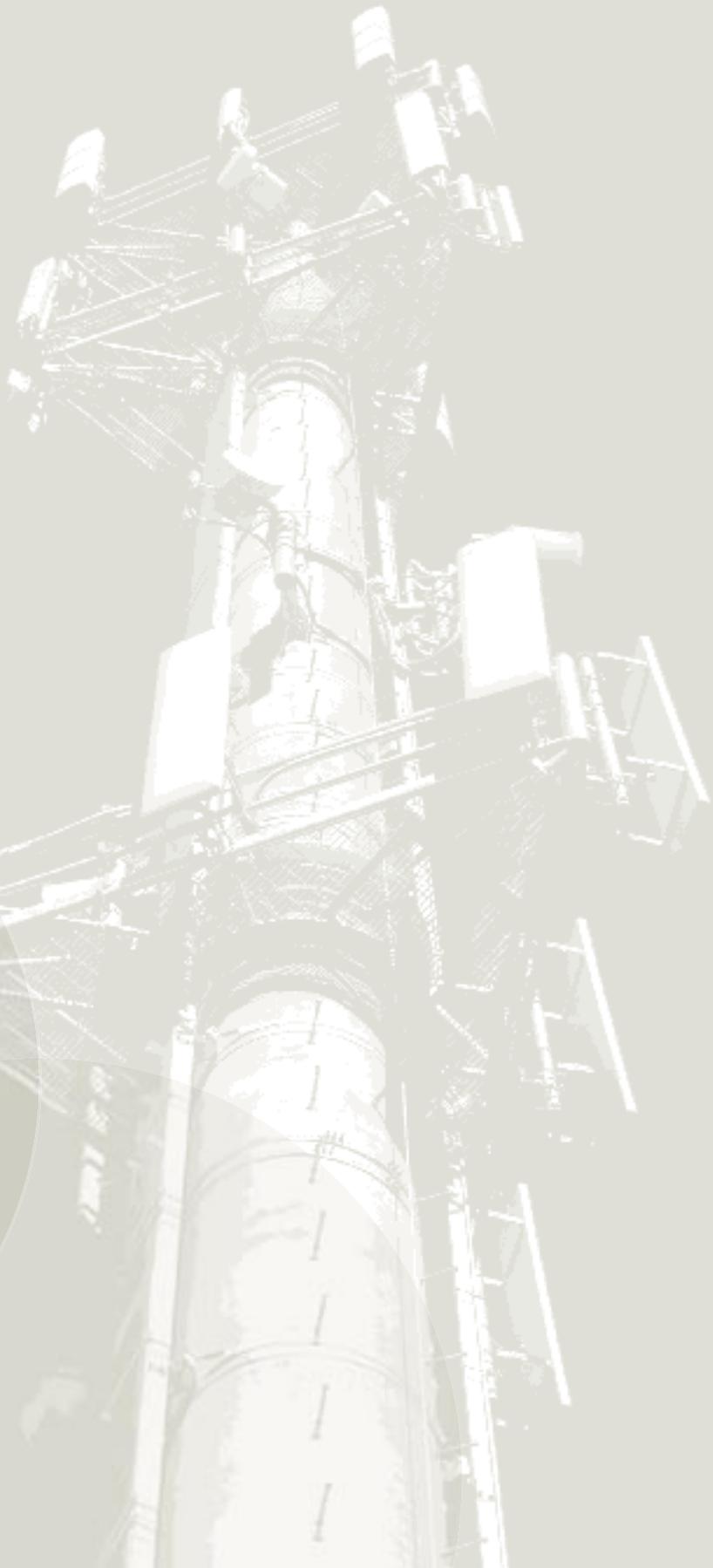


Duraspun® Communications Poles





ROCLA CONCRETE POLES
MANUFACTURES A VARIETY OF
COMMUNICATIONS POLES DESIGNED TO
SUPPORT A WIDE RANGE OF ANTENNA
CONFIGURATIONS UNDER ALL WIND
LOADING CONDITIONS IN AUSTRALIA
AND NEW ZEALAND.

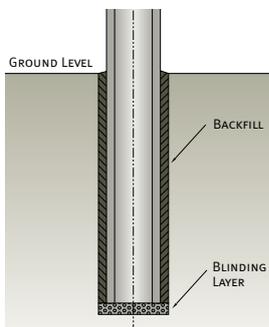
ROCLA DURASPUN® COMMUNICATIONS
POLES ARE MADE FROM HIGH-DENSITY
STEEL-REINFORCED CONCRETE, USING A
CENTRIFUGAL SPINNING PROCESS THAT
PRODUCES A HOLLOW POLE WITH GREAT
STRENGTH AND STIFFNESS AND A LONG,
MAINTENANCE-FREE SERVICE LIFE.

THE HIGH STIFFNESS OF THE PRE-
STRESSED CONCRETE IN DURASPUN®
POLES MAXIMISES THE PERFORMANCE
OF ANTENNAS.

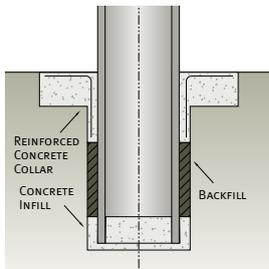
Duraspun® Communications Poles

INSTALLATION OPTIONS

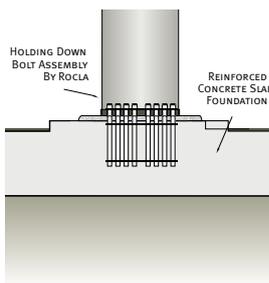
POLES CAN BE DIRECT EMBEDDED OR MOUNTED ON PAD FOOTING.



DIRECT EMBEDMENT



COLLARED FOOTING



IN SITU PAD FOOTING

IDEAL SUPPORT FOR COMMUNICATIONS ANTENNAS

Communications poles must be able to satisfy ultimate strength requirements, while also providing high resistance to rotation under serviceability wind loads.

Rocla Duraspun® pre-stressed concrete poles are ideal for these applications. The Duraspun® range of communications poles includes a choice of pole types:

SR Series:

Heavy-duty poles, catering for high loads and/or large sail areas (e.g., multiple headframes carrying mobile phone panel antennas and a number of rotation-sensitive microwave antennas).

LT Series:

Slim-line poles, designed for less heavily loaded applications (e.g., single lightly-loaded headframe with a small number of directional microwave antennas).

EX Series:

The strength of the SR series poles, with the added flexibility of being extendable with a 5-metre concrete extension.

All poles can be provided with ferrules in the top of the pole to make them compatible with generic turret extensions.

UNIQUE PRODUCT

Rocla Duraspun® pre-stressed concrete communications poles are manufactured by the centrifugal spinning method using high performance concrete with precision fabricated reinforcement (stressed and unstressed) accurately positioned in steel forms.

The unstressed reinforcing cage contributes to strength and also forms an internal earthing system that is continuous throughout the pole. The poles are manufactured in sections of convenient length that can be bolted together on site.

FULL RANGE OF FITTINGS

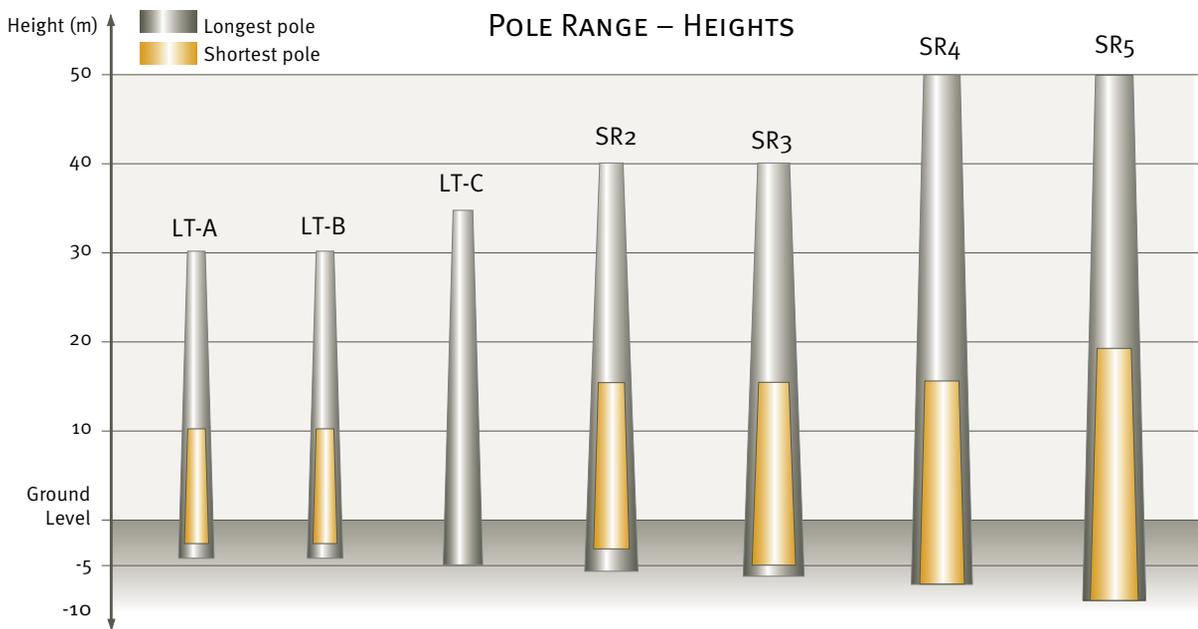
- Step ferrules and associated step bolts.
- Stainless steel ferrules and stainless steel hole-formers to allow structural steel connections.
- Fixtures to accommodate commercial climbing systems, e.g., Lad-Saf and ladder bracket connections.
- Pole caps.
- Earthing ferrules.
- Hatch doors and cable entry openings to provide cable access to and from the pole.

SELECTION SOFTWARE

The RocPole® selection software (available from the Rocla website) allows designers to quickly assess various pole types under serviceability and ultimate loading conditions and to specify the correct pole based on the desired antenna loading and topographic and geographic factors.

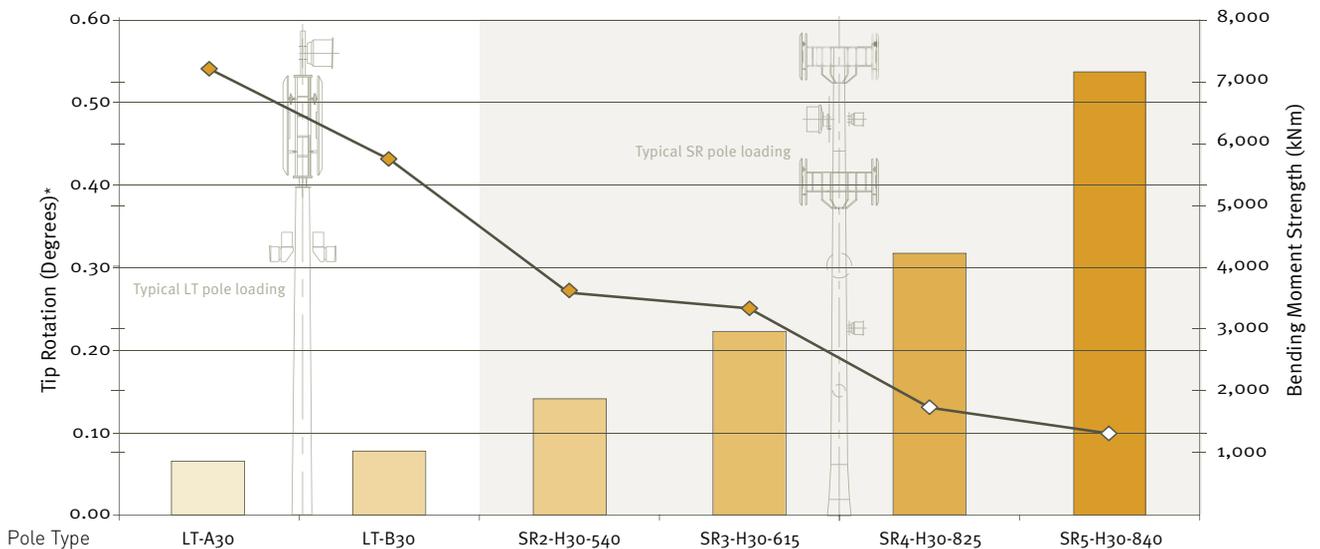
FOOTING DESIGN

Rocla Concrete Poles also offers pole structural analysis, a footing design service and engineering certification.



POLE STRENGTHS

Bending Strength Comparison (30m Communications Pole)



* Tip rotation calculation is based on sail areas corresponding to the antenna configurations in the above schematics and the following site data: Region A, Mt = Ms = Md = 1.0, TC = 2.5, Ws = 28m/s, Cd on pole = 0.8.

Tip Deflection
 Bending Moment Strength



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

AS4676 Structural design requirements for utility services poles

CONCRETE ADVANTAGES

Rocla Duraspun® concrete poles stand alone in their durability, design flexibility and low maintenance. They offer a number of advantages over steel monopole alternatives.

SIMPLE INSTALLATION

Direct embedment of concrete poles is much more economical than building a pad footing with a hold-down bolt cage. Where required, however, concrete poles can be installed on pad or collared footings.

STIFFNESS

For a given bending moment strength, Duraspun® pre-stressed concrete poles typically deflect less than steel poles, allowing more equipment to be placed on the pole while maintaining the deflection criterion.

ECONOMY

Rocla Duraspun® communications poles offer a significant cost advantage, particularly in the higher strength range. This, along with their long life, explains why Duraspun® communications poles have been installed in all states and territories of Australia.

DURABILITY

Under harsh environmental conditions, reinforced concrete can offer a longer service life than other materials.

HIGH QUALITY

All Rocla Concrete Poles manufacturing sites have a Quality Assurance System accredited to ISO9001.

RANGE OF FITTINGS

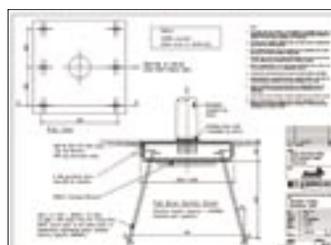
Poles can be supplied with hatch doors, cable entry openings, step ferrules, hole-formers, pole caps and other fixtures.

DESIGN SUPPORT

Rocla Concrete Poles also offers pole structural analysis, a footing design service, pole certification and specification software.



Selection software



Footing design service



Pole certification



DURASPUN® COMMUNICATIONS POLES

For further information on Rocla Duraspun® communications poles, lighting poles, power poles and spun concrete piles, contact:

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PO Box 961 Wodonga Vic 3690
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