

# MASTRANT

## ANTENNA GUYING

### WHY GUY WITH SYNTHETIC ROPES?

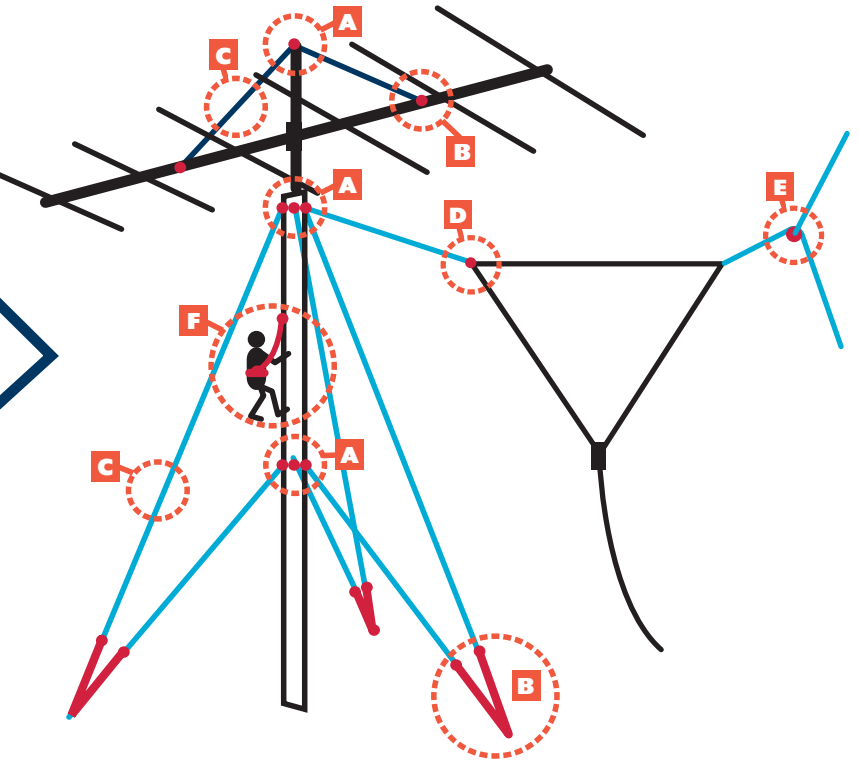
- NO RF INTERACTION • LIGHT WEIGHT • EASY HANDLING
- COST EFFECTIVE

### WHY MASTRANT?

- DESIGNED FOR GUYING • UV RESISTANCE • HIGH STRENGTH
- LOW ELONGATION – NO STRETCH • WEATHER DURABILITY • WIDE RANGE OF ACCESSORIES AND “MUST HAVES” FOR ANTENNA WORK

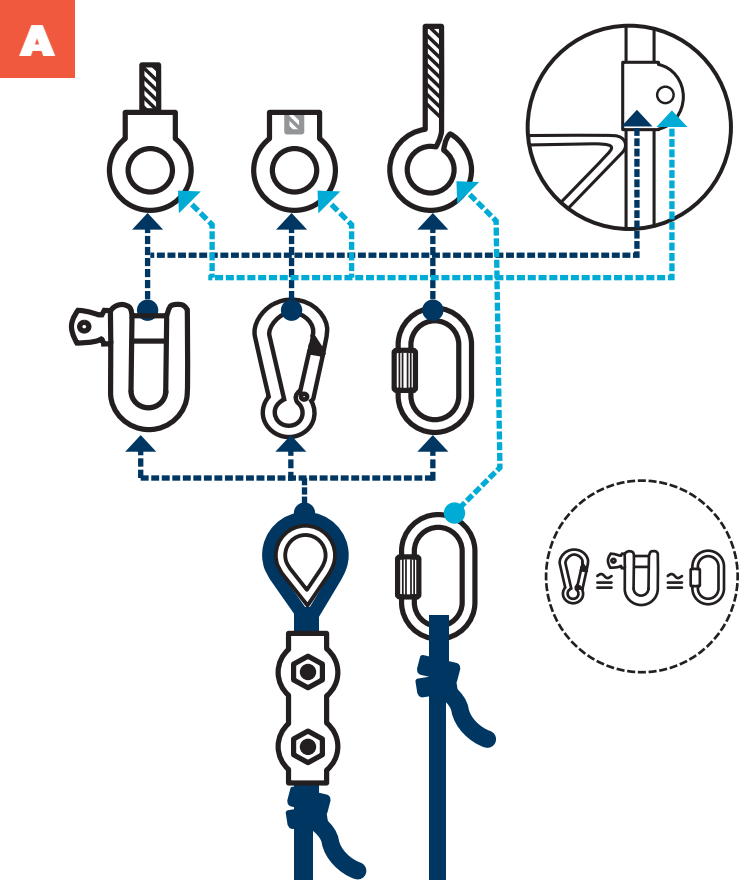
### HOW?

- CHOOSE APPROPRIATE GUYROPE • CALCULATE LENGTHS • THINK ABOUT IT
- DO IT • REGULARLY CHECK IT

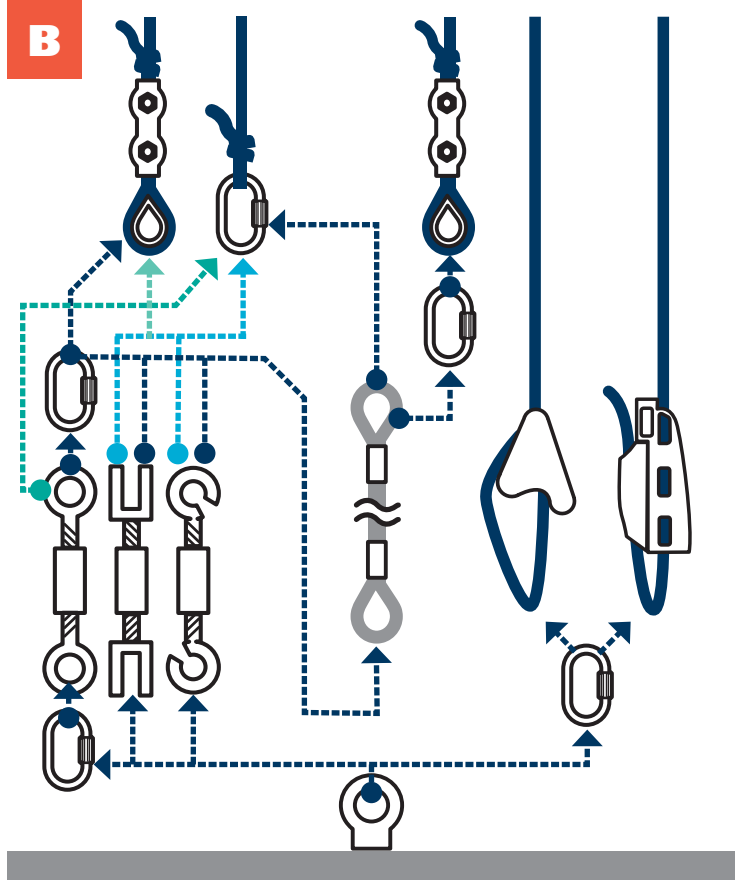


### WHERE WE CAN SUPPORT YOU

### TERMINATION AND COUPLING



### TENSIONING & ATTACHING



# TYPICAL INSTALLATIONS + RECOMMENDED GUY ROPES

TYPE OF USE

Wire antenna suspension	Vertical antenna	Mast Ø 1 to 4"	Lattice tower
conventional wire antennas	Up to 70 ft, Ø 1 to 2"	Up to 25 ft with 3 el. 3-8 or long VHF Yagi	Up to 70 ft tribander
high tension - heavy wire, 160m	Up to 130 ft, Ø 2 to 4"	Up to 70 ft, 5 el. Yagi for 20m	Up to 200 ft 3 stack of 5 el. Yagi 20m
LEVELS*	2-3	2-3	2-3
	3-5	3-5	3-6



**ROPE TYPE**

breaking strength (BS) [lbs.]  
safe working load (SWL)

**PRICE \$**  
Longer spools available

Feet: 330, 100, 1

Size of couplers:  
Carabiner, Shackles, Chain, Turnbuckle

Ø SIZE	MASTRANT CLASSIC										STRETCH = ELONGATION: 2.4%, CORE = POLYESTER & POLYPROPYLENE, COVER = POLYESTER			Size of couplers					
2 1/16"											220	70	P	23	n/a	0.10	5	5	6
													R	25	n/a	0.12			
3 1/8"											440	130	P	32	13	0.14	5	5	6
													R	36	n/a	0.15			
3+ 9/64"											660	200	P	44	17	0.19	6	5	6
													C	54	19	0.23			
4 5/32"											970	290	P	51	20	0.20	6	5	6
													Q	73	n/a	0.29			
5 3/16"											1190	360	R	89	n/a	0.35	6	5	6
													O	n/a	35	0.44			
6 1/4"											1610	490	Q	107	n/a	0.39			
													C	129	n/a	0.47	8	6	8
8 5/16"											3750	1120	S	125	n/a	0.45			
													Q	145	n/a	0.53	10	6	8
11 7/16"											6130	1830	Q	199	n/a	0.72	HD	7	10
													Q	273	n/a	0.99	-	10	14
14 9/16"											7120	2140	Q	273	n/a	0.99	-	10	14

Ø SIZE	MASTRANT PREMIUM										EXTRA STRONG			STRETCH = ELONGATION: <1.2%, CORE = DYNEEMA® DM 20, COVER = POLYESTER			Size of couplers		
1 3/64"											220	70	M	45	n/a	0.16	5	5	6
2 3/32"											490	150	M	51	19	0.18	5	5	6
3 1/8"											860	260	M	83	31	0.30	6	5	6
4 5/32"											1980	600	M	167	n/a	0.61	7	5	6
5 3/16"											2650	790	M	264	n/a	0.96	8	6	8
6 1/4"											4080	1220	M	328	n/a	1.19	10	7	10
8 5/16"											5730	1720	M	465	n/a	1.69	HD	8	12
10 3/8"											8490	2550	M	796	n/a	2.89	-	10	16
12 1/2"											12130	3640	M	1110	n/a	4.04	-	12	20

STRETCH < 1.2%

\* LEVELS = NUMBER OF GUY ATTACHMENT POINTS. OTHER ASSUMPTIONS: WIND SPEED UP TO 100mph, DISTANCE BETWEEN ANCHOR POINT AND BASE OF MAST > 70% OF THE HEIGHT

DETAILED INSTRUCTIONS, USEFUL TIPS, TRICKS AND ADVICE ON WEBSITE [WWW.MASTRANT.COM](http://WWW.MASTRANT.COM)



## A: Terminating

### Thimbles (stainless AISI 316)

ATH02	2 mm (3/32", min.int.diam. 8 mm)	0.29
ATH03	3 mm (1/8", min.int.diam. 10 mm)	0.33
ATH04	4 mm (5/32", min.int.diam. 11 mm)	0.45
ATH05	5 mm (3/16", min.int.diam. 13 mm)	0.58
ATH06	6 mm (1/4", min.int.diam. 14 mm)	0.70
ATH08	8 mm (5/16", min.int.diam. 18 mm)	1.20
ATH10	10 mm (3/8", min.int.diam. 24 mm)	1.80
ATH12	12 mm (1/2", min.int.diam. 30 mm)	2.-
ATH14	14 mm (9/16", min.int.diam. 32 mm)	2.90



### Duplex wire rope clips (stainless AISI 316)

ADC02	2 mm (3/32", M4, wrench 7)	1.30
ADC03	3 mm (1/8", M4, wrench 7)	1.60
ADC04	4 mm (5/32", M5, wrench 8)	2.30
ADC05	5 mm (3/16", M5, wrench 8)	2.90
ADC06	6 mm (1/4", M6, wrench 10)	4.-
ADC08	8 mm (5/16", M8, wrench 13)	5.90
ADC10	10 mm (3/8", M10, wrench 17)	11.20



### Fist-grips (galvanised)

APC06	6 mm (1/4", 5-8 mm, M6)	2.90
APC08	8 mm (5/16", 8-10 mm, M6)	4.10
APC10	10 mm (3/8", 10-12, M8)	5.80
APC12	12 mm (1/2", 12-14, M10)	7.40
APC16	16 mm (5/8", 14-18, M12)	9.90



### Bull-dog grips (stainless steel AISI 316)

ASC02	2 mm (3/32", M3)	1.50
ASC03	3 mm (1/8", M3)	1.70
ASC04	4 mm (5/32", M4)	1.80
ASC05	5 mm (3/16", M5)	2.-
ASC06	6 mm (1/4", M6)	2.40
ASC08	8 mm (5/16", M6)	2.80
ASC10	10 mm (3/8", M8)	4.10
ASC12	12 mm (1/2", M10)	7.60
ASC13	13 mm (9/16", M10)	9.10



## A, B: Coupling

### Spring hooks - Carabiners (stainless AISI 316)

AHO04	4 mm (5/32", BS: 500 lb.)	1.50
AHO05	5 mm (3/16", BS: 880 lb.)	1.60
AHO06	6 mm (1/4", BS: 1050 lb.)	1.90
AHO07	7 mm (9/32", BS: 1320 lb.)	2.80
AHO08	8 mm (5/16", BS: 1870 lb.)	3.50
AHO10	10 mm (3/8", BS: 2500 lb.)	6.40
AHOS05	smooth 5 mm (3/16", BS: 370 lb.)	2.-
AHOS07	smooth 7 mm (9/32", BS: 990 lb.)	2.90
AHOS10	smooth 10 mm (3/8", BS: 2000 lb.)	6.80



### Chain quick-acting couplers (stainless AISI 316)

ACC04	4 mm (5/32", max.opn.5.5 mm (1100 lb.)	1.80
ACC05	5 mm (3/16", max.opn.6.5 mm (3000 lb.)	2.10
ACC06	6 mm (1/4", max.opn.7.5 mm (4400 lb.)	3.20
ACC07	7 mm (9/32", max.opn.8.5 mm (5500 lb.)	4.50
ACC08	8 mm (5/16", max.opn.9.5 mm (7300 lb.)	4.90
ACC10	10 mm (3/8", max.opn.12 mm (12100 lb.)	8.70
ACC12	12 mm (1/2", max.opn.14.5 mm (15400 lb.)	13.-



### Shackles (stainless AISI 316)

ASE04	4 mm (5/32", 8x14 mm hole (1200 lb.)	2.-
ASE05	5 mm (3/16", 10x17 mm hole (2000 lb.)	2.30
ASE06	6 mm (1/4", 12x21 mm hole (2900 lb.)	2.70
ASE07	7 mm (9/32", 14x24 mm hole (3900 lb.)	3.-
ASE08	8 mm (5/16", 16x28 mm hole (5300 lb.)	3.30
ASE10	10 mm (3/8", 19x35 mm hole (8400 lb.)	6.20
ASE12	12 mm (1/2", 23x41 mm hole (12200 lb.)	8.90



### Swivels (stainless AISI 316)

ASW01	6 mm (1/4", 12x11 mm hole (2900 lb.)	6.20
ASW02	8 mm (5/16", 16x16 mm hole (5500 lb.)	10.70



## B: Attaching

### Fixing eyes (stainless steel AISI 316)

AES061	eye - bolt M6 (hole 16, length 11, 1700 lb.)	2.40
AES081	eye - bolt M8 (hole 20, length 13, 3100 lb.)	3.20
AES101	eye - bolt M10 (hole 25, leng. 17, 5000 lb.)	6.10
AES121	eye - bolt M12 (hole 30, leng. 20, 7100 lb.)	7.20
AEN06	eye - nut M6 (hole 16, 1700 lb.)	1.90
AEN08	eye - nut M8 (hole 20, 3100 lb.)	2.80
AEN10	eye - nut M10 (hole 25, 5000 lb.)	4.70
AEN12	eye - nut M12 (hole 30, 7100 lb.)	6.70
AEN16	eye - nut M16 (hole 35, 12700 lb.)	8.60
AE0540	bolt with eye M5 (5x40)	1.10
AE0640	bolt with eye M6 (6x40)	1.40
AE0860	bolt with eye M8 (8x60)	2.40
AE1070	bolt with eye M10 (10x70)	3.80
A7A836	anchoring set 10x100 mm (6600 lb.)	18.-

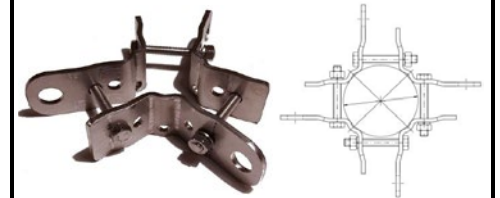


## B: Attaching

### Mast clamps Mastrant (stainless steel)

Parts can be used for both 3 or 4 directional setups.

Heavy duty (thickness 5/32", height 1-1/2", screws 5/16")		
ACM1306	3 directions, masts 5/8" to 2"	22.-
ACM1310	3 directions, masts 5/8" to 4"	23.-
ACM1406	univers. 3-4 dir., masts 1-1/4" to 3-1/4"	29.-
ACM1410	univers. 3-4 dir., masts 1-1/4" to 5"	31.-



### Light (thickness 3/32", height 1", screws 1/4")

ACM230x	light 3 directions, masts 3/8" to 2-3/8"	17.-
ACM240x	light 3-4 directions, masts 1" to 2-3/8"	23.-



### Galvanised mast clamps

ACL330	3 directional, masts 1-3/16" to 2"	10.70
ACL445	4 directional, masts 3/4" to 3"	12.-



### Steel cords with thimble ends (stainless A4) +1 m

ASR206	ø 2 mm, 6 m (wire ant over tree)	33.-	0.15
ASR402	ø 4 mm, 2 m (stainless 7x7, 9 kN)	31.-	0.40
ASR502	ø 5 mm, 2 m (stainless 7x7, 15 kN)	32.-	0.70
ASR602	ø 6 mm, 2 m (stainless 7x7, 22 kN)	34.-	0.90
ASR802	ø 8 mm, 2 m (stainless 7x19, 33 kN)	37.-	1.70



## C: Terminated guy ropes Mastrant-P & Q

Ready-made guy ropes with a thimble fitted on one end. Length: 66 ft. 99 ft.

NP040x0	4 mm (5/32", BS: 220 kg (480 lb)	18.-	23.-
NP050x0	5 mm (3/16", BS: 270 kg (590 lb)	22.-	30.-
NQ060x0	6 mm (1/4", BS: 365 kg (800 lb)	29.-	40.-
NQ080x0	8 mm (5/16", BS: 850 kg (1870 lb)	37.-	52.-
NQ110x0	11 mm (7/16", BS: 1400 kg (3060 lb)	49.-	68.-
Length: 109 f. 132 f.			
NQ140x0	14 mm (9/16", BS: 1800 kg (4000 lb)	103.-	123.-



# "JEWELRY FOR YOUR TOWER" PRICES \$

## B: Tensioning

Turnbuckles (stainless steel AISI 316)

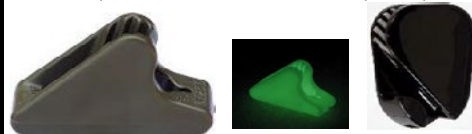
ASH*06*	eye-eye (hook) M6 (1/4")	4.20
ASH*08*	eye-eye (hook) M8 (5/16")	8.70
ASH*10*	eye-eye (hook) M10 (3/8")	12.80
ASH*12*	eye-eye (hook) M12 (1/2")	16.-
ASH*16*	eye-eye (hook) M16 (5/8")	33.-
ASH*20*	eye-eye (hook) M20 (13/16")	57.-



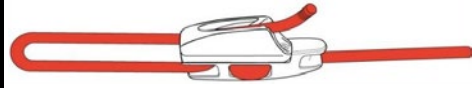
ASHF05*	jaw-jaw M5 (3/16", 1230 lb.)	7.80
ASHF06*	jaw-jaw M6 (1/4", 3000 lb.)	8.70
ASHF08*	jaw-jaw M8 (5/16", 4800 lb.)	10.70
ASHF10*	jaw-jaw M10 (3/8", 7600 lb.)	19.-
ASHF12*	jaw-jaw M12 (1/2", 11000 lb.)	28.-
ASHF14*	jaw-jaw M14 (9/16", 14000 lb.)	50.-
ASHF16*	jaw-jaw M16 (5/8", 23000 lb.)	115.-



Clamcleat® tensioners (UV stabilised)		black	glow
CL266	Line-Lok tens. 1-3 mm (1/8")	0.45	0.64
CL260	Line-Lok tens. 2-4 mm (5/32")	0.75	1.10
CL276	Line-Lok tens. 3-5 mm (3/16")	2.-	2.70
CL271	Line-Lok tens. 4-8 mm (5/16")	4.90	8.70
CL223	Loop Cleat tens. 3-6 mm (1/4")	4.-	
CL234	Loop Cleat tens. 6-11 mm (1/2")	7.80	



Clamcleat® tensioners - adjustable (UV stabilised)		
CL828-63	Aero 3-4 mm (5/32")	7.90
CL828-70AN	Aero 3-4 mm (5/32", can rig 4:1)	14.-
CL826-72	Aero 4-6 mm (1/4")	9.90
CL829-11AN	Aero 4-6 mm (1/4", hard anodised)	17.-
CL827-03	Aero 4-6 mm long (1/4")	11.60
CL827-11AN	Aero 4-6 mm long (1/4", hard anod.)	18.-



Clamcleat® Tensioning Reel (UV stabilised)		
CLPT771	For ropes 5-6 mm (3/16" to 1/4")	28.-



## D: Elastic ropes for tensioning

stretch 100%, e.g. for tightening of wire antennas to trees

ER06	Elastic rope 6 mm (1/4", 10 kg / 22 lb), 1 ft	0.20
ER08	Elastic rope 8 mm (5/16", 25 kg / 55 lb), 1 ft	0.40

## E: Pulleys

Pulleys galvanised

		sing.
APUN05	nylon, 5 mm (3/16")	1.60
APUN06	nylon, 6 mm (1/4")	1.90
APUN08	nylon, 8 mm (5/16")	3.30
APUN10	nylon, 9 mm (3/8")	5.30
APUO05	anti-tangle metal, 5 mm (3/16")	2.10
APUO06	anti-tangle metal, 6 mm (1/4")	2.40
APUO07	anti-tangle metal, 7 mm (9/32")	3.30
APUO08	anti-tangle metal, 8 mm (5/16")	5.70
APUO10	anti-tangle metal, 10 mm (3/8")	9.20



Pulleys stainless

		sing.
APUS10A	up to 10 mm (3/8"), sheave plastic	7.70
APUX06S	up to 6 mm, sheave plastic, shackle	5.70
APUS03A	up to 3 mm (1/8"), plastic	5.40
APUX09B	anti-tangle, up to 9 mm, Ø 25 mm	7.20
APUX10A	anti-tangle, up to 10 mm, Ø 32 mm	10.-
APUX14A	anti-tangle, up to 14 mm, Ø 50 mm	14.-



APUS05A	pulley up to 5 mm (3/16"), sh. plastic	9.30
APUS05D	pulley up to 5 mm, sh. brass nickeled	11.40
APUS05G	double up to 5 mm, sheave plastic	12.90
APUS05J	double up to 5 mm, sh. brass nickeled	16.-



APUS06M	metal cheek, up to 6 mm (1/4"), bow	14.-
APUS08M	metal cheek, up to 8 mm (5/16"), bow	17.-
APUS10M	metal cheek, up to 10 mm (3/8"), bow	19.-



APUS08Q	HD up to 8 mm (5/16", 1320 lb.)	15.-
APUS08X	HD up to 8 mm (5/16", needle bearing	22.-
APUS10Q	HD up to 10 mm (3/8", 2000 lb.)	17.-
APUS12Q	HD up to 12 mm (1/2", 2640 lb.)	24.-



APUS08T	anti-tangle HD up to 8 mm (5/16")	25.-
APUS10S	anti-tangle HD up to 10 mm (3/8")	31.-
APUS12S	anti-tangle HD up to 12 mm (1/2")	35.-



APUS06P	HD for wires, up to 6 mm (1/4")	20.-
APU820	HD, up to 16 mm (5/8", 30 kN, alum.)	45.-



## Mastrant Prepared Solutions

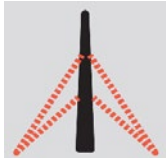
### Dipole Solution Kit



Light wires, low height: 1/8" rope (\$13)  
Heavy wires, high height: 5/32" rope (\$51)  
Stainless pulleys (2) included - total \$62

### Vertical Antenna Solution Kit

- Rope
- Thimbles, rope clips
- Mast clamps
- Connecting elements
- Tensioners



#### Complete sets for:

40 ft. vertical, 2 level guying: \$119.-  
60 ft. vertical, 2 level guying: \$151.-  
90 ft. vertical, 3 level guying: \$245.-

#### Complete sets without mast clamps for:

40 ft. vertical, 2 level guying: \$85.-  
60 ft. vertical, 2 level guying: \$117.-  
90 ft. vertical, 3 level guying: \$195.-

All hardware stainless steel.

### Mast Solution Kit

- Rope
- Thimbles, rope clips
- Mast clamps
- Connecting elements
- Tensioners



#### Complete sets for:

35 ft. mast, 1 level guying: \$120.-  
35 ft. mast, 2 level guying: \$164.-  
60 ft. mast, 3 level guying: \$259.-

#### Complete sets without mast clamps for:

35 ft. mast, 1 level guying: \$98.-  
35 ft. mast, 2 level guying: \$120.-  
60 ft. mast, 3 level guying: \$194.-

#### Complete sets, 4 direction guying:

(recommended for field-day installations)  
35 ft. mast, 1 level guying: \$127.-  
35 ft. mast, 2 level guying: \$199.-

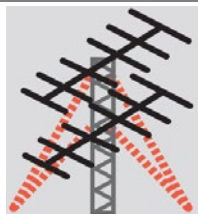
#### Complete sets w/o mast clamps, 4-dir. for:

35 ft. mast, 1 level guying: \$105.-  
35 ft. mast, 2 level guying: \$155.-

All hardware stainless steel.

### Guyed Tower Solution Kit

- Ropes
- Thimbles, rope clips
- Connection hardware
- Turnbuckles
- Steel rope tails
- Eye bolts, eye nuts
- Installation aids



Consult Local Rep.  
or Factory for details.

**WE WOULD BE DELIGHTED TO SUPPORT YOU WITH YOUR FUTURE PROJECTS. DON'T HESITATE TO ASK US AT INFO@MASTRANT.COM!**

Or design your guying yourself: Simply use our on-line calculator, which after entering the basic data, calculates the required values and provides recommendations on the choice of materials to use. This ensures that the antenna support system is designed to be safe and reliable under all conditions for many years to come. For more details visit [www.mastrant.com](http://www.mastrant.com), section Calculations.

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