



## 0.6m (2 ft) High Performance Parabolic Antenna

### VHP2-71

**A**ndrew VHP high performance antennas are designed to satisfy the demands of cellular, PCS and Private User Networks worldwide.

The Valuline® antenna is a cost-effective antenna for terrestrial microwave communications .

Andrew antennas satisfy the widely accepted EIA 195C and 222E standards for electrical, mechanical and structural characteristics and are backed by a 3 year warranty.

This antenna can also be customized to allow direct integration of a customers radio equipment

In order to reduce shipping costs and delivery times to sites worldwide, Valuline® antennas are available from Andrew locations at Lochgelly, Scotland; Denton, Texas; Melbourne, Australia; Sorocaba, Brazil and Suzhou China.







#### Electrical Characteristics

Antenna Type	<b>VHP2-71W</b>	
Frequency Band (GHz)	<b>7.125-8.5</b>	
Gain (dBi)	Bottom	<b>29.8</b>
	Middle	<b>30.4</b>
	Top	<b>31.1</b>
3dB Beamwidth (deg.)	<b>4.9</b>	
Cross Polar Disc. (dB)	<b>30</b>	
F/B Ratio (dB)	<b>53</b>	
VSWR (R.L. dB)	<b>1.15</b>	
RPE Number	<b>3396B</b>	

#### Flange Options

Standard (Others on application)

CPR112G		PDR84	
UBR84		PBR84	

#### Regulatory Compliances

U.S. FCC Part 101	ETSI EN 300833
-	RPE Class R1 C2

For applications assistance, please contact the Andrew Customer Support Center :

United States : TOLL FREE : 1-800-255 1479  
 Telephone : (708) 349 3300  
 Fax : (708) 349 5943

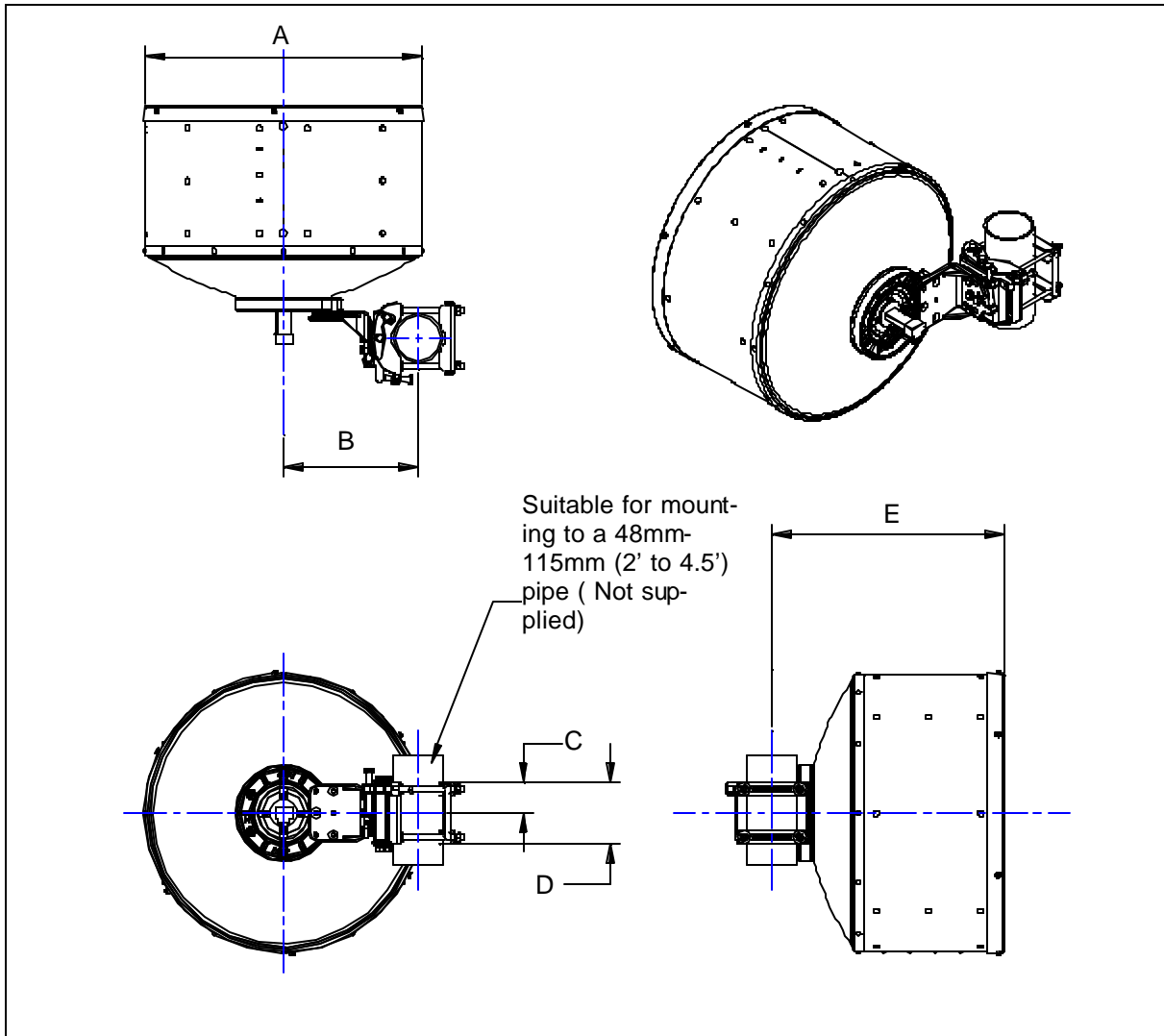
United Kingdom : TOLL FREE : 0800 250055  
 Telephone : (+44) 1592 780561  
 Fax : (+44) 1592 782380





# ValuLine® Antenna Products

## Outline Dimensions



ANTENNA DIMENSIONS			
All dimensions in mm (inches)			
A	638 (25.1)	D	143 (5.6)
B	310 (12.2)	E	534 (21.0)
C	72 (2.8)		

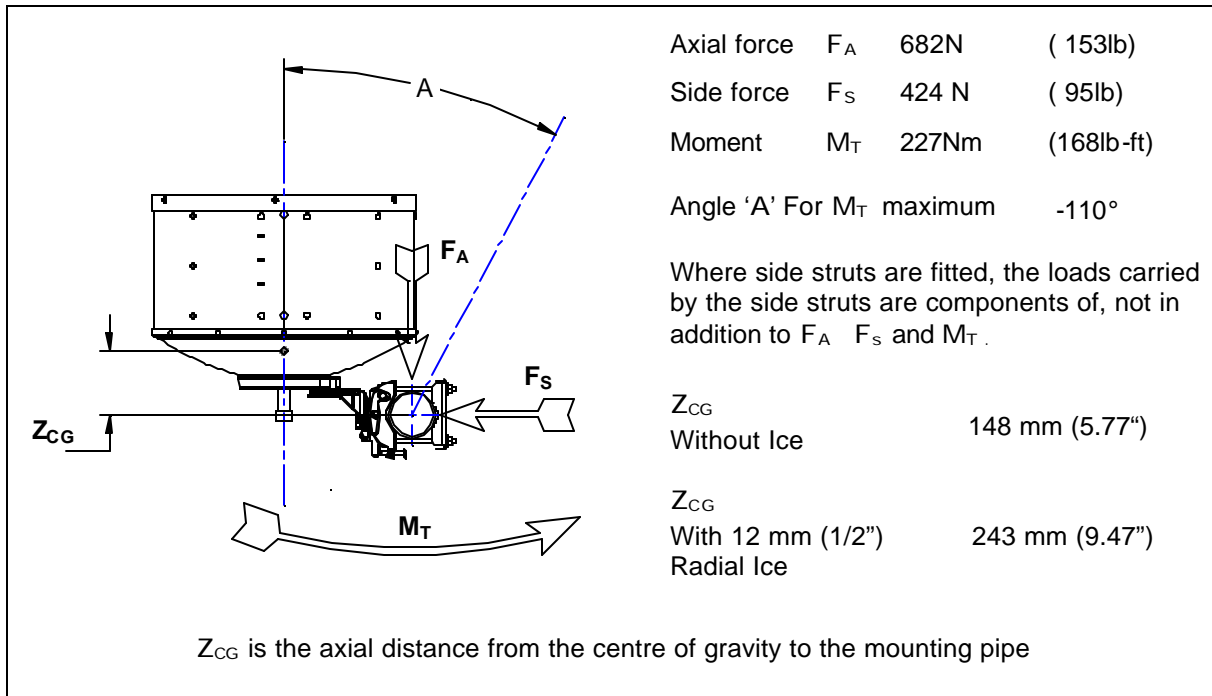
ANTENNA FINE ADJUSTMENT	
FINE AZIMUTH	FINE ELEVATION
±10°	±25°



## Wind Forces

### Wind loading

The axial, side and twisting moment forces stated are maximum loads applied to the tower by the antenna at a survival wind speed of 200 km/h (125 mph). They are, in every case, the result of wind from the most critical direction for each parameter. The individual maximums may not occur simultaneously. All forces are referenced to the antenna mounting pipe.



Antenna Weights kg (lb)	
Antenna Without Ice	Antenna With 12 mm (1/2") Radial Ice
15(33)	37 (81.4)

Antenna Packed Weights (Gross) and Dimensions (Single Unit Pack)	
Weight kg (lb)	Dimensions in cm (inches)
17.4 (38.3)	70 x 70 x 73.5 (27½ x 27½ x 29)



## 1.2m (4 ft) High Performance Parabolic Antenna

### VHP4-71

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





#### Electrical Characteristics

Antenna Type	<b>VHP4-71</b>	
Frequency Band (GHz)	<b>7.125-7.75</b>	
Gain (dBi)	Bottom	<b>36.0</b>
	Middle	<b>36.4</b>
	Top	<b>36.7</b>
3dB Beamwidth (deg.)	<b>2.4</b>	
Cross Polar Disc. (dB)	<b>32</b>	
F/B Ratio (dB)	<b>60</b>	
VSWR (R.L. dB)	<b>1.15</b>	
RPE Number	<b>1326A</b>	

#### Flange Options

Standard (Others on application)

CPR112G		PDR84	
PBR84		UBR84	

#### Regulatory Compliances

U.S. FCC Part 101	ETSI EN 300833
-	RPE Class R1 C2

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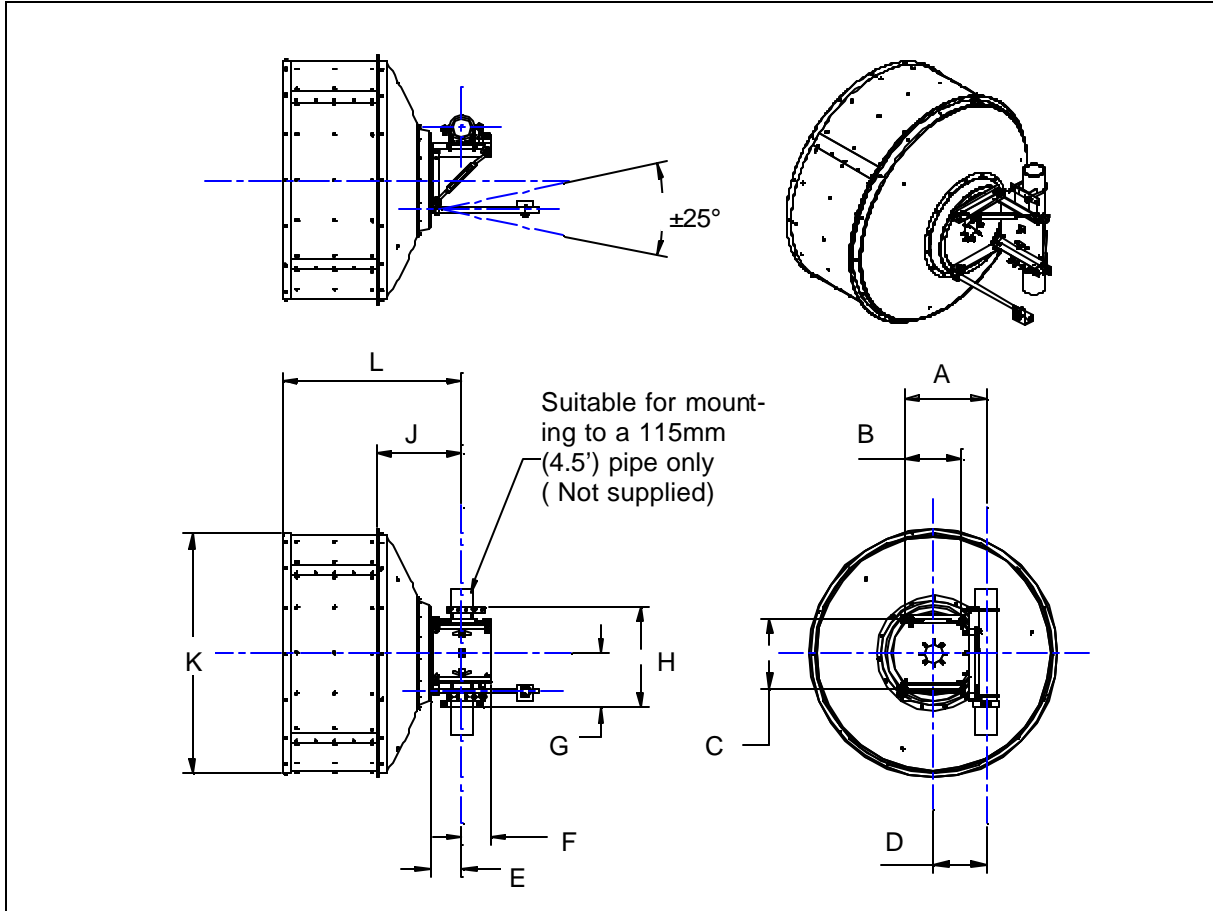
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# ValuLine<sup>®</sup> Antenna Products

## Outline Dimensions



ANTENNA DIMENSIONS			
All dimensions in mm (inches)			
A	421 (16.6)	G	209 (8.2)
B	295 (11.6)	H	528 (20.8)
C	361 (14.2)	J	445 (17.5)
D	273 (10.7)	K	1247 (49.1)
E	165 ( 6.5)	L	933 (36.7)
F	152 ( 6)		

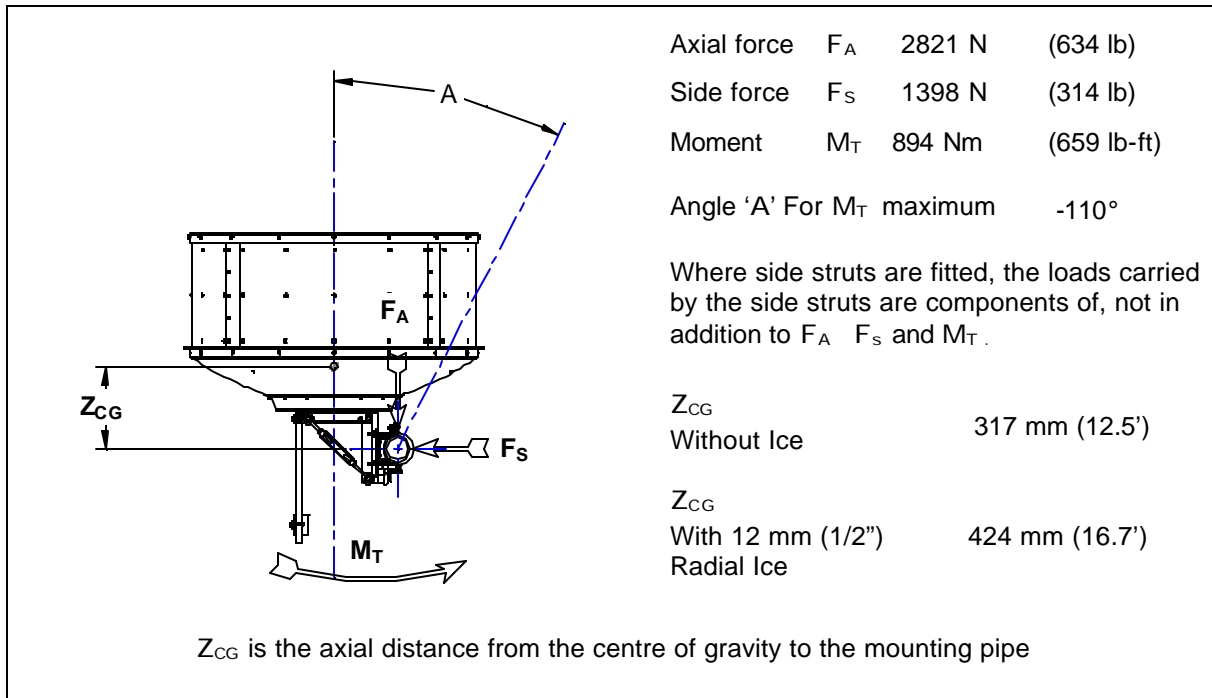
ANTENNA FINE ADJUSTMENT	
FINE AZIMUTH	FINE ELEVATION
±15°	±20°



## Wind Forces

### Wind loading

The axial, side and twisting moment forces stated are maximum loads applied to the tower by the antenna at a survival wind speed of 200 km/h (125 mph). They are, in every case, the result of wind from the most critical direction for each parameter. The individual maximums may not occur simultaneously. All forces are referenced to the antenna mounting pipe.



Antenna Weights kg (lb)	
Antenna Without Ice	Antenna With 12 mm (1/2") Radial Ice
64 (140)	128 (282)

Antenna Packed Weights (Gross) and Dimensions (Single Unit Pack)	
Weight kg (lb)	Dimensions in cm (inches)
137.0 (301.40)	134x134x71 (53x53x28)



## 1.2m (4 ft) High Performance Parabolic Antenna

### VHP4-77

**A**ndrew VHP high performance antennas are designed to satisfy the demands of cellular, PCS and Private User Networks worldwide.





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Flange Options			
Standard (Others on application)			
CPR112G		PDR84	
PBR84		UBR84	

Regulatory Compliances	
U.S. FCC Part 101	ETSI EN 300833
-	RPE Class R1 C2

Electrical Characteristics		
Antenna Type	<b>VHP4-71</b>	
Frequency Band (GHz)	<b>7.75-8.5</b>	
Gain (dBi)	Bottom	<b>36.0</b>
	Middle	<b>36.4</b>
	Top	<b>36.7</b>
3dB Beamwidth (deg.)	<b>2.4</b>	
Cross Polar Disc. (dB)	<b>32</b>	
F/B Ratio (dB)	<b>60</b>	
VSWR (R.L. dB)	<b>1.15</b>	
RPE Number	<b>1326A</b>	

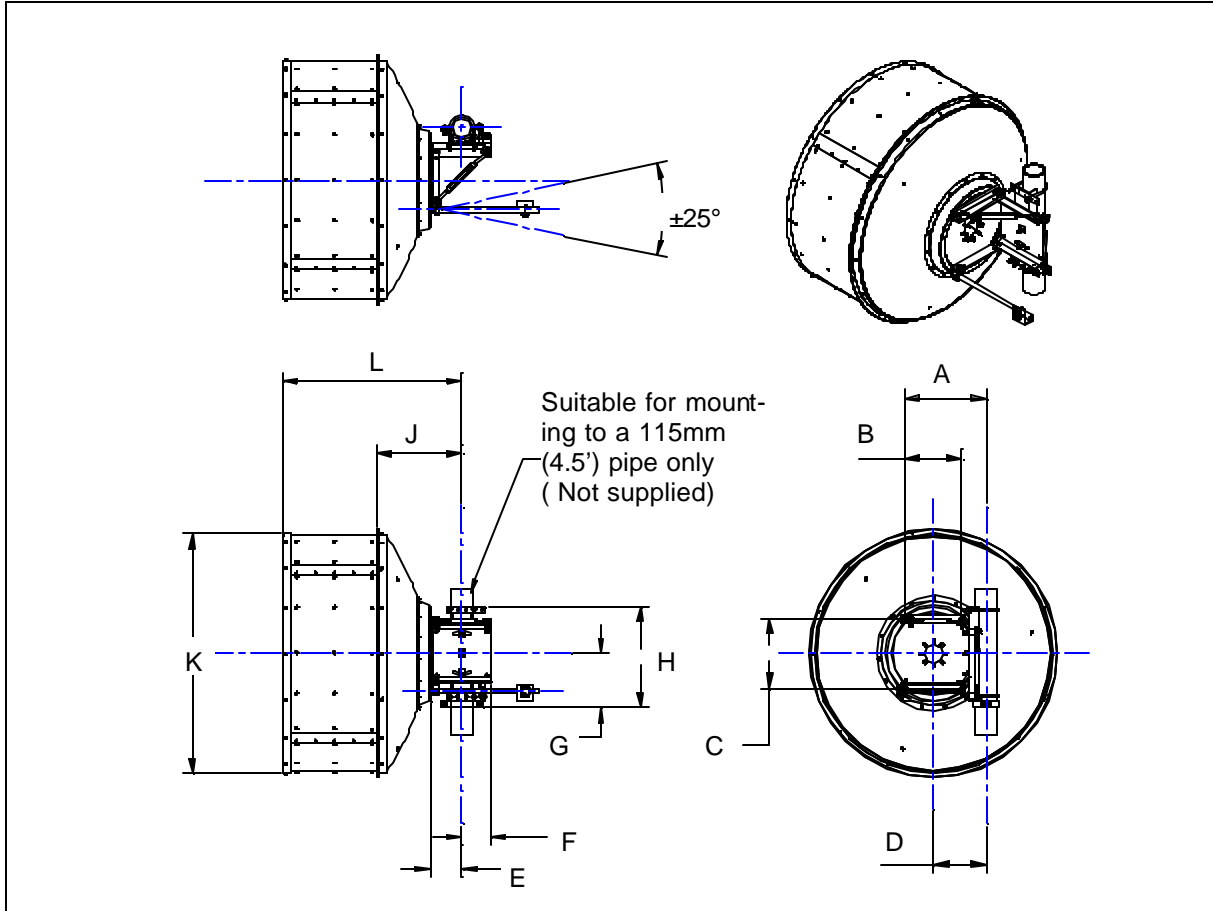
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## Outline Dimensions



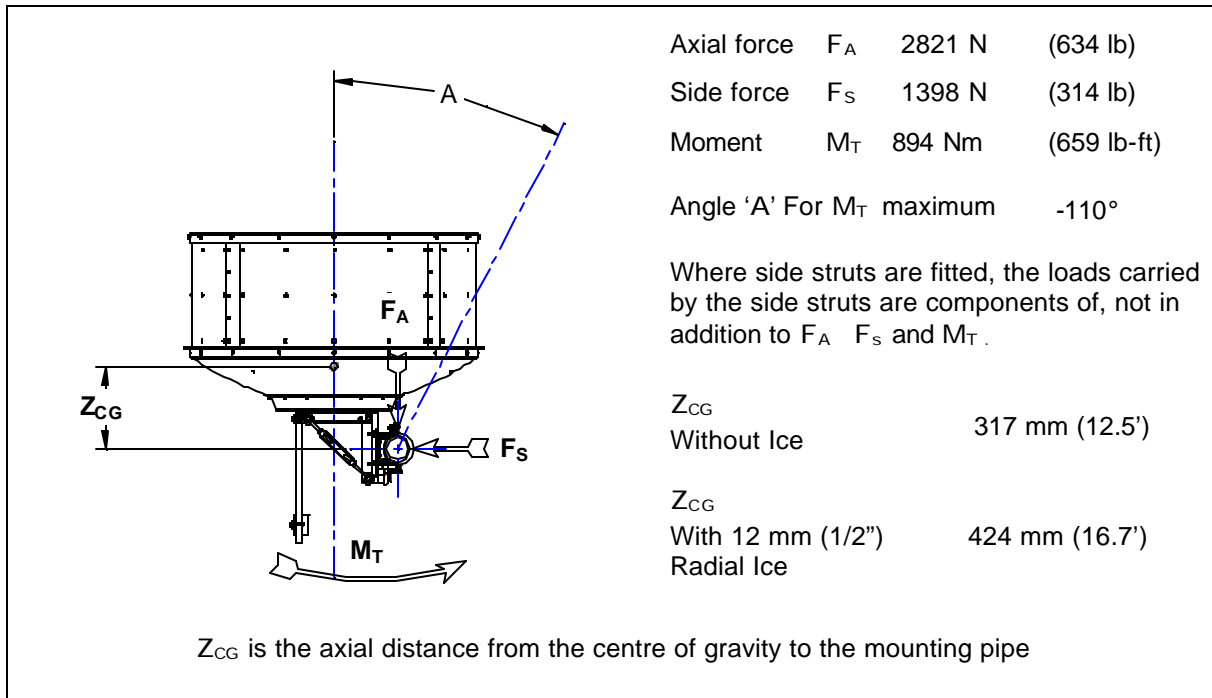
ANTENNA DIMENSIONS			
All dimensions in mm (inches)			
A	421 (16.6)	G	209 (8.2)
B	295 (11.6)	H	528 (20.8)
C	361 (14.2)	J	445 (17.5)
D	273 (10.7)	K	1247 (49.1)
E	165 (6.5)	L	933 (36.7)
F	152 (6)		

ANTENNA FINE ADJUSTMENT	
FINE AZIMUTH	FINE ELEVATION
±15°	±20°

## Wind Forces

### Wind loading

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Antenna Weights kg (lb)	
Antenna Without Ice	Antenna With 12 mm (1/2") Radial Ice
64 (140)	128 (282)

Antenna Packed Weights (Gross) and Dimensions (Single Unit Pack)	
Weight kg (lb)	Dimensions in cm (inches)
137.0 (301.40)	134x134x71 (53x53x28)



## 1.8m (6 ft) High Performance Parabolic Antenna

### VHP6-71

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





#### Electrical Characteristics

Antenna Type	<b>VHP6-71</b>	
Frequency Band (GHz)	<b>7.125-7.75</b>	
Gain (dBi)	Bottom	<b>39.7</b>
	Middle	<b>40.0</b>
	Top	<b>40.4</b>
3dB Beamwidth (deg.)	<b>1.6</b>	
Cross Polar Disc. (dB)	<b>32</b>	
F/B Ratio (dB)	<b>68</b>	
VSWR (R.L. dB)	<b>1.15</b>	
RPE Number	<b>3318A</b>	

#### Flange Options

Standard (Others on application)

CPR112G		PDR84	
UBR84		PBR84	

#### Regulatory Compliances

U.S. FCC Part 101	ETSI EN 300833
-	RPE Class R1 C3

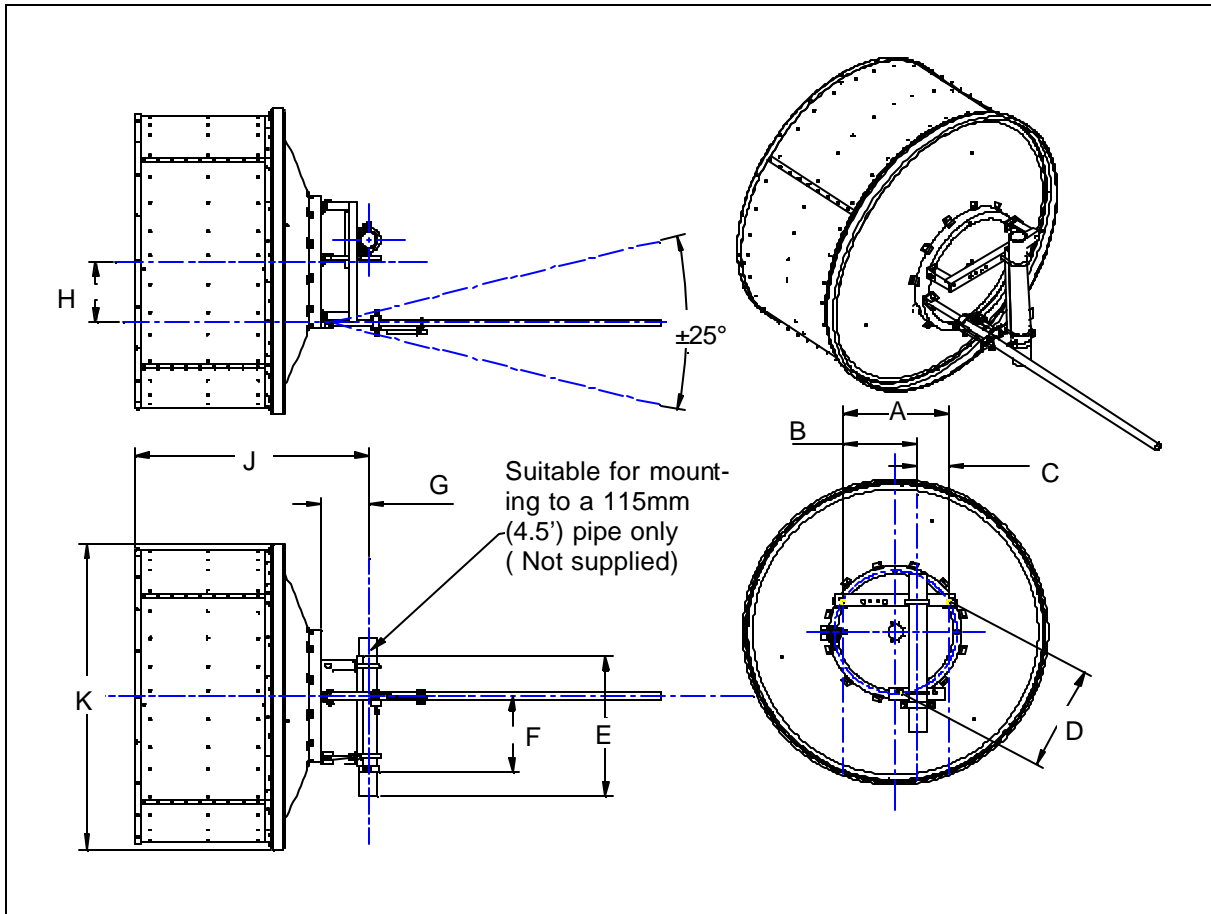
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## Outline Dimensions



ANTENNA DIMENSIONS			
All dimensions in mm (inches)			
A	674 (26.5)	F	737 (29.0)
B	474 (18.7)	G	298 (11.7)
C	200 (7.9)	H	389 (15.3)
D	656 (25.8)	J	1484 (58.4)
E	483 (19.0)	K	1939 (76.3)

ANTENNA FINE ADJUSTMENT	
FINE AZIMUTH	FINE ELEVATION
±15°	±20°



## Wind Forces

### Wind loading

The axial, side and twisting moment forces stated are maximum loads applied to the tower by the antenna at a survival wind speed of 200 km/h (125 mph). They are, in every case, the result of wind from the most critical direction for each parameter. The individual maximums may not occur simultaneously. All forces are referenced to the antenna mounting pipe.

The diagram illustrates the antenna mounting assembly. A vertical line represents the mounting pipe. The antenna is mounted on top. A dashed blue line indicates the angle 'A' from the vertical to the wind direction. Forces are shown:  $F_A$  (axial force) acting downwards,  $F_S$  (side force) acting horizontally, and  $M_T$  (twisting moment) acting around the mounting pipe. The distance  $Z_{CG}$  is the axial distance from the centre of gravity to the mounting pipe.

Axial force	$F_A$	6348N	(1427 lb)
Side force	$F_S$	3144 N	(707 lb)
Moment	$M_T$	2209 Nm	(1629 lb-ft)
Angle 'A' For $M_T$ maximum			-110°

Where side struts are fitted, the loads carried by the side struts are components of, not in addition to  $F_A$ ,  $F_S$  and  $M_T$ .

$Z_{CG}$			
Without Ice		508 mm	(20.0')
$Z_{CG}$			
With 12 mm (1/2") Radial Ice		848 mm	(33.3')

$Z_{CG}$  is the axial distance from the centre of gravity to the mounting pipe

Antenna Weights kg (lb)	
Antenna Without Ice	Antenna With 12 mm (1/2") Radial Ice
173 (380)	282 (620)

Antenna Packed Weights (Gross) and Dimensions (Single Unit Pack)	
Weight kg (lb)	Dimensions in cm (inches)
308 (677.6)	208x208x122 (82x82x48 )

