

MASTS AND TOWERS

• **PARALLEL LATTICE SELF-SUPPORTING TOWERS** Page 2

• **TAPERED SELF-SUPPORTING TOWERS** Page 3

• **GUYED LATTICE MASTS** Pages 4 & 5

• **TUBULAR SELF-SUPPORTING MASTS** Page 6

• **HEAVY DUTY SELF-SUPPORTING TOWERS - EHC RANGE** Page 7

Contents page



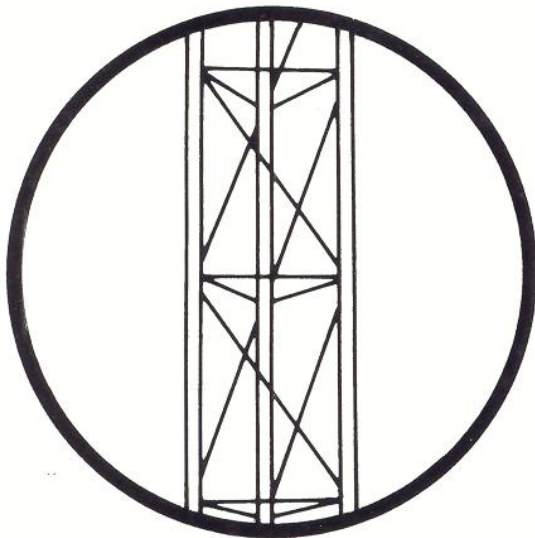
PARALLEL LATTICE SELF-SUPPORTING TOWERS

A comprehensive range of towers utilising standard mast sections that provide a cost effective antenna support structure. The 300N and 450N are available from 3 metres to 15 metres, the Type 1000 from 3 metres up to 30 metres while the 1600 range is available from 3 metres to 30 metres.

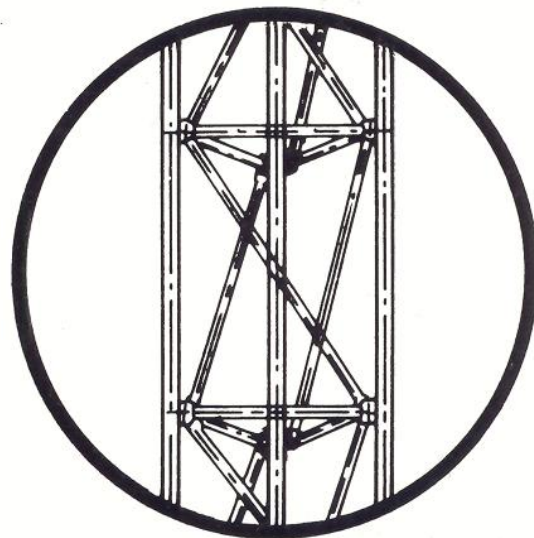
PARALLEL LATTICE SELF-SUPPORTING TOWERS

HEIGHT (metres)	300N-SS	450N-SS	1000/484/SS	1000/630/SS	1000/760/SS	1600/630/SS	1600/760/SS
6	(1,3)	(2,03)	(15,23)	(21,78)	(29,25)	(31,46)	(40,63)
9	(0,6)	(0,97)	(8,16)	(12,86)	(16,79)	(18,7)	(24,3)
12	(0,21)	(0,42)	(5,23)	(8,49)	(11,21)	(12,49)	(16,39)
15	(0,03)	(0,05)	(3,43)	(5,84)	(7,86)	(8,77)	(11,67)
18			(2,2)	(4,06)	(5,62)	(6,28)	(8,55)
21			(1,26)	(2,73)	(3,97)	(4,46)	(6,27)
24			(0,51)	(1,7)	(2,69)	(3,05)	(4,53)
27				(0,83)	(1,63)	(1,88)	(3,1)
30					(0,72)	(0,87)	(1,88)

() = Permissible Flat Plate Area of antenna in m²



Type 300N & 450N



Type 1000 & 1600

MECHANICAL SPECIFICATIONS

TYPE 300N

Leg centres	300 mm
Face width	334 mm
Leg size	Ø 34
Bracing size	Ø 10.0 mm
Face area per metre	.08 m ²
Mass per metre	9.97 kg

TYPE 450N

Leg centres	450 mm
Face width	484 mm
Leg size	Ø 34
Bracing size	Ø 12.0 mm
Face area per metre	0.09 m ²
Mass per metre	12.89 kg

TYPE 1000/484

Leg centres	1 100 mm
Face width	1 148 mm
Leg size	Ø 48
Bracing size	Ø 42 mm
Face area per metre	0.20 m ²
Mass per metre	31.67 kg

TYPE 1000/630

Leg centres	1 112 mm
Face width	1 172 mm
Leg size	Ø 63
Bracing size	Ø 42 mm
Face area per metre	0.23 m ²
Mass per metre	41.18 kg

TYPE 1000/760

Leg centres	1 128 mm
Face width	1 204 mm
Leg size	Ø 76
Bracing size	Ø 42 mm
Face area per metre	0.26 m ²
Mass per metre	47.15 kg

TYPE 1600/630

Leg centres	1 600 mm
Face width	1 660 mm
Leg size	Ø 63
Bracing size	Ø 42 mm
Face area per metre	0.26 m ²
Mass per metre	48.32 kg

TYPE 1600/760

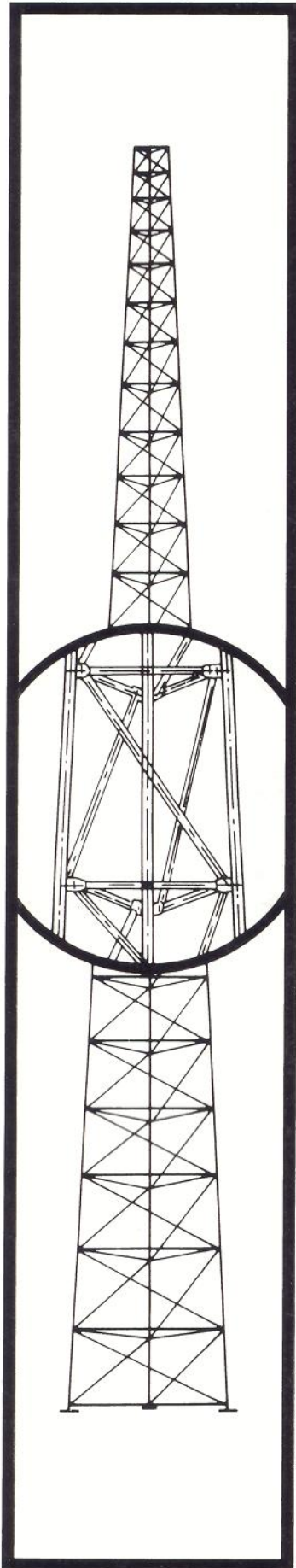
Leg centres	1 616 mm
Face width	1 692 mm
Leg size	Ø 76.0
Bracing size	Ø 42 mm
Face area per metre	0.29 m ²
Mass per metre	54.29 kg

Specifications subject to change without notice. Iss. 2



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TAPERED SELF-SUPPORTING TOWERS



SSS RANGE

A range of lattice self-supporting towers to serve a wide variety of needs, available from 6 m to 48 m height. The towers are a continuous taper design and all bolted construction, with tubular side rails and bracing. Tower modules are in 3 m lengths.

Tower Height	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
Permissible Flat Plate Area in m ²	12.0	8.9	7.2	6	5.1	4.3	4.2	4.1	4.1	4	3.6	2.9	2.8	2.7	2.5

SSH RANGE

A range of lattice towers for microwave & heavy duty applications from 6 m to 39 m height.

Tower Height	6	9	12	15	18	21	24	27	30	33	36	39
Permissible Flat Plate Area in m ²	21.3	14.4	10.9	10.4	10.1	9.8	8.4	7.1	5.9	5.8	5.7	5.1

SSX RANGE

An extra heavy duty range of microwave Towers based on the lower modules of the SSH Tower. Available in heights from 9 m to 48 m.

Tower Height	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
Permissible Flat Plate Area in m ²	106.5	64	43.8	32	24.4	19	15.1	12.1	9.8	7.9	6.4	5.1	4.1	3.2	2.5

SSZ RANGE

An extra heavy duty tower for large microwave dishes.

Tower height	15 – 60m
Permissible flat plate area in m ²	10 – 90

Details available

Special features include:

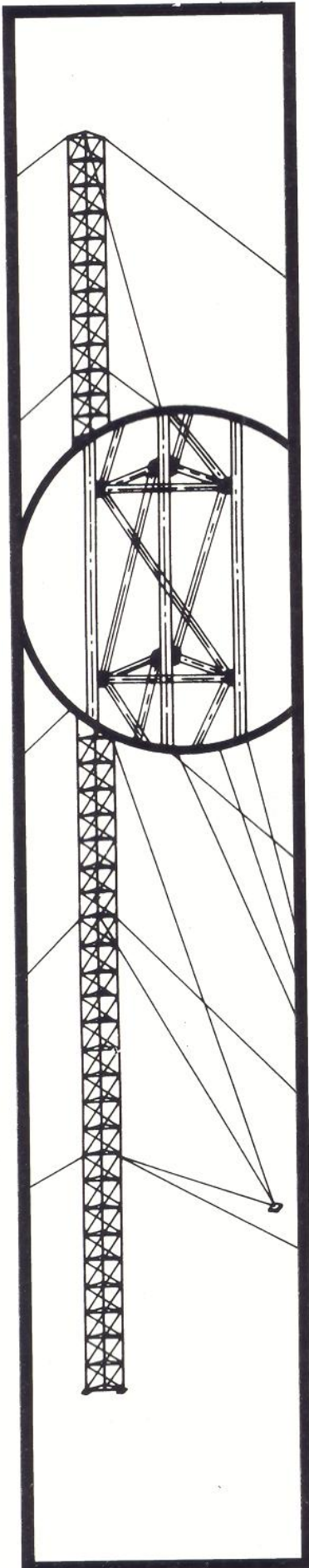
- All bolted construction permits tower to be shipped in CKD form, and facilitates transport and handling.
- Towers can be erected in the field without specialised rigging tackle.
- A wide range of custom made options include:
 - Antenna clamps
 - Earth kit
 - Climbing steps
 - Caged ladder
 - Navigation lights
 - Painting

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300N AND 450N SERIES GUYED LATTICE MASTS



A range of cost effective guyed lattice masts of all welded construction available from 6 m to 60 m height.

MODEL	HEIGHT RANGE
TYPE 300N	6 m to 45 m
TYPE 450N	6 m to 60 m

The 300 series is based on a 300 mm equilateral triangle design, while the 450 series is based on a 450 mm equilateral triangle design.

Special features include:

- Mast modules of 3 m length to facilitate transport and handling.
- Swivel base to facilitate erection.
- All welded construction with solid cross-bracing.
- 6 x Grade 8.8 Bolts per section joint.
- Wide range of custom made options, including:
 - Torque arms
 - Antenna brackets
 - Safety climbing device assembly
 - Earth kits
 - Navigation lights
 - Painting

MECHANICAL SPECIFICATIONS

300N SERIES

Leg centres	300 mm
Face width	334 mm
Leg size	Ø 34.0
Bracing size	Ø 10.0 mm
Face area per metre	0.08 m ²
Mass per metre	9.97 kg
Guy rope diameter	6 mm

450N SERIES

Leg centres	450 mm
Face width	484 mm
Leg size	Ø 34.0
Bracing size	Ø 12.0 mm
Face area per metre	0.09 m ²
Mass per metre	12.89 kg
Guy rope diameter	6 mm

ANTENNA LOADING:

TYPE 300

Permissible Flat Plate Area = 0.6 m² at apex
and 0.6 m² at 3 m below apex.

TYPE 450

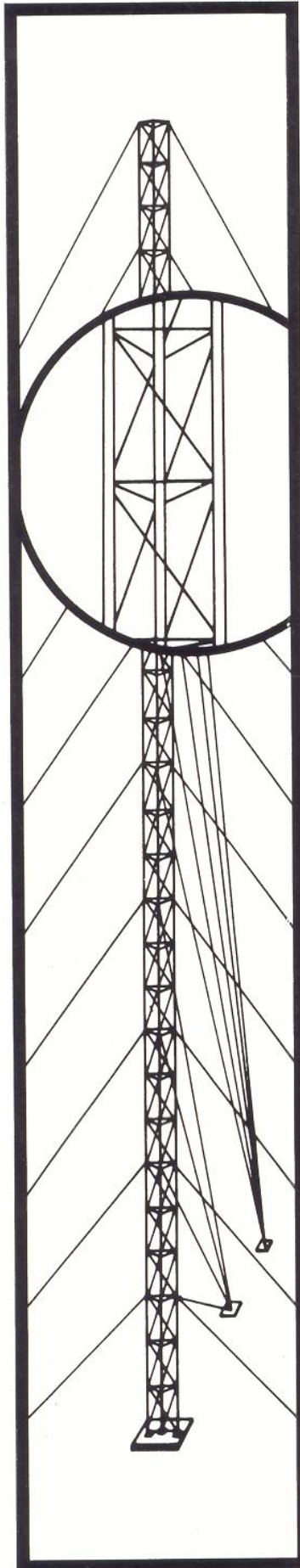
Permissible Flat Plate area = 0.8 m² at apex
and 0.8 m² at 3 m below apex.

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HEAVY DUTY GUYED LATTICE MASTS



Type 1000/483 and Type 1000/600

A range of two heavy duty lattice communications masts for microwave or similar use. Available to 96 m height in 3 metre increments.

Type 1600/600 and Type 1600/760

A range of two extra heavy duty lattice communications masts available to 120 m in 3 metre increments.

Special features include:

- All bolted construction permits mast to be shipped in CKD form, and facilitates transport and handling.
- A wide range of custom made options available, including climbing steps, torque frames and dish mounting brackets.
- Standard navigation lights brackets.
- Earth kits.

MECHANICAL SPECIFICATIONS

1000/484

Leg centres	1 100 mm
Face width	1 148 mm
Leg size	Ø 48.0
Bracing size	Ø 42 mm
Face area per metre	0.20 m ²
Mass per metre	31.67 kg

1000/630

Leg centres	1 112 mm
Face width	1 172 mm
Leg size	Ø 63
Bracing size	Ø 42 mm
Face area per metre	0.23 m ²
Mass per metre	41.18 kg

1600/630

Leg centres	1 600 mm
Face width	1 660 mm
Leg size	Ø 63
Bracing size	Ø 42 mm
Face area per metre	0.26 m ²
Mass per metre	48.32 kg

1600/760

Leg centres	1 616 mm
Face width	1 692 mm
Leg size	Ø 76.0
Bracing size	Ø 42 mm
Face area per metre	0.29 m ²
Mass per metre	54.29 kg

Antenna Loading

Permissible flat plate area
= 1 m² at apex
and 1 m² at 3 m below apex.

Permissible flat plate area
= 2,65 m² at apex
and 2,65 m² at 3 m below apex.

Permissible flat plate area
= 3,5 m² at apex
and 3,5 m² at 3 m below apex.

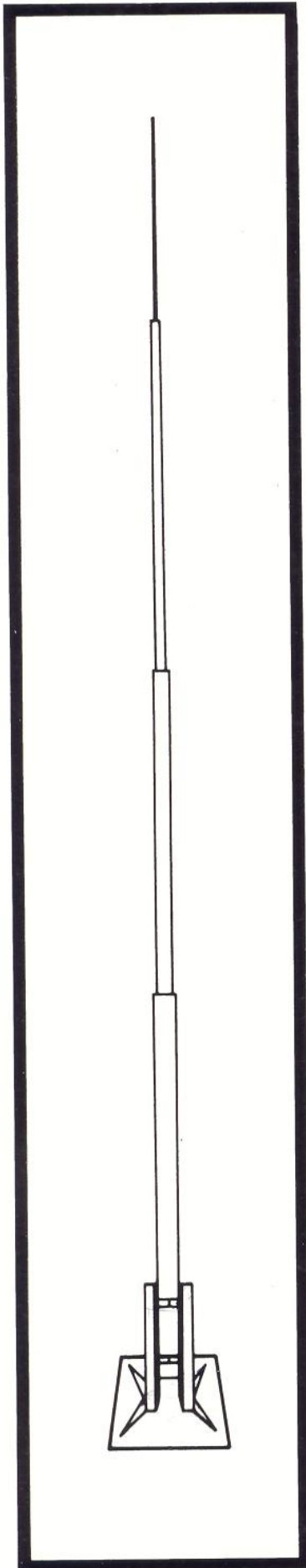
Permissible flat plate area
= 7.0 m² at apex
and 7.0 m² at 3 m below apex.

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TUBULAR SELF-SUPPORTING MASTS



TYPE A

(FROM 6 M TO 18 M HEIGHT)

An economy range of seven galvanised tubular masts mounted on swivel base plates. Suitable for installation on concrete foundations or on concrete roofs, and ideal for SSB applications.

TYPE M

(FROM 12 M TO 21 M)

As for Type A except that the range consists of four masts with a substantially greater antenna loading capability than the Type A.

TYPE T

(FROM 12 M TO 24 M)

A heavy duty range of tubular self-supporting masts consisting of five variants on a standard base plate.

VARIANTS AND OPTIONS:

- Permanent or Temporary de-erection kit.
- Single or double guy assembly
- Earth Kit
- Antenna Clamps

THE RANGE CONSISTS OF:-

Part No.	Tube Diameters mm	Height	Antenna Loading	
			Permissible Flat Plate Area m ²	Wind Load kg
A6	76 mm	6 m	0.40	38.3
A9	90 – 76 mm	9 m	0.23	24.4
AH9	115 – 90 mm	9 m	0.53	56.3
A12	90 – 76 mm	12 m	0.07	8.1
AH12	115 – 90 mm	12 m	0.26	30.1
A15	115 – 90 – 76 mm	15 m	0.13	16.2
A18	115 – 90 – 76 mm	18 m*	0.01	1.3
M12	140 – 115 mm	12 m	0.46	53.3
M15	140 – 115 – 90 mm	15 m	0.24	30.0
M18	140 – 115 – 90 mm	18 m	0.08	10.6
M21	140 – 115 – 90 – 76 mm	21 m*	Nil	0.0
T12	165 – 140 mm	12 m	0.71	82.2
T15	165 – 140 – 115 mm	15 m	0.39	48.7
T18	165 – 140 – 115 mm	18 m	0.17	22.5
T21	165 – 140 – 115 – 90 mm	21 m	0.03	4.2
T24	165 – 140 – 115 – 90 mm	24 m*	Nil	0.0

* Not recommended as Antenna support structures

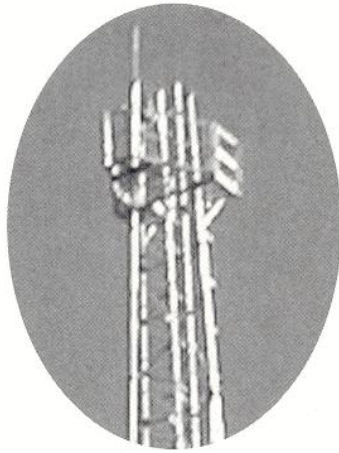
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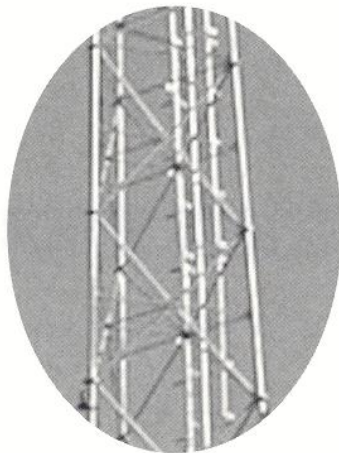
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EHC Tower Range

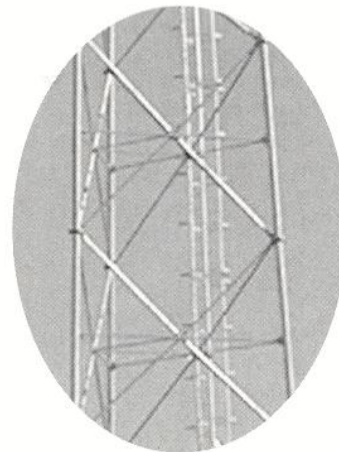
Top parallel sections in face width of 580mm, 1060mm, 1300mm, 1540mm, 2020mm and 2500mm.
Parallel Sections up to 15m in length.



From 2500 to 1060 face width with triangular Z bracing.



From 10500 to 2500 face width with diamond bracing.



A comprehensive range of heavy duty towers up to 120 m in height suitable for cellular, microwave and broadcast application. Designed by a leading consulting engineer, the modular design provides flexible and cost effective solutions. The range of towers is field proven throughout Africa.

Features:

- Available to 120 m height
- Modular design using standard components
- Computer aided design requires only details of height, antenna load, wind speed, terrain category, etc to verify structure required
- With maximum member length 4 m, the towers can be erected without the use of a crane
- Open ended braces permit egress of water and full cover of internal galvanising
- Tubular members facilitate antenna mounting
- Top sections available in parallel configuration to facilitate mounting of antennas

Technical

- Designed to local and international specifications
- Manufactured in accordance with SABS 1200H
- Galvanised to SABS ISO 1461
- Grade 300W steel used in structural members
- Full Engineering Certification offered
- Quality System in compliance with ISO 9001

Tower Options

- Internal or External Caged ladders
- Optional Fall Arrest System
- Rest Platforms
- Working Platforms and Crows Nests
- Antenna Mounting Brackets
- Painting to ICAO standards
- Aircraft warning lights