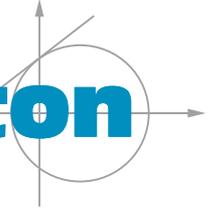


Prestressed Concrete Poles

stahlton

ENGINEERED CONCRETE
A division of Fulton Hogan Ltd



Product brochure



Fulton Hogan



Prestressed Concrete Poles

When it comes to durability and structural integrity, prestressed concrete are the solid solution for power poles. Stahlton design and manufacture hollow octagonal prestressed concrete power poles as well as prestressed I-poles. We can also design and manufacture poles to meet your needs and transport them to any location throughout Australasia.

Pre-stressed concrete power poles are well proven to survive the test of time. Our octagonal poles are fire and lightning resistant. Prestressed concrete is the environmentally friendly option as concrete poles do not require the use of precious hardwood trees or toxic treatments.

Our poles are manufactured to length in steel moulds with pins to form holes for cross-arm bolts, braces, bolting on transformers, gantries and camera brackets. Earthing ferrules are cast in our poles along with other inserts for connecting, step bolts, cabling or other hardware as required. Internal earthing makes the erection and future maintenance of these poles safer.

Durability

Stahlton prestressed concrete poles meet exposure classifications A2, B1, & B2 as per AS/NZS4676:2000 for for a minimum of 60 year design life. AS/NZS4676 goes on to quote:

D3.7 Concrete poles

Concrete poles, like other concrete structures, are typified by minimal maintenance, long service life and good aesthetics.

Loadings

Stahlton prestressed concrete power poles are designed to meet the loads specified by the electrical authority designer derived from AS/NZS 4676:2000. These loads can be transverse, downline, guyed or unguyed as well as for torsional loads. Our design applies the same standard and our calculations for serviceability and ultimate capacities are verified through pole testing.

Design scope

Stahlton design expertise and responsibility lies with the elements we manufacture. All Stahlton poles have a label attached at a convenient height clearly showing the pole capacity, identify the pole for manufacturing traceability.

To verify the design we frequently carry out random pole selection bending tests to serviceability level within a batch number that meets our customer's confidence requirements. We have also tested all the poles we design and manufacture to destruction to verify the actual failure load exceeds the ultimate design load.

Handling & storage

Stahlton prestressed concrete poles are designed to be lifted about a balance point as well as the tip for vertical alignment during installation. Specially designed Reid Swiftlift type lifting anchors are cast in or strops are used with a bolt through a cast-in lifting hole attached to the chain at the tip.

Stahlton poles are labelled to provide the installation contractor with the pole's weight for selecting adequate lifting equipment.

If the units are stored on site they will need to be dunnaged near 1/5 x the length from each end for I poles or as per the marks found on the octagonal poles. If stacking the poles dunnage blocks need to be aligned on top of each other so as to not induce large point loads on the poles below. Care needs to be taken as to the suitability of the ground and dunnage block to resist the weight of the units stored on top.

All lifting gear should be checked for any wear or damage regularly as concrete elements can be abrasive.



Testing of Stahlton Octagonal poles

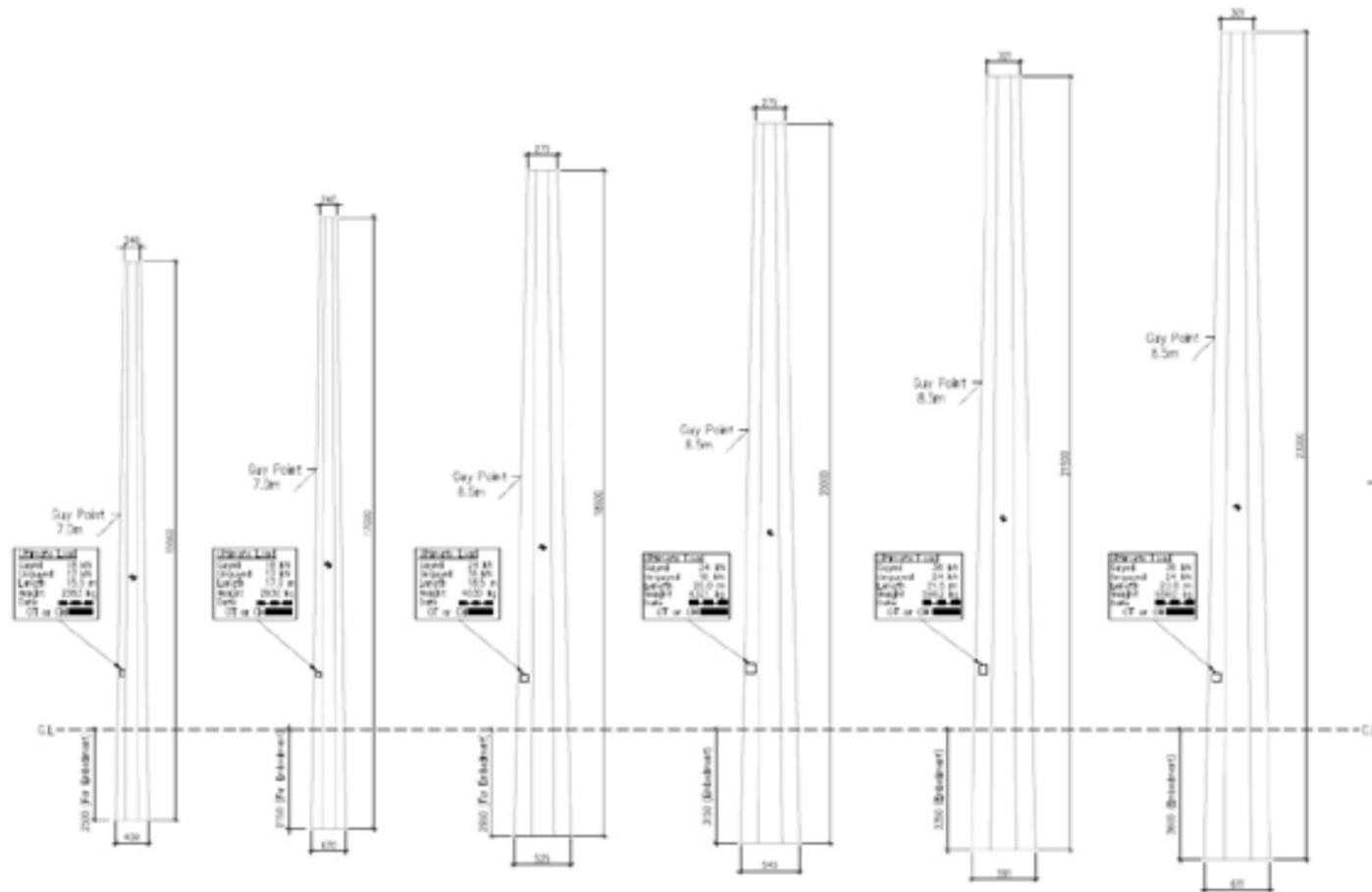


At Stahlton, we pride ourselves on providing our customers quality, safety driven, products and services. All Fulton Hogan businesses are ISO9001 certified and our Stahlton Auckland and Christchurch plants have been certified by Precast New Zealand Incorporated.



Octagonal poles

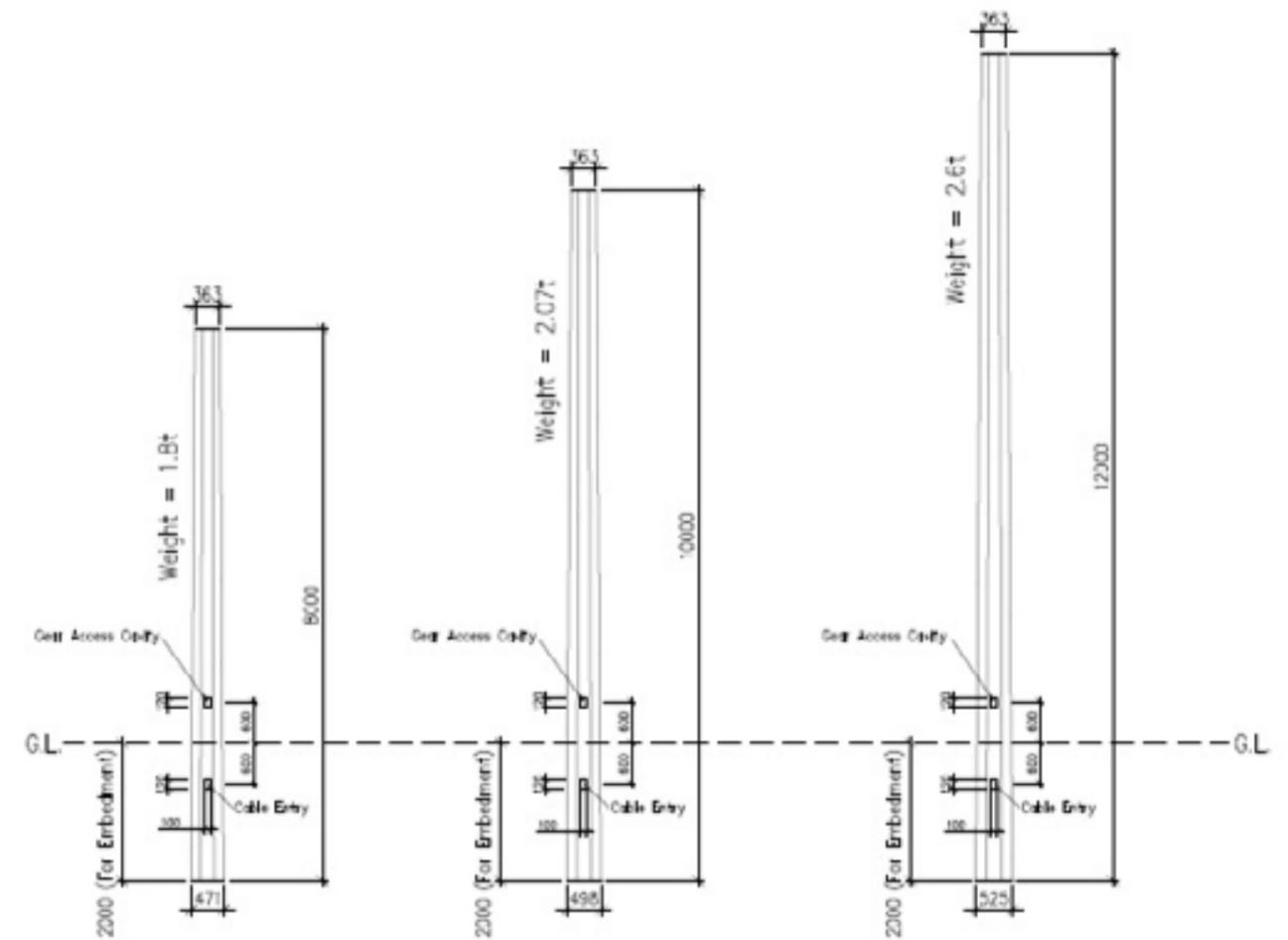
Stahlton has designed and manufactured hollow octagonal prestressed concrete power poles to Transpower New Zealand Limited for their main trunk line since 1990. The standard pole lengths range from 15.5m to 23m with ultimate tip loadings of 12kN to 32kN. These poles have the same capacity in both the transverse and down-line directions.



Stahlton octagonal pole range

Security camera poles

Stahlton manufactures a range of hollow octagonal poles for supporting long range CCTV cameras for Spunlite Limited. These poles perform well in minimising tip deflections in high winds of 55m/s or close to 200km/hr design wind speed, for superior viewing quality. Stahlton can design security camera poles to meet your needs.

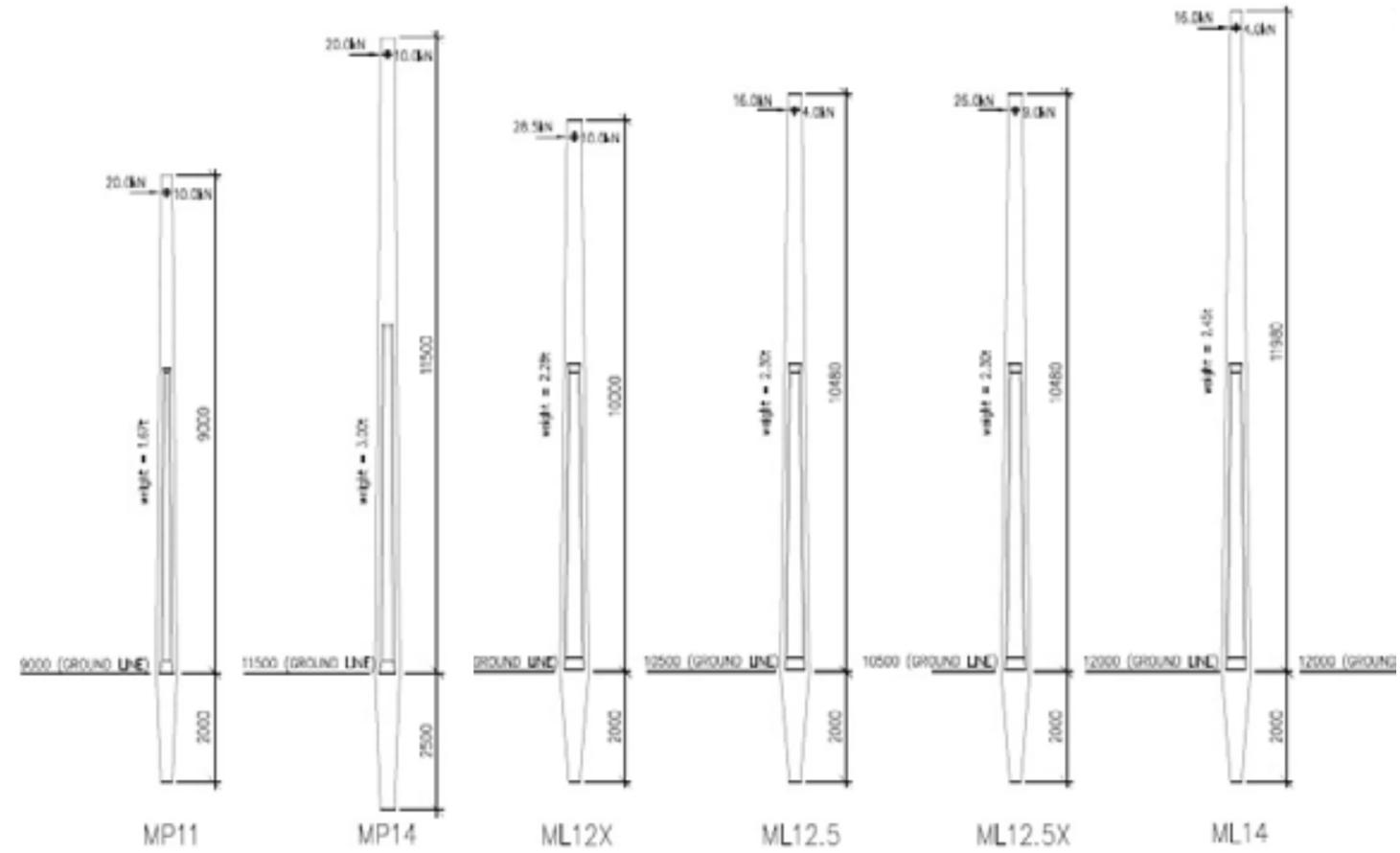


Stahlton camera pole range



I-section poles

Prestressed I-poles were first produced in New Zealand when Richard Carr and Morely Sutherland introduced pre-stressing wire and grips to New Zealand in 1953. Today, Stahlton designs and manufactures a range of I-poles. Our moulds are mobile, meaning we can supply I-section poles anywhere, and designed to meet your needs.



Stahlton i-section pole range



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