

# MASTRANT

## ANTENNA GUYING

### WHY GUY WITH SYNTHETIC ROPES?

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

### WHY MASTRANT?

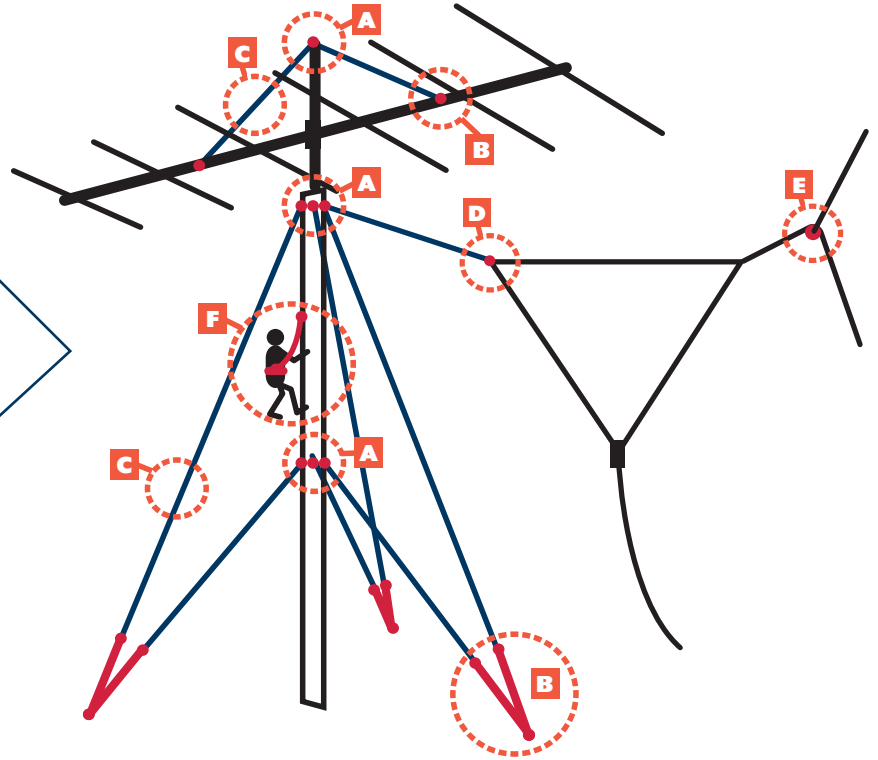
- DESIGNED FOR GUYING
- UV RESISTANCE
- HIGH STRENGTH
- LOW ELONGATION – NO STRETCH
- WEATHER DURABILITY
- WIDE RANGE OF ACCESSORIES AND "MUST HAVES" FOR ANTENNA WORK

### HOW?

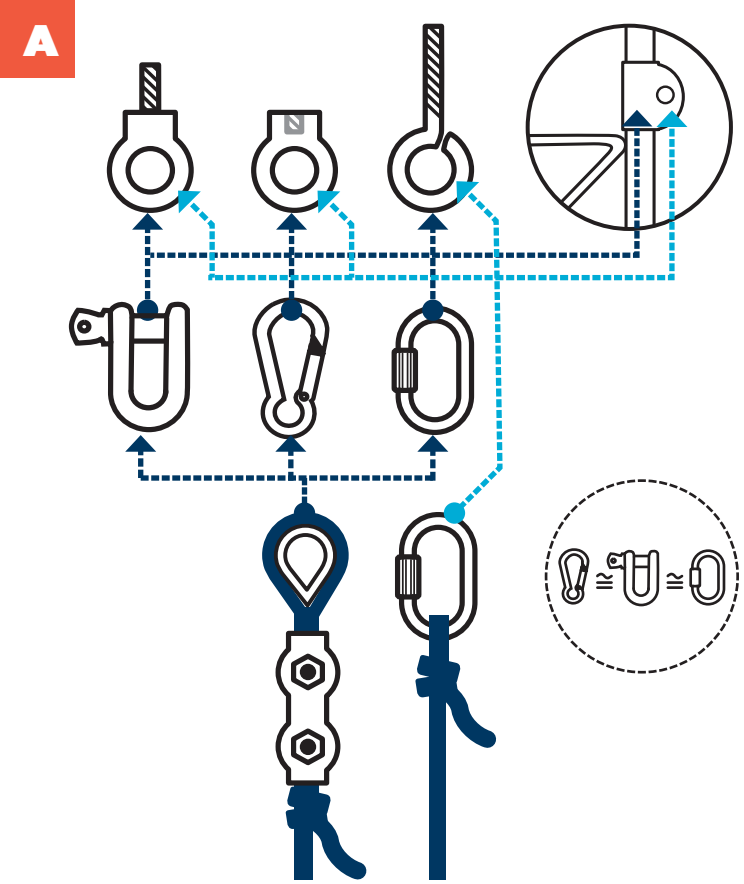
- CHOOSE APPROPRIATE GUYROPE
- CALCULATE LENGTHS
- THINK ABOUT IT
- DO IT
- REGULARLY CHECK IT



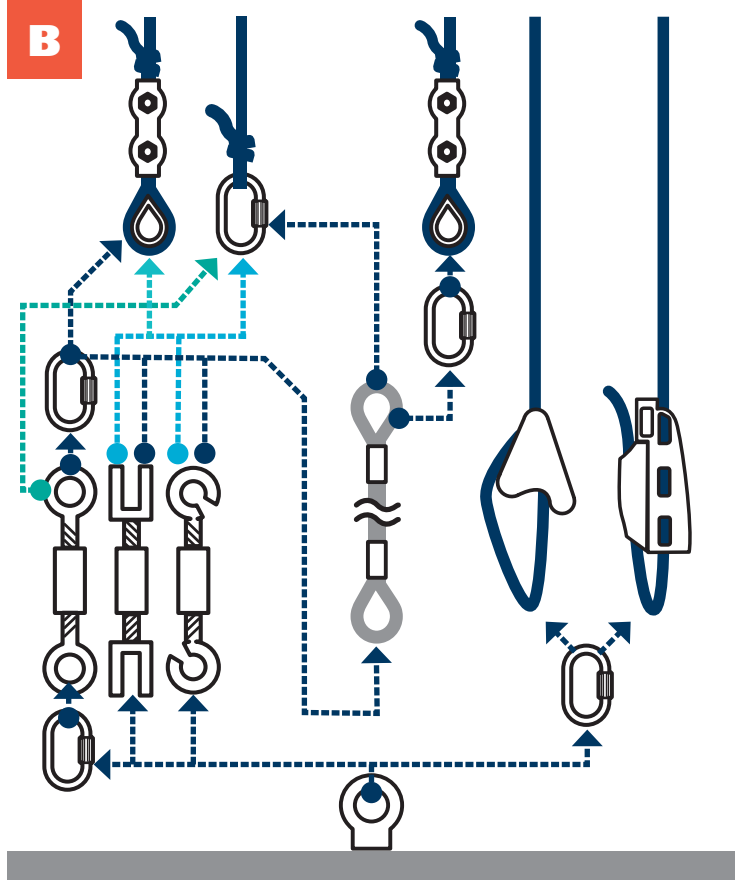
### WHERE WE CAN SUPPORT YOU



### TERMINATION AND COUPLING



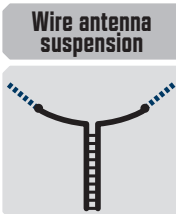
### TENSIONING & ATTACHING



# TYPICAL INSTALLATIONS + RECOMMENDED GUY ROPES

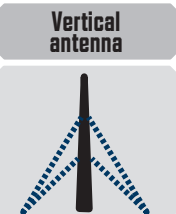
C

**Wire antenna suspension**



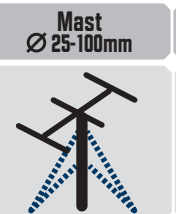
con-ventional wire antennas

**Vertical antenna**



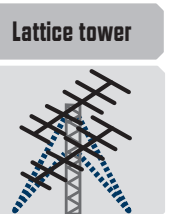
Up to 20m, Ø 25-50mm

**Mast Ø 25-100mm**




Up to 10m with 3 el. 3-8 or long VHF Yagi

**Lattice tower**



Up to 20m 7 el. tribander



**TYPE OF USE**

high tension - heavy wire, 160m ...

**LEVELS\***

2-3    3-5    2-3    3-5    2-3    3-6

**breaking strength [BS]**

safe working load [SWL]

[daN, ~kg]

**PRICE CHF (incl. VAT)**

Longer spools available


Meters

**100    31    1**

**CODE**

**Size of couplers**

Carabiner    Shackle    Turnbuckle



MASTRANT®P		STRETCH = ELONGATION: 2.4%, CORE = POLYESTER, COVER = POLYESTER																		
Ø 2	[3/32"]											100	30	15	n/a	0.21	P-2	5	5	6
Ø 3	[1/8"]											20	60	21	8	0.29	P-3	5	5	6
Ø 3+	[9/64"]	<b>NEW!</b>										300	90	28	11	0.39	P-3+	6	5	6
Ø 4	[5/32"]											440	130	32	12	0.42	P-4	6	5	6
Ø 5	[3/16"]											540	180	45	n/a	0.59	P-5	6	5	6
Ø 6	[1/4"]											850	260	76	n/a	0.99	P-6	8	6	8
Ø 8	[5/16"]											1300	390	94	n/a	1.13	P-8	10	6	8
Ø 10	[3/8"]											1900	570	126	n/a	1.51	P-10	HD	7	10
Ø 12	[1/2"]											2200	660	165	n/a	1.98	P-12	HD	8	12
Ø 14	[9/16"]											3200	960	220	n/a	2.64	P-14	-	10	14





MASTRANT®R		STRETCH = ELONGATION: 2.4%, CORE = POLYESTER, COVER = POLYESTER [REFLECTIVE COLOR]																		
Ø 3	[1/8"]											200	60	24	n/a	0.34	R-3	5	5	6
Ø 5	[3/16"]											540	180	58	n/a	0.75	R-5	6	5	6

MASTRANT®C		STRETCH = ELONGATION: 2.4%, CORE = POLYESTER, COVER = POLYESTER [CAMOUFLAGE]																		
Ø 3+	[9/64"]											300	90	37	15	0.52	C-3+	6	5	6
Ø 6	[3/16"]											850	260	89	n/a	1.16	C-6	8	6	8

MASTRANT®M		STRETCH = ELONGATION: <1.2%, CORE = DYNEEMA® DM 20, COVER = POLYESTER																		
Ø 1	[2/32"]											100	30	30	n/a	0.36	M-1	5	5	6
Ø 2	[3/32"]											220	70	34	13	0.41	M-2	5	5	6
Ø 3	[1/8"]											390	120	56	21	0.67	M-3	6	5	6
Ø 4	[5/32"]											900	270	115	n/a	1.38	M-4	7	5	6
Ø 5	[3/16"]											1200	360	179	n/a	2.15	M-5	8	6	8
Ø 6	[1/4"]											1850	560	225	n/a	2.7	M-6	10	7	10
Ø 8	[5/16"]											2600	780	320	n/a	3.84	M-8	HD	8	12
Ø 10	[3/8"]											3850	1160	550	n/a	6.6	M-10	-	10	16
Ø 12	[1/2"]											5500	1650	795	n/a	9.54	M-12	-	12	20

\* 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)**

MASTRANT®P

MASTRANT®R

MASTRANT®C

MASTRANT®M

# "JEWELLERY FOR YOUR TOWER" PRICES CHF (INCL. VAT)

## A: Terminating

### Thimbles (stainless A4)

ATH02	2 mm (min.int.diam. 8 mm)	0,25
ATH03	3 mm (min.int.diam. 10 mm)	0,25
ATH04	4 mm (min.int.diam. 11 mm)	0,35
ATH05	5 mm (min.int.diam. 13 mm)	0,45
ATH06	6 mm (min.int.diam. 14 mm)	0,60
ATH08	8 mm (min.int.diam. 18 mm)	0,95
ATH10	10 mm (min.int.diam. 24 mm)	1,50
ATH12	12 mm (min.int.diam. 30 mm)	1,75
ATH14	14 mm (min.int.diam. 32 mm)	2,45



### Duplex wire rope clips (stainless A4)

ADC02	2 mm (M4, wrench 7)	1,10
ADC03	3 mm (M4, wrench 7)	1,30
ADC04	4 mm (M5, wrench 8)	1,90
ADC05	5 mm (M5, wrench 8)	2,50
ADC06	6 mm (M6, wrench 10)	3,45
ADC08	8 mm (M8, wrench 13)	5,25
ADC10	10 mm (M10, wrench 17)	9,75



### Fist-grips (galvanised)

APC06	6 mm (5-8 mm, M6)	2,15
APC08	8 mm (8-10 mm, M6)	2,95
APC10	10 mm (10-12, M8)	4,25
APC12	12 mm (12-14, M10)	5,45
APC16	16 mm (14-18, M12)	8,60



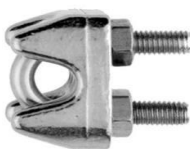
### Wedge sockets (galvanised)

AWC06	wedge socket 5-6.5 mm	14,15
AWC08	wedge socket 6-8 mm	29,35
AWC11	wedge socket 9-11 mm	27,35
AWC14	wedge socket 12-14 mm	30,35



### Bull-dog grips

		S.s.	Galv.
ASC02	2 mm (M3)	1,30	
ASC03	3 mm (M3)	1,50	
ASC04	4 mm (M4)	1,55	
ASC05	5 mm (M5)	1,75	0,30
ASC06	6 mm (M6)	1,95	0,40
ASC08	8 mm (M6)	2,35	0,75
ASC10	10 mm (M8)	3,50	0,95
ASC12	12 mm (M10)	7,80	1,70
ASC13	13 mm (M10)	7,80	



## A, B: Coupling

### Spring hooks - Carabiners (stainless A4)

AHO04	4 mm (BS: 230 kg)	1,30
AHO05	5 mm (BS: 400 kg)	1,30
AHO06	6 mm (BS: 480 kg)	1,50
AHO07	7 mm (BS: 600 kg)	2,45
AHO08	8 mm (BS: 850 kg)	3,10
AHO10	10 mm (BS: 1150 kg)	5,30
A7AZ11	25 kN, screw lock	8,60
A7AZ11T	25 kN, twist lock	19,25



### Chain quick-acting couplers (stainless A4)

ACC04	5 mm, max.opn.5.5 mm (500 kg)	1,50
ACC05	5 mm, max.opn.6.5 mm (1350 kg)	1,90
ACC06	6 mm, max.opn.7.5 mm (2000 kg)	2,70
ACC07	7 mm, max.opn.8.5 mm (2500 kg)	3,50
ACC08	8 mm, max.opn.9.5 mm (3300 kg)	4,30
ACC10	10 mm, max.opn.12 mm (5500 kg)	7,40
ACC12	12 mm, max.opn.14.5 mm (7000 kg)	11,50



### Shackles (stainless A4)

ASE05	5 mm, 10x17 mm hole	1,90
ASE06	6 mm, 12x21 mm hole	2,30
ASE07	7 mm, 14x24 mm hole	2,55
ASE08	8 mm, 16x28 mm hole	2,85
ASE10	10 mm, 19x35 mm hole	5,45
ASE12	12 mm, 23x41 mm hole	7,80



### Swivels (stainless A4)

ASW01	6 mm, 12x11 mm hole, 1300 kg	5,35
ASW02	8 mm, 16x16 mm hole, 2500 kg	9,50



## B: Attaching

### Fixing eyes (stainless A2)

AES061	eye - bolt M6 (hole 16, length 11, 800 kg)	1,90
AES081	eye - bolt M8 (hole 20, length 13, 1450 kg)	2,70
AES101	eye - bolt M10 (hole 25, leng. 17, 2300 kg)	5,00
AES121	eye - bolt M12 (hole 30, leng. 20, 3300 kg)	5,85
AEN06	eye - nut M6 (hole 16, 800 kg)	1,60
AEN08	eye - nut M8 (hole 20, 1450 kg)	2,30
AEN10	eye - nut M10 (hole 25, 2300 kg)	3,85
AEN12	eye - nut M12 (hole 30, 3300 kg)	4,70
AEN16	eye - nut M16 (hole 35, 5900 kg)	7,00
AE0540	bolt with eye M5 (5x40)	0,85
AE0640	bolt with eye M6 (6x40)	1,15
AE0860	bolt with eye M8 (8x60)	1,90
AE1070	bolt with eye M10 (10x70)	3,10
A7A836	anchoring set 10x100 mm, 3000 kg	9,70



## B: Attaching

### Mast clamps (stainless: threads A4, plates A2)

ACM1306	universal 3 dir., masts Ø 15-53 mm	17,90
ACM1310	universal 3 dir., masts Ø 15-102 mm	18,85
ACM1406	universal 4 dir., masts Ø 32-85 mm	23,90
ACM1410	universal 4 dir., masts Ø 32-127 mm	25,10
ACM2304	light 3 direct., masts Ø 10-34 mm	13,50
ACM2404	light 3-4 dir., masts Ø 26-52 mm	17,70



### Mast clamps (galvanised)

ACL330	3 directional, masts Ø 30-55 mm	8,60
ACL445	4 directional, masts Ø 45-75 mm	10,10



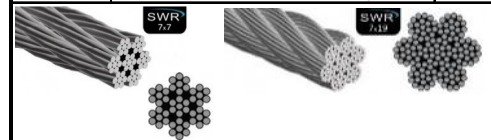
### Steel cords with thimble ends (stainless A4) +1 m

ASR206	Ø 2 mm, 6 m (wire ant over tree)	7,40	0,40
ASR402	Ø 4 mm, 2 m (stainless 7x7, 9 kN)	8,20	1,25
ASR502	Ø 5 mm, 2 m (stainless 7x7, 15 kN)	11,35	1,90
ASR602	Ø 6 mm, 2 m (stainless 7x7, 22 kN)	15,20	2,55
ASR802	Ø 8 mm, 2 m (stainless 7x19, 33 kN)	23,00	4,85



### Steel ropes by meter (stainless A4)

ASR1X1	1 mm (stainless 7x7, 61 kg)	0,20
ASR2X1	2 mm (stainless 7x7, 244 kg)	0,40
ASR3X1	3 mm (stainless 7x7, 548 kg)	0,75
ASR4X1	4 mm (stainless 7x7, 975 kg)	1,25
ASR5X1	5 mm (stainless 7x7, 1523 kg)	1,90
ASR6X1	6 mm (stainless 7x7, 2193 kg)	2,55
ASR8X1	8 mm (stainless 7x19, 3330 kg)	4,85
ASRAX1	10 mm (stainless 7x19, 5210 kg)	9,75



### Threaded rods DIN 976 (stainless A4, metrical)

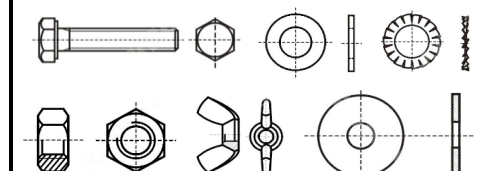
ATR051	M5, length 1 m (3.3 ft.)	6,05
ATR061	M6, length 1 m (3.3 ft.)	7,10
ATR081	M8, length 1 m (3.3 ft.)	9,60
ATR101	M10, length 1 m (3.3 ft.)	15,20
ATR121	M12, length 1 m (3.3 ft.)	22,25



### Fasteners (stainless A4, metrical)

#### Assortment of screws, nuts (hex., wing), washers (flat, lock, large)

Sizes M6, M8, M10 and M12.	M6	M8	M10	
AFS**2X	hex bolt 20 mm, DIN 933	0,1	0,25	0,45
AFS**7X	hex bolt 70 mm, DIN 933	0,35	0,25	0,85
AFS**AX	hex bolt 100/130, DIN 933	0,4	0,85	1,95
AFB**SX	nut (hex 0.8D) DIN 934	0,05	0,1	0,2
AFB**SW	nut (wing), DIN 315	0,35	0,65	0,95
AFW**SX	washer (flat), DIN 125A	0	0,05	0,1
AFW**KX	washer ext.lock, DIN 6798A	0	0,05	0,05
AFW**L	washer large, DIN 440	0,1	0,2	0,35



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## B: Tensioning

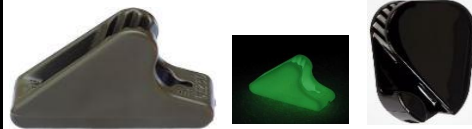
Turnbuckles		S.s.	Galv.
ASH*06*	eye-eye (hook) M6	3,55	1,70
ASH*08*	eye-eye (hook) M8	5,85	2,15
ASH*10*	eye-eye (hook) M10	8,90	3,15
ASH*12*	eye-eye (hook) M12	15,20	4,25
ASH*16*	eye-eye (hook) M16	32,30	8,60
ASH*20*	eye-eye (hook) M20	54,15	



ASHF05*	jaw-jaw M5 (560 kg)	4,25	
ASHF06*	jaw-jaw M6 (1400 kg)	5,45	
ASHF08*	jaw-jaw M8 (2200 kg)	9,30	4,25
ASHF10*	jaw-jaw M10 (3450 kg)	15,20	6,60
ASHF12*	jaw-jaw M12 (5000 kg)	26,10	8,60
ASHF14*	jaw-jaw M14 (6400 kg)	46,80	
ASHF16*	jaw-jaw M16 (8000 kg)	75,95	17,90



Clamcleat® tensioners (UV stabilised)		black	glow
CL266	Line-Lok tensioner 1-3mm	0,40	0,55
CL260	Line-Lok tensioner 2-4mm	0,65	0,95
CL276	Line-Lok tensioner 3-5mm	1,50	2,30
CL271	Line-Lok tensioner 4-8mm	3,60	7,05
CL223	Loop Cleat tensioner 3-6mm	3,00	



Clamcleat® tensioners - adjustable (UV stabilised)		
CL828-63	Aero 3-4mm	7,00
CL828-70AN	Aero 3-4mm (can rig 4:1)	12,45
CL826-72	Aero 4-6mm	8,55
CL826-11	Aero 4-6mm (hard anodised)	12,70
CL829-11AN	Aero 4-6mm (hard anodised)	14,40
CL827-03	Aero 4-6mm long	9,75
CL827-11AN	Aero 4-6mm long (h.anod.)	15,20



## C: Terminated guy ropes Mastrant-P

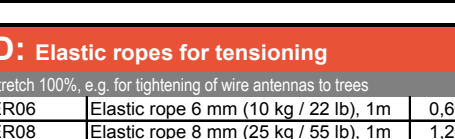
Thimble fitted on one end.		20 m	30 m
NP040x0	4 mm (5/32"), BS: 220 kg (480 lb)	9,00	12,00
NP050x0	5 mm (3/16"), BS: 270 kg (590 lb)	12,50	17,00
NP060x0	6 mm (1/4"), BS: 425 kg (940 lb)	19,50	28,00
NP080x0	8 mm (5/16"), BS: 650 kg (1430 lb)	25,00	35,50
NP100x0	10 mm (3/8"), BS: 950 kg (2090 lb)	33,00	47,00
NP120x0	12 mm (1/2"), BS: 1100 kg (2400 lb)		68,00



Cutting synthetic ropes		
ZCI01	Soldering iron suitable for cutting ropes	9,10

## D: Elastic ropes for tensioning

stretch 100%, e.g. for tightening of wire antennas to trees		
ER06	Elastic rope 6 mm (10 kg / 22 lb), 1m	0,60
ER08	Elastic rope 8 mm (25 kg / 55 lb), 1m	1,20



## E: Pulleys

Pulleys galvanised		sing.	doub.
APUN05	nylon, 5 mm	1,35	2,15
APUN06	nylon, 6 mm	1,55	2,45
APUN08	nylon, 8 mm	2,70	4,70
APUN10	nylon, 10 mm	4,30	6,60
APUO05	anti-tangle metal, 5 mm	1,75	
APUO06	anti-tangle metal, 6 mm	1,95	
APUO07	anti-tangle metal, 7 mm	2,70	
APUO08	anti-tangle metal, 8 mm	4,70	
APUO10	anti-tangle metal, 10 mm	7,60	



Pulleys stainless		sing.
APUS10A	up to 10 mm, sheave plastic	6,00
APUX06S	up to 6 mm, sheave plastic, shackle	4,85
APUS03A	up to 3 mm, plastic	4,00
APUX09A	anti-tangle, up to 9 mm, Ø 25 mm	7,00
APUX10A	anti-tangle, up to 10 mm, Ø 32 mm	8,00
APUX14A	anti-tangle, up to 14 mm, Ø 50 mm	11,65



APUS05A	pulley up to 5 mm, sheave plastic	7,05
APUS05D	pulley up to 5 mm, sh. brass nickeled	8,70
APUS05G	double up to 5 mm, sheave plastic	9,80
APUS05J	double up to 5 mm, sh. brass nickeled	12,15



APUS06M	with metal cheek, up to 6 mm, bow	10,65
APUS08M	with metal cheek, up to 8 mm, bow	12,95
APUS10M	with metal cheek, up to 10 mm, bow	14,15



APUS08Q	HD up to 8 mm	11,35
APUS08X	HD up to 8 mm, needle bearing	16,30
APUS10Q	HD up to 10 mm	13,45
APUS12Q	HD up to 12 mm	18,00



APUS08T	anti-tangle HD up to 8 mm	18,65
APUS10S	anti-tangle HD up to 10 mm	23,40
APUS12S	anti-tangle HD up to 12 mm	25,60



APUS06P	HD for wires, up to 6 mm	15,70
APU820	HD, <=16 mm (30 kN, aluminum)	38,45



## F: Personal safety

Positioning		
A7PB20	Work positioning belt	33,40



A7L10A	Lanyard LB 10 with adjuster - 1.5m	15,20
A7T32	Positioning Lanyard PROT 3 - 2m	57,70
A7T33	Positioning Lanyard PROT 3 - 3m	60,75



Safety Harnesses		
A7SHBA	Basic, without working belt	37,45
A7SH2X	LX2, universal, for short-term work	57,70
A7SH3X	LX3, for professionals, for long-term work	95,2
A7SH5X	LX5, for professionals, quick-acting buckles	130,6



Energy absorbers, Rope safety systems		
A7EA1	Energy absorber with lanyard and carabiner	38,45
A7EA2H	Energy absorber with 2 lan. and snap hooks	108,4
A7AZ25	Large Snap Hook with lock, opening 88 mm	52,65



A7FAAB	Safety system Anaconda - brake + absorber	98,20
A7FAA2	Safety system Anaconda - rope 20m	59,75
A7FACB	Safety system Catcher - brake	69,85
A7FAC2	Safety system Catcher - rope 20m	35,45



A7FARO	Retractable fall arrester Rolex	80,00
A7FAPM	Retractable fall arrester Protector Mini	90,10



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