



AUSTRALIA



PLP (PREFORMED LINE PRODUCTS)

# Energy Distribution Power Installed Screw Anchors

The connection you can count on

## ABOUT US WHO WE ARE

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 HAS BEEN PROUDLY  
MANUFACTURING IN  
AUSTRALIA FOR 60 YEARS.**

## SELECTION OF SCREW ANCHORS

The selection of the most appropriate PLP Screw Anchor for any particular application should be done by comparing the holding capacity of the anchor with the maximum load on the guy wire.

*The maximum load on the guy is determined from the line design. The holding strength of the anchor will depend on the soil classification and the size and installing torque for the anchor.*

## SOIL CLASSIFICATION

The most important factor affecting the holding strength that can be achieved by a screw anchor is the type of soil in which it is installed. The Soil Classification Table has been designed to assist in the identification of the soil. However, while a reasonable assessment of the surface soil type may be undertaken, the holding strength of the anchor will depend on the soil at the depth to which the anchor is driven. Often the soil is different at this level, as different soil strata may be encountered in driving the anchor.

The best way to check the holding strength of the anchor is to do a proof loading (pull out) test on each anchor installation, but this is not always possible nor economical. Following extensive field trials, it has been

established that there is good correlation between the installation torque and the soil conditions. This means that the holding strength of the anchors can be determined from the installation torque.

Tables show the relationship between the holding strength and the torque applied for several sizes of single and double flight anchors.

Of course the installation torque is only an indication of the soil conditions at the time of installation. Care should therefore be taken when anchors are installed in hard dry ground that may become water logged following rain.

## INSTALLATION TECHNIQUES

The holding strength that can be achieved by an anchor can also be affected by installation technique, and care must be taken by the operator to ensure that the soil is not churned by allowing the anchor to act as an auger as it is installed. This is most easily avoided by keeping a downward pressure on the anchor during installation.

## SOIL CLASSIFICATION TABLE

Soil Classification Number	Description Of Soil	Std Penetrometer Test Blows/300mm
1	Solid bedrock	
2	Hardpan, dense/very dense sand, compact gravel, laminated rock, slate schist, sandstone	41 - 46
3	Hard clay, dense sand, shale, broken bedrock, compact clay, gravel mixture	34 - 41
4	Very stiff hard clay, claypan, medium/dense sand gravel, compact gravel and sand	27 - 34
5	Very stiff clay, medium sand, loose sand and gravel	20 - 20
6	Stiff/very stiff clay, medium sand, clayey silt	13 - 20
7	Medium/stiff clay, loose sand, fill, silt	6 - 13
8	Very soft/soft clay, very loose sand, swamp, marsh, saturated silt, humus	0 - 6

## DETERMINATION OF GUY LOADS

The maximum design loading in the guy should usually be available as part of the line design information and this design load should be used with the rated strength tables and graph attached to select the most suitable anchor for each job.

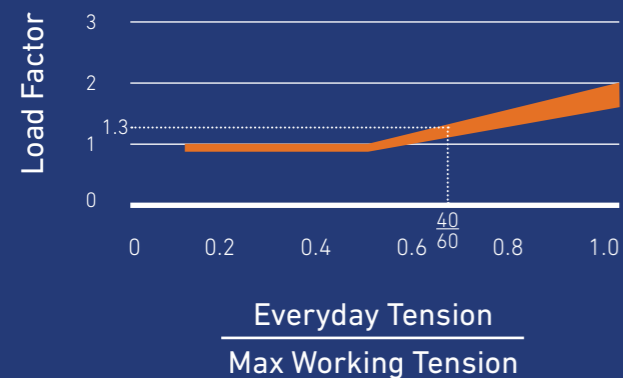


## LOAD-RATING FACTOR

For some loading conditions, however, it may be desirable to use a load rating factor for the holding strength of the anchor. When the continuous (everyday) tension in the guy exceeds 50% of the maximum working tension of the guy, there is a possibility that the anchor may creep.

Even though there is no failure of the anchor in the ground, this may lead to relaxation of the guy, and necessitate periodic retensioning. To avoid this, the load rating factor should be applied to the holding strength of the anchor.

## LOAD RATING FACTOR GRAPH



## COUPLING

Part Number	Thread
ANCHOR-RODCOUPLER-M24	M24
ANCHOR-RODCOUPLER-1	1" UNC

## THIMBLE EYE NUT

Part Number	Thread
THEN-24	M24
THEN-1UNC	1" UNC

## SCREW ANCHORS INTERNAL DRIVE

Part Number	Diameter	Thread Type	No. of Flights
ANCHOR-150-24-IN	150mm	M24	1
ANCHOR-200-24-IN	200mm	M24	1
ANCHOR-250-24-IN	250mm	M24	1
ANCHOR-300-24-IN	300mm	M24	1
ANCHOR-350-24-IN	350mm	M24	1
ANCHOR-200-1-IN	200mm	1" UNC	1
ANCHOR-300-1-IN	300mm	1" UNC	1

## SCREW ANCHORS EXTERNAL DRIVE

Part Number	Diameter	Thread Type	No. of Flights
ANCHOR-100-TWIN-EX	100mm	M24	2
ANCHOR-250-TWIN-EX	250mm	M24	2
ANCHOR-200-24-EX	200mm	M24	1
ANCHOR-250-24-EX	250mm	M24	1
ANCHOR-300-24-EX	300mm	M24	1

## ANCHOR ROD

Part Number	Length	Thread	Anchor Nuts
ANCHOR-ROD-F-2133-1	2133mm	1" UNC	2 X FORGED
ANCHOR-ROD-F-2133-24	2133mm	M24	2 X FORGED

NB: Additional items are available Anchor Rods, Anchors & Thimble eye nuts M20. Minimum MOQ would apply.



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