

TOWER WITH STUB LEGS
FOR EMBEDDING IN CONCRETE.

9m \$1210.
12m \$1671.
15m \$2188

With Compliments

bell small



SOUTHERN CROSS

IRRIGATION AND WATER SUPPLY DIVISION

Machinery St Darra, Q. 4076

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SOUTHERN CROSS MACHINERY (AUSTRALIA) PTY LTD



IN CROSS

**FREE-STANDING
GALVANISED STEEL
PRE-FABRICATED**

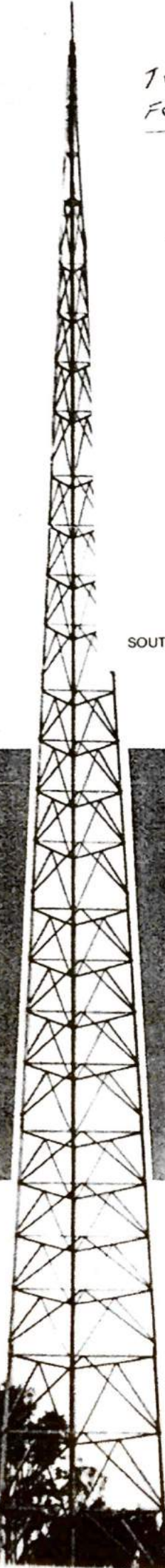
AERIAL TOWERS

for ... **RADIO TRANSMITTING AND
RECEIVING AERIALS
TELEVISION AERIALS
FLOODLIGHTING**

DESIGNED AND FABRICATED TO CONFORM WITH

AUST. STANDARD CODES

AS1250, AS1170, AS3600, AS1650, AS1110.



SOUTHERN CROSS *Galvanised Steel*

AERIAL TOWERS . . .

DESIGNED AND FABRICATED TO CONFORM WITH THE FOLLOWING AUSTRALIAN STANDARD CODES

AS1250	STEEL STRUCTURES CODE
AS1170	PT2 WIND LOADING CODE
AS3600	CONCRETE STRUCTURES CODE (Foundations)
AS1650	GALVANISED COATINGS ON FERROUS ARTICLES
AS1110	METRIC PRECISION BOLTS AND SCREWS

within specified head loading limitations (see opposite page) and certified as suitable for maximum requirement of 40m/sec winds in terrain category 1.

SOUTHERN CROSS KVD Aerial Towers are suitable for a wide variety of applications including communications and floodlighting towers for fire brigade, ambulance, police, taxis and airports as well as supports for television aerials for homes beyond the low aerial range being safe, free-standing and long lasting structures.

EASY TO ERECT

Hinged sole plates allow up to 21 metres of tower to be assembled on the ground and then raised into position. Also towers up to 21 metres high can be lowered for alterations to aerials etc.. For higher towers only the bottom 21 metres should be assembled on the ground and then raised into position and once fully erected should not be lowered. Concrete foundations must be used. Towers can be supplied with 3 fixed soleplates, 2 hinged and 1 fixed soleplates, or 3 angle steel anchor posts. All leg sections of the towers are approximately 3 metres long for convenience in transporting and handling. The various sections are supplied in bundles for assembly and erection on site except for the top stub tower section which is a welded assembly.

NO GUY WIRES

SOUTHERN CROSS Aerial Towers are entirely self-supporting and require no guy wires.

HOT DIP GALVANISED

All components of SOUTHERN CROSS Aerial Towers including legs, girts, braces, soleplates, bolts, nuts and washers are hot dip galvanised (to Australian Standard Code AS1650) after fabrication to resist rusting and corrosion.

AERIAL MOUNTING

A one metre section of 50NB pipe protrudes from the top of stub tower assembly for mounting of aerials etc..

STANDARD SIZES

NOMINAL HEIGHT OF TOWER	ACTUAL HEIGHT ABOVE GROUND	NOMINAL HEIGHT OF TOWER	ACTUAL HEIGHT ABOVE GROUND
9 Metres	9.430 Metres	21 Metres	21.150 Metres
12 Metres	12.360 Metres	24 Metres	24.080 Metres
15 Metres	15.290 Metres	27 Metres	27.020 Metres
18 Metres	18.220 Metres	30 Metres	29.950 Metres

SPECIAL TOWERS

Towers similar to the standard range listed can be supplied by SOUTHERN CROSS to accept higher head and wind loading conditions to suit customer requirements and to meet S.A.A. loading code conditions for particular areas.

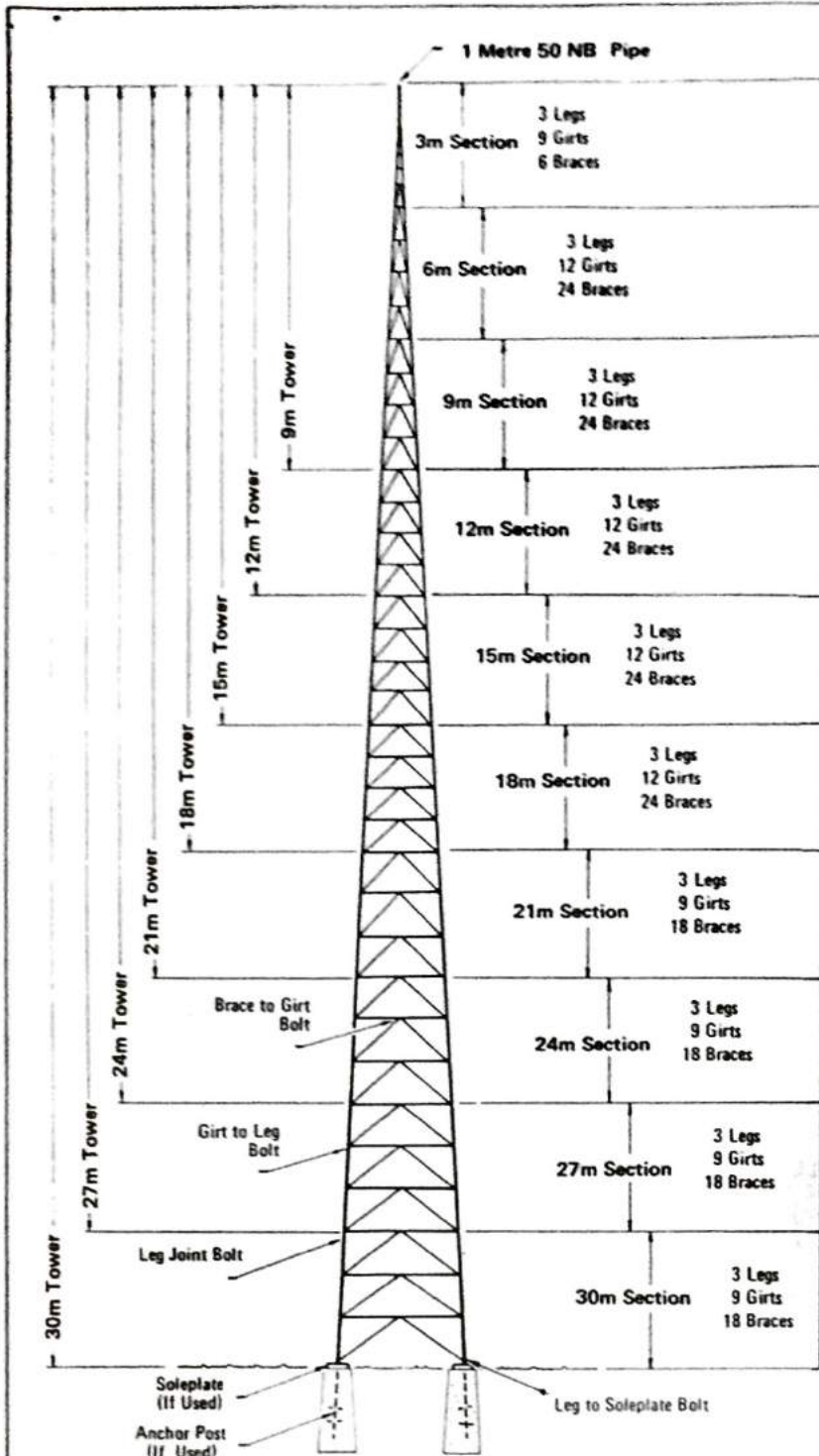
HIGHER TOWERS

Free standing 3 post towers for heights greater than the 30 metre standard range can be designed and manufactured by SOUTHERN CROSS to suit particular requirements and varying head loadings and wind conditions.

WARRANTY

The Company agrees with the original purchaser of each SOUTHERN CROSS Aerial Tower that at any time within one year from the date of despatch of such tower, the Company will supply new part or parts without charge at the original point of despatch to replace any part or parts which, on return freight prepaid, prove to the satisfaction of the Company to be defective in material or workmanship, or in the case of damage resulting from storms or tempests, providing the tower anchorages hold, the tower is erected and maintained in accordance with the erecting instructions and that the specified wind and head loadings are not exceeded. Whilst the company stands behind its own warranties, it cannot accept any responsibility or make any allowance for any consequential damages or any other expenses incurred. This warranty does not exclude any rights conferred under State or Commonwealth legislation.





MAXIMUM VERTICAL AND HORIZONTAL LOAD COMBINATIONS WHICH CAN BE APPLIED TO APEX OF TOWER

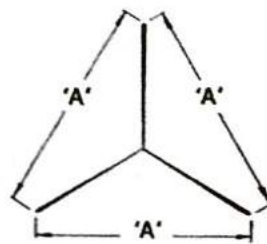
Horizontal	Vertical	Eqvt. Exposed Area and Wind Speed
1.2kN	0.5kN	0.75m ² @ 40m/Sec. Terrain Cat. 1

Foundations are Required to Resist the Following Loadings

Tower	Max. Uplift at Bottom of Tower Leg	Max. Thrust at Bottom of Tower Leg	Max. Shear at Bottom of Tower Leg	Max. Overturning Moment
9m	34.3kN	35.5kN	2.2kN	27kNm
12m	46.2kN	48.1kN	3.0kN	49kNm
15m	58.4kN	60.8kN	3.9kN	77kNm
18m	71.4kN	74.6kN	5.0kN	114kNm
21m	85.3kN	89.5kN	6.0kN	159kNm
24m	101.0kN	106.4kN	7.2kN	216kNm
27m	117.8kN	124.6kN	8.5kN	284kNm
30m	135.0kN	143.2kN	9.2kN	362kNm

NOTE: Above figures are the reactions at the base of the tower legs (above foundation blocks) for full wind load and dead load, and should be used in conjunction with foundation information (passive earth pressures, allowable bearing pressures etc.) to determine block weight and dimensions.

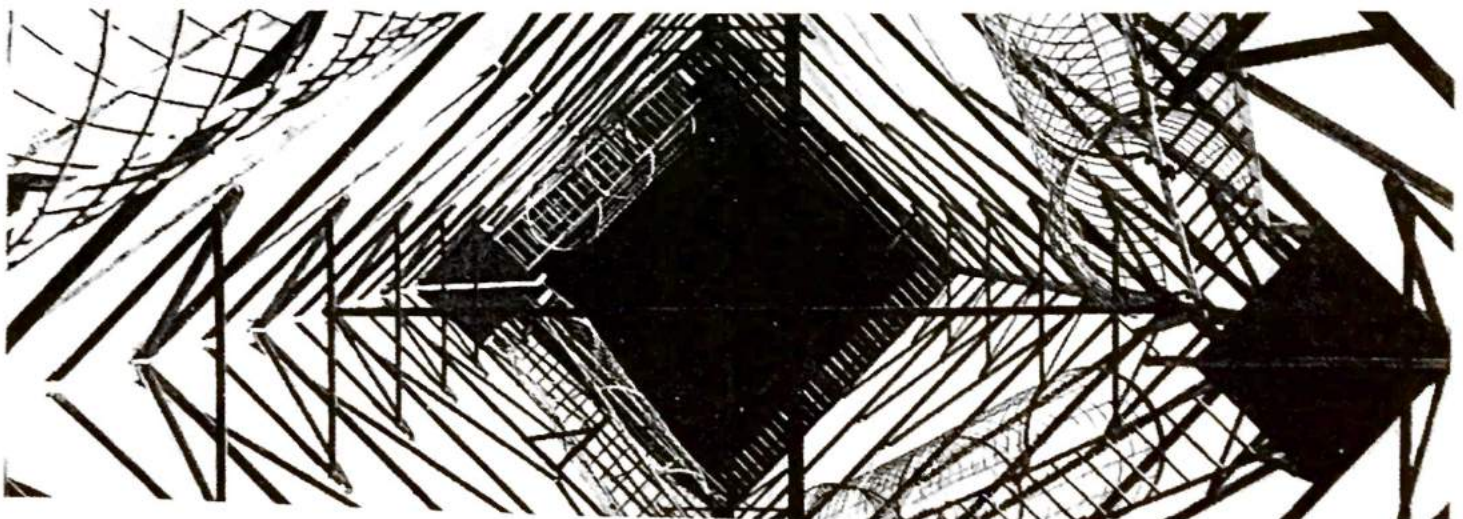
Tower	Weight with Hinged Soleplates	Weight with Fixed Soleplates	Weight With Anchor Posts
9m	277kg	271kg	245kg
12m	374kg	368kg	342kg
15m	480kg	474kg	448kg
18m	605kg	598kg	573kg
21m	752kg	747kg	734kg
24m	926kg	921kg	909kg
27m	1122kg	1117kg	1104kg
30m	1349kg	1343kg	1331kg



FOUNDATION PLAN

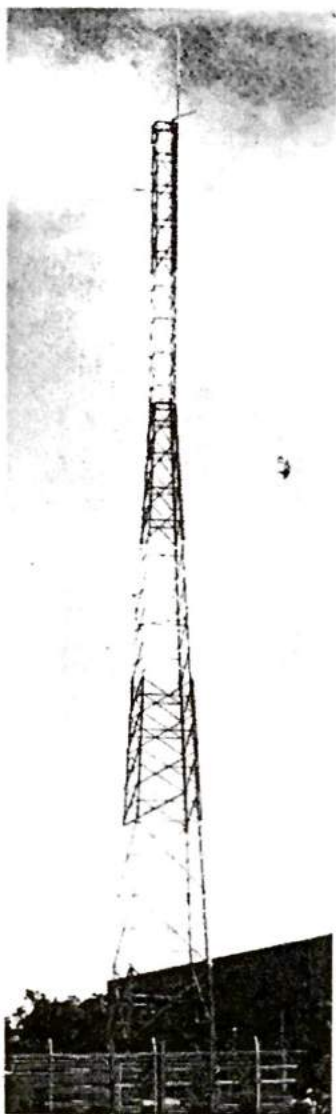
Tower	'A'
9m	900mm
12m	1200mm
15m	1500mm
18m	1800mm
21m	2100mm
24m	2400mm
27m	2700mm
30m	3000mm

SOUTHERN CROSS 'KVD' GALVANISED STEEL AERIAL TOWERS

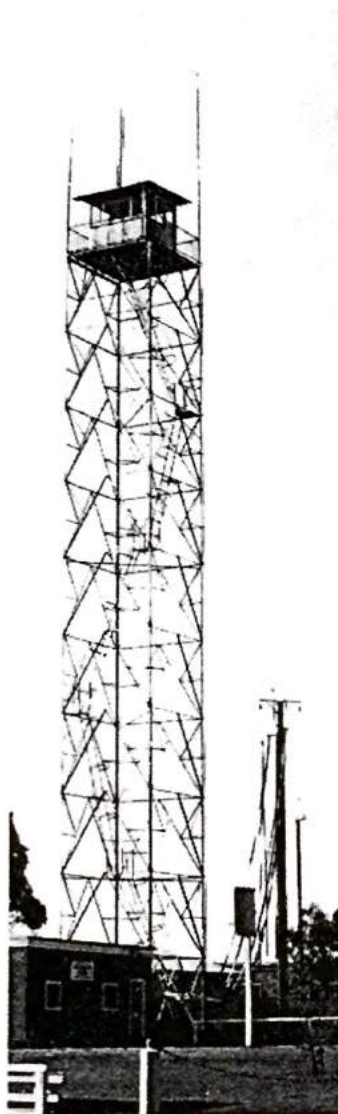


SOUTHERN CROSS 'SPECIAL PURPOSE' TOWERS

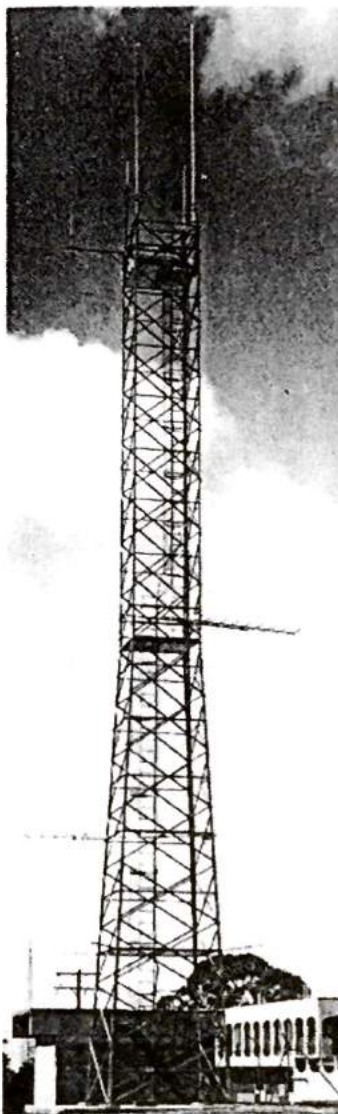
In addition to the standard range of KVD Aerial Towers SOUTHERN CROSS can design and manufacture galvanised steel towers for almost any application to suit particular customer requirements and for varying head loadings and wind conditions....



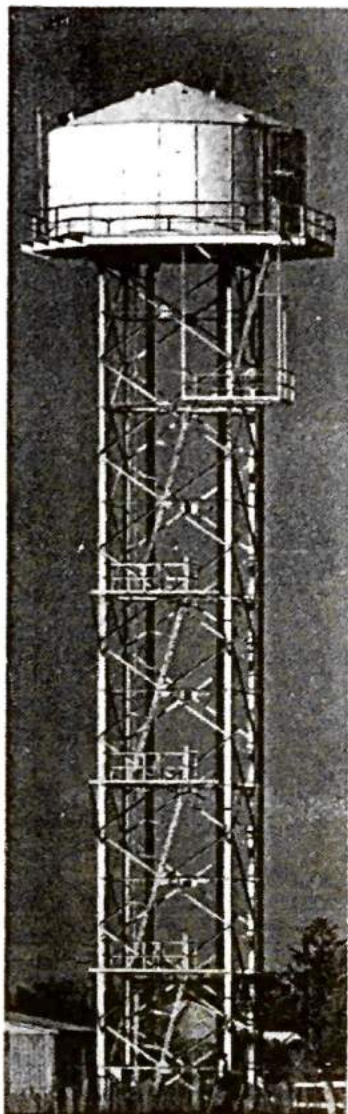
43 metre Southern Cross radio communications tower, Werrisbee, Vic.



30 metre fire watch and radio tower manufactured by Southern Cross, Sydney, NSW.

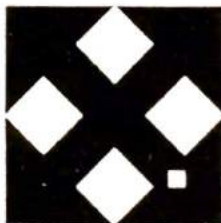


24 metre Southern Cross radio tower installed in Toowoomba, Qld.



27 metre Southern Cross tank-stand and 180kl reservoir, Little River, Vic.

For further information phone any of the SOUTHERN CROSS offices listed below.



While every care was taken in the preparation of this leaflet the illustrations and specifications are not binding in detail and are subject to change without notice. Of necessity we reserve the right to make product improvements and alterations without updating descriptive literature. Publication date December, 1988.

SOUTHERN CROSS

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SCP 12/88

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