



RFS Parabolic GRID KITS are designed to be assembled into grid parabolic antennas of comparable performance to welded grid antennas. Grid kit antennas have an important advantage - they can be packed in smaller component level packages, greatly reducing transportation costs, handling and storage problems. Assembly can be carried out with a few basic tools and is easily achieved at remote sites. Kits contain universal mounting clamps including the panning clamp, but tower mounting tubes are not included. The mounting method allows either horizontal or vertical polarization.



FEATURES / BENEFITS

- Extremely rugged mechanical design to withstand high wind speeds (up to 270 km/h)
- 100 MHz bandwidth for multichannel applications
- Horizontal or vertical polarization
- Easy adjustment of azimuth and elevation
- Broadband unpressurized feeds, with no trade off in gain slope characteristics
- Corrosion resistant aluminium tube reflector, hot dip galvanized mounting, stainless steel hardware.

Technical features

STRUCTURE

Product Line		Antenna TV
Product Type		Band IV/V (UHF) TV Grid Kit Antenna

ELECTRICAL SPECIFICATIONS

Frequency Range	MHz	526 - 820
FREQUENCYRANGECOMMENT		100-200MHz within UHF band depending on application. Contact RFS for details.
Polarization		Horizontal Vertical
Nominal Gain (Mid-band)	dBd	Upper limit 27.4 Mid band 25.4 Lower limit 23.5
Max. Bandwidth	MHz	100
Return Loss	dB	> 17.7
Power Rating	kW	0.1 (N-type) 0.5 (7/8" EIA)
Input/Power Rating Comment		Note 4
Min. Front to Back Ratio	dB	25
Side Lobe (max)	dB	15
Impedance (unbalanced)	Ω	50



MECHANICAL SPECIFICATIONS

Input Connector		N socket (suffix "N") 7/8" EIA flange (suffix "E")
Dimensions (Height or Length)	cm (in)	380 (150) Diameter
Mounting (Standard)	mm (in)	Clamp size 76 - 115mm (3 - 6) OD tube Note 5
Effective Area Front (full antenna) No Ice	m ² (ft ²)	4.5 (48.4)
Effective Area Front (full antenna) with 12.5mm(0.5") Radial Ice	m ² (ft ²)	4.5 (48.4)
Effective Area Side (full antenna) No Ice	m ² (ft ²)	2.3 (24.7)
Effective Area Side (full antenna) 12.5mm (0.5") Radial Ice	m ² (ft ²)	2.3 (24.7)
Wind Survival Rating	km/h (mph)	270 (168)
Wind Load @ 55 m/sec Front	kN (lb)	8.3 (1866)
Wind Load @ 55 m/sec Side	kN (lb)	4.6 (1034)
Wind Load Comment		Note 2
Weight	kg (lb)	130 (287)

PACKAGING INFORMATION

Shipping Weight, Kg (lb)	kg (lb)	318 (701)
Shipping Volume	m ³ (ft ³)	1.88 (66.3)
Shipping Dimension - Length	cm (in)	404 (159.1)
Shipping Dimension - Width	cm (in)	101 (39.8)
Shipping Dimension - Height	cm (in)	46 (18.1)



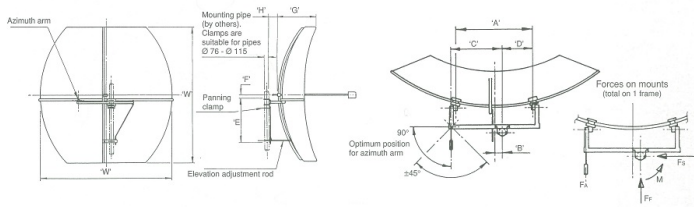
Mounting Data

GRIDKIT Model	'W'	'A'	'B'	'C'	'D'	'E'		'F'		'G'	'H'	Max. forces at 200km/h			
						Horiz. Polarization	Vert. Polarization	Horiz. Polarization	Vert. Polarization			Units = kN, kNm	F _s	F _A	M
GKA18	1848	712	110	-	246	545	585	85	45	617	100/160	3.5*	1.6*	-	1.4*
GKA24	2408	910	110	616	345	670	710	85	45	752	85/145	5.7*	2.7*	4.5*	-
GKA30	2966	1093	110	711	437	1205	-	237	-	898	-	8.5†	4.7†	7.5†	-
GKA38	3710	1489	110	933	635	1630	-	300	-	1080	-	13.3†	7.3†	10.5†	-

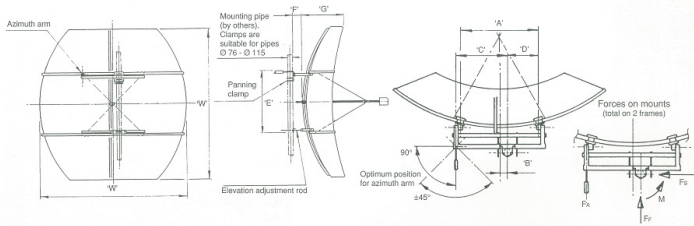
* For frequencies < 1 GHz multiply forces by 0.68

† For frequencies < 1 GHz multiply forces by 0.62

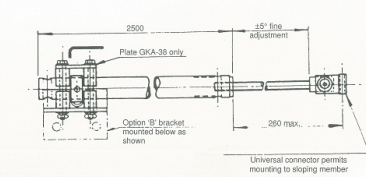
GKA18 and 24



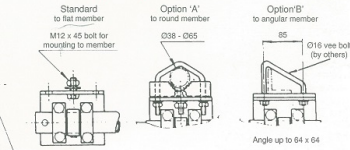
GKA30 and 38



Azimuth arm assembly



Mast mounting arrangements





GKA38

UHF TV GRID KIT Antennas

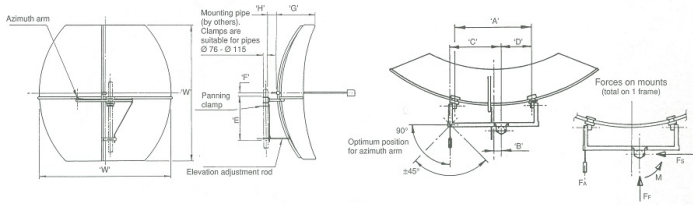
GKA Series

Mounting Data

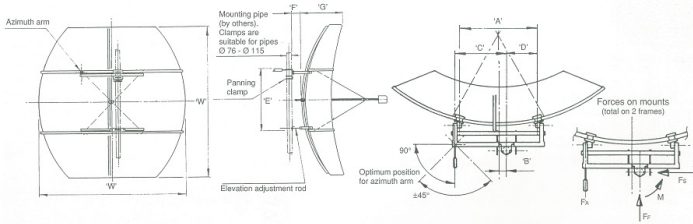
GRIDKIT Model	'W'	'A'	'B'	'C'	'D'	Horiz. Polarization	Vert. Polarization	'F'	Vert. Polarization	'G'	'H'	Max. forces at 200km/h Units = kN, kNm, PA, M			
												F _F	F _S	F _A	M
GKA18	1848	712	110	-	246	545	585	85	45	617	100/160	3.5*	1.6*	-	1.4*
GKA24	2408	910	110	616	345	670	710	85	45	752	85/145	5.7*	2.7*	4.5*	-
GKA30	2966	1093	110	711	437	1205		237		898	-	8.5†	4.7†	7.5†	-
GKA38	3710	1489	110	933	635	1630		300		1080	-	13.3†	7.3†	10.5†	-

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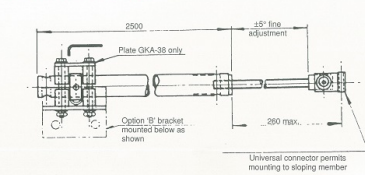
GKA18 and 24



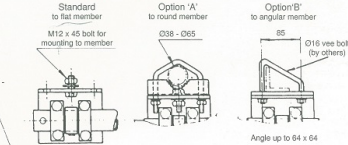
GKA30 and 38



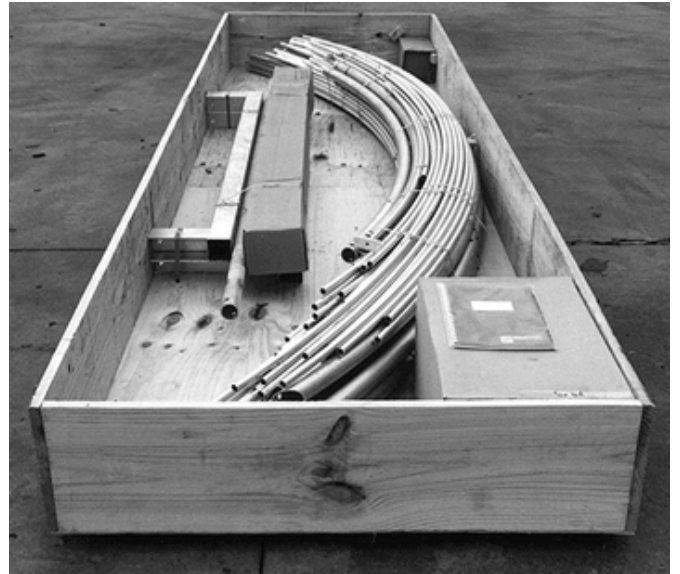
Azimuth arm assembly



Mast mounting arrangements



GKA



External Document Links

Notes

- Note 1** All Grid kit antennas are packed in heavy wood cases.
- Note 2** Wind load at 55m/sec (200 km/hr); calculated in accordance with AS1170:Part 2, "SAA Loading Code - Wind Forces".
- Note 3** Wind survival rating calculated in accordance with AS1664 and AS1250 (minimum safety factor of 1.5 on yield strength).
- Note 4** Add suffix to model number "N" for N type, "E" for 7/8 EIA flange.
- Note 5** Fine adjustment in azimuth and elevation on all models is ±5 degrees (min).
- Note 6** Lightning protection by direct ground.