



PLP Australia Testing Capabilities

The connection you can count on





PLP Australia

PLP (Preformed Line Products) is an Australian manufacturing company that has been supplying patented products to the electricity power utility, telecommunication, cable television and data network industries as well as specialised niche markets for more than 50 years.

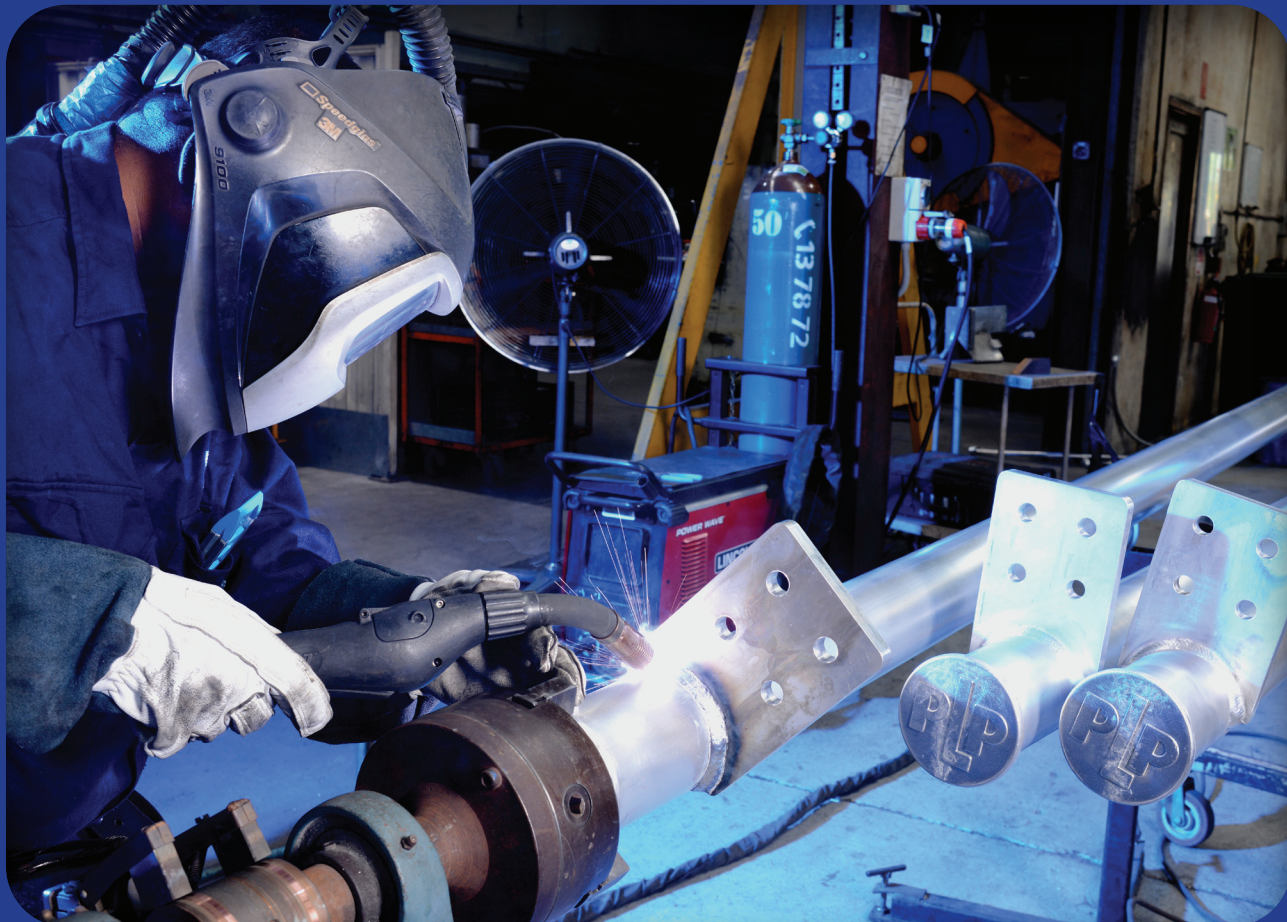
PLP is a designer, manufacturer and supplier of high-quality cable anchoring and control hardware systems for supporting, protecting, terminating, and splicing transmission and distribution lines.

Experienced engineers provide technical support and inspection services comprising in-depth data analysis from unmanned aerial inspection vehicles for critical infrastructure.

Inventiveness, integrity, and foresight are the foundations of PLP, and the company continues to improve power utility networks by creating and building innovative new products for the industries it serves.

PLP has an extensive product range and the ability to provide solutions from experienced industry professionals to ensure the best outcome for your project.

PLP Australia has a dedicated team of on-site customer service staff and industry experienced external sales professionals to assist customers.





PLP Testing Capabilities

At PLP Australia the Engineering Department is responsible for product design, product development and ensures quality procedures comply with NATA and ISO accreditation standards.

The Quality Assurance Department and the Engineering Department work together collaboratively, and manufacturing processes are monitored, audited, tested, and improved, based upon statistical processes and quality control techniques.

PLP Australia's local testing laboratory utilises calibrated equipment to test tensile loads from 1N to 500kN, Tests include industrial hardness, galvanising, fatigue testing and heat cycling for overhead conductors.

“PLP's Engineering Department is responsible for ensuring that all testing and manufacturing processes are followed to ensure the final products are of the highest quality and all the customer's requirements are met.”

Mechanical Tests

Dimensional Tests

- Profile projector
- Vernier calipers
- Micrometers
- Digital and analogue height indicators
- MEL lasers
- Go and No-Go gauges

Tensile and Compression Test

- 0-500kN Vertical test facility
- 10N Minimum tensile or compression
- 0-500kN Horizontal test facility to 20m test length
- Twist, wrap, and torsion tests utilising Australian Standard methods: AS 1222, AS 1531 and AS 3607
- 30kN Cantilever flex test
- Clamp slip test
- Tension tests on products without strain rate control, excluding proof stress tests in the range 0.2kN to 500kN utilising methods: AS 1154, AS 2947 and EGAT
- Specification Section: F Sections 8.a.2 to 8.a.6 and 8.d.1 to 8.d.2 and similar standards

Mechanical Endurance Test

- Induction shaker force rating 980N
- Frequency range 1.5Hz to 3000Hz

Cyclic Thermal Test

- Heat cycle of conductors with data logger capability to 240° C

Ultrasonic Test

- Ultrasonic flaw detection

Material Structure Analysis

- Grippo grinder polisher
- Microscope



Vibration Analysis

- 2 x 30.5m test spans equipped to measure vibration damper performance
- Vibration analysis measuring:
 - Damper mechanical impedance
 - Damper fatigue
 - Damper efficiency

Hardness Test

- Brinell at 7.35kN, 4.9kN, 9.8kN and 29.4kN
- Rockwell testing using B and C scales
- Vickers
- Shore
- Barcol

Porosity Test

- Integrity testing of porcelain insulators

Application Oriented Endurance Test

- Fatigue testing of transmission line in-span conductor spacers

Galvanising Thickness Measurement

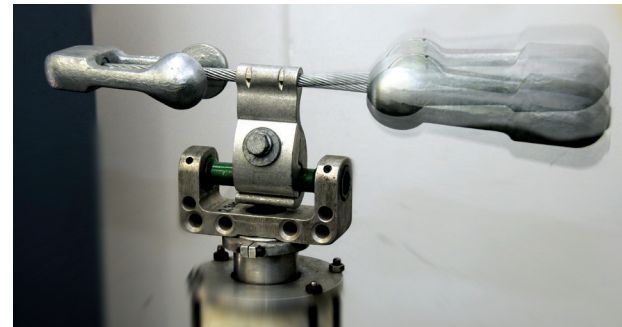
- Magnetic method

Thermal Shock

- Extreme temperature change test on porcelain insulators

Thermal Endurance

- Prolonged elevated temperature test on spiral vibration dampers



Electrical Testing

Electrical Testing is available from Australian partnership companies and PLP New Zealand.

- 60 channel data acquisition unit
- Capable of 4 cyclic heat cycles max. 2.5kA
- Static tensions up to 150kN
- Constant tension up to 30kN
- Micro measurement of material conductivity



PLP Accreditation

Global-Mark Accreditation 100660

The ISO9001 Certification demonstrates commitment to quality, systems and processes that consistently deliver safe products and services to meet their customer's requirements.

PLP's customers have confidence in our ability to deliver quality goods. The accreditation eliminates the need for time consuming and expensive second party audits.

The competency of our trained personnel, our production procedures and quality testing facilities ensure PLP complies with the requirements of the ISO9001 Certification.

NATA Accreditation No. 922

NATA Accreditation identifies the competence of the laboratory to perform specific types of testing, inspection, calibration, and other related activities.

NATA's accreditation is based on a peer-review process made possible by 3000 volunteer experts who assist with the assessment of facilities and sit on NATA's technical committees.

To maintain accreditation, facilities must be assessed regularly, and facilities accredited by NATA become members of the association.

The criteria to determine a facility's competence are based on compliance with the relevant international standards including ISO/IEC 17025, ISO/IEC 15189 and ISO/IEC 17020.

Experienced staff with qualifications and training; correct equipment that is properly calibrated and maintained; adequate quality assurance procedures and appropriate sampling practices are also part of the criteria.

Testing laboratories need to comply with the requirements of ISO/IEC 17025:2017 that includes the following sections:

- 13.01 Metals and metal products
- 13.44 Mechanical tests on assemblies
- 13.94 Coatings



PLP Manufacturing Capabilities

Aluminium and Steel Welding

PLP manufactures everything from simple steel eye-nuts to complex aluminium busbars required for substations utilising both MIG and TIG welding.

All PLP welders are trained and certified in the welding of busbar and compression terminals.

As part of the PLP training program, certification includes confirmation by X-Ray and weld testing.



Tool Design and Manufacturing

The fully programmable CNC machining centre enables automatic production of precision turned parts, without the need for operator intervention.

Speed and uniform manufactured products are the major benefits of the equipment.



Sheet Metal Fabrication

PLP has a range of CNC-turret presses, brake presses and spot welders.

These machines combined with our experienced engineering team enable us to offer our customers a complete solution for their sheet metal requirements.

Materials utilised include stainless steel, aluminium, various zinc, steel and galvanised metals.



General Assembly

Pre-assembled of ready-to-install components, ensures reduced installation time for the customer, and the reassurance that all required parts are supplied in the kitted assembly.

PLP can assemble and kit any parts required for a project to reduce customer inventory counts.





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