

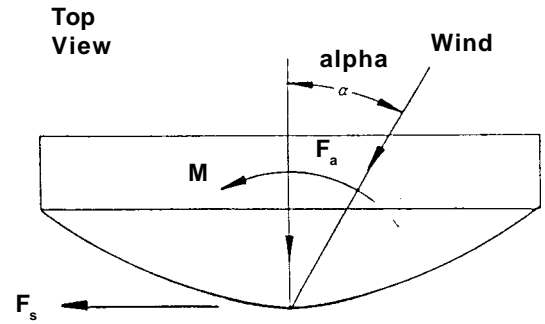
## High Performance & Ultra High Performance Antennas

Approximate Wind Forces at 125 mph (200 kmh)  
(Forces based on antennas e/w planar radomes)

### High Performance Antenna

### Ultra High Performance Antenna

Antenna Diameter ft. (meter)	Wind Angle degree	Axial Force $F_a$		Side Force $F_s$		Twisting Moment M		Wind Angle degree	Axial Force $F_a$		Side Force $F_s$		Twisting Moment M	
		lb	(N)	lb	(N)	ft-lb	(N-m)		lb	(N)	lb	(N)	ft-lb	(N-m)
1 (0.3)	0	76*	(338)*	0	(0)	0	(0)							
	90	-7	(-31)	43*	(191)*	13	(18)							
	105	-30	(-134)	39	(174)	15*	(20)*							
	180	-60	(-267)	0	(0)	0	(0)							
1.5 (0.5)	0	142*	(632)*	0	(0)	0	(0)							
	90	-13	(-58)	76*	(338)*	28	(38)							
	105	-54	(-240)	70	(312)	32*	(43)*							
	180	-112	(-498)	0	(0)	0	(0)							
2 (0.6)	0	240*	(1068)*	0	(0)	0	(0)							
	90	-22	(-98)	123*	(547)*	55	(75)							
	105	-88	(-392)	111	(494)	62*	(84)*							
	180	-186	(-828)	0	(0)	0	(0)							
2.5 (0.8)	0	340*	(1513)*	0	(0)	0	(0)							
	90	-32	(-142)	176*	(783)*	93	(126)							
	105	-128	(-570)	159	(708)	106*	(144)*							
	180	-270	(-1202)	0	(0)	0	(0)							
4 (1.2)	0	790*	(3516)*	0	(0)	0	(0)							
	90	-73	(-325)	400*	(1780)*	300	(407)							
	105	-290	(-1291)	360	(1602)	350*	(475)*							
	180	-620	(-2759)	0	(0)	0	(0)							
6 <sup>(1)(2)</sup> (1.8)	0	1680*	(7477)*	0	(0)	0	(0)							
	90	-154	(-685)	820*	(3649)*	850	(1153)							
	105	-610	(-2715)	740	(3293)	990*	(1352)*							
	180	-1330	(-5919)	0	(0)	0	(0)							
8 (2.4)	0	2800*	(12500)*	0	(0)	0	(0)							
	90	-260	(-1140)	1370*	(6100)*	1820	(2500)							
	105	-1010	(-4500)	1230	(5500)	2100*	(2900)*							
	180	-2200	(-9800)	0	(0)	0	(0)							
10 (3.0)	0	4500*	(20000)*	0	(0)	0	(0)							
	90	-410	(-1820)	2200*	(9800)*	3700	(5000)							
	105	-1620	(-7200)	1960	(8700)	4300*	(5800)*							
	180	-3500	(-15700)	0	(0)	0	(0)							
12 (3.7)	0	6300*	(28000)*	0	(0)	0	(0)							
	90	-570	(-2600)	3100*	(13700)*	6100	(8300)							
	105	-2300	(-10100)	2800	(12200)	7200*	(9700)*							
	180	-4900	(-22000)	0	(0)	0	(0)							
15 (4.6) "A" Frame Series Only	0	10300*	(46000)*	0	(0)	0	(0)							
	90	-940	(-4200)	5000*	(22000)*	12800	(17300)							
	105	-3700	(-16500)	4500	(20000)	15000*	(20000)*							
	180	-8100	(-36000)	0	(0)	0	(0)							



0	790*	(3500)*	0	(0)	0	(0)	0	790*	(3500)*	0	(0)	0	(0)
90	-72	(-320)	390*	(1710)*	270	(370)	90	-72	(-320)	390*	(1710)*	270	(370)
105	-280	(-1270)	340	(1530)	320*	(430)*	105	-280	(-1270)	340	(1530)	320*	(430)*
180	-620	(-2800)	0	(0)	0	(0)	180	-620	(-2800)	0	(0)	0	(0)
0	1680*	(7500)*	0	(0)	0	(0)	0	1680*	(7500)*	0	(0)	0	(0)
90	-154	(-680)	930*	(4100)*	1180	(1600)	90	-154	(-680)	930*	(4100)*	1180	(1600)
105	-650	(-2900)	830	(3700)	1390*	(1880)*	105	-650	(-2900)	830	(3700)	1390*	(1880)*
180	-1330	(-5900)	0	(0)	0	(0)	180	-1330	(-5900)	0	(0)	0	(0)
0	2800*	(12500)*	0	(0)	0	(0)	0	2800*	(12500)*	0	(0)	0	(0)
90	-260	(-1140)	1540*	(6900)*	2500	(3400)	90	-260	(-1140)	1540*	(6900)*	2500	(3400)
105	-1080	(-4800)	1390	(6200)	3000*	(4000)*	105	-1080	(-4800)	1390	(6200)	3000*	(4000)*
180	-2200	(-9800)	0	(0)	0	(0)	180	-2200	(-9800)	0	(0)	0	(0)
0	4500*	(20000)*	0	(0)	0	(0)	0	4500*	(20000)*	0	(0)	0	(0)
90	-410	(-1820)	2500*	(11000)*	5100	(7000)	90	-410	(-1820)	2500*	(11000)*	5100	(7000)
105	-1730	(-7700)	2200	(9900)	6000*	(8200)*	105	-1730	(-7700)	2200	(9900)	6000*	(8200)*
180	-3500	(-15700)	0	(0)	0	(0)	180	-3500	(-15700)	0	(0)	0	(0)
0	6300*	(28000)*	0	(0)	0	(0)	0	6300*	(28000)*	0	(0)	0	(0)
90	-570	(-2600)	3500*	(15400)*	8500	(11600)	90	-570	(-2600)	3500*	(15400)*	8500	(11600)
105	-2400	(-10800)	3100	(13900)	10000*	(13600)*	105	-2400	(-10800)	3100	(13900)	10000*	(13600)*
180	-4900	(-22000)	0	(0)	0	(0)	180	-4900	(-22000)	0	(0)	0	(0)

- \* Indicates maximum value.
- Note The above windloads are typical for most applications. For some models, the windloads may vary from this table.
- Note 1 Some 6 ft. (1.8) diameter "A" Frame High Performance and Ultra High Performance antennas, use correction factors of 1.09 for  $F_a$  and  $F_s$  and 1.14 for M.
- Note 2 Some 6 ft. (1.8) diameter antenna models meeting Category "A" criteria, utilize oversized reflectors. Contact your Gabriel Sales Engineer for these values.