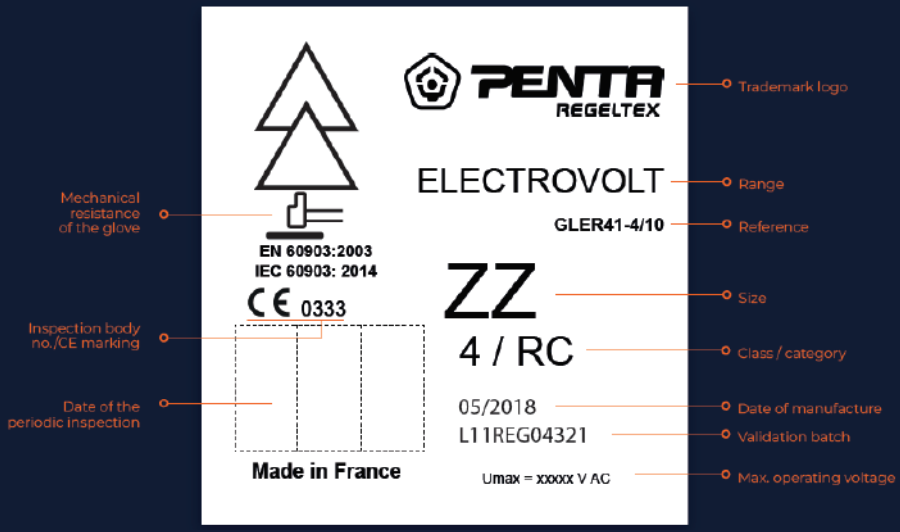
Below are the pictograms used to identify a gloves' category:

Catagory	Resists
A	Acid
H	Oil
Z	Ozone
R	Acid, Oil, Ozone
	Mechanical Protection
C	Very Low Temperature
F	Leakage Current

Note 1: The R category combines the characteristics of categories A, H and Z.

Note 2: Any combination of categories may be used.

/SAMPLE LEGEND







/ TOUCH-E GLOVES

Second-skin fit.
Maximum dexterity.
Unmatched sensitivity.



MADE IN FRANCE

WHAT SETS IT APART

- **30% thinner than traditional gloves**
- Class 0 1000V AC / 1500 VC protection for high voltage vehicles
- Ergonomically designed to follow the natural shape of the hand at rest, reducing fatigue, ensuring excellent dexterity, and providing a secure grip on tools and small parts.

3-IN-1 PROTECTION



Electrical Hazard	Mechanical Hazard	Arc Flash Hazard
EN 60 903 Class 0	EN 388: abrasion 2, cut 1, tear 2, puncture 1	IEC 61 482-1-2 Class 1-4KA

Reference	Size	Class	Cal Rating	Max Operating Voltage	Length
PA22974	7	0	12 cal/cm²	1000 V AC / 1500 V DC	36 cm
PA22975	8				
PA22976	9				
PA22977	10				
PA22978	11				

Recommended size	7	8	9	10	11
Hand outline (cm)	16cm	18cm	21cm	24cm	26cm



ESSENTIAL ACCESSORY

/ EOS PNEUMATIC GLOVES TESTER

The EOS Pneumatic Gloves Tester inflates gloves to easily detect defects such as holes, cuts, burns, stains, or deformations that may affect insulation. For Class 00 and 0 gloves, air leakage and visual checks may suffice for periodic inspection.

/ TECHNICAL SPECIFICATIONS

- Anti-UV treated ABS material body
- Bellows in NBR
- Depressurization button: For a controlled deflation
- Removable ring Ø 100mm, 130mm or 150mm in EPDM
- Delivered with fabric bag in cardboard box 210 x 160 x 160 mm.

VIEW PRODUCT DEMO

/ GLB/GLN ELECTROVOLT NATURAL RUBBER INSULATING GLOVES

EN 60903 / IEC 60903



WHAT SETS IT APART

- Wide voltage range: Tailors to different energised environments
- Smooth latex finish, ergonomic fit: Easy to don, easy to remove. Comfortable and secure.
- Complies with top safety standards: CE Category 3 safety
- Compatible padding: Supports pairing with under gloves and leather protectors

/ USE

- Hand insulation according to class and nominal mains voltage.
- To be used with a leather overglove for mechanical protection.

/ TECHNICAL SPECIFICATIONS

- Natural rubber gloves beige, insulating, cut edges.

Sizes Available	Class	Max Operating Voltage	Length	Category
6-12	00	500 V AC	36 cm	AZC*
7-12	0	1000 V AC	36 cm	AZC*
7-12	1	7500 V AC	41 cm	RC
8-12	2	1700 V AC	41 cm	RC
8-12	3	26500 V AC	41 cm	RC
8-12	4	36000 V AC	41 cm	RC

Complete the reference with the desired size.
* RC available on request.

ESSENTIAL ACCESSORY



VIEW PRODUCT DEMO

/ GST Single Glove Stick Tester

Durable PENTA Glove Stick Tester designed for fast, reliable daily air inspections of rubber insulating gloves, supporting compliance and improving electrical safety for field and industrial workers.

/ TECHNICAL SPECIFICATIONS

- Made in Australia
- Material: Plastic
- Hand orientation: Ambidextrous
- Product length: 30 cm

Stock code:

- PA21794 - HV Glove Stick Tester
- PA20462 - LV Glove Stick Tester

/ GCA AFG COMPOSITE
INSULATING GLOVES WITH ARC FLASH PROTECTION



EN 60903 / IEC 60903 TEST REPORT REGARDING IEC 61482-1-2
(CLASS 2 / 7kA – 0.5 SEC) TEST REPORT REGARDING ASTM F2675

WHAT SETS IT APART

- 3 protections in 1 glove : dielectric, mechanical and thermal protection.
- Special formula outer coating provides an exceptional grip - even in wet conditions.

/ USE

• Composite insulating gloves with dielectric and arc flash protection for working in full safety without leather protectors.

/ TECHNICAL SPECIFICATIONS

• Latex glove with a reddish orange outer coating of special high performance elastomer formula, black inner coating, and cut edges.
• Special properties (RC category) with mechanical protection.
• To reduce the effects of sweating, each pair comes with cotton liners. The liners can be replaced separately, helping to prevent bacteria buildup from residual moisture.

Sizes Available	Class	Max Operating Voltage	Length	Category	IEC 61482-1-2	ARC 4>40 (cal/cm²) ASTM F2675
6-12	00	500 V AC	36 cm	RC	Class 2 (0.5s-7kA)	26.3 cal/cm²
6-12	0	1,000 V AC	36 cm	RC	Class 2 (0.5s-7kA)	71.6 cal/cm²
7-12	1	7,500 V AC	41 cm	RC	Class 2 (0.5s-7kA)	42.2 cal/cm²
7-12	2	17,000 V AC	41 cm	RC	Class 2 (0.5s-7kA)	74.5 cal/cm²
8-12	3	26,500 V AC	41 cm	RC	Class 2 (0.5s-7kA)	73.2 cal/cm²
8-12	4	36,000 V AC	41 cm	RC	Class 2 (0.5s-7kA)	87.7 cal/cm²

* Complete the reference with the desired size, example : GCA0-41-10 for a pair of gloves class 0 size 10.

/ ARCSAFE®
FABRIC SWITCHING GLOVES

High-performance arc-flash protective gloves made from etek™ NXT™ and T-Gard™ III Plus fabric system, delivering arc flash protection with superior comfort, dexterity, and durability for electrical switching and maintainance work.

Range	PPE Cat	Arc Rating (cal/cm²)	Available Sizes
T9	PPE 2	9 cal/cm²	S, M, L, XL
T40	PPE 4	40 cal/cm²	S, M, L, XL
X50	PPE 4	52 cal/cm²	S, M, L, XL



WHAT SETS IT APART

- Dual-layer construction for maximum thermal insulation and comfort.
- Moisture-wicking and breathable for hot-climate performance.
- Ergonomic design ensures dexterity and a secure grip.



/ ACTIVARMR®
LV INSULATING RUBBER GLOVES



ActivArmr® LV Rubber Insulating Gloves provide utility-grade electrical protection with supple natural latex for high dexterity and control.

Class	Class 00	Class 0	
Colour	Red	Yellow	Yellow
Cuff Style	Straight		
AC Voltage	500V	1,000V	
DC Voltage	750V	1,500V	
Available Sizes	7-11 with half-sizes		
Glove Length	280mm	280mm	360mm
Pair With	Standard or Arc-Rated Leather Glove Protectors Same Size		

ACTIVARMR® CUFF STYLES GUIDE



CONTOUR



BELL



STRAIGHT



Class	Class 1	Class 2		
Colour	Black Outer / Yellow Inner			
Cuff Style	Straight	Straight	Bell	Contour
AC Voltage	7.5 kV	17kV		
DC Voltage	11.25kV	25.5kV		
Available Sizes	8-11 with half-sizes			
Glove Length	360mm	410mm	460mm	
Pair With	Standard or Arc-Rated Leather Glove Protectors Same Size			

/ ACTIVARMR®
HV INSULATING RUBBER GLOVES

ActivArmr® HV Rubber Insulating Gloves deliver extra high-voltage protection with supple natural latex and exceptional dielectric strength.

Class	Class 3		Class 4
Colour	Red		Yellow
Cuff Style	Straight	Bell	Contour
AC Voltage	26.5kV		36kV
DC Voltage	39.75kV		54kV
Available Sizes	8-11 with half-sizes		9-11 with half-sizes
Glove Length	410mm	460mm	460mm
Pair With	Standard or Arc-Rated Leather Glove Protectors Same Size		

/ OTHER **GLOVES & ACCESSORIES**



COTTON INNER GLOVES FINGERLESS



COTTON INNER GLOVES FULL FINGER



LV GLOVE PROTECTOR GOATSKIN LEATHER



HV LEATHER GLOVE PROTECTOR



LV GLOVE PROTECTOR GOATHIDE 999 SERIES 23 CAL/CM²



HV GLOVE PROTECTOR GOATSKIN 1050 SERIES 38 CAL/CM²



ARC FLASH AND CUT PROTECTIVE GLOVE 80-813



MADE IN AUSTRALIA

GLOVE CARRY BAGS VINYL / FABRIC



GLOVE STORAGE BOX - PLASTIC



REGELTEX RUBBER CLEANER SPRAY



TALCUM POWDER

/ FINDING YOUR GLOVE SIZE

Step 1: Wrap the tape around your hand above the V of your thumb. The result in centimetres is your hand circumference.



Step 2: Use the guide below to match your measurement to the correct glove size. Consider some allowance. For example, if your hand measures 26 cm in circumference, choose the next size up, which is size 11.

ACTIVARMR GLOVES

Circumference	Glove Size
17.8cm	7
20.3cm	8
21.6cm	8.5
22.9cm	9
24.1cm	9.5
25.4cm	10
26.7cm	10.5
27.9cm	11

Note: Allow an extra half inch if you plan to use cotten inners. Tolerance = +/-13mm

GLE/GLB, GLN, TOUCH-E, AFG/GCA GLOVES

Circumference	Glove Size
17.8cm	7
20.3cm	8
22.9cm	9
25.4cm	10
27.9cm	11
30.4cm	12

Note: Allow an extra half inch if you plan to use cotten inners.

/ SERVICES AVAILABLE



TESTING & RECERTIFICATION

Compliant testing and recertification of insulating gloves to applicable IEC and ASTM standards, ensuring ongoing safety, traceability, and regulatory compliance across Australian worksites.



CUSTOMISED & BRANDED KITS

Custom-built safety and tool kits configured to your network requirements, with tailored component selection and optional company branding for a professional, site-ready solution.

ARC FLASH
PROTECTION

PROTECTION
AGAINST ARC FLASH

/ WHAT IS ARC FLASH?

An arc flash is a sudden, very intense release of electrical energy through the air when electricity jumps between conductors or from a conductor to the ground.

- It produces intense light, heat, and pressure
- It can cause burns, fires, equipment damage, or injury

Arc flashes often occur with faulty or energized equipment. Proper PPE and safety procedures are essential.

/ HOW IS ARC FLASH MEASURED?

Thermal energy is what arc flash generates:

- Arc flash energy is measured in calories per cm^2 (cal/cm^2).
- 1 cal/cm^2 is like touching a finger to a lighter flame for one second.
- Just 1-2 cal/cm^2 can cause second-degree burns. Normal work clothes can catch fire at 2 cal/cm^2.

Arc Flash **HRC1** Minimum **PPE 4** of cal	Arc Flash **HRC2** Minimum **PPE 8** of cal	Arc Flash **HRC3** Minimum **PPE 25** of cal	Arc Flash **HRC4** Minimum **PPE 40** of cal
CATEGORY **1** Minimum arc rating **4** cal/cm^2.	**CATEGORY** **2** Minimum arc rating **8** cal/cm^2.	**CATEGORY** **3** Minimum arc rating **25** cal/cm^2.	**CATEGORY** **4** Minimum arc rating **40** **cal/cm^2.**

/ HOW TO CHOOSE YOUR ARC FLASH PPE?

Assess the Risk First

The energy level of each electrical installation should be measured during a risk analysis by authorized personnel. This determines the potential impact of an arc flash.

Select PPE Based on Risk

Once the energy level is known, choose protective equipment that matches the hazard. Arc-rated clothing and other PPE act as a last line of defense, protecting workers from severe injury or death in case of an accident.

Choose the Right Clothing for the Task

Consider the following --

Duration of use:

- Daily Wear: for long-term use
- Switching Wear: for occasional use, with higher protection.

Environment:

- Indoor: standard arc-rated clothing
- Outdoor: may need high-visibility, weather protection, or cold resistance

OUR ARC FLASH CLOTHING & GEAR FEATURES

- TESTED TO INTERNATIONAL & INDEPENDENT STANDARDS
- WIDE RANGE OF APPAREL & GEAR
- INNOVATIVE MATERIALS WITH FOCUS ON COMFORT
- COMPLETE KITS AVAILABLE
- OPTION TO ADD YOUR BRANDING

/ HEAD PROTECTION



ARCSAFE®
T9 Beekeeper Hood
9 cal/cm²
EASCHT9



STANCO
Face Shield
12 cal/cm²
STS1-12-HT



STANCO
Beekeeper Hood
12.4 cal/cm²
TT11712



ARCSAFE®
Face Shield With Bib
14 cal/cm²
FSAMP14BKIT1



STANCO
Face Shield
20 cal/cm²
STS1-20-HT



STANCO
Beekeeper Hood
25 cal/cm²
TT25712



STANDARD
Face Shield
36 cal/cm²
PA22018



ARCSAFE®
T40 Beekeeper Hood
40 cal/cm²
EASCHT40

/ 55 CAL HOOD WITH TRANSVISION AUTO DARKENING SHIELD

Auto-darkening face shield providing instant eye protection and clear vision during electrical switching tasks -rated for CAT 4 arc flash protection up to 55 cal/cm²



WHAT SETS IT APART

- Instant auto-darkening lens protects eyes during arc flash events
- Arc-rated FR-Tex CA 350 textile — highly resistant to heat and ignition
- Lightweight, ergonomic design reduces fatigue during long wear
- Dual compliance: NFPA 70E CAT 4 (55 cal/cm²) and ANSI Z87.1 impact rated



ARCSAFE®
X50 Lift Front Hood
52 cal/cm²
EASCHLFX50



ARCSAFE®
X50 Beekeeper Hood
52 cal/cm²
EASCHX50



PENTA
Premium Balaclava
12.1 / 24.7 cal/cm²
ARCCAG

ARC FLASH
PROTECTION

/ BODY PROTECTION



ARCSAFE®
T9 Leggings
9 cal/cm²
EASCHLT9



STANCO
Leggings
12 cal/cm²
TT1125VC



STANCO
Leggings
25 cal/cm²
TT2525VC17



STANCO
Leggings
40 cal/cm²
TT4025VC17



ARCSAFE®
T40 Leggings
40 cal/cm²
EASCLT40



ARCSAFE®
X50 Leggings
52 cal/cm²
EASCLX50



ARCSAFE®
T9 Bib & Brace Trousers
9 cal/cm²
EASCTT9/T1



STANCO
Bib & Brace Trousers
12 cal/cm²
TT11670



STANCO
Bib & Brace Trousers
25 cal/cm²
TT25670



STANCO
Bib & Brace Trousers
40 cal/cm²
TT40670



ARCSAFE®
T40 Bib & Brace Trousers
40 cal/cm²
EASCTT40/T1



ARCSAFE®
X50 Bib & Brace Trousers
52 cal/cm²
EASCTX50/T1



ARCSAFE® T9 COAT
9cal/cm²
EASCJT9 (short)
EASCCT9 (long)



STANCO COAT
12cal/cm²
TT11635 (short)
TT11650 (long)



STANCO COAT
25cal/cm²
TT25635 (short)
TT25650 (long)



STANCO COAT
40cal/cm²
TT40635 (short)
TT40650 (long)



ARCSAFE® T40 COAT
40 cal/cm²
EASCJT40 (short)
EASCCT40 (long)



ARCSAFE® X50 COAT
52 cal/cm²
EASCJX50 (short)
EASCCX50 (long)



/ ULTRASOFT
12 CAL/CM² COVERALL

Durable flame-resistant coverall providing CAT 2, 12 cal/cm² arc protection.

/ TIPS: CHOOSING YOUR KIT

COAT + LEGGINGS

- Improved airflow and ventilation for greater comfort
- Cooler design suited for hot environments and outdoor worksites
- Ideal for short-duration tasks requiring quick wear and mobility

JACKET + TROUSERS

- Encourages consistent full-kit compliance
- Balanced design provides a good combination of comfort and mobility
- Well suited for extended wear across varied site and weather conditions

/ ARC FLASH PPE KITS



ARCSAFE®
T9 Low Energy Kit
9 cal/cm²
EASKCA20T9



ARCSAFE®
T9 Coat & Leggings Kit
9 cal/cm²
EASKCLT9



ARCSAFE®
T9 Jacket & Trousers Kit
9 cal/cm²
EASKJTT9



STANCO
Coat & Leggings Kit
12 / 25 / 40 cal/cm²
TTEK11/25/40



STANCO
Jacket & Trousers Kit
12 / 25 / 40 cal/cm²
TTK11/25/40



STANCO
Jacket & Trousers Kit with
Ventilated Hood 40 cal/cm²
TTK40VH



ARCSAFE®
T40 Coat & Leggings Kit
40 cal/cm²
EASKCLT40



ARCSAFE®
T40 Jacket & Trousers Kit
40 cal/cm²
EASKJTT40



ARCSAFE®
X50 Coat & Leggings Kit
+ Beekeeper's Hood
52 cal/cm²
EASKCLHSX50



ARCSAFE®
X50 Coat & Leggings Kit
+ Front Lift Hood
52 cal/cm²
EASKCLHLX50



ARCSAFE®
X50 Jacket + Trousers Kit
+ Beekeeper's Hood
52 cal/cm²
EASKJTHSX50



ARCSAFE®
X50 Jacket + Trousers Kit
+ Front Lift Hood
52 cal/cm²
EASKJTHLX50

/ FINDING YOUR PPE SIZE

ARCSAFE® PPE APPAREL

Switching Jackets (90mm length) and Coat (1300mm length)

Size	Chest (cm)	Sleeve (cm)
XS	87	60
S	92	62
M	97	64
L	102	66
XL	107	68
2XL	112	69
3XL	117	70
4XL	122	71

Switching Bib & Brace Trousers

Size	Chest (cm)	Inside Leg(cm)
XS	77	74
S	82	76
M	87	78
L	92	80
XL	97	81
2XL	102	82
3XL	107	83
4XL	112	85

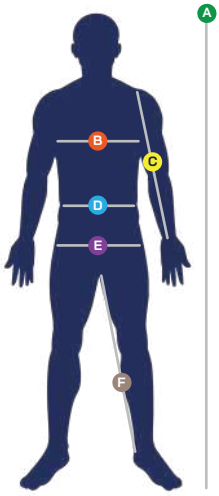
STANCO PPE APPAREL

Coveralls, Bib Overalls, Jackets, Coats

Size	Chest (cm)
S	86 - 91
M	97 - 102
L	107 - 112
XL	117 - 122
2XL	127 - 132 137
3XL	- 142
4XL	147 - 152
5XL	158 - 163

Coveralls, Bib Overalls

Size	Height
Short	5'6" & under
Regular	5'6 - 6'0"
Tall	6'1" - 6'3"



A **Height:** Measure from the top of your head to the ground without shoes.

B **Chest:** Measure under the arms and around the fullest part of the chest and over the shoulder blades.

C **Sleeve:** Measure from the point of the shoulder to wrist.

D **Waist:** Measure around the waist with a comfortable fit.

E **Hip:** Measure around the hip with a comfortable fit.

F **Inside Leg:** Measure from the crutch to the top of the heel.

/ SERVICES AVAILABLE



TESTING & RECERTIFICATION

Inspection, testing, and recertification of electrical PPE to IEC and ASTM standards, ensuring compliance, safety integrity, and traceability across Australian worksites.



CUSTOMISED & BRANDED KITS

Tailored PPE kits configured to your operational and site requirements, with optional custom branding for a professional, compliant, and deployment-ready safety solution.

/ LOW VOLTAGE (LV) RESCUE KIT



/ USE

Portable rescue kit designed for safe retrieval and first aid of personnel in low-voltage (LV) environments up to 1000 V. Ideal for use in switchboards, substations, and industrial electrical installations.

/ TECHNICAL SPECIFICATIONS

Kit includes:

- Class 0 Gloves to IEC 60903
- Insulated LV rescue hook
- Waterproof Torch LED (with battery)
- Multi-trauma dressing
- Fire blanket 1800 x 1200 mm to AS 3504
- Isolation sign

Stock Code: PA11732

Also available with Test Certificate at an extra cost

NOTE: There is no Australian Standard which specifically covers rescue kits. Refer to the ENA guidelines "National guideline for management of tools and equipment used in the electricity supply industry" for further information.

/ HIGH VOLTAGE (HV) RESCUE KIT

/ USE

Comprehensive high voltage rescue kit designed for safe recovery and first aid of personnel in HV environments.
Suitable for use in substations and industrial electrical switchboards.

/ TECHNICAL SPECIFICATIONS

Kit includes:

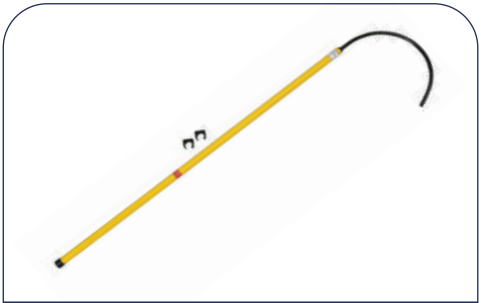
- Waterproof Torch LED (with battery)
- Isolation sign
- Multi-trauma dressing
- Class 2 Gloves to IEC 60903
- Fire blanket 1800 mm x 1200 mm to AS3504
- Insulated HV Rescue Hook

Stock Code: PA11734

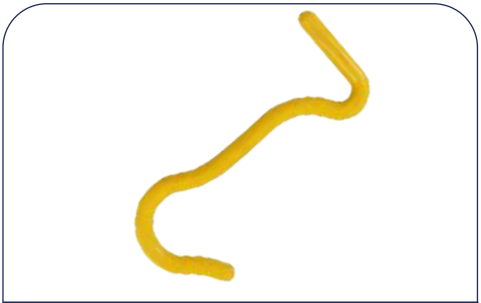


NOTE: There is no Australian Standard which specifically covers rescue kits. Refer to the ENA guidelines "National guideline for management of tools and equipment used in the electricity supply industry" for further information.

/ OTHER **RESCUE EQUIPMENT**



HV RESCUE HOOK
Insulated high-voltage rescue hooks rated for 45kV (1.5m) and 90kV (2m) applications.



LV RESCUE HOOK
Injection-moulded rescue hook for emergency retrieval in low-voltage environments.



TBOB DIELECTRIC RUBBER OVERBOOTS
Insulating overboots for live work up to 7.5 kV (tested to 20 kV).



INSULATED CABLE CUTTER 36KV
High-voltage insulated cable cutter rated to 36kV for live work.



FIRE BLANKET 1.2×1.8M
AS 3504 compliant 1.2 × 1.8 m fire blanket for small fires.



LIVE WORKING

When the network stays energised, the tools in your hands matter most. Our LIVE WORKING range combines insulated hand tools, specialised insulated equipment, and intrinsic anti-spark tools engineered for safe, controlled performance on or near live systems. Built to meet stringent standards and real-world field demands, they deliver the precision, durability, and confidence live-line work requires.

- INSULATED HAND TOOLS
- INSULATED MATS & OTHER INSULATED TOOLS
- INTRINSIC ANTI-SPARK TOOLS

MADE IN FRANCE

1000 V INSULATED HAND TOOLS **FOR ELECTRICIANS**

For over 60 years, Sibille Outillage has provided electricians worldwide with high-quality tools designed to meet the specific demands of the electrical industry. The company holds ISO 9001 and ISO 14001 certifications.

Every unit is successfully tested to meet the rigorous compliance standards of IEC 60900 and NF EN 60900.

/ IMPACT TEST AT AMBIENT AND LOW TEMPERATURE 23°C / -25°C

Simulates the energy of a tool dropped from 2 m (ambient) or 0.6 m (low temperature) onto a hard surface.
The test is passed if the insulating layer shows no breaks, tears, or cracks.

/ DIELECTRIC TEST

After 24 hours of water immersion at ambient temperature and subsequent drying, a 10 kV test is applied for 3 minutes between the conductive and insulated parts. The stray current must remain below 1 mA per 200 mm of coating.
The test is passed if the insulating layer shows no breaks, tears, or cracks.

/ INSULATED COATING ADHERENCE TEST

After 168 hours of conditioning at 70°C, a 500 N weight is applied to the pliers for 3 minutes to test the adhesion of the insulated steel parts.
The test is passed if no detachment or tearing of the insulating material occurs.

/ PENETRATION TEST

After 2 hours of conditioning at 70°C, a 20 N weight is applied to the most vulnerable part of the tool, followed by a 5 kV tension test for 3 minutes.
The test is passed if no perforation, energizing, or flashover occurs.

/ SERIES INDIVIDUAL TEST

Each tool is individually tested at 10 kV for 10 seconds and undergoes a 100% visual inspection.
A 100% visual test is carried out.

/ NON-PROPAGATION OF FLAME TEST

The tool is exposed to a flame for 10 seconds, followed by a 20-second observation period.
The flame must not spread during this time.

/ MECHANICAL TESTS

Checking of the tools mechanical characteristics according to ISO standards or others standards specified by the manufacturer.

/ MARKING CLOTHING TESTS

Tools should be wiped for 15 seconds with a watersoaked cloth and then for 15 seconds again with an ethyl alcohol-soaked cloth. After these procedures, the marking must remain legible.

/ DIMENSIONAL INSPECTION

Make sure that the tool meets the dimensions specified by the standard or manufacturer.

/ **MS8** 1000V INSULATED SLIP-JOINT ADJUSTABLE PLIERS

EN 60900 / IEC 60900 / ISO 8976 / ISO 5744



/ USE

Used to grip, bend, and cut components safely during live electrical work.

/ TECHNICAL SPECIFICATIONS

- Machined notch for added stability
- Slim head for improved access
- Reinforced insulated arm ends for impact resistance
- High-performance chromium-vanadium steel for long service life
- Parallel jaws at all openings
- Made in France

Stock Code	Part No.	Weight	Length	Max Opening
PA23230	MS8250	400g	250mm	45mm
PA23231	MS8310	670g	310mm	58mm
Upon Request	MS8205	230g	205mm	32mm

WHAT SETS IT APART

Parallel jaws at all openings for a consistent, secure grip.

/ **MS100N1** 1000V INSULATED TORQUE WRENCH

EN 60900 / IEC 60900 / ASTM F1505

/ USE

Delivers precise, reversible torque control with push-release safety, built for demanding electrical applications.

/ TECHNICAL SPECIFICATIONS

- Directional change by inverting the toothed wheel on the tool head
- Torque adjustment via pivoting handle
- Automatic trip and reset when the set torque is reached
- Marked with individual serial number for traceability and supplied with calibration certificate
- Made in France



Stock Code	Capacity	Size
PA23097	8-54Nm	3/8 inch

WHAT SETS IT APART

Unique push-release mechanism for superior safety and control.

ANATOMY OF OUR 1000 V HAND TOOLS

When the orange layer is damaged and the inner layer is visible, there is a hazard.



SPECIAL STEEL ALLOYS
High-quality steel with chrome-vanadium treatment ensures exceptional hardness, durability, and resistance to mechanical stress.

TOOL HEAD WITH CHROME OR BLACK FINISH
For optimal anti-corrosion resistance.

LARGE HAND GUARDS
Very strong, insulating material to avoid slipping towards conductive parts.

Unbreakable and non-removable, it's directly moulded on the tool to insulate it fully and permanently.
RUGGED INSULATING LAYER

ORANGE EXTERNAL INSULATING LAYER
It's non-removable, impact-resistant and non-flammable. It offers a good grip even while wearing insulating gloves.

Multi-layer PVC protects against impact, while reinforced handle ends prevent weak points.
REINFORCED HANDLE ENDS

PENTA RECOMMENDS

/ **MS4** 1000 V INSULATED UNIVERSAL PLIERS

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



/ USE
Multi-purpose pliers (clamping, bending, cutting

Stock Code	Length	Weight
Upon Request	145 mm	190 g
Upon Request	165 mm	255 g
PA23161	210 mm	390 g

/ TECHNICAL SPECIFICATIONS
- Induction forge treatment of the cutting edges, giving jaws a long life.
- Edge hardness: 60 HRC.
- Browned steel finish for high anticorrosion protection thanks to a series of 5 baths.
- Made in France

WHAT SETS IT APART
- Fully insulated steel frame, 10kV tested, rated 1000V AC / 1500V DC, EN 60900 / IEC 60900 compliant.
- Lightweight, ergonomic frame with tension lever and side-cutting option.
- High-strength steel and long-life materials for professional use.

/ **MS7** 1000V INSULATED ADJUSTABLE WRENCH

EN 60900 / IEC 60900 / ISO 1711-1 / ISO 6787



/ USE

Used to safely grip, turn, and adjust nuts and bolts during live or low-voltage electrical work.

/ TECHNICAL SPECIFICATIONS

- High-visibility coating for quick identification
- Ergonomic design for use with insulated gloves
- Tested to 10,000V; rated 1000V AC / 1500V DC
- Dual-layer insulation: orange over white for added safety
- Impact-resistant, high-strength steel for professional performance
- Made in France

Stock Code	Length	Max Jaw Opening
PA23203	115 mm	24 mm

/ **MS7S** 1000V FULLY INSULATED ADJUSTABLE WRENCH

EN 60900 / IEC 60900 / ISO 1711-1 / ISO 6787



/ USE

- Ideal for safely gripping, turning, and adjusting nuts and bolts in live or low-voltage electrical work.

/ TECHNICAL SPECIFICATIONS

- High-visibility coating for quick identification
- Jaw opening/closing via insulated thumbwheel for safe, precise adjustments
- Ergonomic design for use with insulated gloves or bare hands
- Tested to 10,000V; rated 1000V AC / 1500V DC
- Dual-layer insulation: orange over white for added protection
- Impact-resistant, high-strength steel for professional use
- Durable materials ensure long service life
- Made in France

Stock Code	Length	Max Jaw Opening
PA23228	260 mm	34 mm

WHAT SETS IT APART

Insulated thumbwheel for safe and precise jaw adjustment — providing control and safety not found in standard wrenches.

/ **IS79** 1000V INSULATED KNIFE WITH SHORT BLADE

EN 60900 / IEC 60900



/ USE

1000V insulated knife with a short blade, designed for precise, controlled cutting and stripping in electrical applications.

/ TECHNICAL SPECIFICATIONS

- Part Number: IS79
- Stock Code: PA23089
- Blade Material: Stainless steel
- Insulation Type: Injection-moulded, 6-point locking system
- Applications: Overhead and underground networks, indoor electrical work
- Features: Weighted handle, guide slit for longitudinal cut
- Made in France

PENTA RECOMMENDS

/ **IS80C** 1000V INSULATED KNIFE WITH CERAMIC BLADE

EN 60900 / IEC 60900

/ USE

Durable 1000V insulated knife featuring a ceramic blade for precision cutting and long-lasting edge retention in electrical applications.

/ TECHNICAL SPECIFICATIONS

- Part Number: IS80C
- Stock Code: PA21073
- Blade Material: Ceramic
- Insulation Rating: 1000V AC
- Tool Type: Insulated knife for stripping and cutting cables
- Application: Electrical maintenance and live working environments
- Made in France



WHAT SETS IT APART

- Sharp ceramic blade for long-lasting performance
- Lightweight, ergonomic handle for comfort and control
- Corrosion-resistant blade for harsh or humid conditions

/ **MS21** 1000V INSULATED SINGLE HEAD CRANKED RING SPANNER 12-SIDED

EN 60900 / IEC 60900 / ISO 691 / ISO 1711-1 / ISO 3318 / ISO 10102



WHAT SETS IT APART

Cranked ring head with full insulation — allows secure access to hard-to-reach fasteners while maintaining maximum safety.

/ USE

• Ideal for safely tightening or loosening nuts and bolts in live or low-voltage electrical work, even in confined spaces.

/ TECHNICAL SPECIFICATIONS

• 12-point, angled, 1000V insulated ring spanner
• High-visibility coating for easy identification
• Ergonomic design for use with insulated gloves or bare hands
• Tested to 10,000V; rated 1000V AC / 1500V DC
• Dual-layer insulation: orange over white for added safety
• Impact-resistant, high-strength steel for professional performance
• Made in France

Stock Code	Diameter
PA23126	10 mm
PA23127	11 mm
PA23128	12 mm
PA23129	13 mm
PA23131	14 mm
PA23132	15 mm
PA23134	16 mm
PA23135	17 mm
PA23136	18 mm
PA23137	19 mm

Personalise your tools, create custom tool kits, and explore a range of tailored solutions. Contact our team to discuss your **customisation options**.

/ **IS22** 1000V INSULATED HACKSAW 300MM

EN 60900 / IEC 60900



/ USE

• Safely cut conduits, cables, and hardware during live or low-voltage electrical work.

/ TECHNICAL SPECIFICATIONS

• Stock Code: PA23079
• Part Number: IS22
• Plastic injection-moulded frame for superior ergonomics and user comfort
• Tested to 10,000V; rated 1000V AC / 1500V DC
• Fully insulated steel frame with 300mm blade
• Dimensions: 450mm length, 740g weight, 300mm blade length
• Made in France

WHAT SETS IT APART

• Fully insulated steel frame, 10kV tested, rated 1000V AC / 1500V DC, EN 60900 / IEC 60900 compliant.
• Lightweight, ergonomic frame with tension lever and side-cutting option.
• High-strength steel and long-life materials for professional use.

/ **MS11** 1000V INSULATED LONG NOSE FLAT PLIERS

IEC 60900 / EN 60900 / NF EN 60900

/ USE

1000V insulated flat nose pliers designed for precise gripping, holding, and bending of conductors and components in live electrical environments.

/ TECHNICAL SPECIFICATIONS

• Part Number: MS11
• Tool Type: Insulated flat nose pliers
• Material: Hardened steel with 1000V insulation
• Insulation Rating: 1000V AC / 1500V DC
• Jaw Type: Flat, smooth gripping surface
• Handle Type: Ergonomic, multi-layer insulated
• Application: Gripping, bending, and holding electrical conductors
• Spout Lengths: 32mm, 40mm, 50mm
• Made in France



Stock Code	Part No.	Length	Spout Length	Weight
Upon Request	MS11 150BC	150mm	32mm	175g
Upon Request	MS11 170BC	170mm	40mm	180g
PA23099	MS11 170BL	170mm	50mm	185g

/ ROTOLINE 1000V INSULATED SCREWDRIVERS

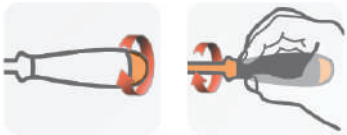
PATENTED

EN 60900 / IEC 60900
ISO 2380-1 / ISO 8764 / ISO 10664

After extensive research to balance comfort and efficiency, SIBILLE OUTILLAGE, a brand under the global PENTA network, developed the Rotoline range. Its screwdrivers feature a rounded handle end for superior grip and comfort, allowing easy turning in the palm—even with electrician's gloves during heavy-duty work.

ROUND END

The round is absolutely smooth and shaped to suit the hollow of the palm for quick and precise rotation.



INITIAL TIGHTENING POSITION

The rotating ball of the handle is held in the palm and the fingers control the rotation of the screwdriver.



MADE IN FRANCE

IDENTIFICATION RING

Each screwdriver has a coloured ring on the handle. The ring colour corresponds to the type of screwdriver blade, allowing a quick identification.

- Slot-head blade
- Pozidriv blade
- Phillips blade
- Torx® blade

ERGONOMIC HANDLE

Ergonomic handle with high quality soft coating for comfort and grip. Designed for powerful yet comfortable tightening.

INSULATED BLADE

The insulating sleeve is integral with the handle, injected directly around the blade. 1000V insulation in accordance with electrical standard IEC 60900:2012 and mechanical standards ISO2380-1 and ISO8764-1. VDE Certfied.

"SMART DIAMETER" BLADE

The blades are turned to offer no excess thickness of the insulating material at the top of the blade in order to reach screws set in narrow recesses.



PENTA AUSTRALIA
HYLEC TMAC



FIND YOUR DRIVER:
THE MOST COMPLETE RANGE WITH **70 MODELS** TO CHOOSE FROM

PENTA RECOMMENDS

Blade Type	Tip Diameter (mm) x Tool Length (mm)	CLASSIC	TURN	TURN & BLOCK
FLAT / SLOT-HEAD	2 x 70	RL1-PL-2•70*	RL2-PL-2x70*	-
	3 x 100	RL1-PL-3•100*	RL2-PL-3x100*	-
	3.5 x 120	RL1-PL-35•120	RL2-PL-35x120	-
	4 x 120	RL1-PL-4x120	RL2-PL-4x120	-
	5.5 x 100	RL1-PL-55x100	RL2-PL-55x100	-
	5.5 x 150	RL1-PL-55x150	RL2-PL-55x150	-
	6.5 x 150	RL1-PL-65x150	RL2-PL-65x150	-
	8 x 150	RL1-PL-8x150	RL2-PL-8x150	RL3-PL-8x150
	8 x 200	RL1-PL-8x200	RL2-PL-8x200	RL3-PL-8x200
	10 x 150	RL1-PL-10x150	RL2-PL-10x150	RL3-PL-10x150
	10 x 250	RL1-PL-10x250	RL2-PL-10x250	RL3-PL-10x250
	12 x 200	RL1-PL-12x200	RL2-PL-12x200	RL3-PL-12x200
PHILIPPS	N°0 - 4 x 75	RL1-PH-4x75	RL2-PH-4x75	-
	N°0 - 4 x 150	RL1-PH-4x150	RL2-PH-4x150	-
	N°1 - 5 x 100	RL1-PH-5x100	RL2-PH-5x100	-
	N°2 - 6 x 125	RL1-PH-6x125	RL2-PH-6x125	-
	N°3 - 8 x 150	RL1-PH-8x150	RL2-PH-8x150	RL3-PH-8x150
	N°4 - 10 x 200	RL1-PH-10x200	RL2-PH-10x200	RL3-PH-10x200
POZIDRIV	N°0 - 4 x 75	RL1-PZ-4x75	RL2-PZ-4x75	-
	N°0 - 4 x 150	RL1-PZ-4x150	RL2-PZ-4x150	-
	N°1 - 5 x 100	RL1-PZ-5x100	RL2-PZ-5x100	-
	N°2 - 6 x 125	RL1-PZ-6x125	RL2-PZ-6x125	-
	N°3 - 8 x 150	RL1-PZ-8x150	RL2-PZ-8x150	RL3-PZ-8x150
	N°4 - 10 x 200	RL1-PZ-10x200	RL2-PZ-10x200	RL3-Z-10x200
TORX®	T10	RL1-TX-T10*	RL2-TX-T10*	-
	T20	RL1-TX-T20	RL2-TX-T20	-
	T27	RL1-TX-T27	RL2-TX-T27	-
	T30	RL1-TX-T30	RL2-TX-T30	-
	T45	RL1-TX-T45	RL2-TX-T45	RL3-TX-T45

*These models do not use smart diameter.

/ OTHER **1000V INSULATED HAND TOOLS**



MS66
Insulated 12-sided
Female Socket
12-Side



MS87
Insulated Male
Hexagonal Socket 3/8"
Square Drive



MS71LP
Insulated
Long Extension
1/2 inch



MS16
Insulated
Open Ended
Spanner



MS23
Insulated 90° Bent
Male Hex Key



IS23TPC
IS23TPL
Insulated Male
T-Handle Hex Key



MS85P
Insulated Reversible
Ratchet Spanner
3/8 inch



MS38
Insulated Ring Spanner
6-sided, Single
Head Inclined 15°



MS45
Insulated
Cable Cutting
Pliers



MS5
Insulated
Side Cutting Pliers



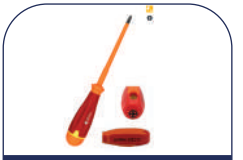
IP18B
Insulated Stubby
Screwdriver Pozidriv



IS18B
Insulated Stubby
Screwdriver Flat



ICI8DB
Insulated
Screwdriver
Flat Head



IS18DB
Insulated
Screwdriver
Phillips Head

/ **TWISTER** INSULATED SECTOR BENDING TOOL

EN 60900 / IEC 60900



/ USE

Insulated bending tool designed for shaping and positioning low-voltage underground cables safely and efficiently.

/ TECHNICAL SPECIFICATIONS

- Stock Code: PA23255: 50-300 mm²
- Application: Bending and positioning low-voltage underground cables
- Insulation Rating: Up to 1000 V AC
- Design: Ergonomic handle for firm grip and control
- Made in France

WHAT SETS IT APART

- Durable, impact-resistant insulating construction
- Ergonomic and lightweight for ease of use
- Ideal for underground and confined space applications

/ **TE04** INSULATED WEDGE SEPARATOR

EN 60900 / IEC 60900



/ USE

Safely separates low-voltage conductors during live or near-live work, helping maintain safe distances and prevent unintended contact in confined panels and switchboards.

/ TECHNICAL SPECIFICATIONS

- Stock Code: PA30225
- Insulation Rating: Up to 1000 V AC
- Design: Compact, lightweight design for confined working environments
- High-strength insulating body with durable wedge profile
- Non-conductive, moisture-resistant material
- Made in France

WHAT SETS IT APART

Delivers safe, controlled conductor separation in tight LV environments, combining certified insulation with a robust wedge design that provides stability, durability, and confidence during live work.

/ OTHER **FULLY INSULATED** HAND TOOLS



MC4CE FULLY INSULATED UNIVERSAL PLIERS
1000V insulated pliers for safe gripping and cutting.



MS5E FULLY INSULATED SIDE CUTTING PLIERS
Professional side cutters for live work up to 1000V.



MC11CE FULLY INSULATED LONG NOSE PLIERS
1000V insulated pliers for safe gripping and bending.



IS64 FULLY INSULATED STRAIGHT HEX KEY DRIVER WITH HANDLE
1000V insulated straight hex key driver for live work.





IS36 FULLY INSULATED HEXAGONAL NUT DRIVER
1000V insulated nut driver for safe tightening and loosening.

INTRINSIC **ANTI-SPARK HAND TOOLS**



In hazardous environments where flammable gases, vapours, or dust may be present, spark prevention is critical. Our **Intrinsic Anti-Spark Hand Tools** are engineered from non-ferrous alloys to minimise ignition risk while delivering the strength and reliability required for industrial and electrical applications.

Designed for use in explosive or high-risk atmospheres, this range supports safe maintenance, installation, and operational tasks without compromising performance or compliance.

/ **GS27** INTRINSIC MULTIGRIPS

NF E 74400 / ISO 5744 / ISO 8976

/ USE

ATEX II certified double rack slip-joint pliers designed for secure grip, strength, and deformation-free twisting in demanding industrial environments.

Reference	Weight	Length	Opening
GS27 250	440 g	250 mm	28 mm
GS27 310	700 g	310 mm	35 mm



WHAT SETS IT APART

- Intermediate hinge and double rack for deformation-free twisting
- Five adjustable jaw positions for versatile use
- Ergonomic design for secure and comfortable grip

/ OTHER INTRINSIC **ANTI SPARK HAND TOOLS**



GS66
Intrinsic 1/2 inch
Socket 12-sided ATEX I



GS71
Intrinsic 1/2 Inch
Extension Bar



GS38
Intrinsic Ring Spanner
Single Head



GS7
Intrinsic Spanner
Adjustable 160mm ATEXII



GS21
Intrinsic Single Head Cranked
Ring Spanner 8mm



GS16
Intrinsic Single Open
Ended Spanner ATEXII



GS5
Intrinsic Side Cutters
ATEX II



GS205
Intrinsic Screwdriver
Phillips ATEX1



GS210
Intrinsic Screwdriver
Flat Blade ATEX1



GS4
Intrinsic Universal
Pliers ATEX II



GS100N
Intrinsic Non-reversible
Ratchet Torque Wrench



GS160
Intrinsic Metal Saw Frame
(300mm Blade)

/ INSULATING MAT

PENTA RECOMMENDS

IEC 61111:2009

/ USE

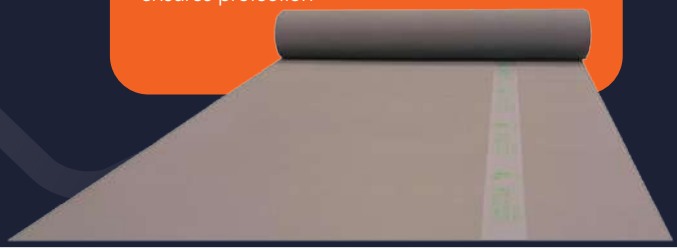
• The Electrical Insulating Mat provides a safe barrier between operator and ground, preventing current flow from direct contact or step voltage.
• Made from high-quality, non-conductive rubber and cut to 1m x 1m, it combines flexibility and durability for both static and mobile electrical work.

Reference	Size	Class
PA22990	1 x 1 m	0
PA22992	1 x 1 m	1
PA22994	1 x 1 m	2
PA22997	1 x 1 m	3
PA23002	1 x 1 m	4

Note: Other sizes for various classes available upon request.

WHAT SETS IT APART

• Wide Voltage Protection: Covers 1,000V to 36,000V across 5 safety classes (0—4)
• Durable Construction: Premium EPDM rubber, slip, oil, and acid resistant with low leakage current.
• Built for Harsh Environments: UV, ozone, and weather resistant for long-lasting performance
• Comfort & Safety: Flexible, cushioned design ensures protection



/ TIGER TAIL™ WARNING LINE GUARDS

AS402

/ USE

High-visibility Tiger Tail covers with interlocking sections for temporary overhead line protection up to 650 V.

/ TECHNICAL SPECIFICATIONS

• Material: Tough patterned PVC
• Rated voltage: 650 V

Stock Code	Internal Diameter	Colour	Length
PA01271	35mm	Red and Black	2.5m
PA01272	35mm	Red and Black Short	1.25m
PA01176	45mm	Yellow and Black	2.5m
Upon Request	35mm	Yellow and Black	2.5m
Upon Request	70mm	Yellow and Black	2m



WHAT SETS IT APART

• Provides mechanical protection
• Provides temporary electrical insulation
• Interconnection locking system for continuous spans
• Weather-resistant construction

Note: Various lengths available rated at 14.6kV available upon request.

/ OVERHEAD LV **LINE COVER PVC**

AS 4202



/ USE

Class II PVC LV line covers for temporary insulation on overhead lines up to 650 V.

WHAT SETS IT APART

- Industry-standard LV protection — Temporary insulation for overhead lines.
- Durable, weather-resistant PVC — Built for outdoor service life.
- Visible & versatile — Dual-colour design with flexible sizing and fixing options.

/ TECHNICAL SPECIFICATIONS

- Material: PVC
- Rating: Class II, 650 V
- Design: Dual-colour, weather-resistant
- Options: Multiple sizes - from 600mm to 1.8m
- Fastening types: Magnet, Stud

/ OVERHEAD LV **LINE COVER EPDM**

AS 4202



/ USE

Class II EPDM LV line covers with Velcro fastening for temporary overhead insulation up to 650 V.

/ TECHNICAL SPECIFICATIONS

- Material: EPDM rubber
- Class: Class II, rated to 650 V
- Fastening system: Industrial Velcro
- Colour design: Dual-colour for enhanced visibility
- Weather-resistant construction
- Application: Temporary insulation for LV overhead lines

WHAT SETS IT APART

- Class II rated to 650 V
- Industry-accepted safety standard
- Durable EPDM construction for outdoor use
- High-visibility dual-colour design
- Fast, secure Velcro fastening

/ **TT015M** INSULATED STOOL - INDOOR USE

UNE 204001



/ USE

Provides a stable, insulated platform for technicians performing 1st category work or operating manual switchgear, maintaining safe electrical isolation in indoor LV environments.

/ TECHNICAL SPECIFICATIONS

- One-piece moulded plastic construction for durability and dielectric reliability
- Integrated anti-slip standing surface
- Fixed PVC insulating legs, angled to maintain clearance from vertical walls
- Supplied with anti-slip floor pads for enhanced stability
- Designed for indoor low-voltage applications

Stock Code	Part No.	Tension	Height Under Platform
PA23035	TT015M 24KV	24kV	150mm
Upon Request	TT015M 36KV	36kV	237mm
PA23037	TT015M 45KV	45kV	237mm

/ **TT018** INSULATED STOOL - OUTDOOR USE



/ USE

Stable insulated platform for 1st category work and manual switchgear operation, maintaining safe electrical isolation in outdoor environments.

/ TECHNICAL SPECIFICATIONS

- Durable plastic stool with integrated anti-slip standing surface
- Insulating PVC screw-in legs for secure assembly
- Insulating skirts to enhance dielectric protection
- Angled legs to maintain clearance from vertical structures
- Supplied with anti-slip floor pads
- Suitable for outdoor LV applications

Stock Code	Part No.	Height Under Platform	Weight	Skirts
Upon Request	TT018 24KV	245mm	4.15kg	2
Upon Request	TT018 45KV	362mm	4.60kg	3
Upon Request	TT018 63KV	413mm	4.80kg	3

/ **OTHER INSULATED** TOOLS



TP60P INSULATED PEG PLASTIC CLAMP

1000 V insulated plastic spring clip for securing temporary insulation.



HOOK & EYELET

Non-brittle plastic hook and eyelet sets for securing insulating drapes, rated to 1000 V.



CABLE SOCKS

Insulating cable socks for temporary protection of cable cores or lugs during live jointing, rated to 1000 V.



COVER FASTENERS

Durable, non-brittle plastic fasteners with rubber-jaw grip and 1000 V insulation for securing mats, covers, and ropes.

SECURE

Before any conductor is touched, it must be proven dead. Our range of Proving Dead Devices delivers dependable voltage indication across low and high voltage networks, giving crews the confidence to proceed safely with maintenance, switching, or repair.



HOT STICK & ACCESSORIES



CABLE IDENTIFICATION & PHASING



VOLTAGE DETECTORS



PORTABLE EARTHING



CABLE CUTTING & CRIMPING TOOLS

SAFELY EXTEND YOUR REACH WITH OUR **HOT STICKS** AND ACCESSORIES



PENTA AUSTRALIA
HYLEC ENERGY SOLUTIONS
TMAC

/ BUTTON TYPE OPERATING STICK

MADE IN AUSTRALIA



/ USE

Foam-filled insulated operating pole for safe live-work applications.

/ TECHNICAL SPECIFICATION

- Test voltage: 100 kV / 300 mm
- Diameter: Ø 32 mm (38 mm available upon request)
- Dense foam-filled construction, in high-visibility orange
- Standard lengths: 1.2 m, 1.8 m, 2.4 m (custom length available upon request)
- Extension sections available (available for separate purchase upon request)
- Applicator head options:
  - Aluminium twist-and-lock (Taplin & Bayonet compatible)
  - Nylon push-in (Bayonet compatible)
  - Universal

/ COMPACT CLAMP OPERATING STICK

MADE IN AUSTRALIA



/ USE

Compact foam-filled operating stick with heads for ring clamp operation.

/ TECHNICAL SPECIFICATION

- Foam-filled construction for dielectric performance
- Overall length: 460 mm
- Handle length: 300 mm
- Head options:
  - PA12800 — suits Ø 40 mm × 6.8 mm ring clamps and PENTA clamp Type L
  - PA12801 — suits all PENTA ring and shotgun clamps

/ UNIVERSAL ADAPTORS



MADE IN AUSTRALIA

UNIVERSAL ADAPTOR BAYONET FITTING NYLON



MADE IN AUSTRALIA

UNIVERSAL ADAPTOR TO BAYONET/TAPLIN FITTING



UNIVERSAL ADAPTOR TO SHOTGUN RING FITTING



UNIVERSAL ADAPTOR WITH BRASS SWITCHING HOOK



UNIVERSAL ADAPTOR WITH FUSE PULLER/ PIGTAIL



UNIVERSAL ADAPTOR WITH SPIKE FOR CROSSARM



MADE IN AUSTRALIA

UNIVERSAL ADAPTOR WITH SWITCHING HOOK FOR CAPACITOR BANK



MADE IN AUSTRALIA

UNIVERSAL ADAPTOR WITH U-SHAPED CABLE LIFTER



MADE IN AUSTRALIA

DO NOT OPERATE (DNOB) APPLICATOR & REMOVAL TOOL

/ BUTTON ADAPTORS



MADE IN AUSTRALIA

BUTTON ADAPTOR TO BAYONET NYLON FILLING



MADE IN AUSTRALIA

BUTTON ADAPTOR TO BAYONET/TAPLIN AL FITTING



MADE IN AUSTRALIA

BUTTON ADAPTOR TO UNIVERSAL FITTING



BUTTON ADAPTOR WITH C HOOK



MADE IN AUSTRALIA

BUTTON ADAPTOR WITH LAY UP HOOK

/ BAYONET ADAPTORS



MADE IN AUSTRALIA

BAYONET ADAPTOR TO UNIVERSAL FITTING

OTHER ACCESSORIES



PRUNING SAW & ACCESSORIES



MADE IN AUSTRALIA

STORAGE BAGS 1, 2, 3, 4 STICKS

/ **PXV** OPERATING INSULATING STICKS



/ USE

Foam-cored insulating stick for high-voltage live-line work, compatible with all end fittings, with screw-type extension sections available for flexible length configuration.

/ TECHNICAL SPECIFICATION

- Diameter: Ø 32 mm
- Material:
  - Dielectric strength of 100 kV per 300 mm
  - Fibreglass composite tube that is foam-filled
  - High visibility yellow colour
- Standard length: 1.0 m (other lengths available on request)
- Constructed to prevent humidity ingress via a foam-resin-glass-fibre interface

/ **SHOTGUN STICK** YELLOW / ORANGE



/ USE

Durable Shotgun Stick designed for safe operation on energised equipment, offering secure control, strength, and electrical insulation for field applications.

/ TECHNICAL SPECIFICATION

- Diameter: Ø 32 mm
- Designed for safe gripping, manipulation, and switching tasks
- Material:
  - High-visibility orange or yellow insulated body
  - Insulated fibreglass construction for hot-stick operations
  - Lightweight structure for improved ergonomics

Stock Code	Total Length	Colour
PA21570	1.92m | 6.3ft	Yellow
Upon Request	3.12m | 10.2ft	Yellow
PA21568	1.22m | 4ft	Orange
PA21569	1.92m | 6.3ft	Orange
PA21571	2.52m | 8.3ft	Orange

/ **PPOL** PENTA-POLE MULTI-PURPOSE TELESCOPIC INSULATING STICK

IEC 62193, IEC 60855-1
ASTM F1826, ASTM F711

ERGONOMICALLY DESIGNED GRIP

EXCEPTIONAL RIGIDITY

UNRIVALLED LIGHTWEIGHT



MADE IN **FRANCE**

The Penta-Pole Insulating Stick features a pentagonal design and reinforced fibre structure, delivering more strength and greater rigidity for easier handling.

Available in 3 to 9 segments with reach up to 12 metres, it's also 13% lighter than standard sticks—offering comfort, precision, and control at height.

WHAT SETS IT APART

- Telescopic poles from 3 to 9 sections, adaptable to all application configurations.
- Thanks to their outstanding mechanical properties, these poles can be used for a wide range of applications, including:
  - Switch operation (opening, closing, fuse replacement)
  - Installation and removal: lifelines, measuring hooks, cleaning conductors.
  - Checking for absence of voltage.
  - Pruning.
  - Lifting conductor cable.
  - Earthing of distribution networks from the ground by vertical lifting.
- Optimized retracted length. Comfortable handling. Effortless lifting, even with Portable Earthing Devices.

/ USE

- Operating disconnect switches
- Proving dead operations
- Lifting earth devices
- Maintenance work

Reference	No. of Sections	Length When Extended	Length When Retracted	Avg Weight
PA21582	3	3.8m | 12'5"	1.45m | 4'9"	1.89kg
PA21583	4	5.0m | 16'4"	1.54m | 5'0"	2.48kg
PA21584	5	6.4m | 21'0"	1.60m | 5'2"	3.16kg
PA21585	6	7.8m | 25'7"	1.67m | 5'5"	3.96kg
PA21587	7	9.2m | 30'2"	1.74m | 5'8"	4.70kg
PA21589	8	10.6m | 34'9"	1.80m | 5'10"	5.52kg
PA21591	9	12.0m | 39'4"	1.84m | 6'0"	6.35kg

Sticks come with a universal end fitting and an operating hook. If you would like another type of end fitting, complete the reference with the code corresponding to the end fitting required (in this case, the stick comes without the operating hook).
APV: multipurpose end fitting, 12mm 6-sided with automatic locking
U: notched universal end fitting
B: bayonet end fitting

/ **PENTA-POLE** MULTI-PURPOSE TELESCOPIC INSULATING STICK

IEC 62193, IEC 60855-1
ASTM F1826, ASTM F711

/ TECHNICAL SPECIFICATIONS

Insulating telescopic pole made of :

- 1 to 8 pentagonal-shaped hollow tubes compliant with the IEC 61235 standard
- 1 top tube Ø 28 mm compliant with IEC 60855-1 and ASTM F711 standards
- 1 base to protect the tip of the pole
- 1 universal end fitting to accommodate multiple accessories
- 1 operating hook (U-end fitting version)



Universal end fitting to fix multiple accessories and adapters



Easy push-button release with auto-locking extension



Round top tube Ø 28 mm in accordance with **IEC 60855-1 standard**

/ APPLICATIONS



OPERATING DISCONNECT SWITCHES

Used with an operating hook, the stick enables you to open and close disconnects with extreme simplicity.



NO VOLTAGE TESTING

Used with voltage detectors to check that circuits are dead.



LIFTING EARTH DEVICES

This stick enables you to vertically lift medium load earthing devices into place. Its rigidity guarantees optimum control and easy placing of the grounding devices.



HANDLING OPERATIONS

Used with the accessory of your choice, the stick enables you to clean conductors, prune trees, position fall arrest devices, change bulbs, etc.

/ PPOL-MU PENTA-POLE TELESCOPIC INSULATING STICK-MEASURE

MADE IN FRANCE

IEC 62193, IEC 60855-1
ASTM F1826, ASTM F711







/ USE

Used on overhead distribution networks to safely measure conductor and structure heights between 6.3 m and 12 m, while also functioning as a manoeuvring pole for live-line operations.

Stock Code	Part No.	No. of Sections	Length When Extended	Length When Retracted	Avg Weight
PA20377	PPOL6/075MU	6	7.7m	1.65m	3.96kg
PA21586	PPOL7/090MU	7	9.1m	1.74m	4.70kg
PA21588	PPOL8/105MU	8	10.55m	1.8m	5.52kg
PA21590	PPOL9/120MU	9	12m	1.84	6.35kg

Note: Other lengths available upon request.

/ TECHNICAL SPECIFICATIONS

- Telescopic insulating measuring stick
- Measurement range: 6.3 m - 12 m
- Operating voltage: HV
- All-weather rating: 132 kV
- Tube design: Pentagonal profile
- Tube diameter: 28 mm
- Locking system: Push-button locking mechanism
- Pole material: Composite foam glass fibre
- Telescopic elements material: Composite glass fibre
- Dielectric strength: 100 kV / 30 cm
- Adaptors: Universal (U)
- Operating temperature range: -25°C to +55°C



WHAT SETS IT APART

- **Integrated measuring graduations** permanently embedded in the pole for clear, long-lasting readings
- **Pentagonal tube design** prevents rotation while improving grip and operator control
- **Dual-material push-button locking system** automatically secures each telescopic section
- **Lightweight yet highly stable** design for precise handling during live-line work
- **All-weather performance** suitable for temperatures from -25°C to +55°C

/ **PPOL-R** REINFORCED PENTA-POLE TELESCOPIC INSULATING STICK

IEC 62193, IEC 60855-1
ASTM F1826, ASTM F711





MADE IN FRANCE

/ USE

Telescopic insulating stick for live-line operations on distribution networks, used for switching, voltage checks, conductor handling, grounding, and maintenance. Reinforced PENTAPOLE design enhances rigidity and durability.

/ TECHNICAL SPECIFICATIONS

- Telescopic insulating stick
- Available with 3 to 8 telescopic sections
- Tube design: Pentagonal profile
- Tube diameter: 32 mm
- Colour: Yellow
- Pole material: Composite foam glass fibre
- Telescopic elements material: Composite glass fibre
- Adaptors: Universal (U)
- Operating temperature range: -25°C to +55°C



/ HOTSTICK ACCESSORIES & ATTACHMENTS



FUSE EXTRACTOR (UNIVERSAL FITTING)



FUSE PULLER LV FOR 25MM POLE



UNIVERSAL TO MALE BAYONET ADAPTOR



SHOTGUN SUNRISE ADAPTOR



UNIVERSAL TO FEMALE BAYONET ADAPTER 200MM



LLCR ADAPT SUNRISE TO TAPLIN AND RING 10-16MM

/ MAGICROU
MAGIC SAFETY CLIP

PATENTED

/ USE

- Patented fastening system enables fast, secure rope anchoring around remote or hard-to-reach objects
- Lightweight aluminium construction reduces operator strain and improves handling at height
- Versatile solution for fall protection, ladder anchoring, wire pulling, and safety signage installation



Part No.	Dimensions	Weight	Opening
MAGICROU	270 x 130 x 35mm	350g	60mm
MAGICROU120	380 x 255 x 35mm	600g	120mm



UNIVERSAL SCRATCH BRUSH

/ **HOTSTICK** ACCESSORIES & ATTACHMENTS



BRANCH PRUNER WITH UNIVERSAL FITTING AND ROPE



CONDUCTOR GAUGE 6-60MM WITH UNIVERSAL HEAD WITH BAG



LIGHT POLE WITH CROSSARM CLAMP



RESISTIVE DISCHARGE PROBE 5M TAIL WITH CLAMP

/ **DROPOVER** STICK ATTACHMENT TO DROP ROPE OVER OHL

/ USE

A stick-mounted adaptor designed to help safely pass a rope over an overhead line for anchoring, pulling or positioning tasks.



/ **TTR2LW** HOT STICK, POLES, RODS & ROPE TESTER

/ USE

Portable tester using capacitive measurement to detect insulation defects in live-line tools in under 5 minutes.




VOLTAGE
DETECTORS
CONFIDENCE AT FIRST
CONTACT WITH OUR
VOLTAGE DETECTORS
11-33kV
PENTA
AUSTRALIA
HYLEC
ENERGY SOLUTIONS
TMAC

/ MULTISAFE **DSP4**



/ USE

Safe, versatile voltage tester for industrial and power engineering applications with multimeter precision and built-in protective features. Stock Code: PA11063

MADE FOR RAIL

NEW

/ **DCC** DIRECT CURRENT VOLTAGE DETECTOR

IEC 61243-2



/ USE

Used to verify de-energisation of DC overhead conductors (rail catenary), detecting DC presence, residual voltage discharge, and induced AC voltage.

MADE FOR RAIL

/ **TT36** TELESCOPIC VOLTAGE TESTER



/ USE

Telescopic voltage tester for fast and safe detection of AC/DC voltages up to 36 kV, ideal for railway overhead lines and outdoor switchgear.

/ **TAGLITE** LV VOLTAGE DETECTOR

NEW

IEC 61243-3
IP65



/ USE

Low voltage detector for indoor and overhead use, providing proving dead verification, voltage measurement to 1000V AC / 1500V DC, and phase, polarity, and continuity testing.



PENTA RECOMMENDS

/ TAG200MRM MV VOLTAGE DETECTOR 1-69 KV

IEC 61243-1 : NF EN 61243-1 : 2021

/ USE

These voltage detectors are designed for "proving dead", making sure that nominal voltage is actually absent on a circuit in an MV distribution system between 1 kV and 69 kV (no-voltage verification):

- The device will detect any nominal voltage on overhead lines and stations.
- It will avoid detecting most induced voltages in order to allow grounding operations.

WHAT SETS IT APART

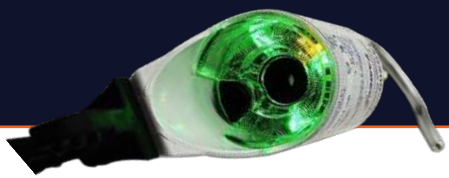
- Enhanced audible indication: 100 dB sound signal remains clearly audible even in traffic or strong wind, thanks to its acoustic horn.
- Enhanced visual indication: Bright visual signal with wide-angle visibility — easily seen in sunlight, fog, and from the side via an optic ring.
- Secure, watertight battery compartment - Direct battery access with sealed electronics prevents accidental housing/circuit interchange, damage to circuitry, moisture ingress during outdoor replacement, etc.

/ TECHNICAL SPECIFICATIONS

- AC voltage range possible choice from 1 - 69 kV
- Network frequency: 50 Hz.
- 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.
- Self test OK the OK status (ready for use) of the device is indicated by a GREEN light.
- The self test checks all the circuits, the reference detection level and the battery voltage.
- The "ready for use" state is indicated by the green indication for 15 minutes.
- A low battery level is indicated by an ORANGE light.
- Designed for outdoor and indoor use.
- Operating temperature : -25° C to 55°C.
- Humidity 96 max.
- Power supply voltage 9 V alkaline cell IEC 6 LR 61.
- Accepts the use of rechargeable battery with identical supply voltage.
- Yellow polycarbonate housing.
- Dimensions Ø 59 mm, L 280 mm without the contact electrode.
- Net weight 0,390 kg with stick adaptor.
- Operating manual with a choice of languages, depending on the package.

VOLTAGE DETECTORS

/ **TAG200MRM** MV VOLTAGE DETECTOR 1-69 KV



/ ACCESSORIES

• Interchangeable stick adapters available.



ADVECAPV* ADVECU* ADVECEAM* ADVECBV* ADVECUCR*

• Optional soft case with conductive lining provides the same electromagnetic protection as the metal case.



This product is available in various voltage ranges to suit your needs. For detailed specifications, please contact our team at **sales@pentaesp.com.au**

BEST VALUE BUY

/ **TAG330** ELECTRONIC HV VOLTAGE DETECTOR

VIEW PRODUCT DEMO

IEC 61243-1







/ USE

This original configuration gives it very high performances, especially in the case of high induction and/or parasitic electric fields.

/ TECHNICAL SPECIFICATIONS

• Mains frequency range: 50Hz
• Indication of the absence of voltage and the correct operation of the device by a green LED.
• Very sturdy polycarbonate casing. Self-test function.
• Power supply: one 9V alkaline battery. Electronic cut-out if battery drops under threshold voltage of 8V.
• Can be used in all weathers. Temperature range: from -25°C to +55°C.
• Device comes in a metal case with hooks ø120 mm and straight electrode 100 mm.

/ NOTE This product is available in various voltage ranges to suit your needs. Voltages range available from 66kV upwards, For detailed specifications, please contact our team at sales@pentaesp.com.au.

/ **UNITAG** LV NON-CONTACT VOLTAGE DETECTOR



/ USE

Non-contact LV voltage tester up to 1000 V AC with LED and audible indication, self-test function, and IP65-rated housing.

/ **ALADIN** ELECTRIC MV FIELD DETECTOR

EN 61000-6-2
EN 61000-6-4

VIEW PRODUCT DEMO



/ USE

Helmet-mountable electric field detector for 10—400 kV environments, delivering 360° monitoring with real-time audible alerts. Features Smart Mute, dual visibility lights, rechargeable battery, and rugged lightweight design.

ANTI SPARK TOOL

/ **GAZEL** VOLTAGE DETECTOR



/ USE

GAZEL is a pipe bypass with a built-in voltage alarm providing audible and 360° visual shock warnings during gas meter changes.

/ TECHNICAL SPECIFICATION

- Dimensions: 85 × 47 × 31 mm
- Audible and visual alarm when in contact with AC voltage above 50V. Detects 50Hz and 60Hz electric fields
- IP54 rated for outdoor use. Sound level: 55 dB at 1 metre
- Immune to electromagnetic fields above 150 kHz
- Integrated self-test activated via “Test” button
- Powered by 2 × AAA alkaline batteries with low-batt LED indicator
- Weight: 95 g (excluding bypass)



PENTA EXCLUSIVE

/ **SPI III** KIT TRUE PHASE IDENTIFICATION SYSTEM



/ USE

Remote wireless phase identification system with LTE gateway, designed for accurate true phasing across all voltage levels with GPS synchronisation and encrypted communication.

/ TECHNICAL SPECIFICATIONS

- Options:
  - Base Station & Field Kit
  - Unlimited additional field kits, as required
- System Type: Remote wireless true-phase identification with LTE gateway
- Phasing Capability: True live phasing for all voltage levels
- Accuracy: ±1° reading accuracy
- Synchronisation: GPS satellite network synchronisation
- Deployment: Fast setup; operational within seconds
- Power: All-day battery life
- Communication: Encrypted, robust wireless connection
- Operating Modes:
  - Standard live phasing
  - Underground time-delayed phase identification
  - Local or cloud-based data handling
- Modules: Wireless bi-module combo (transmit/receive)





/ HOW IT WORKS

The SPI III True Phase Identification System uses a three-module architecture for accurate live phase verification.

1 - Reference Module

Permanently installed module measures phase angles and sends data to the central server.

2 - Field Measurement

Portable module captures the conductor's phase angle; display compensates and processes data.

3 - Phase Confirmation

The system compares field data with the central server and instantly displays the confirmed live phase ID on screen.

WHAT SETS IT APART

- All-Voltage Coverage: LV to HV, up to 1,200 kV in one system
- High Precision: GPS-synced phasing with ±1° accuracy
- Utility-Ready: Direct or non-contact testing with rugged, wireless field operation

/ TMAC® LOW-VOLTAGE TEST LAMPS

BEST VALUE BUY



WITH 2 FLOATING CHISEL POINT PROBES
AVAILABLE IN 25W



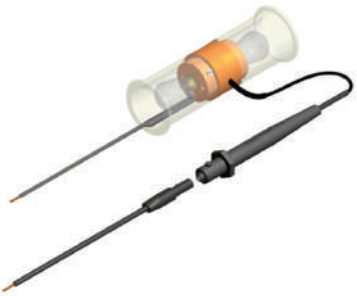
WITH 2 ROUNDED POINT FLOATING PROBES
AVAILABLE IN 25W



WITH FIXED CHISEL TIP WITH ROUND FLOATING PROBE
AVAILABLE IN 25W



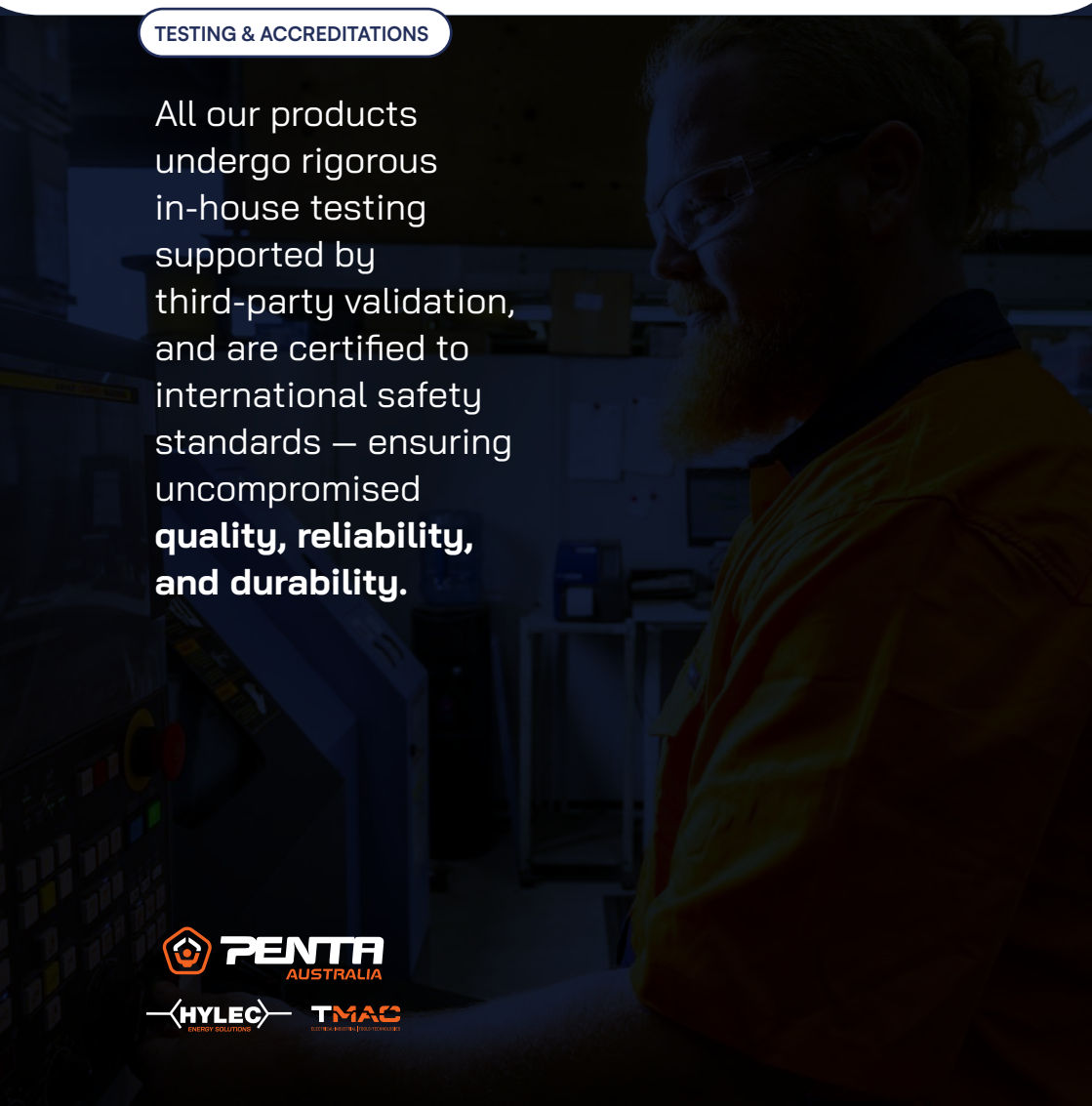
WITH FIXED ROUNDED TIP WITH FLOATING PEG PROBE
AVAILABLE IN 25W



WITH ROUND TIP WITH FLOATING LONG PROBE
AVAILABLE IN 25W

TESTING & ACCREDITATIONS

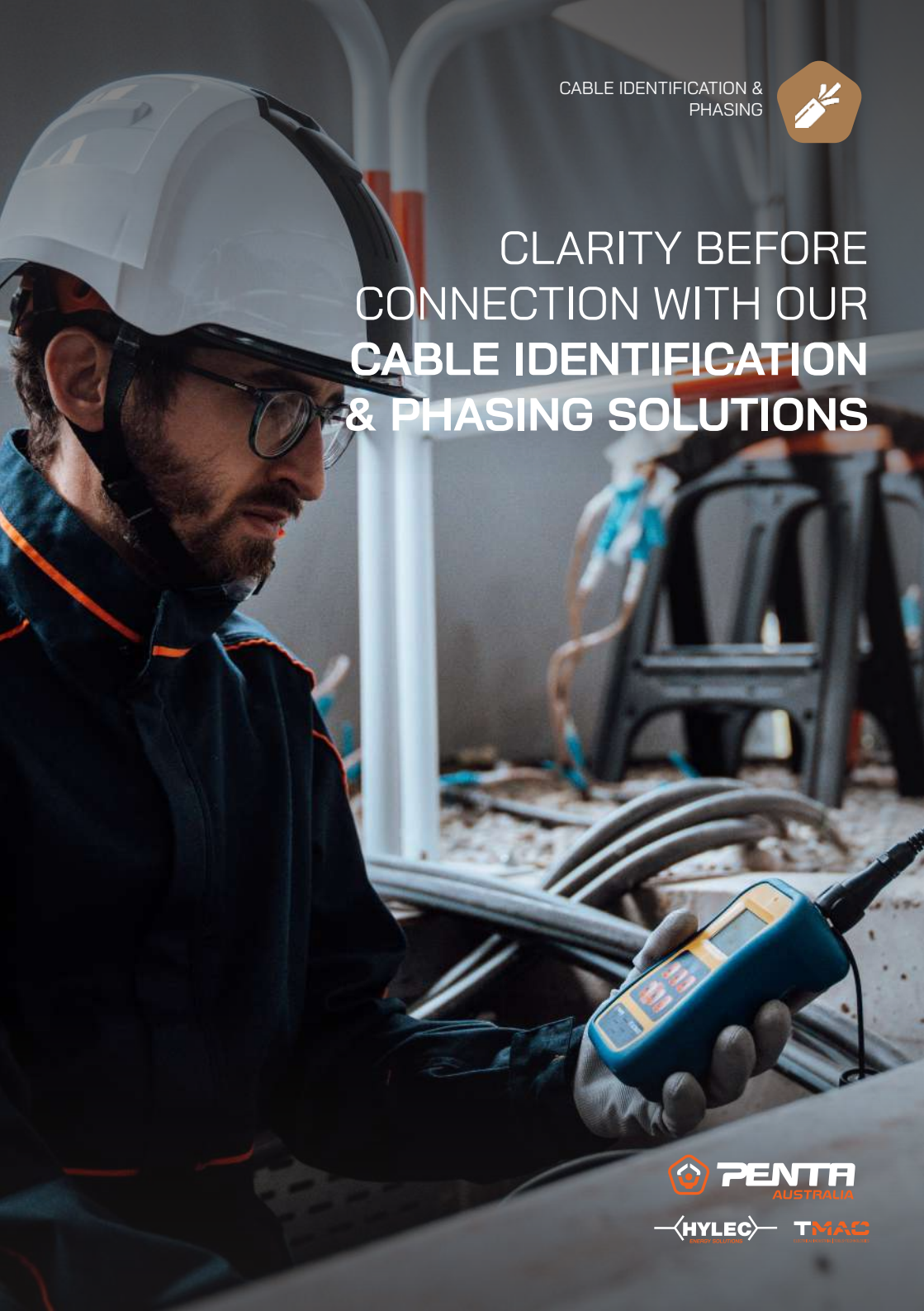
All our products undergo rigorous in-house testing supported by third-party validation, and are certified to international safety standards — ensuring uncompromised **quality, reliability, and durability.**



PENTA AUSTRALIA

HYLEC ENERGY SOLUTIONS

TMAC



CABLE IDENTIFICATION &
PHASING

CLARITY BEFORE CONNECTION WITH OUR **CABLE IDENTIFICATION & PHASING SOLUTIONS**

PENTA AUSTRALIA

HYLEC ENERGY SOLUTIONS

TMAC

/ FC2300/FC2310 CABLE IDENTIFICATION AND DETECTION KIT



/ USE

• Single or dual-transmitter cable identification and detection system for complex networks
• Fully equipped detection kit with multiple probes, Rogowski coil, and shorting leads
• Rugged, portable wheeled hard case with organised internal storage

Stock Code	Inclusions
PA21424	Single FC2300 cable identification and detection kit
PA21426	Dual-transmitter FC2310 cable identification and detection kit

/ KIT CONFIGURATION

- Hard outer case
- Two internal soft carry bags
- Transmitter Kit Contents (Soft Bag)
  - 1 × Transmitter A
  - 3 × 50 mm CT clamps (Red, White, Blue)
  - 1 × Shorting clamp
  - 1 × Direct connect kit (XT)
  - 1 × Set of 3 Yellow TP60P positioning pegs
  - 1 × Set of red balancing shunt leads
  - Australian 240 V charging accessories
- Detection Kit Contents (Soft Bag)
  - 1 × Detector
  - 1 × Blue magnetic probe
  - 1 × Set of pinpoint compass probes
  - 1 × 115 mm Rogowski coil
  - 1 × Set of shorting leads
  - Car charging accessories
  - Australian 240 V charging adapters
- System & Components
  - Connector type: TI - Cannon quick-release connectors
  - Direct connect: XT kit included

VIEW PRODUCT DEMO AND USER GUIDE

WHAT SETS IT APART

Its single or dual-transmitter capability and complete probe suite enable simultaneous or redundant testing and high-accuracy identification, improving workflow speed and reliability in demanding field environments.

/ HOW IT WORKS

1 - Isolate & Prove Dead
Confirm the circuit is de-energised and follow approved procedures.
2 - Short Cable Ends
Short both ends to establish a clear identification path.
3 - Attach Transducer Clamps
Fit the 3 clamps to the cable terminals (one or both ends, depending on model).
4 - Identify the Correct Cable (Pre-Cut)
Use the appropriate probe to positively identify the target cable in the trench.
5 - Identify Phases (Pre-Cut)
Confirm phase/core sequence before cutting.
6 - Cut & Reconfirm (Post-Cut)
After cutting, re-identify each phase to ensure correct termination and prevent cross-phase errors.

/ **FC3100** CABLE MAPPING DEVICE



/ USE

Identifies the transformer, feeder, and phase supplying a connection point in low-voltage distribution networks, helping technicians map network topology and verify circuit connectivity.

WHAT SETS IT APART

- Fast network identification of transformer, feeder, and phase
- Two-device system: Central Device at the transformer and Line Device in the field
- Automatic and manual modes for reliable operation in complex networks
- Communicates through the power network without external infrastructure
- Rugged field-ready design with IP65 (CD) and IP54 (LD) protection
- Supports up to eight central devices for larger network analysis

/ **FC5300** LIVE CABLE IDENTIFIER WITH ROGOWSKI COIL



/ USE

- Live LV cable identifier with high-resolution directional probe for energised cable detection
- Displays guided identification, phase (L1, L2, L3), source direction, and network orientation
- Rugged field-ready design with built-in self-test and sealed protective case

WHAT SETS IT APART

Its ultra-sensitive directional sensing and integrated guided display deliver fast, accurate live LV cable identification - even in complex trenches, tunnels, and dense cable bundles - with minimal risk of error.

/ FC ULTIMATE DE-ENERGISED CABLE AND PHASE IDENTIFIER

NEW









/ USE

FC ULTIMATE delivers complete on-site information for dead cable, phase, and cable end identification — enabling safe and reliable verification in the field.

The system includes:
- Two transmitters, each supplied with three induction clamps
- A hand-held receiver that clearly displays all identification data

WHAT SETS IT APART

- Confident Cable ID — Fast, accurate dead cable and phase identification on-site.
- Works Anywhere — Suits LV to HV, all common cable types and configurations.
- Map More, Faster — Identify up to 8 circuits in one job.

/ KEY APPLICATION

- **Faulty Cables:** Cable identification remains possible provided at least two phase conductors maintain continuity and insulation integrity.
- **Network Mapping:** With up to eight selectable transmitter indexes, the system allows simultaneous mapping of up to eight circuits during a single operation.

/ TECHNICAL SPECIFICATIONS

- Compatible Cable Types: PILC, XLPE, SWA, single-core and three-core cables, with or without neutral conductor.
- Operating Range:
  - LV cables: up to 1.6 km
  - HV distribution: up to 19.3 km
  - HV transmission: up to 25 km
- Cable Configurations: Parallel runs, layered installations, bundled cables, and overhead lines.
- Cable Cross-Sections: Advanced identification mode supports cables from LV 4 × AWG 7 up to HV 220 kV, 4500 mm^2.
- Probes & Detection Options:
  - Magnetic Probe (Directional): Enables precise cable identification.
  - Two-Contact Probe: Used on open circuits to verify continuity and phasing.
  - Rogowski Loop Probe: Designed for tracing and continuity testing of single-core cables.
  - I-Probe Magnetic Sensor: Detects the presence of 50/60 Hz current flow across all cable configurations, including single-core and three-core cables with or without peripheral neutral.
- Modules: Wireless bi-module combo (transmit/receive)

/ **TAG5010** WIRELESS PHASE COMPARATOR



/ USE

Wireless phase comparator for 1—500 kV (50 Hz) overhead networks, enabling safe, cable-free phase verification via long-range radio — proven in Australian field conditions for over 20 years.

WHAT SETS IT APART

- Enhanced operator safety - no HV connection leads required.
- Long-range wireless operation - accurate phasing beyond 25 m, even through barriers.
- Wide voltage range - 1-500 kV

/ **CABLE CORE IDENTIFIER** WITH DIODE LEAD SET

MADE IN AUSTRALIA



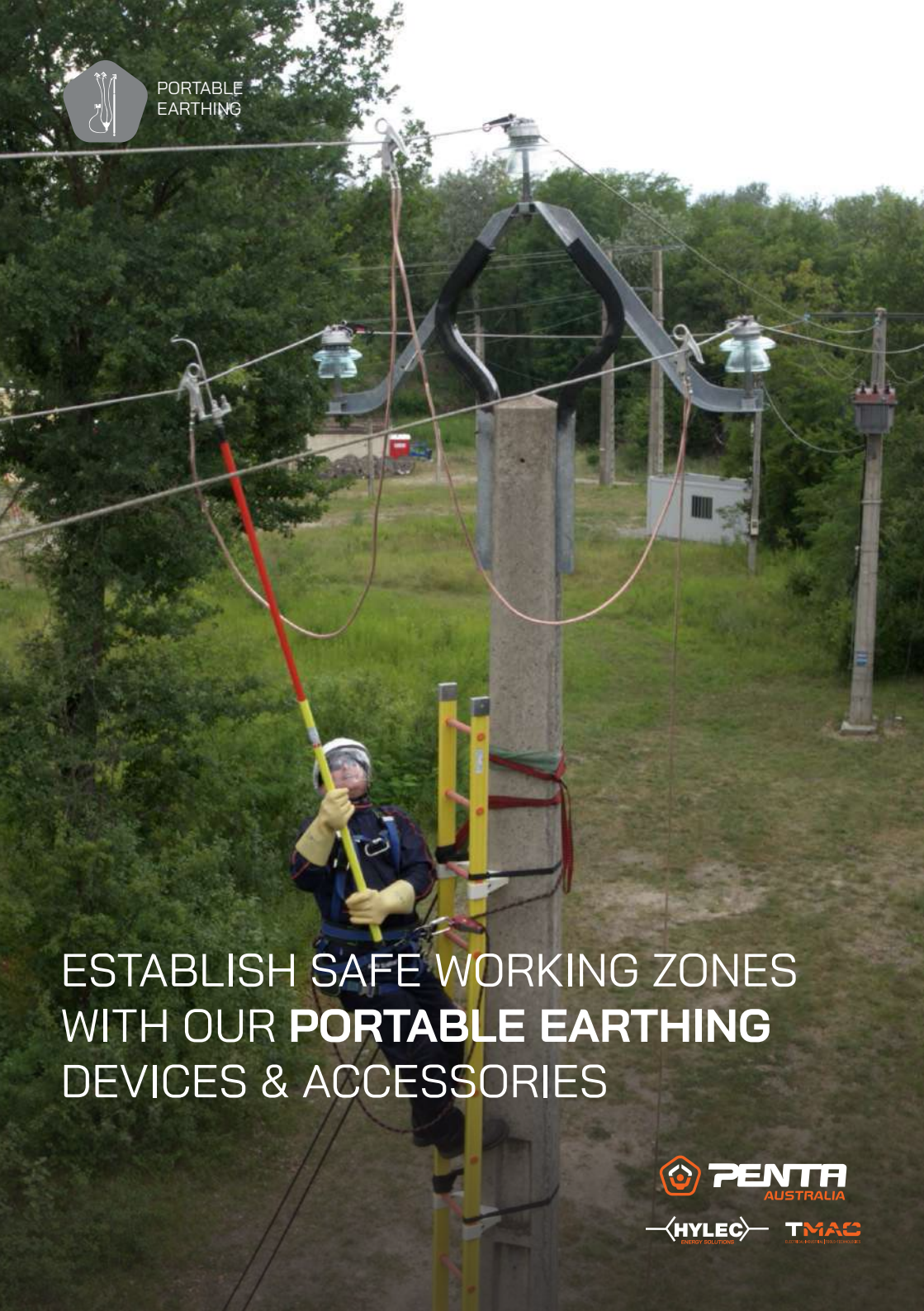
/ USE

Identifies core sequence in three-phase cables and indicates required corrective action for sequence errors or core faults.

For use on de-energised cables only — approved isolation and discharge procedures must be completed before connection.

WHAT SETS IT APART

- Verifies correct core matching and phase rotation between cable ends
- Detects faults such as reversed phases, incorrect rotation, earths in place, connected equipment, and open or shorted cores
- Built-in self-test; suitable for cables up to 33 kV and 10 km length



ESTABLISH SAFE WORKING ZONES WITH OUR **PORTABLE EARTHING** DEVICES & ACCESSORIES

PENTA AUSTRALIA

HYLEC ENERGY SOLUTIONS

TMAC

TMAC® PORTABLE EARTHING SYSTEM

MADE IN AUSTRALIA

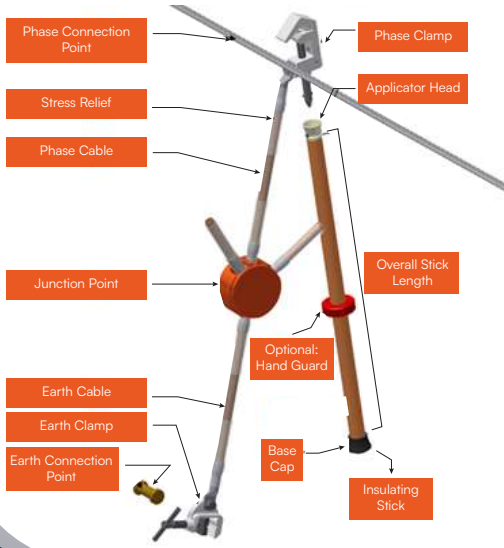
Portable Earthing Devices (PEDs) are temporary safety systems used to protect workers during maintenance or switching operations on de-energised electrical networks.

Once a line or installation has been isolated and proven dead, PEDs are applied to:

- Safely discharge residual or induced voltages
- Prevent accidental re-energisation
- Reduce step and touch potential risks
- Create an equipotential working zone

They are critical in HV and LV substations, overhead lines, underground networks, and rail systems, ensuring that if the system becomes live unexpectedly, fault current is safely directed to earth rather than through personnel.

/ GENERAL ARRANGEMENT



/ HOW TMAC® PORTABLE EARTHING DEVICE (PED) IS ASSEMBLED

Below is a general guide to building your PED system. For configuration tailored to your specific network and fault levels, contact **sales@pentaesp.com.au.**

1 - Confirm Network Requirements
Identify the voltage level, prospective fault current, and required fault duration.

2 - Choose your PED Configuration
Determine the arrangement required based on the application.

3 - Select the Cable & Environment
Select the correct cross-section and length to suit the fault rating and installation conditions (indoor or outdoor).

4 - Configure the Clamps
Match the appropriate clamps, attachments, and spindle types for both phase and earth connections.

5 - Identify Accessories/Add-Ons
Include operating poles, storage bags, protective covers, identification tags, or other required add-ons.

/ AVAILABLE **CONFIGURATION**

Portable Earthing Devices can be configured for a range of network voltages and applications, from simple bonding leads to full three-phase short-circuiting sets. The options below outline the available arrangements to suit your operational requirements.

JUNCTION



3-4 phase clamps and 1 earth clamp

LOOPED



3-4 phase clamps and 1 earth clamp

LOOPED + SEPARATED EARTH



3-4 phase clamps and 1 earth clamp

SINGLE EARTH



1 phase clamp and 1 earth clamp

SINGLE SHORT



2 phase clamps

/ AVAILABLE **CABLES**

Earthing cables in a PED system carry fault current safely from the conductor to earth and are rated to withstand the thermal and mechanical stresses of a fault, directing energy away from personnel. The following table outlines standard current and time ratings for PENTA Australia HYLEC TMAC earthing and short-circuiting cables. These values are a guide only. For configuration tailored to your network and fault levels, contact sales@pentaesp.com.au

	Cable Cross-section mm²	Rating kA/0.5 sec or less		Rating kA/1 sec or less	
		Outdoor	Indoor	Outdoor	Indoor
Copper Cable 	25	8.6	7	6.1	4.9
	35	12.5	10	8.8	7.1
	50	17.5	14	12.4	9.9
	70	25	22.1	17.7	15.6
	95	31.5	26.5	22.3	18.7
Aluminum Cable 	50	9.8	8.7	6.9	6.2
	70	13.2	11.6	9.3	8.2
	95	20	18	14.1	12.7
	150	25	24	17.7	17

/ BUILDING YOUR CLAMPS

Clamps in a Portable Earthing Device (PED) system create the secure mechanical and electrical connection between the conductor and the earthing cable. They ensure low-resistance contact and are designed to safely carry prospective fault current to earth. In essence, clamps are the critical link that protects personnel if the system becomes accidentally energised.

Please note that the information below are a general guide only. For precise configuration to suit your specific network requirements and fault levels, please contact our team at sales@pentaesp.com.au.

/ KNOW YOUR **ATTACHMENT**

Attachments for PED systems interface between the clamp and the network; users must first identify the available attachments in their facility to ensure compatibility with the appropriate clamp/s.


ROD


BUSBAR


BALLPIN


RAIL

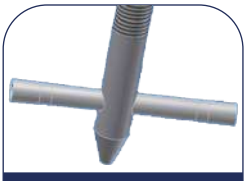
/ AVAILABLE **SPINDLE TYPES**

The spindle tightens the clamp onto the conductor, applying the force needed for secure contact and low resistance. Proper spindle pressure prevents loosening during vibration or faults. Without sufficient force, the clamp may not perform safely under fault current.


BAYONET


SHOTGUN


TAPLIN


T-HANDLE


HANDLE


FIXED OPERATING STICK

/ CLAMP & SPINDLE FOR ATTACHMENT: ROD

Please note that the information below are a general guide only. For precise configuration to suit your specific network requirements and fault levels, please contact our team at sales@pentaesp.com.au.

	BAYONET	SHOTGUN	TAPLIN	T-HANDLE	HANDLE	FIXED OPERATING STICK	OTHER
CLAMP D 16.9 kA/0.5sec 12 kA/1sec Diameter: 6-32mm			Special Applicator Tool Required				PA10815
CLAMP A 17.5 kA/0.5sec 12.4 kA/1sec Diameter: 4-23mm	PA10911	PA10914			PA10913	Yes	
CLAMP B 25.0 kA/0.5sec 17.7 kA/1sec Diameter: 2-42mm	PA10922	PA10931	PA10924	PA10933	PA10930	Yes	
CLAMP C 25.0 kA/0.5sec 17.7 kA/1sec Diameter: 2-42mm	PA10934	PA10937	PA10935			Yes	
CLAMP H 25.0 kA/0.5sec 17.7 kA/1sec Diameter: 2-42mm	PA10925	PA10928		PA10929	PA10927	Yes	
CLAMP E 25.0 kA/0.5sec 17.7 kA/1sec Diameter: 5-30mm	PA10899		PA01132	PA10898	PA10903	Yes	
CLAMP K 31.5 kA/0.5sec 22.3 kA/1sec Diameter: 4-35mm				PA10907			
CLAMP G 31.5 kA/0.5sec 22.3 kA/1sec Diameter: 4-35mm	PA10910		PA30128		PA00270	Yes	PA00113
CLAMP L 31.5 kA/0.5sec 22.3 kA/1sec Diameter: 5-35mm	PA00267	PA00266				Yes	PA00265
CLAMP B 33.0 kA/0.5sec 23.3 kA/1sec Diameter: 2-42mm	PA10939	PA10946	PA10940	PA10948	PA10945	Yes	
CLAMP H 33.0 kA/0.5sec 23.3 kA/1sec Diameter: 2-42mm	PA10941	PA10943	PA01130	PA10944	PA10942	Yes	
CLAMP J 33.0 kA/0.5sec 23.3 kA/1sec Diameter: 10-85mm	PA10915	PA10920		PA10921	PA10919	Yes	
CLAMP J 33.0 kA/0.5sec 23.3 kA/1sec Diameter: 20-80mm	PA10916						

/ CLAMP & SPINDLE FOR ATTACHMENT: BUSBAR

Please note that the information below are a general guide only. For precise configuration to suit your specific network requirements and fault levels, please contact our team at sales@pentaesp.com.au.

	BAYONET	SHOTGUN	TAPLIN	T-HANDLE	HANDLE	FIXED OPERATING STICK	OTHER
CLAMP F 18.0 kA/0.5sec 12.7 kA/1sec Width: 10+mm 							PA10905
CLAMP E 25.0 kA/0.5sec 17.7 kA/1sec Width: 10+mm 	PA10899		PA01132	PA10898	PA10903	Yes	
CLAMP F 25.0 kA/0.5sec 17.7 kA/1sec Width: 10+mm 				PA10904			PA10905
CLAMP K 31.5 kA/0.5sec 22.3 kA/1sec Width: 10+mm 				PA10907			
CLAMP L 31.5 kA/0.5sec 22.3 kA/1sec Width: 10+mm 	PA00267	PA00266				Yes	PA00265
CLAMP M 33.0 kA/0.5sec 23.3 kA/1sec Width: 13mm hole 							PA10967

/ CLAMP & SPINDLE FOR ATTACHMENT: BALLPIN

Please note that the information below are a general guide only. For precise configuration to suit your specific network requirements and fault levels, please contact our team at sales@pentaesp.com.au.

	BAYONET	SHOTGUN	TAPLIN	T-HANDLE	HANDLE	FIXED OPERATING STICK	OTHER
CLAMP H 25.0 kA/0.5sec 17.7 kA/1sec Diameter: 20mm 	PA10925	PA10928		PA10929	PA10927	Yes	PA10905
CLAMP H 33.0 kA/0.5sec 23.3 kA/1sec Diameter: 25mm 	PA10941	PA10943	PA01130	PA10944	PA10942	Yes	

/ CLAMP & SPINDLE FOR ATTACHMENT: RAIL

Please note that the information below are a general guide only. For precise configuration to suit your specific network requirements and fault levels, please contact our team at sales@pentaesp.com.au.

	BAYONET	SHOTGUN	TAPLIN	T-HANDLE	HANDLE	FIXED OPERATING STICK	OTHER
CLAMP F 18.0 kA/0.5sec 12.7 kA/1sec 							PA10904

/ AVAILABLE ACCESSORIES



BALLPIN EXTERNAL THREAD



BALLPIN INTERNAL THREAD



BALLPIN ANGLED

MADE IN AUSTRALIA



BRASS STUB

/ SNAP-CLAMP HOLDER

MADE IN AUSTRALIA



/ USE

Lightweight, easy-handling applicator tool designed for safe installation and removal of snap-on clamps on conductors in overhead and substation environments.

/ HANGER BARS

MADE IN AUSTRALIA



/ USE

Heavy-duty clamp hanger bars designed to support easy installation and organization of PED systems on overhead lines using compatible TMAC clamps.

/ OTHER **RELATED PRODUCTS**

/ PA11728 COMMUNICATIONS MANHOLE EARTHING KIT

MADE IN AUSTRALIA

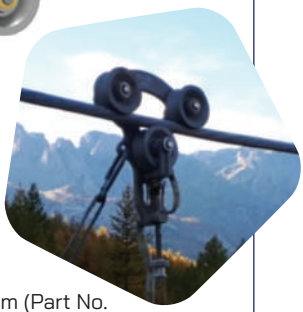


/ USE

Communications Manhole Earthing Kit designed for Australia, providing portable bonding and grounding for safe work on underground communication networks.

/ MR250 ROLLING EARTH DEVICE 25kA





/ USE

Rolling Earth System (Part No. MR50) rated at 25 kA, designed for rapid deployment of portable earthing in overhead line and cable-work environments.

MADE IN AUSTRALIA



COMMUNICATIONS EARTH PIT LEAD 1.5M (STOCK CODE: PA11111)

Heavy-duty 1.5 m telecom earth pit lead with 3 m, 6 mm² insulated cable, Telstra approved (No. 740/81).



DISCHARGE RODS CUSTOMISED

Custom discharge rod sets with IEC-tested foam-filled fibreglass sticks, configurable lengths, cables, clamps, and probes for safe energy dissipation.

PATENTED



SWITCHGEAR EARTH (SWPED)

An extendable single-pole portable assembly for earthing orifices of vertically racked metal-clad HV switchgear.

CABLE CUTTING &
CRIMPING TOOLS



CONTROL FROM CUT TO CONNECTION WITH OUR **CABLE CUTTING & CRIMPING TOOLS**

PENTA AUSTRALIA

HYLEC ENERGY SOLUTIONS

TMAC

PENTA RECOMMENDS

/ PICOUP80

ULTRA-SAFE WATERPROOF CABLE CUTTING AND PIER CING TOOLS





CUTTING HEAD

VIEW PRODUCT DEMO

/ USE

Fully integrated, waterproof electro-hydraulic cable cutter. Ultra-safe, hose-free, and remote-controlled device for verifying voltage absence on underground networks.

Model	Outer diameter	Max total conductor cross-section	Steel tape armour	Flat or round wire armour
PICOUP80 MAX EXP	Up to 80mm	3x240 + 120 mass / 1x1300mm² Aluminum 3x150mm² + 95mm² / 1x1300mm² Copper	Thickness up to 1mm	Thickness up to 1mm (flat wire only)

/ TECHNICAL SPECIFICATIONS

- Cutting head weight with earth lead + battery + remote control: 10kg
- Cutting head dimensions: 555x115x180 mm
- Cutting force: 5.8 ton
- Battery life (on 3 × 50 mm² aluminium cable): 75
- Blade treatment: oil-treated
- Blade reopening: Decompression button + spring return
- Interchangeable battery: CAS METABO or MAKITA 18 18v 4ah

WHAT SETS IT APART

- **Fast cutting performance** — reduces MV cutting risk
- **70 mm² aluminium earthing** — compatible cable size
- **25 m remote operation** — hose-free electro-hydraulic unit
- **Field-ready design** — 18 V battery, two-speed, carry case

/ COMPONENTS & ACCESSORIES



EARTHING CABLE



REMOTE CONTROL



BATTERY 18V-4AH



BATTERY CHARGER



EXPLOSION-PROOF PROTECTIVE COVER



EARTH ROD



SUSPENSION STRAP



RETAINING STRAP



CARRYING CASE

/ SPCCS140WI

ULTRA-SAFE CABLE CUTTING AND PIER CING TOOLS



/ USE

Fully integrated, ultra-safe electro-hydraulic cable cutters, hose-free, designed for verifying absence of voltage on underground network cables.

Outer diameter	Max total cross-section of conductors	Round steel wire armour	Steel sheath armour	Flat steel wire armour
Up to 140mm	Up to 2 500mm² Aluminum Up to 2 500mm² Copper	Up to ø4mm	Thickness up to 4mm	Thickness up to 4mm

WHAT SETS IT APART

- **High fault rating** - phase-to-earth fault via PIC system
- **70 mm² copper cable** - compatible earthing size
- **Safer operation** - secure positioning, overhead-ready
- **Compact & durable** - 24 V battery, two-speed, case included

/ COMPONENTS & ACCESSORIES


PIERCING BLADE


CONTROL UNIT


REMOTE CONTROL


BATTERY


BATTERY CHARGER


PROTECTIVE MAT


STRAPS FOR OVERHEAD WORK


SHOULDER STRAP


EARTH ROD


RIGID WHEEL CASE


SOFT WHEEL CARRY CASE


WIRE BRUSH

/ TECHNICAL SPECIFICATIONS

- Total copper conductor cross-section: 2500mm²
- Total aluminum conductor cross-section: 2500mm²
- Round wire armour (diameter): 4mm

Cutting head:

- Weight without earth lead: 20kg
- Max cutting diameter: 140mm
- Cutting force: 21 tonnes
- Blade harness: 55 Hrc
- Anti-corrosion blade treatment: Zinc plating
- Blade reopening: Selector with hydraulic return
- Interchangeable battery: BOSCH 24v 3Ah

PENTA RECOMMENDS

/ SPCCS100SI

ULTRA-SAFE WATERPROOF CABLE CUTTING AND PIER CING TOOLS



/ USE

Ultra-safe, integrated electrohydraulic cable cutter (hose-free) designed to verify absence of voltage on underground power cables.

				
Outside Diamater	**Maximum total cross-section of conductors**		**Steel strip armour**	**Flat wire steel armour**
Up to 100mm	Up to 1300mm² Aluminum Up to 3 x 240mm² Copper		Thickness up to 2mm	Thickness up to 2mm

/ TECHNICAL SPECIFICATIONS

- Total copper conductor cross-section: 3x240mm²
- Total aluminum conductor cross-section: 1300mm²
- Flat wire armour (thickness): 2mm
- Strip armour (thickness): 2mm
- Maximum cutting diameter: 100mm
- Weight without earth lead: 14kg
- Dimensions: 628x165x328mm
- Cutting blade hardness: 55 Hrc
- Anti corrosion treatment of the blades: Zinc plating
- Cutting force (ton): 13 ton
- Hydraulic pressure: 700 bar
- Oil volume: 300 ml
- Blade reopening: Lever + spring return
- Hydraulic distributor: Single acting
- Interchangeable battery: BOSCH 24v 3Ah

WHAT SETS IT APART

- **Controlled fault protection** - PIC system creates phase-to-earth fault
- **70 mm² copper cable** - compatible earthing size
- **Remote, safer cutting** - up to 100 m operation, **hose-free electro-hydraulic design**
- **Compact & rugged** - 24 V battery, no cartridge spiker, supplied in soft or wheeled case

/ COMPONENTS & ACCESSORIES


PIERCING BLADE


CONTROL UNIT


REMOTE CONTROL


BATTERY


BATTERY CHARGER


PROTECTIVE MAT


EARTHING CABLE


EXPLOSION-PROOF PROTECTIVE COVER


STRAPS FOR OVERHEAD WORK


SHOULDER STRAP


EARTH ROD


RIGID WHEEL CASE


SOFT WHEEL CARRY CASE


WIRE BRUSH

WORK

Every reliable network starts with a quality termination. Our WORK Range of cable preparation tools is engineered for precision, ergonomics and long-term durability - supporting safe, efficient installation across transmission, distribution and maintenance projects.

CABLE PREPARATION TOOLS

/ OVERVIEW OF OUR CABLE PREPARATION TOOLS

Network integrity starts with preparation. Our Cable Preparation Tools combine ergonomic design and precision engineering for safe, efficient sheath and insulation removal. Built for demanding worksites, they help crews terminate cables with confidence. Below is an overview of the range and the cable layers each tool addresses.

JACKET OR OUTER SHEATH

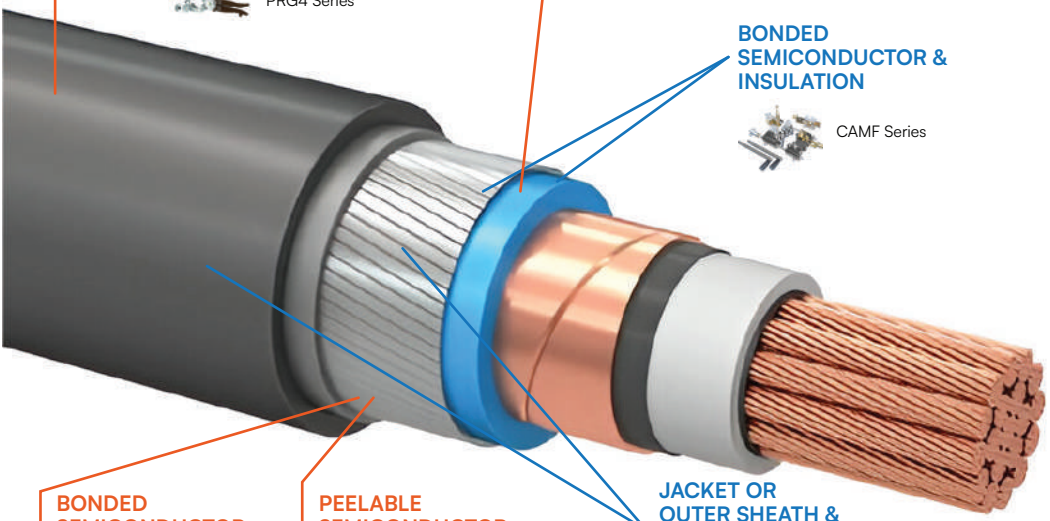
- PG2 Series
- PG3HTA Series
- PG4 Series
- PINTEL4BT Series
- OGA
- PRG3 Series
- PRG4 Series

INSULATION

- BRMRD1E
- LHA / LHA2 / LHA4
- LH2 / LH3

ALL 3 LAYERS

- MF3/60 Series
- MF3NP/60 Series



BONDED SEMICONDUCTOR & INSULATION

- CAMF Series

BONDED SEMICONDUCTOR

- MF1 SERIES
- GRI
- CWB/18-60-MVS

PEELABLE SEMICONDUCTOR

- CWE/14-50-MVS
- ORACL

JACKET OR OUTER SHEATH & PEELABLE SEMICONDUCTOR

- MF2 /60 SERIES

PENTA AUSTRALIA
HYLEC ENERGY SOLUTIONS
TMAC

/ TOOLS FOR **OUTER SHEATH / JACKET**



PG2 SERIES

MIN DIAMETER: 21MM | MAX DIAMETER: 35MM

Pliers for circular and longitudinal cutting to remove LV and MV cable outer sheaths, with cutting depths from 0.5 mm to 5 mm.



PG3HTA SERIES

MIN DIAMETER: 26MM | MAX DIAMETER: 52MM

Designed for circular and longitudinal cuts to remove cable outer sheaths. Cutting depths from 0.5-5 mm available on request.



PG4 SERIES

MIN DIAMETER: 47MM | MAX DIAMETER: 75MM

Pliers for circular and longitudinal cutting to remove MV cable outer sheaths, with cutting depths from 0.5 mm to 5 mm.



PRG4 SERIES

MIN DIAMETER: 47MM | MAX DIAMETER: 75MM

Pliers designed for circular and longitudinal cuts to remove cable outer sheaths. TRL cartridge sold separately.

/ TOOLS FOR **OUTER SHEATH / JACKET**



PINTEL4BT SERIES

MIN DIAMETER: 10MM | MAX DIAMETER: 30MM

For de-energised work, the PINTEL4BT delivers faster, safer sheath removal than a knife, with controlled cutting depth for round and sector-shaped conductors.



PRG3 SERIES

MIN DIAMETER: 26MM | MAX DIAMETER: 52MM

For circular and longitudinal sheath removal, faster and safer than a knife. Features an interchangeable longitudinal blade with multiple depths available.

VIEW PRODUCT DEMO

OGA

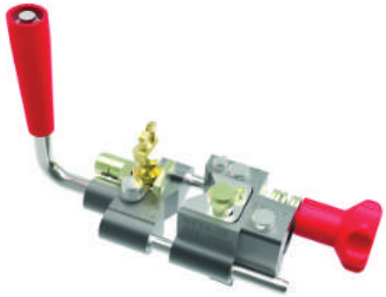
PENTA RECOMMENDS

MIN DIAMETER: 20MM | MAX DIAMETER: 200MM
MAX CUTTING DEPTH: 5MM

Designed for precise longitudinal cutting of cable outer sheaths, particularly on three-core cables, enabling safe and controlled sheath opening.



/ TOOLS FOR **BONDED SEMICONDUCTOR**



MF1 SERIES

MF1/+25 MIN DIAMETER: 14MM | MAX DIAMETER: 44MM

Shaves bonded semiconductor to the required length with a chamfered cutback. Optional stylus scores peelable semiconductor or chamfers insulation.

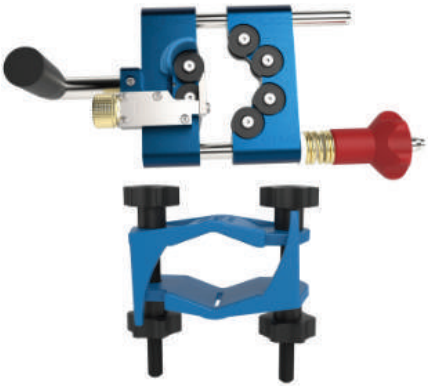


GRI

MIN DIAMETER: 15MM | MAX DIAMETER: 240MM

Semiconductor Residue Removal. Removes bonded semiconductor residue from cable insulation for a clean, prepared surface.

VIEW PRODUCT DEMO

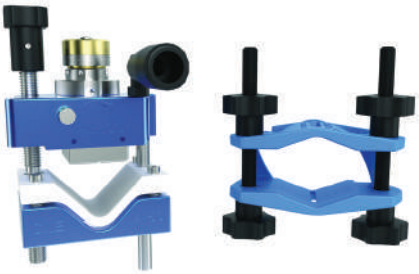


CWB/18-60-MVS

MIN DIAMETER: 18MM | MAX DIAMETER: 60MM

Removes bonded semiconductor and create a chamfered edge—no silicone required. The MVS stop secures to the cable to control the length of the remaining semiconductor.

/ TOOLS FOR **PEELABLE SEMICONDUCTOR**



CWE/14-50-MVS

MIN DIAMETER: 14MM | MAX DIAMETER: 50MM

Scores and removes peelable semiconductor on MV cables while forming a chamfer, enabling circular, longitudinal, and helicoidal cuts.

VIEW PRODUCT DEMO



ORACL

MIN DIAMETER: 10MM | MAX DIAMETER: 100MM

Performs controlled longitudinal scoring of peelable semiconductor for easy manual removal. Four cutting depths (mm) in the one tool: 0.4 / 0.6 / 0.9 / 1.1

/ TOOL FOR **JACKET / OUTER SHEATH & PEELABLE SEMICONDUCTOR**



MF2/60 SERIES

DUAL FUNCTION

MIN DIAMETER: 16MM | MAX DIAMETER: 58MM

MF2/60-S multifunction tool for clean, straight removal of outer sheath (PE, PVC, PR) and precise stripping of insulation to set lengths.

/ TOOL FOR **BONDED SEMICONDUCTOR & INSULATION**

VIEW
PRODUCT
DEMO



CAMF SERIES

DUAL FUNCTION

2 MODELS AVAILABLE:
A - MIN DIAMETER: 40MM | MAX DIAMETER: 90MM
B - MIN DIAMETER: 50MM | MAX DIAMETER: 160MM

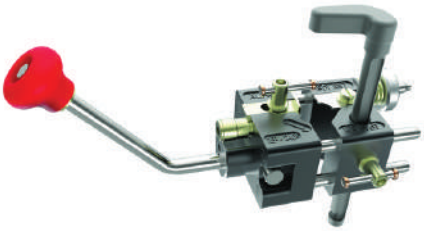
CAMF Series multifunction tool for bonded semiconductor and insulation removal.
• Bonded semiconductor: 16 ball bearings ensure steady guidance, maintain a constant diameter, and prevent blade damage to the insulation.
• Insulation: Adjustable back-iron controls pitch for smooth, controlled rotation during stripping.





/ TOOLS FOR **INSULATION**

VIEW PRODUCT DEMO



BRMRD1E

MAX DIAMETER: 40MM

BRMRD1E insulation remover (14-40 mm) for MV cables, delivering straight, controlled cuts with a built-in stop to set the insulation length.

LHA

MAX DIAMETER: 44MM



LHA2

MAX DIAMETER: 60MM



LHA/60

MAX DIAMETER: 55MM



LHA chamfering tool for creating a precise 30° bevel on MV cable insulation ends.

/ TOOLS FOR **INSULATION**

LH series, monofunction tool for insulation.

LH2

MIN DIAMETER: 38MM
MAX DIAMETER: 60MM



LH3

MIN DIAMETER: 60MM
MAX DIAMETER: 80MM



Note: Larger sizes available on request.



/ MF3/60 SERIES

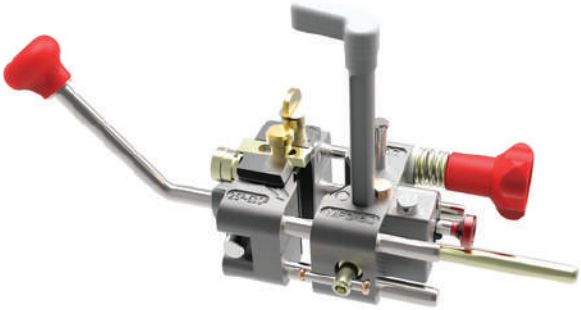
ALL 3 LAYERS

MIN DIAMETER: 16MM | MAX DIAMETER: 58MM

/ USE

MF3/60 adjustable multifunction tool for outer sheath, peelable semiconductor, and thick insulation removal.

- Clean, straight removal of PE, PVC, and PR outer sheaths to set lengths
- Precise scoring and removal of peelable semiconductor (with stylus) for straight cutback
- Neat stripping of EPR and XLPE insulation to the required length



/ MF3NP/60 SERIES

ALL 3 LAYERS

MIN DIAMETER: 16MM | MAX DIAMETER: 60MM

/ USE

Multifunction tool for removing outer sheath, bonded semiconductor, and insulation. The MF3NP/60 enables the user to:

- Remove outer sheath (PE, PVC, PR) with a clean, straight cut
- Strip bonded semiconductor with a precise chamfer, maintaining a minimum 40 mm remaining length
- Remove insulation with a neat, controlled cut

Note: Silicone is required for bonded semiconductor removal.



NETWORK CONSTRUCTION

Every resilient network is built from the line up. Our NETWORK CONSTRUCTION range includes overhead line hardware, protection systems, insulators, and wildlife deterrents engineered for safe construction and long-term reliability across transmission and distribution networks. We also exclusively distribute selected solutions from LINDSEY USA and JEAN MÜELLER, bringing globally trusted technologies to Australian utilities.



OVERHEAD LINE & PROTECTION



INSULATORS & WILDLIFE DETERRENTS



LINDSEY USA PRODUCTS



JEAN MÜLLER PRODUCTS

/ TMAC® COMPOSITE **FIXED CROSSARM**



/ USE

Designed as a direct replacement for hardwood cross arms and as the standard solution for new installations, suitable for LV, 11 kV, 22 kV, 33 kV and sub-transmission networks in both urban and rural environments. Supplied pre-drilled and ready for installation, compatible with existing hardware and fittings.

/ TECHNICAL SPECIFICATIONS

- 100 x 100 mm square hollow pultruded fibre-reinforced polymer (ECR fibreglass)
- Ultimate bending moment >17.46 kNm
- Minimum electrical resistance: 1×10^5 ohms per metre
- Basic Insulation Level (BIL): 300 kV/m (wet and dry)
- UV inhibitors in resin + UV-resistant coating (40+ year design life)
- Crush-resistant fibreglass inserts at bolt locations (>140 Nm)
- Nylon moulded end caps
- Fire, corrosion, lightning and power arc resistant
- Designed for extreme Australian conditions (–15°C to 50°C, high UV, coastal & industrial environments)
- Manufactured under ISO 9001 quality system

WHAT SETS IT APART

Combining 40+ year service life, superior corrosion and fire resistance, high mechanical strength equal to F17 hardwood, and electrically insulating performance, the TMAC Composite Cross Arm delivers a lightweight, maintenance-reducing alternative that withstands harsh Australian environments while preserving hardwood resources.



/ LV TEMPORARY CROSSARM - STOBIE POLE

MADE IN AUSTRALIA

IEC 60855



/ USE

Lightweight insulated temporary crossarm for safely supporting LV conductors on Stobie poles during crossarm replacement and live-line work.

WHAT SETS IT APART

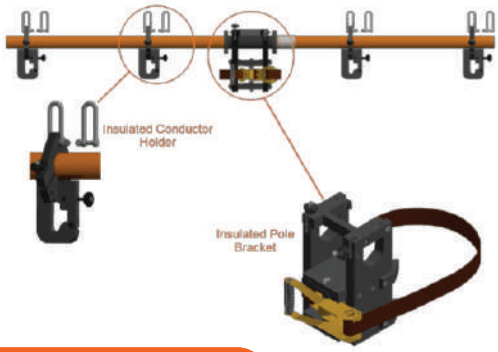
Insulated, lightweight temporary crossarm enabling fast live-line replacement with versatile mounting and improved productivity—no supply interruptions.

/ LV TEMPORARY CROSSARM - ADJUSTABLE

MADE IN AUSTRALIA

/ USE

Adjustable LV temporary crossarm engineered for safe conductor support, allowing quick repositioning, lightweight handling, and reliable insulation for live-line work



/ CONFIGURATIONS

- With our Without Fixed Bracket
- 2.1m, 4 Wires
- 2.1m, 5 Wires
- 2.4m, 4 Wires
- 2.4m, 5 Wires
- 2.7m, 4 Wires
- 2.7m, 5 Wires

WHAT SETS IT APART

Lightweight, non-conductive temporary support system enabling fast, adjustable live-line installation across various LV structures, improving safety and productivity without supply interruption.

/ TMAC® PG CLAMP
COPPER

AS1154.1



/ USE

Forged copper PG clamps for secure joining or tapping of copper conductors in overhead and distribution networks, delivering high conductivity, corrosion resistance, and durable performance in harsh outdoor environments.

/ TMAC® PG CLAMP
ALUMINUM

AS1154.1



/ USE

High-strength aluminum PG clamp engineered for reliable bonding of aluminum conductors, offering durable, corrosion-resistant performance and secure installation in utility and distribution networks.

/ TMAC® PG CLAMP
ALUMINUM & COPPER

AS1154.1 / DIN 933, DIN 934, DIN 439, DIN 6796 / ASTM 666 / DIN 48201 / DIN 48204

1 BOLT



3 BOLT



2 BOLT



U BOLT



/ USE

The TMAC® PG Clamp Bimetallic - Aluminum & Copper delivers secure, low-resistance connections between aluminium and copper conductors, engineered for durable performance in utility and industrial environments.

WHAT SETS IT APART

Its precision-forged bimetallic interface minimises galvanic corrosion while maintaining consistent clamping force for long-term outdoor reliability.

/ TMAC® UNIVERSAL POLE MOUNTING DEVICE



/ USE

The TMAC® Universal Pole Mount Lifting Device is a lightweight, Australian-made manual lifting aid designed for safely lifting and positioning conductors and equipment on poles and crossarms during overhead line work.

/ CANT HOOK

MADE IN AUSTRALIA



/ USE

Durable aluminum-alloy cant hook designed for rotating wooden poles, featuring an adjustable zinc-plated steel hook and PVC grip handle for safe and efficient pole handling.

WHAT SETS IT APART

Lightweight 1310 mm aluminum pole lever for efficient rotation and alignment in the field.

/ TMAC® SPLIT BOLTS

BS2874



/ USE

Split Bolt Connectors, made from electro-tinned or copper-plated brass, are used to join bare overhead or stranded copper conductors and comply with BS2874 and ESAA specifications.

/ SPLIT BOLT SPANNER



/ USE

The Split Bolt Spanner is a durable, four-ended tool for tightening A—D size split-bolt connectors, offering compact, reliable performance for field and workshop use.

/ TMAC® POLE PLATFORM

MADE IN AUSTRALIA

VIEW PRODUCT DEMO



FOR WOODEN POLES

UNIVERSAL POLE PLATFORM



/ USE

Durable, electrically insulated pole-mounted work platform providing safe, stable access for elevated utility and maintenance tasks. Available in two sizes and compatible with wood, steel, composite, and concrete poles.

WHAT SETS IT APART

- Provides a stable, insulated platform for safer pole-mounted work
- Universal fit reduces need for multiple platform types
- Lightweight and easy to install
- Durable construction for harsh outdoor use
- Enhances comfort, footing, and efficiency at height







BUILDING EQUIPMENT

/ WIRE GRIPS FOR ALUMINIUM & A.C.S.R



/ USE

Heavy-duty ABC and service line comealongs for secure gripping and reliable conductor control across multiple cable sizes.

/ WIRE GRIPS FOR AERIAL BUNDLED CONDUCTOR



/ USE

Durable conductor comealongs with plated body and spring-loaded jaw for fast, secure gripping.

/ MV CABLE CLAMPS

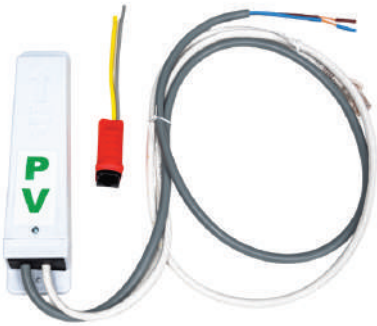
/ USE

Glass-fibre reinforced polyamide cable cleats for securing single and trefoil LV-MV conductors with high mechanical strength.



/ PA01714 GENERATION SIGNALLING DEVICE (GSD)

MADE IN AUSTRALIA



/ USE

The Generation Signalling Device (GSD) allows network operators to control AS4777-compliant solar inverters during emergencies, helping maintain grid stability and prevent outages. Using ripple-control technology, it receives AFLC signals to activate generation limits. It can trigger two inverter control levels:

- DRM0 - fully disconnects the inverter from the grid
- DRM6 - limits generation to 50% of the average output over the previous 5 minutes

/ TECHNICAL SPECIFICATIONS

- Overall Dimension: 174 x 38 x 26mm
- Supply Voltage Range 216-264VAC 50Hz
- Power Consumption 0.2W Max
- DRM0, DRM6 available
- P64 Enclosure (Suitable for mounting in areas exposed to weather)
- SAA Approvals Number — SAA172887

Developed for

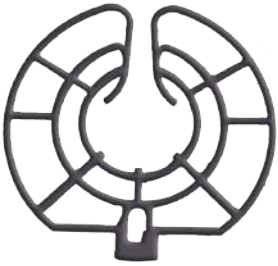
/ WILDLIFE DETERRENTS



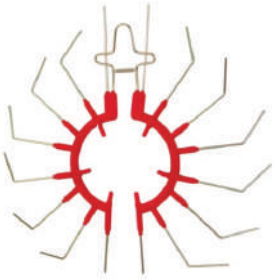
ROTOMARKA WARNING LINE MARKERS
Available in: Red/White, Black/White, Black/Yellow



WILDLIFE SHIELD
Diameter: 16-inch



ZAPSHIELD FOR POST INSULATOR
Grey W-1325G



ELECTROSTATIC ANIMAL GUARD
3M GG-7525



BGV-2 BIRD GUARD
Tested up to 100kV



WILDLIFE INSULATOR COVER
10-36kV INSO32

/ OUTDOOR INSULATORS
COMPOSITE & PORCELAIN

IEC 61109 / ASTM4435.1 / IEC 61952 / ASTM4435.4 /
IEC 61466-1 / ASTM4435.2 / ISO 1461 / ISO 9001:2000

/ USE

Outdoor insulators designed to support and electrically isolate conductors in transmission and distribution networks, including line post, station post, and long rod applications. Various ratings available e.g. 11kV, 22kV, 33kV, 66kV, 132kV.

Important: Insulators are not a one-size-fits-all product. Selection depends on voltage level, mechanical load, pollution conditions, and installation requirements. Contact sales@pentaesp.com.au and our team will help specify the correct insulator configuration for your application.



WHAT SETS IT APART

- **Proven reliability** with millions of units installed worldwide
- **Corrosion-resistant construction** with galvanised forged steel fittings
- **Customisable designs** to meet specific network requirements

/ TECHNICAL SPECIFICATION

- Available in composite and porcelain constructions
- Various ratings available upon request
- Composite:
  - Electrical-grade epoxy core with ECR glass fibre reinforcement
  - HTV silicone rubber sheds and housing for pollution resistance and hydrophobic performance
- Galvanised forged steel end fittings to ISO 1461
- Manufactured under ISO 9001 quality control
- Designed and tested to:
  - IEC 61109: Composite insulators
  - IEC 61952: Composite line post insulators
  - IEC 61466-1: Standard strength classes and end fittings



Lindsey Systems is a U.S.-based leader in transmission and distribution infrastructure solutions, delivering technologies that enhance grid reliability, enable real-time monitoring, and support rapid network restoration. PENTA Australia HYLEC TMAC is the exclusive distributor of Lindsey Systems products in Australia, bringing these proven solutions to local utilities and network operators.

/ EMERGENCY RESTORATION SYSTEM (ERS)



/ USE

Emergency Restoration Towers (ERS) are modular, reusable transmission-tower systems engineered for rapid deployment to temporarily bypass or replace damaged structures and restore service after outages. Designed for any voltage level and any terrain, ERS solutions can be installed with hand methods, cranes, or helicopters and are supplied along with local support through PENTA Australia HYLEC TMAC.

Important: ERS is not a pre-packaged product. Each system is engineered to suit your specific site, span, loading, terrain, and utility requirements. Contact sales@pentaesp.com.au and our team will design the correct configuration for your application.









WHAT SETS IT APART

Delivers rapid network restoration within hours using highly adaptable, modular towers that perform across diverse terrains and voltage levels.



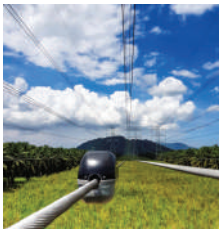
/ **SMARTLINE** DYNAMIC LINE RATING SYSTEM

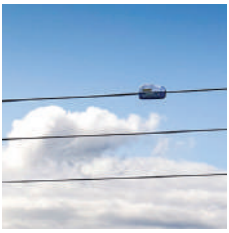
/ USE

The SMARTLINE Dynamic Line Rating System delivers real-time, precision measurements of conductor clearance, temperature, current, and vibration for dynamic line rating and regulatory compliance-designed for live-line installation up to 765 kV.

WHAT SETS IT APART

Self-powered and easily installed for live line use up to 765 kV, it delivers actionable conductor insights for dynamic line rating and regulatory compliance.





/ **FIREBIRD** EARLY FIRE DETECTION SYSTEM

/ USE

Advanced early-warning fire detection system designed to identify ignition risk and electrical fault conditions before bushfires or asset damage occur.

WHAT SETS IT APART

Delivers fast, 360° wildfire detection and alerts—including real-time images and weather data—typically within minutes of ignition.



/ T&D FITTINGS



/ USE

Engineered and rigorously tested, Lindsey T&D fittings deliver uncompromising performance.

/ STRINGING ROLLERS



/ USE

Reliable. Lineman-friendly. Since 1947, Lindsey distribution stringing rollers have been used to string countless miles of line across distribution networks worldwide.

/ POLE LINE HARDWARE



/ USE

Innovative, cost-effective hardware, bases, and adapters engineered for transmission and distribution applications.

/ CONDUCTOR CLAMPS



/ USE

Complete range of conductor clamps for EHV, HV, and MV distribution applications, delivering proven network performance.

/ DAVIT ARMS



/ USE

Davit arms are rugged support brackets that mount on poles or structures to safely suspend and guide equipment, conductors, or hardware during installation and maintenance.

/ WOOD POLE STAPLES



/ USE

Wood pole staples are rugged fishhook-style fasteners that securely hold grounding and bonding wire to wooden poles, resist loosening in wind, deter wire theft, and reduce pole fire risk with insulated versions.

/ UNDERGROUND & SWITCHGEAR SENSORS



/ USE

Switchgear and underground sensors provide accurate voltage and current measurement for pad-mount, metal-clad, and MV underground systems, supporting metering, protection, and automation.

/ OVERHEAD SENSORS



/ USE

Overhead sensors are load-rated post insulator devices that measure voltage and/or current on overhead lines to provide accurate real-time data for monitoring and grid automation.


JEAN MÜLLER
PRODUCTS
PROTECT YOUR NETWORK
WITH SWITCHGEAR AND
FUSE SOLUTIONS FROM
JEAN MÜLLER
PENTA
AUSTRALIA
HYLEC
ENERGY SOLUTIONS
TMAC

Jean Müller is a leading German manufacturer of low-voltage electrical protection and distribution systems, trusted across utility, industrial, and infrastructure networks worldwide. Renowned for precision engineering and reliability, its solutions meet stringent international standards. PENTA Australia HYLEC TMAC is the exclusive distributor of Jean Müller products in Australia.

/ CABLE DISTRIBUTION CABINETS





CUSTOM ASSEMBLY

/ USE

Jean Müller Distribution Cabinets are engineered low-voltage enclosures designed to house and protect busbars, fuse switch disconnectors, and metering equipment across utility, infrastructure, and industrial networks.

Available as empty enclosures or fully assembled systems, they provide safe, organised power distribution with easy installation, simplified maintenance, and seamless integration with modern protection technologies.

Important: Jean Müller Distribution Cabinets are not pre-packaged, off-the-shelf products. Each system is engineered to suit your specific network requirements, including site conditions, load profiles, protection coordination, and applicable utility standards. To discuss your project or request a configuration, contact sales@pentaesp.com.au

WHAT SETS IT APART



- **Robust Build:** High mechanical strength for harsh indoor and outdoor environments.
- **Custom Engineered:** Supplied empty or factory-assembled to project specifications.
- **Seamless Integration:** Fully compatible with Jean Müller fuse and switchgear systems.
- **Standards Compliant:** Designed for compliance with IEC / EN 61439 low-voltage assembly standards
- **Built to Last:** Durable, weather-resistant construction for long-term network reliability.

/ KETO NH-FUSE-SWITCH DISCONNECTOR







/ USE

The KETO NH Fuse-Switch Disconnector combines switching, isolation, and overcurrent protection in one compact low-voltage device. Designed to accept NH fuse-links, it provides safe circuit interruption and visible isolation for maintenance and fault protection in utility, industrial, and commercial distribution systems.

/ VERTICAL FUSE DISCONNECTS



/ USE

Three-pole NH fuse-switch-disconnectors designed for busbar mounting, combining switching, isolation, and overcurrent protection in compact low-voltage distribution systems.

/ HORIZONTAL FUSE DISCONNECTS



/ USE

Horizontally arranged fuse bases delivering switching, isolation, and overcurrent protection in low-voltage distribution systems across building, switchgear, and utility applications.

/ DIN FUSE LINKS



/ USE

DIN fuse-links provide reliable protection for electrical installations and equipment, with standardised characteristics and dimensions that simplify selection across a wide range of applications.

/ NH METERING FUSE LINKS



/ USE

NH Metering Fuse Links provide combined circuit protection and current measurement, designed for use with compatible current transformers in Jean Müller fuse disconnect systems.

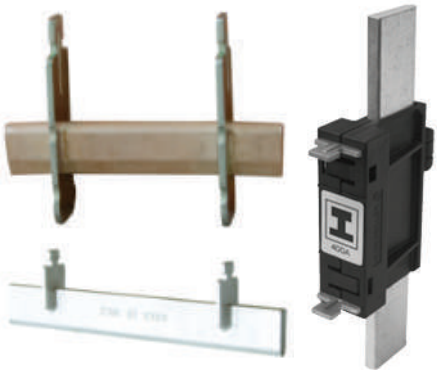
/ NH FUSE LINKS FOR DC APPLICATIONS



/ USE

NH fuse-links for DC applications provide compact, high-capacity protection against overload and short circuit in DC systems, including telecommunications power supplies and general DC networks up to 440V.

/ SOLID LINKS



/ USE

A non-fused conductor fitted in standard fuse bases to provide a permanent connection where upstream protection already exists.

/ C/O/S/M/O







/ USE

The C/O/S/M/O system is a modular platform for 60 mm busbar switchboards (3-pole and 4-pole), enabling direct mounting of fuse bases, fuse-switch disconnectors, and connection modules for flexible, low-voltage power distribution.

WHAT SETS IT APART

Its snap-on, direct busbar connection eliminates complex wiring, delivers fast and reliable contacts, and offers exceptional configuration flexibility - supported by high-performance, shatter-proof, halogen-free insulating materials and a wide range of compatible accessories.

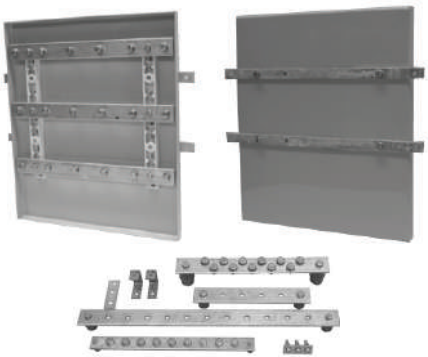
/ SH100/185
BUSBAR SUPPORT
100MM AND 185MM



/ USE

Provides a secure, stable mounting platform for 100 mm and 185 mm busbar systems in switchboards, control cabinets, and electrical distribution installations, ensuring correct alignment and support of busbars for reliable power distribution.

/ BUSBAR SYSTEMS
RELATED PRODUCTS



/ USE

Custom busbar racks, earth bars, and neutral bars for switchboards, delivering protected and reliable power distribution tailored to project requirements.

TESTING & MEASUREMENT

Accurate networks rely on verified data. Our TESTING & MEASUREMENT range includes diagnostic instruments and test leads engineered to confirm isolation, validate performance, and support safe operation across transmission and distribution networks.

DIAGNOSTIC INSTRUMENTS

TEST LEADS & ACCESSORIES

MADE FOR RAIL

/ ENMESUREFC CONTACT WIRE THICKNESS MEASUREMENT KIT

NEW

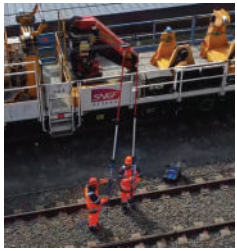
VIEW PRODUCT DEMO











/ USE

The ENMESUREFC Contact Wire Thickness Measurement Kit is a portable precision tool used to measure the thickness (wear) of overhead contact wire in railway and tram catenary systems. Designed for ground-level use, it enables accurate, repeatable measurements of contact wire wear without the need for elevated access, supporting asset condition monitoring, maintenance planning, and compliance reporting.

/ TECHNICAL SPECIFICATIONS

- Measurement Range: 2 mm to 16 mm
- Laser Resolution: ±0.01 mm
- Measurement Precision: ±0.05 mm (for wire < 12 mm), ±0.08 mm (for wire > 12 mm)
- Operating Temperature: -10°C to +50°C
- Battery Life: Approx. 6 hours continuous use
- Dimensions: 245 × 167 × 180 mm
- Weight: Approx. 1.5 kg
- Connectivity: Bluetooth for smartphone app integration

WHAT SETS IT APART

- **Ground-Level Operation:** Measures wire thickness safely from the ground without platforms or elevated equipment.
- **Precision & Repeatability:** Delivers accurate, consistent readings to monitor wear over time.
- **Portable & Field-Ready:** Rugged, lightweight design for fast deployment in service environments.
- **Data Management:** Compatible with apps/software for logging, analysis, and reporting.
- **Supports Maintenance Planning:** Helps assess contact wire condition and optimise replacement cycles.

MADE FOR RAIL

/ **CTS** CABLE & CATENARY CONTACT WIRE TENSION METER

NEW

VIEW PRODUCT DEMO

/ USE

The CTS Cable & Catenary Contact Wire Tension Meter is a portable mechanical tension measurement system designed to accurately measure the tension of contact wires, support cables, and feeders from ground level without elevated access equipment.

With Bluetooth connectivity to a dedicated smartphone or tablet app, it provides real-time readings, data logging, and on-site analysis for railway and overhead line maintenance applications.

/ TECHNICAL SPECIFICATIONS

- Measurement Range: 100 daN to 3000 daN
- Maximum Cable Diameter: Ø 21 mm
- Tolerance: ±30 to ±120 daN (depending on cable type)
- Operating Temperature: -15°C to 50°C
- Measurement Time: Approximately 40 seconds per reading
- Battery: Rechargeable, up to 250 measurements per charge; approx. 2.5-hour recharge time
- Connectivity: Bluetooth 4.0 compatible
- Dimensions: 320 × 350 × 150 mm
- Weight: Approximately 4.5 kg



WHAT SETS IT APART

- **Ground-Level Measurement:** Eliminates the need for ladders or elevated platforms.
- **Bluetooth Integration:** Real-time results and data recording via mobile app.
- **Portable & Field-Ready:** Lightweight and quick to deploy.
- **Integrated Self-Check:** Built-in control gauge for measurement verification.
- **Asset Management Ready:** QR code access to manuals, certificates, and inspection history.







/ TMAC® LOAD UNIT - 5A & 9A

MADE IN AUSTRALIA



/ USE

A portable device that applies a controlled load to single-phase meters for accurate performance testing, supplied complete with leads and probes for immediate use.

WHAT SETS IT APART

- Controlled load testing for accurate meter verification
- Portable design for convenient field testing

Stock Code	Type	Category Rating	Power Consumption	Input Voltage
PA12057	Single Phase 5A Load Unit	CAT III 600 V	1200 W	240V 50Hz
PA12055	Single Phase 9A Load Unit	CAT IV 300 V	2400 W	240V 50Hz

/ NON CONTACT VOLTAGE DETECTOR TESTER



/ USE

The Modielive is used with the Modiewark non-contact and contact voltage detector to verify correct operation. The unit generates an electromagnetic field (EMF) that can be detected by the Modiewark, confirming the detector is functioning properly before use.

MEASURE WITH CONFIDENCE, **TEST** WITH PRECISION

Electrical safety is our top priority. Our test and measurement equipment keeps users insulated from live conductors, with designs guided by strict industry standards.

We use proper clearances, creepage distances, and high-quality insulation—so customers can work safely with reliable, ergonomic tools.

/ STANDARDS INFORMATION

The CE mark confirms our products meet EU safety requirements.

Key Standards:
- EN 61010-1: Safety for measurement, control, and lab equipment
- EN 61010-031: Safety for handheld test probes

These standards shape our designs to keep users safe.

Measuring circuits are exposed to both working voltages and transient stresses from the circuits they connect to. These measuring circuits are classified by category:

CAT 0	Covers measurements on electrical circuits not directly connected to the mains supply, as well as circuits that don't fall under CAT II to IV. *Examples include* batteries, high-voltage transformers inside equipment (e.g., photocopiers), and laptop PCs.
CAT II	Covers measurements on devices connected directly to the mains supply or powered by it, but which are not part of the fixed installation. *Examples include* connected electrical equipment, power sockets, and the inside of domestic appliances
CAT III	Covers measurements within a building's electrical installation, on equipment located after the electricity meter. *Examples include* distribution boards, junction boxes, circuit breakers, fuses, switches, disconnectors, and three-phase circuits.
CAT IV	Covers measurements made at the source of an electrical installation, between the utility's transformer substation and the building's electricity meter. *Examples include* meters, surge protection devices, and overhead or underground power lines.



IMPORTANT NOTE:
Products shown are our most popular items. You can put them together in combinations custom-built to your needs and paired with suitable cables. Alternative colours also available on request. For enquiries: **sales@pentaesp.com.au**

/ TEST LEADS



TYPE: **4940**

RATED VOLTAGE: 1000V CAT II

Ø4mm Spring Loaded Test Tip With Retractable Fused Sleeve / Ø4mm Right-Angle Banana Plug



TYPE: **4960**

RATED VOLTAGE: 1000V CAT II

Ø4mm Loaded Test Tip With Retractable Sleeve / Ø4mm Stackable Fused Banana Plug

IMPORTANT NOTE:
Products shown are our most popular items. You can put them together in combinations custom-built to your needs. Alternative colours also available on request. For enquiries:
sales@pentaesp.com.au



TYPE: **2060**

RATED VOLTAGE: 1000V CAT III

Ø4mm Straight Banana Jacks



TYPE: **2110**

RATED VOLTAGE: ≤30VAC ≤60VDC

Ø4mm Stackable Banana Plugs



TYPE: **216 & 226**

RATED VOLTAGE: ≤30VAC ≤60VDC

Ø2mm Stackable Banana Plugs



TYPE: **2210**

RATED VOLTAGE: 600V CAT II

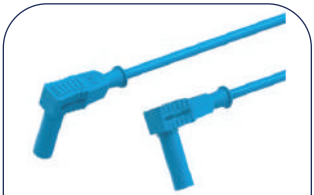
Ø4mm Stackable & Retractable Sleeve Banana Plugs



TYPE: **2350**

RATED VOLTAGE: 1000V CAT III

Ø4mm Safety Banana Plugs Right-Angle / Straight



TYPE: **2410**

RATED VOLTAGE: 1000V CAT III

Ø4mm Right Angle Safety Banana Plugs



TYPE: **2510**

RATED VOLTAGE: 600V CAT II

Ø4mm Retractable Sleeve Banana Plugs

/ TEST LEADS



TYPE: **2710**
RATED VOLTAGE: 1000V CAT III
Ø4mm Stackable Safety Banana Plugs



TYPE: **2810**
RATED VOLTAGE: ≤30VAC ≤60VDC
Ø4mm Straight Banana Plugs



TYPE: **2210**
RATED VOLTAGE: 600V CAT II
Ø4mm Stackable & Retractable Sleeve Banana Plugs



TYPE: **2210/2310-600V**
RATED VOLTAGE: 600V CAT II
Ø4mm Banana Plugs, Stackable & Retractable Sleeve / Straight



TYPE: **2310-IV**
RATED VOLTAGE: 1000V CAT IV
Ø4mm Straight Safety Banana Plugs

/ TEST PROBES



TYPE: **402**
RATED VOLTAGE: 1000V CAT IV
Very Fine Steel Tip With Over Moulding Protection And Ø4mm Safety Connection



TYPE: **405**
RATED VOLTAGE: 1000V CAT II
Ø2mm Safety Test Probe With Ø4mm Safety Connection



TYPE: **490**
RATED VOLTAGE: 1000V CAT II
Ø4mm Safety Test Probe With Ø4mm Safety Connection And Retractable Sleeve

/ SOCKETS & ACCESSORIES



TYPE: **228-2**
RATED VOLTAGE: 600V CAT II
Ø2mm Safety Banana Socket With Ø10mm Round Nut / 4.8x9mm Flat Connecting Tab



TYPE: **228-3**
RATED VOLTAGE: 600V CAT II
Ø2mm Safety Banana Socket With Ø10mm Round Nut / Ø1.9mm Soldering Hole Terminal



TYPE: **3265**
RATED VOLTAGE: 1000V CAT III
Ø4mm Safety Banana Socket With Ø14.5mm Round Nut / M4 Threaded Stud & Hex Nuts Terminal



TYPE: **3266**
RATED VOLTAGE: 1000V CAT III
Ø4mm Safety Banana Socket With Ø14.5mm Round Nut / 6.3x10mm Flat Connecting Tab



TYPE: **3270**
RATED VOLTAGE: 1000V CAT III
Ø4mm Safety Banana Socket With Ø14.5mm Round Nut / Ø2mm Soldering Hole Terminal



TYPE: **3283**
RATED VOLTAGE: 600V CAT II
Ø4mm Safety Banana Socket / M6 Threaded Stud & Hex Nuts Terminal / Surface Mounting



TYPE: **3230**
RATED VOLTAGE: ≤30VAC ≤60VDC
Ø4mm Insulated Socket / Ø2mm Hole Terminal / M6 Threaded Stud & Hex Nut



ACCESSORY

TYPE: **3297**
Holding Wrench For Ø4mm Sockets



ACCESSORY

TYPE: **3299**
Nut Wrench For Ø4mm Sockets

/ SOCKETS & ACCESSORIES



TYPE: **3300**
RATED VOLTAGE: 300V CAT II
Ø4mm Adapting Socket / Connection Through Expansion Pin



TYPE: **3304**
RATED VOLTAGE: 300V CAT II
Ø4mm Adapting Socket / Connection Through Expansion Pin



TYPE: **3267**
RATED VOLTAGE: 1000V CAT III
Ø4mm Safety Banana Socket With Ø14.5mm Round Nut - Ø1.9 x 11mm Pin Connection



TYPE: **3274**
RATED VOLTAGE: 1000V CAT III
Ø4mm Safety Banana Socket With Ø14.5mm Round Nut - 4.8 x 8mm Flat Connecting Tab

/ TESTING POLE & TIPS



TYPE: **40432d4**
RATED VOLTAGE: 1000V CAT IV
One Segment Testing Pole With Straight Tip / Ø4mm Socket



TYPE: **PERCHTELE**
RATED VOLTAGE:
1000V CAT III / 600V CAT IV
RETRACTED LENGTH: 47CM
EXTENDED LENGTH: 85CM
Two Segments Telescopic Probe With Angle Test Tip / Ø4mm Socket



TYPE:
EperchIsJ
RATED VOLTAGE: N/A
Ø4mm Test Tip To Screw
45° Angle

/ ADAPTERS & COUPLERS



TYPE:
ADABV140
RATED VOLTAGE:
1000V CAT III
Test Point, Flexible Pin
Ø2.5mm² / Ø4mm Female



TYPE: **2019-S**
RATED VOLTAGE: 1000V CAT IV
Shunt



TYPE: **3310**
RATED VOLTAGE: 1000V CAT III
Adapter Ø4mm Female /
Ø4mm Female



TYPE: **ADASPM3**
RATED VOLTAGE: ≤30VAC ≤60VDC
Test Point Screw M3 x 0.5 (L=4mm)



TYPE: **ADASPM4**
RATED VOLTAGE: ≤30VAC ≤60VDC
Test Point Screw M4 x 0.7 (L=6mm)



TYPE: **Ada1057**
RATED VOLTAGE: ≤30VAC ≤60VDC
Adapter Ø4mm Male Plug /
Ø4mm Female



TYPE: **Ada3032**
RATED VOLTAGE: ≤30VAC ≤60VDC
Adapter Narrow Fork /
Ø4mm Female

/ ALLIGATOR CLIPS



TYPE: **5004**
RATED VOLTAGE:
1000V CAT III / 600V CAT IV
Ø4mm Safety Alligator Clip



TYPE: **5030**
RATED VOLTAGE: ≤30VAC ≤60VDC
Crocodile Test Clip
With Rubber Sheath



TYPE: **6005**
RATED VOLTAGE: 1000V CAT II
Flexible Test Clip With Clamps &
Ø4mm Connection



TYPE: **6009**
RATED VOLTAGE: 1000V CAT III
Rigid Test Clips With Alligator Clips
& Ø4mm Connection



TYPE: **5066**
RATED VOLTAGE:
1000V CAT III / 600V CAT IV
Ø4mm Safety Alligator Clip



TYPE: **5066-PROB**
RATED VOLTAGE:
1000V CAT III / 600V CAT IV
Ø4mm Safety Alligator Clip

TYPE:
6007
RATED VOLTAGE:
1000V CAT III
Flexible Test Clip With
Alligator Clips & Ø4mm
Connection



/ DO-IT-YOURSELF CONNECTORS



TYPE: **1086**

RATED VOLTAGE: ≤30VAC ≤60VDC

Ø4mm Stackable Banana Plug And Retractable SLeeve / M3 Screw Connection



TYPE: **1061**

RATED VOLTAGE: 600V CAT II

Ø4mm Safety Banana Plug With Retractable Sleeve / Screw Terminal



TYPE: **1063**

RATED VOLTAGE: 1000V CAT III

Ø4mm Fixed Safety Banana Jack / Screw Terminal



TYPE: **1076**

RATED VOLTAGE: 1000V CAT III

Ø4mm Stackable Fixed Safety Banana Plug / Screw Terminal



TYPE: **1065**

RATED VOLTAGE: 1000V CAT III

Ø4mm Safety Banana Plug / Screw Terminal



TYPE: **1067**

RATED VOLTAGE: 1000V CAT III

Ø4mm Right-Angle Fixed Safety Banana Plug / Screw Terminal

/ OTHER AVAILABLE MATERIALS



TYPE: **2223Smooth**
Ø12mm Smooth Ground Rod /
Ø4mm Female Connection



TYPE: **2223Drill**
Ø12mm Threaded Ground Rod /
Ø4mm Female Connection



TYPE: **AdaMagnetD7F4**
RATED VOLTAGE: ≤30VAC ≤60VDC
Ø7mm Straight Magnet
Adapter, Ø4mm Socket

IMPORTANT NOTE:
Products shown are our most popular items. You can put them together in combinations custom-built to your needs. Alternative colours also available on request. For enquiries: **sales@pentaesp.com.au**

PENTA RECOMMENDS

/ WHEEL-E

HYBRID CONTINUITY WHEEL TESTER
RATED VOLTAGE: 600 V CAT III / 300 V CAT IV

Type	Length	Resistance
W2-20H30	30 m	2 ohms
W2-20H50	50 m	2 ohms
W2-10H30	30 m	1 ohm
W2-10H50	50 m	1 ohm



/ USE

Designed for testing and measuring the continuity of protective conductors and equipotential bonding, Wheel-e complies with EN 61557-4 standards. It verifies that resistance between frames and bonding points remains below 2 Ω or 1 Ω, depending on the version.

WHAT SETS IT APART

- **Belt-worn design with integrated 30m or 50m reel** for hands-free operation and unrestricted movement
- **Clear visual and audible** continuity indication
- Simple **one-button** operation for all functions











PENTA AUSTRALIA HYLEC TMAC - 2026 CATALOGUE

PENTA AUSTRALIA
HYLEC ENERGY SOLUTIONS
TMAC

T +61 7 3396 2220
E sales@pentaesp.com.au
HQ 45 Enterprise St.
Cleveland QLD 4063

CONNECT WITH US

pentaesp.com.au
penta-australia
penta_australia