

nexgen 50m WindMast - BS5950/BS8100 - March 2006

1. Anchors @ 18m and 33.5m radius - BS5950/BS8100 analysis. Glaze ice

Maximum allowed

Radial ice thickness mm	Wind speed @ 10m m/s	Wind speed @ 50m m/s	Inner * anchor load kgf	Inner anchor load angle to horizontal degrees	Outer * anchor load kgf	Outer anchor load angle to horizontal degrees	Guy #1 * Load kgf	Guy #2 * Load kgf	Guy #3 * Load kgf	Guy #4 * Load kgf	Guy #5 * Load kgf	Guy #6 * Load kgf	Base plate * vertical load kgf
0	57.50	72.40	741	35	3399	46	294	455	574	846	1014	984	6657
5	36.50	45.96	567	34	3147	46	211	361	474	724	947	1018	7130
6.35	34.00	42.81	530	34	3058	46	196	339	448	692	923	1012	7180
10	29.50	37.15	497	32	2920	45	205	297	392	634	895	1016	7458
12.70	27.00	34.00	493	31	2783	45	238	261	338	585	872	1006	7619
15	25.00	31.48	488	29	2608	45	265	227	309	536	821	959	7666
20	20.50	25.81	534	30	2112	42	251	289	373	417	583	755	7754
25	18.00	22.67	580	28	2087	39	291	295	470	516	543	570	8767
30	6.00	7.56	560	27	1651	38	294	273	426	421	411	404	9989
31	0.00	0.00	563	27	1587	38	295	275	423	406	390	378	10392

* Note - all these loads have a 25% added safety factor applied

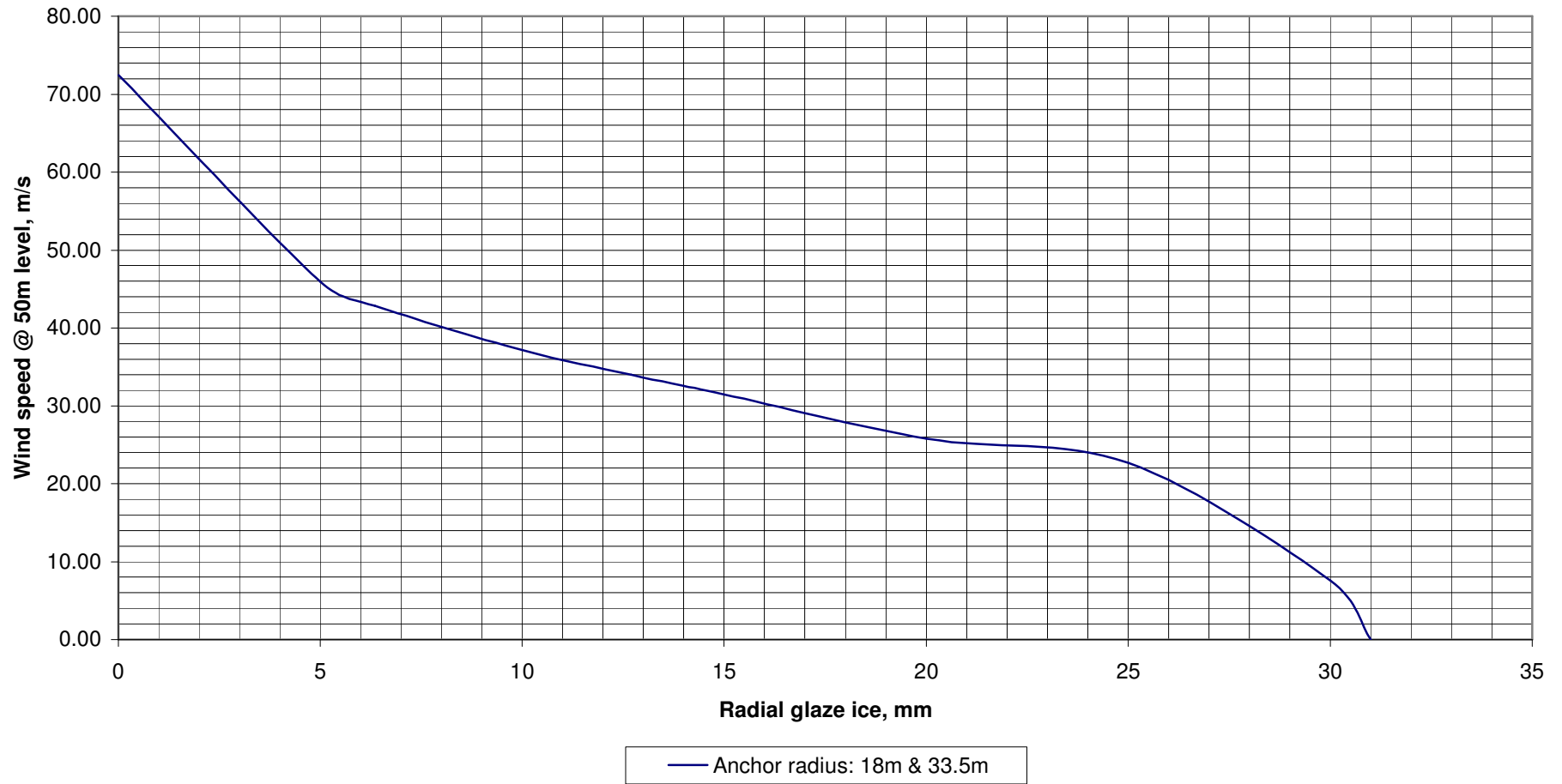
2. Single anchor @ 30m radius - BS5950/BS8100 analysis. Glaze ice

Maximum allowed

Radial ice thickness mm	Wind speed @ 10m m/s	Wind speed @ 50m m/s	Anchor * load kgf	Anchor load angle to horizontal degrees	Guy #1 * Load kgf	Guy #2 * Load kgf	Guy #3 * Load kgf	Guy #4 * Load kgf	Guy #5 * Load kgf	Guy #6 * Load kgf	Base plate * vertical load kgf
0	56.00	70.52	3975	45	289	368	541	841	1022	997	6488
5	35.50	44.70	3593	45	248	287	438	716	951	1027	6974
6.35	33.00	41.55	3467	45	245	262	410	683	924	1015	7014
10	28.50	35.89	3298	44	273	224	346	629	892	1010	7279
12.70	26.50	33.37	3328	43	323	252	314	591	898	1037	7661
15	24.00	30.22	3091	42	345	280	286	500	807	962	7593
20	20.00	25.18	2757	39	359	383	329	375	588	810	7808
25	18.00	22.67	2838	36	419	435	418	442	547	664	8855
30	4.00	5.04	2202	32	415	396	382	371	360	351	9888
31	0.01	0.01	2178	31	417	399	381	365	350	338	10092

* Note - all these loads have a 25% added safety factor applied

nexgen 50m WindMast
Anchor radius: 18m & 33.5m
Maximum allowable wind speed @ 50m level versus Radial glaze ice
March 2006



nexgen 50m WindMast
Single anchor installation
Maximum allowable wind speed @ 50m level versus Radial glaze ice
March 2006

