

ROOF MOUNTS





EFFECTIVE WIND VELOCITY FORMULA SHEET

ROHN recommends a minimum 75 mph Effective Wind Velocity be used for determining ballast requirements.
Refer to page 270 for ballast requirements and general notes.

$$V_e = (C1) (C2) (V)$$

V_e = Effective Wind Velocity at centerline of antenna for calculating required ballast.
C1 = Importance factor coefficient from Table 1.
C2 = Combined exposure and gust effect factor coefficient from Table 2.
V = Design ground wind speed for location, per ANSI/TIA-222-G.

Table 1: Values of C1

Class	Description for installing considering height, use or location	Roof Height	
		≤ 60 ft.	> 60 ft.
I	Low hazard to human life and/or damage to property, optional services provided.	1.29	0.93
II	Significant hazard to human life and/or damage to property, services available by other means.	1.38	1.00
III	Substantial hazard to human life and/or damage to property, essential services provided.	1.48	1.07

Exposure	Description of Surrounding Terrain
B	Urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger.
C	Open terrain with scattered obstructions having heights generally less than 30' [9.1m], including flat, open country and grasslands.
D	Flat, unobstructed shorelines exposed to wind flowing over open water, smooth mud flats, salt flats, and other similar terrain.

Example: 30' antenna elevation, 90 mph design ground wind speed, Class I, Exposure B

$$V_e = (1.29) (0.82) (90) = 95 \text{ mph}$$

The minimum Effective Wind Velocity for determining ballast requirements for this example would be 95 mph.

This data sheet is provided to assist consumers in determining the minimum Effective Wind Velocity to be used for determining ballast requirements from a ROHN Non-Penetrating Roof Mount Ballast Chart. Higher velocities may be required for sites located on hills, escarpments or ridges (refer to ANSI/TIA-222-G). Potential increases in wind velocity due to channeling, roof projections and other obstructions must also be considered. The information shown should not be relied upon without competent professional examination and verification of its accuracy and suitability for a specific site or application.

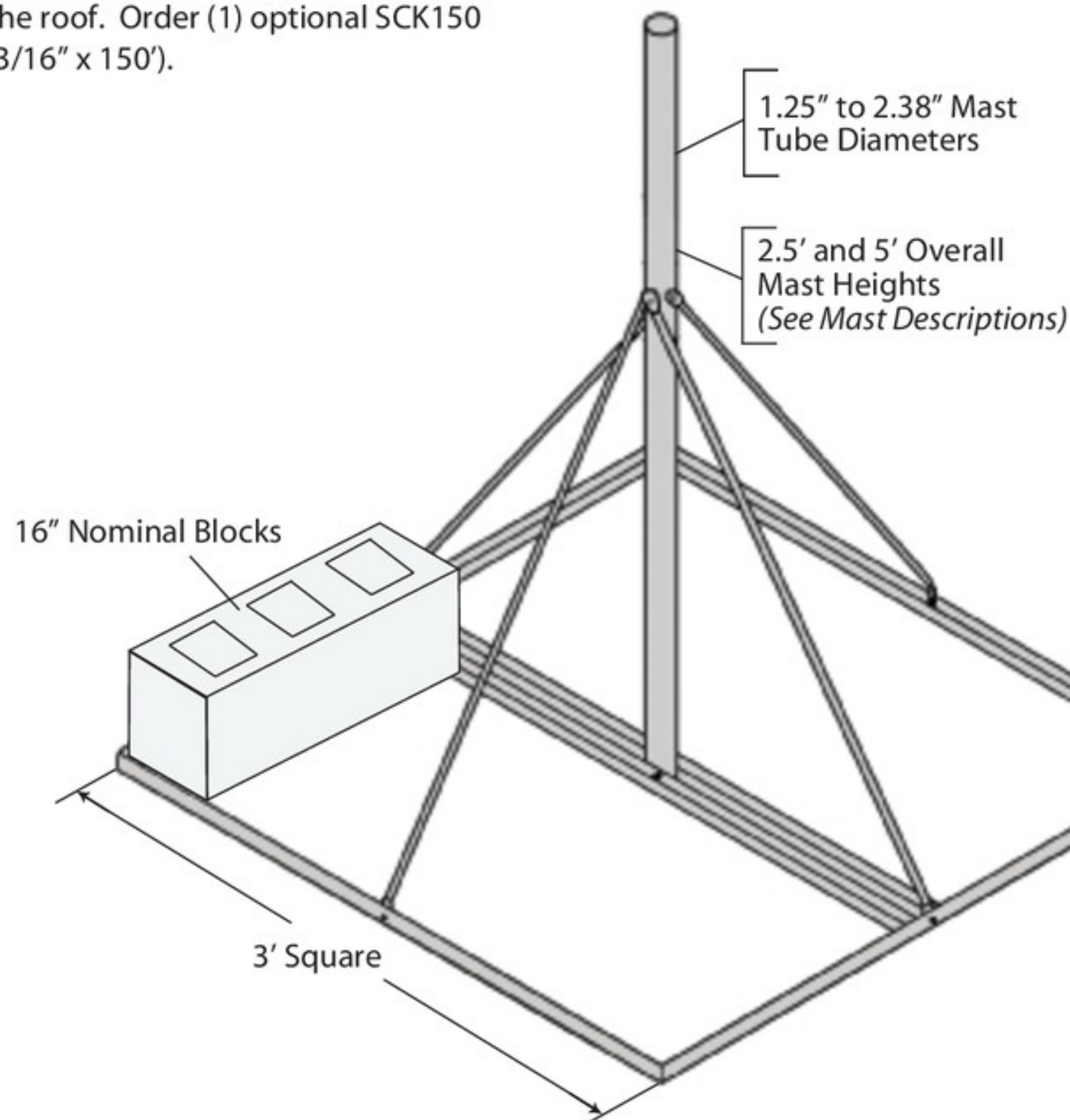
Table 2: Values of C2

Antenna Centerline Elevation Above Ground Level (ft.)	Exposure		
	B	C	D
	Urban or Wooded Areas	Open Country & Grasslands	Open Water or Smooth Terrain
0-15	0.82	0.90	0.99
20	0.82	0.92	1.01
25	0.82	0.95	1.04
30	0.82	0.96	1.05
40	0.85	0.99	1.08
50	0.88	1.02	1.10
60	0.90	1.04	1.12
70	0.92	1.05	1.13
80	0.94	1.07	1.14
90	0.95	1.09	1.16
100	0.97	1.10	1.17
120	0.99	1.12	1.19
140	1.02	1.14	1.20
160	1.04	1.15	1.21
180	1.05	1.17	1.23
200	1.07	1.18	1.24
250	1.10	1.21	1.26
300	1.13	1.23	1.28
350	1.16	1.25	1.30
400	1.18	1.27	1.31
450	1.20	1.29	1.33
500	1.22	1.30	1.34

FRM NON-PENETRATING

The FRM mount is a lightweight mount and is galvanized for corrosion protection. The FRM mount is easily shipped via UPS.

Order (1) optional FRMMAT (1/8" thick) or (1) optional FRMPAD (3/8" thick) for a protective barrier between the mount and the roof. Order (1) optional SCK150 safety cable kit (3/16" x 150').



FRM BALLAST REQUIREMENTS

Effective Projected Area (EPA) (FT ²)	Ballast (LBS)	Zero Velocity Load (PSF)	Vs (MPH)	Vmax at centroid of projected area, (MPH)			
				h=2 FT	h=3 FT	h=4 FT	h=5 FT
1	100	12	140	135	110	96	85
	200	24	198	188	153	133	119
	300	36	242	222	182	157 (154)	141 (131)
	400	48	280	269	219 (197)	190 (154)	170 (131)
2	100	12	99	96	78	68	60
	200	24	140	133	108	94	84
	300	36	171	157	129	111	99 (93)
	400	48	198	190	155 (139)	134 (109)	120 (93)
3	100	12	81	78	64	55	49
	200	24	114	108	88	77	68
	300	36	140	128	105	91 (89)	81 (76)
	400	48	161	155	127 (114)	110 (89)	98 (76)

MAST SPECIFICATIONS

Mount Part No.	Mast Part No.	Mast Description & Height
FRM125	FY202	1.25" O.D. x 16 GA. x 5.0' (PG)
FRM150	FY203	1.50" O.D. x 16 GA. x 2.5' (PG)
FRM166	FY204	1.66" O.D. x 16 GA. x 2.5' (PG)
FRM238	FY205	2.38" O.D. x 0.154" wall x 2.5' (HDG)
FRM225	FY205SP	2.25" O.D. x 14 GA. x 5.0' (HDG)
FRM238SP5	FY253	2.38" O.D. x 0.154" wall x 5.0' (HDG)

PG = Pre-galvanized mast
HDG = Hot-dip galvanized mast

h = Distance from support surface to centroid of EPA.

Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

Vmax = Effective wind velocity based on strength or overturning.

NOTE: The velocities in () apply to the FRM125 mount when the strength of the FRM125 mast governs.

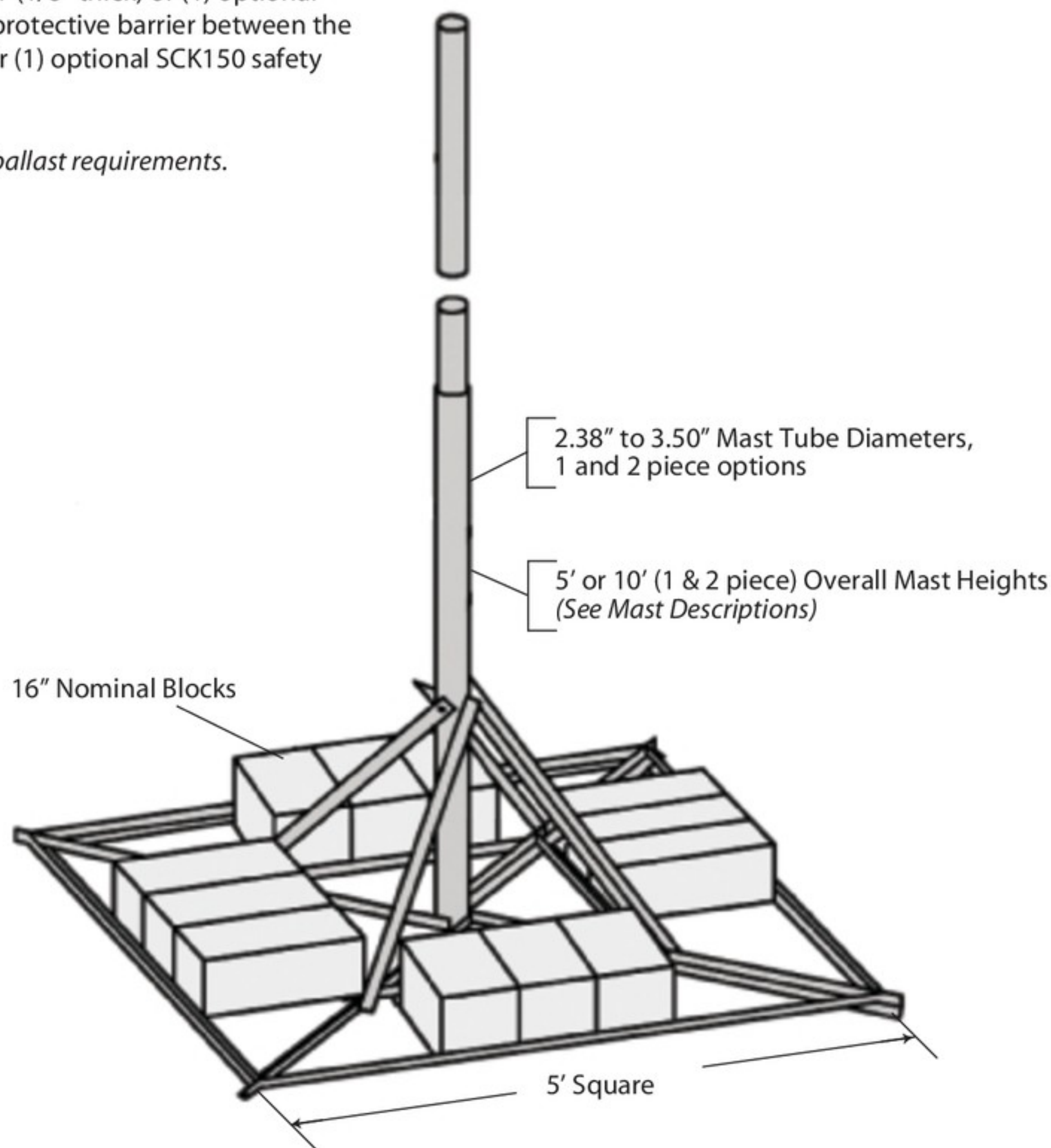


JRM NON-PENETRATING

The JRM ships broken down on one skid and weighs approximately 50 lbs. when assembled. The JRM is galvanized for corrosion protection. The JRM is used in cellular, PCS, broadband and other applications.

Order (1) optional JRMMAT (1/8" thick) or (1) optional JRMPAD (3/8" thick) for a protective barrier between the mount and the roof. Order (1) optional SCK150 safety cable kit (3/16" x 150').

Refer to pages 255-256 for ballast requirements.



MAST SPECIFICATIONS

Mount Part No.	Mast Part No.	Mast Description & Height
JRM23805	FZ1755	2.38" O.D. x 0.154" wall x 5.0' (HDG) (1 piece)
JRM23855	FZ1753/FZ1754	2.38" O.D. x 0.154" wall x 10.0' (HDG) (2 pieces)
JRM23810	FZ1756	2.38" O.D. x 0.154" wall x 10.0' (HDG) (1 piece)
JRM27505	FZ1757	2.88" O.D. x 0.203" wall x 5.0' (HDG) (1 piece)
JRM27555	FZ1758/FZ1759	2.88" O.D. x 0.203" wall x 10.0' (HDG) (2 pieces)
JRM27510	FZ1760	2.88" O.D. x 0.203" wall x 10.0' (HDG) (1 piece)
JRM35010	FZ1761	3.50" O.D. x 0.216" wall x 10.0' (HDG) (1 piece)

HDG = Hot-dip galvanized mast

JRM BALLAST REQUIREMENTS

Effective Projected Area (EPA) (FT ²)	Ballast (LBS)	Zero Velocity Load (PSF)	Vs (MPH)	Vmax at centroid of projected area, (MPH)							
				h=2 FT	h=3 FT	h=4 FT	h=5 FT	h=6 FT	h=7 FT	h=8 FT	h=9 FT
4	250	10.0	110	129	105	91	82	75	69	65	61
	350	14.0	131	153	125	108	97	88	82	76	72
	450	18.0	148	173	141	122	110	100	93	87	82
	550	22.0	164	191	156	135	121	111	102	96	90
	650	26.0	178	208	170	147	132	120	111	104	98
	750	30.0	191	224	183	158	141	129	120	112	105
	850	34.0	204	238	194	168	151	137	127	119	112
	950	38.0	215	252	205	178	159	145	135	126	119
	1050	42.0	226	265	216	187	167	153	141	132	125
	1150	46.0	237	277	226	196	175	160	148	138	131
	1250	50.0	247	289	236	204	183	167	154	144	136
5	250	10.0	99	115	94	82	73	67	62	58	54
	350	14.0	117	137	112	97	86	79	73	68	64
	450	18.0	133	155	126	110	98	89	83	77	73
	550	22.0	147	171	140	121	108	99	92	86	81
	650	26.0	159	186	152	132	118	107	100	93	88
	750	30.0	171	200	163	141	126	115	107	100	94
	850	34.0	182	213	174	151	135	123	114	106	100
	950	38.0	193	225	184	159	142	130	120	113	106
	1050	42.0	203	237	193	167	150	137	126	118	112
	1150	46.0	212	248	202	175	157	143	132	124	117
	1250	50.0	221	258	211	183	163	149	138	129	122
6	250	10.0	90	105	86	75	67	61	56	53	50
	350	14.0	107	125	102	88	79	72	67	62	59
	450	18.0	121	141	115	100	89	82	76	71	67
	550	22.0	134	156	128	111	99	90	84	78	74
	650	26.0	145	170	139	120	107	98	91	85	80
	750	30.0	156	183	149	129	115	105	98	91	86
	850	34.0	166	194	159	137	123	112	104	97	92
	950	38.0	176	205	168	145	130	119	110	103	97
	1050	42.0	185	216	176	153	137	125	115	108	102
	1150	46.0	193	226	185	160	143	131	121	113	107
	1250	50.0	202	236	192	167	149	136	126	118	111
7	250	10.0	84	98	80	69	62	56	52	49	46
	350	14.0	99	115	94	82	73	67	62	58	54
	450	18.0	112	131	107	93	83	76	70	65	62
	550	22.0	124	145	118	102	92	84	77	72	68
	650	26.0	135	157	128	111	100	91	84	79	74
	750	30.0	145	169	138	120	107	98	90	85	80
	850	34.0	154	180	147	127	114	104	96	90	85
	950	38.0	163	190	155	135	120	110	102	95	90
	1050	42.0	171	200	163	141	126	115	107	100	94
	1150	46.0	179	209	171	148	132	121	112	105	99
	1250	50.0	187	218	178	154	138	126	117	109	103
8	250	10.0	78	91	75	65	58	53	49	46	43
	350	14.0	92	108	88	76	68	62	58	54	51
	450	18.0	105	122	100	87	77	71	65	61	58
	550	22.0	116	135	111	96	86	78	72	68	64
	650	26.0	126	147	120	104	93	85	79	74	69
	750	30.0	135	158	129	112	100	91	85	79	75
	850	34.0	144	168	137	119	106	97	90	84	79
	950	38.0	152	178	145	126	113	103	95	89	84
	1050	42.0	160	187	153	132	118	108	100	94	88
	1150	46.0	168	196	160	138	124	113	105	98	92
	1250	50.0	175	204	167	144	129	118	109	102	96
10	250	10.0	70	82	67	58	52	47	44	41	38
	350	14.0	83	97	79	68	61	56	52	48	46
	450	18.0	94	110	89	77	69	63	59	55	52
	550	22.0	104	121	99	86	77	70	65	61	57
	650	26.0	113	132	107	93	83	76	70	66	62
	750	30.0	121	141	115	100	89	82	76	71	67
	850	34.0	129	151	123	106	95	87	80	75	71
	950	38.0	136	159	130	113	101	92	85	80	75
	1050	42.0	143	167	137	118	106	97	89	84	79
	1150	46.0	150	175	143	124	111	101	94	88	83
	1250	50.0	156	183	149	129	115	105	98	91	86

h = Distance from support surface to centroid of EPA.

Vmax = Effective wind velocity based on strength or overturning.

Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

NOTE: Mast strength may govern antenna capacity.



JRM BALLAST REQUIREMENTS

Effective Projected Area (EPA) (FT ²)	Ballast (LBS)	Zero Velocity Load (PSF)	Vs (MPH)	Vmax at centroid of projected area, (MPH)							
				h=2 FT	h=3 FT	h=4 FT	h=5 FT	h=6 FT	h=7 FT	h=8 FT	h=9 FT
12	250	10.0	64	75	61	53	47	43	40	37	35
	350	14.0	75	88	72	62	56	51	47	44	42
	450	18.0	86	100	82	71	63	58	53	50	47
	550	22.0	95	111	90	78	70	64	59	55	52
	650	26.0	103	120	98	85	76	69	64	60	57
	750	30.0	110	129	105	91	82	75	69	65	61
	850	34.0	118	137	112	97	87	79	73	69	65
	950	38.0	124	145	119	103	92	84	78	73	68
	1050	42.0	131	153	125	108	97	88	82	76	72
	1150	46.0	137	160	131	113	101	92	85	80	75
	1250	50.0	143	167	136	118	105	96	89	83	79
14	250	10.0	59	69	56	49	44	40	37	35	33
	350	14.0	70	82	67	58	52	47	44	41	38
	450	18.0	79	93	76	65	59	53	49	46	44
	550	22.0	88	102	84	72	65	59	55	51	48
	650	26.0	95	111	91	79	70	64	59	56	52
	750	30.0	102	120	98	85	76	69	64	60	56
	850	34.0	109	127	104	90	80	73	68	64	60
	950	38.0	115	135	110	95	85	78	72	67	63
	1050	42.0	121	141	115	100	89	82	76	71	67
	1150	46.0	127	148	121	105	94	85	79	74	70
	1250	50.0	132	154	126	109	98	89	82	77	73
16	250	10.0	55	65	53	46	41	37	35	32	30
	350	14.0	65	76	62	54	48	44	41	38	36
	450	18.0	74	87	71	61	55	50	46	43	41
	550	22.0	82	96	78	68	61	55	51	48	45
	650	26.0	89	104	85	74	66	60	56	52	49
	750	30.0	96	112	91	79	71	65	60	56	53
	850	34.0	102	119	97	84	75	69	64	60	56
	950	38.0	108	126	103	89	80	73	67	63	59
	1050	42.0	113	132	108	94	84	76	71	66	62
	1150	46.0	118	138	113	98	88	80	74	69	65
	1250	50.0	124	144	118	102	91	83	77	72	68
18	250	10.0	52	61	50	43	38	35	33	30	29
	350	14.0	62	72	59	51	46	42	38	36	34
	450	18.0	70	82	67	58	52	47	44	41	38
	550	22.0	77	90	74	64	57	52	48	45	43
	650	26.0	84	98	80	69	62	57	52	49	46
	750	30.0	90	105	86	75	67	61	56	53	50
	850	34.0	96	112	92	79	71	65	60	56	53
	950	38.0	102	119	97	84	75	68	63	59	56
	1050	42.0	107	125	102	88	79	72	67	62	59
	1150	46.0	112	131	107	92	83	75	70	65	62
	1250	50.0	116	136	111	96	86	79	73	68	64
20	250	10.0	49	58	47	41	37	33	31	29	27
	350	14.0	58	68	56	48	43	39	37	34	32
	450	18.0	66	77	63	55	49	45	41	39	37
	550	22.0	73	86	70	61	54	49	46	43	40
	650	26.0	80	93	76	66	59	54	50	47	44
	750	30.0	86	100	82	71	63	58	53	50	47
	850	34.0	91	106	87	75	67	61	57	53	50
	950	38.0	96	113	92	80	71	65	60	56	53
	1050	42.0	101	118	97	84	75	68	63	59	56
	1150	46.0	106	124	101	88	78	71	66	62	58
	1250	50.0	110	129	105	91	82	75	69	65	61
22	250	10.0	47	55	45	39	35	32	29	28	26
	350	14.0	56	65	53	46	41	38	35	33	31
	450	18.0	63	74	60	52	47	43	39	37	35
	550	22.0	70	82	67	58	52	47	44	41	38
	650	26.0	76	89	72	63	56	51	47	44	42
	750	30.0	82	95	78	67	60	55	51	48	45
	850	34.0	87	102	83	72	64	59	54	51	48
	950	38.0	92	107	88	76	68	62	57	54	51
	1050	42.0	97	113	92	80	71	65	60	56	53
	1150	46.0	101	118	96	83	75	68	63	59	56
	1250	50.0	105	123	101	87	78	71	66	62	58

h = Distance from support surface to centroid of EPA.

Vmax = Effective wind velocity based on strength or overturning.

Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

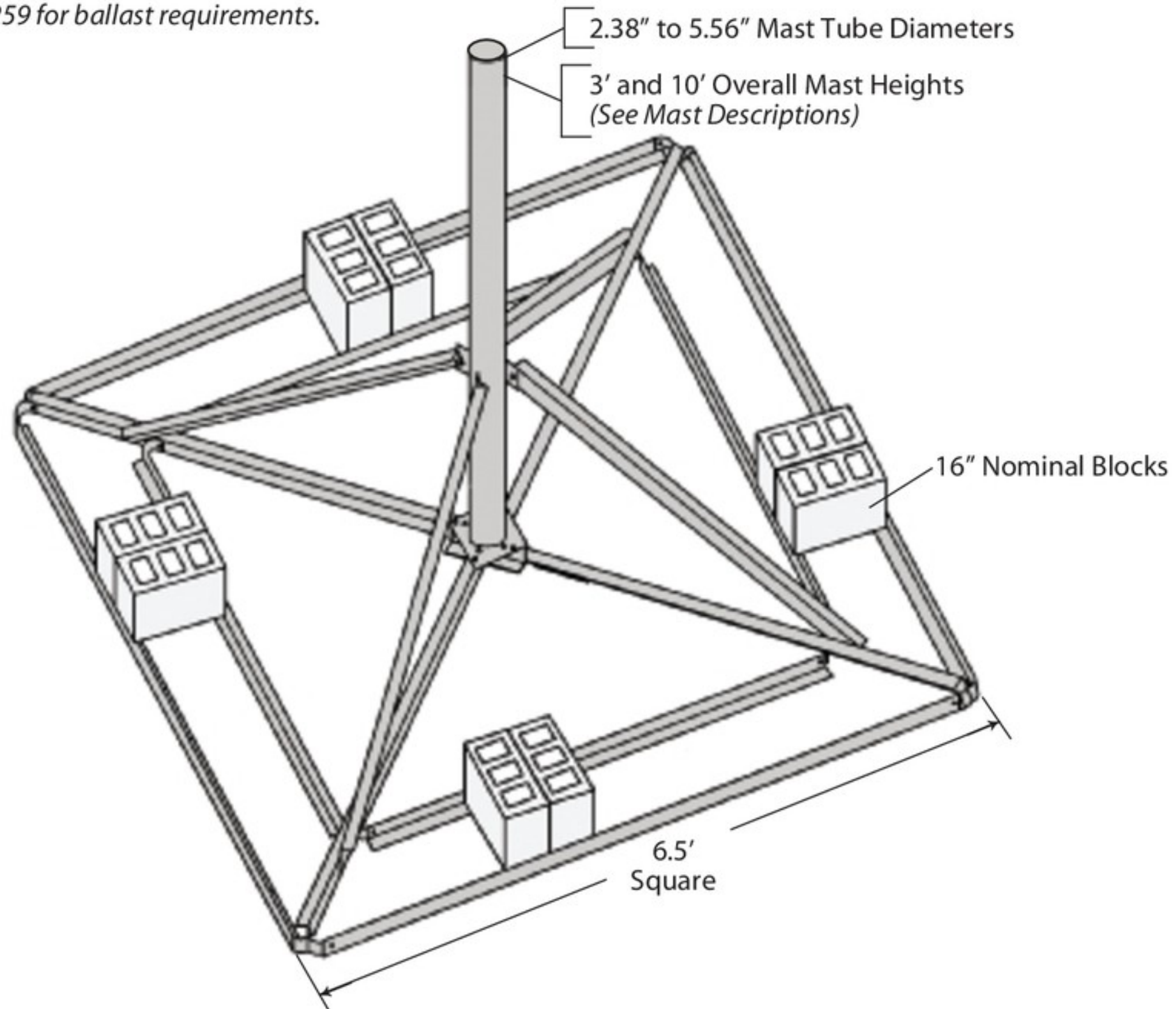
NOTE: Mast strength may govern antenna capacity.

BRM4 NON-PENETRATING

The BRM4 mount is hot-dip galvanized after fabrication for corrosion protection.

Order (1) optional BRM4MAT (1/8" thick) or (1) optional BRM4PAD (3/8" thick) for a protective barrier between the mount and the roof. Order (1) optional SCK150 safety cable kit (3/16" x 150').

Refer to pages 258-259 for ballast requirements.



MAST SPECIFICATIONS

Mount Part No.	Mast Part No.	Mast Description & Height
BRM425	KY1590	2.38" O.D. x 0.154" wall x 3.0'
BRM430	KY1592	2.88" O.D. x 0.203" wall x 3.0'
BRM435	KY1594	3.50" O.D. x 0.216" wall x 3.0'
BRM440	KY1596	4.00" O.D. x 0.226" wall x 3.0'
BRM445	KY1598	4.50" O.D. x 0.237" wall x 3.0'
BRM455	KY1600	5.56" O.D. x 0.258" wall x 3.0'
BRM42510	KY2061	2.38" O.D. x 0.154" wall x 10.0'
BRM43510	KY2063	3.50" O.D. x 0.216" wall x 10.0'
BRM44510	KY2065	4.50" O.D. x 0.237" wall x 10.0'



BRM4 BALLAST REQUIREMENTS

Effective Projected Area (EPA) (FT ²)	Ballast (LBS)	Zero Velocity Load (PSF)	Vs (MPH)	Vmax at centroid of projected area, (MPH)							
				h=2 FT	h=3 FT	h=4 FT	h=5 FT	h=6 FT	h=7 FT	h=8 FT	h=9 FT
2	300	7.1	171	242	198	171	153	140	130	121	114
	500	11.8	221	313	256	221	198	181	167	157	148
	700	16.6	261	370	302	262	234	214	198	185	175
	900	21.3	296	416	340	294	263	240	223	208	196
	1100	26.0	328	448	366	317	284	259	240	224	211
	1300	30.8	356	478	391	338	302	276	256	239	225
	1500	35.5	383	506	414	358	320	292	271	253	239
	1700	40.2	407	533	435	377	337	308	285	267	251
	1900	45.0	431	558	456	395	353	322	299	279	263
	2100	49.7	453	583	476	412	369	336	312	291	275
	2300	54.4	474	604	493	427	382	349	323	302	285
4	300	7.1	121	171	140	121	108	99	92	86	81
	500	11.8	156	221	181	157	140	128	118	111	104
	700	16.6	185	262	214	185	166	151	140	131	123
	900	21.3	210	294	240	208	186	170	157	147	139
	1100	26.0	232	317	259	224	201	183	169	159	149
	1300	30.8	252	328	276	239	214	195	181	169	159
	1500	35.5	271	358	292	253	226	207	191	179	169
	1700	40.2	288	377	308	267	238	218	201	188	178
	1900	45.0	305	395	322	279	250	228	211	197	186
	2100	49.7	320	412	336	291	261	238	220	206	194
	2300	54.4	335	427	349	302	270	247	228	213	201
6	300	7.1	99	140	114	99	89	81	75	70	66
	500	11.8	128	181	148	128	114	104	97	90	85
	700	16.6	151	214	175	151	135	123	114	107	101
	900	21.3	171	240	196	170	152	139	128	120	113
	1100	26.0	189	259	211	183	164	149	138	129	122
	1300	30.8	206	276	225	195	175	159	148	138	130
	1500	35.5	221	292	239	207	185	169	156	146	138
	1700	40.2	235	308	251	218	195	178	165	154	145
	1900	45.0	249	322	263	228	204	186	172	161	152
	2100	49.7	261	336	275	238	213	194	180	168	159
	2300	54.4	274	349	285	247	220	201	186	174	164
8	300	7.1	86	121	99	86	77	70	65	61	57
	500	11.8	110	157	128	111	99	90	84	78	74
	700	16.6	131	185	151	131	117	107	99	93	87
	900	21.3	148	208	170	147	132	120	111	104	98
	1100	26.0	164	224	183	159	142	129	120	112	106
	1300	30.8	178	239	195	169	151	138	128	120	113
	1500	35.5	191	253	207	179	160	146	135	127	119
	1700	40.2	204	267	218	188	169	154	142	133	126
	1900	45.0	215	279	228	197	177	161	149	140	132
	2100	49.7	226	291	238	206	184	168	156	146	137
	2300	54.4	237	302	247	213	191	174	161	151	142
10	300	7.1	77	108	89	77	69	63	58	54	51
	500	11.8	99	140	114	99	89	81	75	70	66
	700	16.6	117	166	135	117	105	96	89	83	78
	900	21.3	133	186	152	132	118	107	100	93	88
	1100	26.0	147	201	164	142	127	116	107	100	95
	1300	30.8	159	214	175	151	135	123	114	107	101
	1500	35.5	171	226	185	160	143	131	121	113	107
	1700	40.2	182	238	195	169	151	138	127	119	112
	1900	45.0	193	250	204	177	158	144	134	125	118
	2100	49.7	203	261	213	184	165	150	139	130	123
	2300	54.4	212	270	220	191	171	156	144	135	127
12	300	7.1	70	99	81	70	63	57	53	49	47
	500	11.8	90	128	104	90	81	74	68	64	60
	700	16.6	107	151	123	107	96	87	81	76	71
	900	21.3	121	170	139	120	107	98	91	85	80
	1100	26.0	134	183	149	129	116	106	98	92	86
	1300	30.8	145	195	159	138	123	113	104	98	92
	1500	35.5	156	207	169	146	131	119	111	103	97
	1700	40.2	166	218	178	154	138	126	116	109	103
	1900	45.0	176	228	186	161	144	132	122	114	107
	2100	49.7	185	238	194	168	150	137	127	119	112
	2300	54.4	193	247	201	174	156	142	132	123	116

h = Distance from support surface to centroid of EPA.

Vmax = Effective wind velocity based on strength or overturning.

Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

NOTE: Mast strength may govern antenna capacity.

BRM4 BALLAST REQUIREMENTS

Effective Projected Area (EPA) (FT ²)	Ballast (LBS)	Zero Velocity Load (PSF)	Vs (MPH)	Vmax at centroid of projected area, (MPH)							
				h=2 FT	h=3 FT	h=4 FT	h=5 FT	h=6 FT	h=7 FT	h=8 FT	h=9 FT
14	300	7.1	65	92	75	65	58	53	49	46	43
	500	11.8	84	118	97	84	75	68	63	59	56
	700	16.6	99	140	114	99	89	81	75	70	66
	900	21.3	112	157	128	111	100	91	84	79	74
	1100	26.0	124	169	138	120	107	98	91	85	80
	1300	30.8	135	181	148	128	114	104	97	90	85
	1500	35.5	145	191	156	135	121	111	102	96	90
	1700	40.2	154	201	165	142	127	116	108	101	95
	1900	45.0	163	211	172	149	134	122	113	106	100
	2100	49.7	171	220	180	156	139	127	118	110	104
	2300	54.4	179	228	186	161	144	132	122	114	108
16	300	7.1	61	86	70	61	54	49	46	43	40
	500	11.8	78	111	90	78	70	64	59	55	52
	700	16.6	92	131	107	93	83	76	70	65	62
	900	21.3	105	147	120	104	93	85	79	74	69
	1100	26.0	116	159	129	112	100	92	85	79	75
	1300	30.8	126	169	138	120	107	98	90	85	80
	1500	35.5	135	179	146	127	113	103	96	90	84
	1700	40.2	144	188	154	133	119	109	101	94	89
	1900	45.0	152	197	161	140	125	114	106	99	93
	2100	49.7	160	206	168	146	130	119	110	103	97
	2300	54.4	168	213	174	151	135	123	114	107	101
18	300	7.1	57	81	66	57	51	47	43	40	38
	500	11.8	74	104	85	74	66	60	56	52	49
	700	16.6	87	123	101	87	78	71	66	62	58
	900	21.3	99	139	113	98	88	80	74	69	65
	1100	26.0	109	149	122	106	95	86	80	75	70
	1300	30.8	119	159	130	113	101	92	85	80	75
	1500	35.5	128	169	138	119	107	97	90	84	80
	1700	40.2	136	178	145	126	112	103	95	89	84
	1900	45.0	144	186	152	132	118	107	100	93	88
	2100	49.7	151	194	159	137	123	112	104	97	92
	2300	54.4	158	201	164	142	127	116	108	101	95
20	300	7.1	54	77	63	54	48	44	41	38	36
	500	11.8	70	99	81	70	63	57	53	49	47
	700	16.6	83	117	96	83	74	68	63	59	55
	900	21.3	94	132	107	93	83	76	70	66	62
	1100	26.0	104	142	116	100	90	82	76	71	67
	1300	30.8	113	151	123	107	96	87	81	76	71
	1500	35.5	121	160	131	113	101	92	86	80	75
	1700	40.2	129	169	138	119	107	97	90	84	79
	1900	45.0	136	177	144	125	112	102	94	88	83
	2100	49.7	143	184	150	130	117	106	99	92	87
	2300	54.4	150	191	156	135	121	110	102	95	90
22	300	7.1	52	73	60	52	46	42	39	37	34
	500	11.8	67	94	77	67	60	54	50	47	44
	700	16.6	79	112	91	79	71	64	60	56	53
	900	21.3	89	126	102	89	79	72	67	63	59
	1100	26.0	99	135	110	96	86	78	72	68	64
	1300	30.8	107	144	118	102	91	83	77	72	68
	1500	35.5	115	153	125	108	97	88	82	76	72
	1700	40.2	123	161	131	114	102	93	86	80	76
	1900	45.0	130	168	137	119	106	97	90	84	79
	2100	49.7	137	176	143	124	111	101	94	88	83
	2300	54.4	143	182	149	129	115	105	97	91	86
24	300	7.1	49	70	57	49	44	40	37	35	33
	500	11.8	64	90	74	64	57	52	48	45	43
	700	16.6	75	107	87	76	68	62	57	53	50
	900	21.3	86	120	98	85	76	69	64	60	57
	1100	26.0	95	129	106	92	82	75	69	65	61
	1300	30.8	103	138	113	98	87	80	74	69	65
	1500	35.5	110	146	119	103	92	84	78	73	69
	1700	40.2	118	154	126	109	97	89	82	77	73
	1900	45.0	124	161	132	114	102	93	86	81	76
	2100	49.7	131	168	137	119	106	97	90	84	79
	2300	54.4	137	174	142	123	110	101	93	87	82

h = Distance from support surface to centroid of EPA.

Vmax = Effective wind velocity based on strength or overturning.

Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

NOTE: Mast strength may govern antenna capacity.



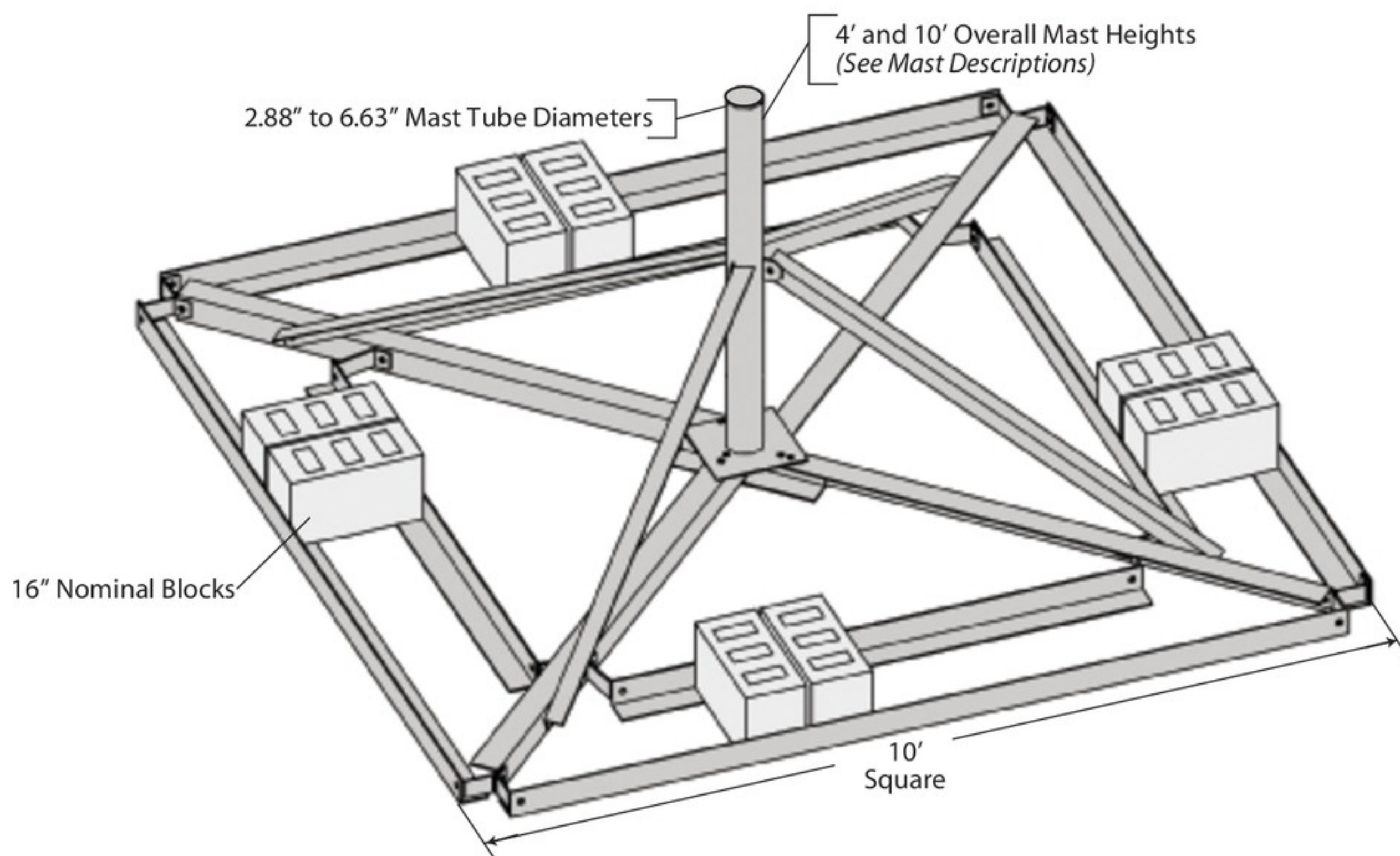
BRM6 NON-PENETRATING

The BRM6 mount is hot-dip galvanized after fabrication for corrosion protection.

Order (1) optional BRM6MAT (1/8" thick) or (1) optional BRM6PAD (3/8" thick) for a protective barrier between the mount and the roof. Order (1) optional SCK150 safety cable kit (3/16" x 150').

Optional additional inner ballast support angle kit available, order P/N BRM6ABK.

Refer to pages 261-263 for ballast requirements.



MAST SPECIFICATIONS

Mount Part No.	Mast Part No.	Mast Description & Height
BRM630M	KY2110	2.88" O.D. x 0.203" wall x 4.0'
BRM635M	KY1570	3.50" O.D. x 0.216" wall x 4.0'
BRM640M	KY1578	4.00" O.D. x 0.226" wall x 4.0'
BRM645M	KY1579	4.50" O.D. x 0.237" wall x 4.0'
BRM655M	KY1580	5.56" O.D. x 0.258" wall x 4.0'
BRM665M	KY1581	6.63" O.D. x 0.280" wall x 4.0'
BRM64510M	KY2043	4.50" O.D. x 0.237" wall x 10.0'

BRM6

4 FT. DISH ELEVATION BALLAST REQUIREMENTS

Dish Diameter	Ballast (LBS)	Zero Velocity Load (PSF)	Design Wind Velocities (MPH)					
			EL=0°		EL=20°		EL=40°	
			Vmax	Vs	Vmax	Vs	Vmax	Vs
4' (1.2 m)	500	5.0	87	67	103	75	112	92
	750	7.5	107	82	131	92	142	113
	1000	10.0	125	95	154	107	167	131
	1250	12.5	139	106	169	119	189	146
	1500	15.0	148	117	180	131	203	160
	1750	17.5	157	126	190	141	211	173
	2000	20.0	165	135	196	151	211	185
6' (1.8 m)	500	5.0	58	45	65	50	69	61
	750	7.5	71	55	83	61	89	75
	1000	10.0	83	63	99	71	106	87
	1250	12.5	93	71	112	79	120	97
	1500	15.0	99	78	120	87	129	107
	1750	17.5	105	84	127	94	137	115
	2000	20.0	110	90	130	101	141	123
	2250	22.5	115	95	130	107	141	131
	2500	25.0	120	100	130	113	141	138
	2750	27.5	125	105	130	118	141	141
	3000	30.0	127	110	130	123	141	141
8' (2.4 m)	750	7.5	53	41	57	46	60	56
	1000	10.0	62	47	69	53	73	65
	1250	12.5	69	53	79	59	84	73
	1500	15.0	74	58	85	65	90	80
	1750	17.5	78	63	91	70	96	86
	2000	20.0	82	67	97	75	102	92
	2250	22.5	86	71	98	80	103	98
	2500	25.0	90	75	98	84	103	103
	2750	27.5	94	79	98	88	103	103
	3000	30.0	95	82	98	92	103	103

EL = Dish antenna azimuth angle with horizontal.

Vmax = Effective wind velocity based on strength or overturning.

Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

NOTE: Mast strength may govern antenna capacity.



BRM6 BALLAST REQUIREMENTS

Effective Projected Area (EPA) (FT ²)	Ballast (LBS)	Zero Velocity Load (PSF)	Vs (MPH)	Vmax at centroid of projected area, (MPH)						
				h=4 FT	h=5 FT	h=6 FT	h=7 FT	h=8 FT	h=9 FT	h=10 FT
10	500	5.0	99	128	114	104	96	90	85	81
	750	7.5	121	156	140	128	118	110	104	99
	1000	10.0	140	180	161	147	136	128	120	114
	1250	12.5	156	202	180	165	152	143	134	128
	1500	15.0	171	218	195	178	165	154	145	138
	1750	17.5	185	230	206	188	174	163	154	146
	2000	20.0	198	242	217	198	183	171	162	153
	2250	22.5	210	254	227	207	192	179	169	160
	2500	25.0	221	265	237	216	200	187	176	167
	2750	27.5	232	275	246	225	208	195	183	174
	3000	30.0	242	280	250	228	211	198	186	177
15	500	5.0	81	104	93	85	79	74	69	66
	750	7.5	99	128	114	104	96	90	85	81
	1000	10.0	114	147	132	120	111	104	98	93
	1250	12.5	128	165	147	134	125	116	110	104
	1500	15.0	140	178	159	145	134	126	119	113
	1750	17.5	151	188	168	154	142	133	125	119
	2000	20.0	161	198	177	162	150	140	132	125
	2250	22.5	171	207	185	169	157	147	138	131
	2500	25.0	180	216	193	176	163	153	144	137
	2750	27.5	189	225	201	183	170	159	150	142
	3000	30.0	198	228	204	186	173	161	152	144
20	500	5.0	70	90	81	74	68	64	60	57
	750	7.5	86	110	99	90	84	78	74	70
	1000	10.0	99	128	114	104	96	90	85	81
	1250	12.5	110	143	128	116	108	101	95	90
	1500	15.0	121	154	138	126	116	109	103	97
	1750	17.5	131	163	146	133	123	115	109	103
	2000	20.0	140	171	153	140	130	121	114	108
	2250	22.5	148	179	160	147	136	127	120	113
	2500	25.0	156	187	167	153	141	132	125	118
	2750	27.5	164	195	174	159	147	138	130	123
	3000	30.0	171	198	177	161	149	140	132	125
25	500	5.0	63	81	72	66	61	57	54	51
	750	7.5	77	99	88	81	75	70	66	63
	1000	10.0	88	114	102	93	86	81	76	72
	1250	12.5	99	128	114	104	96	90	85	81
	1500	15.0	108	138	123	113	104	97	92	87
	1750	17.5	117	146	130	119	110	103	97	92
	2000	20.0	125	153	137	125	116	108	102	97
	2250	22.5	133	160	144	131	121	113	107	101
	2500	25.0	140	167	150	137	127	118	112	106
	2750	27.5	147	174	156	142	132	123	116	110
	3000	30.0	153	177	158	144	134	125	118	112
30	500	5.0	57	74	66	60	56	52	49	47
	750	7.5	70	90	81	74	68	64	60	57
	1000	10.0	81	104	93	85	79	74	69	66
	1250	12.5	90	116	104	95	88	82	78	74
	1500	15.0	99	126	113	103	95	89	84	80
	1750	17.5	107	133	119	109	101	94	89	84
	2000	20.0	114	140	125	114	106	99	93	89
	2250	22.5	121	147	131	120	111	104	98	93
	2500	25.0	128	153	137	125	115	108	102	97
	2750	27.5	134	159	142	130	120	112	106	100
	3000	30.0	140	161	144	132	122	114	108	102
35	500	5.0	53	68	61	56	52	48	45	43
	750	7.5	65	84	75	68	63	59	56	53
	1000	10.0	75	96	86	79	73	68	64	61
	1250	12.5	84	108	96	88	82	76	72	68
	1500	15.0	91	116	104	95	88	82	78	74
	1750	17.5	99	123	110	101	93	87	82	78
	2000	20.0	106	130	116	106	98	92	86	82
	2250	22.5	112	136	121	111	103	96	90	86
	2500	25.0	118	141	127	115	107	100	94	89
	2750	27.5	124	147	132	120	111	104	98	93
	3000	30.0	129	149	134	122	113	106	100	94

EL = Dish antenna angle with horizontal.

Vmax = Effective wind velocity based on strength or overturning.

Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

NOTE: Mast strength may govern antenna capacity.

BRM6 BALLAST REQUIREMENTS

Effective Projected Area (EPA) (FT ²)	Ballast (LBS)	Zero Velocity Load (PSF)	Vs (MPH)	Vmax at centroid of projected area, (MPH)						
				h=4 FT	h=5 FT	h=6 FT	h=7 FT	h=8 FT	h=9 FT	h=10 FT
40	500	5.0	49	64	57	52	48	45	43	40
	750	7.5	61	78	70	64	59	55	52	49
	1000	10.0	70	90	81	74	68	64	60	57
	1250	12.5	78	101	90	82	76	71	67	64
	1500	15.0	86	109	97	89	82	77	73	69
	1750	17.5	92	115	103	94	87	81	77	73
	2000	20.0	99	121	108	99	92	86	81	77
	2250	22.5	105	127	113	104	96	90	85	80
	2500	25.0	110	132	118	108	100	94	88	84
	2750	27.5	116	138	123	112	104	97	92	87
	3000	30.0	121	140	125	114	106	99	93	88
45	500	5.0	47	60	54	49	45	43	40	38
	750	7.5	57	74	66	60	56	52	49	47
	1000	10.0	66	85	76	69	64	60	57	54
	1250	12.5	74	95	85	78	72	67	63	60
	1500	15.0	81	103	92	84	78	73	68	65
	1750	17.5	87	109	97	89	82	77	72	69
	2000	20.0	93	114	102	93	86	81	76	72
	2250	22.5	99	120	107	98	90	85	80	76
	2500	25.0	104	125	112	102	94	88	83	79
	2750	27.5	109	130	116	106	98	92	86	82
	3000	30.0	114	132	118	108	100	93	88	83
50	500	5.0	44	57	51	47	43	40	38	36
	750	7.5	54	70	63	57	53	49	47	44
	1000	10.0	63	81	72	66	61	57	54	51
	1250	12.5	70	90	81	74	68	64	60	57
	1500	15.0	77	97	87	80	74	69	65	62
	1750	17.5	83	103	92	84	78	73	69	65
	2000	20.0	88	108	97	89	82	77	72	69
	2250	22.5	94	113	101	93	86	80	76	72
	2500	25.0	99	118	106	97	89	84	79	75
	2750	27.5	104	123	110	100	93	87	82	78
	3000	30.0	108	125	112	102	94	88	83	79

EL = Dish antenna angle with horizontal.

Vmax = Effective wind velocity based on strength or overturning.

Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

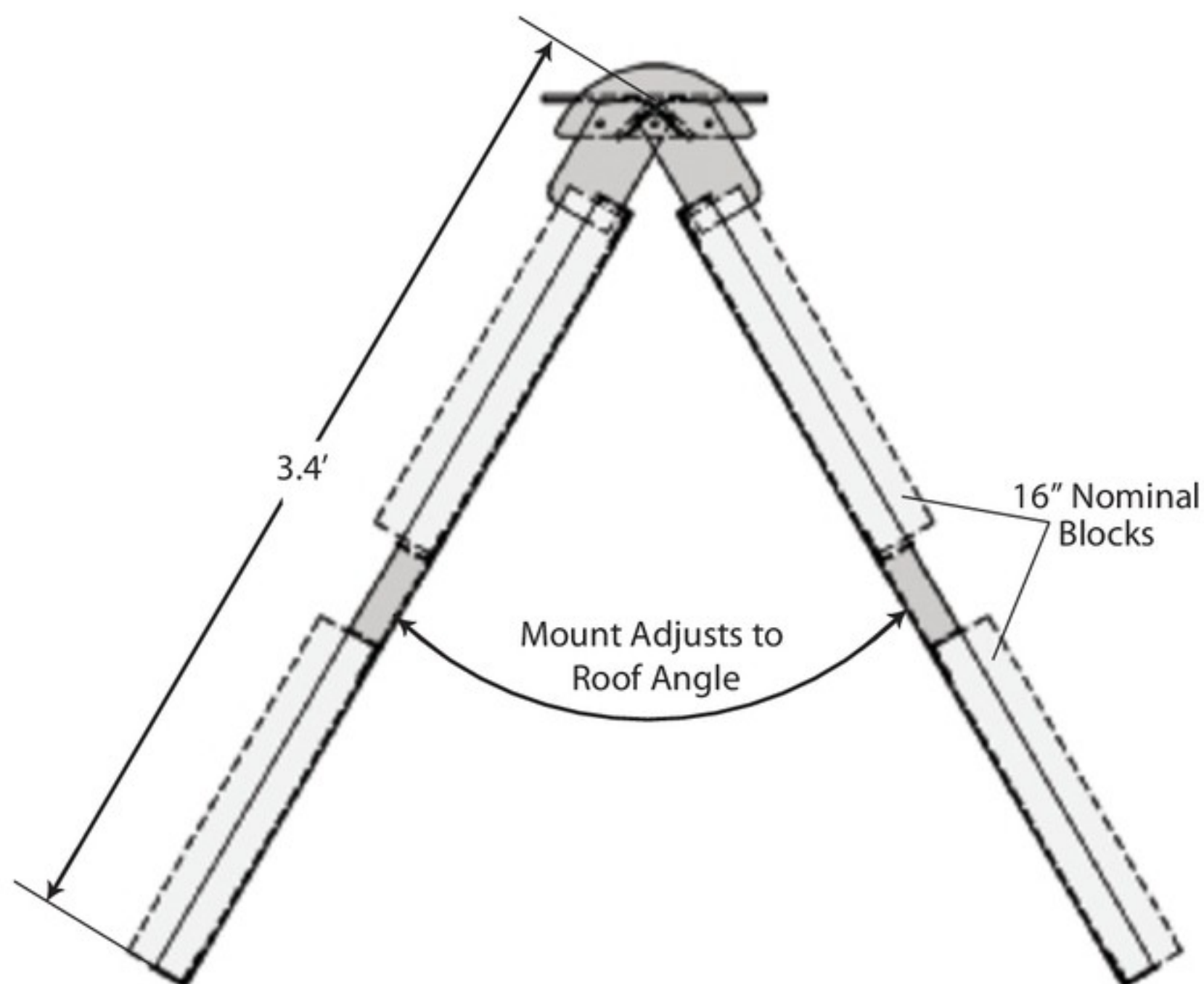
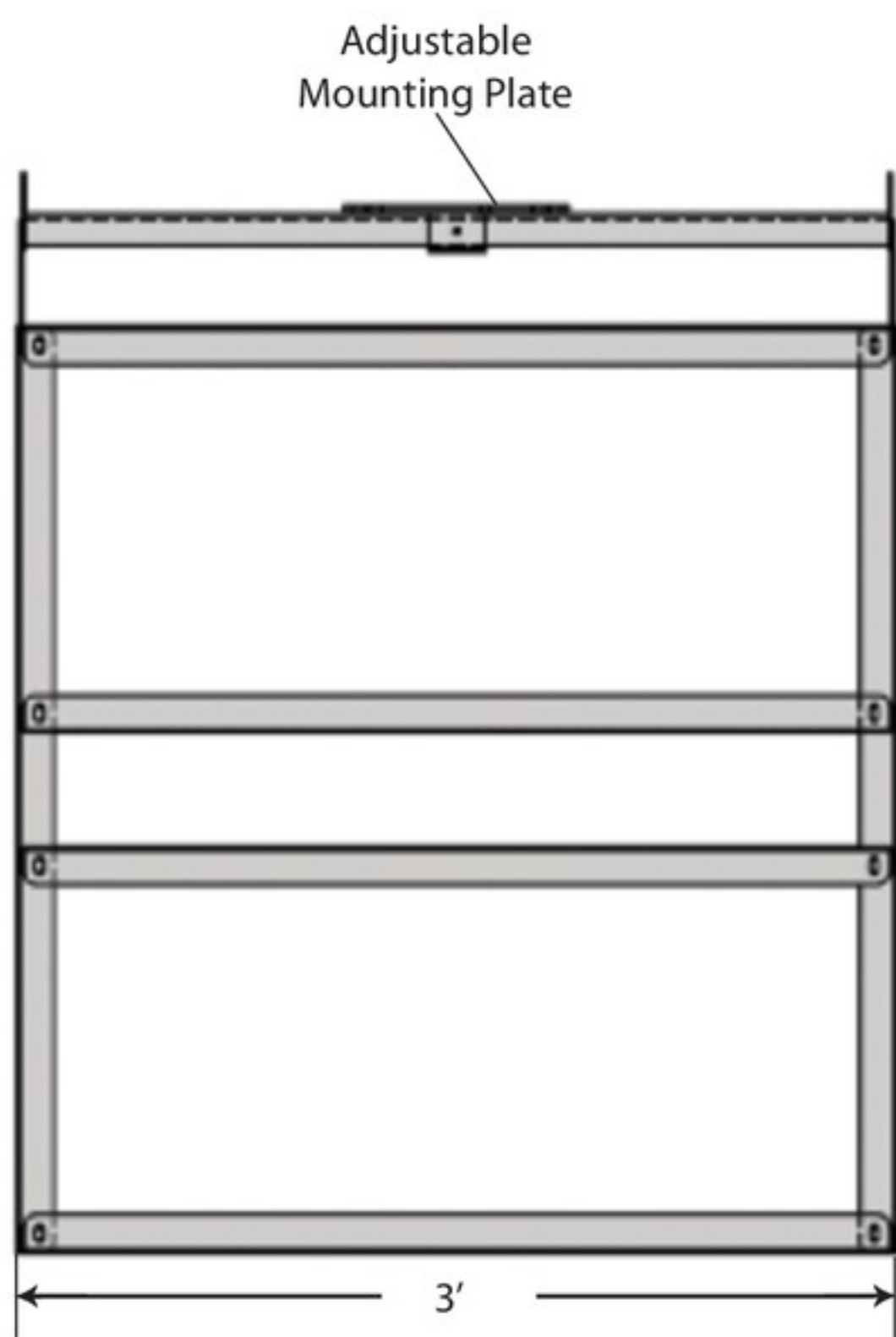
NOTE: Mast strength may govern antenna capacity.



NPPK NON-PENETRATING

The NPPK mount is a great solution for broadband antennas and satellite TV dishes. The adjustable mounting plate can be center mounted or to one side as needed to accommodate other satellite TV dish mounts. Our 1LG mount (located on page 276) with a base and 1-1/4" mounting tube can be attached to the NPPK. The mount comes standard with double ballast trays on each side to hold concrete blocks. The NPPK mount is hot-dip galvanized after fabrication for corrosion protection.

Order (2) optional FRMMAT (1/8" thick) or (2) optional FRMPAD (3/8" thick) for a protective barrier between the mount and the roof.
Order (1) optional SCK150 safety cable kit (3/16" x 150').

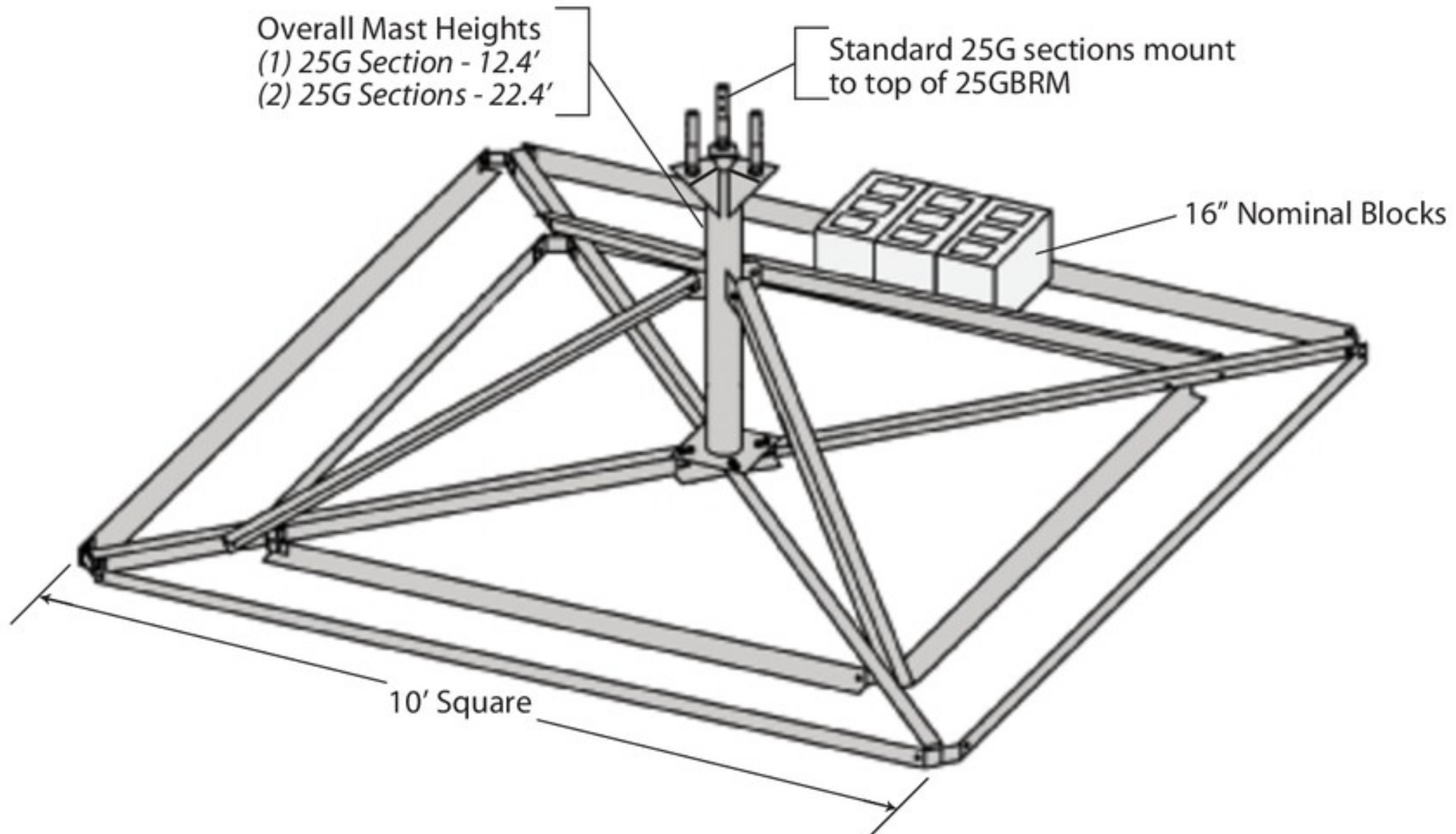


25GBRM NON-PENETRATING

The 25GBRM mount is designed to support one or two 25G tower sections in a self-supporting application. The 25GBRM mount is galvanized after fabrication for corrosion protection.

Order (1) optional BRM6MAT (1/8" thick) or (1) optional BRM6PAD (3/8" thick) for a protective barrier between the mount and the roof. Order (1) optional SCK150 safety cable kit (3/16" x 150').

Refer to page 266 for ballast requirements.





25GBRM BALLAST REQUIREMENTS

Effective Projected Area (EPA) (FT ²)	Ballast (LBS)	Zero Velocity Load (PSF)	Vs One Section (MPH) h=12.4 FT	Vs Two Sections (MPH) h=22.4 FT	Vmax at centroid of projected area, (MPH)	
					1 Section h=12.4 FT	2 Sections h=22.4 FT
2	500	5.0	131	96	111	65
	750	7.5	160	117	136	80
	1000	10.0	185	135	157	92
	1250	12.5	207	151	176	103
	1500	15.0	227	165	190	111
	1750	17.5	245	179	201	118
	2000	20.0	250	191	211	124
	2250	22.5	250	203	221	130
	2500	25.0	250	214	231	135
	2750	27.5	250	224	240	140
	3000	30.0	250	234	244	143
4	500	5.0	113	88	92	57
	750	7.5	138	107	112	70
	1000	10.0	159	124	130	81
	1250	12.5	178	139	145	91
	1500	15.0	195	152	157	98
	1750	17.5	211	164	166	104
	2000	20.0	225	175	174	109
	2250	22.5	239	186	182	114
	2500	25.0	250	196	190	119
	2750	27.5	250	206	198	124
	3000	30.0	250	215	201	126
6	500	5.0	100	82	80	52
	750	7.5	123	100	98	63
	1000	10.0	142	115	113	73
	1250	12.5	159	129	126	82
	1500	15.0	174	141	136	88
	1750	17.5	188	152	144	94
	2000	20.0	201	163	152	98
	2250	22.5	213	173	159	103
	2500	25.0	224	182	166	107
	2750	27.5	235	191	172	112
	3000	30.0	246	200	175	113
8	500	5.0	91	76	72	48
	750	7.5	112	94	88	58
	1000	10.0	129	108	101	67
	1250	12.5	144	121	113	75
	1500	15.0	158	132	122	81
	1750	17.5	171	143	129	86
	2000	20.0	183	153	136	90
	2250	22.5	194	162	142	95
	2500	25.0	204	171	149	99
	2750	27.5	214	179	154	103
	3000	30.0	224	187	157	104
10	500	5.0	84	72	66	44
	750	7.5	103	89	80	54
	1000	10.0	119	102	93	63
	1250	12.5	133	114	104	70
	1500	15.0	146	125	112	76
	1750	17.5	158	135	118	80
	2000	20.0	169	145	124	84
	2250	22.5	179	153	130	88
	2500	25.0	189	162	136	92
	2750	27.5	198	169	141	95
	3000	30.0	207	177	144	97
12	500	5.0	79	69	61	42
	750	7.5	97	84	74	51
	1000	10.0	112	97	86	59
	1250	12.5	125	109	96	66
	1500	15.0	137	119	104	71
	1750	17.5	148	128	110	75
	2000	20.0	158	137	115	79
	2250	22.5	167	146	121	83
	2500	25.0	176	154	126	86
	2750	27.5	185	161	131	90
	3000	30.0	193	168	133	91

Effective Projected Area (EPA) (FT ²)	Ballast (LBS)	Zero Velocity Load (PSF)	Vs One Section (MPH) h=12.4 FT	Vs Two Sections (MPH) h=22.4 FT	Vmax at centroid of projected area, (MPH)	
					1 Section h=12.4 FT	2 Sections h=22.4 FT
14	500	5.0	74	66	57	39
	750	7.5	91	80	70	48
	1000	10.0	105	93	80	56
	1250	12.5	117	104	90	62
	1500	15.0	129	114	97	67
	1750	17.5	139	123	103	71
	2000	20.0	149	131	108	75
	2250	22.5	158	139	113	78
	2500	25.0	166	147	118	81
	2750	27.5	174	154	123	85
	3000	30.0	182	161	125	86
16	500	5.0	70	63	54	37
	750	7.5	86	77	66	46
	1000	10.0	100	89	76	53
	1250	12.5	111	99	85	59
	1500	15.0	122	109	92	64
	1750	17.5	132	118	97	67
	2000	20.0	141	126	102	71
	2250	22.5	149	133	107	74
	2500	25.0	157	141	111	77
	2750	27.5	165	147	116	80
	3000	30.0	172	154	118	82
18	500	5.0	67	60	51	36
	750	7.5	82	74	62	44
	1000	10.0	95	86	72	50
	1250	12.5	106	96	81	56
	1500	15.0	116	105	87	61
	1750	17.5	126	113	92	64
	2000	20.0	134	121	97	68
	2250	22.5	142	128	101	71
	2500	25.0	150	135	106	74
	2750	27.5	157	142	110	77
	3000	30.0	164	148	112	78

h = Distance from support surface to centroid of EPA.

Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

Vmax = Effective wind velocity based on strength or overturning.

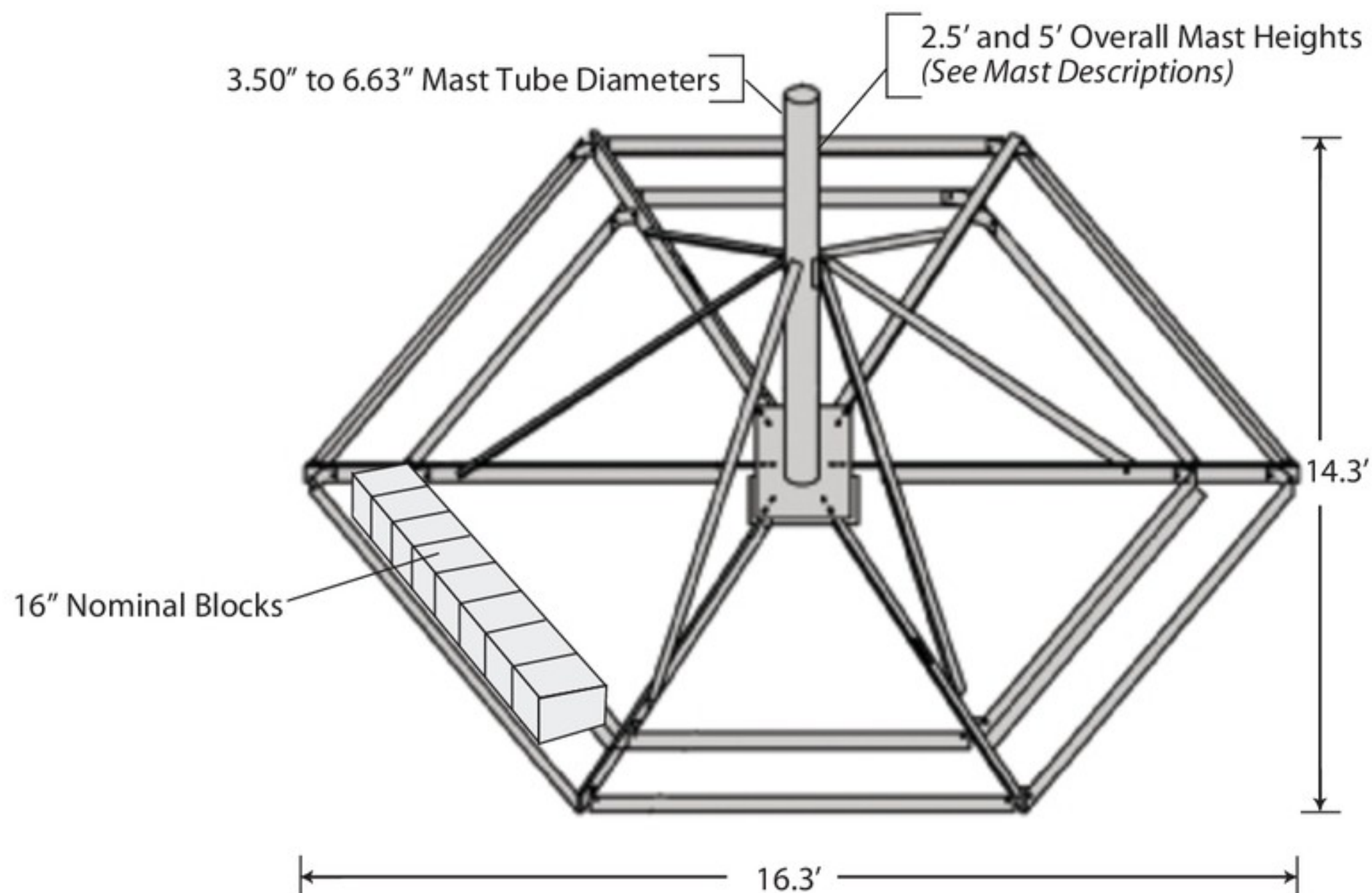
AAGM NON-PENETRATING

The AAGM mount is capable of supporting dishes with diameters up to 10 feet. The AAGM mount is hot-dip galvanized after fabrication for corrosion protection.

Order (1) optional AGMPAD (3/8" thick) for a protective barrier between the mount and the roof.

Order (1) optional SCK150 safety cable kit (3/8" x 150').

Refer to page 268 for ballast requirements.



MAST SPECIFICATIONS

Mount Part No.	Mast Part No.	Mast Description & Height
AAGM35	FYS75X	3.50" O.D. x 0.216" wall x 4.5'
AAGM40	FYS76X	4.00" O.D. x 0.226" wall x 4.5'
AAGM45	FYS77X	4.50" O.D. x 0.237 wall x 4.5'
AAGM55	FYS78X	5.56" O.D. x 0.258" wall x 4.5'
AAGM6560	FYS96X	6.63" O.D. x 0.280" wall x 5.0'



AAGM 4.5 FT DISH ELEVATION BALLAST REQUIREMENTS

Dish Diameter	Ballast (LBS)	Zero Velocity Load (PSF)	Vmax (MPH)	Vs (MPH)		
				EL=0°	EL=20°	EL=40°
4' (1.2 m)	1000	6.0	135	91	93	101
	1500	9.0	164	111	114	123
	2000	12.0	187	128	132	142
	2500	15.1	207	143	147	159
	3000	18.1	225	157	161	174
	3500	21.1	240	170	174	188
	4000	24.1	250	181	186	201
	5000	30.1	250	203	208	225
	6000	36.1	250	222	228	246
6' (1.8 m)	1000	6.0	90	60	62	67
	1500	9.0	109	74	76	82
	2000	12.0	125	85	88	95
	2500	15.1	138	96	98	106
	3000	18.1	150	105	108	116
	3500	21.1	160	113	116	125
	4000	24.1	165	121	124	134
	5000	30.1	165	135	139	150
	6000	36.1	165	148	152	164
8' (2.4 m)	1000	6.0	68	45	47	50
	1500	9.0	82	56	57	62
	2000	12.0	94	64	66	71
	2500	15.1	104	72	74	79
	3000	18.1	112	79	81	87
	3500	21.1	120	85	87	94
	4000	24.1	125	91	93	101
	5000	30.1	125	101	104	112
	6000	36.1	125	111	114	123
10' (3.0 m)	1000	6.0	46	31	33	40
	1500	9.0	56	38	40	49
	2000	12.0	64	44	46	57
	2500	15.1	71	49	52	64
	3000	18.1	77	54	57	70
	3500	21.1	82	58	61	75
	4000	24.1	85	62	65	80
	5000	30.1	85	69	73	85
	6000	36.1	85	76	80	85

EL = Dish antenna azimuth angle with horizontal.

Vmax = Effective wind velocity based on strength or overturning.

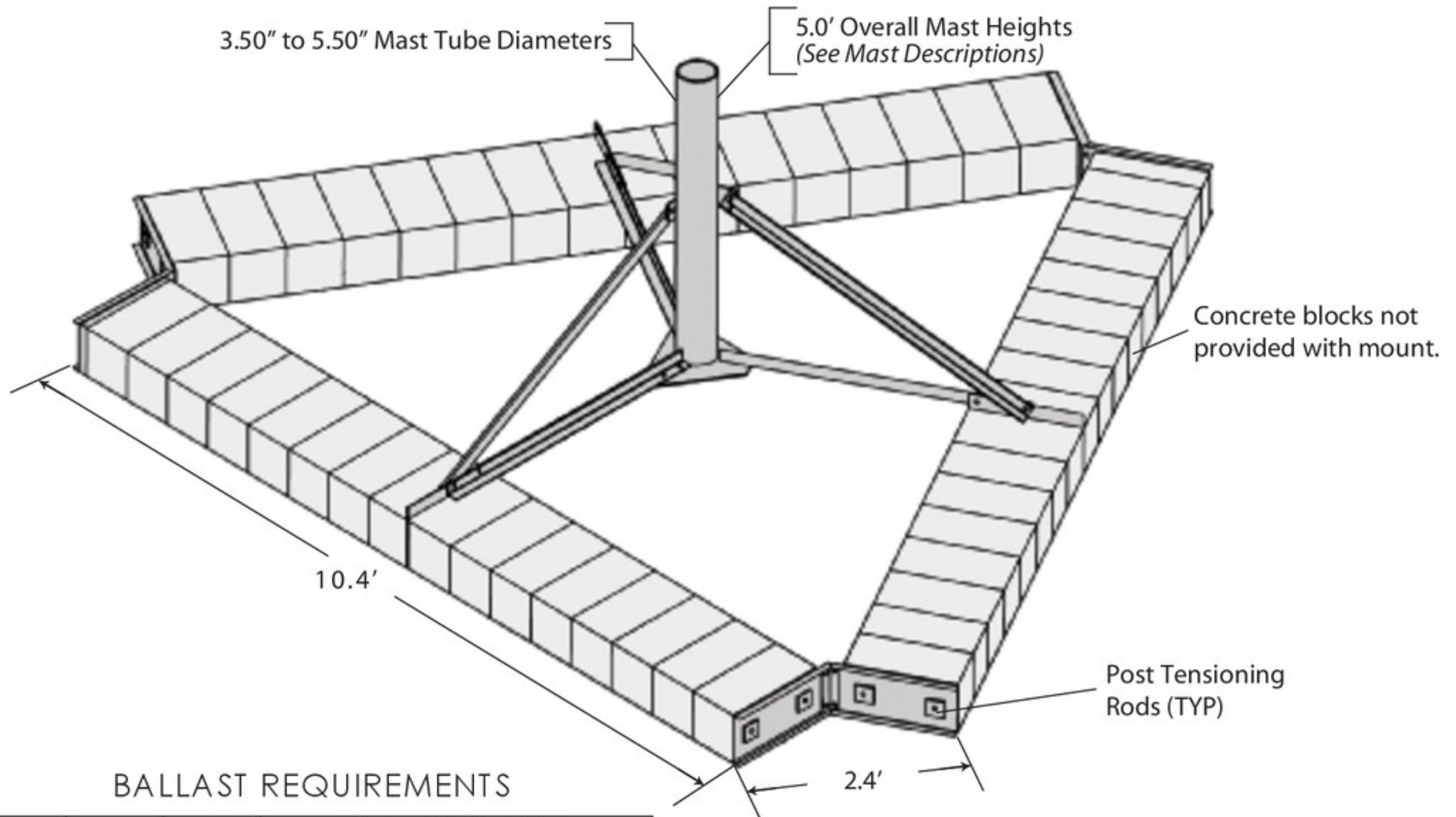
Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

NOTE: Mast strength may govern antenna capacity.

PRM6 NON-PENETRATING

The PRM6 mount is capable of supporting dishes with diameters up to 6 feet. The mount is hot-dip galvanized after fabrication for corrosion protection. The PRM6 mount is also UPS shippable.

Order (1) optional PRM6MAT (1/8" thick) or (1) optional PRM6PAD (3/8" thick) for a protective barrier between the mount and the roof.
Order (1) optional SCK150 safety cable kit (3/16" x 150').



BALLAST REQUIREMENTS

Dish Diameter	Ballast (LBS)	Zero Velocity Load (PSF)	Design Wind Velocities (MPH)					
			EL=0°		EL=20°		EL=40°	
			Vmax	Vs	Vmax	Vs	Vmax	Vs
4' (1.2 m)	1600	17.2	145	122	180	137	198	168
	1800	19.4	154	130	184	146	198	179
	2000	21.5	162	137	187	154	198	188
	2200	23.7	168	144	189	161	198	197
	2400	25.8	171	150	189	168	198	198
6' (1.8 m)	1600	17.2	97	81	117	91	126	112
	1800	19.4	102	86	123	97	132	119
	2000	21.5	108	91	125	102	132	125
	2200	23.7	112	96	126	107	132	131
	2400	25.8	114	100	126	112	132	132
	2600	28.0	116	104	126	117	132	132
	2800	30.1	118	108	126	121	132	132
	3000	32.3	120	112	126	125	132	132
	3200	34.4	122	115	126	126	132	132
	3400	36.6	124	119	126	126	132	132
	3600	38.7	125	122	126	126	132	132
	3800	40.9	125	125	126	126	132	132

MAST SPECIFICATIONS

Mount Part No.	Mast Part No.	Mast Description
PRM635	KY1672	3.50" O.D. x 0.216" wall
PRM640	KY1673	4.00" O.D. x 0.226" wall
PRM645	KY1674	4.50" O.D. x 0.237" wall
PRM655	KY1675	5.50" O.D. x 0.258" wall

EL = Dish antenna azimuth angle with horizontal.

Vmax = Effective wind velocity based on strength or overturning.

Vs = Effective wind velocity resulting in sliding on a flat surface with a .50 coefficient of friction.

NOTE: Mast strength may govern antenna capacity.



BALLAST REQUIREMENTS FOR ROOF MOUNTS

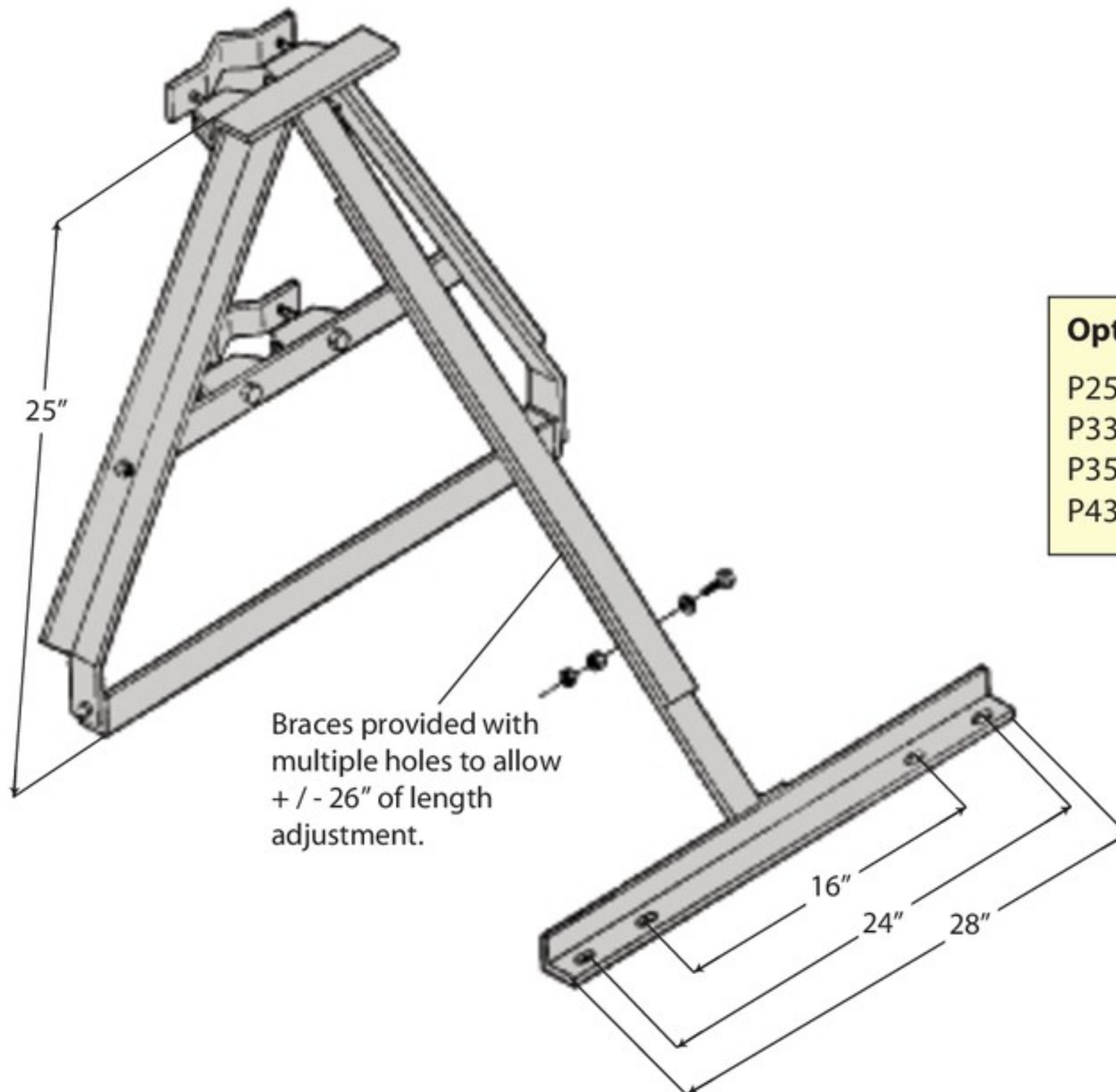
1. Ballast requirements are provided to assist consumers in determining the applicability of a non-penetrating roof mount for an antenna installation and to assist in determining the amount of ballast required. The ballast requirements should not be relied upon without competent local professional examination and verification of its accuracy and suitability for a specific site or application.
2. Specific antennas and/or other mounting configurations may require more stringent strength and ballast requirements and must be investigated for each installation. The load carrying requirements of the supporting surface, the mount and mast, the antenna and the antenna's connection to the mast must be investigated for each installation.
3. When antenna areas are indicated vs. specific antenna types, the areas tabulated are effective projected areas that include appropriate wind drag factors applied to the projected areas of the supported antennas and the exposed portions of the mount and ballast. The center of the effective projected area is assumed to be at the top of the mounting pipe or the height indicated in the ballast table. Unless otherwise indicated, tabulated ballast requirements assume that the effective projected areas are concentric to the mount and that uplift or download wind forces are insignificant.
4. The tabulated wind velocities are considered to occur at the centroid of the effective projected areas. The wind velocity appropriate for an installation must be determined on an individual site basis considering the location and elevation of the mount. The wind velocity at ground level must be multiplied by appropriate height escalation and gust factors. Potential increases in wind velocity due to channeling, roof projections, and other obstructions, must also be considered when determining ballast requirements.
5. The ballast weights indicated are assumed to be uniformly distributed on the mount. The weight of the mount and antenna may be considered as ballast. Mounts are assumed to be mounted on a flat supporting surface.
6. The zero velocity loads shown are equal to the tabulated ballast weights divided by the total area enclosed by the perimeter of the mount. This area is greater than the ballast contact area. Loads which must be investigated include reactions caused by wind forces and moments, live loads, ice loads, earthquake loads and the dead loads of ballast, mount, antenna, mounting hardware, miscellaneous equipment and roof pads.
7. The tabulated maximum wind velocities (V_{max}) are based on a minimum 1.5 factor of safety against structural failure and overturning.
8. The tabulated wind velocities resulting in sliding (V_s) are based on a factor of safety equal to 1.0 and an effective coefficient of friction equal to 0.50 between the mount and a flat supporting surface. A 1.0 factor of safety was used assuming that at higher wind velocities, safety cables or other suitable attachments to the support structure would prevent sliding beyond a safe, designated area.
9. The appropriate coefficient of friction and factor of safety to determine wind velocities resulting in sliding must be determined on an individual site basis. The coefficient of friction may vary under changing moisture and temperature conditions. The minimum coefficient of friction must be used to evaluate sliding resistance. Wind speeds resulting in sliding for other factors of safety or for other coefficients of friction may be found by multiplying the tabulated values of V_s by the following modification factor:

$$\text{Modification Factor} = [\mu / (.5 \times FS)]^{1/2}$$

μ = Coefficient of Friction
FS = Factor of Safety
10. The values of V_s indicated do not apply for installations which are prevented from sliding by cables or other suitable attachments to the supporting structure.
11. Roof pads are recommended to prevent damage to roof membranes. Pads should be placed under all contact areas.
12. ROHN recommends that ballast material always be placed prior to mounting the antenna and that roof pads and mount be secured to prevent hazards from occurring under extreme wind loading conditions. Precautions should also be taken to prevent the inadvertent removal of ballast material after installation and to insure that all ballast material is fully supported by the mount (required for ballast to be effective in resisting overturning and sliding).
13. When adhesives are used to secure roof pads, the adhesive must be compatible with the supporting surface. Precautions should be taken to insure that damage to the supporting surface will not occur upon wind loading.
14. The installation, roof material and supporting structure must be capable of withstanding all loads imposed by the antenna system. Supporting surfaces, anchors and/or safety cables must be sufficient to resist the reactions from the antenna system. The installation must meet all applicable local, state and federal requirements.

URM

ROHN's Universal Roof Mount (URM) is capable of supporting most PCS, Cellular, and Microwave antennas. The URM adapts to various roof pitches and the fully adjustable rear-leg allows for use on a flat or up to a 12"/12" pitched roof. Installation is easy because of the quick adaptability, plus there's no need for concrete blocks. The URM is hot-dip galvanized after fabrication for corrosion protection, and can easily ship UPS.



Optional Masts - Ordered Separately

P2530	2.88" O.D. x 0.203" wall x 30" Long
P330	3.50" O.D. x 0.216" wall x 30" Long
P3530	4.00" O.D. x 0.226" wall x 30" Long
P430	4.50" O.D. x 0.237" wall x 30" Long

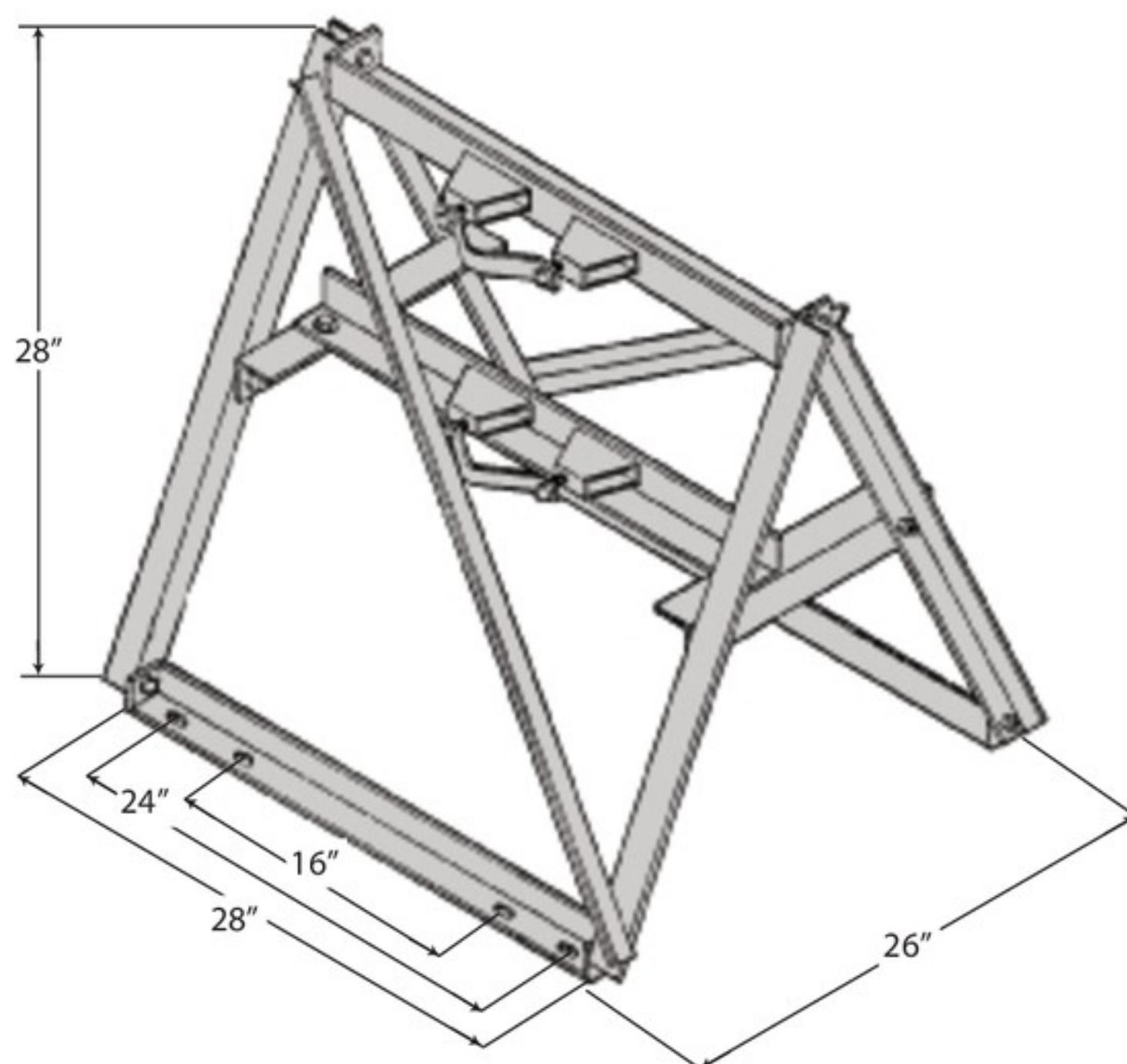
Features:

1. URM mount can be used on a flat roof, sloped roof or over a roof peak.
2. URM mount can be used with 2.88" to 4.50" O.D. masts (order separately).
3. Bottom of mount pivots to match roof pitch.
4. Rear leg adjusts for extra length.
5. Mount base angles are pre-drilled to accept 1/2" diameter connectors.



SHRM

ROHN's Saw Horse Roof Mount (SHRM) is capable of supporting most PCS, Cellular, and Microwave antennas. The SHRM allows for placement of antennas on flat roofs or roof peaks with up to a 12"/12" pitch. The SHRM is also able to be installed on flat roofs. Installation is easy because of the quick adaptability, plus there's no need for concrete blocks. The SHRM is hot-dip galvanized after fabrication for corrosion protection, and can easily ship UPS.



Optional Masts - Ordered Separately

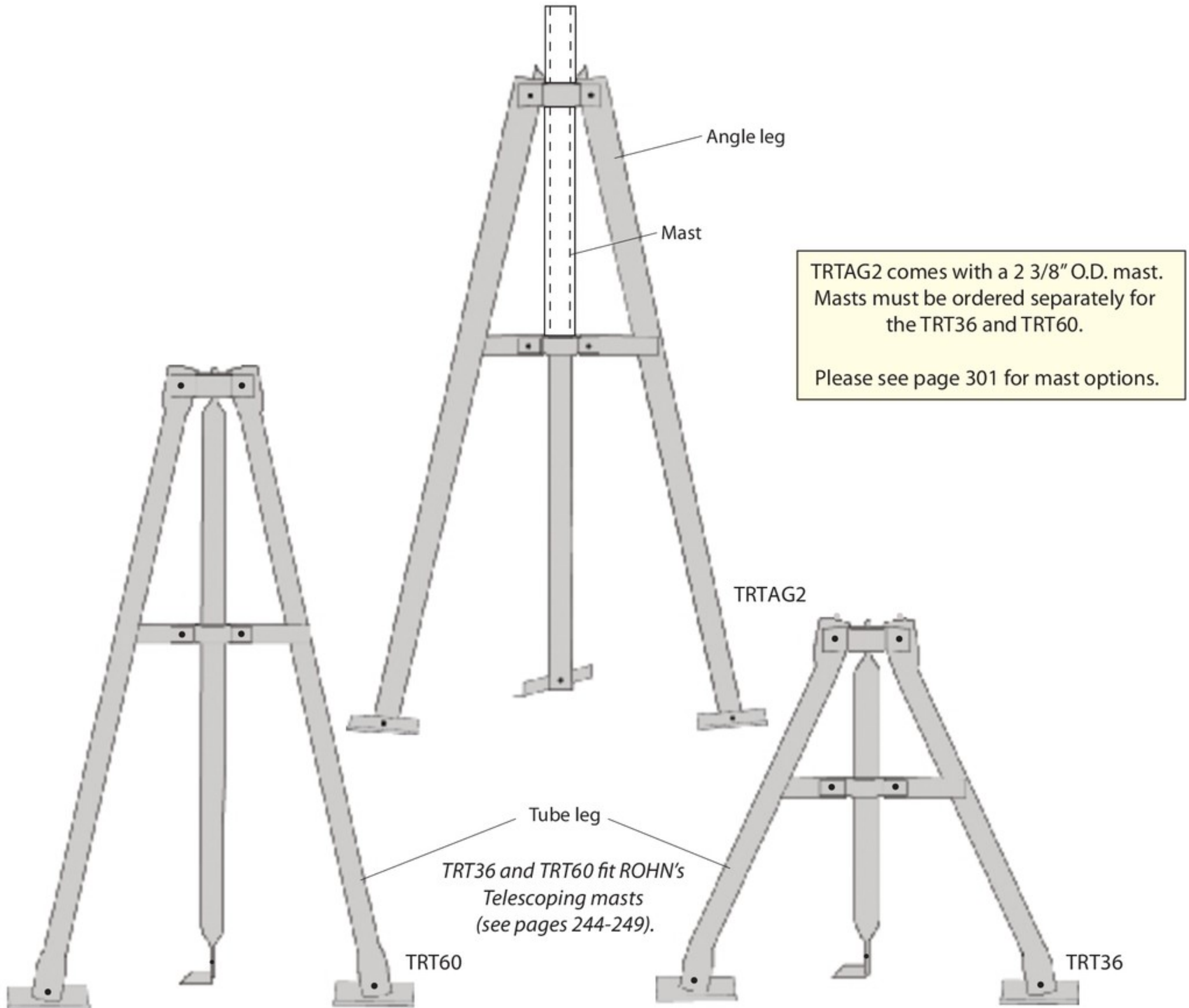
P2530	2.88" O.D. x 0.203" wall x 30" Long
P330	3.50" O.D. x 0.216" wall x 30" Long
P3530	4.00" O.D. x 0.226" wall x 30" Long
P430	4.50" O.D. x 0.237" wall x 30" Long

Features:

1. SHRM mount can be used on a flat roof or on a roof peak, up to 45 degrees maximum pitch.
2. SHRM mount can be used with 2.88" to 5.00" O.D. masts (ordered separately).
3. Bottom of mount pivots to match roof pitch.
4. Mount base angles are pre-drilled to accept 1/2" diameter connectors.

TRT36 / TRT60 / TRTAG2

The TRT is a Tripod Roof Tower, which comes fully assembled and snaps out into position for quick installation using up to 1/4" dia. connectors. The TRTAG2 mount comes with a 2 3/8" O.D. hot-dip galvanized mast, the TRT36 and TRT60 mounts accept masts up to 1 3/4" O.D. (ordered separately). The bolt-on swivel feet adjust to most any pitch roof. TRT mounts are galvanized for corrosion protection. All TRT mounts are UPS shippable.



SPECIFICATIONS

Part No.	Description
TRT36	3' tall, tube legs (PG)
TRT60	5' tall, tube legs (PG)
TRTAG2	5' tall, angle legs (HDG) with 2.38" O.D. x 0.154" wall x 3.5' long mast (HDG)

PG = Pre-galvanized
HDG = Hot-dip galvanized

NOTES