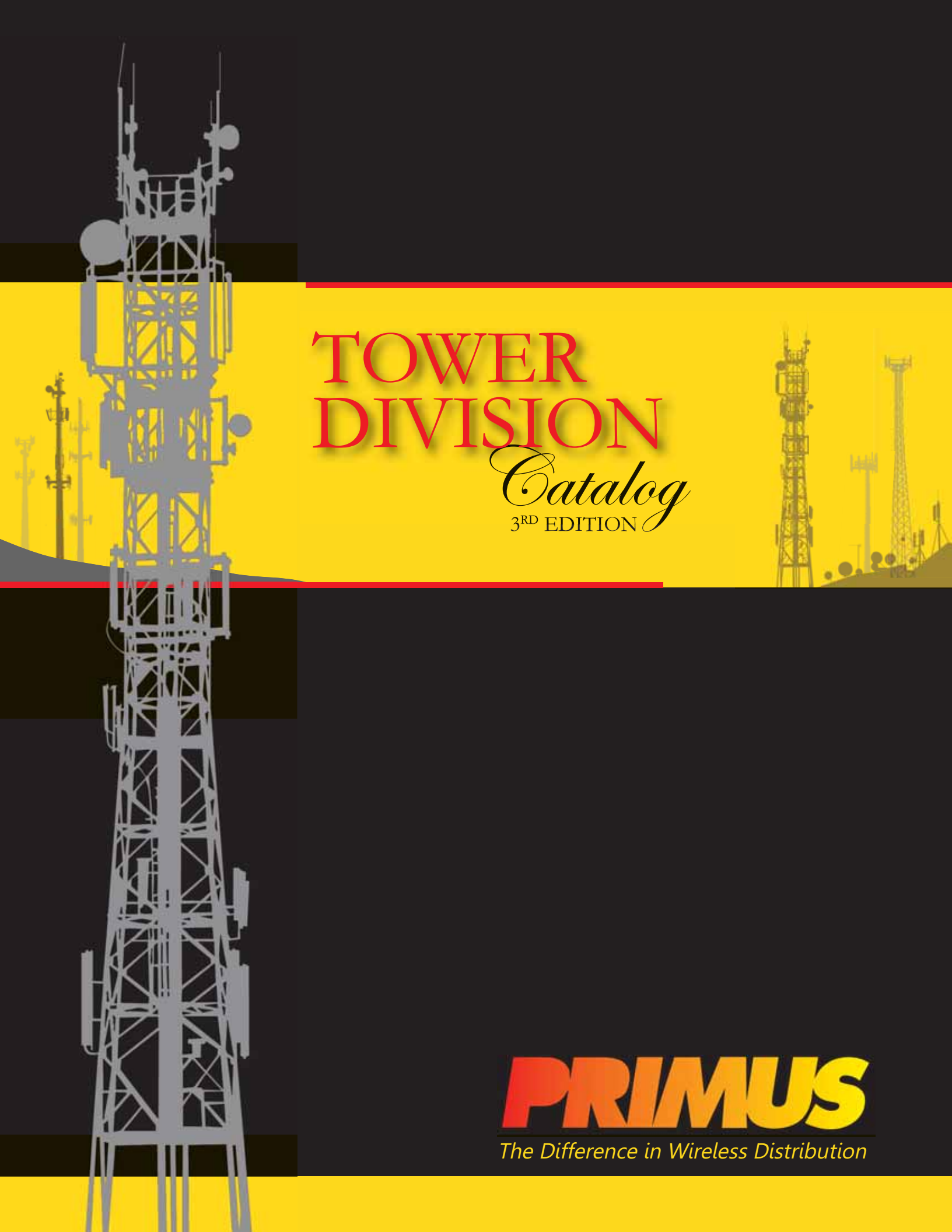




TOWER DIVISION

Catalog
3RD EDITION

PRIMUS

The Difference in Wireless Distribution

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Affiliations

Primus Electronics is a proud member of the following associations:



The National Association of Tower Erectors (NATE) is a non-profit trade association providing a unified voice for tower erection, maintenance and service companies. From consistency in training to a role in developing federal regulations, NATE members have proven that getting involved makes a difference.



Railway Systems Suppliers, Inc. is a trade association serving the communication and signal segment of the rail transportation industry. RSSI continues to grow with over 225 member companies.

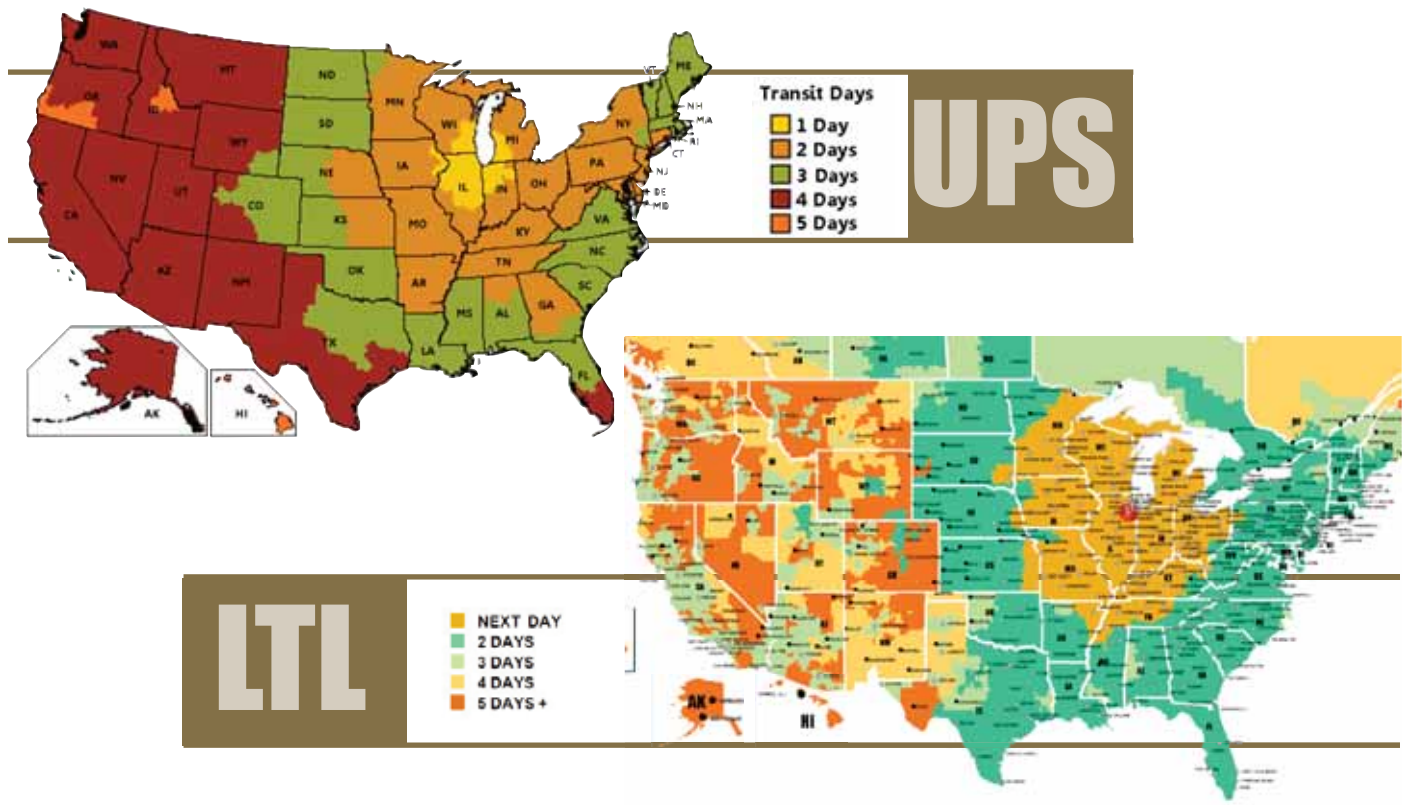


The American Short Line and Regional Railroad Association (ASLRRA) is a non-profit trade association that represents the interests of its more than 400 short line and regional railroad members in legislative and regulatory matters.



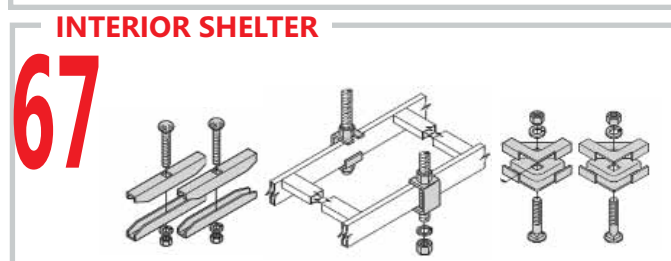
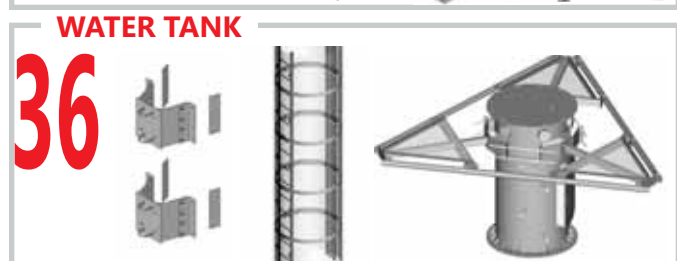
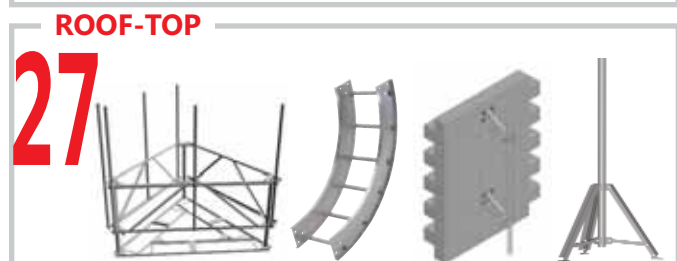
The American Wind Energy Association (AWEA) promotes wind energy as a clean source of electricity for consumers around the world. AWEA is a national trade association representing wind power project developers, equipment suppliers, services providers, parts manufacturers, utilities, researchers, and others involved in the wind industry - one of the world's fastest growing energy industries.

Shipping



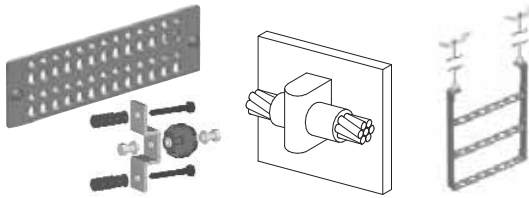
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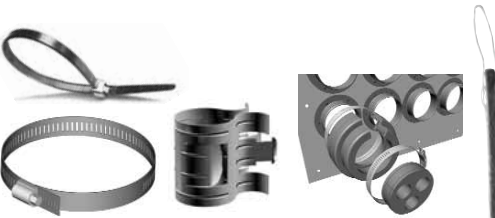
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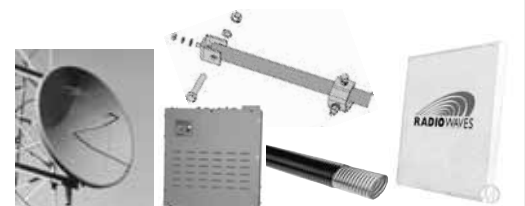
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Ice Bridge

12" or 24" Two-Post Waveguide Bridge Kits

Application: Waveguide bridge

Design: Two-post, 10' (3 m) safety grating

Feature: Complete kit for coaxial cable support

Material: Hot dip galvanized steel

Includes: Channel, posts, support brackets, caps, trapeze, and hardware

Order Separately: Additional accessories

Mfr Part #	Description	Weight, lb
12" (0.3 m) Wide		
WB-K110-B	Two 13'-4" (4.1 m) Direct Burial Posts	325.0
WB-K110-S	Two 10'-6" (3.2 m) Base Shoe Posts	308.0
24" (0.6 m) Wide		
WB-K210-B	Two 13'-4" (4.1 m) Direct Burial Posts	385.0
WB-K210-B15	Two 15'-4" (4.7 m) Direct Burial Posts	415.3
WB-K210-B21	Two 21' (6.4 m) Direct Burial Posts	501.2
WB-K210-S	Two 10'-6" (3.2 m) Base Shoe Posts	367.0



WB-K110-B



WB-K210-S

Four-Post Waveguide Bridge Kits

Application: Waveguide bridge

Size: 24" x 10' (0.6 m x 3.0 m)

Design: Four-post, 10' (3 m) safety grating

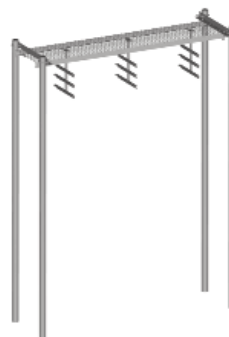
Feature: Complete kit for coaxial cable support

Material: Hot dip galvanized steel

Includes: Channel, posts, support brackets, caps, trapeze, and hardware

Order Separately: Additional accessories

Mfr Part #	Description	Weight, lb
24" (0.6 m) Wide		
WB-K410-B	Four 13'-4" (4.1 m) Direct Burial Posts	596.0
WB-K410-B15	Four 15'-4" (4.7 m) Direct Burial Posts	656.6
WB-K410-B21	Four 21' (6.4 m) Direct Burial Posts	828.3
WB-K410-S	Four 10'-6" (3.2 m) Base Shoe Posts	560.0



WB-K410-B



WB-K410-S

Waveguide Bridge Kits

Application: Waveguide bridge

Description: 24" x 10' Waveguide Bridge kit, (2) 13'-4" burial posts,

(3) 18 hole vertical Z-brackets

Application: Waveguide Bridge Kit

Size: 2' wide, 10' long

Design: Burial post

Feature: Vertical "Z" Trapeze

Material: Hot dip galvanized steel

Includes: Gripstrut, burial posts, trapeze kits, hardware

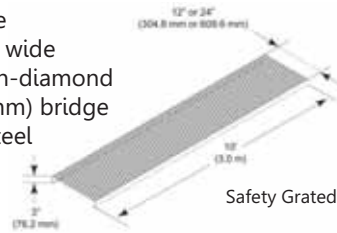
Mfr	Part #	Description	Weight, lb
Andrew Solutions	MTC9255B13	24" x 10' Long Waveguide Bridge kit	357



MTC9255B13

Waveguide Bridge Channels

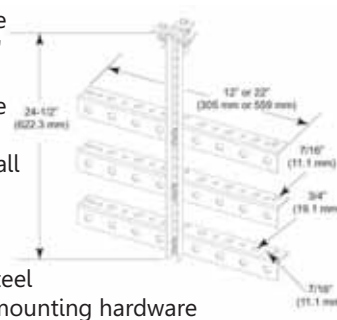
Application: Waveguide bridge
Size: 12" (0.3 m) or 24" (0.6 m) wide
Design: 14-gauge grated, open-diamond pattern or solid 11-gauge (3 mm) bridge
Material: Hot dip galvanized steel
Includes: Bridge channel
Order Separately: Posts and accessories



Mfr Part #	Description	Weight, lb
Safety Grated		
WB-CY110	12" x 10' (0.3 m x 3.0 m)	70.0
WB-CY210	24" x 10' (0.6 m x 3.0 m)	111.0
Solid		
MT-F501	12" x 10' (0.3 m x 3.0 m)	78.0

Triple Tee Trapeze Kits

Application: Waveguide bridge
Size: 3/4" (19.1 mm) and 7/16" (11.1 mm) holes
Design: Adjustable 3-tier angle brackets
Feature: Tee style for easy install of coaxial cable
Mounts to: Waveguide bridge channel
Material: Hot dip galvanized steel
Includes: Angle brackets and mounting hardware



Mfr Part #	Description	Weight, lb
WB-T12-3	12" (0.3 m) Wide, 3 Rungs	9.0
WB-T24-3	24" (0.6 m) Wide, 3 Rungs	13.0

Vertical Tee Bracket Trapeze Kits

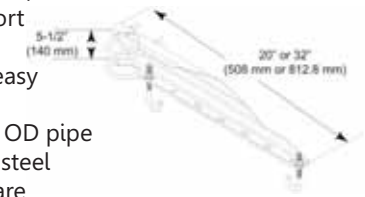
Application: Waveguide Support
Size: 12 hole or 18 hole
Design: U-shaped design
Feature: Waveguide support on both sides of channel
Material: Hot dip galvanized steel
Includes: Bracket and hardware



Mfr Part #	Description	Weight, lb
VT12A	12 hole vertical trapeze bracket	5.3
VT18A	18 hole vertical trapeze bracket	7.1

Waveguide Bridge Support Brackets

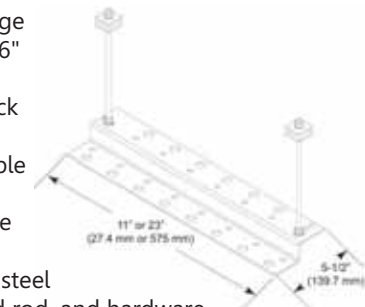
Application: Waveguide bridge
Size: 12" (0.3 m) and 24" (0.6 m) wide versions
Design: Side-mounted support for waveguide bridge
Feature: J-bolts for quick & easy installation of channel
Mounts to: 3-1/2" (88.9 mm) OD pipe
Material: Hot dip galvanized steel
Includes: Bracket and hardware
Order Separately: Additional accessories



Mfr Part #	Description	Weight, lb
WB-LB12-3	12" Support for 3-1/2" OD Legs	12.0
WB-LB24-3	24" Support for 3-1/2" OD Legs	16.0

Z-Bracket Trapeze Kits

Application: Waveguide bridge
Size: 3/4" (19.1 mm) and 7/16" (11.1 mm) holes
Design: Single or double stack z-brackets
Feature: Supports coaxial cable on both top & bottom sides
Mounts to: Waveguide bridge channel
Material: Hot dip galvanized steel
Includes: Z-bracket, threaded rod, and hardware
Order Separately: Additional accessories

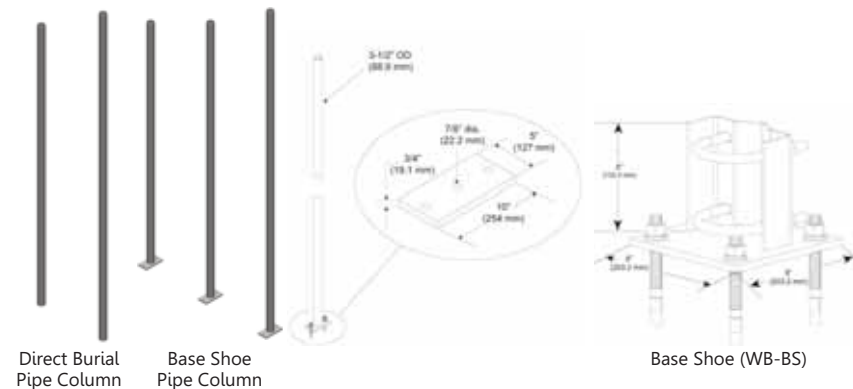


Mfr Part #	Description	Weight, lb
Single Rung		
MT-357-12	12" (0.3 m) Wide, 1 Rung	4.0
MT-357-24	24" (0.6 m) Wide, 1 Rung	7.0
Double Rung		
WB-TK12D	12" (0.3 m) Wide, 2 Rungs	7.0
WB-TK24D	24" (0.6 m) Wide, 2 Rungs	13.0

Ice Bridge

Waveguide Bridge Pipe Columns

Application: Waveguide bridge
 Size: 3-1/2" (88.9 mm) OD
 Design: Support pipe in six lengths
 Feature: Direct burial and base shoe versions
 Mounts to: Waveguide bridge support brackets
 Material: Hot dip galvanized steel
 Includes: Pipe (and anchors when applicable)
 Order Separately: Channel, bracket, caps, and accessories

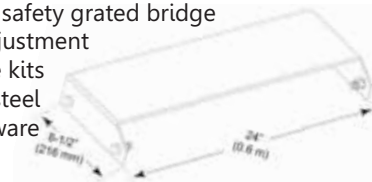


Mfr	Part #	Description	Weight, lb
Direct Burial Pipe Columns			
MF-130	13'-4" (4.1 m)		101.0
MF-273	15'-4" (4.7 m)		116.0
MT-547	21' (6.4 m)		159.0
Base Shoe Pipe Columns			
MF-126	10'-6" (3.2 m)		92.0
MF-279	12' (3.7 m)		103.0
MT-280	14' (4.3 m)		119.0
Post Caps			
PC-034	3-1/2" (88.9 mm) OD		0.8
Waveguide Bridge Base Shoe			
WB-BS	For 3-1/2" OD Pipe, Hardware Included		19.3

Andrew Solutions

Straight Splice for Waveguide Bridge Kits

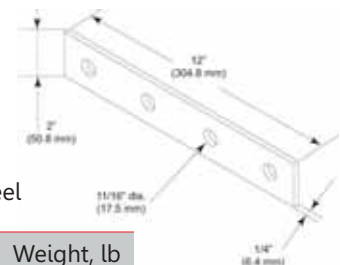
Application: Waveguide bridge
 Size: 24" (0.6 m) wide, 8-1/2" (215.9 mm) long
 Design: Hinged extension for safety grated bridge
 Feature: Up to 45° vertical adjustment
 Mounts to: Waveguide bridge kits
 Material: Hot dip galvanized steel
 Includes: Extension and hardware



Mfr	Part #	Weight, lb
Andrew Solutions	WB-SP	7.8

Straight Splice for Safety Grated Waveguide Bridge Channel

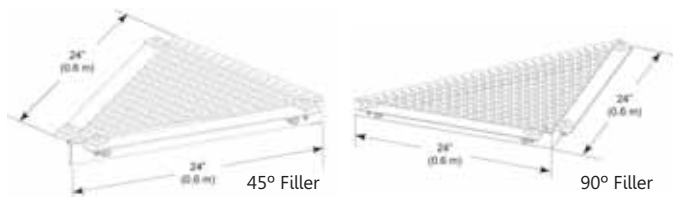
Application: Waveguide bridge
 Size: 12" (304.8 mm) long
 Design: Bolt-on splice plates
 Mounts to: Safety grated waveguide bridge
 Material: Hot dip galvanized steel



Mfr	Part #	Weight, lb
Andrew Solutions	WS-K400	6.2

45° & 90° Fillers for Waveguide Bridge Kits

Application: Waveguide bridge
 Design: Bolt-on filler module
 Feature: Allows clean installation
 Mounts to: Waveguide bridge kits
 Material: Hot dip galvanized steel
 Includes: Corner module and mounting hardware



Mfr	Part #	Description	Weight, lb
Andrew Solutions	WB-CF45	45° Filler	32.0
Andrew Solutions	WB-CF90	90° Filler	27.0

GPS Antenna Mount

Application: Waveguide bridge
 Size: 1.9" (48.3 mm) OD x 24" (0.6 m)
 Design: Lightweight half clamps
 Feature: Parallel connection
 Mounts to: 1-1/2" to 3-1/2" (38.1 mm to 88.9 mm) OD pipe
 Material: Hot dip galvanized steel
 Includes: Pipe, clamp halves, hardware

Mfr	Part #	Weight, lb
Andrew Solutions	GP-S24	9.8



Adjustable Pipe Head

Application: Waveguide Bridge
 Size: Up to 24" (0.6 m) height adjustment
 Design: Bolt-on head for pipe columns
 Feature: Adapts support channels to posts
 Mounts to: 3-1/2" OD (88.9 mm) pipe
 Material: Hot dip galvanized steel
 Includes: Pipe head and hardware
 Order Separately: Support channel kit (pg 9) and additional accessories

Mfr	Part #
Andrew Solutions	MT-346



Double Pipe Support Channel Kit

Application: Waveguide Bridge
 Size: For 24" (0.6 m) wide bridge
 Design: Channel support
 Feature: Low profile attachment
 Mounts to: Pipe heads
 Material: Hot dip galvanized steel
 Includes: Channel and hardware
 Order Separately: Two pipe heads (left) and additional accessories

Mfr	Part #	Weight, lb
Andrew Solutions	MT-349	14.0



Single Support Channel Kit

Application: Waveguide Bridge
 Size: For 12" (0.3 m) wide bridge
 Design: Channel support
 Feature: Low profile attachment
 Mounts to: Pipe heads
 Material: Hot dip galvanized steel
 Includes: Channel and hardware
 Order Separately: Pipe head (above) and additional accessories

Mfr	Part #	Weight, lb
Andrew Solutions	MT-347	8.0



Lattice and Guyed Tower

Quik-tee™ Sector Frames

Application: Lattice towers

Size: 10' 6" (3.1 m) to 14' 6" (4.4 m) face

Design: Welded frame with 48" (1.2 m) stand-off

Feature: Quick assemble, dual pivoting frame with universal taper kit

Mounts to: Straight or tapered legs up to 8" OD, 8" angle 60°, or 6" angle 90°

Material: Hot dip galvanized steel

Includes: Frame, clamps, and stiff arm

Order Separately: Pipe (pg 50) and second

stiff arm for increased wind rating (pg 14)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	QT-SF10-B	10' 6" (3.1 m)	335.97
	QT-SF12-B	12' 6" (3.8 m)	350.96
	QT-SF14-B	14' 6" (4.4 m)	370.1

NOTE: Pipe is ordered separately; see page 50.
For second stiff arm, see page 14.

Face Width	EPA (no ice, sq ft)	EPA (1/2" radial ice, sq ft)
10' 6" Face	13.6	17.5
12' 6" Face	16.3	20.6
14' 6" Face	17.7	22.1

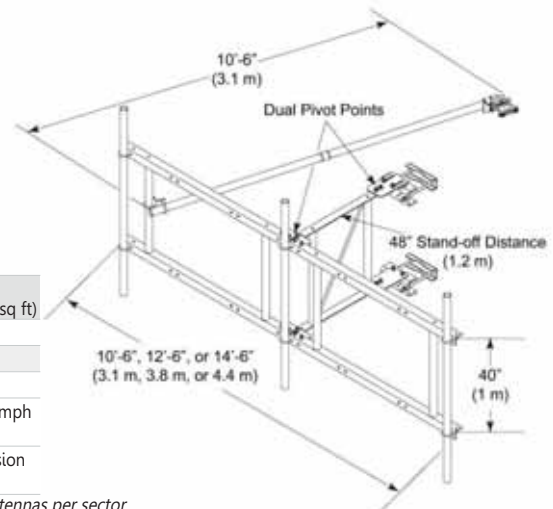
Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 90 mph (BWS) per latest version of TIA/EIA-222 at 150' AGL

*Typical installation of (4) 72" x 8" panel antennas per sector

Wind Rating* with use of second stiff arm (purchased separately):
120 mph per latest version of TIA/EIA 222

140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL



Quik-Vee Sector Frames

Size: 10'-6" or 12'-6" face

Design: Frame with 52" Stand-off

Feature: Angle design, dual gated 52" stand-off

Mounts to: Straight or tapered legs up to 8" OD, 8" angle 60°, or 6" angle 90°

Material: Hot dip galvanized steel

Includes: frame, clamps and stiff arm

Order Separately: Pipes (pg 50)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	QV-SF10-B	Quick "V" sector frame base kit, 10'-6" face, order antenna pipe mounts sep.	415
	QV-SF12-B	Quick "V" sector frame base kit, 12'-6" face, order antenna pipe mounts sep.	475

NOTE: Pipe is ordered separately; see page 50.



Universal Sector Frames

Application: Lattice towers

Size: 12' 6" (3.8 m) or 14' 6" (4.4 m) face

Design: Frame with 24" (0.6 m) stand-off

Feature: Superior loading with a universal design

Mounts to: Straight or tapered legs up to 8" OD, 8" angle 60°, or 6" angle 90°

Material: Hot dip galvanized steel

Includes: Frame, clamps, and stiff arm

Order Separately: Pipe (pg 50)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	SF-U12-B	12' 6" (3.8 m)	397
	SF-U14-B	14' 6" (4.4 m)	411

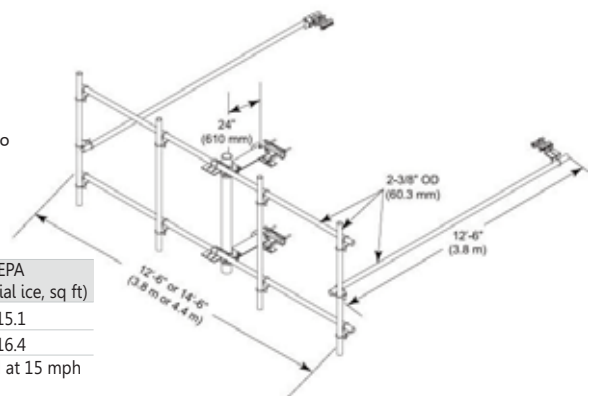
NOTE: Pipe is ordered separately; see page 50.

Face Width	EPA (no ice, sq ft)	EPA (1/2" radial ice, sq ft)
12' 6" Face	10.8	15.1
14' 6" Face	11.7	16.4

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222 140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL

*Typical installation of (4) 72" x 8" panel antennas per sector



Tower Stand-off Sector Frames

Application: Lattice towers

Size: 7' 6" (2.3 m) or 14' 6" (4.4 m) face

Design: Frame with 52" (1.3 m) stand-off

Feature: Angle design, dual gated 52" (1.3 m) stand-off

Mounts to: Straight or tapered legs up to 8" OD, 8" angle 60°, or 6" angle 90°

Material: Hot dip galvanized steel

Includes: Frame, clamps, and stiff arm

Order Separately: Pipe (pg 50)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	SF-SU7-B	7' 6" (2.3 m)	334
	SF-SU10-B	10' 6" (3.1 m)	353
	SF-SU12-B	12' 6" (3.8 m)	368
	SF-SU14-B	14' 6" (4.4 m)	383

NOTE: Pipe is ordered separately; see page 50.

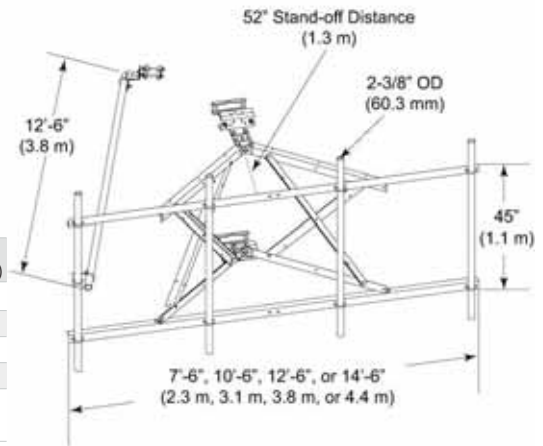
Face Width	EPA (no ice, sq ft)	EPA (1/2" radial ice, sq ft)
7' 6" Face	15.1	19.5
10' 6" Face	16.8	21.9
12' 6" Face	18.2	23.6
14' 6" Face	19.5	25.4

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222 140 mph 3-second gust,

Exposure "D" per FBC, at 150' AGL

*Typical installation of (4) 72" x 8" panel antennas per sector



Lightweight T Frames

Application: Lattice Towers

Size: 10'-6" Face or 12'-6" Face

Design: Welded Frame

Feature: Bolt together face

Mounts to: 4-1/2" OD round legs

Material: Hot dip galvanized steel

Includes: Frame and hardware

Order Separately: Pipe mount (pg 13),

antenna mounting pipes (pg 50)

Mfr	Part #	Description	Weight, lb
-----	--------	-------------	------------

Lattice Tower T-Frame Base Kit

Andrew	800089A	with 10'-6" face, for 4-1/2" OD straight legs	336
Solutions	803444A	with 12'-6" face, for 4-1/2" OD straight legs	346

NOTE: Pipe is ordered separately; see page 50.

For tapered pipe mount, see page 13.



Tower Pipe Frame

Application: Lattice towers

Size: 10' 6" (3.1 m) to 12' 6" (3.8 m)

Design: 2-3/8" (60.3 mm) OD pipe with crossover plates

Feature: Flush or pipe mounted sector frame

Mounts to: 1-1/2" to 4-1/2" (38.1 mm to 114.3 mm) OD

Material: Hot dip galvanized steel

Includes: Frame and stiff arm

Order Separately: Pipe (pg 50) and pipe frame stand-off bracket (pg 15)

Mfr	Part #	Description	Weight, lb
Andrew	SF-TP10-B	10' 6" (3.1 m)	240
Solutions	SF-TP12-B	12' 6" (3.8 m)	255

NOTE: Pipe is ordered separately; see page 50.

For pipe frame stand-off brackets, see page 15.

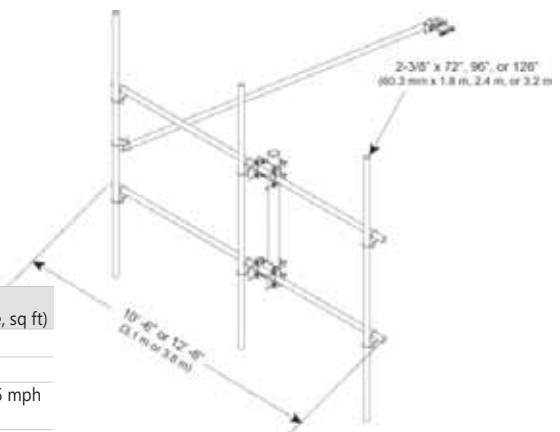
Face Width	EPA (no ice, sq ft)	EPA (1/2" radial ice, sq ft)
12' 6" Face	10.8	15.1
14' 6" Face	11.7	16.4

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222 140 mph 3-second gust, Exposure

"D" per FBC, at 150' AGL

*Typical installation of (3) 72" x 8" panel antennas per sector



Lattice and Guyed Tower

Dual Pipe Mounts

Application: Lattice towers

Size: 57" (1.4 m) face with 48" (1.2 m) separation

Design: Universal double antenna mount

Feature: Down tilt capabilities

Mounts to: Straight or tapered legs up to 8" (203.2 mm) OD,

8" (203.2 mm) angle 60°, or 6" (152.4 mm) angle 90°

Material: Hot dip galvanized steel

Includes: Mount, weldment, hardware

Order Separately: Pipe (pg 50) and/or crossovers (pg 25)

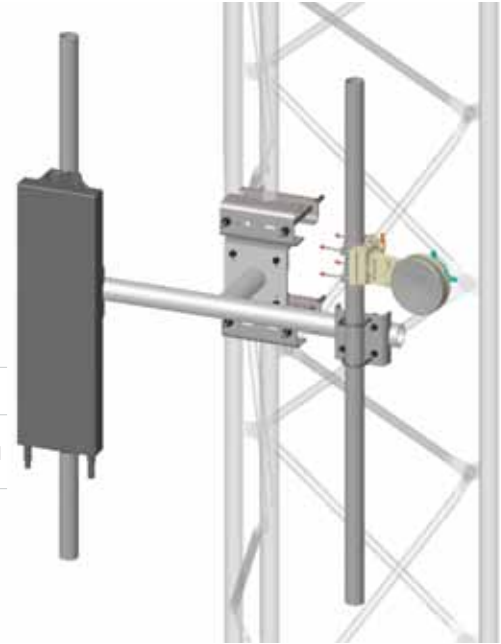
Mfr	Part #	Description	Weight, lb
Andrew Solutions	SF-DPM-B*	Base Kit	150
	SF-DPM2-B**	For 2-3/8" OD Pipe	
	SF-DPM3-B**	For 2-7/8" OD Pipe	215
	SF-DPM35-B**	For 3-1/2" OD Pipe	

*Order pipe (pg 50) and crossovers (pg 25) separately

**Crossovers included; order pipe separately

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222 140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL



Tower Face Mounts

Application: Lattice towers

Size: 8' (2.4 m), 14' (4.2 m), or 20' (6.1 m) face widths

Design: Pipe with saddle mounts and adjustable clamps

Feature: Universal taper adjustment for up to 9° of taper with 48" of separation

Mounts to: Straight or tapered legs up to 8" (203.2 mm) OD,

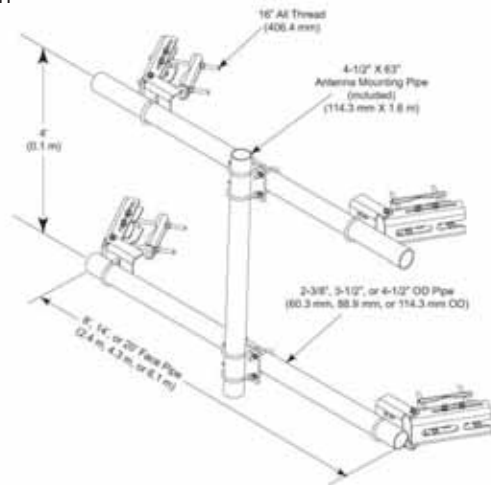
8" (203.2 mm) angle 60°, or 6" (152.4 mm) angle 90°

Material: Hot dip galvanized steel

Includes: Universal saddle mounts, slider brackets, pipe, crossover plates, hardware

Order Separately: Strut support kits (pg 13) and stand-off brackets (pg 13)

Mfr	Part #	Description	Weight lb
Andrew Solutions	TF-M2-8	Dual 8' x 2-3/8" OD Face Supports	380
	TF-M2-14	Dual 14' x 2-3/8" OD Face Supports	430
	TF-M2-20	Dual 20' x 2-3/8" OD Face Supports	475
	TF-M3-8	Dual 8' x 3-1/2" OD Face Supports	455
	TF-M3-14	Dual 14' x 3-1/2" OD Face Supports	555
	TF-M3-20	Dual 20' x 3-1/2" OD Face Supports	605
	TF-M4-8	Dual 8' x 4-1/2" OD Face Supports	515
	TF-M4-14	Dual 14' x 4-1/2" OD Face Supports	600
	TF-MB	Base Kit, Horizontal Support Pipes and Antenna Mounting Pipes Ordered Separately	150



Microwave Antenna Diameter	Tower Face Mount							
	TF-M2-8	TF-M2-14	TF-M2-20	TF-M3-8	TF-M3-14	TF-M3-20	TF-M4-8	TF-M4-14
2' (0.6 m)	X	X	X	X	X	X	X	X
4' (1.2 m)	X	X	X	X	X	X	X	X
6' (1.8 m)	X	-	-	X	X	X	X	X
8' (2.4 m)	-	-	-	X	X	X	X	X
10' (3.1 m)	-	-	-	X	X	X	X	X
12' (3.7 m)	-	-	-	X	X	-	X	X
15' (4.6 m)	-	-	-	-	-	-	X	-

Tower Face Mount Stand-off Bracket

Application: Lattice towers
 Size: 4-1/2" (114.3 mm) OD
 Design: 4-1/2" (114.3 mm) OD pipe mount stand-off
 Feature: 14" (355.6 mm) stand-off
 Mounts to: Tower face mount kits
 Material: Hot dip galvanized steel
 Includes: Stand-off, attachment hardware
 Order Separately: Tower face mount kit (pg 12)



Mfr	Part #	Description	Weight lb
Andrew Solutions	TF-ST	14" (355.6 mm) Stand-off	65

Tower Face Mount Strut Support Kits

Application: Lattice towers
 Design: Pipe with crossover plates
 Feature: Can be adjusted to mount anywhere on tower face mount
 Mounts to: Tower face mount kits
 Material: Hot dip galvanized steel
 Includes: Plates, strut support, hardware, pipe
 Order Separately: Tower face mount kit (pg 12)



Mfr	Part #	Description	Weight lb
Andrew Solutions	Kits, 2-3/8" x 63" Pipe		
	TF-MSS-2	2-3/8" x 2-3/8" OD (60.3 mm x 60.3 mm)	42
	TF-MSS-3	2-3/8" x 3-1/2" OD (60.3 mm x 88.9 mm)	44
	TF-MSS-4	2-3/8" x 4-1/2" OD (60.3 mm x 114.3 mm)	48

Microwave Strut Support

Application: Lattice towers
 Size: 21" (533.4 mm) channel
 Design: Universal support bracket
 Feature: Universal strut attachment
 Mounts to: Straight or tapered legs up to 8" (203.2 mm) OD, 8" angle 60°, or 6" (152.4 mm) angle 90°
 Material: Hot dip galvanized steel
 Includes: Support bracket, attachment hardware
 Order Separately: Microwave strut pipe or angle (pg 50), U-bolt (pg 64)



Mfr	Part #	Description	Weight, lb
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Microwave Strut Support

Andrew Solutions	MD-CS	Round or 60° Angle Legs up to 8" or 6" 90° Angle Legs	55
	Angle for Microwave Strut Support Brackets, 3-1/2" x 3-1/2" x 3/8"		
	MD-CSA4	4' (1.2 m) Angle for MD-CS	38
	MD-CSA6	6' (1.8 m) Angle for MD-CS	57
	MD-CSA8	8' (2.4 m) Angle for MD-CS	76

- 3-1/2" OD pipe ordered separately; see page 50.
- 3-1/2" U-bolts ordered separately; see page 64.

Microwave Antenna Strut Adjustment Bracket

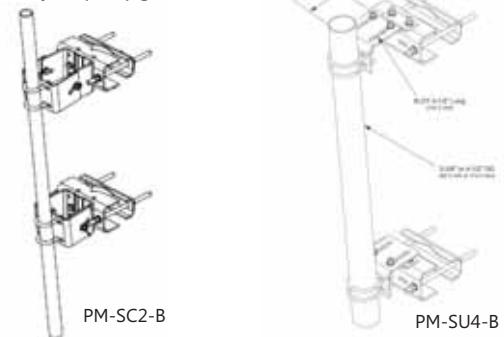
Application: Lattice towers
 Size: 2-3/8" (60.3 mm) OD
 Design: Adjustable clamps
 Feature: Allows for strut adjustment
 Mounts to: 2-3/8" (60.3 mm) OD strut pipe
 Material: Hot dip galvanized steel
 Includes: Adjustment brackets, attachment hardware
 Order Separately: Microwave strut supports (below)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MD-AK-2	For 2-3/8" OD Struts	16

Universal Pipe Mount Kits

Application: Lattice towers
 Design: Pipe with saddle mount and adjustable clamps
 Feature: Universal sliding bracket with up to 7° of taper
 Mounts to: Straight or tapered legs up to 8" OD, 8" angle 60°, or 6" angle 90°
 Material: Hot dip galvanized steel
 Includes: Universal saddle mount & sliding pipe mount brackets
 Order Separately: Pipe (pg 50)



Mfr	Part #	Description	Weight lb
	PM-SU2-B*	For 2-3/8" OD Pipe	80
	PM-SU4-B*	For 4-1/2" OD Pipe	81

Andrew Solutions	Universal pipe mount base kit for 2-3/8" OD antenna mounting pipe, Open Face taper adjustment, for round legs up to 8-5/8" OD, 8" angle 60°, or 6" angle 90°		105
	PM-SC2-B*		
	Universal pipe mount base kit for 4-1/2" OD antenna mounting pipe, Open Face taper adjustment, for round legs up to 8-5/8" OD, 8" angle 60°, or 6" angle 90°		108
	PM-SC4-B*		
	860117A*		181
	Universal pipe mount 4-1/2" x 63" OD antenna mounting pipe included, Open Face taper adjustment, for round legs up to 10-3/4" OD, 8" angle 60°, or 6" angle 90°		125
	860118A*		

*Kit of 2

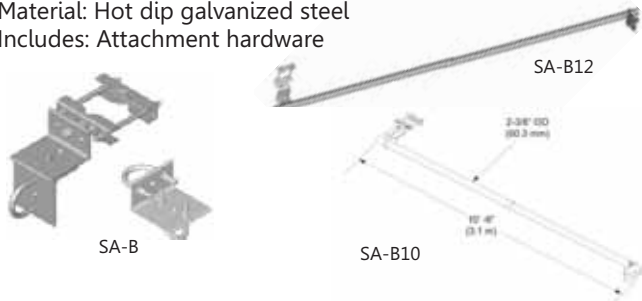
Wind Rating**: 120 mph (BWS) per latest version of TIA/EIA-222 at 150' AGL

**Typical installation of (1) 8' microwave antenna with stiff arm

Lattice and Guyed Tower

Stiff Arm Kits

Application: Antenna mounting
 Size: 10' 6" (3.1 m) or 12' 6" (3.8 m) long
 Design: Universal adjustable, rotatable attachment
 Feature: Mounts to tower members up to 8" (203.2 mm) OD
 Mounts to: Round and angle legs
 Material: Hot dip galvanized steel
 Includes: Attachment hardware



Mfr	Part #	Description	Weight, lb
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Stiff Arm Bracket, Pipes Ordered Separately

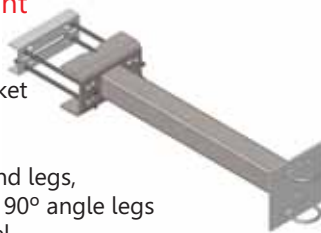
Andrew Solutions	SA-B	For 2-3/8" (60.3 mm) OD Pipe	13
	SA-BL	For 2-3/8" (60.3 mm) OD Pipe, up to 8" (203.2 mm) Tower Legs	20
	SA-BU	Universal for 1-1/4" to 3-1/2" (31.8 mm to 88.9 mm) OD Pipe, up to 4-1/2" (114.3) Tower Legs	20

Stiff Arm Kits, Up to 4-1/2" Tower Legs

Andrew Solutions	SA-B10	With Two Threaded 2-3/8" OD x 63" (60.3 mm OD x 1.6 m) pipes	53
	SA-B12	With 2-3/8" OD x 12' 6" (60.3 mm OD x 3.8 m) pipe	60

3' Universal Stand-off Mount

Application: Lattice Towers
 Size: 36" Stand-off
 Design: Universal stand-off bracket
 Feature: Square tube stand-off weldment
 Mounts to: Up to 8-5/8" OD round legs, up to 8" 60° angle legs, up to 6" 90° angle legs
 Material: Hot dip galvanized steel
 Includes: Stand-off and hardware (see below)
 Order Separately: Antenna mounting pipe (pg 50)



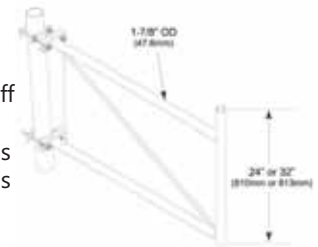
Mfr	Part #	Weight, lb
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Andrew Solutions B3100A 80

Includes U-bolts for 3-1/2" OD pipe. Slotted holes to accept 2-3/8" - 4-1/2" OD pipe. Order additional U-bolts separately (pg 64).
 NOTE: Pipe is ordered separately; see page 50.

Stand-off Brackets

Application: Lattice towers
 Size: 24" (0.6 m) to 72" (1.8 m) stand-off
 Design: One-piece welded stand-off
 Feature: Ideal for omni antennas
 Mounts to: Straight or tapered legs up to 3-1/2" (88.9 mm) OD, clamps included
 Material: Hot dip galvanized steel
 Includes: Stand-off and clamps
 Order Separately: Adapter clamp sets if required (pg 15)



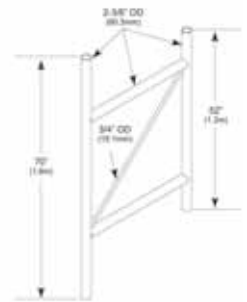
Mfr	Part #	Description	Weight, lb
Andrew Solutions	S-200	24" (0.6 m) with 24" Mounting Pipe	22
	S-300	36" (0.9 m) with 24" Mounting Pipe	28
	S-400	48" (1.2 m) with 32" Mounting Pipe	41
	S-500	60" (1.5 m) with 32" Mounting Pipe	47
	S-600	72" (1.8 m) with 32" Mounting Pipe	54

Wind Rating*: 120 mph per latest version of TIA/EIA-222

*Typical installation of (1) 20' Omni antenna

Panel Antenna Stand-off Brackets

Application: Lattice towers
 Size: 12" (0.3 m) to 48" (1.2 m)
 Design: One-piece welded stand-off
 Feature: Solution for panel antennas
 Mounts to: Tower member
 Material: Hot dip galvanized steel
 Includes: Stand-off only
 Order Separately: Pipe-to-pipe clamps (pgs 15-16)



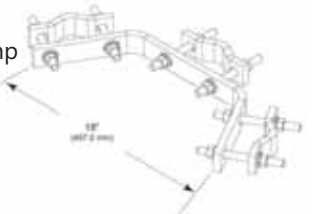
Mfr	Part #	Description	Weight, lb
Andrew Solutions	P-100	12" (0.3 m)	42
	P-200	24" (0.6 m)	54
	P-300	36" (0.9 m)	62
	P-400	48" (1.2 m)	70

Wind Rating*: 120 mph per latest version of TIA/EIA-222 at 150' AGL

*Typical installation of (1) 72" x 8" panel antenna per sector

Double Antenna Clamp

Application: Antenna mounting
 Size: 16" (406.4 mm) wide
 Design: Double pipe-to-pipe clamp
 Feature: Converts pipe to accept two antennas
 Mounts to: 1-1/2" to 3-1/2" (38.1 mm to 88.9 mm) OD
 Material: Hot dip galvanized steel
 Includes: Clamp assembly
 Order Separately: 1-1/2" to 3-1/2" OD pipe (pg 50)



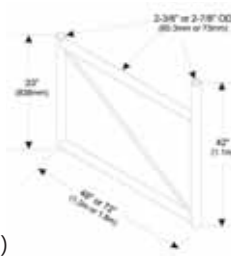
Mfr	Part #	Weight, lb
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Andrew Solutions DA-C200 23

NOTE: Pipe is ordered separately; see page 50.

Heavy Duty Stand-off Brackets

Application: Lattice towers
 Size: 48" (1.2 m) or 72" (1.8 m)
 Design: One-piece welded stand-off
 Feature: Heavy duty stand-off
 Mounts to: Tower member
 Material: Hot dip galvanized steel
 Includes: Stand-off only
 Order Separately: Pipe-to-pipe clamps (pgs 15-16) and optional stiff arm (pg 14)



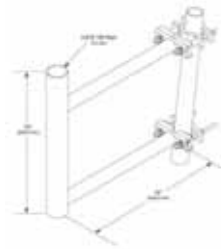
Mfr	Part #	Description	Weight, lb
Andrew Solutions	HS-400	48" Stand-off 2-3/8" OD x 42" (60.3 mm OD x 1 m) Antenna Mounting Pipe	56
	HS-600	72" Stand-off 2-7/8" OD x 42" (733 mm OD x 1.1 m) Antenna Mounting Pipe	107

Wind Rating*: 120 mph per latest version of TIA/EIA-222 at 150' AGL

*Typical installation of (1) 72" x 8" panel antenna per sector

Dish Stand-off Bracket

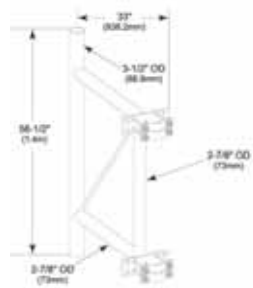
Application: Lattice towers
 Size: 24" (0.6 m) stand-off
 Design: One-piece welded stand-off
 Feature: 2-7/8" (73 mm) OD pipe for microwave antennas
 Mounts to: Straight or tapered legs up to 3-1/2" (88.9 mm) OD
 Material: Hot dip galvanized steel
 Includes: Stand-off and clamps
 Order Separately: Larger clamp sets (pg 16)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	DM-100	24" Stand-off Bracket	31

Pipe Frame Stand-off Brackets

Application: Lattice towers
 Size: 36" (0.9 m) stand-off
 Design: One-piece welded stand-off
 Feature: Stands pipe frame away from tower
 Mounts to: 2" to 8" (50.8 mm to 203.2 mm) OD
 Material: Hot dip galvanized steel
 Includes: Stand-off and clamps



Mfr	Part #	Description	Weight, lb
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Pipe Frame Stand-off Bracket for Vertical Legs, 36"

Andrew Solutions	PB-G3S-2	2" to 5" OD (50.8 mm to 127 mm OD)	132
	PB-G3S-4	4" to 8" OD (101.6 mm to 203.2 mm OD)	132

Pipe Frame Stand-off Bracket for Tapered Legs, 36"

Andrew Solutions	PB-G3T-2	2" to 5" OD (50.8 mm to 127 mm OD)	138
	PB-G3T-4	4" to 8" OD (101.6 mm to 203.2 mm OD)	138

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222

140 mph-second gust, Exposure "D" per FBC, at 150' AGL

*Typical installation of (3) 72" x 8" panel antennas per sector

Adapter Clamp Sets for Stand-off Brackets

Application: Lattice towers
 Size: Versions for round and angle legs
 Design: Adapts stand-off brackets to larger tower members
 Mounts to: Tower member
 Material: Hot dip galvanized steel
 Includes: Half clamps and threaded rod
 Order Separately: Stand-off bracket (pg 14)



Mfr	Part #	Description	Weight, lb
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Adapter Clamp Set for Vertical or Tapered Legs, Kit of 2

Andrew Solutions	MS-SB50	4" to 9" OD (101.6 mm to 228.6 mm OD)	21
	LS-SB50	8" to 16" OD (203.2 mm to 406.4 mm OD)	40

Adapter Clamp Set for up to 6-1/2" Angle Legs, Kit of 2

Andrew Solutions	AD-P60-SCP	60° Angle Legs, also for Tapered Legs	25
	AD-P90-SCP	90° Angle Legs, also for Tapered Legs	25

Pipe-to-Pipe Clamps

Application: Antenna mounting
 Design: Lightweight 1/4" half-clamp set or 1/2" heavy duty half-clamp sets
 Feature: Versatile parallel connections
 Mounts to: See table
 Material: Hot dip galvanized steel
 Includes: Half clamps and threaded rod
 Order Separately: Pipe (pg 50) or stand-off brackets (pg 14)



Mfr	Part #	Description	Weight, lb
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Pipe to Pipe Clamp, Kit of 2

Andrew Solutions	BC-20-10	Joins two 1-1/2" OD to 3-1/2" OD (38.1 mm to 88.9 mm OD) round members. 1/2" x 10" (12.7 mm x 254 mm) threaded rod	8
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Pipe to Pipe Clamp, Heavy Duty, Kit of 2

Andrew Solutions	BC-30-10	Joins two 1-1/2" OD to 3-1/2" OD (38.1 mm OD to 88.9 mm OD) round members. 1/2" x 10" (12.7 mm x 254 mm) threaded rod	12
	BC-35-14	Joins two 2-3/8" OD to 5" OD (60.3 mm OD to 127 mm OD) round members. 5/8" x 14" (15.9 mm x 0.4 m) threaded rod	27
	BC-40-16	Joins two 4" OD to 9" OD (101.6 mm OD to 228.6 mm OD) round members. 5/8" x 16" (15.9 mm x 0.4 m) threaded rod	36

*Kit of 2

Lattice and Guyed Tower

Welded Pipe-to-Pipe Clamps



Application: Antenna mounting
Design: Welded half-clamp
Feature: Heavy duty parallel connections
Mounts to: See table
Material: Hot dip galvanized steel
Includes: Half clamps and threaded rod
Order Separately: Pipe (pg 50) or stand-off brackets (pg 14)

Mfr	Part #	Description	Weight lb
Andrew Solutions	BB-S10-10	Joins two 1-1/2" OD to 3-1/2" OD (38.1 mm OD to 88.9 mm OD) round members. 1/2" x 10" (12.7 mm x 254.0 mm) threaded rod	13
	BB-S20-14	Joins two 2-3/8" OD to 5" OD (60.3 mm OD to 127.0 mm OD) round members. 5/8" x 14" (15.9 mm x 0.4 mm) threaded rod	27

Pipe-to-Pipe Adapters



Application: Antenna mounting
Design: Welded half-clamp
Feature: Straight and tapered versions
Mounts to: See description
Material: Hot dip galvanized steel
Includes: Half clamps and threaded rod
Order Separately: Pipe (pg 50) or stand-off brackets (pg 14)

Mfr	Part #	Description	Weight lb
Pipe-to-Pipe Adapters for Vertical Members, Kit of 2			
Andrew Solutions	AB-S50	Adapts 1-1/2" to 3-1/2" OD (38.1 mm to 88.9 mm OD) pipe to 2-3/8" to 5" OD (60.3 mm to 127.0 mm OD) pipe	18
	MS-100	Adapts 1-1/2" to 3-1/2" OD (38.1 mm to 88.9 mm OD) pipe to 4" to 9" OD (101.6 mm to 228.6 mm OD) pipe	25
	Pipe-to-Pipe Adapters for Tapered Members, Kit of 2		
Andrew Solutions	AB-S50-SSH	Adapts 1-1/2" to 3-1/2" OD (38.1 mm to 88.9 mm OD) pipe to 2-3/8" to 5" OD (60.3 mm to 127.0 mm OD) pipe	28
	MS-100-SSH	Adapts 1-1/2" to 3-1/2" OD (38.1 mm to 88.9 mm OD) pipe to 4" to 9" OD (101.6 mm to 228.6 mm OD) pipe	35
	LS-100-SSH	Adapts 1-1/2" to 3-1/2" OD (38.1 mm to 88.9 mm OD) pipe to 8" to 16" OD (203.2 mm to 0.4 m OD) pipe	55

Adjustable Pipe Mounts

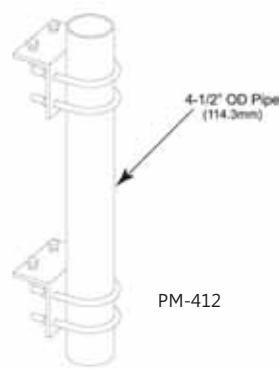
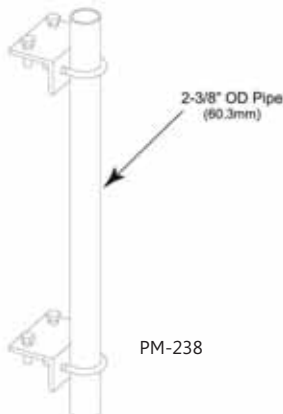
Application: Lattice towers
Size: 2-3/8" or 4-1/2" (60.3 mm or 114.3 mm) OD
Design: Pipe with adjustable mounting bracket
Feature: Straight or tapered mounts
Mounts to: Saddle mounts
Material: Hot dip galvanized steel
Includes: Pipe, bracket, and hardware
Order Separately: Pipe (pg 50) and saddle mount (pg 17)

Mfr	Part #	Description	Weight lb
Andrew Solutions	PM-238-B	Adjustable Pipe Mount, 2-3/8" OD (60.3 mm)	5
	PM-238T-B	Adjustable Tapered Pipe Mount, 2-3/8" OD (60.3 mm)	5
	PM-412-B	Adjustable Pipe Mount, 4-1/2" OD (114.3 mm)	8
	PM-412T-B	Adjustable Tapered Pipe Mount, 4-1/2" OD (114.3 mm)	8

Wind Rating*: 120 mph per latest version of TIA/EIA-222 at 150' AGL

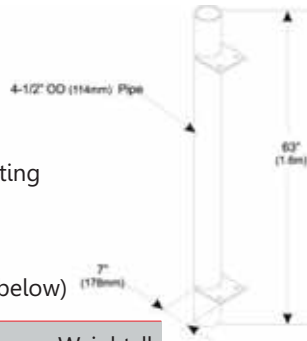
*Typical installation of (1) 96" x 8" panel antenna per pipe mount

NOTE: Pipe is ordered separately; see page 50.



Pipe Mounts

Application: Lattice towers
Size: 4-1/2" (114.3 mm) OD
Design: Pipe with standard or tapered welded tab
Feature: Facilitates antenna mounting
Mounts to: Saddle mounts
Material: Hot dip galvanized steel
Includes: Pipe mount
Order Separately: Saddle mount (below)



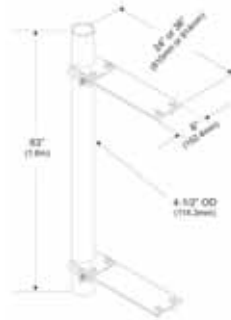
Mfr	Part #	Description	Weight, lb
Andrew Solutions	4-1/2" OD x 63" (114.3 mm OD x 1.6 m)		
	MT-395	Standard Pipe Mount	65
	MT-397	Tapered Pipe Mount	66

Wind Rating*: 90 mph per latest version of TIA/EIA 222 at 150' AGL

*Typical installation of (1) 6' microwave antenna with stiff arm

Stand-off Pipe Mount

Application: Lattice towers
Size: 4-1/2" (114.3 mm) OD
Design: 4-1/2" (114.3 mm) OD pipe mount with stand-off
Feature: 24" or 36" stand-off
Mounts to: Saddle mounts
Material: Hot dip galvanized steel
Includes: Pipe mount
Order Separately: Saddle mount (right)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	4-1/2" OD x 63" (114.3 mm OD x 1.6 m)		
	PM-XT-24	24" (0.6 m) stand-off	107.88
	PM-XT-36	36" (0.9 m) stand-off	128.45

Pipe Mount Taper Kit

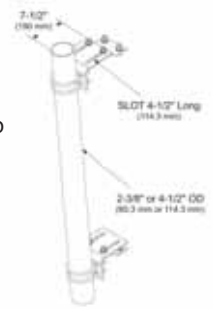
Application: Lattice towers
Design: 3/8" (9.525 mm) flat bar steel
Feature: Accommodates 1:12 and 1:20 taper
Mounts to: Saddle mount
Material: Hot dip galvanized steel
Includes: Plates and hardware
Order Separately: Pipe mount (pg 13) and saddle mount (right)



Mfr	Part #	Weight, lb
Andrew Solutions	PM-TK	9

Universal Taper Pipe Mount Slider Brackets

Application: Lattice towers
Size: 2-3/8" (60.3 mm) or 4-1/2" (114.3 mm) OD
Design: Pipe with adjustable clamps
Feature: Universal sliding bracket with up to 7° of taper
Mounts to: Saddle mounts
Material: Hot dip galvanized steel
Includes: Sliding pipe mount bracket & hardware, kit of 2
Order Separately: Pipe (pg 50) and saddle mounts (below)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	PM-SL2	for 2-3/8" (60.3 mm) OD Pipe	30
	PM-SL4	for 4-1/2" (114.3 mm) OD Pipe	31

Wind Rating*: 120 mph per latest version of TIA/EIA-222 at 150' AGL

*Typical installation of (1) 8' microwave antenna with stiff arm

NOTE: Pipe is ordered separately; see page 50.

Universal Saddle Mounts

Application: Lattice towers
Size: Three versions
Design: Two piece formed saddle
Feature: Universal mounting design for round and angled legs, face allows 2-3/8" (60.3 mm) or 4-1/2" (114.3 mm) pipes to be bolted directly to unit
Mounts to: Tower member (see description)
Material: Hot dip galvanized steel
Includes: Mount, Kit of 2
Order Separately: Pipe mount (pg 16 and above)



SM-U2080
Universal Saddle Mount



SM-UT1012
Universal Angle Saddle Mount



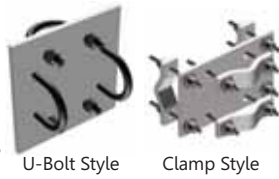
SM-UADP
Pipe Adapter Kit

Mfr	Part #	Description	Weight lb
Andrew Solutions	Universal Saddle Mounts, for Straight or Tapered Legs		
	SM-U2080	Up to 8" (203.2 mm) OD, 8" Angle 60° or 6" (152.4 mm) Angle 90°	50
	SM-U2016	Up to 16" (406.4 mm) OD, 16" Angle 60° or 12" (304.8 mm) Angle 90°	93
	Universal Angle Saddle Mount		
Andrew Solutions	SM-UT1012	12" (304.8 mm) triangular legs and 10" to 12" (254.0 mm to 304.8 mm) Angle Members	80
	Pipe Adapter Kit for Universal Saddle Mounts		
	SM-UADP	Kit of 2, Order U-bolts separately	18

Lattice and Guyed Tower

Crossover Plates

Application: Antenna mounting
Design: U-bolt and half-clamp styles
Feature: Allows pipe intersections
Mounts to: Round member
Material: Hot dip galvanized steel
Includes: Plate and u-bolts or clamps
Order Separately: Pipe (pg 50)



Mfr	Part #	Description	Weight lb
Andrew Solutions	U-Bolt Style		
	XP-2020	2-3/8" OD to 2-3/8" OD (60.3 mm OD to 60.3 mm OD) round members	10
	XP-2030	2-3/8" OD to 3-1/2" OD (60.3 mm OD to 88.9 mm OD) round members	10
	XP-2040	2-3/8" OD to 4-1/2" OD (60.3 mm OD to 114.3 mm OD) round members	11
	XP-3030	3-1/2" OD to 3-1/2" OD (88.9 mm OD to 88.9 mm OD) round members	12
	XP-3040	3-1/2" OD to 4-1/2" OD (88.9 mm OD to 114.3 mm OD) round members	14
	XP-4040	4-1/2" OD to 4-1/2" OD (114.3 mm OD to 114.3 mm OD) round members	15
	Clamp Style		
	CO-100	Joins two 1-1/2" to 3-1/2" OD (38.1 mm to 88.9 mm OD) round members	16
	CO-200	Joins two 2" to 5" OD (50.8 mm to 127.0 mm OD) round members	29
	CO-400	Joins two 2" to 5" OD (50.8 mm to 127.0 mm OD) to 4" to 9" OD (101.6 mm to 228.6 mm OD) round members	30
	CO-78	7/8" OD to 2-3/8" OD (31.8 mm OD to 60.3 mm OD) round members	16

NOTE: Pipe is ordered separately; see page 50.

Crossover Clamps

Application: Antenna mounting
Design: Welded half-clamp
Feature: Allows pipe intersections
Mounts to: See description
Material: Hot dip galvanized steel
Includes: Half clamps and threaded rod
Order Separately: Pipe (pg 50)



Mfr	Part #	Description	Weight lb
Andrew Solutions	CC-100	Joins two 1-1/2" to 2-1/2" OD (38.1 mm to 63.5 mm OD) round members	6
	CC-100-6	Joins two 2-1/2" to 3-1/2" OD (63.5 mm to 88.9 mm OD) round members	6
	CC-215	Joins 1-1/2" to 2-1/2" OD (38.1 mm to 63.5 mm OD) Pipe to 2-3/8" to 5" OD (60.3 mm to 127.0 mm OD) Pipe	9
	CC-215-6	Joins 2-1/2" to 3-1/2" OD (63.5 mm to 88.9 mm OD) Pipe to 2-3/8" to 5" OD (60.3 mm to 127.0 mm OD) Pipe	9

NOTE: Pipe is ordered separately; see page 50.

Crossover Angle

Application: Antenna mounting
Design: Crossover angle
Feature: Allows pipe intersections
Mounts to: 2" to 3-1/2" (50.8 mm to 88.9 mm) OD pipe
Material: Hot dip galvanized steel
Includes: Angle and u-bolts
Order Separately: Pipe (pg 50)



Mfr	Part #	Description	Weight lb
Andrew Solutions	XA-2020	Crossover Angle, 2-3/8" OD to 2-3/8" OD	4
	XA-U	Universal Crossover Angle, 2" to 3-1/2" OD to 2" to 3-1/2" OD. Kit of 2	5

NOTE: Pipe is ordered separately; see page 50.

Pipe Mount Crossovers

Application: Monopoles
Feature: Allows easy antenna downtilt
Mounts to: 3-1/2" (88.9) OD cellular pipe frames or monopole platforms
Material: Hot dip galvanized steel
Includes: Crossover bracket & u-bolts
Order Separately: Pipe (pg 50)

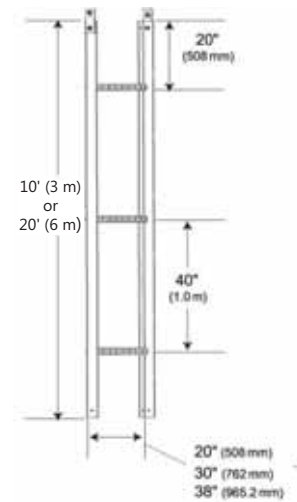


Mfr	Part #	Description	Weight lb
Andrew Solutions	Pipe Mount Kits, Pipe Ordered Separately		
	MT-219-H	Kit, 2-3/8" OD Pipe	11
	MT-219M-H	Kit, 2-7/8" OD Pipe	11
	MT-219L-H	Kit, 3-1/2" OD Pipe	12

NOTE: Pipe is ordered separately; see page 50.

Universal Cable Ladder Kits

Application: Lattice towers
Size: 10' (3 m) and 20' (6 m)
in three widths
Design: Angle rails with bolt-on channel rungs
Feature: Complete ladder kit
Mounts to: Round and angle legs
Material: Hot dip galvanized steel
Includes: Ladder, splice plates, and attachment kits



Mfr	Part #	Description	Weight lb
Andrew Solutions	10' (3 m) Universal Cable Ladder Kits, Includes universal hardware kit for round and angle members		
	CL-0610-U	20" wide (355.6 mm), 6-hole rung	57
	CL-0910-U	30" wide (762 mm), 9-hole rung	59
	CL-1210-U	38" wide (1 m), 12-hole rung	62
	20' (6 m) Universal Cable Ladder Kits, Includes universal hardware kit for round and angle members		
Andrew Solutions	CL-0620-U	20" wide (355.6 mm), 6-hole rung	112
	CL-0920-U	30" wide (762 mm), 9-hole rung	117
	CL-1220-U	38" wide (1 m), 12-hole rung	121

Universal Cable Ladder Hardware Kit

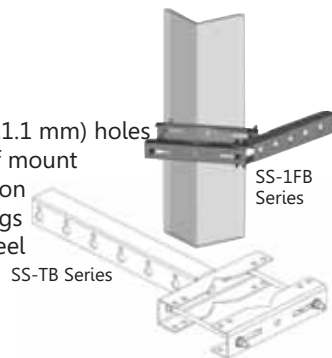
Application: Lattice towers
 Size: 1" to 4-1/2" (25.4 mm to 114.3 mm) round or angle members
 Design: One-piece plate
 Feature: Universal attachment plate
 Mounts to: 1" to 4-1/2" round and angle legs
 Material: Hot dip galvanized steel
 Includes: Plate and J-bolts
 Order Separately: Cable ladder (pg 18)



Mfr	Part #	Description	Weight lb
Andrew Solutions	HK-CL-U	1" to 4-1/2" round or angle members	4

Star Support Brackets

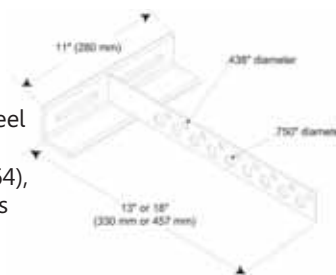
Application: Lattice towers
 Size: 3/4" (19.1 mm) & 7/16" (11.1 mm) holes
 Design: Bolt together stand-off mount
 Feature: 6, 12, or 18 hole solution
 Mounts to: Round and angle legs
 Material: Hot dip galvanized steel
 Includes: Bracket



Mfr	Part #	Angle Members	# of Holes	Weight lb	Round Members
Andrew Solutions	Tee Bracket Kits				
	SS-TB2550	2-1/2" to 5"	12	8	1-1/2" to 5-9/16" OD
	SS-TB2550-18	2-1/2" to 5"	18	10	
	SS-TB6080	4" to 8"	12	10	4" to 10-3/4" OD
	SS-TB6080-18	4" to 8"	18	12	
	MTC7697	8"-14" 60° Angles	12	16	8" to 14"
		8"-10" 90° Angles			
Face Bracket Kits					
SS-1FB2550	2-1/2" to 5"	6	8	1-1/2" to 5-9/16" OD	
SS-2FB2550	2-1/2" to 5"	12	11		

Waveguide Stand-off Brackets

Application: Lattice towers
 Design: Welded "T" style bracket
 Feature: 3/4" and 7/16" holes
 Mounts to: Tower legs up to 4-1/2" OD, leg gussets or wall applications
 Material: Hot dip galvanized steel
 Includes: Bracket
 Order Separately: U-bolts (pg 64), mounting bolts, or wall anchors (pgs 64-66)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	TL-SO6	6 Runs of Coaxial Cable	4
	TL-SO9	9 Runs of Coaxial Cable	4
	TL-SO12	12 Runs of Coaxial Cable	5

Cluster Support Bracket

Application: Lattice towers
 Size: 3/4" and 7/16" (19.1 mm and 11.1 mm) holes
 Design: Small and large versions
 Feature: Oval design maximizes capacity
 Material: Hot dip galvanized steel
 Includes: Bracket

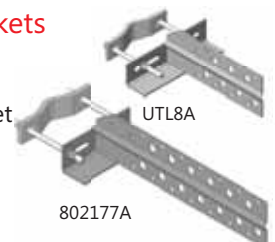


Mfr	Part #	Description	Weight, lb
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Andrew Solutions	Cluster Support Brackets		
	CS-B	Cluster Support Bracket	3
	CS-B-R2	2" to 5" (50.8 mm to 127 mm) OD Round Member Attachment	7
	CS-B-R6	6" to 8" (152.4 mm to 203.2 mm) OD Round Member Attachment	8
	CS-B-2	U-bolt for 2-3/8" (60.3 mm) OD Round Member Attachment	4
	CS-B-A	Angle Member Attachment	4
	Large Cluster Support Brackets		
	CS-BL	Large Cluster Support Bracket	4
	CS-BL-R2	2" to 5" (50.8 mm to 127 mm) OD Round Member Attachment	8
	CS-BL-R6	6" to 8" (152.4 mm to 203.2 mm) OD Round Member Attachment	9
Andrew Solutions	CS-BL-2	U-bolt for 2-3/8" (60.3 mm) OD Round Member Attachment	5
	CS-BL-A	Angle Member Attachment	5

Universal Transmission Line Brackets

Application: Lattice Towers
 Size: 6 sizes
 Design: Welded transmission line bracket
 Feature: Half clamp design
 Mounts to: Tower legs
 Material: Hot dip galvanized steel
 Includes: Weldment, hardware



Mfr	Part #	Description	Weight
Andrew Solutions	UTL4A	4 hole transmission line bracket, for 1-1/2" to 5-9/16" OD round legs	7 lb
	UTL8A	8 hole transmission line bracket, for 1-1/2" to 5-9/16" OD round legs	8 lb
	UTL14A	14 hole transmission line bracket, for 1-1/2" to 5-9/16" OD round legs	9 lb
	MTC31668	8 hole transmission line bracket, for 1-1/2" to 3-1/2" OD round legs or knockdown legs	10 lb
	MTC316614	14 hole transmission line bracket, for 1-1/2" to 3-1/2" OD round legs or knockdown legs	12 lb
	802177A	14 hole transmission line bracket, for 1-1/2" to 3-1/2" OD round legs	9 lb

Monopole

Monopole Co-Location T-Frame Kits

Application: Monopoles

Design: 3-Sector

Feature: Complete co-location kit

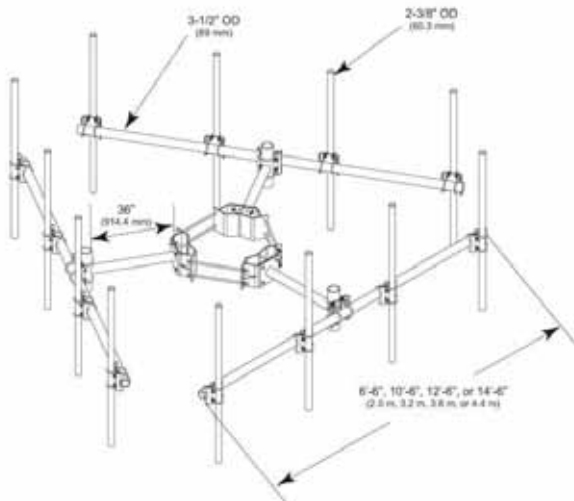
Mounts to: 10" to 60" (254 mm to 1542 mm) OD monopole

Material: Hot dip galvanized steel

Includes: Ring mount, support arm, & pipe frame

Order Separately: Pipe mount crossovers (pg 25)

and work platforms (pgs 20-22)



Mfr	Part #	Face	Stand-off	OD in (mm)	Weight lb
Andrew Solutions	MC-K6M-B	6' 6" (2 m)	36"	12" to 50" (304.8-1270 mm)	620.0
	MC-K10S-B	10' 6" (3.8 m)	36"	10" to 30" (254-762 mm)	710
	MC-K10M-B	10' 6" (3.8 m)	36"	12" to 50" (304.8-1270 mm)	770
	MC-K10L-B	10' 6" (3.8 m)	36"	30" to 60" (762-1524 mm)	880
	MC-K12S-B	12' 6" (3.8 m)	36"	10" to 30" (254-762 mm)	760
	MC-K12M-B	12' 6" (3.8 m)	36"	12" to 50" (304.8-1270 mm)	830
	MC-K12L-B	12' 6" (3.8 m)	36"	30" to 60" (762-1524 mm)	880
	MC-K14S-B	14' 6" (4.4 m)	36"	10" to 30" (254-762 mm)	831.9
	MC-K14M-B	14' 6" (4.4 m)	36"	12" to 50" (304.8-1270 mm)	900
	MC-K14L-B	14' 6" (4.4 m)	36"	30" to 60" (762-1524 mm)	951.7

*14' 6" T-frames interfere on pole diameters less than 16" OD.

Face Width	EPA (no ice, sq ft)	EPA (1/2" radial ice, sq ft)
6' 6" Face	5.3	7.3
10' 6" Face	6.5	9.0
12' 6" Face	11.4	14.5
14' 6" Face	12.8	16.3

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222 140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL

*Typical installation of (4) 72" x 8" panel antennas per sector

Work Platforms for Support Arms

Application: Monopoles

Size: 12" (304.8 mm) wide grating

Design: Safety-grated work platform

Feature: Clamps on to monopole arms

Mounts to: Support arm

Material: Hot dip galvanized steel

Includes: Platform and clamps

Order Separately: MT-197 or MT-198 arms (pg 23),

MT-216 Series (pg 24)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	WP-197	for Single Pipe Support Arm (MT-197), 28" Long	81.8
	WP-198	for Double Pipe Support Arm (MT-198), 48" Long	92.1
	WP-216	for Cellular Pipe Frame, 120" Long (MT-216-XNS)	119.5



Low-Profile Adjustable Co-location Kits

Application: Monopoles

Size: 57" (1.4 m) face with 48" (1.2 m) separation

Design: Universal double antenna mount

Feature: Down tilt capabilities

Mounts to: 12" to 50" (304.8 mm to 1.27 m) OD

Material: Hot dip galvanized steel

Includes: Mount, weldment, hardware

Order Separately: Pipe (pg 50) and pipe mount crossovers (pg 25)



Mfr	Part #	OD Pole	OD Pipe Mounts	Weight lb
Andrew Solutions		12" to 50"		
	MC-DPMM-B*	(304.8 mm-12.7 m)	-	335
		12" to 50"	2-3/8"	
	MC-DPM2M-6-B**	(304.8 mm-12.7 m)	(60.3 mm)	545
		12" to 50"	2-7/8"	
	MC-DPM3M-6-B**	(304.8 mm-12.7 m)	(73 mm)	555
		12" to 50"	3-1/2"	
	MC-DPM35M-6-B**	(304.8 mm-12.7 m)	(88.9 mm)	555

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222

140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL

* Mounts included; order pipe (pg 50) and crossovers (pg 25) separately.

** Mounts included; order pipe (pg 50) separately.

Low-Profile Co-Location Platform Kits

Application: Monopoles

Size: 12' 6" (3.8 m) or 14' 6" (4.4 m) face

Design: Corner-grated platform

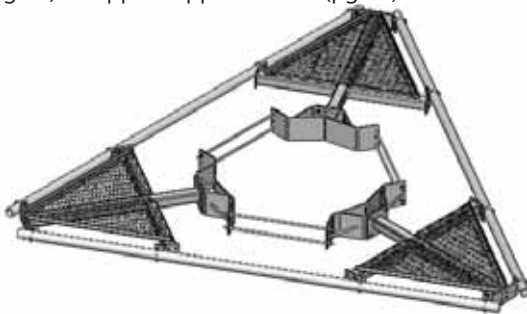
Feature: Complete kit

Mounts to: 10" to 60" (254 mm to 1542 mm) OD

Material: Hot dip galvanized steel

Includes: Platform and ring mount

Order Separately: Pipe (pg 50), and pipe mount kits (pg 25) or upper support rail kit (pg 23)



Mfr	Part #	Face	OD in (mm)	Circumference	Weight lb
Andrew Solutions		12' 6"	10" to 30"	31.4" to 94.2"	
	MC-PK12S-B	(3.8 m)	(254-762 mm)	(797.6-2392.7 mm)	1123.2
		14' 6"	10" to 30"	31.4" to 94.2"	
	MC-PK14S-B	(4.4 m)	(254-762 mm)	(797.6-2392.7 mm)	1223.4
		14' 6"	30" to 60"	94.2" to 188.4"	
	MC-PK14L-B	(4.4 m)	(762-1524 mm)	(2392.7-4785.4 mm)	1510

Face Width EPA (no ice, sq ft) EPA (1/2" radial ice, sq ft)

12' 6" Face 8.75 11.3

14' 6" Face 10.2 13.1

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222

140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL

*Typical installation of (4) 72" x 8" panel antennas per sector

4 Sector Platform Kits

Application: Monopoles

Size: 12'-6" face or 14'-6" face

Design: Grated Monopole Platform

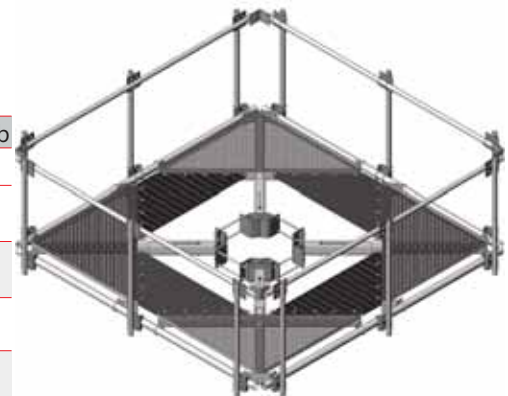
Feature: Complete kit

Mounts to: 10" to 60" OD Monopoles

Material: Hot dip galvanized steel

Includes: Platform and hardware

Mfr	Part #	Description	Weight, lb
Co-location Monopole four sector platform			
Andrew Solutions	MTC8201	10"-30" OD poles, 12'-6" Face, includes (12) 2-3/8" OD x 63" antenna mounting pipes and upper rail kit	2860
	MTC8202	10"-30" OD poles, 14'-6" Face, includes (12) 2-3/8" OD x 72" antenna mounting pipes and upper rail kit	3390
		30"-60" OD poles, 12'-6" Face, includes (12) 2-3/8" OD x 63" antenna mounting pipes and upper rail kit	
	MTC8201L	30"-60" OD poles, 12'-6" Face, includes (12) 2-3/8" OD x 63" antenna mounting pipes and upper rail kit	3060
	MTC8202L	30"-60" OD poles, 14'-6" Face, includes (12) 2-3/8" OD x 72" antenna mounting pipes and upper rail kit	3590



Monopole

Low-Profile Adjustable Co-Location Platform Kit

Application: Monopoles

Design: Rotatable, corner-grated platform

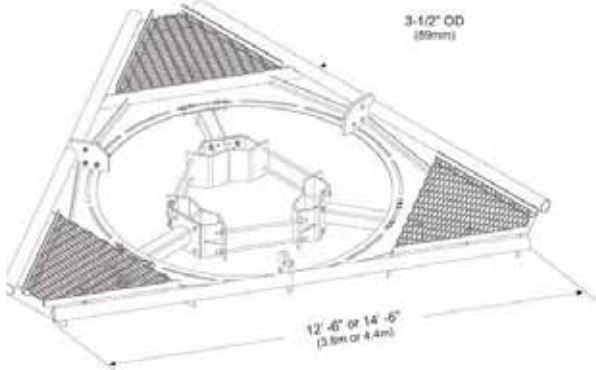
Feature: Complete kit

Mounts to: 10" to 60" (254 mm to 1542 mm) OD

Material: Hot dip galvanized steel

Includes: Platform and ring mount

Order Separately: Pipe (pg 50) and pipe mount kits (pg 25) or upper support rail (pg 23)



Mfr	Part #	Face	OD in (mm)	Circumference	Weight lb
Andrew Solutions	MC-PA12S-B	12' (3.7 m)	10" to 30" (254-762 mm)	31.4" to 94.2" (797.6-2392.7 mm)	1113.8
	MC-PA12L-B	12' (3.7 m)	30" to 60" (762-1524 mm)	94.2" to 188.4" (2392.7-4785.4 mm)	1233.6
	MC-PA14S-B	14' (4.3 m)	10" to 30" (254-762 mm)	31.4" to 94.2" (797.6-2392.7 mm)	1644.8
	MC-PA14L-B	14' (4.3 m)	30" to 60" (762-1524 mm)	94.2" to 188.4" (2392.7-4785.4 mm)	1764.6

NOTE: Order pipe mounts (pg 25) and pipe (pg 50) separately.

Face Width	EPA (no ice, sq ft)	EPA (1/2" radial ice, sq ft)
12' 6" Face	15.6	19.4
14' 6" Face	17.6	21.8

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222 140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL

*Typical installation of (4) 72" x 8" panel antennas per sector

Low-Profile Co-Location Platforms

Application: Monopoles

Size: 12' 6" (3.8 m) and 14' 6" (4.4 m) face

Design: Corner-grated platform

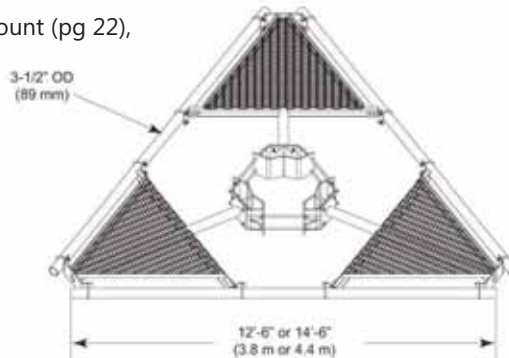
Feature: Simplified installation

Mounts to: Ring mount

Material: Hot dip galvanized steel

Includes: Platform only

Order Separately: Ring mount (pg 22), pipe mount kits (pg 25), handrail (pg 24), and pipe (pg 50)



Mfr	Part #	Face	Weight, lb	Order Separately
Andrew Solutions	MT-196	12' 6" (3.8 m)	1123.2	10" to 30" OD Ring Mount and Pipe Mount Kits
	MT-196-14	14' 6" (4.4 m)	1234.3	
	MT-196-14L	14' 6" (4.4 m)	1280.8	30" to 60" OD Ring Mount and Pipe Mount Kits

Face Width	EPA (no ice, sq ft)	EPA (1/2" radial ice, sq ft)
12' 6" Face	8.75	11.3
14' 6" Face	10.2	13.1

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222 140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL

*Typical installation of (4) 72" x 8" panel antennas per sector

Universal Ring Mount

Application: Monopoles

Design: 3 or 4-sector clamp-on mount

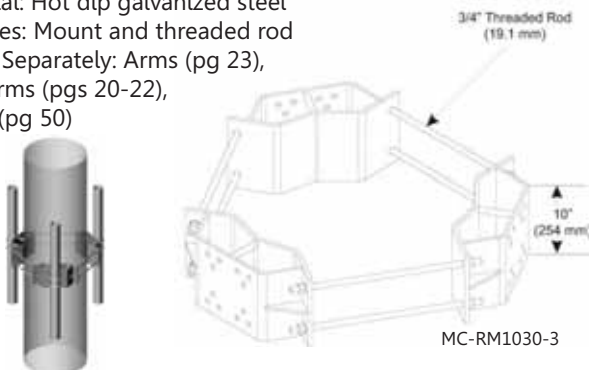
Feature: Fits broad range of pole sizes

Mounts to: 10" to 60" (254 mm to 1542 mm) OD

Material: Hot dip galvanized steel

Includes: Mount and threaded rod

Order Separately: Arms (pg 23), platforms (pgs 20-22), pipes (pg 50)



Mfr	Part #	OD in (mm)	Circumference	Weight, lb
3-Sector Universal Ring Mounts				
Andrew Solutions	MC-RM1030-3	10" to 30" (254-762 mm)	31.4" to 94.2" (797.6-2392.7 mm)	190.3
	MC-RM1550-3	12" to 50" (304.8-1270 mm)	47.1" to 157.1" (1196.3-3990.3 mm)	259.6
	MC-RM3060-3	30" to 60" (762-1524 mm)	94.2" to 188.4" (2392.7-4785.4 mm)	310.1
	4-Sector Universal Ring Mounts			
Andrew Solutions	MC-RM1030-4	10" to 30" (254-762 mm)	31.4" to 94.2" (797.6-2392.7 mm)	204.3
	MC-RM3060-4	30" to 60" (762-1524 mm)	92.4" to 188.4" (2392.7-4785.4 mm)	355.9

*Hole pattern designed for close mount 2-3/8" or 4-1/2" OD pipe.

Order u-bolts separately; see page 64.

Wind Rating*: 140 mph (BWS) per latest version of TIA/EIA-222

160 mph 3-second gust, Exposure "D" per FBC, at 150' AGL

Upper Support Rail Kits for Co-Location Platforms

Application: Monopoles

Size: 12' 6" (3.8 m) and 14' 6" (4.4 m)

Design: Clamp-on upper support rail

Feature: Allows two pipe mounting points

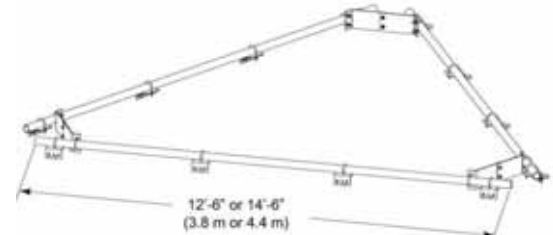
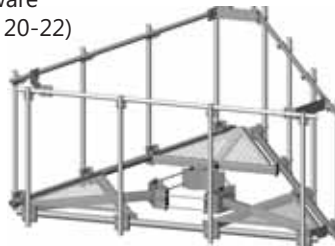
Mounts to: MT-196, MC-PK or MC-PA series

Material: Hot dip galvanized steel

Includes: Rail, 12 crossover angles, and hardware

Order Separately: Pipe (pg 50), platform (pgs 20-22) and pipe mount kits (pg 25)

Mfr	Part #	Description	Weight lb
Andrew	MT-195-12	12' 6" face	244.6
Solutions	MT-195-14	14' 6" face	316.6



Support Arms for Ring Mounts

Application: Monopoles

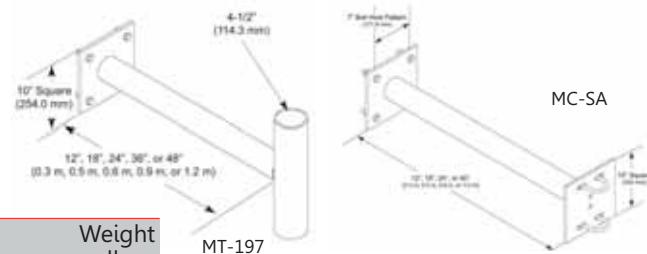
Feature: Visually appealing low profile design

Mounts to: Ring mounts

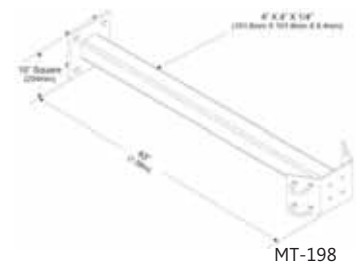
Material: Hot dip galvanized steel

Includes: Hardware

Order Separately: Ring mount (pg 22), antenna pipes (pg 50), and cellular pipe frame (pg 24)



Mfr	Part #	Description	Weight lb
Andrew Solutions	MT-197-12	Single, 12" (0.3 m) Long, with 4-1/2" OD x 18" Pipe	50
	MT-197-18	Single, 18" (0.4 m) Long, with 4-1/2" OD x 18" Pipe	58
	MT-197-24	Single, 24" (0.6 m) Long, with 4-1/2" OD x 18" Pipe	62
	MT-197	Single, 36" (0.9 m) Long, with 4-1/2" OD x 18" Pipe	68.1
	MT-197-48	Single, 48" (1.2 m) Long, with 4-1/2" OD x 18" Pipe	82.1
	MT-198*	Double, 63" (1.6 m). Includes U-bolts for 2-3/8" OD pipe	103
	MC-SA12-B*	Stand-off Arm, 12". Includes U-bolts for 2-3/8" OD pipe	45
	MC-SA18-B*	Stand-off Arm, 18". Includes U-bolts for 2-3/8" OD pipe	50
	MC-SA24-B*	Stand-off Arm, 24". Includes U-bolts for 2-3/8" OD pipe	60
	MC-SA40-B*	Stand-off Arm, 40". Includes U-bolts for 2-3/8" OD pipe	73



*Order 2-3/8" (60.3 mm) OD pipes separately; see page 50.

*For MC-parts, the holes are slotted to work up to 3.5" OD but include u-bolts for 2-3/8" pipe only. If necessary, order larger U-bolts separately; see page 64.

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222

140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL

*Typical installation of (2) 72" x 8" panel antennas per sector

Stand-off Arms

Application: Monopoles

Size: 8" or 24" Stand-off

Design: Welded stand-off arm for 2-3/8" - 3-1/2" OD pipe

Feature: Square tube weldment

Mounts to: Ring mounts or walls

Material: Hot dip galvanized steel

Includes: Weldment and hardware (see below)

Order Separately: Ring mount (pg 22), wall mount hardware (pgs 64-66), antenna mounting pipe (pg 50)



MTC3053



MTC3054

Mfr	Part #	Description	Weight, lb
Andrew	MTC3054	8" Stand-off Arm	38
Solutions	MTC3053	24" Stand-off Arm	55

Includes U-bolts for 2-7/8" and 3-1/2" OD pipe. Order additional u-bolts separately; see page 64.

Monopole

Co-location Dual Pipe Base Kit

Application: Monopoles

Size: 57" (1.4 m) face with 48" (1.2 m) separation

Design: Universal double antenna mount

Feature: Down tilt capabilities

Mounts to: 12" to 50" (304.8 mm to 1.27 m) OD monopoles

Material: Hot dip galvanized steel

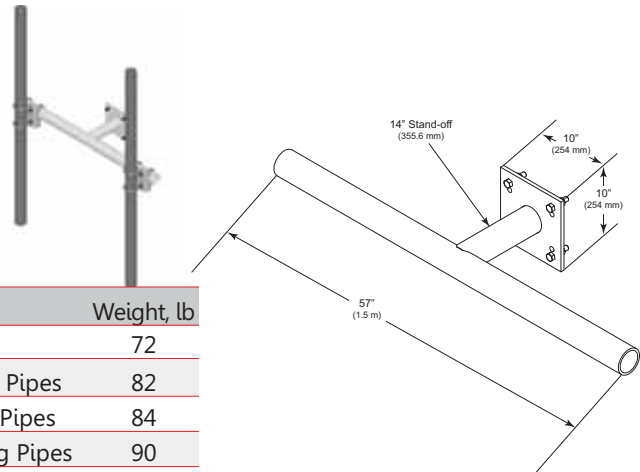
Includes: Mount, weldment, hardware

Order Separately: Pipes (pg 50) and ring mount (pg 22)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	MC-DPM-B*	Dual Pipe Mount Base	72
	MC-DPM2-B**	For 2-3/8" (60.3 mm) OD Antenna Mounting Pipes	82
	MC-DPM3-B**	For 2-7/8" (73 mm) OD Antenna Mounting Pipes	84
	MC-DPM35-B**	For 3-1/2" (88.9 mm) OD Antenna Mounting Pipes	90

*Order pipe (page 50), crossovers (pg 25) and ring mount (pg 22) separately.

**Crossovers included; order pipe (pg 50) and ring mount (pg 22) separately.



Work Platforms for Support Arms

Application: Monopoles

Size: 12" (304.8 mm) wide grating

Design: Safety-grated work platform

Feature: Clamps on to monopole arms

Mounts to: Support arm

Material: Hot dip galvanized steel

Includes: Platform and clamps

Order Separately: MT-197 or MT-198 arms (pg 23), MT-216 Series (below)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	WP-197	for Single Pipe Support Arm (MT-197), 28" Long	81.8
	WP-198	for Double Pipe Support Arm (MT-198), 48" Long	92.1
	WP-216	for Cellular Pipe Frame, 120" Long (MT-216-XNS)	119.5



Cellular Pipe Frames

Application: Monopoles

Design: Flush mount single pipe frame

Feature: Allows easy antenna downtilt and center mounting capabilities

Mounts to: 4-1/2" (114.3 mm) OD

Material: Hot dip galvanized steel

Includes: Pipe and crossover plate

Order Separately: Pipe (pg 50), pipe mount kits (pg 25), support arms (pg 23) and work platform (above)

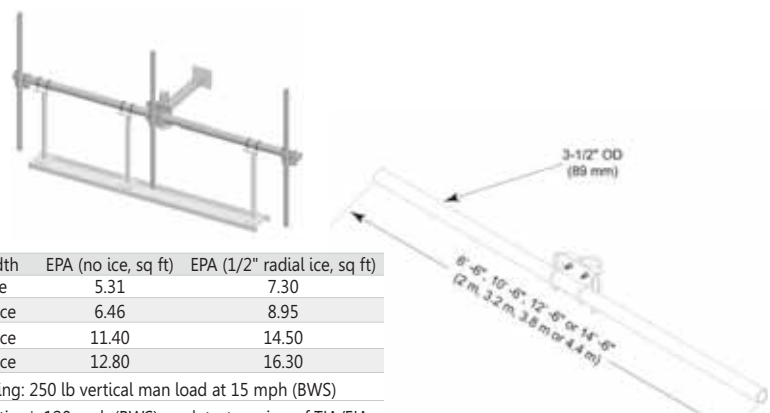
Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-216-6NS	6' 6" (2 m) wide	50.2
	MT-216-10NS	10' 6" (3.2 m) wide	98.2
	MT-216-NS	12' 6" (3.8 m) wide	122.2
	MT-216-14NS	14' 6" (4.3 m) wide	146.2

Face Width	EPA (no ice, sq ft)	EPA (1/2" radial ice, sq ft)
6' 6" Face	5.31	7.30
10' 6" Face	6.46	8.95
12' 6" Face	11.40	14.50
14' 6" Face	12.80	16.30

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) per latest version of TIA/EIA-222 140 mph 3-second gust, Exposure "D" per FBC, at 150' AGL

*Typical installation of (4) 72" x 8" panel antennas per sector



Pipe Mount Crossovers

Application: Monopoles

Feature: Allows easy antenna downtilt

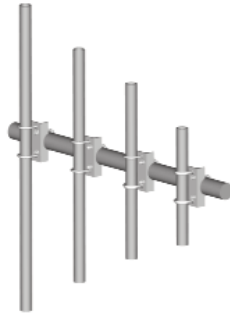
Mounts to: 3-1/2" (88.9) OD cellular

pipe frames or monopole platforms

Material: Hot dip galvanized steel

Includes: Crossover bracket & u-bolts

Order Separately: Pipe (pg 50)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	Pipe Mount Kits, Pipe Ordered Separately		
	MT-219-H	Kit, 2-3/8" OD Pipe	11
	MT-219M-H	Kit, 2-7/8" OD Pipe	11
	MT-219L-H	Kit, 3-1/2" OD Pipe	12

NOTE: Pipe is ordered separately; see page 50.

Low Profile Chain Mounts

Application: Monopoles

Size: 2-3/8" (60.3 mm) OD pipe mounts

Design: 1-, 2-, 3-, or 6-antenna chain mounts

Feature: Universal, low profile mount

Mounts to: 8" to 60" (203.2 mm to 1524 mm) OD

Material: Hot dip galvanized steel

Includes: See table

Order Separately: Pipe (pg 50)



Single Chain Mount Double Chain Mount Triple Chain Mount Six Antenna Chain Mount

Mfr	Part #	Description	Weight, lb	Order Separately
Andrew Solutions	8" to 30" OD, 25" to 94.2" Circumference			
	CM-30S-B	Single, 8' chain	26.8	2-3/8" OD Pipe
	CM-30D-B	Double, 8' chain	38.8	
	CM-30T-B	Triple, 8' chain	50.8	
	8" to 60" OD, 25" to 188" Circumference			
	CM-60S-B	Single, 16' chain	38.8	2-3/8" OD Pipe
	CM-60D-B	Double, 16' chain	50.8	
	CM-60T-B	Triple, 16' chain	62.8	
	14" to 60" OD, 44" to 188" Circumference			
	CM-606-B	Six Antenna Mount Kit, 16' chain	98.7	2-3/8" OD Pipe

Man Rating: 250 lb vertical man load at 15 mph (BWS)

Wind Rating*: 120 mph (BWS) 1/2" radial ice at 100' AGL per latest revision of TIA/EIA- 222

*Typical installation of (1) 96" x 10" panel antenna per sector

Light Duty Chain Mounts

Application: Monopoles

Size: 4-1/2" (114.3 mm) OD pipe mounts

Design: Single antenna mount

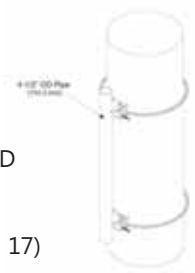
Feature: Single chain support

Mounts to: 8" to 60" (203.2 mm to 1.5 mm) OD

Material: Hot dip galvanized steel

Includes: Pipe mounts and chains

Order Separately: Pipe mounts as needed (pg 17)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	CM-L30-B	Base Kit, 8' (2.4 m) Chain	26.1
	CM-L60-B	Base Kit, 16' (4.9 m) Chain	38.1
Man Rating: 250 lb vertical man load at 15 mph (BWS)			
Wind Rating*: 120 mph (BWS) 1/2" radial ice at 100' AGL per latest revision of TIA/EIA- 222			
*Typical installation of (1) 4' standard radome microwave antenna			
Pipe Mount sold separately; see page 13.			

Heavy Duty Chain Mounts

Application: Monopoles

Size: 4-1/2" (114.3 mm) OD pipe mounts

Design: Single antenna mount

Feature: Double chain support

Mounts to: 8" to 60" (203.2 mm to 1.5 mm) OD

Material: Hot dip galvanized steel

Includes: Pipe mounts and chains

Order Separately: Pipe mounts as needed (pg 17)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	CM-H30-B	Base Kit, 8' (2.4 m) Chain	52.1
	CM-H60-B	Base Kit, 16' (4.9 m) Chain	76.1
Man Rating: 250 lb vertical man load at 15 mph (BWS)			
Wind Rating*: 125 mph (BWS) 1/2" radial ice at 100' AGL per latest revision of TIA/EIA- 222			
*Typical installation of (8) 4' standard radome microwave antenna with stiff arm			

Monopole Stiff Arm Mounts

Application: Monopoles

Size: 48" (1.2 m) arm

Design: Chain mounted support arm

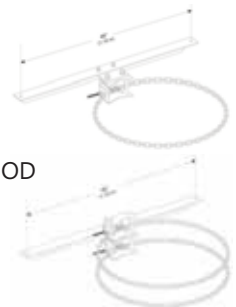
Feature: Adapts stiff arm to monopole

Mounts to: 8" to 60" (203.2 mm to 1.5 mm) OD

Material: Hot dip galvanized steel

Includes: Arms and chains

Order Separately: Antenna chain mount (pg 25)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	8" to 30" OD, 25" to 94.2" Circumference		
	CM-SL30	Light Duty, Single, 8' (2.4 m) Chain	26.1
	CM-SH30	Heavy Duty, Double, 8' (2.4 m) Chain	38.1
	8" to 60" OD, 25" to 188" Circumference		
	CM-SL60	Light Duty, Single, 16' (4.9 m) Chain	43
	CM-SH60	Heavy Duty, Double, 16' (4.9 m) Chain	62

Monopole

Ex-Press® Coax Mounting Band

Application: Monopoles

Size: 3/4" (19.1 mm) and 7/16" (11.1 mm) holes

Design: Coax support for outside or inside of round structures

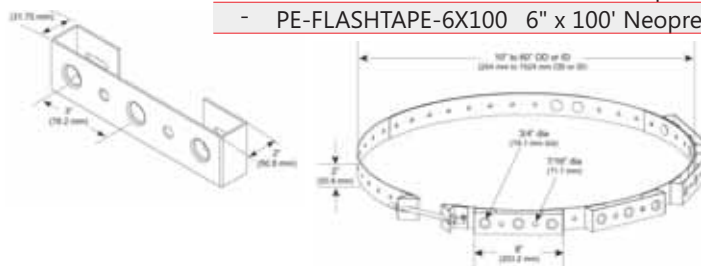
Feature: Universal expansion/compression band with quick clamp locking features, Patent # US 7,603,752

Mounts to: 10" to 60" OD round or polygon monopole

Material: Aluminum and hot dip galvanized steel

Includes: Bracket and hardware

Order Separately: Snap-in hangers (pg 102) and butterfly hangers (pg 102)



Mfr	Part #	Description	Weight, lb
Andrew Solutions		Band for 10"-60" OD legs or 36"-60" ID Access tubes, includes brackets for 12 lines	6.2
	EX-PH3	3-Hole Bracket for Expanding Line Capacity on Ex-Press Band, Kit of 10	2.8
	-	PE-FLASHTAPE-6X25 6" x 25' Neoprene Tape	-
	-	PE-FLASHTAPE-6X100 6" x 100' Neoprene Tape	-

Universal Round Member Support Bracket

Application: Monopoles

Size: 3/4" (19.1 mm) and 7/16" (11.1 mm) holes

Design: Coaxial cable support for round members

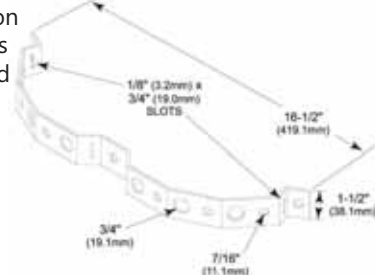
Feature: Ideal for co-location

Mounts to: Round members

Material: Hot dip galvanized steel

Includes: Bracket

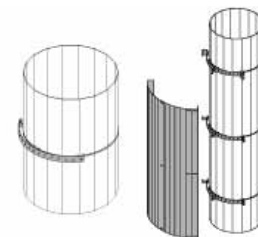
Order Separately: Banding (below)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	RM-USBG	For 6 runs, Kit of 10	9

Cover Kits

- Provides protection for the transmission line, as well as an aesthetically pleasing look
- Covers bolt directly to the band-on brackets
- Banding (see below left) and buckles ordered separately



Mfr	Part #	Description
Sabre	C20-180-010	Base Unit with Cover, 8' long for 18" and larger OD poles, 12 run
	C20-180-020	Additional Unit with Cover, 8' long for 18" and larger OD poles, 12 run

Make-A-Clamp Kit

Make any size stainless steel clamp

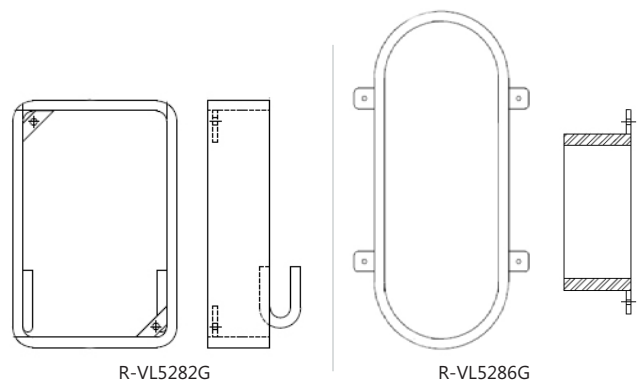
- Maintenance "clamp system" in a box
- Make any size 100% stainless steel wormdrive clamp from 3" to 10' in diameter in the field
- Kit includes 100' of continuous banding and 25 clamp brackets
- No banding tools necessary



Part #	Description
4001	Make-A-Clamp Kit, 100'

Hand Hole Port Rims

Hot dip galvanized steel



Mfr	Part #	Description
Rohn	R-VL5282G	8" x 12" x 0.5 x 3, hooks for line slack, port of around antennas for line entrance
	R-VL5286G	10" x 25" x 0.75 x 3, no hooks, port for bottom of pole for line exit

Banding

Part #	Description
MT-640	1/2" x 100' Roll Stainless Steel Banding
C204B	1/2" x 100' Roll Stainless Steel Banding in Blue Tote
C206R	3/4" x 100' Stainless Steel Banding in Red Tote
MT-641	1/2" Stainless Steel Buckle Clamps, Qty 100
C256	3/4" Stainless Steel Buckle Clamps, Qty 100

Non-Penetrating Roof Frames

Application: Roof-top

Size: 7' (2.1 m) to 14' 6" (4.4 m) face

Design: Single sector roof mount

Feature: Complete kit

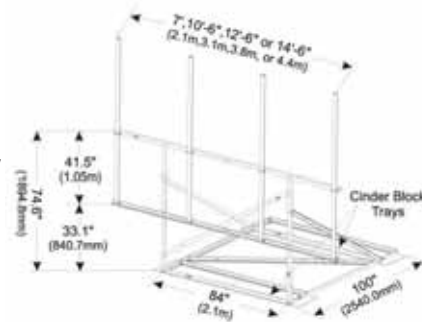
Material: Hot dip galvanized steel

Includes: Rubber mats,

frames, and hardware

Order Separately: Pipe

(pg 50)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	RF-N7-B	7' (2.1 m) wide, 2-3/8" (60.3 mm) OD	341.3
	RF-N10-B	10' 6" (3.2 m) wide, 2-3/8" (60.3 mm) OD	356.3
	RF-N12-B	12' 6" (3.8 m) wide, 2-3/8" (60.3 mm) OD	372.0
	RF-N14-B	14' 6" (4.5 m) wide, 2-3/8" (60.3 mm) OD	374.0
	RF-TDK	Non-Penetrating Sled Tie-Down Kit, 2 needed for RF-N Series	30

NOTE: Pipe is ordered separately; see page 50.

Wind Rating*: 85 mph (BWS) per latest revision of TIA/EIA-222

Exposure "C" per UBC, at 100' AGL

*Typical installation of (4) 120" x 8" panel antennas per sector

Multi-Sector Roof Frames

Application: Roof-top

Size: 10' (3 m) face

Design: Triangular 3-sector frame

Feature: Single mounting solution

Mounts to: Penetrating or

non-penetrating

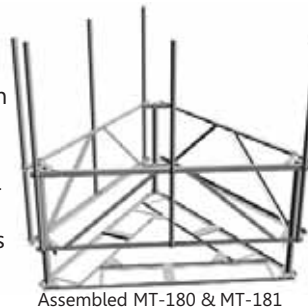
Material: Hot dip galvanized steel

Includes: Mount and u-bolts

Order Separately: Mounting pipes

(pg 50), sled kit, and rubber mats

(below)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-180	Multi-Sector Roof Frame. Order 2-3/8" (60.3 mm) OD pipes separately	465.6
	MT-181	Non-Penetrating Sled Kit for Multi-Sector Roof Frame	190.3
		Rubber Mat, 1/2" x 18" x 48"	
	MT-F1637*	6 mats required for sled kit	16.2

*Additional roof frame sizes available; contact Primus for more information

Non-Penetrating Roof Mount

Application: Roof-top

Size: 35" (0.9 m) square base

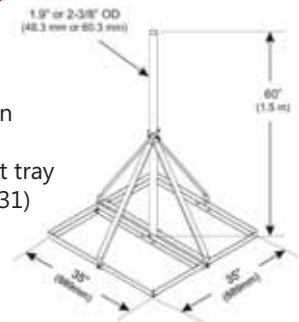
Design: Non-penetrating

Feature: Simple bolt together design

Material: Hot dip galvanized steel

Includes: Mast, supports, and ballast tray

Order Separately: Rubber mats (pg 31)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	RM-SM190-60	1.9" OD x 60" (48.3 mm OD x 1.5 m) Pipe	60
		2-3/8" OD x 60" (60.3 mm OD x 1.5 m) Pipe	66
	RM-SM238-60		

Roof-Top Mount

Application: Roof-top

Size: 11' (3.4 m) face

Design: Single sector roof mount,

2-3/8" (60.3 mm) OD design

Feature: Adjustable face design

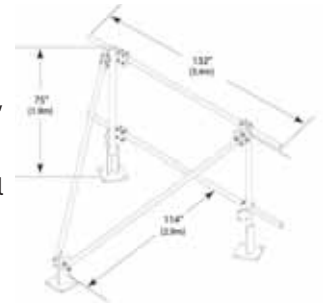
Material: Hot dip galvanized steel

Includes: Mount

Order Separately: Pipe (pg 50),

crossover kits (pg 18), and

anchors (pgs 64-66)



Mfr	Part #	Weight, lb
Andrew Solutions	TP-100	383

Multi-Sector Roof-Top Mount

Application: Roof-top, penetrating

Size: 12' 6" (3.8 m) face

Design: Triangular 3-sector frame,

2-3/8" OD design

Feature: Adjustable face design

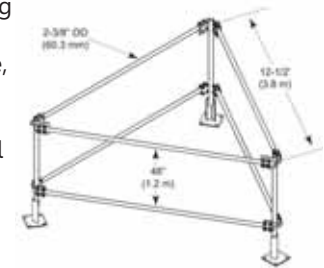
Material: Hot dip galvanized steel

Includes: Mount

Order Separately: Pipe (pg 50),

crossover kits (pg 18), and

anchors (pgs 64-66)



Mfr	Part #	Weight, lb
Andrew Solutions	TP-300	568.6

Roof-Top

Non-Penetrating Roof-Top Peak Frames

Application: Roof-Top
 Size: 36" (914.4 mm) wide ballast trays
 Design: Non-penetrating design
 Feature: Accepts 2-3/8" to 4-1/2" OD antenna mounting pipes
 Mounts to: Peaked roofs
 Material: Hot dip galvanized steel
 Includes: Ballast tray, tie down angles, mount, hardware
 Order Separately: Antenna mounting pipes (pg 50) and rubber mats (pg 31)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	RT-PM-B	Base Kit, 2-3/8" to 4-1/2" OD, Pipe ordered separately	105

Universal Tripod Mounts

Application: Roof-top
 Design: Heavy duty tripod mount
 Feature: Interchangeable base unit
 Material: Hot dip galvanized steel
 Includes: Mount
 Order Separately: Pipe (pg 50) and sled (below)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	Base Only, Pipe and Purchased Separately		
	TP-G238-B	For 2-3/8" (60.3 mm) OD pipe	114.3
		For 2-7/8" (73 mm)	
	TP-G300-B	or 3-1/2" (88.9 OD)	114.3
	TP-G412-B	For 4-1/2" (114.3 mm) OD pipe	173.4

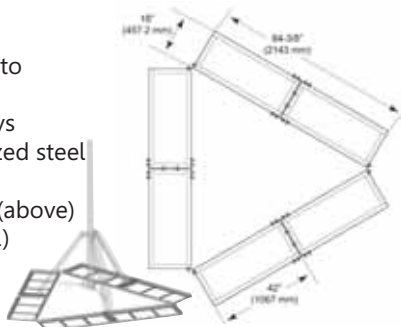
NOTE: Pipe is ordered separately; see page 50.

Wind Rating*: 85 mph (BWS) per latest revision of TIA/EIA-222
 Exposure "C" per UBC, at 100' AGL

*Typical installation of (1) 6' dish using 4-1/2" pipe mast

Non-Penetrating Roof Ballast Sled for Tripods

Application: Roof-top
 Size: 87" (2.2 m) faces
 Design: Converts tripods to non-penetrating
 Feature: Three ballast trays
 Material: Hot dip galvanized steel
 Includes: Sled only
 Order Separately: Tripod (above) and 6 rubber mats (pg 31)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-416	Non-penetrating Roof Ballast Sled, Tripod ordered separately	171.7

Multi-Sector Cluster Mount

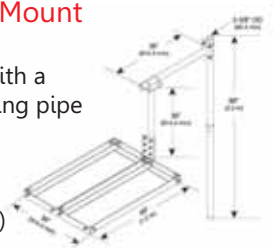
Application: Roof-top
 Design: 3-sector clamp-on mount
 Feature: Ideal for tripods
 Mounts to: 4"-8" OD member
 Material: Hot dip galvanized steel
 Includes: Brackets and U-bolts
 Order Separately: 2-3/8" OD pipes (pg 50)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	TP-MSC	For 4" to 6" OD Pipe	44.7
	TP-MSC-68	For 6" to 8" OD Pipe	46.7

Non-Penetrating Parapet Roof Mount

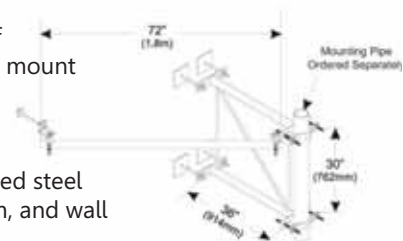
Application: Roof-top
 Size: 36" (0.9 m) x 49" (1.2 m) frame with a 2-3/8" (60.3 mm) x 86" (2.2 m) mounting pipe
 Design: Non-penetrating
 Feature: Adjustable stand-off
 Includes: Mount and hardware
 Order Separately: Rubber mats (pg 31)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	RF-PM86	2-3/8" OD x 86" Adjustable Mast Pipe	72.7

Stand-Off Wall Mount

Application: Roof-top
 Size: 36" (0.9 m) stand-off
 Design: Welded stand-off mount
 Feature: Heavy duty for microwave antennas
 Mounts to: Walls
 Material: Hot dip galvanized steel
 Includes: Bracket, stiff-arm, and wall mount hardware
 Order Separately: 3-1/2" or 4-1/2" OD pipe (pg 50)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	DM-300	36" for Solid or Hollow Walls Includes 72" (1.8 m) Stiff Arm	151

Cantilever Wall Mount Bracket

Application: Roof-top
 Size: 14-1/2" (368.3 mm) wide, 2-3/4" or 5-1/2" depth
 Design: Z-shaped wall brackets
 Feature: Low profile design
 Mounts to: Solid or hollow walls
 Material: Hot dip galvanized steel
 Includes: Two brackets, U-bolts, anchors, and wall mount hardware
 Order Separately: 2-3/8" OD pipe (pg 50)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	For 2-3/8" Pipe, Pipe Ordered Separately		
	MT-250	2-3/4" Stand-off, Kit of 2	20.6
	MT-250L	5-1/2" Stand-off, Kit of 2	24.5

Corner Wall Mounts

Application: Roof-top

Design: V-shaped corner mount

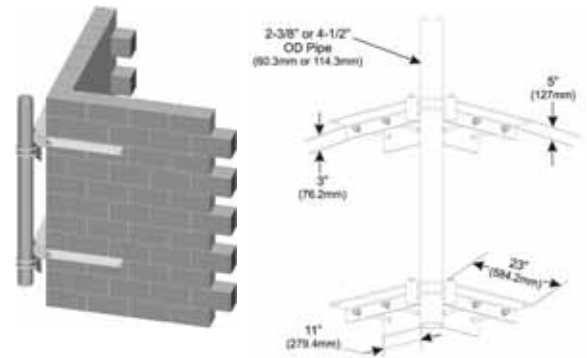
Feature: Adjustable clamp spacing

Mounts to: Wall corners

Material: Hot dip galvanized steel

Includes: Two brackets, pipe mount, and wall mount hardware

Mfr	Part #	Description	Weight, lb
Andrew Solutions	With 2-3/8" OD Antenna Pipe		
	CW-M2-63	2-3/8" OD x 63" (60.3 mm OD x 1.6 m) Pipe	123.7
	CW-M2-96	2-3/8" OD x 96" (60.3 mm OD x 2.4 m) Pipe	133.6
Andrew Solutions	With 4-1/2" OD Antenna Pipe		
	CW-M4-63	4-1/2" OD x 63" (114.3 mm OD x 1.6 m) Pipe	161.5
	CW-M4-96	4-1/2" OD x 96" (114.3 mm OD x 2.4 m) Pipe	191.2



Adjustable Wall Mounts

Application: Roof-top

Size: 12" (304.8 mm) square plate, 6-1/4" or 12" deep

Design: Welded dual brackets

Feature: Variable spacing flexibility

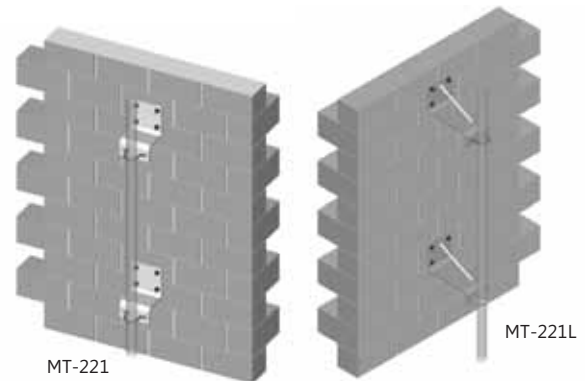
Mounts to: Versions for hollow or solid walls

Material: Hot dip galvanized steel

Includes: Two wall brackets and backing plates or anchors

Order Separately: U-bolts (pg 64) and 2-3/8" thru 4-1/2" OD pipe (pg 50)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	6" (152.4 mm) Stand-off, Kit of 2		
	MT-221	For Hollow Walls, Includes Backing Plates	68.6
	MT-222	For Solid Walls, Includes Wall Anchors	45.5
Andrew Solutions	12" (304.8 mm) Stand-off, Kit of 2		
	MT-221L	For Hollow Walls, Includes Backing Plates	75.3
	MT-222L	For Solid Walls, Includes Wall Anchors	50.7
Andrew Solutions	Optional Backing Plate		
	MT-223	Backing Plate Kit	23.1



Angle Wall Mounts

Application: Roof-top

Design: Back to back angles

Feature: 3" (76.2 mm) or 4" (101.6 mm) stand-off

Mounts to: Solid or hollow walls

Material: Hot dip galvanized steel

Includes: Angles, hardware

Order Separately: Pipe (pg 50) hollow or solid wall mount kits (see table)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	WMA238*	2-3/8" OD (60.3 mm)	27
	WMA300*	2-7/8" OD (73.0)	27
Andrew Solutions	WMA312*	3-1/2" OD (88.9 mm)	55
	WMA412*	4-1/2" OD (114.3 mm)	55
Andrew Solutions	HWK58	Hollow Wall Mount Kit	5
	SWK58	Solid Wall Mount Kit	5

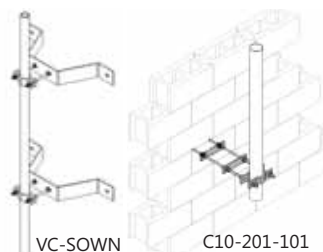


* Pipe is ordered separately; see page 50.

Roof-Top

Universal Wall Mounts

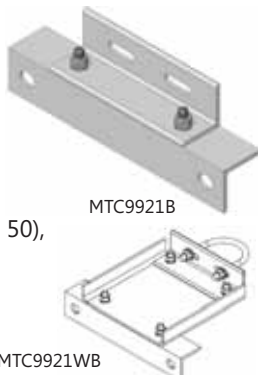
Application: Roof-top
Design: Wall Bracket
Mounts to: Walls
Material: Hot dip galvanized steel
Includes: Mount and hardware
Order Separately: Pipe (pg 50)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	VC-SOWN	Adjustable wall mount kit, 12" Stand-off	55
Sabre	C10-201-101	Universal wall mount - through wall; fits pipes from 1-1/2" to 5" OD and a wall up to 1'-1" thick	15

Universal Wall Mount Brackets

Application: Roof-top
Size: Two sizes, 2-1/2" or 11" stand-off
Feature: Vertical adjustment on wall
Mounts to: Walls
Material: Hot dip galvanized steel
Includes: Brackets and hardware
Order sep: Antenna mounting pipe (pg 50), U-bolts (pg 64)

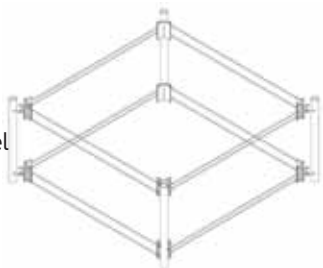


Mfr	Part #	Description	Weight, lb
Slider wall mount base kit			
Andrew Solutions	MTC9921B	2-1/2" Stand-off Kit/1	8
	MTC9921WB	11" Stand-off Kit/1	18

Works with 2-3/8" - 4-1/2" OD pipe. Order U-bolts separately (pg 64).

Square Chimney Mounts

Application: Roof-top
Size: 1' to 10' Square Chimneys
Design: 4 Sector Mount
Feature: Corner Mount
Mounts to: Chimneys
Material: Hot dip Galvanized steel
Includes: Pipe mount and hardware



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MTC8746	1' - 10' Square Chimney Mount, (4) 4-1/2" OD x 63" Corner pipe mounts	340

Round Chimney Mounts

Application: Roof-top
Size: 6 Sizes
Design: Three sector chimney mounts
Feature: Triple band clamps for chimneys
Mounts to: Chimney
Material: Hot dip galvanized steel
Includes: Weldments and hardware



Mfr	Part #	Description	Weight, lb
3-Sector Chimney Mount			
Andrew Solutions	MTC821156	For 5' - 6' OD Chimney	240
	MTC821167	For 6' - 7' OD Chimney	280
	MTC821178	For 7' - 8' OD Chimney	300
	MTC8211	For 8' - 9' OD Chimney	440
	MTC8212	For 9' - 11' OD Chimney	525
	MTC8232	For 11' - 13' OD Chimney	620

Flush Mount Adapter

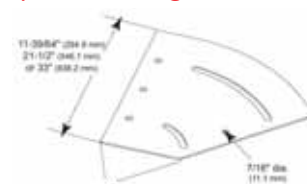
Application: Roof-top
Size: for 2-3/8" OD antenna mounting pipes
Design: Added mounting support for chimney mounts
Feature: Sliding capability along chimney mount
Mounts to: Chimney mount
Material: Hot dip galvanized steel
Includes: Brackets, hardware
Order sep: Chimney Mount (pg 30), antenna mounting pipes (pg 50)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MTC3015	Slotted Hole up to 3.5" Pipe	23

Adjustable Splice for Roof-Top Coax Bridge Kits

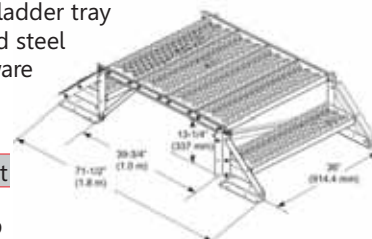
Application: Roof-top
Design: Slotted splice plate
Feature: Up to 45° horizontal adjustment
Mounts to: Roof-top bridge kits
Material: Galvanized steel
Includes: Splice and hardware



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-F1573-11	4-Run Bridge Kit	3.7
	MT-F1574	8-Run Bridge Kit	9.5
	MT-F1597	12-Run Bridge Kit	19.9

Roof-Top Cable Tray Step Over

Application: Roof-top
Size: 36" x 71.5" x 16.25" (914.4 mm x 1816.1 mm x 412.75 mm)
Design: Bolt together
Feature: Step over for ladder tray systems
Mounts to: Up to 24" wide ladder tray
Material: Hot dip galvanized steel
Includes: Step over & hardware
Order Separately: Cable tray (pgs 31, 34-35)



Mfr	Part #	Weight
Andrew Solutions	RT-ST	211 lb

Self Splicing, Coax Cover Kits for SnapStak™ Snap-In Hangers

Application: Roof-top

Size: 8' (2.4 m) long

Design: Self-splicing cover with 2 1-1/4" sleeper supports and hold-down clamps, simplified cover installation

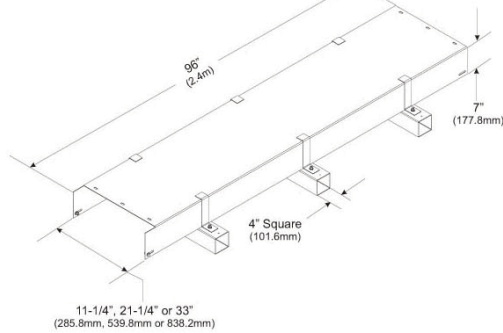
Feature: Stack up to (2) 1-5/8" or (3) 7/8" SnapStak™ hangers per hole

Mounts to: Non-penetrating design

Material: Galvanized steel

Includes: Channel, (3) sleepers, hold-down clamps, & hardware

Order Separately: Adjustable splice for roof-top coaxial cable bridge (pg 30) and rubber mats (below)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	RT-CB4D	4 Holes	86
	RT-CB8D	8 Holes	122.5
	RT-CB12D	12 Holes	162.5

Self Splicing Roof-Top Coax Bridge Kits

Application: Roof-top

Size: 8' (2.4 m) long

Design: Self-splicing cover with PVC sleeper supports and hold-down clamps, simplified cover installation

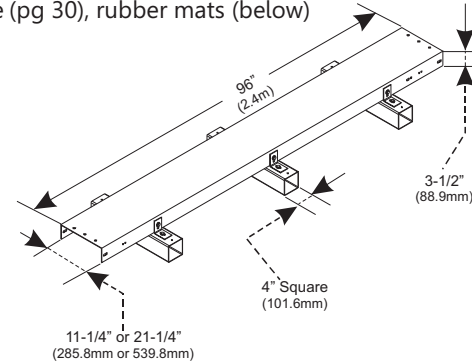
Feature: 4-, 8-, and 12-run versions, single stack

Mounts to: Non-penetrating design

Material: Galvanized steel, 12-Gauge (3mm) Cover

Includes: Channel, three sleepers, hold-down clamps, and hardware

Order Separately: Adjustable splice for roof-top coaxial cable bridge (pg 30), rubber mats (below)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-F1542-11	4 Holes	76.6
	MT-F1543	8 Holes	112.3
	MT-F1595	12 Holes, Includes 4 and 8 Run Covers	180.4

Extension Kit for Roof-Top Coax Bridge Kits

Application: Roof-top

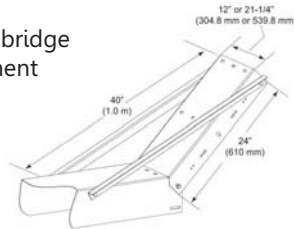
Design: Hinged extension for roof bridge

Feature: Up to 45° vertical adjustment

Mounts to: Roof-top bridge kits

Material: Galvanized steel

Includes: Extension and hardware



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-F1703	4-Run Bridge Kit	30
	MT-F1704	8-Run Bridge Kit	39

PVC Roof Sleepers

Application: Roof-top

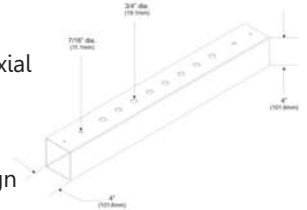
Size: Seven widths

Design: 4" (101.6 mm) square coaxial cable support

Feature: 3/4" (19.1 mm) holes for SnapStak® snap-in hangers

Mounts to: Non-penetrating design

Material: PVC



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-F1585	No Holes, 8' (2.4 m) long	14.4
	MT-F1598	4 Runs of Coaxial Cable, 21.75" L	2.9
	MT-F1599	8 Runs of Coaxial Cable, 31.75" L	5.3
	MT-F1600	12 Runs of Coaxial Cable, 43.25" L	7.3

GPS Antenna Wall Mount

Application: Roof-top

Size: 3/4" OD x 48" (19.1 mm OD x 1.2 m)

Design: Welded mount with 6" stand-off

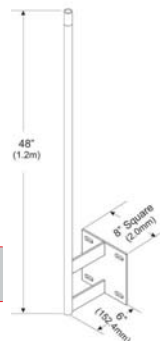
Feature: Threaded end for GPS antennas

Mounts to: Walls

Material: Hot dip galvanized steel

Includes: Mount

Order Separately: Anchoring hardware (pgs 64-66)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	VC-GPSWM	3/4" OD x 48"	10.5

Rubber Pads and Mats

Protects surfaces

Part #	Description	Weight, lb
RP4-10	1/4" x 4" x 10'	n/a
RP4-40	1/4" x 4" x 40'	n/a
MT-F1637	1/2" x 18" x 48"	16.2



Roof-top Hood Entry (Dog Houses)

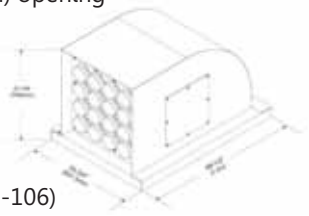
- Lightweight, seamless roof cable entry
- Top of the Qwikport is easily removed for cable installation
- QWKPR: 20" ground bus bar is provided on each port side to ground the coax lines
- QWRPRT-JR: 13" ground bus bar is provided on each port side to ground the coax lines



Mfr	Part #	Description	Weight, lb
Comsite	QWKPR	24 Ports, 38" tall	110
Hardware	QWKPR-JR	12 Ports, 27-1/2" tall	65

Roof-top Hood Entry (Dog Houses)

Application: Entry port solutions
 Size: 26" x 41" (660.4 mm x 1.04 m) opening
 Design: Pre-assembled
 Feature: Simplifies assembly
 Mounts to: Roofs
 Material: Galvanized steel
 Includes: Hood
 Order Separately: 16 port entry panel & boot assemblies (pgs 105-106)

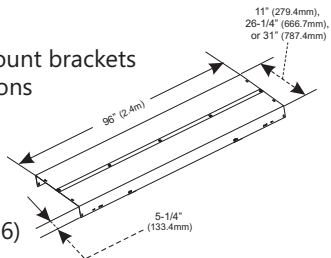


Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-365G	Roof-top Hood Entry	230

See entry panels on page 106

Wall Coax Support Kits

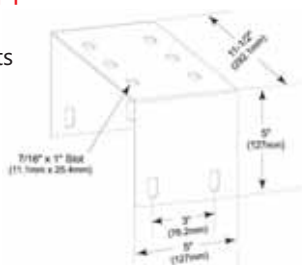
Application: Roof-top
 Size: 8' (2.4 m) long
 Design: Solid cover with wall mount brackets
 Feature: 4-, 8-, and 12-run versions
 Mounts to: Penetrating design
 Material: Galvanized steel
 Includes: Channel, 2 brackets, and hardware
 Order Separately: Anchors (pg 66)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-F1589	4 Runs of Coaxial Cable	56.7
	MT-F1590	8 Runs of Coaxial Cable	73.8
	MT-F1591	12 Runs of Coaxial Cable	102.7

Splice Kit for Wall Coax Support Kits

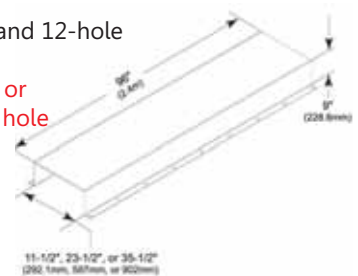
Application: Roof-top
 Design: Bolt-on splice for wall kits
 Feature: Allows interconnection of sections
 Mounts to: Wall coaxial cable support kits
 Material: Galvanized steel
 Includes: Splice and hardware



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-F1607	For 4-Runs	2.5
	MT-F1608	For 8-Runs	3.8

Z-Bracket, Wall Coax Support Covers for SnapStak® Hangers

Application: Roof-top
 Size: 8' (2.4 m) long
 Design: Solid cover for 4-, 8-, and 12-hole Z-brackets
 Feature: Stack up to (2) 1-1/4" or (3) 7/8" SnapStak hangers per hole
 Mounts to: Penetrating design
 Material: Galvanized steel
 Includes: Cover
 Order Separately: Z-brackets (below) and anchors (pg 66)

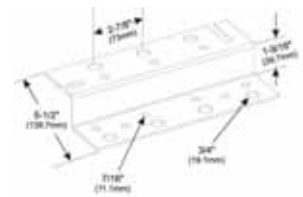


Mfr	Part #	Description	Weight, lb
Andrew Solutions	WC-SC4D	4-Hole Cover, (3) ZB-H4 Z-Brackets Required*	73.3
	WC-SC8D	8-Hole Cover, (3) ZB-H8 Z-Brackets Required*	99.5
	WC-SC12D	12-Hole Cover, (12) ZB-H12 Z-Brackets Required*	125.8

*Z-brackets must be ordered separately (below)

Horizontal Z-Brackets

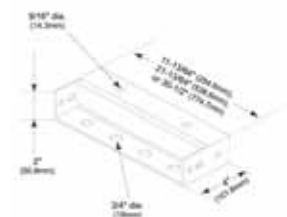
Application: Roof-top
 Size: 3/4" (19.1 mm) and 7/16" (11.1 mm) holes
 Design: Z-shaped coaxial cable bracket
 Feature: Fits any hanger style
 Material: Hot dip galvanized steel
 Includes: Z-bracket
 Order Separately: Mounting anchors (pg 66)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	ZB-H4	11" (279.4 mm) wide for 7 runs of coaxial cable	2.6
	ZB-H8	23" (584.2 mm) wide for 14 runs of coaxial cable	5.3
	ZB-H12	35" (889 mm) wide for 22 runs of coaxial cable	8.1

Wall-Mount Brackets

Application: Roof-top
 Size: 3/4" (19.1 mm) holes
 Design: Bracket for walls or ceilings
 Feature: Flush surface mounting
 Mounts to: Penetrating design
 Material: Hot dip galvanized steel
 Includes: Bracket
 Order Separately: Mounting anchors (pg 66)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MT-F1586	For 4 Runs of Coaxial Cable	2.1
	MT-F1587	For 8 Runs of Coaxial Cable	4.1
	MT-F1588	For 12 Runs of Coaxial Cable	6.2

FRM Non-Penetrating Roof Mount

- Great for communication antennas, microwave dishes and donor antenna
- No penetration of roof surface
- Galvanized for corrosion protection
- Order separately: Rubber mats (pg 31)

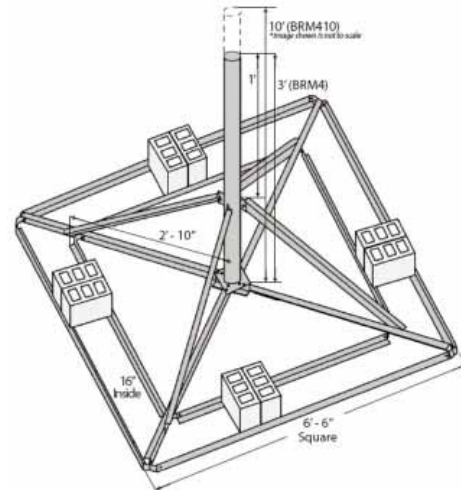
Mfr	Mount Part #	Mast Part #	Mast Description and Height
Rohn Products	R-FRM125	FY202	1.25" O.D. x 16 GA. x 5' (Pre-Galvanized)
	R-FRM225	FY205SP	2.25" O.D. x 14 GA. x 5' (Hot-dip Galvanized)
	R-FRM238SP5	FY253	2.38" O.D. x 0.154" wall x 5' (Hot-dip Galvanized)



BRM Non-Penetrating Roof Mount

- Supports 2" to 5" mounting pipes
- Mount base is 6'-6" square with a 16" tray to hold concrete blocks, typically used as ballast
- Galvanized for corrosion protection
- Order separately: Rubber mats (pg 31)

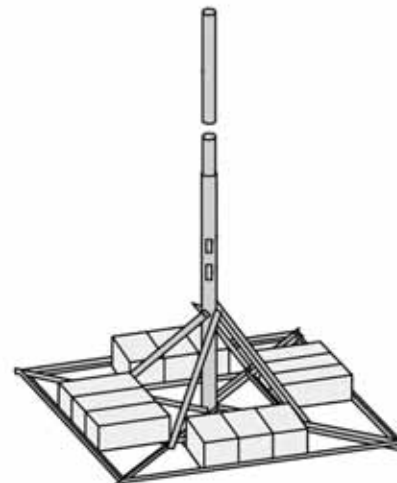
Mfr	Mount Part #	Mast Part #	Mast Description and Height
Rohn Products	R-BRM42510	KY2061	2.38" O.D. x 0.154" wall x 10.0'
	R-BRM43510	KY2063	3.50" O.D. x 0.216" wall x 10.0'
	R-BRM44510	KY2065	4.50" O.D. x 0.237" wall x 10.0'



JRM Non-Penetrating Roof Mount

- Supports a 5' pipe mast
- Mount base is 5' square
- Receives up to 12 standard concrete blocks as ballast
- Used in cellular, PCS, broadband and other applications
- Order separately: Rubber mats (pg 31)

Mfr	Mount Part #	Mast Part #	Mast Description and Height
Rohn Products	R-JRM23810	FZ1756	2.38" O.D. x 0.154" wall x 10' (Hot-dip Galvanized) (1 piece)
	R-JRM23855	FZ1753 / FZ1754	2.38" O.D. x 0.154" wall x 10' (Hot-dip Galvanized) (2 pieces)
	R-JRM27510	FZ1760	2.88" O.D. x 0.203" wall x 10' (Hot-dip Galvanized) (1 piece)
	R-JRM27555	FZ1758 / FZ1759	2.88" O.D. x 0.203" wall x 10' (Hot-dip Galvanized) (2 pieces)
	R-JRM35010	FZ1761	3.50" O.D. x 0.216" wall x 10' (Hot-dip Galvanized) (1 piece)



Roof-Top

Ladder Trays

STRAIGHT SECTIONS

	Andrew Solutions	TJ Cope	TJ Cope
Description	Aluminum	Aluminum	Pre-Galvanized

Ladder Tray Straight Sections

12" wide 4" load 12' long	AT-12-4D	1B48-12SL-12-09	8246-12SL-12-09
18" wide 4" load 12' long	AT-18-4D	1B48-18SL-12-09	8246-18SL-12-09
24" wide 4" load 12' long	AT-24-4D	1B48-24SL-12-09	8246-24SL-12-09

Straight Covers

12" wide 6' long	AT-VSS-12-A**	FS28-12SL-06*	FS26-12SL-06*
18" wide 6' long	AT-VSS-18-A**	FS28-18SL-06*	FS26-18SL-06*
24" wide 6' long	AT-VSS-24-A**	FS28-24SL-06*	FS26-24SL-06*

*Need 2 per tray

**Includes two (2) 6' covers



1B48-12SL-12-09

HORIZONTAL BENDS

	Andrew Solutions	TJ Cope	TJ Cope
Description	Aluminum	Aluminum	Pre-Galvanized

45° Trays

12" wide 4" load	AT-C45-12-4D	248-124F-24	246-124F-24
18" wide 4" load	AT-C45-18-4D	248-184F-24	246-184F-24
24" wide 4" load	AT-C45-24-4D	248-244F-24	246-244F-24

45° Covers

12" wide	AT-V45-12-A	FS28-124F-24	FS26-124F-24
18" wide	AT-V45-18-A	FS28-184F-24	FS26-184F-24
24" wide	AT-V45-24-A	FS28-244F-24	FS26-244F-24

90° Trays

12" wide 4" load	AT-C90-12-4D	248-129F-24	246-129F-24
18" wide 4" load	AT-C90-18-4D	248-189F-24	246-189F-24
24" wide 4" load	AT-C90-24-4D	248-249F-24	246-249F-24

90° Covers

12" wide	AT-V90-12-A	FS28-129F-24	FS26-129F-24
18" wide	AT-V90-18-A	FS28-189F-24	FS26-189F-24
24" wide	AT-V90-24-A	FS28-249F-24	FS26-249F-24



248-249F-24

INSIDE VERTICAL RISER (IVR)

	Andrew Solutions	TJ Cope	TJ Cope
Description	Aluminum	Aluminum	Pre-Galvanized

45° IVR Trays

12" wide 4" load	AT-RI45-12-4D	248-124I-24	246-124I-24
18" wide 4" load	AT-RI45-18-4D	248-184I-24	246-184I-24
24" wide 4" load	AT-RI45-24-4D	248-244I-24	246-244I-24

45° IVR Covers

12" wide	AT-VRI45-12-A	FS28-124I-24	FS26-124I-24
18" wide	AT-VRI45-18-A	FS28-184I-24	FS26-184I-24
24" wide	AT-VRI45-24-A	FS28-244I-24	FS26-244I-24

90° IVR Trays

12" wide 4" load	AT-RI90-12-4D	248-129I-24	246-129I-24
18" wide 4" load	AT-RI90-18-4D	248-189I-24	246-189I-24
24" wide 4" load	AT-RI90-24-4D	248-249I-24	246-249I-24

90° IVR Covers

12" wide	AT-VRI90-12-A	FS28-129I-24	FS26-129I-24
18" wide	AT-VRI90-18-A	FS28-189I-24	FS26-189I-24
24" wide	AT-VRI90-24-A	FS28-249I-24	FS26-249I-24



248-129I-24

- All tray sections include straight splice kits
- Different sizes and configurations are available; or more information, contact the sales team at Primus

NOTE: LADDER TRAY PARTS FROM DIFFERENT MANUFACTURERS CANNOT BE INTERCHANGED (i.e., cannot "mix and match" parts from different manufacturers). If you need assistance deciding which system best fits your needs or help determining which system you are currently using, please contact Primus at (800) 435-1636.

Ladder Trays (cont.)

OUTSIDE VERTICAL RISER (OVR)

	Andrew Solutions	TJ Cope	TJ Cope
Description	Aluminum	Aluminum	Pre-Galvanized

45° OVR Trays

12" wide 4" load	AT-RO45-12-4D	248-124O-24	246-124O-24
18" wide 4" load	AT-RO45-18-4D	248-184O-24	246-184O-24
24" wide 4" load	AT-RO45-24-4D	248-244O-24	246-244O-24

45° OVR Covers

12" wide	AT-VRO45-12-A	FS28-124O-24	FS26-124O-24
18" wide	AT-VRO45-18-A	FS28-184O-24	FS26-184O-24
24" wide	AT-VRO45-24-A	FS28-244O-24	FS26-244O-24

90° OVR Trays

12" wide 4" load	AT-RO90-12-4D	248-129O-24	246-129O-24
18" wide 4" load	AT-RO90-18-4D	248-189O-24	246-189O-24
24" wide 4" load	AT-RO90-24-4D	248-249O-24	246-249O-24

90° OVR Covers

12" wide	AT-VRO90-12-A	FS248-129O-24	FS246-129O-24
18" wide	AT-VRO90-18-A	FS248-189O-24	FS246-189O-24
24" wide	AT-VRO90-24-A	FS248-249O-24	FS246-249O-24

T-JUNCTIONS

	Andrew Solutions	TJ Cope	TJ Cope
Description	Aluminum	Aluminum	Pre-Galvanized

T-Junctions

12" wide 4" load	AT-TJ-12-4D	248-12FT-24	246-12FT-24
18" wide 4" load	AT-TJ-18-4D	248-18FT-24	246-18FT-24
24" wide 4" load	AT-TJ-24-4D	248-24FT-24	246-24FT-24

T-Junction Covers

12" wide	AT-VTJ-12-A	FS28-12FT-24	FS26-12FT-24
18" wide	AT-VTJ-18-A	FS28-18FT-24	FS26-18FT-24
24" wide	AT-VTJ-24-A	FS28-24FT-24	FS26-24FT-24

REDUCERS

	Andrew Solutions	TJ Cope	TJ Cope
Description	Aluminum	Aluminum	Pre-Galvanized

Reducers

18 to 12 Reducer	AT-RC1812-4D	248-18ST-12	246-18ST-12
24 to 12 Reducer	AT-RC2412-4D	248-24ST-12	246-24ST-12
24 to 18 Reducer	AT-RC2418-4D	248-24ST-18	246-24ST-18

Reducer Covers

18 to 12 Reducer Cover	AT-VRC1812-A	FS28-18ST-12	FS26-18ST-12
24 to 12 Reducer Cover	AT-VRC2412-A	FS28-24ST-12	FS26-24ST-12
24 to 18 Reducer Cover	AT-VRC2418-A	FS28-24ST-18	FS26-24ST-18

HARDWARE

	Andrew Solutions	TJ Cope	TJ Cope
Description	Aluminum	Aluminum	Pre-Galvanized
Hold-Down Z-Clamp	AT-ZC-4-A	9131	9131
90° Splice (kit/2) 4" load	AT-S90-4D	48-02CA	47-02CA
Horizontal Adjustable Splice (kit/2) 4" load	AT-SA-H-4D	48-02CH	47-02CH
Vertical Adjustable Splice (kit/2) 4" load	AT-SA-V-4D	48-02CV	47-02CV
Straight Splice (kit/2) 4" load	AT-SS-4D	48-02RC	47-02RC
Cover Attachment Clip	AT-VC-4-A	EM-CC	EM-CC
12" Double Cover Clamp (hurricane clamp)	AT-HC18-A	248-12DC	246-12DC
18" Double Cover Clamp (hurricane clamp)	AT-HC18-A	248-18DC	246-18DC
24" Double Cover Clamp (hurricane clamp)	AT-HC24-A	248-24DC	246-24DC



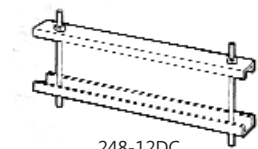
FS248-129O-24



248-12FT-24



248-24ST-12



248-12DC



9131



48-02CH



48-02CV



48-02RC

Universal Fitting (Double Cover Clamp will fit both Andrew Solutions and TJ Cope Trays)

NOTE: LADDER TRAY PARTS FROM DIFFERENT MANUFACTURERS CANNOT BE INTERCHANGED (i.e., cannot "mix and match" parts from different manufacturers). If you need assistance deciding which system best fits your needs or help determining which system you are currently using, please contact Primus at (800) 435-1636.

Water Tank

Stackable Pod Mount Assemblies

Application: Water tower

Size: 12' 6" (3.8 m) or 14' 6" (4.4 m)

Design: Pod for tank-top antenna support

Feature: Stackable for co-location

Mounts to: 48" (1.2 m) OD hatch plate

Material: Hot dip galvanized steel

Includes: Mount and platform



Mfr	Part #	Description	Weight, lb
Andrew Solutions	WT-SPM-B	Base Kit, Order Platform & Pipe Mounts Separately	1331.2
	WT-SPM12-B	3-Sector Platform, 12' 6" wide Face, Order Pipe Mounts Separately	2611.4
	WT-SPM14-B	3-Sector Platform, 14' 6" wide Face, Order Pipe Mounts Separately	2645.5

Mini Monopole for Stackable Pod Mount Assembly

Application: Water tower

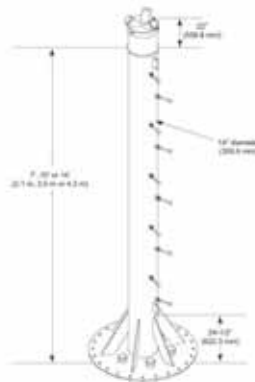
Feature: Allows multiple T-frame or platform attachments

Mounts to: Stackable pod mount

Material: Hot dip galvanized steel

Includes: Pole, step bolts, u-bolts, hardware, and safety-climb

Order Separately: Stackable pod (above) and monopole components (pgs 20-26)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	WT-MMP-7	7' (2.1 m) tall	800
	WT-MMP-10	10' (3 m) tall	1100
	WT-MMP	14' (4.26 m) tall	1532

Water Tower Roof-top Assemblies

Application: Water tower

Size: 12' (3.7 m) or 14' (4.3 m) face

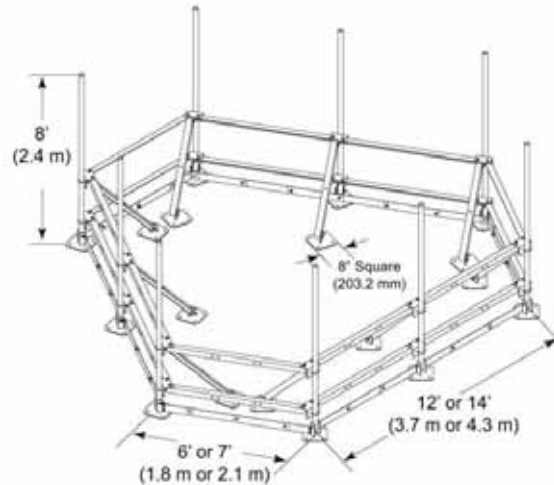
Design: 3-sector roof-top mount

Feature: Adjustable design handles uneven tank surfaces

Mounts to: Weld-on feet

Material: Hot dip galvanized steel

Includes: Mount and 9 or 12 antenna mounting pipes



Mfr	Part #	Description	Weight, lb
Andrew Solutions	3-Sector, 12' (3.7 m) wide		
	WT-RTA12-9-96	Nine 2-3/8" OD x 96", Pipe Mounts Included	1613.2
	WT-RTA12-12-96	Twelve 2-3/8" OD x 96", Pipe Mounts Included	1717.3
	3-Sector, 14' (4.3 m) wide		
	WT-RTA14-9-96	Nine 2-3/8" OD x 96", Pipe Mounts Included	1716.5
	WT-RTA14-12-96	Twelve 2-3/8" OD x 96", Pipe Mounts Included	1820.6

Stackable Pod Mount Extension

Application: Water tower

Size: 1' x 42" OD (0.3 m x 1.1 m)

Design: Extension for stackable pod

Feature: Adds height and cable access

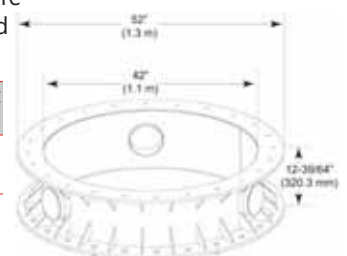
Mounts to: Stackable pod mount

Material: Hot dip galvanized steel

Includes: Extension and hardware

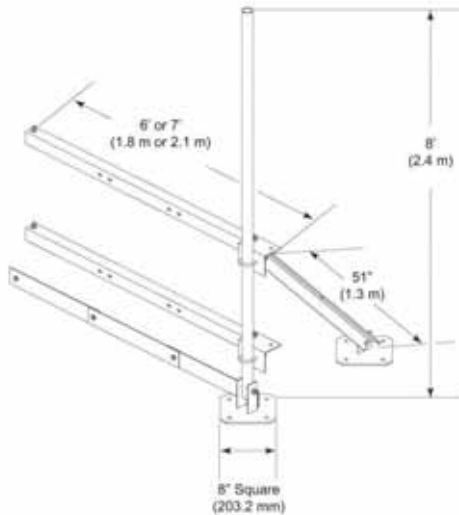
Order Separately: Stackable pod (above left)

Mfr	Part #	Weight lb
Andrew Solutions	WT-SPM-E1	379



Water Tower Roof-top Sector Frame Extensions

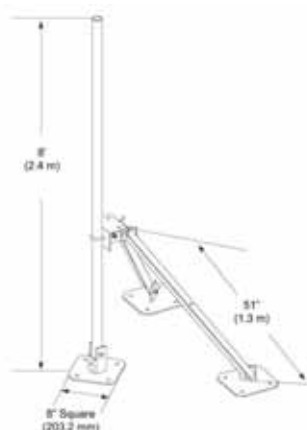
Application: Water tower
 Size: 6' (1.8 m) or 7' (2.1 m) long
 Design: Modular roof-top antenna mount
 Feature: Linkable to form corral mounts
 Mounts to: Weld-on feet
 Material: Hot dip galvanized steel
 Includes: Mount and 2-3/8" OD x 96" pipe



Mfr	Part #	Description	Weight, lb
Andrew Solutions	WT-RTA6-96-E	6' (1.8 m) long	179.1
	WT-RTA7-96-E	7' (2.1 m) long	188.9

Water Tower Roof-top Tripod Mount

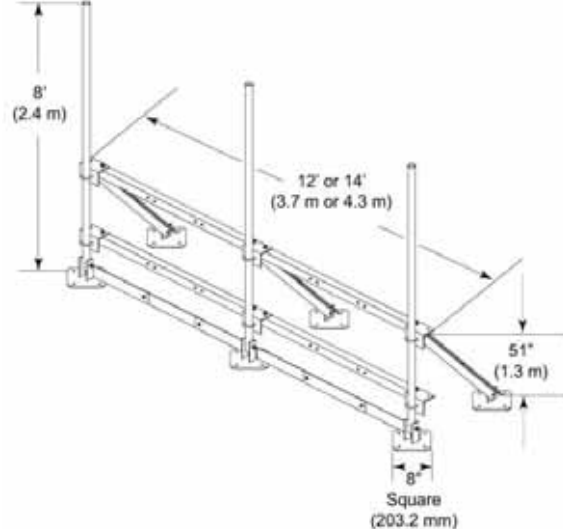
Application: Water tower
 Design: Single roof-top antenna mount
 Feature: Handles uneven tank surfaces
 Mounts to: Weld-on feet
 Material: Hot dip galvanized steel
 Includes: Mounting pipe



Mfr	Part #	Description	Weight, lb
Andrew Solutions	WT-TMA-96	2-3/8" OD x 96" Mounting Pipe (73 mm x 2.4 m)	145.1
	WT-TMA35-96	3-1/2" OD x 96" Mounting Pipe (88.9 mm x 2.4 m)	165
	WT-TMA45-96	4-1/2" OD x 96" Mounting Pipe (114.3 mm x 2.4 m)	185

Water Tower Roof-top Sector Frames

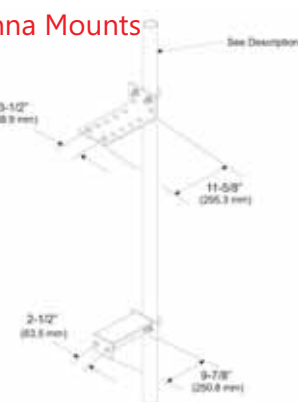
Application: Water tower
 Size: 12' (3.7 m) or 14' (4.3 m) face
 Design: Single-sector roof-top mount
 Feature: Handles uneven tank surfaces
 Mounts to: Weld-on feet
 Material: Hot dip galvanized steel
 Includes: Mount and 3 or 4 antenna mounting pipes



Mfr	Part #	Description	Weight, lb
Andrew Solutions	12' (3.7 m) wide		
	WT-SMA12-3-96	Three 2-3/8" OD x 96", Pipe Mounts Included	467.6
	WT-SMA12-4-96	Four 2-3/8" OD x 96", Pipe Mounts Included	502.3
	14' (4.3 m) wide		
	WT-SMA14-3-96	Three 2-3/8" OD x 96", Pipe Mounts Included	491.9
	WT-SMA14-4-96	Four 2-3/8" OD x 96", Pipe Mounts Included	526.6

Water Tower Hand Rail Antenna Mounts

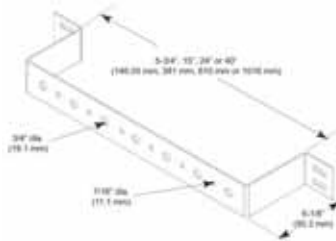
Application: Water tower
 Size: 9" (228.6 mm) stand-off
 Design: Adjustable bolt-on design
 Feature: Adapts to most handrail types
 Mounts to: Handrail and toe board
 Material: Hot dip galvanized steel
 Includes: Mount and hardware
 Order Separately: Pipe (pg 50)



Mfr	Part #	Description	Weight, lb
Mounting Pipe Ordered Separately			
Andrew Solutions	WT-HRM2-B	For 2-3/8" OD	20.5
	WT-HRM-U	For 2-3/8" to 4-1/2" OD	55

Water Tank

Water Tower Coax Stand-off Brackets



Application: Water tower
 Size: 3/4" and 7/16" holes
 Design: Bolt-on design
 Feature: Flexibility to handle curved surfaces
 Mounts to: Water tower surface
 Material: Hot dip galvanized steel
 Includes: Bracket

Mfr	Part #	Description	Weight, lb
Andrew Solutions	VC-WGSO-2	2 Runs of Coaxial Cable	2.4
	VC-WGSO-4	4 Runs of Coaxial Cable	3.3
	VC-WGSO-7	7 Runs of Coaxial Cable	4.2
	VC-WGSO-12	12 Runs of Coaxial Cable	5.8

Ex-Press® Coax Mounting Band

Application: Monopoles
 Size: 3/4" and 7/16" holes
 Design: Coax support for outside or inside of round structures
 Feature: Universal expansion/compression band with quick clamp locking features, Patent # US 7,603,752
 Mounts to: 10" to 60" OD round or polygon monopole
 Material: Aluminum and hot dip galvanized steel
 Includes: Bracket and hardware
 Order Separately: Snap-in hangers (pg 102), and butterfly hangers (pg 102)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	EX-P1060	Band for 10"-60" OD Legs or 36"-60" ID Access tubes, includes brackets for 12 lines	6.2
	EX-PH3	3-Hole Bracket for Expanding Line Capacity on Ex-Press Band, Kit of 10	2.8
	-	PE-FLASHTAPE-6X25	6" x 25' Neoprene Tape -
	-	PE-FLASHTAPE-6X100	6" x 100' Neoprene Tape -



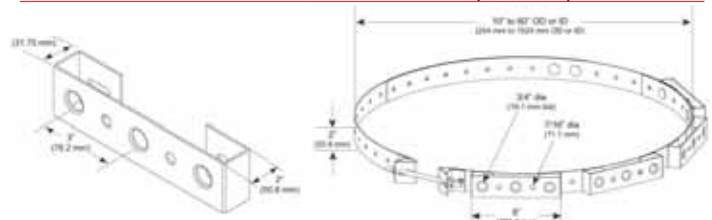
Polygon Monopole



Water Tower Access Tube



Round Monopole / Water Tower Leg



Compression Open



Compression Midway



Compression Locked



Expansion Open



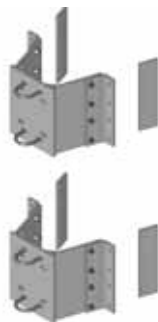
Expansion Midway



Expansion Locked

Mid Span Mounts

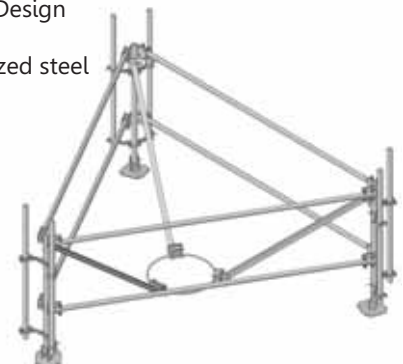
Application: Water tower
 Size: 8" (203.2 mm) stand-off
 Design: Universal single antenna mount
 Feature: Mounts to curved tank surfaces
 Mounts to: Bolt or weld on design
 Material: Hot dip galvanized steel
 Includes: Mount, hardware
 Order Separately: Pipe (pg 50)



Mfr	Part #	Description	Weight, lb
Andrew Solutions	WT-MSM2-B	For 2-3/8" (60.3 mm) OD	25
	WT-MSM3-B	For 2-7/8" (73.0 mm) OD	25
	WT-MSM35-B	For 3-1/2" (88.9 mm) OD	50
	WT-MSM4-B	For 4-1/2" (114.3 mm) OD	50

Water Tank Vent Tube Mount

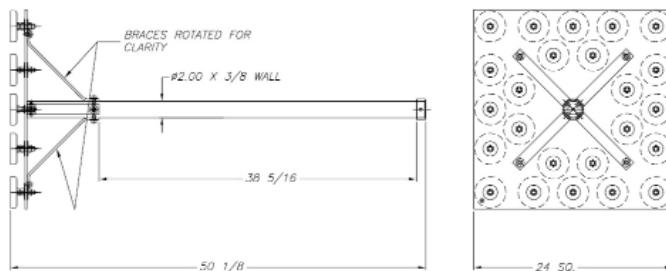
Application: Water Towers
 Size: 12'-6" Face
 Design: 3 sector water tower mount
 Feature: Adjustable Face Design
 Mounts to: Water Tower
 Material: Hot dip galvanized steel and aluminum face pipes
 Includes: Pipes, hardware



Mfr	Part #	Description	Weight, lb
Andrew Solutions	MTC9212	Water Tank Vent Tube Mount	646

Magnemount Magnetic Mount

- Cost-effective, non-penetrating magnetic mount designed for use on steel water towers
- Uses ceramic permanent magnets to achieve its holding power
- Unique attachment system allows its use on irregularly curved steel surfaces
- Available in 4 basic designs; all can be modified to accommodate specialized needs

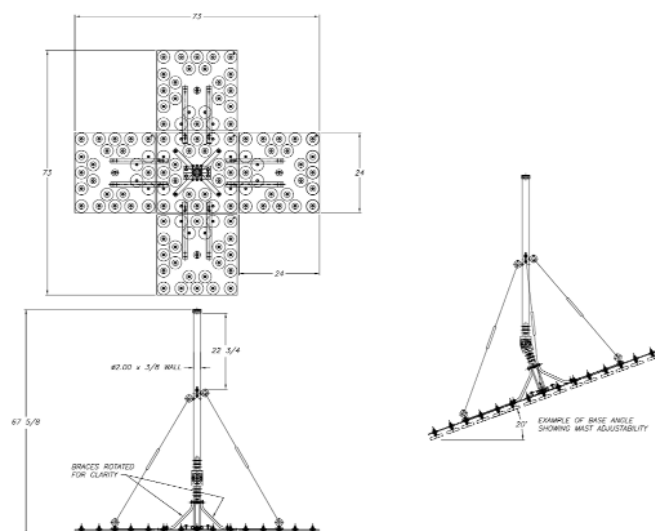


Model MB

- 100 MPH wind speed capacity: 5.5 ft² wind surface area
- Fixed mast
- Footprint: 24" x 24"
- Mast size: 2" OD x .375" W x 36" L or 3" OD x .375" W x 36" L
- Unguyed
- Shipping container: corrugated carton at no charge, or a wood crate at additional charge

Part #

Model-MB



Model MASS

- 100 MPH wind speed capacity: 10.5 ft² wind surface area
- Mast fixed/adjustable – adjustable
- Footprint: 72" x 72"
- Mast size: 2" OD x .375" W x 60" L or 3" OD x .375" W x 60" L
- Guyed
- Shipping container: wood crate at additional charge

Part #

Model-MASS

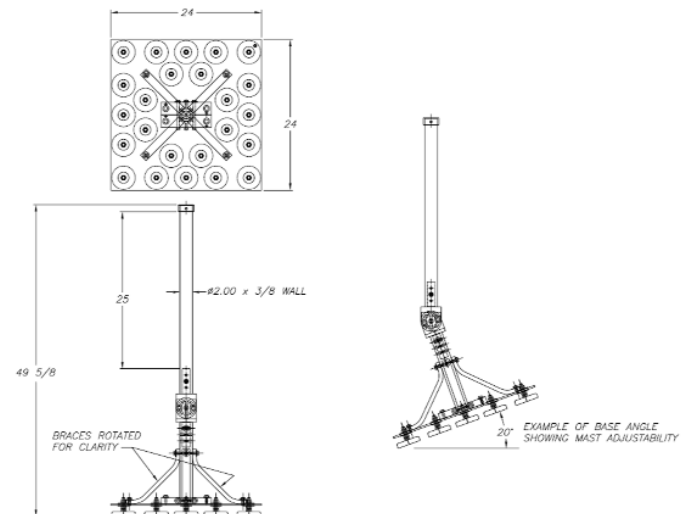


Magnetic Cable Tray Mount

Two 3.5" ceramic magnets, 18" unistrut with six 3/4" holes for snap-in hangers

Part #

CTM19

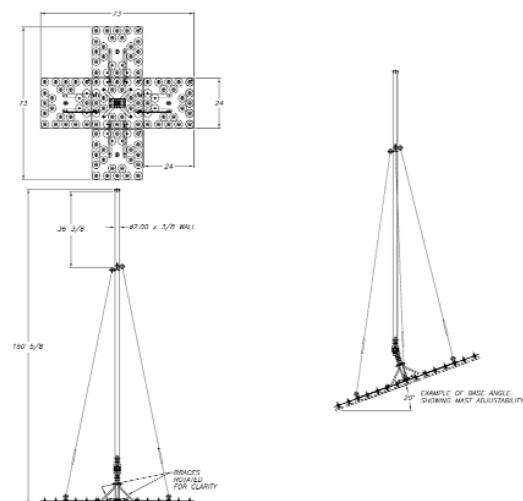


Model MA

- 100 MPH wind speed capacity: 5.5 ft² wind surface area
- Adjustable mast
- Footprint: 24" x 24"
- Mast size: 2" OD x .375" W x 36" L or 3" OD x .375" W x 36" L
- Unguyed
- Shipping container: corrugated carton at no charge, or a wood crate at additional charge

Part #

Model-MA

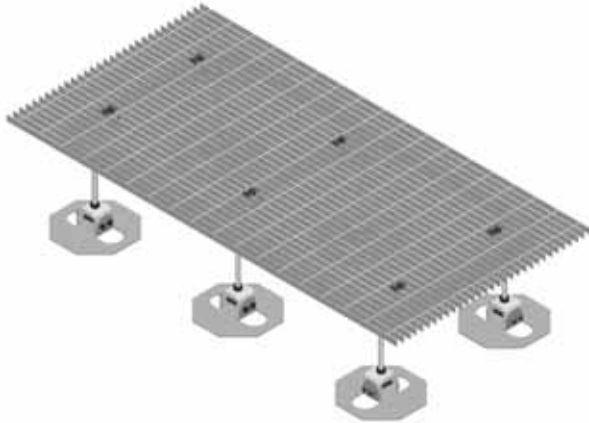


Model MASS-XL

- 100 MPH wind speed capacity: 10.5 ft² wind surface area
- Mast fixed/adjustable – adjustable
- Footprint: 72" x 72"
- Mast size: 2" OD x .375" W x 60" L or 3" OD x .375" W x 60" L
- Guyed
- Shipping container: wood crate at additional charge

Part #

Model-MASS-XL



Light Duty Equipment Platforms

Application: Equipment support

Design: Formed channel

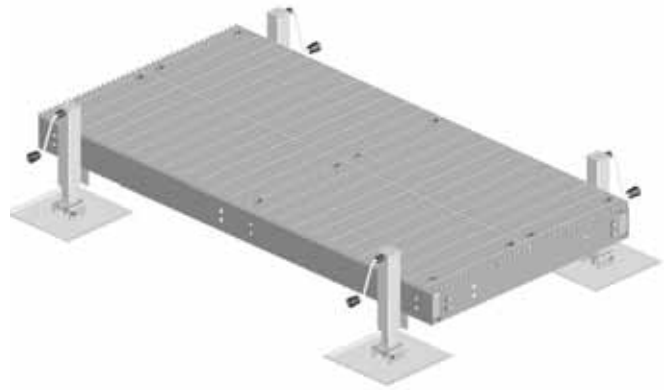
Feature: Easy to assemble, bolt together design

Material: Hot dip galvanized steel

Includes: Frame, grating, adjustable legs, hardware

Loading: Up to 1,200 lb (544 kg)

Mfr	Part #	Description	# of Light Duty Legs
Andrew Solutions	LD-EP0303	3' x 3' (0.9 m x 0.9 m)	4
	LD-EP0306	3' x 6' (0.9 m x 1.8 m)	6
	LP-EP0404	4' x 4' (1.2 m x 1.2 m)	4
	LP-EP0406	4' x 6' (1.2 m x 1.8 m)	6
	LD-EP0408	4' x 8' (1.2 m x 2.4 m)	6
	LD-EP0606	6' x 6' (1.8 m x 1.8 m)	9
	LD-EP0608	6' x 8' (1.8 m x 2.4 m)	9
	LD-EP0808	8' x 8' (2.4 m x 2.4 m)	9



4" (101.6 mm) Channel Light Duty Equipment Platforms

Application: Equipment support

Design: Platforms with or without jackable legs

Feature: Easy to assemble, bolt together design

Material: Hot dip galvanized steel

Includes: Frame, grating, hardware

Order Separately: Adjustable legs for base platforms (pg 45)

Loading: Up to 3,500 lb (1,587 kg)

Mfr	Part #	Description
Andrew Solutions	EQ-P4C0404-B	4' x 4' (1.2 m x 1.2 m) Base Only
	EQ-P4C0404-AL	4' x 4' (1.2 m x 1.2 m) Base w/ 4 Adj Legs
	EQ-P4C0406-B	4' x 6' (1.2 m x 1.8 m) Base Only
	EQ-P4C0406-AL	4' x 6' (1.2 m x 1.8 m) Base w/ 4 Adj Legs
	EQ-P4C0408-B	4' x 8' (1.2 m x 2.4 m) Base Only
	EQ-P4C0408-AL	4' x 8' (1.2 m x 2.4 m) Base w/ 4 Adj Legs
	EQ-P4C0606-B	6' x 6' (1.8 m x 1.8 m) Base Only
	EQ-P4C0606-AL	6' x 6' (1.8 m x 1.8 m) Base w/ 4 Adj Legs
	EQ-P4C0608-B	6' x 8' (1.8 m x 2.4 m) Base Only
	EQ-P4C0608-AL	6' x 8' (1.8 m x 2.4 m) Base w/ 4 Adj Legs
	EQ-P4C0808-B	8' x 8' (2.4 m x 2.4 m) Base Only
	EQ-P4C0808-AL	8' x 8' (2.4 m x 2.4 m) Base w/ 4 Adj Legs

6" (152.39 mm) Channel Heavy Duty Equipment Platforms

Application: Equipment support

Design: Platforms with or without jackable legs

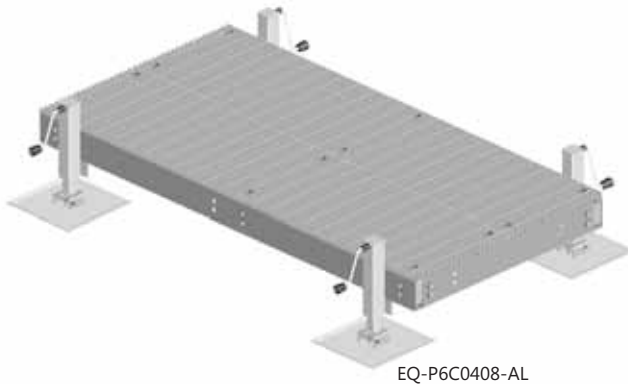
Feature: Easy to assemble, bolt together design

Material: Hot dip galvanized steel

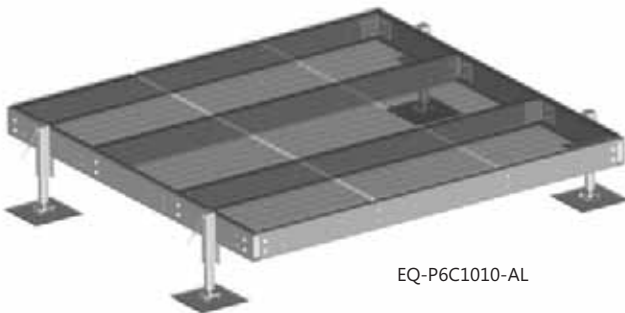
Includes: Frame, grating, hardware

Order Separately: Adjustable legs for base platforms (pg 45)

Loading: Up to 5,500 lb (2,495 kg)



EQ-P6C0408-AL



EQ-P6C1010-AL

Mfr	Part #	Description
Andrew Solutions	EQ-P6C0404-B	4' x 4' (1.2 m x 1.2 m) Base Only
	EQ-P6C0404-AL	4' x 4' (1.2 m x 1.2 m) Base w/ 4 Adj Legs
	EQ-P6C0406-B	4' x 6' (1.2 m x 1.8 m) Base Only
	EQ-P6C0406-AL	4' x 6' (1.2 m x 1.8 m) Base w/ 4 Adj Legs
	EQ-P6C0408-B	4' x 8' (1.2 m x 2.4 m) Base Only
	EQ-P6C0408-AL	4' x 8' (1.2 m x 2.4 m) Base w/ 4 Adj Legs
	EQ-P6C0410-B	4' x 10' (1.2 m x 3.2 m) Base Only
	EQ-P6C0410-AL	4' x 10' (1.2 m x 3.2 m) Base w/ 4 Adj Legs
	EQ-P6C0412-B	4' X 12' (1.2 m x 3.8 m) Base Only
	EQ-P6C0412-AL	4' x 12' (1.2 m x 3.8 m) Base w/ 6 Adj Legs
	EQ-P6C0414-B	4' x 14' (1.2 m x 4.4 m) Base Only
	EQ-P6C0414-AL	4' x 14' (1.2 m x 4.4 m) Base w/ 6 Adj Legs
	EQ-P6C0416-B	4' x 16' (1.2 m x 5 m) Base Only
	EQ-P6C0416-AL	4' x 16' (1.2 m x 5 m) Base w/ 6 Adj Legs
	EQ-P6C0418-B	4' x 18' (1.2 m x 5.6 m) Base Only
	EQ-P6C0418-AL	4' x 18' (1.2 m x 5.6 m) Base w/ 6 Adj Legs
	EQ-P6C0420-B	4' x 20' (1.2 m x 6.1 m) Base Only
	EQ-P6C0420-AL	4' x 20' (1.2 m x 6.1 m) Base w/ 8 Adj Legs
	EQ-P6C0606-B	6' x 6' (1.8 m x 1.8 m) Base Only
	EQ-P6C0606-AL	6' x 6' (1.8 m x 1.8 m) Base w/ 4 Adj Legs
	EQ-P6C0608-B	6' x 8' (1.8 m x 2.4 m) Base Only
	EQ-P6C0608-AL	6' x 8' (1.8 m x 2.4 m) Base w/ 4 Adj Legs
	EQ-P6C0610-B	6' x 10' (1.8 m x 3 m) Base Only
	EQ-P6C0610-AL	6' x 10' (1.8 m x 3 m) Base w/ 4 Adj Legs
	EQ-P6C0612-B	6' x 12' (1.8 m x 3.8 m) Base Only
	EQ-P6C0612-AL	6' x 12' (1.8 m x 3.8 m) Base w/ 6 Adj Legs
	EQ-P6C0614-B	6' x 14' (1.8 m x 4.4 m) Base Only
	EQ-P6C0614-AL	6' x 14' (1.8 m x 4.4 m) Base w/ 6 Adj Legs
	EQ-P6C0616-B	6' x 16' (1.8 m x 5 m) Base Only
	EQ-P6C0616-AL	6' x 16' (1.8 m x 5 m) Base w/ 6 Adj Legs
	EQ-P6C0618-B	6' x 18' (1.8 m x 5.6 m) Base Only
	EQ-P6C0618-AL	6' x 18' (1.8 m x 5.6 m) Base w/ 6 Adj Legs
	EQ-P6C0620-B	6' x 20' (1.8 m x 6.1 m) Base Only
	EQ-P6C0620-AL	6' x 20' (1.8 m x 6.1 m) Base w/ 8 Adj Legs
	EQ-P6C0808-B	8' x 8' (2.4 m x 2.4 m) Base Only
	EQ-P6C0808-AL	8' x 8' (2.4 m x 2.4 m) Base w/ 4 Adj Legs
	EQ-P6C0810-B	8' x 10' (2.4 m x 3 m) Base Only
	EQ-P6C0810-AL	8' x 10' (2.4 m x 3 m) Base w/ 4 Adj Legs
	EQ-P6C0812-B	8' x 12' (2.4 m x 3.8 m) Base Only
	EQ-P6C0812-AL	8' x 12' (2.4 m x 3.8 m) Base w/ 6 Adj Legs
	EQ-P6C0814-B	8' x 14' (2.4 m x 4.4 m) Base Only
	EQ-P6C0814-AL	8' x 14' (2.4 m x 4.4 m) Base w/ 6 Adj Legs
	EQ-P6C0816-B	8' x 16' (2.4 m x 5 m) Base Only
	EQ-P6C0816-AL	8' x 16' (2.4 m x 5 m) Base w/ 6 Adj Legs
	EQ-P6C0818-B	8' x 18' (2.4 m x 5.6 m) Base Only
	EQ-P6C0818-AL	8' x 18' (2.4 m x 5.6 m) Base w/ 6 Adj Legs
	EQ-P6C0820-B	8' x 20' (2.4 m x 6.1 m) Base Only
	EQ-P6C0820-AL	8' x 20' (2.4 m x 6.1 m) Base w/ 8 Adj Legs
	EQ-P6C1010-B	10' x 10' (3 m x 3 m) Base Only
	EQ-P6C1010-AL	10' x 10' (3 m x 3 m) Base w/ 4 Adj Legs
	EQ-P6C1012-B	10' x 12' (3 m x 3.8 m) Base Only
	EQ-P6C1012-AL	10' x 12' (3 m x 3.8 m) Base w/ 6 Adj Legs
	EQ-P6C1014-B	10' x 14' (3 m x 4.4 m) Base Only
	EQ-P6C1014-AL	10' x 14' (3 m x 4.4 m) Base w/ 6 Adj Legs
	EQ-P6C1015-B	10' x 15' (3 m x 4.6 m) Base Only
	EQ-P6C1015-AL	10' x 15' (3 m x 4.6 m) Base w/ 6 Adj Legs

Site Related Steel

6" (152.39 mm) Channel Heavy Duty Equipment Platforms (cont.)

Application: Equipment support

Design: Platforms with or without jackable legs

Feature: Easy to assemble, bolt together design

Material: Hot dip galvanized steel

Includes: Frame, grating, hardware

Order Separately: Adjustable legs for base platforms (pg 45)

Loading: Up to 5,500 lb (2,495 kg)



Mfr Part #	Description
EQ-P6C1016-B	10' x 16' (3 m x 5 m) Base Only
EQ-P6C1016-AL	10' x 16' (3 m x 5 m) Base w/ 6 Adj Legs
EQ-P6C1018-B	10' x 18' (3 m x 5.6 m) Base Only
EQ-P6C1018-AL	10' x 18' (3 m x 5.6 m) Base w/ 6 Adj Legs
EQ-P6C1020-B	10' x 20' (3 m x 6.1 m) Base Only
EQ-P6C1020-AL	10' x 20' (3 m x 6.1 m) Base w/ 8 Adj Legs
EQ-P6C1212-B	12' x 12' (3.8 m x 3.8 m) Base Only
EQ-P6C1212-AL	12' x 12' (3.8 m x 3.8 m) Base w/ 6 Adj Legs
EQ-P6C1214-B	12' x 14' (3.8 m x 4.4 m) Base Only
EQ-P6C1214-AL	12' x 14' (3.8 m x 4.4 m) Base w/ 6 Adj Legs
EQ-P6C1216-B	12' x 16' (3.8 m x 5 m) Base Only
EQ-P6C1216-AL	12' x 16' (3.8 m x 5 m) Base w/ 6 Adj Legs
EQ-P6C1218-B	12' x 18' (3.8 m x 5.6 m) Base Only
EQ-P6C1218-AL	12' x 18' (3.8 m x 5.6 m) Base w/ 6 Adj Legs
EQ-P6C1220-B	12' x 20' (3.8 m x 6.1 m) Base Only
EQ-P6C1220-AL	12' x 20' (3.8 m x 6.1 m) Base w/ 10 Adj Legs
EQ-P6C1414-B	14' x 14' (4.4 m x 4.4 m) Base Only
EQ-P6C1414-AL	14' x 14' (4.4 m x 4.4 m) Base w/ 12 Adj Legs
EQ-P6C1416-B	14' x 16' (4.4 m x 5 m) Base Only
EQ-P6C1416-AL	14' x 16' (4.4 m x 5 m) Base w/ 12 Adj Legs
EQ-P6C1418-B	14' x 18' (4.4 m x 5.6 m) Base Only
EQ-P6C1418-AL	14' x 18' (4.4 m x 5.6 m) Base w/ 14 Adj Legs
EQ-P6C1420-B	14' x 20' (4.4 m x 6.1 m) Base Only
EQ-P6C1420-AL	14' x 20' (4.4 m x 6.1 m) Base w/ 16 Adj Legs
EQ-P6C1616-B	16' x 16' (5 m x 5 m) Base Only
EQ-P6C1616-AL	16' x 16' (5 m x 5 m) Base w/ 16 Adj Legs
EQ-P6C1618-B	16' x 18' (5 m x 5.6 m) Base Only
EQ-P6C1618-AL	16' x 18' (5 m x 5.6 m) Base w/ 16 Adj Legs
EQ-P6C1620-B	16' x 20' (6 m x 6.1 m) Base Only
EQ-P6C1620-AL	16' x 20' (6 m x 6.1 m) Base w/ 16 Adj Legs
EQ-P6C1818-B	18' x 18' (5.6 m x 5.6 m) Base Only
EQ-P6C1818-AL	18' x 18' (5.6 m x 5.6 m) Base w/ 16 Adj Legs
EQ-P6C1820-B	18' x 20' (5.6 m x 6.1 m) Base Only
EQ-P6C1820-AL	18' x 20' (5.6 m x 6.1 m) Base w/ 16 Adj Legs
EQ-P6C2020-B	20' x 20' (6.1 m x 6.1 m) Base Only
EQ-P6C2020-AL	20' x 20' (6.1 m x 6.1 m) Base w/ 16 Adj Legs

Andrew Solutions

8" (203.2 mm) Channel Heavy Duty Equipment Platforms

Application: Equipment support

Design: Platforms with or without jackable legs

Feature: Easy to assemble, bolt together design

Material: Hot dip galvanized steel

Includes: Frame, grating, hardware

Order Separately: Adjustable legs for base platforms (pg 45)

Loading: Up to 10,000 lb

Mfr Part #	Description
EQ-P0404-B	4' x 4' (1.2 m x 1.2 m) Base Only
EQ-P0404-AL	4' x 4' (1.2 m x 1.2 m) Base w/ 4 Adj Legs
EQ-P0406-B	4' x 6' (1.2 m x 1.8 m) Base Only
EQ-P0406-AL	4' x 6' (1.2 m x 1.8 m) Base w/ 4 Adj Legs
EQ-P0408-B	4' x 8' (1.2 m x 2.4 m) Base Only
EQ-P0408-AL	4' x 8' (1.2 m x 2.4 m) Base w/ 4 Adj Legs
EQ-P0410-B	4' x 10' (1.2 m x 3.2 m) Base Only
EQ-P0410-AL	4' x 10' (1.2 m x 3.2 m) Base w/ 4 Adj Legs
EQ-P0412-B	4' x 12' (1.2 m x 3.8 m) Base Only
EQ-P0412-AL	4' x 12' (1.2 m x 3.8 m) Base w/ 6 Adj Legs
EQ-P0414-B	4' x 14' (1.2 m x 4.4 m) Base Only
EQ-P0414-AL	4' x 14' (1.2 m x 4.4 m) Base w/ 6 Adj Legs
EQ-P0416-B	4' x 16' (1.2 m x 5 m) Base Only
EQ-P0416-AL	4' x 16' (1.2 m x 5 m) Base w/ 6 Adj Legs

Andrew Solutions

8" (203.2 mm) Channel Heavy Duty Equipment Platforms (cont.)

Application: Equipment support

Design: Platforms with or without jackable legs

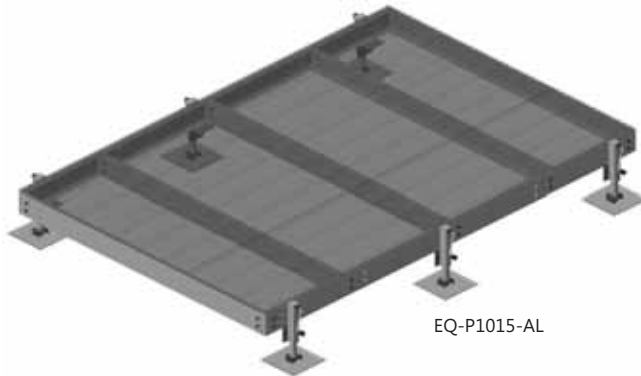
Feature: Easy to assemble, bolt together design

Material: Hot dip galvanized steel

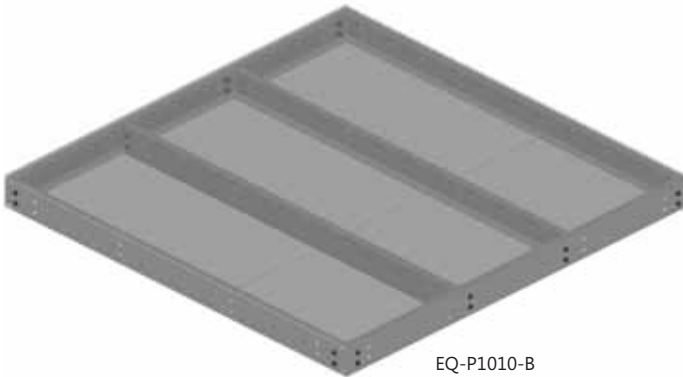
Includes: Frame, grating, hardware

Order Separately: Adjustable legs for base platforms (pg 45)

Loading: Up to 10,000 lb



EQ-P1015-AL



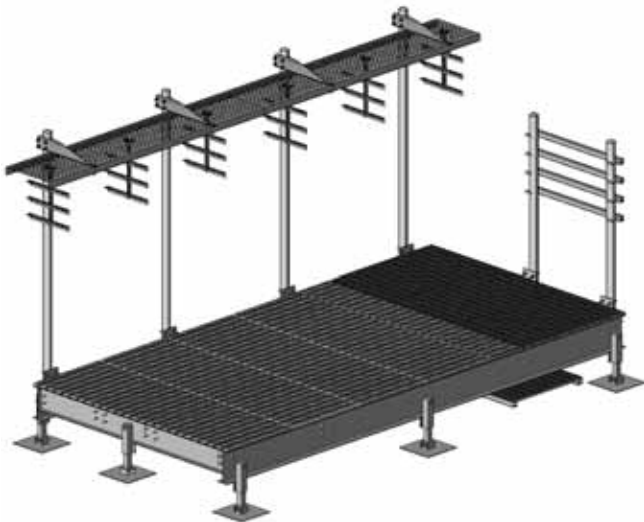
EQ-P1010-B

Mfr Part #	Description
EQ-P0418-B	4' x 18' (1.2 m x 5.6 m) Base Only
EQ-P0418-AL	4' x 18' (1.2 m x 5.6 m) Base w/ 6 Adj Legs
EQ-P0420-B	4' x 20' (1.2 m x 6.1 m) Base Only
EQ-P0420-AL	4' x 20' (1.2 m x 6.1 m) Base w/ 8 Adj Legs
EQ-P0606-B	6' x 6' (1.8 m x 1.8 m) Base Only
EQ-P0606-AL	6' x 6' (1.8 m x 1.8 m) Base w/ 4 Adj Legs
EQ-P0608-B	6' x 8' (1.8 m x 2.4 m) Base Only
EQ-P0608-AL	6' x 8' (1.8 m x 2.4 m) Base w/ 4 Adj Legs
EQ-P0610-B	6' x 10' (1.8 m x 3 m) Base Only
EQ-P0610-AL	6' x 10' (1.8 m x 3 m) Base w/ 4 Adj Legs
EQ-P0612-B	6' x 12' (1.8 m x 3.8 m) Base Only
EQ-P0612-AL	6' x 12' (1.8 m x 3.8 m) Base w/ 6 Adj Legs
EQ-P0614-B	6' x 14' (1.8 m x 4.4 m) Base Only
EQ-P0614-AL	6' x 14' (1.8 m x 4.4 m) Base w/ 6 Adj Legs
EQ-P0616-B	6' x 16' (1.8 m x 5 m) Base Only
EQ-P0616-AL	6' x 16' (1.8 m x 5 m) Base w/ 6 Adj Legs
EQ-P0618-B	6' x 18' (1.8 m x 5.6 m) Base Only
EQ-P0618-AL	6' x 18' (1.8 m x 5.6 m) Base w/ 6 Adj Legs
EQ-P0620-B	6' x 20' (1.8 m x 6.1 m) Base Only
EQ-P0620-AL	6' x 20' (1.8 m x 6.1 m) Base w/ 8 Adj Legs
EQ-P0808-B	8' x 8' (2.4 m x 2.4 m) Base Only
EQ-P0808-AL	8' x 8' (2.4 m x 2.4 m) Base w/ 4 Adj Legs
EQ-P0810-B	8' x 10' (2.4 m x 3 m) Base Only
EQ-P0810-AL	8' x 10' (2.4 m x 3 m) Base w/ 4 Adj Legs
EQ-P0812-B	8' x 12' (2.4 m x 3.8 m) Base Only
EQ-P0812-AL	8' x 12' (2.4 m x 3.8 m) Base w/ 6 Adj Legs
EQ-P0814-B	8' x 14' (2.4 m x 4.4 m) Base Only
EQ-P0814-AL	8' x 14' (2.4 m x 4.4 m) Base w/ 6 Adj Legs
EQ-P0816-B	8' x 16' (2.4 m x 5 m) Base Only
EQ-P0816-AL	8' x 16' (2.4 m x 5 m) Base w/ 6 Adj Legs
EQ-P0818-B	8' x 18' (2.4 m x 5.6 m) Base Only
EQ-P0818-AL	8' x 18' (2.4 m x 5.6 m) Base w/ 6 Adj Legs
EQ-P0820-B	8' x 20' (2.4 m x 6.1 m) Base Only
EQ-P0820-AL	8' x 20' (2.4 m x 6.1 m) Base w/ 8 Adj Legs
EQ-P1010-B	10' x 10' (3 m x 3 m) Base Only
EQ-P1010-AL	10' x 10' (3 m x 3 m) Base w/ 4 Adj Legs
EQ-P1012-B	10' x 12' (3 m x 3.8 m) Base Only
EQ-P1012-AL	10' x 12' (3 m x 3.8 m) Base w/ 6 Adj Legs
EQ-P1014-B	10' x 14' (3 m x 4.4 m) Base Only
EQ-P1014-AL	10' x 14' (3 m x 4.4 m) Base w/ 6 Adj Legs
EQ-P1015-B	10' x 15' (3 m x 4.6 m) Base Only
EQ-P1015-AL	10' x 15' (3 m x 4.6 m) Base w/ 6 Adj Legs
EQ-P1016-B	10' x 16' (3 m x 5 m) Base Only
EQ-P1016-AL	10' x 16' (3 m x 5 m) Base w/ 6 Adj Legs
EQ-P1018-B	10' x 18' (3 m x 5.6 m) Base Only
EQ-P1018-AL	10' x 18' (3 m x 5.6 m) Base w/ 6 Adj Legs
EQ-P1020-B	10' x 20' (3 m x 6.1 m) Base Only
EQ-P1020-AL	10' x 20' (3 m x 6.1 m) Base w/ 8 Adj Legs
EQ-P1212-B	12' x 12' (3.8 m x 3.8 m) Base Only
EQ-P1212-AL	12' x 12' (3.8 m x 3.8 m) Base w/ 6 Adj Legs

Andrew Solutions

8" (203.2 mm) Channel Heavy Duty Equipment Platforms (cont.)

Application: Equipment support
Design: Platforms with or without jackable legs
Feature: Easy to assemble, bolt together design
Material: Hot dip galvanized steel
Includes: Frame, grating, hardware
Order Separately: Adjustable legs for base platforms (pg 45)
Loading: Up to 10,000 lb



Mfr Part #	Description
EQ-P1214-B	12' x 14' (3.8 m x 4.4 m) Base Only
EQ-P1214-AL	12' x 14' (3.8 m x 4.4 m) Base w/ 6 Adj Legs
EQ-P1216-B	12' x 16' (3.8 m x 5 m) Base Only
EQ-P1216-AL	12' x 16' (3.8 m x 5 m) Base w/ 6 Adj Legs
EQ-P1218-B	12' x 18' (3.8 m x 5.6 m) Base Only
EQ-P1218-AL	12' x 18' (3.8 m x 5.6 m) Base w/ 6 Adj Legs
EQ-P1220-B	12' x 20' (3.8 m x 6.1 m) Base Only
EQ-P1220-AL	12' x 20' (3.8 m x 6.1 m) Base w/ 10 Adj Legs
EQ-P1414-B	14' x 14' (4.4 m x 4.4 m) Base Only
EQ-P1414-AL	14' x 14' (4.4 m x 4.4 m) Base w/ 12 Adj Legs
EQ-P1416-B	14' x 16' (4.4 m x 5 m) Base Only
EQ-P1416-AL	14' x 16' (4.4 m x 5 m) Base w/ 12 Adj Legs
EQ-P1418-B	14' x 18' (4.4 m x 5.6 m) Base Only
EQ-P1418-AL	14' x 18' (4.4 m x 5.6 m) Base w/ 14 Adj Legs
EQ-P1420-B	14' x 20' (4.4 m x 6.1 m) Base Only
EQ-P1420-AL	14' x 20' (4.4 m x 6.1 m) Base w/ 16 Adj Legs
EQ-P1616-B	16' x 16' (5 m x 5 m) Base Only
EQ-P1616-AL	16' x 16' (5 m x 5 m) Base w/ 16 Adj Legs
EQ-P1618-B	16' x 18' (5 m x 5.6 m) Base Only
EQ-P1618-AL	16' x 18' (5 m x 5.6 m) Base w/ 16 Adj Legs
EQ-P1620-B	16' x 20' (6 m x 6.1 m) Base Only
EQ-P1620-AL	16' x 20' (6 m x 6.1 m) Base w/ 16 Adj Legs
EQ-P1818-B	18' x 18' (5.6 m x 5.6 m) Base Only
EQ-P1818-AL	18' x 18' (5.6 m x 5.6 m) Base w/ 16 Adj Legs
EQ-P1820-B	18' x 20' (5.6 m x 6.1 m) Base Only
EQ-P1820-AL	18' x 20' (5.6 m x 6.1 m) Base w/ 16 Adj Legs
EQ-P2020-B	20' x 20' (6.1 m x 6.1 m) Base Only
EQ-P2020-AL	20' x 20' (6.1 m x 6.1 m) Base w/ 16 Adj Legs

Andrew Solutions



Equipment Platform Adjustable Legs

Application: Equipment platforms

Design: Vertical adjustability

Feature: Raw land or roof-top

Mounts to: Equipment platforms

Material: Hot dip galvanized steel

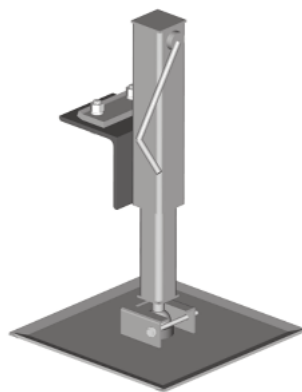
Includes: Legs, hardware

Order Separately: Equipment platform bases (pgs 40-44)

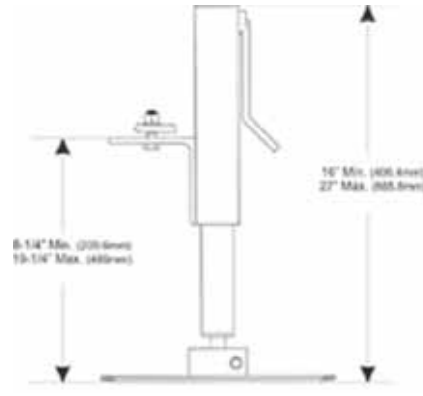
Mfr	Part #	Description	Weight, lb
Andrew Solutions	EQ-P-AL	Adjustable Leg for Equipment Platform for Raw Land Installations	45
	EQ-P-DF	Weight Dispersement Leg for Equipment Platforms	38



EQ-P-DF



EQ-P-AL



EQ-P-AL

Equipment Platforms for Roof-top Installations

Application: Equipment support

Size: 3 sizes available

Design: Base platform with weight displacement legs

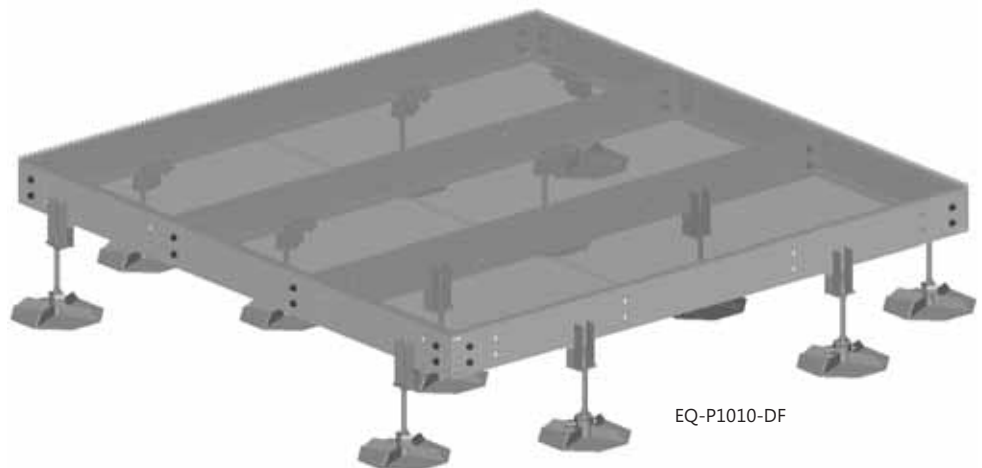
Feature: Adjustable leg for roof-top applications

Material: Hot dip galvanized steel

Includes: Frame, grating, legs, hardware

Order Separately: Additional legs if required (above)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	EQ-P1010-DF	10' x 10' (3 m x 3 m) Base w/ 12 Adj Legs	1900
	EQ-P1015-DF	10' x 15' (3 m x 4.6 m) Base w/ 16 Adj Legs	2650
	EQ-P1020-DF	10' x 20' (3 m x 6.1 m) Base w/ 20 Adj Legs	3500

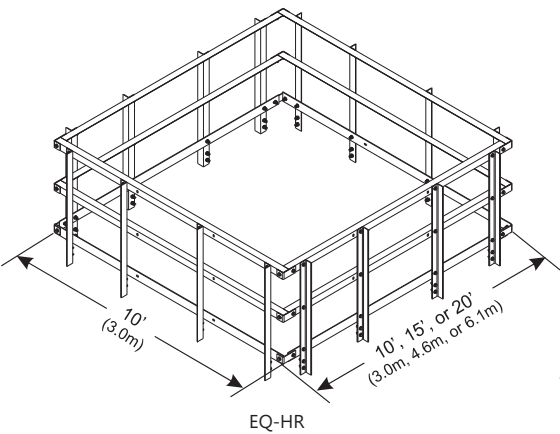


EQ-P1010-DF

Equipment Platforms (cont.)

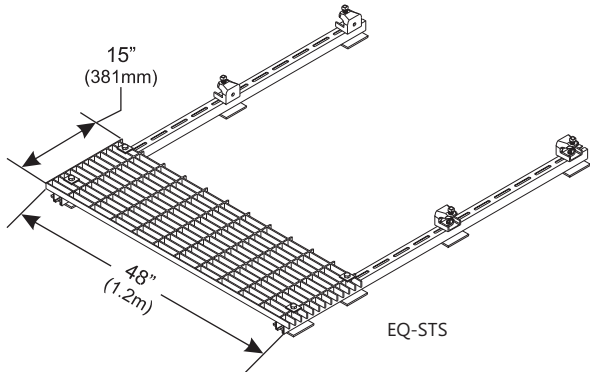
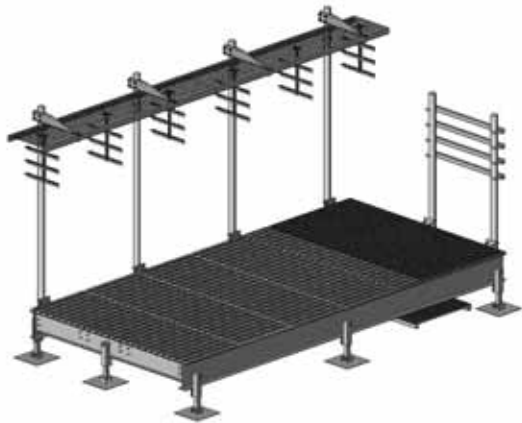
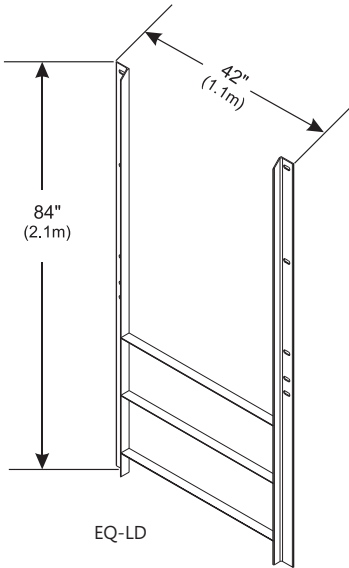
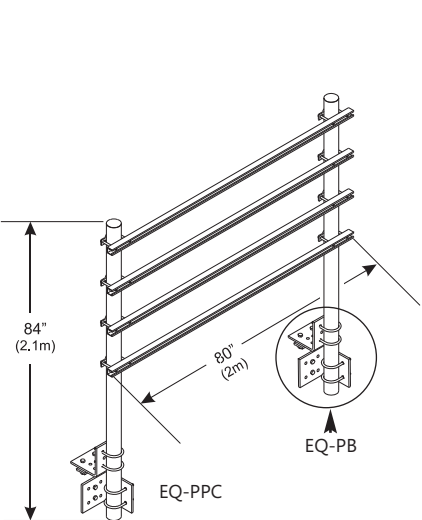
Equipment Platform System Components

Application: Platform support components
Size: Multiple versions, multiple sizes
Feature: Easy-to-assemble, bolt together designs
Mounts to: EQ series platform bases
Material: Hot dip galvanized steel
Order Separately: Platform base (pgs 40-45)



Mfr	Part #	Description	Weight, lb
Handrail Kit for EQ-P Series Platforms			
	EQ-HR1010	For 10' x 10' (3 m x 3 m) Platform	742
	EQ-HR1015	For 10' x 15' (3 m x 4.6 m) Platform	886
	EQ-HR1020	For 10' x 20' (3 m x 6.1 m) Platform	1,066
Ladder for EQ-P Series Platforms			
	EQ-LD	Climbing Ladder for EQ-P Series Platforms	65
Step Kits for EQ-P Series Platforms			
	EQ-ST5	Single Platform Step for EQ-P Series Platforms	78
	EQ-STEP-2	Double Step Kit for EQ-P Series Platforms	225
	EQ-STEP-3	Triple Step Kit for EQ-P Series Platforms	290
	EQ-STEP-4	Four Step Kit for EQ-P Series Platforms	365
	EQ-STEP-5	Five Step Kit for EQ-P Series Platforms	405
	EQ-STEP-6	Six Step Kit for EQ-P Series Platforms	505
Power Telco Rack Kit for EQ-P Series Platforms			
	EQ-PPC	Two Post Power Telco Rack Kit for EQ-P Series Platforms, Includes Brackets	262
Post Bracket Kit for Waveguide Bridge Attachment to EQ-P Series Platforms			
	EQ-PB	Mounts 3-1/2" (88.9 mm) OD Pipe	72

Andrew Solutions



Ice Canopies

Application: Site related

Design: Burial or base shoe design with gripstrut

Feature: Burial or base shoe

Material: Hot dip galvanized steel

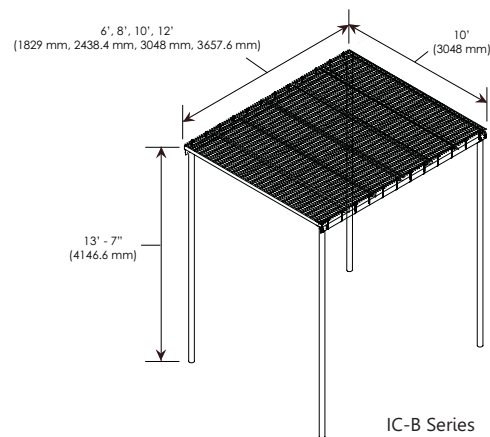
Includes: Posts, gripstrut, mounting hardware

Mfr	Part #	Description	Weight, lb
Andrew Solutions	Ice Canopies with (4) 13'-4" (4.1 m) Direct Burial Pipes		
	IC-0610-B	6' x 10' (1.8 m x 3 m)	625
	IC-0810-B	8' x 10' (2.4 m x 3 m)	725
	IC-1010-B	10' x 10' (3 m x 3 m)	825
	IC-0612-B	6' x 12' (1.8 m x 3.6 m)	650
	IC-0812-B	8' x 12' (2.4 m x 3.6 m)	750
	IC-1012-B	10' x 12' (3 m x 3.8 m)	930
	Ice Canopies with (4) 10'-6" (3.1 m) Base Shoe Pipes		
	IC-0610-S	6' X 10' (1.8 m x 3 m)	715
	IC-0810-S	8' x 10' (2.4 m x 3 m)	815
	IC-1010-S	10' x 10' (3 m x 3 m)	915
	IC-0612-S	6' x 12' (1.8 m x 3.6 m)	750
	IC-0812-S	8' x 12' (2.4 m x 3.6 m)	850
	IC-1012-S	10' x 12' (3 m x 3.8 m)	1,030

Andrew Solutions



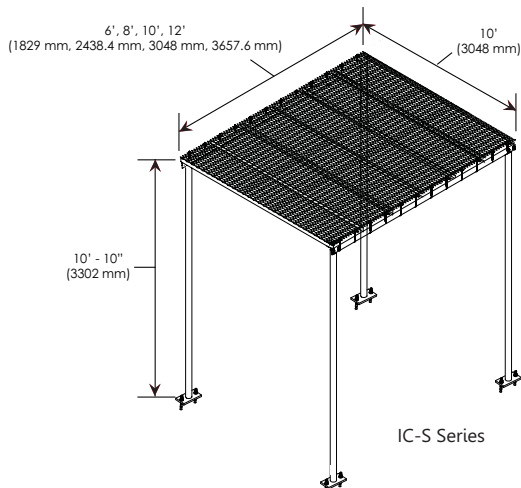
IC-0810-B



IC-B Series



IC-0810-S



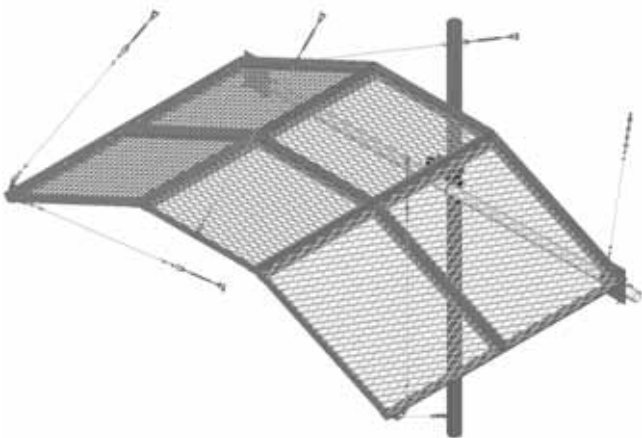
IC-S Series



Square Antenna Ice Shields

Application: Lattice Towers
Design: Heavy duty
Feature: Protects antenna from falling ice
Material: Hot dip galvanized steel
Includes: Ice shield, mounting hardware
Order Separately: 4-1/2" OD pipe mount (pg 13)

Mfr	Part #	Size	Weight, lb
Andrew Solutions	MD-SQ2	2' (609.5 mm) Square	125
	MD-SQ3	3' (914.4 mm) Square	150
	MD-SQ4	4' (1.21 m) Square	190

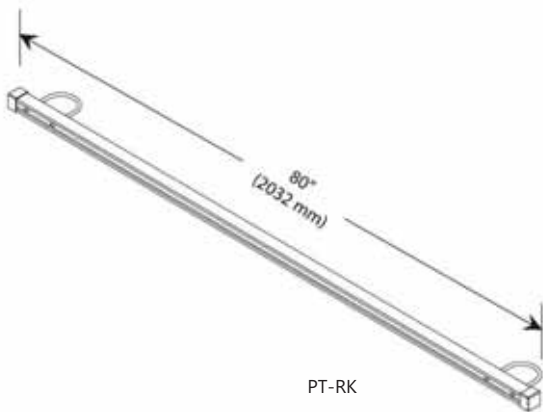


Microwave Antenna Ice Shields

Application: Lattice tower
Design: Heavy duty
Feature: Bolt together, light weight panels
Mounts to: 4-1/2" (114.3 mm) OD pipe
Material: Hot dip galvanized steel
Includes: Ice shield and all attachment hardware
Order Separately: Pipe mount (pg 13)

Mfr	Part #	Description	Weight, lb
Andrew Solutions	MD-S3	Shield for 3' (914.4 mm) Antenna	260
	MD-S4	Shield for 4' (1.21 m) Antenna	290
	MD-S6	Shield for 6' (1.8 m) Antenna	443
	MD-S8	Shield for 8' (2.4 m) Antenna	571
	MD-S10	Shield for 10' (3 m) Antenna	649
	MD-S12	Shield for 12' (3.6 m) Antenna	763

Custom lightweight and additional sizes available

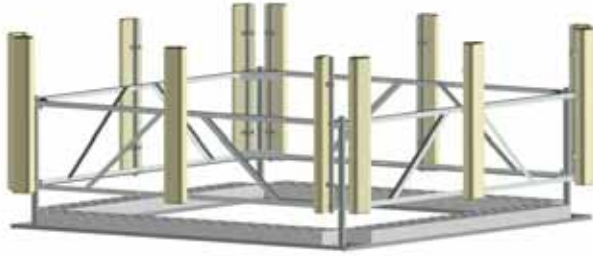


Power Telco Racks

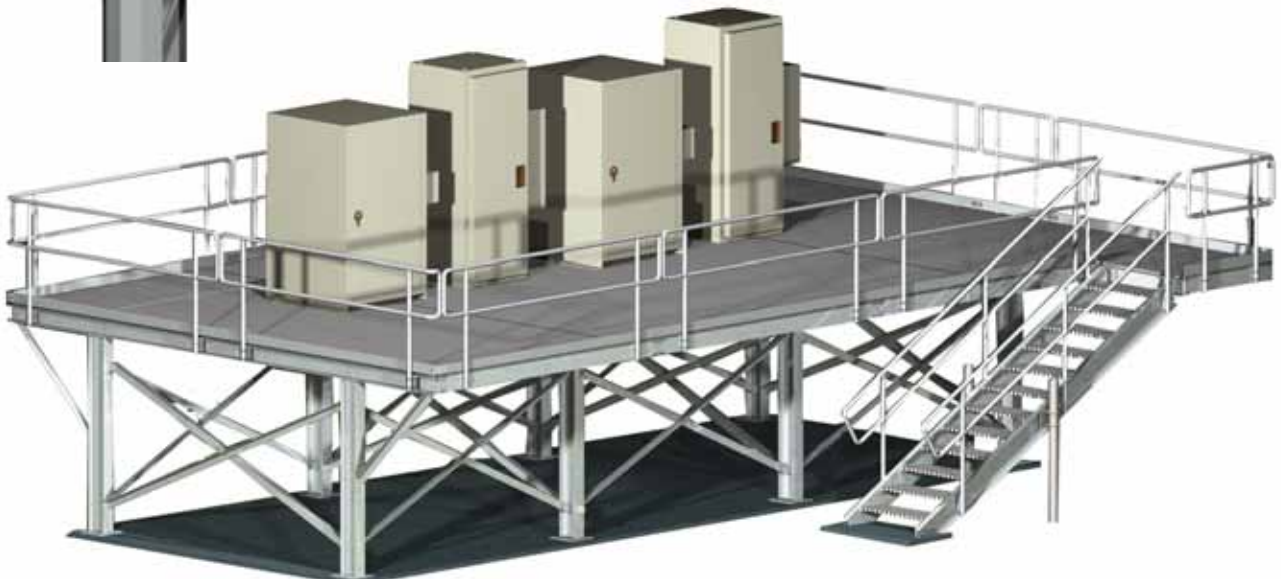
Application: Site related
Size: 13'-4" (4.1 m) posts and 80" (2 m) horizontal rails
Design: Two posts, unistrut
Feature: Burial posts
Material: Hot dip galvanized steel
Includes: Posts, horizontal struts, mounting hardware

Mfr	Part #	Description	Weight, lb
Andrew Solutions	PT-R102	Rack w/ Two 80" Rungs, 13'-4" Posts	135
	PT-R103	Rack w/ Three 80" Rungs, 13'-4" Posts	150
	PT-R104	Rack w/ Four 80" Rungs, 13'-4" Posts	165
	PT-RK	Rung Kit, One Rung	15



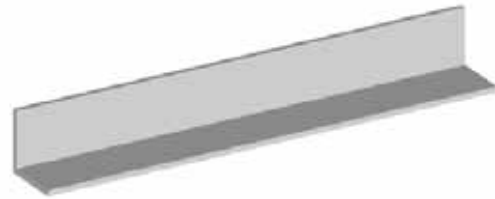
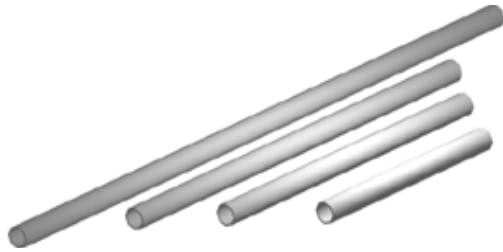


Primus is proud to offer customs through Andrew Solution's Steel Division, who is committed to fulfilling the industry's demand for custom components. With Andrew Solutions, Primus can quickly deliver custom fabricated products whether designed from scratch or built from existing drawings. For more information or to discuss a custom steel project, contact Primus' knowledgeable sales team at (800) 436-1636.



Galvanized Pipe and Angle

Galvanized Pipe and Angle



2-3/8" OD

Mfr: Andrew Solutions		
Part #	Description	Weight, lb
Pre-Cut Plain End Pipe, Galvanized Steel		
MT-648	2-3/8" OD x 24" (60.3 mm OD x 0.6 m)	7
MT-649	2-3/8" OD x 36" (60.3 mm OD x 0.9 m)	11
MT-650	2-3/8" OD x 48" (60.3 mm OD x 1.2 m)	14
MT-650-63	2-3/8" OD x 63" (60.3 mm OD x 1.6 m)	19
MT-651	2-3/8" OD x 72" (60.3 mm OD x 1.8 m)	21
MT-651-84	2-3/8" OD x 84" (60.3 mm OD x 2.1 m)	26
MT-651-96	2-3/8" OD x 96" (60.3 mm OD x 2.4 m)	33.5
MT-651-108	2-3/8" OD x 108" (60.3 mm OD x 2.7 m)	34.5
MT-651-114	2-3/8" OD x 114" (60.3 mm OD x 2.9 m)	35.1
MT-537	2-3/8" OD x 126" (60.3 mm OD x 3.2 m)	39.7
MT-651-150	2-3/8" OD x 150" (60.3 mm OD x 3.8 m)	46.3
MT-537-160	2-3/8" OD x 160" (60.3 mm OD x 4.1 m)	49.5
MT-537-170	2-3/8" OD x 170" (60.3 mm OD x 4.3 m)	52.7
MT-537-186	2-3/8" OD x 186" (60.3 mm OD x 4.7 m)	57.6
Bulk Pipe, Galvanized Steel		
MT-538	2-3/8" OD x 21' (60.3 mm OD x 6.4 m)	77.7

2-7/8" OD

Mfr: Andrew Solutions		
Part #	Description	Weight, lb
Pre-Cut Plain End Pipe, Galvanized Steel		
MT-546-48	2-7/8" OD x 48" (73 mm OD x 1.2 m)	37.8
MT-546-84	2-7/8" OD x 84"	
MT-546-96	2-7/8" OD x 96"	
MT-546-126	2-7/8" OD x 126" (73 mm OD x 3.2 m)	60
MT-546-150	2-7/8" OD x 150" (73 mm OD x 3.8 m)	72
MT-546-170	2-7/8" OD x 170" (73 mm OD x 4.3 m)	81.6
MT-546-198	2-7/8" OD x 198" (73 mm OD x 5 m)	95
MT-546-222	2-7/8" OD x 222" (73 mm OD x 5.6 m)	106.5
Bulk Pipe, Galvanized Steel		
MT-546	2-7/8" OD x 21' (73 mm OD x 6.4 m)	121

3-1/2" OD

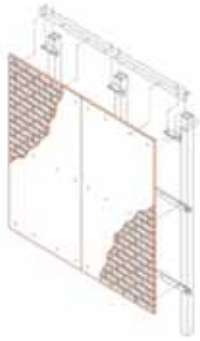
Mfr: Andrew Solutions		
Part #	Description	Weight, lb
Pre-Cut Plain End Pipe, Galvanized Steel		
MT-547-60	3-1/2" OD x 60"	n/a
MT-547-84	3-1/2" OD x 84"	n/a
MT-547-108	3-1/2" OD x 108" (88.9 mm OD x 2.7 m)	105
MT-547-126	3-1/2" OD x 126" (88.9 mm OD x 3.2 m)	125
MT-547-174	3-1/2" OD x 174" (88.9 mm OD x 4.4 m)	132
MT-547-192	3-1/2" OD x 192" (88.9 mm OD x 4.9 m)	163.4
Bulk Pipe, Galvanized Steel		
MT-547	3-1/2" OD x 21' (88.9 mm OD x 6.4 m)	158.8

4-1/2" OD

Mfr: Andrew Solutions		
Part #	Description	Weight, lb
Pre-Cut Plain End Pipe, Galvanized Steel		
MT-652	4-1/2" OD x 36" (114.3 mm OD x 0.9 m)	33.5
MT-653	4-1/2" OD x 48" (114.3 mm OD x 1.2 m)	44.3
MT-653-63	4-1/2" OD x 63" (114.3 mm OD x 1.6 m)	57
MT-654	4-1/2" OD x 72" (114.3 mm OD x 1.8 m)	66
MT-654-96	4-1/2" OD x 96" (114.3 mm OD x 2.4 m)	88
MT-539	4-1/2" OD x 126" (114.3 mm OD x 3.2 m)	114
MT-654-150	4-1/2" OD x 150" (114.3 mm OD x 3.8 m)	156
Bulk Pipe, Galvanized Steel		
MT-540	4-1/2" OD x 21' (114.3 mm OD x 6.4 m)	228

Bulk Angle, Galvanized Steel

Mfr: Andrew Solutions		
Part #	Description	Weight, lb
MT-524	2" x 2" x 3/16", 20' (50.8 mm x 50.8 mm x 4.8 mm, 6.0 m)	35
	2" x 2" x 1/4", 20' (50.8 mm x 50.8 mm x 6.4 mm, 6.0 m)	49
MT-527	2-1/2" x 2-1/2" x 3/16", 20' (63.5 mm x 63.5 mm x 4.8 mm, 6.0 m)	62
	2-1/2" x 2-1/2" x 1/4", 20' (63.5 mm x 63.5 mm x 6.4 mm, 6.0 m)	82.5
MT-529	3" x 3" x 3/16", 20' (76.2 mm x 76.2 mm x 4.8 mm, 6.0 m)	74.5
	3" x 3" x 1/4", 20' (76.2 mm x 76.2 mm x 6.4 mm, 6.0 m)	98.4



Skyveil™ Concealment Panel Kit

- All materials are tested to be RF Transparent
- Materials are durable, lasting, weather resistant with 5-year warranty
- Can be assembled in less than one hour
- Primed for final color match
- Applicable in numerous field applications and conditions

Mfr	Part #	Description
Site	CBE-64-10	8' x 8' x 10' High Brick or Smooth Finish Kit
Concealment	CBE-100-10	10' x 10' x 10' High Brick or Smooth Finish Kit

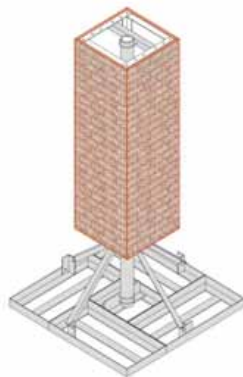


Skyveil™ Concealment Cylinder Ballast

- Cylinders are RF Transparent
- Materials are durable, lasting, weather resistant with 5-year warranty
- Wind Load Verification and chart for ballast requirements
- Can be assembled in less than one hour
- New unique design allows access to antenna in less than 10 minutes with one wrench
- Non-penetrating ballast mount & mast included
- Primed for final color match
- Applicable in numerous field applications and conditions

Mfr	Part #	Description
Site	CB-24-10	24" x 8' Tall Cylinder with 6' x 6' Ballast and 10'-6" Mast
Concealment	CB-30-10	30" x 8' Tall Cylinder with 6' x 6' Ballast and 10'-6" Mast

*Rubber matting and ballast not included

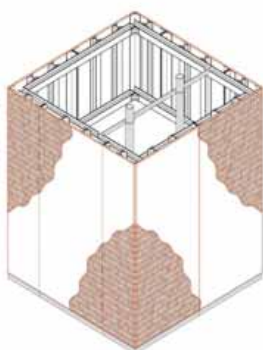


Skyveil™ Concealment Chimney Ballast

- Chimney materials are RF Transparent
- Materials are durable, lasting, weather resistant with 5-year warranty
- Wind Load Verification and chart for ballast requirements
- Can be assembled in less than one hour with minimal tools
- New unique design allows access to antenna in minutes
- Non-penetrating ballast mount & mast included
- Primed for final color match
- Applicable in numerous field applications and conditions

Mfr	Part #	Description
Site	C-28-10	28" x 8' Tall Chimney with 6' x 6' Ballast and 10'-6" Mast
Concealment	C-36-10	36" x 8' Tall Chimney with 6' x 6' Ballast and 10'-6" Mast

*Rubber matting and ballast not included



Skyveil™ Concealment Chimney Ballast

- All materials are tested to be RF Transparent
- Materials are durable, lasting, weather resistant with 5-year warranty
- Wind Load Verification and chart for ballast requirements
- Unique non-penetrating ballast design with up to 4 antenna mounts
- Can be assembled in less than one day with 2 technicians
- Assembly requires 3 wrenches
- Unique design allows access to antenna in less than 5 minutes with one wrench
- Primed for final color match
- Applicable in numerous field applications and conditions

Mfr	Part #	Description
Site	CBE-64-10	8' x 8' x 10' High Brick or Smooth Finish Kit
Concealment	CBE-100-10	10' x 10' x 10' High Brick or Smooth Finish Kit

*Rubber matting and ballast not included

*Antenna mast pipes and U-Bolts not included

Flag Pole Kit and Components



- Heavy Duty Extended Truck**
- Trucks are aluminum construction with 1-1/2" stainless steel spindle and 3" pulley
 - Trucks are custom made for poles ranging from 18" to 36" diameters
 - Truck shown is for a 36" diameter pole

Mfr	Part #
Aerial Structures	HD-TRUCK-SIZE



- Gold Ball**
- Spun Aluminum Gold Ball with 3/4" x 36" Stainless Steel Rod
 - Aluminum Balls are custom made from 12" up to 24" diameters
 - Ball shown is 24" diameter

Mfr	Part #
Aerial Structures	GOLDBALL-SIZE



- 3/8" Nylon Rope**
- Cut to length
- | Mfr | Part # |
|-------------------|-----------|
| Aerial Structures | NR38-SIZE |



- Quick Links**
- 5/16" Quick Links for retainer rings
 - One required per ring

Mfr	Part #
Aerial Structures	QL



- Bull Snaps**
- 5/16" bull snap for connecting to flag grommet
 - Minimum 2 required per flag

Mfr	Part #
Aerial Structures	BS



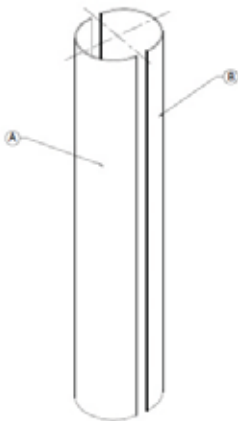
- 5/16" Rope Clip**
- For securing nylon rope ends

Mfr	Part #
Aerial Structures	NR-RC



- Retainer Ring**
- Custom made for large diameter poles
 - Note the bottom of pole diameter determines size of ring
 - Retainer Ring shown is for a pole with a bottom diameter of 50" nylon

Mfr	Part #
Aerial Structures	RR-SIZE



- Canister**
- | Mfr | Part # |
|---------------------------|--------|
| Site Concealment (custom) | |



- Nylon Flags**
- Nylon Flags range in sizes from 12' x 18' up to 20' x 30'
 - Flag shown is 15' x 25' on a 140' pole
 - Also State and School Flags available

Mfr	Part #
Aerial Structures	NF-SIZE



Pine Tree Tower



Pine Tree Tower



Palm Tree Tower

Cell Trees

concealment structures

Primus Electronics has teamed up with Cell Trees, Inc., the leading concealment structure company in the country, to provide realistic, aesthetically pleasing concealment structures at market competitive prices.

Replacement Branches

Pine Branches

Mfr	Part #	Description
Cell Trees	Pine Branches	
	PB2	Pine Branch, 2'
	PB3	Pine Branch, 3'
	PB4	Pine Branch, 4'
	PB5	Pine Branch, 5'
	PB6	Pine Branch, 6'
	PB7	Pine Branch, 7'
	PB8	Pine Branch, 8'
	PB9	Pine Branch, 9'
	PB10	Pine Branch, 10'

Palm Fronds

Mfr	Part #	Description
Cell Trees	Palm Fronds	
	PFS	Palm Frond Small
	PFL	Palm Frond Large

NOTE: Branch Density: Light 2.25 Branches per Foot, Medium 2.5 Branches per Foot, Heavy 2.75 Branches per foot. Painted or Bark; if bark, specify height

Information required when ordering structures:

- Type of tree (pine, broadleaf, palm) or pole
- Height (top of structure and top of lightning rod)
- Branch coverage in lineage feet
- State and county of construction
- Separation between carriers
- Antenna loading for each elevation

**For more information and pricing options,
contact Primus at (800) 435-1636**



Guyed Tower Material



Big Grips (LHL) and Ice Clips

Mfr	Size	Big Grips (LHL)	Ice Clips
P.L.P.	3/16"	BG2142	GC65303
	1/4"	BG2144	GC65136
	5/16"	BG2146	GC65128
	3/8"	BG2147	GC65264
	7/16"	BG2148	GC65265
	1/2"	BG2115	GC65266
	9/16"	BG2116	GC65267
	5/8"	BG2111	GC65268
	11/16"	BG-MS-1035	GC65269
	3/4"	BG2112	GC65269
	7/8"	BG-MS-7023	GC65270
	1"	BG-MS-7047	GC65271

Conductor to Guy Wire Clamps

- Can be used for connecting two dissimilar conductors such as copper and galvanized steel
- One bolt stainless steel clamp comes with stainless steel hardware
- Accommodates up to 7/8" guy wire and 4/0 AWG conductor

Mfr	Part #	Qty
Harger	SSC25/875	each

2 Bolt Parallel Cable Connectors

- Approximately 2" x 1-3/4" two piece connector used for splicing cables & rods
- 5/16" x 1-7/8" stainless steel carriage bolts, flat washers and nuts included
- Manufactured from electro tin plated bronze
- Recommended installation tool - 1/2" deep socket wrench, end wrench or nut driver
- Suitable for direct burial

Mfr	Part #	Qty
Harger	204T	each

EHS Galvanized Guy Strand

Mfr	Part #	Size	Strand
National Strand	316AEHS	3/16"	1 x 7
	14AEHS	1/4"	
	516AEHS	5/16"	
	38AEHS	3/8"	
	716AEHS	7/16"	
	12AEHS	1/2"	
	916AEHS	9/16"	1 x 19
	58AEHS	5/8"	
	1116AEHS	11/16"	
	34AEHS	3/4"	
	78AEHS	7/8"	
	1AEHS	1"	

Standard Guy Wire Hardware Chart

Guy Strand	Turnbuckle	Deadend Grip	Deadend Sleeve	Thimble	Shackle
5/16 EHS	5/8 x 12	5/16"	5/16"	3/8 HVY	1/2"
3/8 EHS	5/8 x 12	3/8"	3/8"	1/2 HVY	1/2"
7/16 EHS	3/4 x 12	7/16"	7/16"	1/2 HVY	1/2"
1/2 EHS	3/4 x 12	1/2"	1/2"	1/2 HVY	1/2"
9/16 EHS	7/8 x 12	9/16"	9/16"	3/4 HVY	5/8"
5/8 EHS	1 x 12	5/8"	5/8"	3/4 HVY	5/8"
11/16 EHS	1-1/4 x 18	11/16"	11/16"	7/8 HVY	3/4"
3/4 EHS	1-1/4 x 18	3/4"	3/4"	1 HVY	3/4"
7/8 EHS	1-1/2 x 18	7/8"	7/8"	1-1/8 HVY	7/8"

Source: Semaan Engineering Solutions, LLC



Bird Flight Diverters

For use on bare and jacketed conductors & strand

Mfr	Part #	Conductor Range (in)		Overall Length	Color
		Min	Max		
P.L.P.	BFD-MS-3331	.175	.326	7"	Yellow
	BFD-MS-3155	.250	.349	8.5"	
	BDF-MS-3164	.350	.449	9.5"	
	BFD-MS-3341	.450	.599	11"	
	BFD-MS-3344	.600	.770	13"	
	BFD-MS-3345	.771	.858	15"	
	BFD-MS-3405	.859	.942	16.5"	
	BFD-MS-11111	.971	1.121	15.5"	



Turnbuckle Safety Kit

- Includes six 1/4" wire rope clips and 45' of 14AEHS

Part #
PE-TB-SAFETY



Wire Rope Clips - Drop Forged

Size	Part #	
	Chicago Hardware	Crosby (G-450)
3/16"	234658	1010033
1/4"	234702	1010051
5/16"	234757	1010079
3/8"	234801	1010097
7/16"	234856	1010113
1/2"	234900	1010131
9/16"	234955	1010159
5/8"	235006	1010177
3/4"	235051	1010195
7/8"	235105	1010211
1"	235150	1010239



Screw Pin Shackles - Galvanized

Size	Working Load Limit (in Tons)	Part #	
		Chicago Hardware	Crosby (G-209)
3/16"	1/3	201056	1018357
1/4"	1/2	201100	1018375
5/16"	3/4	201155	1018393
3/8"	1	201209	1018419
7/16"	1-1/2	201254	1018437
1/2"	2	201308	1018455
5/8"	3-1/4	21353	1018473
3/4"	4-3/4	201407	1018491
7/8"	6-1/2	201452	1018516
1"	8-1/2	201506	1018534
1-1/8"	9-1/2	201551	1018552
1-1/4"	12	201605	1018570
1-3/8"	13-1/2	201650	1018598
1-1/2"	17	201704	1018614



Bolt Type Shackles - Galvanized

Size	Working Load Limit (in Tons)	Part #	
		Chicago Hardware	Crosby (G-2130)
1/4"	1/2	206105	1019466
5/16"	3/4	206150	1019468
3/8"	1	206204	1019470
7/16"	1-1/2	206259	1019471
1/2"	2	206303	1019472
5/8"	3-1/4	206358	1019490
3/4"	4-3/4	206402	1019515
7/8"	6-1/2	206457	1019533
1"	8-1/2	206501	1019551
1-1/8"	9-1/2	206556	1019579
1-1/4"	12	206600	1019597
1-1/2"	17	206709	1019631



Heavy Duty Thimbles - Galvanized

Size	Part #	
	Chicago Hardware	Crosby (G-414)
1/4"	221054	1037639
5/16"	221108	1037657
3/8"	221153	1037675
7/16"	221207	1037693
1/2"-9/16"	221252	1037719
9/16"-5/8"	221306	1037755
3/4"	221351	1037773
7/8"	221405	1037791
1"	221450	1037817
1-1/8"-1-1/4"	221504	1037835
1-3/8"-1-1/2"	221559	1037871



Eye and Jaw (E & J) Turnbuckles - Galvanized

Size	Weight Limit (lbs)	Part #	
		Chicago Hardware	Crosby (HG-227)
1/2" x 12"	2,200	026291	1031975
5/8" x 12"	3,500	026406	1032037
3/4" x 12"	5,200	026543	1032091
7/8" x 12"	7,200	026659	1032135
1" x 12"	10,000	026765	1032199
1" x 18"	10,000	026796	1032215
1-1/4" x 12"	15,200	-	1032251
1-1/4" x 18"	15,200	-	1032279
1-1/2" x 12"	21,400	-	1032313
1-1/2" x 18"	21,400	-	1032331



Jaw and Jaw (J & J) Turnbuckles - Galvanized

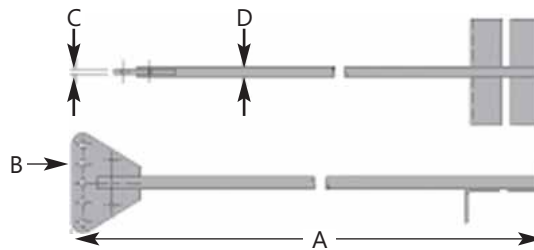
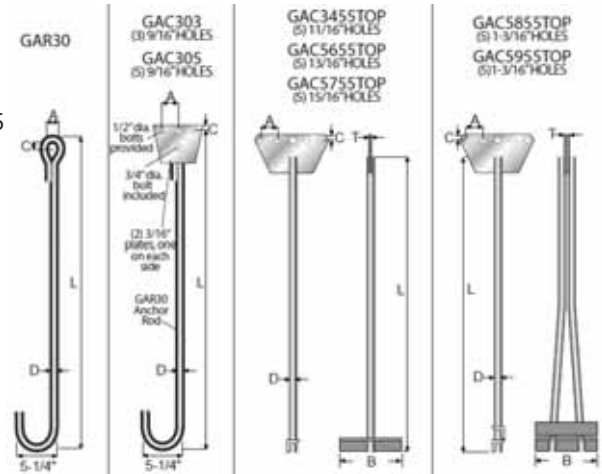
Size	Weight Limit (lbs)	Part #	
		Chicago Hardware	Crosby (HG-228)
1/2" x 12"	2,200	030793	1032590
5/8" x 12"	3,500	030908	1032652
3/4" x 12"	5,200	031042	1332714
7/8" x 12"	7,200	031158	1032750
1" x 12"	10,000	031264	1032812
1" x 18"	10,000	031295	1032830
1-1/4" x 12"	15,200	-	1032876
1-1/4" x 18"	15,200	-	1032894
1-1/2" x 12"	21,400	-	1032938
1-1/2" x 18"	21,400	-	1032956

Guyed Tower Material

Anchor Rods

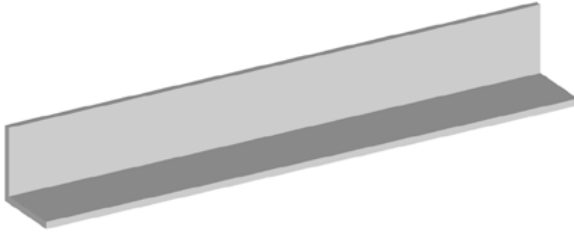
- Type EJ equalizer plates are used with eye & jaw turnbuckles
- Type EE equalizer plates are supplied in pairs for eye & eye turnbuckles
- Part # suffixes 3, 5, and 55 denote 3 or 5 holes in plates
- Type GAC30 & GAC305 rods are supplied with type EP25343 or EP25345 equalizer plates

Mfr	L	A	B	C	D	T	Part #	Equalizer Plate No.	Weight
Rohn	84	1	-	2	5/8	-	GAR30	EYE	9
	84	2	-	-	5/8	3/16	GAC303	EE	13
	84	2	-	-	5/8	3/16	GAC305	EE	14
	84	2	12	2-1/2	3/4	3/8	GAC3455TOP	EJ	25
	120	2-1/2	12	3	1-1/4	1/2	GAC5655TOP	EJ	65
	168	3	12	4	1-7/16	3/4	GAC5755TOP	EJ	125
	192	4	12	6	1-1/4	1	GAC5855TOP	EJ	220
	240	4	18	6	1-7/16	1	GAC5955TOP	EJ	310



Guy Anchors

Mfr	Part #	Anchor Length (A)	Anchor Head Hole Size (B)	Holes in Anchor	Plate Thickness (C)	Rod Diameter (D)	Guy Wire Size (EHS)	Turnbuckle Size	Anchor Capacity
Sabre Site Solutions	C30-129-026	8'-2-7/8"	3/4"	5	1/2"	1-1/4"	3/16" to 3/8"	1/2" to 3/4"	49.1 k
	C30-129-032	8'-2-7/8"	3/4"	7	1/2"	1-1/4"	3/16" to 3/8"	1/2" to 3/4"	49.1 k
	C30-129-027	14'-2-7/8"	3/4"	5	1/2"	1-1/4"	3/16" to 3/8"	1/2" to 3/4"	49.1 k
	C30-129-033	14'-2-7/8"	3/4"	7	1/2"	1-1/4"	3/16" to 3/8"	1/2" to 3/4"	49.1 k
	C30-129-001	13'-9-3/4"	1-1/16"	5	3/4"	1-3/4"	3/8" to 5/8"	3/4" to 1"	96 k
	C30-129-050	20'-7-3/4"	1-1/16"	5	3/4"	1-3/4"	3/8" to 5/8"	3/4" to 1"	96 k
	C30-129-003	13'-9-3/4"	1-1/4"	5	1"	2"	1/2" to 3/4"	7/8" to 1-1/4"	125 k
	C30-129-051	20'-7-3/4"	1-1/4"	5	1"	2"	1/2" to 3/4"	7/8" to 1-1/4"	125 k
	C30-129-005	13'-9-3/4"	1-1/16"	7	3/4"	2"	3/8" to 5/8"	3/4" to 1"	125 k
	C30-129-052	20'-7-3/4"	1-1/16"	7	3/4"	2"	3/8" to 5/8"	3/4" to 1"	125 k
	C30-129-007	13' 10"	1-1/4"	7	1"	2-1/4"	1/2" to 3/4"	7/8" to 1-1/4"	159 k
	C30-129-053	20' 8"	1-1/4"	7	1"	2-1/4"	1/2" to 3/4"	7/8" to 1-1/4"	159 k
	C30-129-009	13' 10"	1-1/16"	9	3/4"	2-1/4"	3/8" to 5/8"	3/4" to 1"	159 k
	C30-129-054	20' 8"	1-1/16"	9	3/4"	2-1/4"	3/8" to 5/8"	3/4" to 1"	159 k
	C30-129-011	13' 10"	1-1/4"	9	1"	2-1/2"	1/2" to 3/4"	7/8" to 1-1/4"	196 k
	C30-129-055	20' 8"	1-1/4"	9	1"	2-1/2"	1/2" to 3/4"	7/8" to 1-1/4"	196 k
	C30-129-013	13' 10"	1-1/16"	11	3/4"	2-1/2"	3/8" to 5/8"	3/4" to 1"	196 k
	C30-129-056	20' 8"	1-1/16"	11	3/4"	2-1/2"	3/8" to 5/8"	3/4" to 1"	196 k
	C30-129-015	13' 10"	1-1/4"	11	1"	2-3/4"	1/2" to 3/4"	7/8" to 1-1/4"	237 k
	C30-129-057	20' 8"	1-1/4"	11	1"	2-3/4"	1/2" to 3/4"	7/8" to 1-1/4"	237 k



Bulk Angle

Mfr	Part #	Description	Weight (lb)	Material
Andrew Solutions	MT-524	2" x 2" x 3/16", 20'	(50.8 mm x 50.8 mm x 4.8 mm, 6 m)	35
	MT-525	2" x 2" x 1/4", 20'	(50.8 mm x 50.8 mm x 6.4 mm, 6 m)	49
	MT-527	2-1/2" x 2-1/2" x 3/16", 20'	(63.5 mm x 63.5 mm x 4.8 mm, 6 m)	62
	MT-528	2-1/2" x 2-1/2" x 1/4", 20'	(63.5 mm x 63.5 mm x 6.4 mm, 6 m)	82.5
	MT-529	3" x 3" x 3/16", 20'	(76.2 mm x 76.2 mm x 4.8 mm, 6 m)	74.5
	MT-530	3" x 3" x 1/4", 20'	(76.2 mm x 76.2 mm x 6.4 mm, 6 m)	98.4
	MT-536	3" x 3" x 3/8", 25'	(76.2 mm x 76.2 mm x 9.5 mm, 7.6 m)	61.8

Hot-Dipped Galvanized Hollo-Bolts

Mfr	Part #	Bolt Size Metric (US)	Clamping Range Combined Material Thickness (W)		Across Flats Main Body	Tightening Torque (ft lb)	Shank Diameter (A)	Hole Size (Z)	Structural Tube	Safe Working Load* (5:1 Factor of Safety)	
			Min	Max						Tensile (lb)	Shear (lb)
Lindapter	LHBM12#1HDG	M12 (1/2")	1/8"	1"	3/4"	16	9/16"	9/16"	5" x 5" x 3/16", 1/4", or 5/16"	899	1124
	LHBM12#2HDG	M12 (1/2")	1"	1-13/16"							
	LHBM16#1HDG	M16 (5/8")	5/16" **	1-1/8"	15/16"	30	3/4"	3/4"	5" x 5" x 5/16", 3/8" or 1/2"	1910	2248
	LHBM16#2HDG	M16 (5/8")	1-1/8"	2"							

** While the minimum fixing thickness for M16 is 5/16", it is important that the outer ply is at least 5/16" to maximize shear capabilities. Where the outer ply is below 5/16" thickness, spacer washers should be used beneath the collar to increase to 8 mm.



One-Sided Structural Fastening System

- Each bolt includes the following: 1 Bolt, 1 Split HD Washer, 1 Std HD Washer, and 1 HD Nut
- Perfect for any structural application where access to the other side of the joint is not possible
- Develop full structural capacity
- Reduced labor requirements and simple installation

Mfr	Part #	Approx Total Length	Grip Length (Total Thickness of Material)		Qty of Bolts per Box
			Min	Max	
Ajax Fasteners	M20x65 mm	65 mm (2.5")	0.59"	1.14"	36
	M20x95 mm	95 mm (3.75")	0.59"	2.32"	32
	M20x135 mm	135 mm (5.31")	1.22"	3.74"	24
	M20x165 mm	165 mm (6.50")	2.56"	5.00"	20

All items above are galvanized bolts A325 grade

Installation Tool for Fastening System

- Required to install the One Side bolts
- Tensile Capacity is 16,344 lbs

Mfr	Part #	Description
Ajax Fasteners	452084	Installation Tool

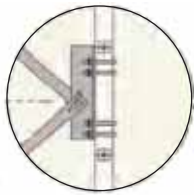
High Strength Shear Sleeves for Fastening System

- Must be used in all applications with the One-Sided Structural Fastening System
- Sold in 3' lengths; can be cut to size on jobsite
- Total thickness of materials joining and number of bolts required for job determines how many sleeves are required
- Sleeves minimum tensile strength = 120,000 psi
- Recommended to Cold Gal the sleeves so everything is galvanized

Mfr	Part #	Description
Ajax Fasteners	458430	3' High Strength Shear Sleeve

Structural Reinforcement

Bracing and Bolt Assemblies



Detail of bolt-on lug



Detail of bolt-on horizontal brace

Mfr	Leg O.D.	Assy. Part #	Lug Part #	U-Bolt Assy. (4)
Rohn	2.38	KB497A	KB299	JR83A
	2.38	KB497ASP	KB299SP	JR84A
	2.88	KB498A	KB489	JR84A
	2.88	KB498ASP	KB489SP	JR88A
	2.88	KB498ASP1	KB489SP1	JR89A
	3.50	KB499A	KB492	JR88A

Mfr	Part #	Description
Rohn	Bracing (16 GA)	
	KB35R	1.5" Tube, 16GA Diagonal
	KB36R	1.5" Tube, 16GA Horizontal
	210018GA	1/2 x 1-1/2 A325 Bolt Assy.
	Bracing (11 GA)	
	KB37R	1.5" Tube, 11GA Diagonal
	KB38R	1.5" Tube, 11GA Horizontal
	210019GA	1/2 x 1-3/4 A325 Bolt Assy.

For additional A325 structural hardware, see hardware section pages 64-66.

Structural Hardware

ASTM A194 Grade 2H Galvanized Heavy Hex Nut for Anchor Bolt

Hex Nuts are galvanized in accordance with ASTM A153



Mfr	Part #	Diameter	Weight, lb
Sabre	C40-042-001	3/4" (19.05 mm)	0.3
	C40-042-002	1" (25.4 mm)	0.5
	C40-042-003	1-1/2" (38.1 mm)	1.4
	C40-042-004	1-3/4" (44.45 mm)	2.2
	C40-042-005	2" (50.8 mm)	3.2
	C40-042-006	2-1/4" (57.15 mm)	4.4

ASTM A563 Grade A Galvanized Heavy Hex Jam Nut for Anchor Bolt

Hex Jam Nuts are galvanized in accordance with ASTM A153



Mfr	Part #	Diameter	Weight, lb
Sabre	C40-043-001	3/4" (19.05 mm)	0.1
	C40-043-002	1" (25.4 mm)	0.2
	C40-043-003	1-1/2" (38.1 mm)	0.7
	C40-043-004	1-3/4" (44.45 mm)	1.1
	C40-043-005	2" (50.8 mm)	1.6

ASTM A572 Grade 50 Galvanized Anchor Bolt Assembly

- All parts are galvanized in accordance with ASTM A153
- Each assembly includes: (1) ASTM A572 Grade 50 Anchor Bolt, (5) ASTM A563 Grade DH or A194 Grade 2H Heavy Hex Nuts, and (2) Flat Washers
- Custom Anchor Bolts can be provided upon request

Mfr	Part #	Dimensions (Diameter x Length)	Yield	Thread Length at ea end	Weight, lb
Sabre	C40-041-001	3/4" x 2' 6" (19.1 mm x 762 mm)	50	9" (228.6 mm)	5.3
	C40-041-002	1" x 5' 9" (25.4 mm x 1.75 m)	50	1' (304.8 mm)	19
	C40-041-003	1-1/2" x 3' 4" (38.1 mm x 1.02 m)	50	1' (304.8 mm)	5.3
	C40-041-004	3/4" x 5' 9" (38.1 mm x 1.75 m)	50	1' (304.8 mm)	44
	C40-041-005	1-3/4" x 7' 6" (44.45 mm x 2.29 m)	50	1' (304.8 mm)	56
	C40-041-006	2" x 10' (50.8 mm x 3.05 m)	50	1' 6" (457.2 mm)	71
	C40-041-007	18J x 7' (ASTM A615 Grade 75) - 2-1/4" x 1' thread length at each end		1" (25.4 mm)	132



ASTM A449 Galvanized Anchor Bolt Assembly

- Galvanized in accordance with ASTM A153
- Each assembly includes: (1) ASTM A449 Anchor Bolt, (5) ASTM A563 Grade DH Heavy Hex Nuts, and (2) F436 Flat Washers

Mfr	Part #	Description	Thread Length at ea end	Weight, lb
Sabre	C40-041-009	3/4" x 3' 3" long (19.05 mm x 990.6 mm)	9" (228.6 mm)	6.2
	C40-041-010	7/8" x 3' 9" long (22.23 mm x 1.43 m)	9" (228.6 mm)	9.6
	C40-041-011	1" x 4' 3" long (38.1 mm x 1.02 m)	9" (228.6 mm)	14.2
	C40-041-012	1-1/4" x 5' 3" long (31.75 mm x 1.6 m)	9" (228.6 mm)	27.1
	C40-041-013	1-1/2" x 6' 6" long (38.1 mm x 1.98 m)	1" (304.8 mm)	47.6
	C40-041-014	1-3/4" x 7' 3" long (44.45 mm x 2.21 m)	1" (304.8 mm)	72.5
	C40-041-015	2" x 8' 3" long (50.8 mm x 2.51 m)	1" (304.8 mm)	107.4
	C40-014-016	2-1/4" x 8' 9" long (57.15 mm x 2.67 m)	1" (304.8 mm)	145.1



ASTM A449 Galvanized Bolt Assembly

- Each assembly includes: (1) ASTM A449 Bolt, (1) A563 Grade DH or A194 Grade 2H Hex Nut, and (1) Lock Washer
- All parts are galvanized in accordance with ASTM A153



Mfr Part #	Dimensions (D x L)	Thread Length	Weight lb
C40-025-001	1-3/4" x 5-1/2"	3"	8.2
C40-025-002	1-3/4" x 7"	4"	9.3
C40-025-003	2" x 6-1/2"	4"	10.9
C40-025-004	2" x 7"	4"	11.5
C40-025-005	2" x 7-1/2"	4"	11.9
C40-025-006	2-1/4" x 7"	4"	16.9
C40-025-007	2-1/4" x 7-1/2"	4"	17.4
C40-025-008	2-1/4" x 8"	5"	17.9
C40-025-009	2-1/2" x 8-1/2"	4"	88

ASTM F436 Galvanized Bolt Assembly

Galvanized in accordance with ASTM A153



Mfr Part #	Dia-meter	Weight lb
C40-031-001	3/8"	0.1
C40-031-002	1/2"	0.1
C40-031-003	5/8"	0.1
C40-031-004	3/4"	0.2
C40-031-005	7/8"	0.2
C40-031-006	1"	0.2
C40-031-011	1-1/8"	0.25
C40-031-012	1-1/4"	0.3
C40-031-007	1-1/2"	0.4
C40-031-008	1-3/4"	0.5
C40-031-009	2"	0.7
C40-031-010	2-1/4"	0.9

Galvanized Lock Washer

Galvanized in accordance with ASTM A153



Mfr Part #	Dia-meter	Weight lb
C40-030-010	3/8"	0.1
C40-030-011	1/2"	0.1
C40-030-012	5/8"	0.1
C40-030-013	3/4"	0.1
C40-030-014	7/8"	0.1
C40-030-015	1"	0.1
C40-030-017	1-1/8"	0.1
C40-030-018	1-1/4"	0.2
C40-030-016	1-1/2"	0.2
C40-030-019	1-3/4"	0.3
C40-030-020	2"	0.4
C40-030-021	2-1/4"	0.5

ASTM A325 Galvanized Bolt Assembly

- Each assembly includes: (1) ASTM A325 Bolt, (1) A563 Grade DH or A194 Grade 2H Hex Nut, and (1) Lock Washer
- All parts are galvanized in accordance with ASTM A153



Mfr Part #	Dimensions (Diameter x Length)	Thread Length	Weight lb
C40-026-001	1/2" x 1"	Full Thread	0.3
C40-026-003	1/2" x 1-1/2"	1"	0.3
C40-026-005	1/2" x 2"	1"	0.3
C40-026-007	1/2" x 2-1/2"	1"	0.3
C40-026-009	1/2" x 3"	1"	0.4
C40-026-011	1/2" x 3-1/2"	1"	0.4
C40-026-013	1/2" x 4"	1"	0.4
C40-026-021	5/8" x 1-1/2"	1-1/4"	0.4
C40-026-023	5/8" x 2"	1-1/4"	0.5
C40-026-025	5/8" x 2-1/2"	1-1/4"	0.5
C40-026-027	5/8" x 3"	1-1/4"	0.6
C40-026-029	5/8" x 3-1/2"	1-1/4"	0.6
C40-026-031	5/8" x 4"	1-1/4"	0.6
C40-026-033	5/8" x 4-1/2"	1-1/4"	0.7
C40-026-035	5/8" x 5"	1-1/4"	0.7
C40-026-036	5/8" x 5-1/2"	1-1/4"	0.8
C40-026-037	5/8" x 6"	1-1/4"	0.8
C40-026-038	5/8" x 6-1/2"	1-1/4"	0.9
C40-026-039	5/8" x 7"	1-1/4"	0.9
C40-026-040	5/8" x 7-1/2"	1-1/4"	0.9
C40-026-041	3/4" x 1-1/2"	1-3/8"	0.6
C40-026-043	3/4" x 2"	1-3/8"	0.7
C40-026-045	3/4" x 2-1/2"	1-3/8"	0.8
C40-026-047	3/4" x 3"	1-3/8"	0.8
C40-026-049	3/4" x 3-1/2"	1-3/8"	0.9
C40-026-051	3/4" x 4"	1-3/8"	1.0
C40-026-053	3/4" x 4-1/2"	1-3/8"	1.0
C40-026-055	3/4" x 5"	1-3/8"	1.1
C40-026-056	3/4" x 5-1/2"	1-3/8"	1.1
C40-026-057	7/8" x 2"	1-1/2"	1.0
C40-026-059	7/8" x 2-1/2"	1-1/2"	1.1

Mfr Part #	Dimensions (Diameter x Length)	Thread Length	Weight lb
C40-026-061	7/8" x 3"	1-1/2"	1.2
C40-026-063	7/8" x 3-1/2"	1-1/2"	1.3
C40-026-065	7/8" x 4"	1-1/2"	1.4
C40-026-067	7/8" x 4-1/2"	1-1/2"	1.5
C40-026-069	7/8" x 5"	1-1/2"	1.6
C40-026-070	7/8" x 5-1/2"	1-1/2"	1.6
C40-026-071	1" x 2-1/2"	1-3/4"	1.5
C40-026-073	1" x 3"	1-3/4"	1.6
C40-026-075	1" x 3-1/2"	1-3/4"	1.7
C40-026-077	1" x 4"	1-3/4"	1.8
C40-026-079	1" x 4-1/2"	1-3/4"	2.0
C40-026-081	1" x 5"	1-3/4"	2.1
C40-026-082	1" x 5-1/2"	1-3/4"	2.2
C40-026-096	1-1/8" x 2-1/2"	2"	2.0
C40-026-098	1-1/8" x 3"	2"	2.1
C40-026-100	1-1/8" x 3-1/2"	2"	2.2
C40-026-102	1-1/8" x 4"	2"	2.4
C40-026-104	1-1/8" x 4-1/2"	2"	2.5
C40-026-106	1-1/8" x 5"	2"	2.7
C40-026-083	1-1/4" x 2-1/2"	2"	2.5
C40-026-085	1-1/4" x 3"	2"	2.7
C40-026-087	1-1/4" x 3-1/2"	2"	2.8
C40-026-089	1-1/4" x 4"	2"	3.0
C40-026-091	1-1/4" x 4-1/2"	2"	3.2
C40-026-093	1-1/4" x 5"	2"	3.4
C40-026-133	1-1/2" x 5"	2-1/4"	5.2
C40-026-113	1-1/2" x 5-1/2"	2-1/4"	5.3
C40-026-114	1-1/2" x 6"	2-1/4"	5.5
C40-026-115	1-1/2" x 6-1/2"	2-1/4"	5.8
C40-026-116	1-1/2" x 8"	2-1/4"	6.6

Structural Reinforcement

Galvanized Heavy Hex Nut ASTM A563 Grade DH

Galvanized in accordance
with ASTM A153



Mfr	Part #	Diameter	Weight, lb
Sabre	C40-027-001	3/8"	0.1
	C40-027-002	1/2"	0.1
	C40-027-003	5/8"	0.2
	C40-027-004	3/4"	0.3
	C40-027-005	7/8"	0.4
	C40-027-006	1"	0.5

Galvanized Pal Nut ASTM A563 Grade DH

Galvanized in accordance
with ASTM A153



Mfr	Part #	Diameter	Weight, lb
Sabre	C40-029-001	3/8"	0.1
	C40-029-002	1/2"	0.1
	C40-029-003	5/8"	0.1
	C40-029-004	3/4"	0.1
	C40-029-005	7/8"	0.1
	C40-029-006	1"	0.1

Galvanized Anco Nut ASTM A563 Grade DH

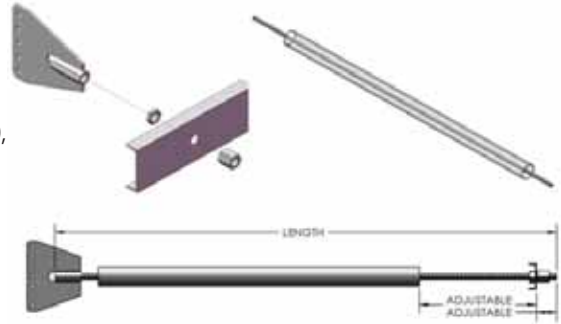
Galvanized in accordance
with ASTM A153



Mfr	Part #	Diameter	Weight, lb
Sabre	C40-028-001	3/8"	0.1
	C40-028-002	1/2"	0.1
	C40-028-003	5/8"	0.2
	C40-028-004	3/4"	0.3
	C40-028-005	7/8"	0.4
	C40-028-006	1"	0.5
	C40-028-007	1-1/8"	0.6
	C40-028-008	1-1/4"	0.8
	C40-028-009	1-3/8"	1.0
	C40-028-010	1-1/2"	1.0
	C40-028-011	1-3/4"	1.0
	C40-028-012	2"	1.0
	C40-028-013	2-1/4"	1.0

Knockdown Guy Anchors

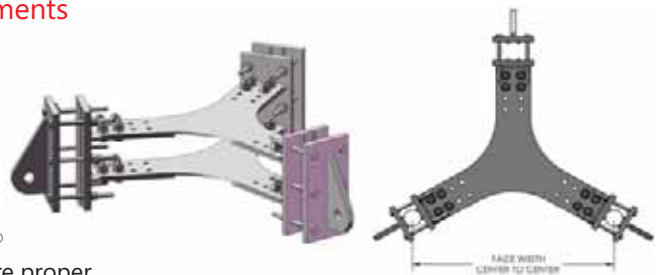
- Designed to provide guy anchor points for new deadman anchors
- Kits contain all materials to place anchor in foundation
- Anchor head is minimum A572-50, A615-75 anchor rod, Hot-Dip Galvanized
- Knockdown design for ease of shipping and length adjustment
- 6" PVC tube provides additional corrosion protection when willed with concrete or grout
- When ordering, specify both anchor rod and anchor head part numbers



Mfr	Series	Max Guy Size ϕ Tn (kips) (per each hole) [222-G]	Anchor Rod Kit #		# Holes Needed	Anchor Head Kit #
			12.5' / 150"	16.7' / 200"		
Structural Components	LIGHT	Up to 1/2" ϕ EHS	AKD-1010-12	AKD-1010-16	5	AKD-1015-00
					7	AKD-1017-00
					9	AKD-1019-00
	MEDIUM	Up to 3/4" ϕ EHS	AKD-1020-12	AKD-1020-16	5	AKD-1025-00
					7	AKD-1027-00
					9	AKD-1029-00
	HEAVY	Up to 1" BS	AKD-1030-12	AKD-1030-16	5	AKD-1035-00
					7	AKD-1037-00
					9	AKD-1039-00

Adjustable Guy Attachments

- Designed to provide new guy anchor points when relocating or upgrading guy wires
- Kits contain all materials to bolt new guy attachment to tower
- Connections use Squirter® F959 DTI washers to ensure proper installed bolt tension
- All material is minimum A572-50, Hot-Dip Galvanized
- Fits guyed towers with 1.25" - 3.5" OD Legs
- Add split pipe sleeve kit if tower leg is 2" SCH 40, 2.5" SCH 40 or 3" SCH 40 [Qty: (3) per kit]
- Use split pipe sleeves to avoid crimping thin wall pipe legs



Towers with SCH 40 Pipe Legs: Split Pipe Sleeves	
Leg OD	Kit #
2.375"	RGA-1000-23
2.875"	RGA-1000-28
3.5"	RGA-1000-35

Mfr	Series	Guy Wire Size	Face-Width Range (LEG C-C)			
			24" - 30"	30" - 36"	36" - 42"	42" - 48"
Structural Components	MEDIUM	Up to 3/4" ϕ EHS	RGA-0002-30	RGA-0002-36	RGA-0002-42	RGA-0002-48
		11/16" ϕ to 1" ϕ BS	RGA-0003-30	RGA-0003-36	RGA-0003-42	RGA-0003-48

Tapered Self-Support Tower Sub-Horizontals

- Designed to strengthen tower legs by reducing their KL/r value
- Complete kits contain (6) Angles, (3) Brackets, (3) Center Plates, (6) 5/8" U-bolts, (27) 5/8" Bolts
- All material is minimum A36, Hardware is A325X, Hot-Dip Galvanized
- Connections use Squirter® F959 DTI washers to ensure proper installed bolt tension
- Double bolted angle connections at both ends
- Brackets center themselves on legs with the welded solid rods on backside
- Specify leg butterfly bracket kit + angle / center plate kit [Qty: (3) per Kit]



Sub Horizontal Angle & Center Plate						
Mfr	Tower Face Width Range (ft)	Center Plate Size	Sub-Horizontal Size	Φ Pn (kips)	Leg Pu* (kips)	Kit #
Structural Components	5 - 6	3/8" x 3"	2" x 2" x 1/4"	20.00	800	RSH-0605-06
	6 - 7	3/8" x 3"	2" x 2" x 1/4"	18.00	720	RSH-0606-07
	7 - 9	3/8" x 3"	2" x 2" x 1/4"	13.75	550	RSH-0607-09
	9 - 11	3/8" x 3"	2" x 2" x 1/4"	9.50	380	RSH-0609-11
	11 - 13	3/8" x 3"	2-1/2" x 2-1/2" x 1/4"	12.13	485	RSH-0611-13
	13 - 15	1/2" x 4"	2-1/2" x 2-1/2" x 1/4"	8.50	340	RSH-0613-15
	15 - 17	1/2" x 4"	3" x 3" x 1/4"	16.50	660	RSH-0615-17
	17 - 19	1/2" x 4"	3" x 3" x 1/4"	12.50	500	RSH-0617-19
	19 - 21	5/8" x 4"	3-1/2" x 3-1/2" x 1/4"	16.00	640	RSH-0619-21
	21 - 23	5/8" x 4"	3-1/2" x 3-1/2" x 1/4"	12.88	515	RSH-0621-23
	23 - 25	5/8" x 4"	4" x 4" x 1/4"	15.88	635	RSH-0623-25

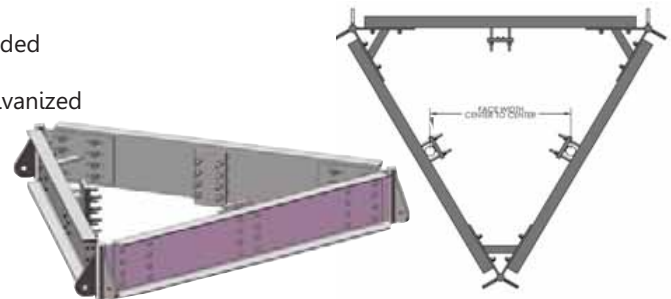
*CAPACITY BASED ON FULLY LOADING HORIZONTAL WITH 2.5% OF LEG COMPRESSION

NOTE: Order (1) RSH-05###-### kit and (1) RSH-06###-### kit for (1) full sub-horizontal assembly

Leg Butterfly Bracket		
Leg Ø Range (O.D.) (in)	U-Bolt Size	Kit #
1.5 - 2.5	5/8" x 2-9/16"	RSH-0525-35
2.5 - 3.5	5/8" x 3-9/16"	RSH-0535-35
3.5 - 4.5	5/8" x 4-9/16"	RSH-0545-68
4.5 - 6.75	5/8" x 6-13/16"	RSH-0568-68
6.75 - 8.625	5/8" x 8-11/16"	RSH-0586-00
8.625 - 10.75	5/8" x 10-13/16"	RSH-0500-00

Guyed Tower Torque Arm

- Designed to provide torsion resistance to guyed towers when needed
- Kits contain all materials to bolt torque arm onto tower
- All material is minimum A572-50, Hardware is A325X, Hot-Dip Galvanized
- Connections use Squirter F959 DTI washers to ensure proper installed bolt tension
- Fits guyed towers with 1.25" - 3.5" OD Legs
- Add split pipe sleeve kit if tower leg is 2" SCH 40, 2.5" SCH 40 or 3" SCH 40 [Qty: (3) per kit]
- Use split pipe sleeves to avoid crimping thin wall pipe legs



Mfr	Face Width (C-C) (in)	EHS WIRE SIZE									
		< 5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	11/16"	3/4"	7/8"	1"
Structural Components	18	RTA-1135-18				RTA-1235-18					
	24	RTA-1135-24				RTA-1235-24				RTA-1335-24	
	30	RTA-1135-30			RTA-1235-30					RTA-1335-30	
	33	RTA-1135-33			RTA-1235-33				RTA-1335-33		
	36	RTA-1235-36							RTA-1335-36		
	39	RTA-1235-39						RTA-1335-39			
	41	RTA-1235-41						RTA-1335-41			
	42	RTA-1235-42						RTA-1335-42			
	45	RTA-1235-45					RTA-1335-45				
	48	RTA-1235-48					RTA-1335-48				
	54	RTA-1235-54					RTA-1335-54				
	57	RTA-1235-57				RTA-1335-57					
	60	RTA-1235-60				RTA-1335-60					
	72	RTA-1235-72			RTA-1335-72						

LIGHT	MEDIUM	HEAVY
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Towers with SCH 40 Pipe Legs: Split Pipe Sleeves	
Leg OD	Kit #
2.375"	RGA-1000-23
2.875"	RGA-1000-28
3.5"	RGA-1000-35

Structural Reinforcement

Guyed Tower Solid Rod Sub-Horizontals

- Designed to strengthen tower legs by reducing their KL/r value
- Kits contain (3) bracing members, (6) 1/2" U-bolts, (12) Lock Washers, (12) Nuts
- All material is minimum A36, Hot-Dip Galvanized
- Use center clip kit for strengthening diagonal members



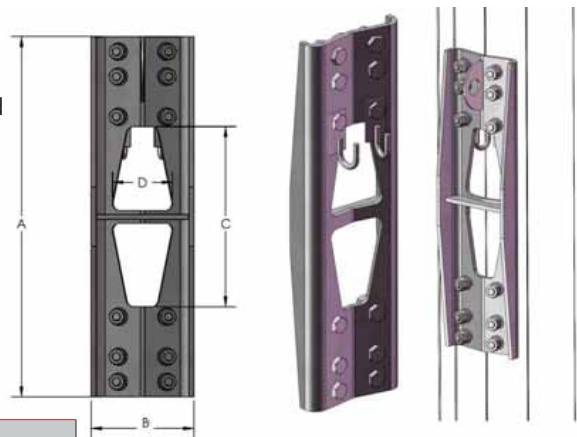
Mfr	Face Width Center-Center	Sub-Horizontal Diameter (in)	ΦPn (kips)	Leg Pu* (kips)	Leg Size Range (OD Pipe, in)	Kit #
Structural Components	18	1	19.4	776	1-1/2" - 2-1/2"	RSR-0011-18
					2-1/2" - 3-1/2"	RSR-0012-18
	24	1	15.6	625	1-1/2" - 2-1/2"	RSR-0011-24
					2-1/2" - 3-1/2"	RSR-0012-24
	30	1	11.9	331	1-1/2" - 2-1/2"	RSR-0011-30
					2-1/2" - 3-1/2"	RSR-0012-30
	33	1	10.1	405	1-1/2" - 2-1/2"	RSR-0011-33
					2-1/2" - 3-1/2"	RSR-0012-33
	36	1	8.6	342	1-1/2" - 2-1/2"	RSR-0011-36
					2-1/2" - 3-1/2"	RSR-0012-36
	39	1	7.3	292	1-1/2" - 2-1/2"	RSR-0011-39
					2-1/2" - 3-1/2"	RSR-0012-39
	40	1	6.9	277	1-1/2" - 2-1/2"	RSR-0011-40
					2-1/2" - 3-1/2"	RSR-0012-40
	41	1	6.6	264	1-1/2" - 2-1/2"	RSR-0011-41
					2-1/2" - 3-1/2"	RSR-0012-41
	42	1	6.3	251	1-1/2" - 2-1/2"	RSR-0011-42
					2-1/2" - 3-1/2"	RSR-0012-42
	45	1	5.5	219	1-1/2" - 2-1/2"	RSR-0011-45
					2-1/2" - 3-1/2"	RSR-0012-45
	48	1	4.8	193	1-1/2" - 2-1/2"	RSR-0011-48
					2-1/2" - 3-1/2"	RSR-0012-48
CENTER CLIP FOR BRACING DIAGONALS [Qty: (3) per kit]						RSR-0100-01

*CAPACITY BASED ON FULLY LOADING HORIZONTAL WITH 2.5% OF LEG COMPRESSION

Bolt on Port Hole

- Designed to provide a weldless solution for adding monopole ports
- Properly resolves all stresses due to removing material from pole
- All material is minimum A572-65, hardware is A325X Hot-Dip Galvanized
- ## - Specify number of pole sides, (12, 16, 18)
- Lifting rung doubles as 3,300 lb tie-off point once installed
- Can be installed anywhere on pole above 5ft

Dim (in)	LIGHT	MEDIUM	HEAVY
A	24	36	42
B	7	10.25	12
C	12	18	21
D	4	6	8
Weight (lb)	65	78	132



Mfr	Pole Dia. (E-E) (in)	Monopole Thickness						
		1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"
Structural Components	12 - 19	PBM-0001-##						
	19 - 30				PBM-0002-##			
	30 - 36						PBM-0003-##	
	36 - 60							

Split Pipe and V-Brackets

- Designed to provide additional capacity to tower legs
- Order u-bolt & backing plate kits separately
- Split pipe is A500-C or better
- Available in 10' & 20' lengths for trim to fit application
- All material is hot dip galvanized



Split Pipe Assembly Breakdown							
Mfr	Leg Size (OD)	Pipe Size	OD x THK	ID	As (in ²)	Length / Part #	
						10'	20'
Structural Components	1-1/4"	1-1/2" SCH 80	1.90" x 0.200"	1.50"	0.33	P637-110-10	P637-110-20
	1-1/2"						
	1-3/4"						
	1-7/8"	2" SCH 80	2.375" x 0.218"	1.94"	0.46	P637-114-10	P637-114-20
	2"						
	2-1/4"						
	2-3/8"	2-1/2" SCH 80	2.875" x 0.276"	2.33"	0.70	P637-118-10	P637-118-20
	2-1/2"						
	2-3/4"						
	2-7/8"	3" SCH 80	3.5" x 0.300"	2.90"	0.94	P637-122-10	P637-122-20
	3"						
	3-1/4"						
	3-1/2"	3-1/2" SCH 80	4" x 0.318"	3.37"	1.14	P637-126-10	P637-126-20
	3-3/4"						
	4"						
	4-1/2"	5" SCH 120	5.563" x 0.5"	4.56"	2.65	P637-136-10	P637-136-20
	5"	5" SCH 80	5.563" x 0.375"	4.82"	2.03		

*NOTE: PIPE IS SPLIT INTO 1/3 (120°) SECTIONS

U-Bolt and Backing Plate Hardware Kits				
Mfr	Leg Size Range (OD)	U-Bolt Size	V-Plate Dimensions L x W x T	Kit #
Structural Components	1-1/2" - 2"	1/2" x 2-1/16"	5" x 2-1/2" x 3/8"	HKU-1520-02
	2" - 2-1/2"	1/2" x 2-9/16"	5" x 2-1/2" x 3/8"	HKU-2025-02
	2-1/2" - 3"	1/2" x 3-1/16"	6" x 2-1/2" x 1/2"	HKU-2530-02
	3" - 3-1/2"	1/2" x 3-9/16"	6" x 2-1/2" x 1/2"	HKU-3035-02
	3-1/2" - 4"	5/8" x 4-1/16"	7" x 3" x 1/2"	HKU-3540-02
	4" - 4-1/2"	5/8" x 4-9/16"	7" x 3" x 1/2"	HKU-4045-02
	4-1/2" - 5"	5/8" x 5-1/16"	8" x 3" x 1/2"	HKU-4550-02
	5" - 5-9/16"	5/8" x 5-5/8"	8" x 3" x 1/2"	HKU-5058-02



*NOTE: KIT INCLUDES (1) BACKING PLATE, (1) A307 U-BOLT, (2) WASHERS, (2) LOCK-WASHERS, AND (2) NUTS



Bolts and Bolt Assemblies

Mfr	Part #	Size
Galvanized Bolt Assemblies, Grade 5 (includes bolt, washer, nut)		
GB-03065	3/8" x 3/4"	
GB-03105	3/8" x 1"	
GB-03125	3/8" x 1-1/4"	
GB-03145	3/8" x 1-1/2"	
GB-03165	3/8" x 1-3/4"	
GB-03205	3/8" x 2"	
GB-04105	1/2" x 1"	
GB-04145	1/2" x 1-1/2"	
GB-04205	1/2" x 2"	
GB-04245	1/2" x 2-1/2"	
GB-04305	1/2" x 3"	
GB-04345	1/2" x 3-1/2"	
GB-04405	1/2" x 4"	
GB-04445	1/2" x 4-1/2"	
GB-04505	1/2" x 5"	
GB-05125	5/8" x 1-1/4"	
GB-05145	5/8" x 1-1/2"	
GB-05205	5/8" x 2"	
GB-05245	5/8" x 2-1/2"	
GB-05305	5/8" x 3"	
GB-05345	5/8" x 3-1/2"	
GB-05405	5/8" x 4"	
GB-05445	5/8" x 4-1/2"	
GB-05505	5/8" x 5"	
Stainless Steel - Hex Head Bolts, Type 18-8 (order washer and nut separately)		
SB-0206	1/4" x 3/4"	
SB-0210	1/4" x 1"	
SB-0212	1/4" x 1-1/4"	
SB-0220	1/4" x 2"	
SB-0224	1/4" x 2-1/2"	
SB-0230	1/4" x 3"	
SB-0306	3/8" x 3/4"	
SB-0310	3/8" x 1"	
SB-0312	3/8" x 1-1/4"	
SB-0314	3/8" x 1-1/2"	
SB-0316	3/8" x 1-3/4"	

Andrew Solutions



Flat Washers

Mfr	Part #	Size
Galvanized		
Andrew Solutions	GWF-03	3/8"
	GWF-04	1/2"
	GWF-05	5/8"
	GWF-06	3/4"
Stainless Steel		
	SWF-02	1/4"
	SWF-03	3/8"



Lock Washers

Mfr	Part #	Size
Galvanized		
Andrew Solutions	GWL-03	3/8"
	GWL-04	1/2"
	GWL-05	5/8"
	GWL-06	3/4"
Stainless Steel		
	SWL-02	1/4"
	SWL-03	3/8"



Hex Nuts

Mfr	Part #	Size
Galvanized		
Andrew Solutions	GN-03	3/8" (C2)
	GN-04	1/2" (C2)
	GN-05	5/8" (C2)
	GN-06	3/4" (C2)
Stainless Steel		
	SN-02	1/4"
	SN-03	3/8"



Threaded Coupler

Mfr	Part #	Size
Andrew Solutions	MT-390	3/8"



Threaded Rod

Mfr	Part #	Size
Galvanized		
Andrew Solutions	MT-378	3/8" x 120"
	MT-380	1/2" x 120"
	MT-382	5/8" x 120"
	MT-384	3/4" x 120"
Stainless Steel		
	MT-373	3/8" x 12"
	MT-373-24	3/8" x 24"
	MT-374	3/8" x 36"
	MT-376	3/8" x 144"



Galvanized Lag Screws

Mfr	Part #	Size
Galvanized		
Andrew Solutions	GLS-0320	3/8" x 2"
	GLS-0330	3/8" x 3"
	GLS-0414	1/2" x 1-1/2"



J-Bolt Assembly

Mfr	Part #	Size
Andrew Solutions	JB-8K	8" (full thread length)



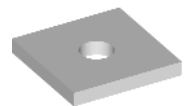
Self-Drilling Screws

Mfr	Part #	Size
Andrew Solutions	SS-025	1/4" x 3/4"



Anchors

Mfr	Part #	Size
Andrew Solutions	MT-271	1/2" x 3-3/4"
	MT-280	5/8" x 6"
	MT-287	3/4" x 7"



Backing Plates

Mfr	Part #	Size
Andrew Solutions		
	SW-38	2" x 2" x 1/8"
	SW-12	2" x 2" x 1/8"
	SW-58	2-1/4" x 2-1/4" x 3/16"
	BP-06	6" x 6" x 1/4"
Sabre	C40-048-003	4" x 4" x 1/4" w/ 9/16" hole



Galvanized U-Bolt Assembly

Mfr	Part #	Size
Andrew Solutions		
	GUB-3244	3/8" x 2-1/2" x 4"
	530989-KIT	3/8" x 3.5" x 4.5"
	GUB-4240	1/2" x 2-1/2" x 4"
	GUB-4352	1/2" x 3" x 5-1/4"
	GUB-4355	1/2" x 3-5/8" x 5"
	GUB-4356	1/2" x 3-5/8" x 6"
	GUB-4456	1/2" x 4-5/8" x 6-1/2"
	GUB-53560	5/8" x 3" x 6"
	GUB-5456	5/8" x 4-5/8" x 6-1/2"



Snap-in Bars

Mfr	Part #	Size
Andrew Solutions	CL-06R.01	6 Hole, 20" W
	CL-09R.01	9 Hole, 30" W
	CL-12R.01	12 Hole, 38" W



Allthread

Part #	Size
Galvanized - Grade 2	
ALLTHREAD38X36GAL	3/8" x 36"
ALLTHREAD38X72GAL	3/8" x 72"
ALLTHREAD12X36GAL	1/2" x 36"
ALLTHREAD12X72GAL	1/2" x 72"
ALLTHREAD58X72GAL	5/8" x 72"
ALLTHREAD34X72GAL	3/4" x 72"
Stainless Steel - Type 18-8	
ALLTHREAD38X36SS	3/8" x 36"
ALLTHREAD38X72SS	3/8" x 72"
ALLTHREAD12X36SS	1/2" x 36"
ALLTHREAD12X72SS	1/2" x 72"
ALLTHREAD58X72SS	5/8" x 72"
Other sizes and cut lengths are available	



Hex Bolts

Part #	Size
Galvanized - Grade 2	
BOLT38X114GAL	3/8" x 1-1/4"
BOLT38X112GAL	3/8" x 1-1/2"
BOLT38X2GAL	3/8" x 2"
BOLT38X212GAL	3/8" x 2-1/2"
BOLT12X114GAL	1/2" x 1-1/4"
BOLT12X112GAL	1/2" x 1-1/2"
BOLT12X2GAL	1/2" x 2"
BOLT12X212GAL	1/2" x 2-1/2"
Stainless Steel - Type 18-8	
BOLT14X1SS	1/4" x 1"
BOLT14X114SS	1/4" x 1-1/4"
BOLT38X34SS	3/8" x 3/4"
BOLT38X1SS	3/8" x 1"
BOLT38X114SS	3/8" x 1-1/4"
BOLT38X112SS	3/8" x 1-1/2"
BOLT38X2SS	3/8" x 2"
BOLT12X1SS	1/2" x 1"
BOLT12X114SS	1/2" x 1-1/4"
BOLT12X2SS	1/2" x 2"
Other sizes and lengths are available	



Hex Nuts

Part #	Size
Galvanized - Grade 2	
HEXNUT38GAL	3/8"
HEXNUT12GAL	1/2"
HEXNUT58GAL	5/8"
HEXNUT34GAL	3/4"
Stainless Steel - Type 18-8	
HEXNUT14SS	1/4"
HEXNUT38SS	3/8"
HEXNUT12SS	1/2"
HEXNUT58SS	5/8"



Fender Washers

Part #	Size
Stainless Steel - Type 18-8	
FENDERWASH14X114SS	1/4" x 1-1/4"
FENDERWASH38X114SS	3/8" x 1-1/4"
FENDERWASH12X114SS	1/2" x 1-1/4"



Dragon Tooth Washers

Part #	Size
Stainless Steel - Type 18-8	
FPW14-100	1/4"
FPW38-100	3/8"



Belleville Washers

Part #	Size
Stainless Steel - Type 18-8	
BELLEVILLE14SS	1/4"
BELLEVILLE38SS	3/8"



Flat Washers

Part #	Size
Galvanized - Grade 2	
FLATWASH38GAL	3/8"
FLATWASH12GAL	1/2"
FLATWASH58GAL	5/8"
FLATWASH34GAL	3/4"
Stainless Steel - Type 18-8	
FLATWASH14SS	1/4"
FLATWASH38SS	3/8"
FLATWASH12SS	1/2"
FLATWASH58SS	5/8"
FLATWASH38-10MMSS	3/8"
FLATWASH-SUPER-SMALL	3/8" ans flat (size of lock washer)



Lock Washers

Part #	Size
Galvanized - Grade 2	
LOCKWASH38GAL	3/8"
LOCKWASH12GAL	1/2"
LOCKWASH58GAL	5/8"
LOCKWASH34GAL	3/4"
Stainless Steel - Type 18-8	
LOCKWASH14SS	1/4"
LOCKWASH38SS	3/8"
LOCKWASH12SS	1/2"
LOCKWASH58SS	5/8"



Mini-Shackles

Screw-Pin Shackles

Part #	Size
Galvanized - Grade 2	
1/4-MINI	1/4"
5/16-MINI	5/16"
3/8-MINI	3/8"
Other sizes are available	



Quick-Links

Part #	Size
Zinc	
QUICKLINK-1/4	1/4"
QUICKLINK-5/16	5/16"
QUICKLINK-3/8	3/8"
Stainless Steel - Type 18-8	
QUICKLINK-1/4SS	1/4"
QUICKLINK-5/16SS	5/16"
QUICKLINK-3/8SS	3/8"



Hardware Kits

10-Count (Bolt, Lock, Nut, Flat)

Part #	Size
Galvanized - Grade 2	
HK-38X100GAL/10	3/8" x 1"
HK-38X114GAL/10	3/8" x 1-1/4"
HK-12X150GAL/10	1/2" x 1-1/2"
Stainless Steel - Type 18-8	
HK-14X100SS/10	1/4" x 1"
HK-38X100SS/10	3/8" x 1"
HK-38X114SS/10	3/8" x 1-1/4"
HK-12X112SS/10	3/8" x 1-1/2"
Stainless Steel - Hanger	
10 Count (Bolt, Nut, Star Washer)	
HK-38100/10	3/8" x 1"



Acrylic-Tie Anchoring System

Mfr	Part #	Description
Simpson	ATPAC05KT	5 oz Fast-pac Acrylic Cartridge
	AT13	13 oz Side by Side Cartridge
	ADT813B	Dispenser Gun
	AMN813	Replacement Mixing Nozzle



Opti-Mesh™ Adhesive Anchoring Screens for Acrylic-Tie Anchoring Systems

For use with Simpson Anchoring System

Mfr	Part #	Hole Depth	Diameter Rod
Simpson	ATS373P	3-1/2"	3/8"
	ATS376P	6"	
	ATS3710P	10"	
	ATS503P	3-1/2"	1/2"
	ATS506P	6"	
	ATS5010P	10"	
	ATS623P	3-1/2"	5/8"
	ATS626P	6"	
	ATS6210P	10"	
	ATS6213P	13"	3/4"
	ATS758P	8"	
	ATS7513P	13"	
	ATS7517P	17"	
	ATS7521P	21"	



Drop-In Anchors

For use with Simpson Anchoring System

Mfr	Part #	Size
Simpson	Carbon Steel	
	DIA25	1/4"
	DIA37	3/8"
	DIA50	1/2"
	DIA62	5/8"
	DIA75	3/4"

Primus supplies drop-in anchors in carbon steel or 303 stainless steel. "Lipped" drop-in anchors are also available.



Heavy Duty Screw Anchors

Mfr	Part #	Size
Simpson	Zinc Plated	
	THD37300H	3/8" x 3"
	THD37400H	3/8" x 4"
	THD37600H	3/8" x 6"
	THD50400H	1/2" x 4"
	THD50600H	1/2" x 6"
	THD62400H	5/8" x 4"
	THD62600H	5/8" x 6"
	THD75400H	3/4" x 4"
	THDT75600H	3/8" x 6"



Strong-Tie Wedge- All® Wedge Anchors

- Non-bottom bearing, wedge style expansion anchor
- For use in solid concrete or grout filled masonry
- Most sizes feature a full thread for added versatility

Mfr	Part #	Size
Simpson	Carbon Steel, Zinc Plated	
	WA37234	3/8" x 2-3/4"
	WA37312	3/8" x 3-1/2"
	WA50334	1/2" x 3-3/4"
	WA50414	1/2" x 4-1/4"
	WA50700	1/2" x 7"
	WA62500	5/8" x 5"
	WA62700	5/8" x 7"
	WA75700	3/4" x 7"

Other sizes are available



Carbide Drill Bits for Concrete and Masonry

- Available for the following shank styles: SDS Max®, SDS Plus®, Spline, Straight, and 'A' Taper
- Vacuum brazed carbide inserts for longer bit life
- Optimized fluting for dust removal, speeds drilling time, reduces heat and wear
- Chromium, Nickel, Molybdenum steel alloy body transfers the maximum impact to the cutting head for the greatest drilling efficiency

Call Primus at (800) 435-1636 to find the bit for your exact requirement and drill type



Strong-Tie® Lag Screw Expansion Shield

- Die cast zinc alloy expansion shield
- For anchoring lag screws in a variety of base materials including concrete, concrete block, brick and mortar joints

Mfr	Part #	Description	Embedment Length	Drill Bit Diameter
Simpson	LSES37S	3/8" short	1-3/4"	5/8"
	LSES50S	1/2" short	2"	3/4"
	LSES37L	3/8" long	2-1/2"	5/8"
	LSES50L	1/2" long	3"	3/4"

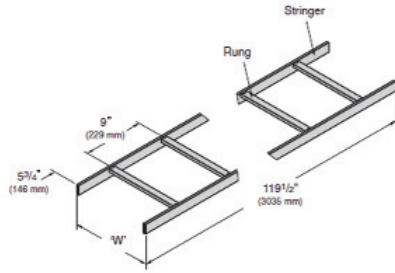


Core Bits for Concrete and Masonry

- Utilize a centering bit to facilitate accurate drilling in combination hammer/drill mode

Mfr	Part #	Description
Simpson	1-Piece Core Bits with Centering Bit - SDS Max® Shank	
	CDBSX20012*	2" diameter, 12" length
	CDBSX20022*	2" diameter, 22" length
	CDBSX30012*	3" diameter, 12" length
	CDBSX30022*	3" diameter, 22" length
	CDBSX40012*	4" diameter, 12" length
	CDBSX40022*	4" diameter, 22" length
	1-Piece Core Bits with Centering Bit - Spline Shank	
	CDBSP30012	3" diameter, 12" length
	CDBSP30022	3" diameter, 22" length
	Center Pilot Bit with Taper Fit	
	CTRBTF	for 1 piece bit
	Ejector Key for Center Bit Removal	
	CDBEJKY	for 1 piece bit

Other sizes are available



Tubular Stringers - 1-1/2" (38 mm) 10' Sections

- 1/2" (13 mm) x 1" (25 mm) steel channel welded rungs
- ASTM A513 steel tube material
- Different finishes available (see chart)

Mfr	Part #	Finish	Width 'W'	Weight, lb
Cooper B-Line	SB-17-06TG	Telco Gray Powder Coat	6"	18.7
	SB-17-06YZN	Yellow Zinc Dichromate		
	SB-17-12TG	Telco Gray Powder Coat	12"	23.1
	SB-17-12YZN	Yellow Zinc Dichromate		
	SB-17-18TG	Telco Gray Powder Coat	18"	27.4
	SB-17-18YZN	Yellow Zinc Dichromate		
	SB-17-24TG	Telco Gray Powder Coat	24"	31.7
	SB-17-24YZN	Yellow Zinc Dichromate		

Yellow Zinc Dichromate is UL Classified



Ceiling/Wall Heavy Duty Mounting Bracket

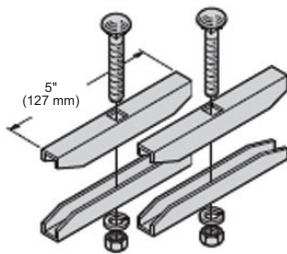
- Special Brackets available upon request
- Material: 304 series stainless steel or zinc plated steel
- Order threaded rod, washers, nuts, etc separately

Mfr	Part #	Material	Mounting Hole Size	Height	Weight, lb
	WBKT1HD	Z/P Steel	5/8"	1"	0.8 ea
Harger	WBKT1HDS	SS			

Splices 1-1/2"

Splices listed below have the following:

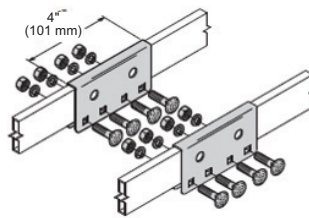
- Mfr: Cooper B-Line
- Material: ASTM A570 structural steel
- Finish: Yellow Zinc Dichromate (UL Classified)



Splice Extension Clamp Kit

- Use to connect cable grid or runway stringers
- Includes 2 runway clamps and 5/16"-18 hardware
- Weight: 0.95 lb (0.43 kg)

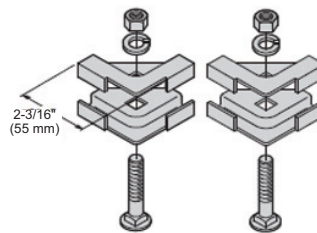
Part #	Runway Height	Stringer Style
SB-2107-YZN	1-1/2"	Single



Heavy Duty Stringer Splice Kit

- Use to connect cable grid or runway stringers
- Includes 2 clamps and 1/4"-20 hardware
- Attachment holes match 3/8" (9 mm) holes in solid bar stringers
- For additional strength use 3/8"-16 through bolts in attachment holes
- Weight: 1 lb (0.45 kg)

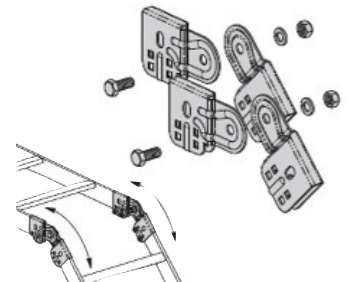
Part #	Runway Height	Stringer Style
SB-2135-YZN	1-1/2"	Single



Horizontal Tee Splice Kit

- Use to connect cable runway stringers to form a 90° horizontal tee
- Includes 2 clamps and 3/8"-16 hardware
- Weight: 0.63 lb (0.28 kg)

Part #	Runway Height
SB-2101-AYZN	1-1/2"



Adjustable Vertical Bend Kit

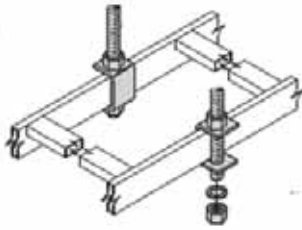
- Use for vertical change in direction of cable runway
- Includes 2 splices & hardware
- Attachment holes match 13/32" (10 mm) holes in solid bar stringers
- Adjusts 180°
- Weight: 2.4 lb (1.09 kg)

Part #	Runway Height
SB-2110-AYZN	1-1/2"

Runway Support 1-1/2"

Runway Support kits listed below have the following:

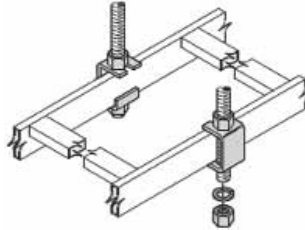
- Mfr: Cooper B-Line
- Finish: Yellow Zinc Dichromate (UL Classified)



Runway Support Kit-Threaded Rod

- Use to suspend cable runway from all threaded rod (order separately)
- Includes 2 hanger supports and hardware
- Material: ASTM A570 structural steel

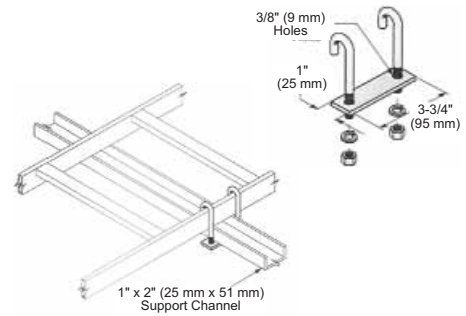
Part #	Runway Height	ATR Size	Weight, lb
SB-2116-AYZN	1-1/2"	5/8"-11	0.76
SB-2116-DYZN	1-1/2"	1/2"-13	



Slotted Runway Support Kit

- Use to suspend cable runway from all threaded rod
- Slotted hanger support design allows easier cable runway installation
- Includes 2 hanger supports and hardware
- Material: ASTM A570 structural steel

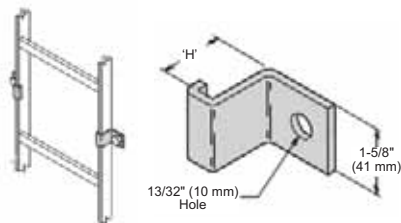
Part #	Runway Height	ATR Size	Weight, lb
SB-2118-AYZN	1-1/2"	5/8"-11	0.52
SB-2118-DYZN	1-1/2"	1/2"-13	0.71



"J" Bolt Kit

- Use to secure cable runway to 1" x 2" (25 mm x 51 mm) auxiliary support channel
- Includes 1 plate, 2 'J' bolts, and 5/16"-18 hardware
- Material: ASTM A36 structural steel

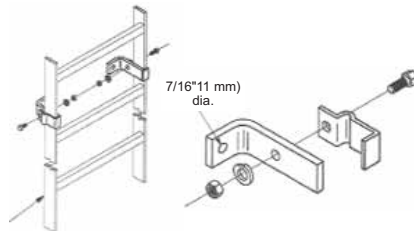
Part #	Runway Height	Weight, lb
SB-2004-AYZN	1-1/2" & 2"	0.4



Runway Hold-Down Clamp Kit

- Use to secure cable runway to wall, floor, ceiling, or strut
- Includes 2 wall clamps (order anchors separately)
- Material: 11 Ga (3 mm) ASTM A570 structural steel

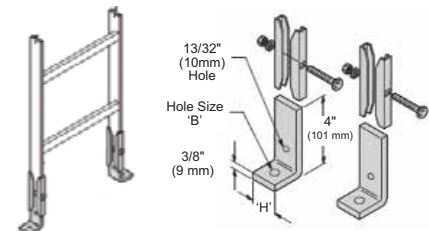
Part #	Runway Height 'H'	Weight, lb
SB-2114-AYZN	1-1/2"	0.54



Runway Stand-Off Kit

- Use to secure cable runway to wall, floor, or ceiling
- Provides 2-1/2" (63 mm) clearance
- Includes 2 stand-off supports and 3/8"-16 hardware (order anchors separately)
- Material: ASTM A36 structural steel

Part #	Runway Height	Weight, lb
SB-2109-YZN	1-1/2"	2.2



End Support Kit

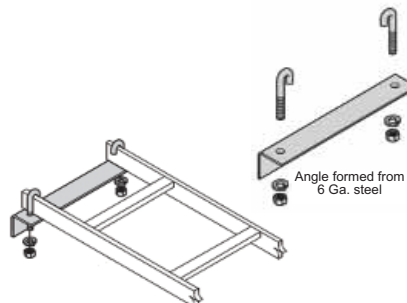
- Use to secure cable runway to floor, ceiling, or wall
- Includes 2 end supports, 2 clamps, and 5/16"-18 hardware
- Material: ASTM A36 structural steel

Part #	Runway Height 'H'	Hole Size 'B'	Weight, lb
SB-2106-AYZN	1-1/2"	7/16"	2.60

Runway Wall Support Kit

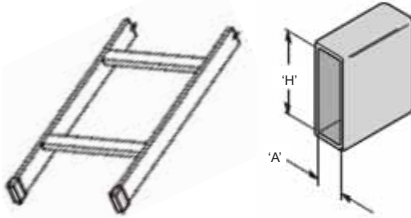
- Use to secure cable runway to a wall
- Sized for 1-1/2" (38 mm) stringers
- Includes 1 angle bracket, 2 J-bolts, and 5/16"-18 hardware
- Material: 6 Gauge ASTM A659 steel (order anchors separately-pg 64)

Part #	Runway Width	Weight, lb
SB-2113-06YZN	6"	2.10
SB-2113-12YZN	12"	3.70
SB-2113-18YZN	18"	5.40
SB-2113-24YZN	24"	7.20



End Caps

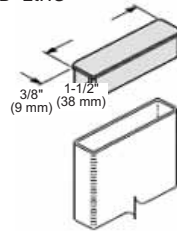
End Caps listed below are manufactured by Cooper B-Line



PVC End Cap

- Use as a protective covering for stringer ends of cable runway
- Sold in packages of 10
- Meets UL 94 Flame Resistance requirement
- Color: Black
- Material: PVC plastic

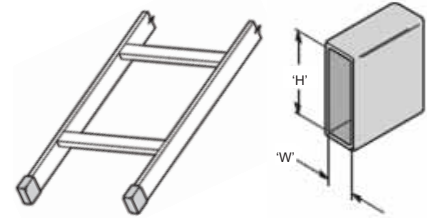
Part #	Stringer Size A x H (in)	Weight, lb	Qty
SB-110-A1BK	3/8" x 1-1/2"	0.13	10



Tube End Plug & Cap

- Use to close runway stringers or cable retaining posts
- Sold in packages of 25
- Color: Yellow
- Material: Polyethylene

Part #	Stringer Size (in)	Weight, lb	Qty
SB-110	1-1/2"	0.08	25



Neoprene End Caps

- Use as a protective covering for stringer ends of cable runway
- Sold in packages of 10
- Meets UL 94 Flame Resistance requirement
- Color: Black
- Material: Neoprene

Part #	Support Size H x W (in)	Weight, lb	Qty
SB-21B	1-1/2" x 3/8"	0.3	10



Fiber Tags

Part #	Description	Qty
145-P/100	1-3/4" L x 1" W	100
145-C/100	1-1/4" L x 3/4" W	100



Brass Tags

Part #	Description	Qty
BRASSTAGS-1	1" Round	50
BRASSTAGS-2	2" Round	25



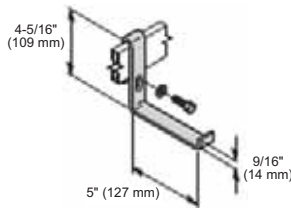
Name Punch Set 1/4"

Part #	Qty
NAMEPUNCH-1/4	1



5/8" Insulators

Mfr	Part #
Harger	5263A8



Power Cable Support

- Use to support power cable under cable runway
- Use with 1-1/2" or 2" stringers
- Designed for cable grid or cable runway stringers
- Includes 1/4"-20 hardware
- Material: ASTM A36 structural steel
- Finish: Yellow Zinc Dichromate

Mfr	Part #	Stringer Style	Material Thickness	Weight lb
Cooper B-Line	SB-119-EYZN	Single	3/16" x 1-1/4"	0.73



Lacing Twine, Waxed Polyester, 9-Ply

- Denier: 1000
- Twist Prep "S": 7-9
- Cable "Z": 3.1-4.1
- Loop Strength: 115 lbs minimum
- Elongation: 17% maximum
- Yield: 335 yds/1/2 lb maximum

Part #	Description
44800-NAT	9-Ply, 1/2 lb, 335 yd Spool



Fish Paper

Part #	Dimensions W x L x Thickness
CG-560	10" x 24" x 0.010"
CG101250FT	12" x 50' x 0.010" Roll

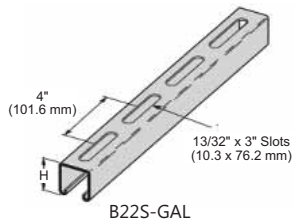


Angled Drop Brackets (2)

Mfr	Part #
Cooper B-Line	SB-310-BKYZN

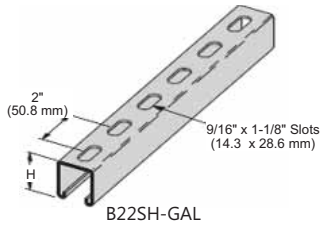
Strut and Fittings

Struts



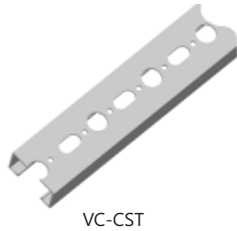
S Type Channel

Mfr	Part #	Description	Thickness	Length	Height	Weight
Cooper B-Line	B22S-GAL	S Type Channel	12 Ga. (2.6)	10'	1-5/8"	1.79 lbs/ft
Power Strut	PS200S-10PG					



SH Type Channel

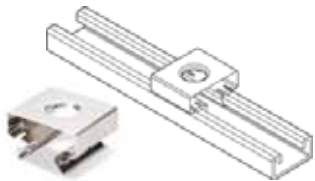
Mfr	Part #	Description	Thickness	Length	Height	Weight
Cooper B-Line	B22SH-GAL	SH Type Channel	12 Ga. (2.6)	10'	1-5/8"	1.82 lbs/ft
Power Strut	PS200EH-10PG					



Com-Strut

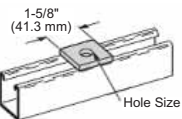
Mfr	Part #	Description	Width	Length	Height	Weight
TJ Cope	VC-CST	Com-Strut	3"	10'	1"	14 lbs

Fittings



Strut Snap-in Adapters

Mfr	Part #	Description	L x W x H	Material	Maximum Loading	Mounting	Weight	Qty
Andrew Solutions	ARA-22	Strut Snap-in Adapters, 22 mm	3.1" x 5.5" x 5.5"	0.103" Thick Stainless Steel	Double-Stack, 1-5/8" Cable	3/4" through hole	2.14 lbs	10



Square Washers

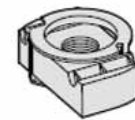
3/8" and 9/16" Square Washers
Hot dip galvanized

Size	Mfr (Part #)	
	Cooper B-Line	Power-Strut
3/8"	B201HDG	PS619-3/8PG
9/16"	B202HDG	PS619-1/2HG



Spring Nuts

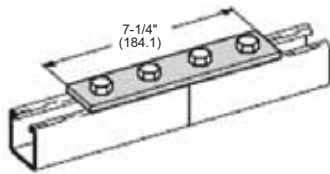
Thread Size	Fits Channels	Mfr (Part #)	
		Cooper B-Line	Power-Strut
3/8"-16	B22 B24	N228	PSRS-3/8HG
1/2"-13	B26	N225	PSRS-1/2HG
5/8"-11	B32	N255	PSRS-5/8HG



Twirl-Nuts™

Thread Size	Fits Channels	Mfr (Part #)	
		Cooper B-Line	Power-Strut
3/8"-16	All Sizes Except B62 & B72	TN228	
1/2"-13	B11, B12, B22, B24, B26, B32	TN225	
5/8"-11	B11, B12, B22, B24, B26, B32	TN255	

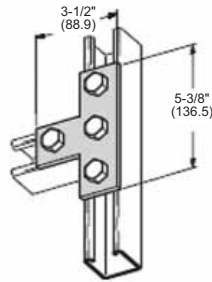
Splices



4 Hole Splice Plate

- Hot dip galvanized
- Wt/C: 76 lbs (34.5 kg)

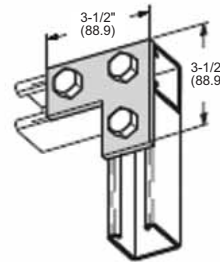
Mfr	
Cooper B-Line	Power-Strut
B341HDG	PS888HG



4 Hole Tee Plate

- Hot dip galvanized
- Wt/C: 75 lbs (34 kg)

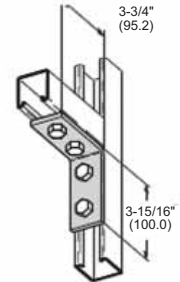
Mfr	
Cooper B-Line	Power-Strut
B133HDG	PS714HG



3 Hole Corner Plate

- Hot dip galvanized
- Wt/C: 56 lbs (25.4 kg)

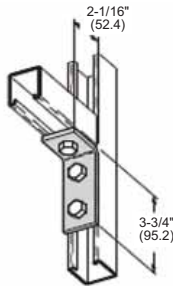
Mfr	
Cooper B-Line	Power-Strut
B140HDG	PS718HG



4 Hole 90° Corner Angle

- Hot dip galvanized
- Wt/C: 76 lbs (34.5 kg)

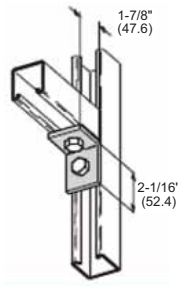
Mfr	
Cooper B-Line	Power-Strut
B115HDG	PS660HG



3 Hole 90° Corner Angle

- Hot dip galvanized
- Wt/C: 56 lbs (25.4 kg)

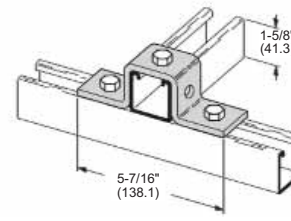
Mfr	
Cooper B-Line	Power-Strut
B374HDG	PS606HG



2 Hole 90° Corner Angle

- Hot dip galvanized
- Wt/C: 37 lbs (16.8 kg)

Mfr	
Cooper B-Line	Power-Strut
B230HDG	PS603HG



5 Hole U-Support

- Hot dip galvanized
- Wt/C: 56 lbs (25.4 kg)

Mfr	
Cooper B-Line	Power-Strut
B107HDG	PS613HG

Dura-Blok™ Rooftop Supports

- Base with 14 ga. (1.9 mm) galvanized channel 1" high (25.4 mm)
- 100% recycled rubber, UV resistant
- Load Rating - Ultimate Uniform Load (See Chart Below)*
- Dura-Blok™ DB-Series channel support is designed for superior support of piping systems, cable tray, HVAC equipment, walkway systems and many other applications



Mfr	Part #	H x W x L	Weight (ea)	Load Rating lbs (kN)
		in (mm)		
Cooper B-Line	DB5	5" x 6" x 4.8" (127.0 x 152.4 x 121.9)	2.75 (125)	500 (2.22)
	DB10	5" x 6" x 9.6" (127.0 x 152.4 x 243.8)	5.28 (2.39)	500 (2.22)
	DB20	5" x 6" x 20.2" (127.0 x 152.4 x 513.1)	10.63 (4.82)	1000 (4.45)
	DB30	5" x 6" x 30.8" (127.0 x 152.4 x 782.3)	15.99 (7.25)	1500 (6.67)

Snap-n-Strut Hangers

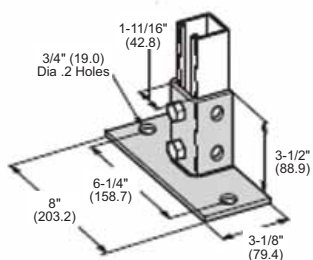
- One piece nylon pipe, cable, and conduit hangers
- Fastest, most versatile one-piece hinged pipe hanger and conduit hanger ever made



Mfr	Part #	Size
Snap-n-Strut	17-20 mm	17-20 mm
	21-24 mm	21-24 mm
	25-29 mm	25-29 mm
	30-34 mm	30-34 mm

Strut and Fittings

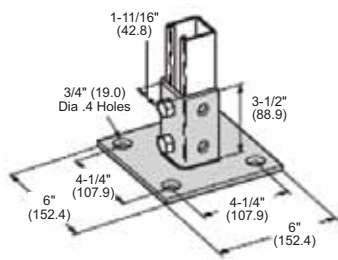
Post Bases



2 Hole Post Base, 1-5/8"

- Hot dip galvanized
- Wt/C: 312 lbs (141.5 kg)

Mfr	
Cooper B-Line	Power-Strut
B280FLHDG	PS3025FLHDG

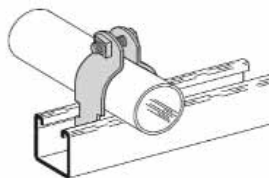


4 Hole Post Base, 1-5/8"

- Hot dip galvanized
- Wt/C: 392 lbs (177.8 kg)

Mfr	
Cooper B-Line	Power-Strut
B133HDG	PS714HG

Pipe and Conduit Clamps

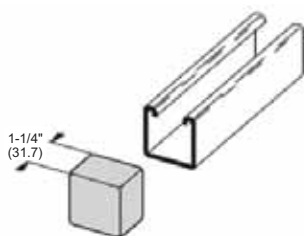


Strut Strap

- Safety factor of 5
- Includes combination recess hex head machine screw and square nut
- Hot dip galvanized

Conduit Size (Inside Diameter)	Mfr	
	Cooper B-Line	Power-Strut
1/2" (15)	B2008HDG	PS1100-1/2HG
3/4" (20)	B2009HDG	PS1100-3/4HG
1" (25)	B2010HDG	PS1100-1HG
1-1/4" (32)	B2011HDG	PS1100-1-1/4HG
1-1/2" (40)	B2012HDG	PS1100-1-1/2HG
2" (50)	B2013HDG	PS1100-2HG
2-1/2" (65)	B2014HDG	PS1100-2-1/2HG
3" (80)	B2015HDG	PS1100-3HG
3-1/2" (90)	B2016HDG	PS1100-3-1/2HG
4" (100)	B2017HDG	PS1100-4HG
4-1/2" (115)	B2018HDG	-

Caps



Plastic White End Cap, 1-5/8"

- Material: soft white PVC
- Fit channels B22 and B24
- Wt/C: 3 lbs (1.3 kg)

Mfr	
Cooper B-Line	Power-Strut
B822W	PS6153-2W



Plastic Gray End Plug, 1-5/8"

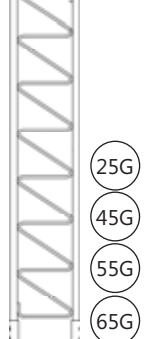
- Material: polyurethane
- Fits channels B22 and B24
- Wt/C: 2 lbs (0.9 kg)

Mfr	
Cooper B-Line	
B82522GRY	

25 / 45 / 55 / 65

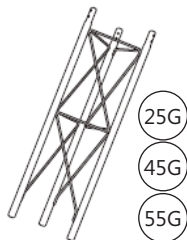
Standard Sections

Mfr	Part #	Overall Length	Width	O.D. (GA. wall)	O.D. Bracing	For Tower
Rohn	R-25G	10'	12-1/2"	1.25" (16)	5/16"	25G
	R-25G7	7'	12-1/2"	1.25" (16)	5/16"	25G
	R-45G	10'	18"	1.25" (14)	7/16"	45G
	R-55G	10'	18-1/2"	1.50" (11)	7/16"	55G
	R-65G	10' or 20'	24-1/4"	1.50"	7/16"	65G



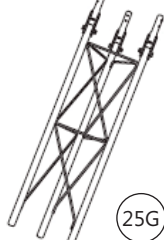
Bases

These base sections for embedment in concrete



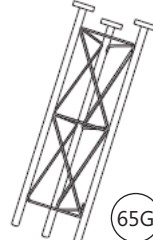
Short Base

Mfr	Part #	Des.	For
Rohn	R-SB25G	3' 4"	25G
	R-SB25G5	5'	25G
	R-SB45G	5'	45G
	R-SB55G	5'	55G



Hinged Short Base

Mfr	Part #	Des.	For
Rohn	R-SBH25G	3' 4"	25G



Short Base

Mfr	Part #	Des.	For
Rohn	R-SB65GH	5'	65G



Tapered Base

Mfr	Part #	Des.	For
Rohn	R-65TGH	10' 1-1/4"	65G

Thrust Bearing and Tower Bushing



Thrust Bearing

Mfr	Part #	Description
Rohn	TB3	Supports up to 2" O.D. Mast
	TB4	Supports up to 3" O.D. Mast



Tower Bushing

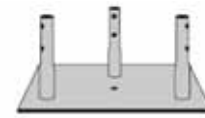
For use on 25AG & 45AG Top Sections

Mfr	Part #	Description
Rohn	TB50	1-1/4" I.D. x 2" O.D.
	TB75	1-1/2" I.D. x 2" O.D.

Hardware

Mfr	Part #	Description
Rohn	R-3/4x12PP	Pier Pin
	R-1/2x12BB	Base Bolts

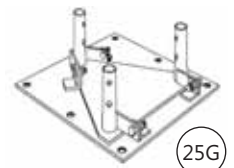
Base Plates



Concrete Base Plate

For use with pier pin embedded in concrete. Requires pier pin (order separately-see below)

Mfr	Part #	For
Rohn	R-BPC25G*	25G
	R-BPC45G*	45G
	R-BPC55G*	55G

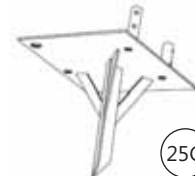


Hinged Base Plate

Bolts to concrete.. Hinged to allow tower to be rotated up from base during installation.

Requires base bolts (order separately-see below).

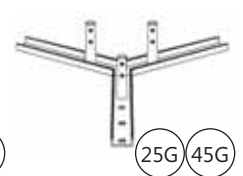
Mfr	Part #
Rohn	R-BPH25G*



Single Drive-In Base

To be driven directly into ground

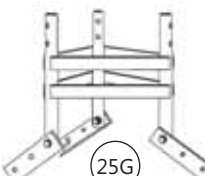
Mfr	Part #
Rohn	R-SDB25G



Flat Roof Mount

Bolts directly to flat roof surface

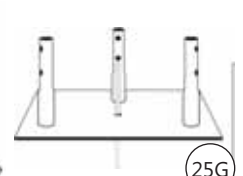
Mfr	Part #	For
Rohn	R-FR25G*	25G
	R-FR45G	45G



Peak Roof Mount

Adjustable hinged feet conform to nearly any roof pitch. Bolts to any surface.

Mfr	Part #
Rohn	R-PR25G*



Non-Penetrating Galvanized Roof Mount

Can support 2 sections of 25G tower in a self-supporting application. Base of mount is 10' square with a 16' tray to fit the concrete blocks, typically used as a ballast. Quick assembly.

Mfr	Part #
Rohn	R-BPC55G

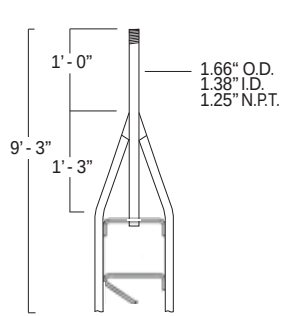
*Towers mounted on these bases must be bracketed or guyed at all times. Temporary steel guying may also be necessary during installation and dismantling.

25 / 45 / 55 / 65 (cont.)

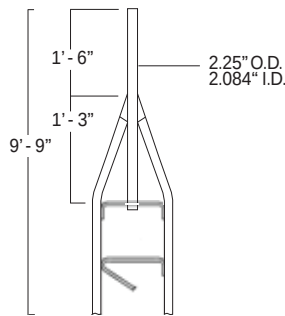
Top Sections

**25AG**

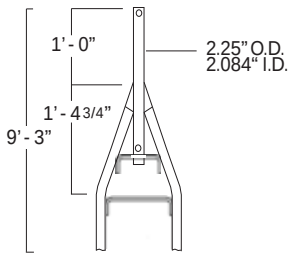
Mfr	Part #
Rohn	R-25AG

**25AG1**

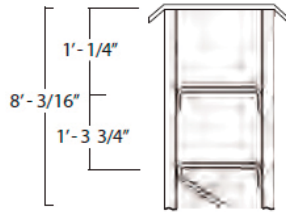
Mfr	Part #
Rohn	R-25AG1

**25AG2**

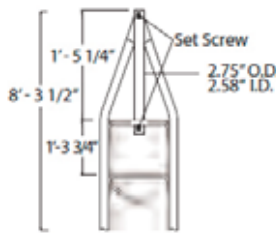
Mfr	Part #
Rohn	R-25AG2

**25AG3**

Mfr	Part #
Rohn	R-25AG3

**25AG4**

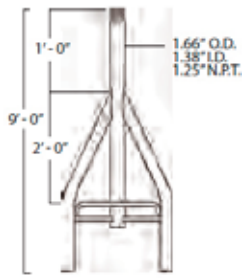
Mfr	Part #
Rohn	R-25AG4

**25AG5**

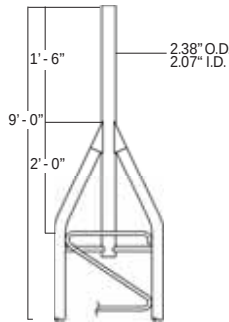
Mfr	Part #
Rohn	R-25AG5

**45AG**

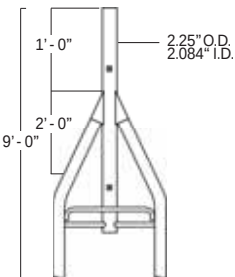
Mfr	Part #
Rohn	R-45AG

**45AG1**

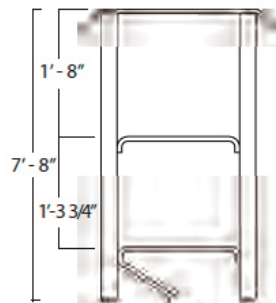
Mfr	Part #
Rohn	R-45AG1

**45AG2**

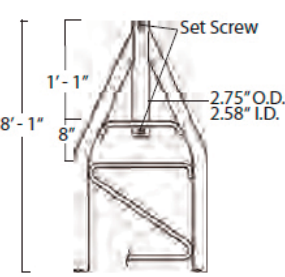
Mfr	Part #
Rohn	R-45AG2

**45AG3**

Mfr	Part #
Rohn	R-45AG3

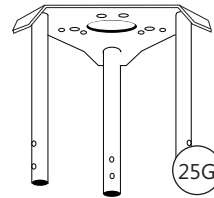
**45AG4**

Mfr	Part #
Rohn	R-45AG4

**45AG5**

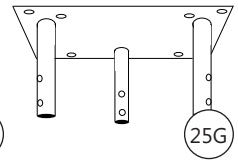
Mfr	Part #
Rohn	R-45AG5

Top Plates

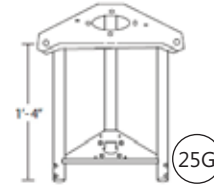
**Bearing Plate (25G)**

Long legs provide extra clearance. Bolts to top of standard section. Drilled to accept TB3 or TB4 thrust bearing.

Mfr	Part #
Rohn	R-BPL25G

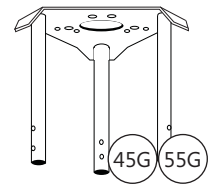
**Assembly Plate/Top Beacon Plate (25G)**

Mfr	Part #
Rohn	R-APL25G

**Bearing/Accessory Shelf (25G)**

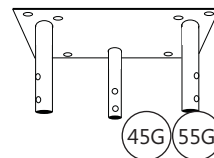
Drilling to accept thrust bearing on top plate

Mfr	Part #
Rohn	R-BAS25G

**Bearing Plate**

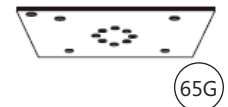
Converts standard section to top section. Shown w/ TB3 thrust bearing. TB4 thrust bearing also available.

Mfr	Part #	For
Rohn	R-BPL45G	45G
Rohn	R-BPL55G	55G

**Beacon Plate (25G/45G)**

For mounting beacon. Bolts to top of standard section.

Mfr	Part #	For
Rohn	R-APL45G	45G
Rohn	R-APL55G	55G

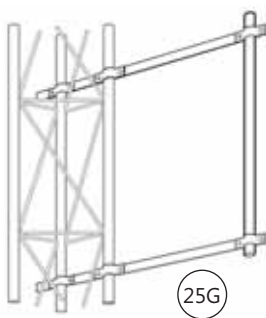
**Beacon Plate (65G)**

Leg mounted and (2) cap plates with nuts and bolts

Mfr	Part #
Rohn	R-APL4HA

25 / 45 / 55 / 65 (cont.)

Mounts



Side Arm Mount
For UHF and FM Antennas

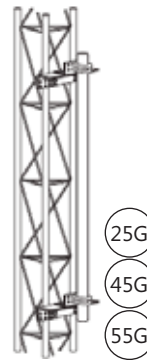
Mfr	Part #	For
Rohn	R-UHF25G	25G



Side Arm Bracket

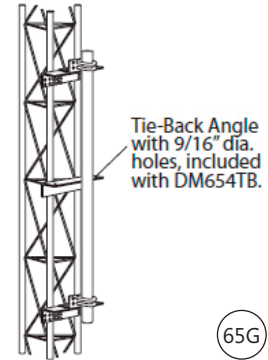
Mounting tube provided is 3' long, 2-1/4" O.D.

Mfr	Part #	For
Rohn	R-SA253UA	25G



Face Mount

Mfr	Part #	O.D. Pipe Length	For
Rohn	R-DM25G2	2-3/8"	5' 25G
	R-DM45G2	2-3/8"	5' 45G
	R-DM454	4-1/2"	5' 45G
	R-DM55G2	2-3/8"	5' 55G
	R-DM554	4-1/2"	5' 55G



Face Dish Mount

Mfr	Part #	Description	For
Rohn	R-DM654	4" (4-1/2" O.D.) 5' Pipe	65G
	R-DM654TB	4" (4-1/2" O.D.) 5' Pipe with Tie Back Angle	65G

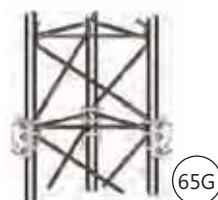
Guy Brackets and Torque Bars



Guy Brackets
(25G, 45G, 55G)

Mounts to any tower at any horizontal brace

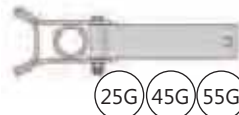
Mfr	Part #	For
Rohn	R-GA25GD	25G
	R-GA45GD	45G
	R-GA55GD	55G



Guy Bracket Assembly
(65G)

Leg mounted and two cap plates with nuts and bolts

Mfr	Part #	For
Rohn	R-GA65GD	65G

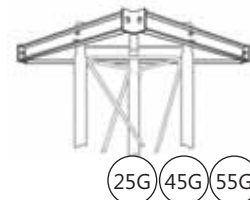


Torque Bars
(25G, 45G, 55G)

* Optional, for use with GA25GD
** Requires three 3/8s shackles for installation

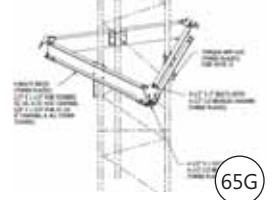
Mfr	Part #	For
Rohn	R-TB25D*	25G
	R-TB45D**	45G
	R-TB55D**	55G

Torque Arm Stabilizer



Torque Arm Stabilizer
(25G, 45G, 55G)

Mfr	Part #	For
Rohn	R-TA25	25G
	R-TA45	45G
	R-TA55	55G



Torque Arm Stabilizer
(65G)

Available in 6" or 8"

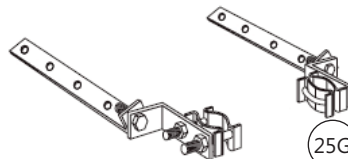
Mfr	Part #	For
Rohn	R-TA656	65G



Anti-Climb Panels

Three anti-climb panels to bolt to existing standard tower section

Mfr	Part #	For
Rohn	R-25ACL3	25G
	R-45ACL3	45G/55G
	R-VW915A	65G



Universal Eave Bracket

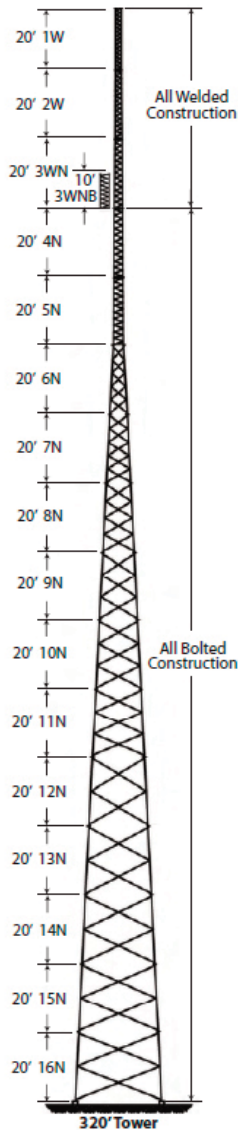
Hinged connection allows tower leg clamps to remain perpendicular to ground while bolt down supports rotate to lay flat along pitched roof or eave

Mfr	Part #	For
Rohn	R-EB2525G	25G



House Brackets

Mfr	Part #	For
Rohn	R-HBUTVRO	25G/45G/55G
	R-KH1014	65G



Heavy Duty Self-Supporting Towers

Mfr	Section Number	Nominal Spread Dimension	
		Upper	Lower
Rohn	1W	1' - 2"	1' - 2"
	2W	1' - 2"	1' - 6"
	3WN	1' - 6"	1' - 10"
	4N	1' - 10"	2' - 2"
	5N	2' - 2"	2' - 6"
	6N	1' - 6"	4' - 6-1/4"
	7N	4' - 6-1/4"	6' - 6-3/4"
	8N	6' - 6-3/4"	8' - 6-3/4"
	9NH	8' - 6-3/4"	10' - 6-3/4"
	10NH	10' - 6-3/4"	12' - 7-1/4"
	11N	12' - 7-1/4"	14' - 7-7/8"
	12NH	14' - 7-7/8"	16' - 8-3/8"
	13NH	16' - 8-3/8"	18' - 8-3/8"
	14NH	18' - 8-3/8"	20' - 9-3/8"
	15NH	20' - 9-3/8"	22' - 9-3/8"
	16NH	22' - 9-3/8"	24' - 9-3/8"

- Industry's most efficient and preferred structures
- Standard parts arranged to create a unique structure
- Legs are tubular with angle braces at the bottom and solid legs and braces in the top sections
- Used in a variety of applications, from PCS structures and Broadband to Security and Sports Lighting and more
- Hot-dip galvanized, inside and out for corrosion protection

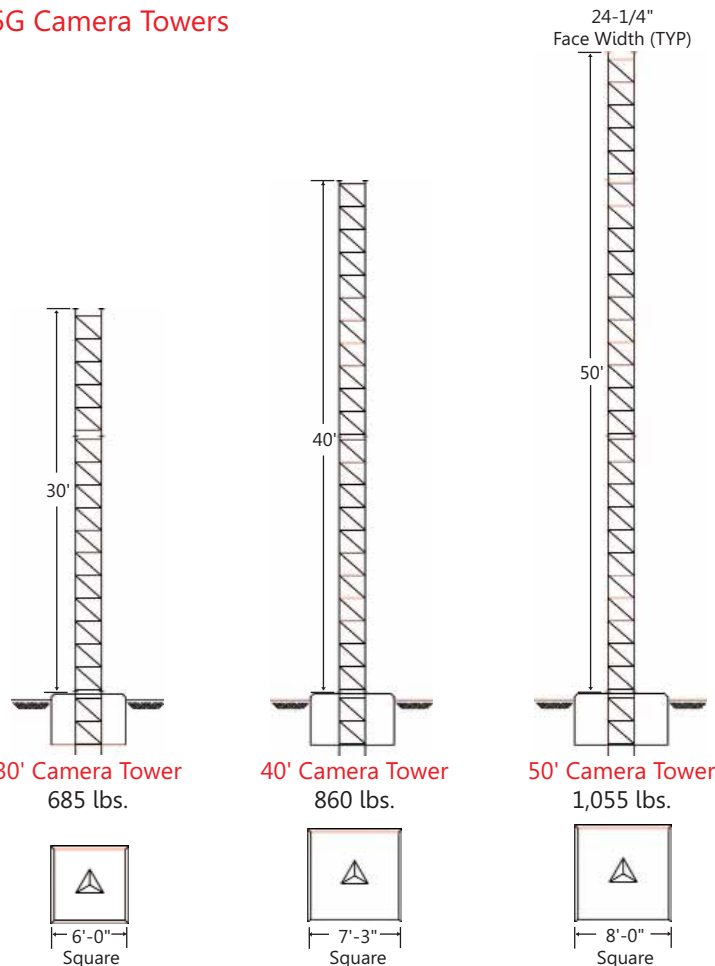
General Notes:

1. Tower designs are in accordance with approved national standard ANSI/EIA-222-F-1996 (no ice)
2. Equivalent flat-plate antenna areas based on EIA RS-222-C, must not exceed the areas shown for flat member antennas
3. Tower designs assume allowable projected areas are symmetrically placed on the tower
4. Designs assume one 7/8 line to top and two 7/8 lines to 30 feet below top, one per face
5. Do not install or dismantle tower within falling distance of electrical and/or telephone lines
6. Tower erection and dismantling must be done by qualified and experienced personnel
7. Install warning plate (P/N: ACWS) in a highly visible location
8. All antenna installations must be grounded in accordance with local and national codes
9. All towers are provided with a (P/N: ITT) tapered top

Self-Supporting | 40' - 190' | 90 mph (no ice)

Mfr	Tower Height (ft.)	Tower Assembly Number	Allowable Projected Area			Base Section			Base Reactions			
			Tower Top Rounds (Flats)	30' Below Top Rounds (Flats)	Top Section	Part Number	A-Bolts 12 Req.	Face Spread	Down Load (lbs)	Uplift (lbs)	Shear (lbs)	OTM (ft. lbs)
Rohn	40	SS040D90	16.7 (10)	20 (12)	3WN	4N	SB4	2' - 2	20,800	19,800	1,700	38,100
	50	SS050D90	16.7 (10)	20 (12)	3WNB	5N	SB5	2' - 6	27,900	26,600	1950	58,900
	60	SS060D90	14.2 (8.5)	17.5 (10.5)	3WN	5N	SB6	2' - 6	33,700	32,400	1,930	71,400
	70	SS070D90	14.2 (8.5)	17.5 (10.5)	3WNB	6N	5/8X42AB	4' - 6 1/4	27,100	25,500	2,760	103,100
	80	SS080D90	12.5 (7.5)	15.8 (9.5)	3WN	6N	5/8X42AB	4' - 6 1/4	31,300	29,600	2,820	119,300
	90	SS090D90	12.5 (7.5)	15.8 (9.5)	3WNB	7N	5/8X42AB	6' - 6 3/4	31,100	29,100	3,850	169,900
	100	SS100D90	10 (6)	13.3 (8)	3WN	7N	5/8X42AB	6' - 6 3/4	33,100	30,900	3,830	180,600
	110	SS110D90	10 (6)	13.3 (8)	3WNB	8N	5/8X42AB	8' - 6 3/4	36,000	33,400	5,070	255,500
	120	SS120D90	8.3 (5)	11.7 (7)	3WN	8N	5/8X42AB	8' - 6 3/4	38,100	35,400	5,100	270,300
	130	SS130D90	8.3 (5)	11.7 (7)	3WNB	9NH	5/8X42AB	10' - 6 3/4	42,900	39,700	6,520	375,800
	140	SS140D90	6.7 (4)	10 (6)	3WN	9NH	5/8X42AB	10' - 6 3/4	44,500	41,200	6,540	389,800
	150	SS150D90	6.7 (4)	10 (6)	3WNB	10NH	5/8X42AB	12' - 7 1/4	50,900	47,000	8,280	532,100
	160	SS160D90	5.8 (3.5)	8.3 (5)	3WN	10NH	3/4X48AB	12' - 7 1/4	52,700	48,700	8,330	550,900
	170	SS170D90	5.8 (3.5)	8.3 (5)	3WNB	11N	3/4X48AB	14' - 7 7/8	60,900	56,000	10,570	739,500
	180	SS180D90	5 (3)	7.5 (4.5)	3WN	11N	7/8X60AB	14' - 7 7/8	62,900	57,900	10,650	763,700
	190	SS190D90	5 (3)	7.5 (4.5)	3WNB	12NH	7/8X60AB	16' - 8 3/8	73,000	66,900	13,060	1,007,000

65G Camera Towers



Includes short base section, tower sections, grounding material and top mounting plate with attachment hardware

Mfr	Part #	Des.	Mfr	Part #	Des.	Mfr	Part #	Des.
Rohn	65SS030CT	30'	Rohn	65SS040CT	40'	Rohn	65SS050CT	50'

REV. F: 90 mph fastest Mile - 1/2" ice
 REV. G: 110 mph 3-sec gust wind speed (no ice),
 40 mph 3-sec gust wind speed (3/4" ice),
 Class II, Exposure C, TOPO Category 1

Mfr	Tower Height	Over-turning Moment (ft. KIPS)		FDN Width "W"	Concrete Vol. (cu. yds)
		REV. F	REV. G		
Rohn	30'	20.80	28.12	6'-0"	5.3
	40'	32.70	45.80	7'-3"	7.8
	50'	39.50	52.90	8'-0"	9.5

Mfr	Tower Heights	Maximum Load at Top	
		EPA No Ice	EPA Ice
Rohn	30' - 40'	14.5 ft ²	8.0 ft ²
	50'	7.0 ft ²	4.5 ft ²

Custom Self-Support Towers

Primus Electronics creates custom, project specific self-supported towers and monopoles with high quality steel to meet any specification. Primus' tower and monopole suppliers have a long history and strong relationship of designing, manufacturing and delivering vertical structures that exceed industry standards.

Primus supplies customized solutions for:

- Self-Supporting Towers
- Broad Leaf Tree Poles
- Microwave Towers
- Palm Tree Poles
- Camera Towers
- ...and many more!

Each Structure is designed & manufactured to meet the following:

- Criteria that is provided by the customer (including height, wind speed, loading, and special specifications)
- TIA/EIA, UBC and local zoning requirements
- AISC, ASTM, ASME, CBW specifications

Let our team of experts help with customized solutions. Please call us today at (800) 435-1636.

Pole Top Extensions

Pole Top Extensions from Highline Products are manufactured with state-of-the-art technology to provide the highest strength and most consistent quality. They are available in lengths ranging from 36" to 120" and with a variety of brackets and cap types. They are also UV protected to provide excellent weatherability.

Typical uses for Pole Top Extensions include:

- Overbuild construction of spacer cable, armless construction, and/or crossarms construction
- Communication antennas
- High traffic areas where time is critical
- DAS System
- Smart Grid

Save time and money with Pole Top Extensions:

- Less personnel needed compared to replacement of pole
- Easily installed with two bolts and can be drilled in the field
- Existing wiring and equipment can be left in place
- No need to transfer telephone, CATV, or wire on joint use poles



Let our team of experts help with your pole top extension needs. Please call us today at (800) 435-1636.

Grounding

Ground Buss Bars

Mfr: Andrew Solutions
Hardware not included



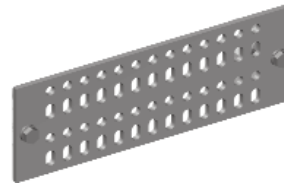
2" x 10"
1/4" x 2" x 10"
10 pairs of holes

Bare Copper	Tinned Copper
294800	294801



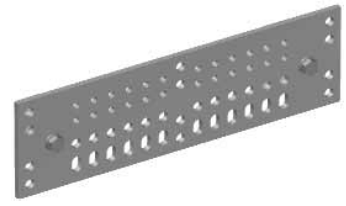
2" x 14"
1/4" x 2" x 14"
15 pairs of holes

Bare Copper	Tinned Copper
294806	294807



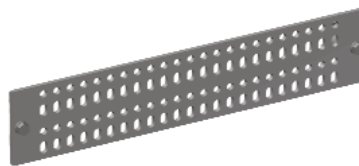
4" x 12"
1/4" x 4" x 12"
26 pairs of holes

Bare Copper	Tinned Copper
294810	294811



4" x 14"
1/4" x 4" x 14"
12 pairs of holes, 12 pairs tapped

Bare Copper	Tinned Copper
294812	294813



4" x 20"
1/4" x 4" x 20"
46 pairs of holes

Bare Copper	Tinned Copper
294814	294815



4" x 24"
1/4" x 4" x 24"
26 pairs of holes, 26 tapped

Bare Copper	Tinned Copper
294816	294817

Galvanized Steel Ground Buss Bars



Galvanized Steel, Wall Only, Ground Buss Bar
24 pairs of holes

Mfr	Part #
Harger	SLB14412M



Galvanized Steel, Wall Only, Ground Buss Bar
56 pairs of holes

Mfr	Part #
Harger	SLB14424M

Ground Bus Bar Hardware Kits



Insulated Shelter



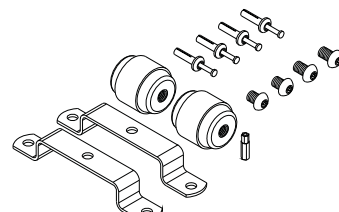
Insulated Tower

Mfr	Part #	Description
Andrew Solutions	294826	Insulated Shelter Hardware Kit
	294827	Insulated Tower Hardware Kit



Universal Buss Bar Mounting Kit

Mfr	Part #
Harger	GBUKIT



Insulate Theft Deterrent Mount Mounting Brackets and Insulator

Mfr	Part #
Harger	WBKT1KITTP-280

Stainless Steel Hardware Kits

Part #	Description
HK-38114/10	3/8" x 1-1/4" SS Hardware Kit
HK-38114/10mm	3/8" x 1-1/4" with 10 mm FLT SS

Universal Ground Bar Kits

Mfr: Harger
Includes Hardware



2" x 6"
5 pairs of holes

Bare Copper	Tinned Copper
GBU1426P	TGBU1426P



2" x 10"
10 pairs of holes

Bare Copper	Tinned Copper
GBU14210P	TGBU14210P



2" x 12"
13 pairs of holes

Bare Copper	Tinned Copper
GBU14212P	TGBU14212P



2" x 14"
15 pairs of holes

Bare Copper	Tinned Copper
GBU14214P	TGBU14214P



4" x 6"
8 pairs of holes

Bare Copper	Tinned Copper
GBU1446M	TGBU1446M



4" x 12"
24 pairs of holes

Bare Copper	Tinned Copper
GBU14412M	TGBU14412M



4" x 14"
26 pairs of holes

Bare Copper	Tinned Copper
GBU14414M	TGBU14414M



4" x 20"
44 pairs of holes

Bare Copper	Tinned Copper
GBU14420M	TGBU14420M

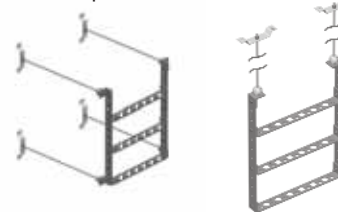


4" x 24"
56 pairs of holes

Bare Copper	Tinned Copper
GBU14424M	TGBU14424M

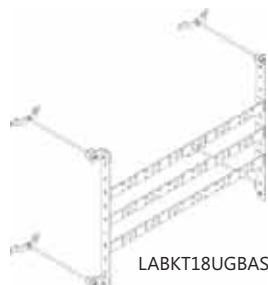
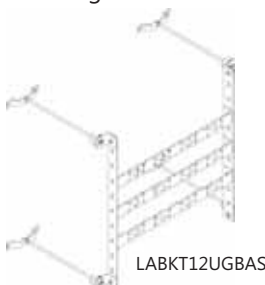
Arrestor Trapeze Kit

Application: Grounding
Size: 3-tier, 6-hole pattern
Design: Common ground for lightning arrestors
Feature: Accommodates most arrestor styles
Mounts to: Ceiling or wall mounting
Material: Copper
Includes: Trapeze, threaded rod, and ceiling brackets



Lightning Arrestor Racks

- Manufactured from 1/8" thick 110 alloy copper bar
- Accommodates bulkhead arrestors with DIN or N female connectors
- Premounted self-clinching nuts speed installation
- Ceiling or wall mounted



Mfr	Part #	Description
Harger	LABKT12UGBAS	12 Position, 3-Level, 27" W
	LABKT18UGBAS	18 Position, 3-Level, 39" W
	LABKT24UGBAS	24 Position

Mfr	Part #	Description
Andrew Solutions	AT-K306-U	3 x 6
	AT-K406-U	4 x 6



Universal Ground Bar Assembly

Mfr	Part #	Description
Andrew Solutions	UGBA-34	(3) 4-position ground Bars, for 7/16 DIN, Type N, or bolt-grounded surge arrestors
	UGBA-36	(3) 6-position ground bars, for 7-16 DIN, type N, or bolt-grounded surge arrestors
	UGBA-DIN-34	(3) 4-position ground bars, for 7-16 DIN or bolt-grounded surge arrestors
	UGBA-DIN-36	(3) 6-position ground bars, for 7-16 DIN or bolt-grounded surge arrestors

Grounding

Ground Wire

Standard lengths of 100', 250', 500'

Part #	Description
6-7G	#6 7 Strand Green Wire with XHHW jacket
6-19G	#6 19 Strand Green Wire with THHN jacket
2T	#2 Solid Tinned Wire
2-7G	#2 7 Strand Green Wire with XHHW jacket
2-19G	#2 19 Strand Green Wire with THHN jacket
2/0-19G	2/0 19 Strand Green Wire with THHN jacket
4/0-19G	4/0 19 Strand Green Wire with THHN jacket
4/0-19T	4/0 19 Strand Tinned Wire

NOTE: Other lengths are available

Non-Metallic Seal Tight

Part #	Description
FLEXST38NM	3/8" x 100'
FLEXST12NM	1/2" x 100'
FLEXST34NM	3/4" x 100'

NOTE: Metallic Seal Tight and other sizes available

1/2" Quicklatch Conduit Hanger

100-count

Mfr	Part #
Arlington	NM2005

NOTE: Other sizes available



Barrel Splice Crimp Connector

Part #	Description
PE-BARREL-2	#6 Brown Barrel Splice
PE-BARREL-2SOL	#2 SOL White Barrel Splice
PE-BARREL-6	#6 Blue Barrel Splice



Mechanical Compression Tools

Dieless Compression Tool

- Dieless adjustable compression tool with steel handle
- Works with copper conductor sizes #8 through 50MCM and aluminum conductors #8 through 4/0
- For use with compression lugs and light duty compression taps

Mfr	Part #	Description
Harger	MCT	#8 thru 500MCM



Compression Tool with Die

- Handy compression tool terminates copper compression connectors in wire sizes #6 through #2SOL
- Handle length facilitates two-handed crimps when necessary
- Includes dies

Mfr	Part #	Description
Harger	MCT81/0M	#6 thru #2SOL



FLATWASH38-10MMSS



Flat38-SUPERSMALL



LUGWASHER38SS

Lugs

One Hole Standard Barrel Compression Lugs

- Manufactured from electroplated tinned copper
- For use on copper or tinned copper conductors



Mfr	Part #	Description
Harger	GECL6	#6 Blue 1/4" Hole
	GECL63/8*	#6 Blue 3/8" Hole
	GECL2	#2 Brown 5/16" Hole
	GECL23/8	#2 Brown 3/8" Hole

NOTE: Other sizes may be available

*Available in a 250-count bucket

One Hole Long Barrel Compression Lugs

- Manufactured from electroplated tinned copper
- For use on copper or tinned copper conductors



Mfr	Part #	Description
Harger	GECLB6	#6 Blue 1/4" Hole
	GECLB63/8	#6 Blue 3/8" Hole
	GECLB2	#2 Brown 5/16" Hole
	GECLB23/8	#2 Brown 3/8" Hole

NOTE: Other sizes may be available

Two Hole Long Barrel Compression Lugs

- Manufactured from electroplated tinned copper
- For use on copper or tinned copper conductors
- Lugs have inspection ports



Mfr	Part #	Description
Harger	GECLB62A	#6 Blue 1/4" Holes 5/8" Space
	GECLB62B	#6 Blue 3/8" Holes 3/4" Space
	GECLB62C	#6 Blue 3/8" Holes 1" Space
	GECLB22A	#2 Brown 1/4" Holes 5/8" Space
	GECLB22B	#2 Brown 3/8" Holes 3/4" Space
	GECLB22C	#2 Brown 3/8" Holes 1" Space
	GECLB22CS	#2 Solid White 3/8" Holes 1" Space

Slotted Long Barrel Compression Lugs

- Manufactured from electroplated tinned copper
- For use on copper or tinned copper conductors



Mfr	Part #	Description
Harger	GECLB62BC	#6 Blue 3/8" Holes, 3/4"-1" Space
	GECLB22BC	#2 Brown 3/8" Holes, 3/4"-1" Space
	GECLB22BCS	#2 Solid White 3/8" Holes, 3/4"-1" Space

NOTE: Available in 250-count buckets

Reduced OD Flat Washers

Part #	Description
Flatwash38-10mmSS	3/8" Flat Washer, 10 mm OD, SS
Flat38-supersmall	3/8" Flat Washer Small OD (size of lockwasher)
LUGWASHER38SS	3/8" Ground Lug Washer SS

C-Type Compression Taps

Heavy Duty C-Taps

- Connects two copper conductors
- Refer to the data below for appropriate connector

Mfr	Part #	Description
Harger	CT2248	#2 through #8
Harger	CT2222	#2 through #2

NOTE: Other sizes may be available



Light Duty C-Taps

- Connects two copper conductors together with a hydraulic crimp tool
- Refer to the data below for appropriate connector

Mfr	Part #	Description
Harger	CT2248LD	#2 through #8
Harger	CT2222LD	#2 through #2

NOTE: Other sizes may be available



Enhanced Ground Rod Kits

Copper Vertical

- Includes inspection well
- Tail (Conductor) Type: 5' - #2 AWG Solid Tinned



Mfr	Part #	Length	Ultrafill 50# Bag
Harger	EGR10WG2T	10'	2
Harger	EGR20WG2T	20'	4

Copper Horizontal L-Shaped

- Includes inspection well
- Tail (Conductor) Type: 5' - #2 AWG Solid Tinned



Mfr	Part #	Dimensions H x L	Ultrafill 50# Bag
Harger	EGR10LWG2T	2' x 10'	2
Harger	EGR20LWG2T	2' x 20'	4

Other sizes and conductor types available

Bonding Clamps

Cable to Flat Metal Connectors

- 1-3/4" x 2" two piece, one bolt connector connects lightning conductor cables thru 9/16" diameter to flat metal objects up to 1/2" thickness
- 5/16" x 1-1/4" stainless steel cap screw with flat washer included



Mfr	Part #	Material	Class
Harger	213T	ETPB*	II

*ETPB - Electro Tin Plated Bronze

Flange

- 3-3/4" x 2-1/2" bonding plate provides 8 in² of bonding surface
- Large cable connector offers 3" of contact between bonding plate and cable
- Accommodates main size conductors up to 9/16" diameter



Mfr	Part #	Material	Class
Harger	223T	ETPB*	II

*ETPB - Electro Tin Plated Bronze

Cable Connectors

1 Bolt Bonding Connector

- 7/8" x 1-5/8" 1 bolt 2 pc connector splices bonding conductor to all standard size Class I & II conductors up to 9/16" diameter
- Accommodates ground cable sizes ranging from #6 AWG through 4/0
- 5/16" x 1-3/4" SS carriage bolt, flat washer and nut included



Mfr	Part #	Material	Class
Harger	208T	ETPB	II

ETPB - Electro Tin Plated Bronze

1 Bolt Parallel Connector

- 2" square, 2 pc connector provides 1-1/2" surface contact between conductors
- Accepts lightning conductors & rods up to 5/8" D and grounding conductors from #6 AWG to 250 MCM
- 5/16" x 1-1/4" SS cap screw with flat washer included



Mfr	Part #	Material	Class
Harger	TB1BC	ETPB	II

ETPB - Electro Tin Plated Bronze

2 Bolt Parallel Connector

- 2" x 1-3/4" 2 pc connector used for splitting rods and cables
- Accommodates ground cable sizes from #6 AWG to 250 MCM
- 5/16" x 1-3/4" SS carriage bolts, flat washers and nuts included



Mfr	Part #	Material	Class
Harger	204T	ETPB	II

ETPB - Electro Tin Plated Bronze

Test Wells

HDPE Well with Cover

- Molded High Density Polyethylene well features 9" diameter "twist lock" cover with locking bolt
- Static vertical load rating = 350 PSF
- 2 knock outs (mouse holes) allow for routing conductor to the inside
- For use in non-vehicular traffic areas



Mfr	Part #	Description
Harger	GAW910	9" D x 10-1/4" L

PVC Well with Flat Steel Cover

- Available in 8", 10", and 12" diameters
- Schedule 40 PVC well
- Steel covers are 3/16" thick commercial grade steel with a zinc/ultraseal coating



Mfr	Part #	Description
Harger	358PS	8" D x 24" L
Harger	360PS	10" D x 24" L
Harger	362PS	12" D x 24" L

PVC Slotted Well with Flat Steel Cover

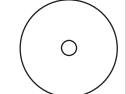
- Available in 8" and 10" diameters
- Schedule 40 PVC well
- Steel covers are 3/16" thick commercial grade steel with a zinc/ultraseal coating
- Four 27" slots allow for round electrode connections to be made before installation of test well



Mfr	Part #	Description
Harger	358P42	8" D x 42" L
Harger	360P42	10" D x 42" L

Steel Test Well Covers

Manufactured from 3/16" commercial grade steel with a zinc/ultraseal coating



Mfr	Part #	Fits Test Well	Diameter
Harger	8PS	Fits 8" Test Well	8-5/8"
Harger	10PS	Fits 10" Test Well	10-5/8"
Harger	12PS	Fits 12" Test Well	12-3/4"

Plastic Test Well Covers

Manufactured from 3/16" commercial grade steel with a zinc/ultraseal coating



Mfr	Part #	Fits Test Well	Diameter
Harger	8PP	Fits 8" Test Well	8-5/8"
Harger	10PP	Fits 10" Test Well	10-5/8"
Harger	12PP	Fits 12" Test Well	12-3/4"

Grounding

Ground Rod Clamps

Heavy Duty

- Heavy duty bronze ground rod clamps
- Provides over 1-1/2" of contact area with cables & ground rod
- 2 stainless steel cap screws secure cable to ground electrode for a positive electrical connection



Mfr	Part #	Ground Rod Size	Conductor Range
Harger	301*	5/8"	#6 STR - 4/0 AWG
Harger	302*	3/4"	#6 - 4/0 AWG

*UL Listed

Light Duty

- Light duty ground rod clamp
- Bronze cap screw secures the cable to the ground electrode
- Commonly called acorn or tear drop clamp



Mfr	Part #	Ground Rod Size	Conductor Range
Harger	301LD*	5/8"	10 SOL - #2 STR
Harger	302LD*	3/4"	10 SOL - #2 STR

*UL Listed

Universal (small)

- Light duty ground rod clamp for securing cable to ground rod
- Eliminates need to inventory assorted different-size clamps
- Made from corrosion resistant silicon bronze
- Tested to 300 inch-pounds



Mfr	Part #	Ground Rod Size	Conductor Range
Harger	302UGRC*	3/8", 1/2", 5/8"	1/0 - 10 SOL
Harger		3/4"	1/0 - 8 SOL

*UL Listed EXCEPT 3/8"

Universal (large)

- Bronze ground rod clamp features a stainless steel "U" bolt for strength and corrosion resistance
- Provides over 1-1/2" of contact between ground electrode and conductors
- Accommodates 2 horizontal conductors thru 250 MCM
- Accommodates 1 vertical conductor up to 500 MCM



Mfr	Part #	Ground Rod Size	Conductor Range
Harger	305	Up thru 1"	#6 AWG - 500 MCM

*UL Listed

Grounding Plate



Mfr	Part #	Ground Plate Size	Thickness	Conductor	Length
Harger	GP18182T	18" x 18"	0.32"	#2 Solid	18"
Harger	GP24242T	24" x 24"	0.32"	#2 Solid	24"

Ultrafill Earth Enhancement Material



- Low resistance carbon based backfill material
- Lowers ground system resistance in difficult soil situations
- Ideal backfill material for use around enhanced ground rods and ground grid systems

Mfr	Part #	Appr. Weight
Harger	ULTRAFILL	50 lbs

Flexible Gate Jumpers



- Can be used with the universal pipe clamps or can be exothermically welded to the fence/gate post themselves
- Flex jumpers made from welding cable
- Standard length is 24" long

Mfr	Part #	Description
Harger	GJX2S24	#2 Gate Jumper 24"
Harger	GJX2/024	2/0 Gate Jumper 24"
Harger	GJX4/024	4/0 Gate Jumper 24"

Copper Clad Steel Ground Rods



Mfr	Part #	Description
	588	5/8" x 8'
	5810	5/8" x 10'
Harger	348	3/4" x 8'
Harger	3410	3/4" x 10'

Air Terminals

- Manufactured from highly conductive electrolytic tough pitch copper alloy 110
- Conductivity greater than 99% when annealed
- Utilizes standard 1/2" UNC threads
- Adapters sold separately

Mfr	Part #	Diameter	Length
	1224CUAT	1/2"	24"
	1248CUAT	1/2"	48"
Harger	5824CUAT	5/8"	24"
Harger	5848CUAT	5/8"	48"
Harger	588CCAT	5/8"	96"



Copper Split Bolts

- Other sizes available
- Suitable for direct burial

Mfr	Part #	Range for Equal Main	Minimum Tap
Harger	GESB6	6 SOL - 8 SOL	14 SOL
	GESB2	2 SOL - 6 SOL	
	GESB2/0	2/0 STR - 2 SOL	



Water Pipe Ground Clamps

Many uses such as bonding conductors to ground rods or copper water pipes

Mfr	Part #	Ground Rod or Pipe Size	Conductor Range
Harger	BGC4	1/2" - 1"	#2 - 10 AWG
	BGC41.25-2	1-1/4" - 2"	
	BGC42.5-4	2-1/2" - 4"	



Universal Pipe Clamps

- Provides 1-1/2' of contact area
- Can be connected to ground conductors via exothermic connections and/or standard compression lugs
- UPC.75/1.25 provides bi-directional grounding capabilities
- Manufactured from highly conductive tinned copper with stainless steel hardware

Mfr	Part #	Nominal Pipe Size
Harger	UPC.75/1.25	.75"-1.25"
	UPC1.5/2	1.5"-2"
	UPC2.5/3	2.5"-3"
	UPC3.5/4	3.5"-4"
	UPC5/6	5"-6"



Pipe Railing Bases

- Swivel adapter design allows for mounting at any angle
- Fits all main size conductors up to 9/16" D
- Air terminal not included
- Tinned bronze material

Mfr	Part #	Nominal Pipe Size	OD Pipe Size	Air Terminal Size
Harger	CPRB1.5/2AT12	1.25"-2"	1.315"-2.4"	1/2"
	CPRB2.5/3AT12	2.5"-3"	2.25"-3.5"	1/2"
	CPRB3.5/4AT12	3.5"-4"	3.2"-4.5"	1/2"
	CPRB1.5/2AT58	1.25" - 2"	1.315" - 2.4"	5/8"
	CPRB2.5/3AT58	2.5" - 3"	2.25" - 3.5"	5/8"
	CPRB3.5/4AT58	3.5" - 4"	3.2" - 4.5"	5/8"



Insulated Conductor Clip

304 SS clip with insulating rubber grommet

Mfr	Part #	Fits Conductors
Harger	CC5	#6 AWG insulated thru #2 AWG bare
	CC7	#2 AWG insulated thru 2/0 AWG bare

CPC Pipe Clamps

- Manufactured from electroplated tinned bronze
- Wider conductor range; #6 thru 250 MCM
- Features quick-connect; bi-directional design
- PEM® stud ensures a flush mounting surface
- Dual UL listing (UL96 and UL467)
- Suitable for direct burial
- Material: Tinned bronze

Pipe Range .5/.75



Mfr	Part #	Nominal Pipe Size Range	Pipe Outside Diameter
Harger	CPC.5/.75	.5"- .75"	.375" - 1"

Pipe Range 1/1.25



Mfr	Part #	Nominal Pipe Size Range	Pipe Outside Diameter
Harger	CPC1/1.25	1"-1.25"	.75" - 1.7"

Pipe Range 1.5/2-5/6



Mfr	Part #	Nominal Pipe Size Range	Pipe Outside Diameter
Harger	CPC1.5/2	1.5"-2"	1"-2.4"
	CPC2.5/3	2.5"-3"	2.25"-3.5"
	CPC3.5/4	3.5"-4"	3.2"-4.5"
	CPC5/6	5"-6"	5.63"-6.63"

Grounding

Spider Molds

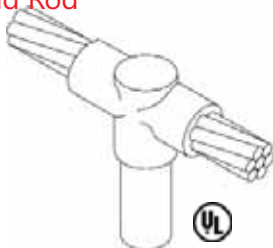
- Uniquely designed mold, designed to reduce total installation cost by eliminating the need for ground bars at the site
- Enables the bypassing of a ground bar by welding cable ground kit leads directly to a #2 solid wire



Mfr	Part #	Description	Weld Metal
Harger	VBS2S3X6K	3 #6 Wires to top of #2 Solid	UWM65
	VBS2S6X6K	6 #6 Wires to top of #2 Solid	UWM115

Cable to Ground Rod

GO

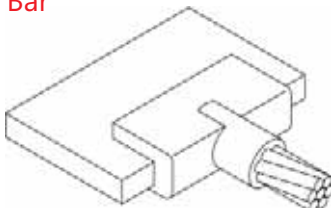


Horizontal thru Cable to Top of Ground Rod

Mfr	Part #	Description	Weld Metal
Harger	GO582SB	#2 Solid over top 5/8" ground rod	UWM90
	GO584/0B	4/0 over top 5/8" ground rod	UWM115
	GO342SB	#2 Solid over top 3/4" ground rod	UWM90
	GO344/0B	4/0 over top 3/4" ground rod	UWM115

Cable to Bus Bar

BE

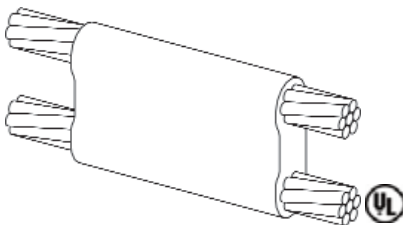


Horizontal Cable Tap to Edge of Horizontal Flat Bus bar

Mfr	Part #	Description	Weld Metal
Harger	BE141.52B	#2 to 1/4 x 1.5 Bar	UWM65
	BE141.52SB	#2 Solid 1/4 x 1.5 Bar	UWM65
	BE141.54/0B	4/0 to 1/4 x 1.5 Bar	UWM90

Cable to Cable

PT

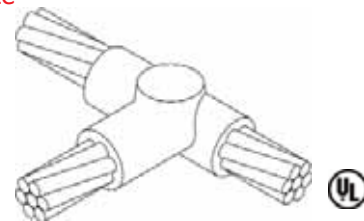


Parallel thru Splice of Horizontal Cables, Tap Conductor Over Run

Mfr	Part #	Run	Tap	Weld Metal
Harger	PT22B	#2	#2	UWM65
	PT2S2B	#2 Solid	#2	UWM65
	PT2S2SB	#2 Solid	#2 Solid	UWM65
	PT4/02SB	4/0	#2 Solid	UWM150
	PT4/04/0B	4/0	4/0	UWM200

Cable to Cable

RT

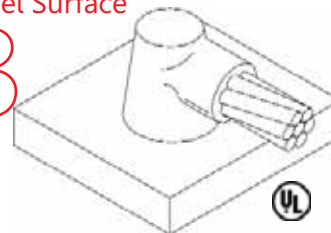


Tee of Horizontal Run and Tap Cables

Mfr	Part #	Run	Tap	Weld Metal
Harger	RT22B	#2	#2	UWM45
	RT2S2B	#2 Solid	#2	UWM45
	RT2S2SB	#2 Solid	#2 Solid	UWM45
	RT4/02SB	4/0	#2 Solid	UWM90
	RT4/04/0B	4/0	4/0	UWM150

Cable to Steel Surface

HB

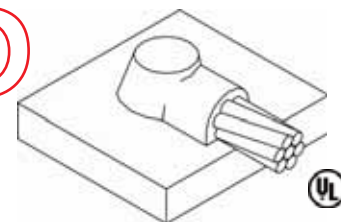


Horizontal Cable to Horizontal Flat Steel Surface, OFF Surface

Mfr	Part #	Description	Weld Metal
Harger	HB2SB	#2 Solid to Flat Steel	UWM65

Cable to Steel Surface

HD

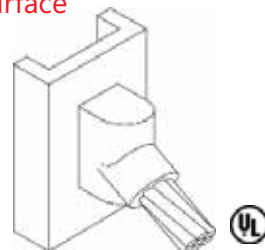


Horizontal Cable to Horizontal Flat Steel Surface, ON Surface

Mfr	Part #	Description	Weld Metal
Harger	HD2SA	#2 Solid Butt Down with handle	UWM45

Cable to Steel Surface

VA

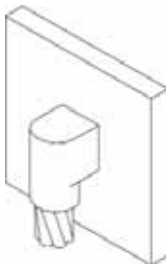


Vertical Down 45° to Vertical Flat Steel Surface

Mfr	Part #	Description	Weld Metal
Harger	VA2B	#2 45 Degree Down	UWM45
	VA2SB	#2 Solid 45 Degree Down	UWM45

Cable to Steel Surface

VD

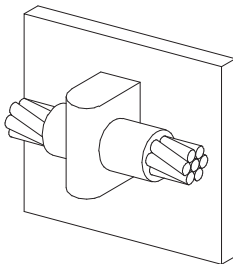


Vertical Downward Cable to Vertical Flat Steel Surface

Mfr	Part #	Description	Weld Metal
	VD2B	#2 Straight Down	UWM65
Harger	VD2SB	#2 Solid Straight Down	UWM45

Cable to Steel Surface

VH

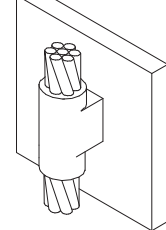


Horizontal Thru Cable to Vertical Flat Steel Surface

Mfr	Part #	Description	Weld Metal
Harger	VH2SB	#2 Solid to Flat Steel	UWM65

Cable to Steel Surface

VT

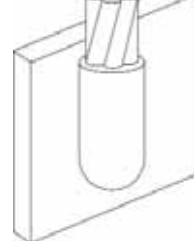


Vertical Thru Cable to Vertical Flat Steel Surface

Mfr	Part #	Description	Weld Metal
Harger	VT2SB	Mold Vert. Pass Thru Flat #2 SOL	UWM115

Cable to Steel Surface

VU

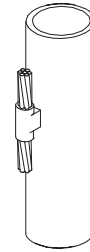


Vertical Cable Dead End to Vertical Flat Steel Surface

Mfr	Part #	Description	Weld Metal
	VU2B	#2 Straight Up	UWM65
Harger	VU2SB	#2 Solid Straight Up	UWM65

Cable to Pipe

VT

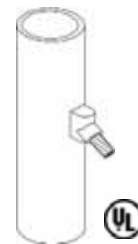


Vertical Thru Cable to Vertical Pipe 1.5" to 4" OD

Mfr	Part #	Description	Weld Metal
		Mold Vertical Pass Thru Pipe	
Harger	VT2SB1.5x4B	#2 Solid	UWM115

Cable to Pipe

VA



Cable Down 45° to Side of Vertical or Horizontal Steel Pipe 1.5" to 4" OD

Mfr	Part #	Description	Weld Metal
	VA2V1.5X4B	#2 45 Degree Down	UWM45
Harger	VA2SV1.5X4B	#2 Solid 45 Degree Down	UWM45

Cable to Pipe

VD



Vertical Downward Cable to Side of Vertical or Horizontal Steel Pipe 1.25" to 4" OD

Mfr	Part #	Description	Weld Metal
	VD2V1.25X4B	#2 Straight Down	UWM65
Harger	VD2SV1.5X4B	#2 Solid Straight Down	UWM65

Cable to Pipe

VU



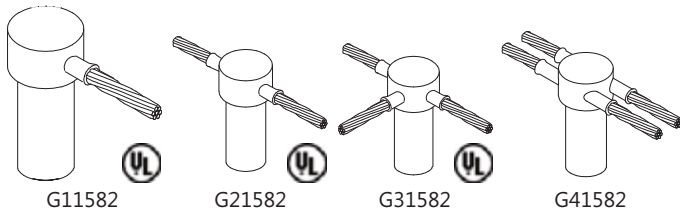
Vertical Cable Dead End to Side of Vertical or Horizontal Steel Pipe 1.25" to 4" OD

Mfr	Part #	Description	Weld Metal
	VU2V1.25X4B	#2 Straight Up	UWM65
Harger	VU2SV1.25X4B	#2 Solid Straight Up	UWM65

Grounding

Uni-Shots

- Disposable single use ceramic mold provides convenience and ease of use
- Requires flint igniter (FLTIG pg 87) to make a connection
- No frames or handle clamps are required



Mfr	Part #	Ground Rod Size	Cable Size	
			Solid	Stranded
Harger	G11582	5/8"	#1, #2	#2, #3
	G21582	5/8"	#1, #2	#2, #3
	G31582	5/8"	#1, #2	#2, #3
	G41582	5/8"	#1, #2	#2, #3

Weld Metal

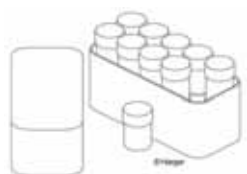
UltraShot (Drop-in) Weld Metal



- Mixture of copper oxide and aluminum, packaged in individual, moisture resistant copper drop-ins
- Drop-ins consumed during reaction process
- Each drop-in marked with size
- For electronic systems only

Mfr	Part #/Size	Qty Per Case
Harger	US45	20
	US65	10
	US90	10
	US115	10
	US150	10
	US200	10

Ultraweld (Powder) Weld Metal



- Mixture of copper oxide and aluminum, packaged in individual, moisture resistant plastic cartridges
- Size is marked on each cartridge
- Each box contains instructions and metal disks; 1 metal is used for each connection

Mfr	Part #	Description	Qty Per Case
Harger	UWM45	45 Gram Shot	20
	UWM65	65 Gram Shot	20
	UWM90	90 Gram Shot	10
	UWM115	115 Gram Shot	10
	UWM150	150 Gram Shot	10
	UWM200	200 Gram Shot	10

UltraShot Controller



- Copper drop-in cartridge consumed during reaction process
- 12-V rechargeable battery control unit ignites hundreds of connections on a single charge
- 6' controller cord (15' cord optional)
- Cartridge is consumed leaving no waste

Mfr	Part #
Harger	USCONTROLLER

Exothermic Starter Kit



Kit Includes:

- (1) Stanley Pro Mobile Tool Chest
- (1) MH1-Mold Handle Clamps
- (1) BE141.52SB #2SOL to Buss Bar
- (1) CSH1 Chain Handle Kit
- (1) GO582SB #2SOL to 5/8" Rod Over Top
- (1) MCBRSB Mold Cleaning Brush
- (1) MLDSLR Mold Putty 1 lb. Block
- (1) PT2S2SB #2SOL to #2SOL Stack
- (1) RT2S2SB #2SOL to #2SOL T-Mold
- (20) UWM45 45 SHOT
- (40) UWM65 65 SHOT
- (10) UWM90 90 SHOT
- (1) VA2SV1.5X4B #2SOL 45° Down Pipe
- (1) VU2SV1.5X4B #2SOL Straight Up Pipe
- (1) HD2SA #2SOL to Horizontal Steel

Mfr	Part #
Harger	ULTRAWELDKIT

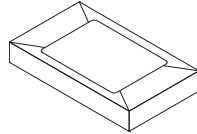
Mold Accessories



Flint Igniters

- Used to ignite the starting material when making a connection
- Come with MH1 and MH2 handle clamps

Mfr	Part #	Description
Harger	FLTIG	Flint Igniter
	RPLFLT	Replacement Flints



Mold Sealer

- Seals slightly worn molds to guard against leakage from large stranded conductors
- Available in convenient 1 lb package

Mfr	Part #
Harger	MLDSLRL



Mold Cleaning Brushes

- Used to remove slag
- Useful on vertical split molds
- Helps maintain or exceed average mold life of 50 connections

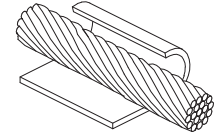
Mfr	Part #
Harger	MCBRSH1



Mold Handle Clamps

- Required for all molds (B & K Series)
- Some molds are used w/ specialized frames
- Includes a Flint Igniter (FLTIG)
- Features a Zinc Ultraseal plated finish

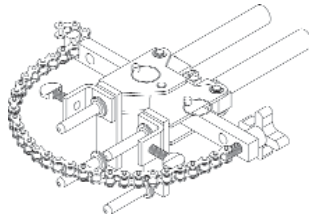
Mfr	Part #
Harger	MH1



Wrap Sleeves for Molds

- Used when welding cables smaller than indicated on mold tag
- Also used for wrapping around rebar for certain connection styles

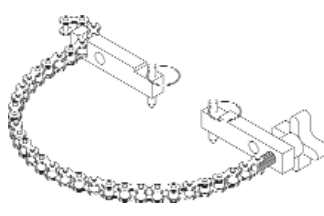
Mfr	Part #
Harger	WRPSLV



Chain Support Handle Clamps

- Used to securely hold the mold to a vertical pipe (B & K series molds)
- A 20" length of chain which fits up to 4" pipes, comes with the chain support handle clamps
- Includes a Flint Igniter (FLTIG)
- Extra chain length is available

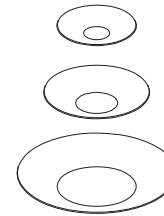
Mfr	Part #
Harger	CSH1



Chain Support Kit

- Convert standard mold handle clamps into chain support clamps

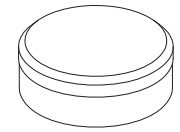
Mfr	Part #
Harger	CSKIT



Disks

- Rests on bottom of crucible and holds weld metal powder in place until reaction occurs
- New disk is required each time weld is made
- Disks are included with the Weld Metal

Mfr	Part #	Used in Molds Using (Weld Metal)		Box Qty
			Dia.	
Harger	DISK15/65	UWM15-UWM65	3/4"	20
	DISK90/115	UWM90-UWM115	1"	10
	DISK150/500	UWM150-UWM500	1-1/2"	10



Disk Kit

- Contains:
 - 60 small
 - 30 medium
 - 30 large disks

Mfr	Part #
Harger	DISKKIT1

RF Surge Protection

PolyPhaser Nuclear Electromagnetic Pulse Protection

Mfr	Part #	Description	Application	Frequency Range	Protected Side Connector	Surge Side Connector
Polyphaser	 IS-NEMP-C1	50 to 700 MHz Coaxial Nuclear EMP Protector	dc block RF coaxial protection for 50 MHz to 700 MHz	50 MHz to 700 MHz	N Female	N Female
	 IS-NEMP-C2	120 MHz to 1.0 GHz Coaxial Nuclear EMP Protector	dc block RF coaxial protection for 125 MHz to 1.0 GHz	125 MHz to 1.0 GHz	N Female	N Female

PolyPhaser GXZ RF Coaxial Surge Protectors

Mfr	Part #	Description	Application	Frequency Range	Protected Side Connector	Surge Side Connector
Polyphaser	 DGXZ+06DFDF-A	Hybrid, +6 Vdc pass, RF protector	DC pass RF coaxial protection for 800 MHz to 2.5 GHz	800 MHz to 2.5 GHz	DIN Female	DIN Female
	 DGXZ+06NFNF-B	Hybrid, +6 Vdc pass, RF protector	DC pass RF coaxial protection for 800 MHz to 2.5 GHz	800 MHz to 2.5 GHz	N Female	N Female
	 DGXZ+15DFDF-A	Hybrid, +15 Vdc pass, RF protector	DC pass RF coaxial protection for 800 MHz to 2.5 GHz	800 MHz to 2.5 GHz	DIN Female	DIN Female
	 DGXZ+15NFNF-A	Hybrid, +15 Vdc pass, RF protector	DC pass RF coaxial protection for 800 MHz to 2.5 GHz	800 MHz to 2.5GHz	N Female	N Female

PolyPhaser TSX Ultra Low PIM Lightning Protection

Mfr	Part #	Description	Application	Frequency Range	Protected Side Connector	Surge Side Connector
Polyphaser	 TSXDC-DFM	Low PIM, dc pass, AISG telemetry, coaxial protector	DC pass, ultra low PIM, coaxial RF protection	698 MHz to 2.5 GHz	DIN Male	DIN Female
	 TSX-DFF	Low PIM, dc block coaxial protector TSX-DFF	dc block ultra low PIM, coaxial RF lightning protection	698 MHz to 2.7 GHz	DIN Female	DIN Female
	 TSX-DFF-BF	Low PIM, dc block coaxial protector	dc block ultra low PIM, coaxial RF lightning protection	698 MHz to 2.7 GHz	DIN Female	DIN Female
	 TSX-DFM	Low PIM, dc block coaxial protector	dc block ultra low PIM, coaxial RF lightning protection	698 MHz to 2.7 GHz	DIN Male	DIN Female
	 TSX-DFM-BF	Low PIM, dc block coaxial protector	dc block ultra low PIM, coaxial RF lightning protection	698 MHz to 2.7 GHz	DIN Male	DIN Female

PolyPhaser SX-DC Block Lightning Protection

Mfr	Part #	Description	Application	Frequency Range	Protected Side Connector	Surge Side Connector	RF Power
Polyphaser	 DSXL	RF filter coaxial lightning protector	dc block, RF lightning protection	700 MHz to 2.7 GHz	N Female	N Female	750 W
	 DSXL-D	RF filter coaxial lightning protector	dc block, RF lightning protection	700 MHz to 2.5 GHz	DIN Female	DIN Female	1 kW
	 DSXL-D-MA	RF filter coaxial lightning protector	dc block, RF lightning protection	700 MHz to 2.5 GHz	DIN Female	DIN Male	1 kW
	 DSXL-D-MA-BF	High Pass Filter Protector	dc block, RF lightning protection	700 MHz to 2.5 GHz	DIN Female	DIN Male	1 kW
	 LSXL	High Pass Filter Protector	dc block, RF lightning protection	1.6 GHz to 3.8 GHz & 4.2 GHz to 6.0 GHz	N Female	N Female	10 W

PolyPhaser IS-50 DC Block Coaxial Lightning Protection

Mfr	Part #	Description	Application	Frequency Range	Protected Side Connector	Surge Side Connector	RF Power
Polyphaser	 IS-50NX-C1	dc blocked protector	VHF	50 MHz to 700 MHz	N Female	N Female	VHF 375 W, UHF 125 W
	 IS-50NX-C2	dc blocked protector	UHF	125 MHz to 1 GHz	N Female	N Female	125 to 220 MHz @ 375 W, 220 to 700 MHz @ 125 W, 700 to 1000 MHz @ 50 W

PolyPhaser B50 DC Block RF Protection

Mfr	Part #	Description	Application	Frequency Range	Protected Side Connector	Surge Side Connector	RF Power
Polyphaser	 IS-B50HN-C1	Broadband dc blocked protector	Single transmitter	50 MHz to 700 MHz	N Female	N Female	VHF 500 W, UHF 250 W
	 IS-B50HN-C1-MA	Broadband dc blocked protector	Single transmitter	50 MHz to 700 MHz	N Female	N Female	VHF 500 W, UHF 250 W
	 IS-B50HN-C2	Broadband dc blocked protector	Single transmitter	125 MHz to 1000 MHz	N Female	N Female	VHF 500 W, UHF 250 W
	 IS-B50HN-C2-MA	Broadband dc blocked protector	Single transmitter	125 MHz to 1000 MHz	N Female	N Male	VHF 500 W, UHF 250 W
	 IS-B50LN-C0	Broadband dc blocked protector	Single transmitter	1.5 MHz to 400 MHz	N Female	N Female	HF 2kW, VHF 375 W, UHF 125 W
	 IS-B50LN-C0-MA	Broadband dc blocked protector	Single transmitter	1.5 MHz to 400 MHz	N Female	N Male	HF 2 kW, VHF 375 W, UHF 125 W
	 IS-B50LN-C1	Broadband dc blocked protector	Single transmitter	50 MHz to 700 MHz	N Female	N Female	VHF 375 W, UHF 125 W
	 IS-B50LN-C1-MA	Broadband dc blocked protector	Single transmitter	50 MHz to 700 MHz	N Female	N Male	VHF 375 W, UHF 125 W
	 IS-B50LN-C2	Broadband dc blocked protector	Single transmitter	125 MHz to 1 GHz	N Female	N Female	VHF 375 W, UHF 125 to 50 W
	 IS-B50LN-C2-MA	Broadband dc blocked protector	Single transmitter	125 MHz to 1 GHz	N Female	N Male	VHF 375 W, UHF 125 to 50 W

PolyPhaser Gas Tube Lightning Protection with Superior RF Performance

Mfr	Part #	Description	Application	Frequency Range	Protected Side Connector	Surge Side Connector
Polyphaser	 GT-DFF-AL	SpikeGuard™ Gas Tube Protector	Gas tube, DC pass RF coaxial protection for dc to 3.0 GHz	dc to 3.0 GHz	DIN Female	DIN Female
	 GT-DFM-AL	Spike Guard Gas Tube Protector	Gas tube, DC pass RF coaxial protection for dc to 3.0 GHz	dc to 3.0 GHz	DIN Male	DIN Female
	 GT-NFF-AL	Spike Guard Gas Tube Protector	Gas tube, DC pass RF coaxial protection for dc to 7.0 GHz	dc to 7.0 GHz	N Female	N Female
	 GT-NFM-AL	Spike Guard Gas Tube Protector	Gas tube, DC pass RF coaxial protection for dc to 7.0 GHz	dc to 7.0 GHz	N Male	N Female

RF Surge Protection

PolyPhaser RGT Gas Tube Lightning Protector

Mfr	Part #	Description	Application	Frequency Range	Protected Side Connector	Surge Side Connector
Polyphaser		RGT	Broadband dc Pass Protector	DC Pass Gas Tube	dc to 2.4 GHz	N Female
		RGT-ME	Broadband dc Pass Protector	DC Pass Gas Tube	dc to 2.4 GHz	N Male

Data Line Protectors

Advanced Lightning Protection Unit - 60 VDC PoE-Transtector ALPU

Mfr	Part #	Description	Connector
Transtector		1101-656	Wireless broadband communications protection designed for one Ethernet line and one 48 Vdc line, weatherproof enclosure
			Screw terminal and RJ-45

UL 497B Ethernet Shielded RJ-45 Surge Protector - Transector TSJ

Mfr	Part #	Description	Connector
Transtector		1101-1001	RoHS compliant, lead free, data line surge protector for Ethernet shielded RJ-45 applications engineered to IEC 6100-4-5, Telecordia GR 1089 and UL 497B listed
			Shielded RJ-45

Six Port, RJ-45, Ethernet Surge Protector - Transector TSJ X6

Mfr	Part #	Description	Connector
Transtector		1101-995	Six port, modular, high performance silicon diode surge protector for Ethernet applications
			RJ-45

Six Port T1/E1 RJ-45 Surge Protector - Transector TSJ X6

Mfr	Part #	Description	Connector
Transtector		1101-772-A	Six port, modular, RJ-48 (RJ-45 compatible), high performance silicon diode T1/E1 span surge protector
			RJ-48C, RJ-45 Compatible

AC Protectors

120/208 Vac Transtector APEX IV

Mfr	Part #	Description
Transtector		1101-464
		Outdoor, advanced ac main and sub panel non-degrading, low-clamping silicon with robust MOV backup surge protection for 120/208 V, 3-phase wye configuration, with remote status monitoring (dry contact relay)

120/240 Vac Transtector APEX IV

Mfr	Part #	Description
Transtector		1101-460
		Advanced ac main and sub panel non-degrading, low-clamping silicon with robust MOV back-up surge protection for 120/240 Vac split phase configuration with remote status monitoring (dry contact relay)

Accessories

Mfr	Part #	Description	Interface	
Andrew Solutions		243950	Mounting/Ground- ing Bracket	7-16 DIN Female Bulkhead
		243951	Mounting/Ground- ing Bracket	N Female Bulkhead
	no image available	DF-CAPKIT	7-16 DIN Female End Cap Assembly	-
	no image available	GASTUBE-090	Gas Tube Replace- ment Kit for 90 V surge arrestor	-
	no image available	GASTUBE-350	Gas Tube Replace- ment Kit for 350 V surge arrestor	-

Integrated to Coaxial Cable

Mfr	Part #	Description
Andrew Solutions	Dual Band Integrated dc Passing Surge Arrestor	
		APT5DC-BDF-DB for 7/8" AVA5-50 and AL5-50 cable, 806-960 MHz and 1700-2170 MHz, with interface type DIN Female Bulkhead
Andrew Solutions		APT7DC-BDF-DB for 1-5/8" AVA7-50 cable, 806-960 MHz and 1700-2170 MHz with interface type DIN Female Bulkhead

dc Pass

Mfr	Part #	Description
Arrestor Plus® Dual Band Quarterwave dc Passing Surge Arrestor (T-shaped)		
Andrew Solutions		APTDC-BDFDF-DB 806-960 MHz and 1700-2170 MHz with interface types DIN Female Bulkhead & DIN Female
		APTDC-BDFDM-DB 806-960 MHz and 1710-2170 MHz, with interface types DIN Female Bulkhead and DIN Male
		APTDC-BDFDM-DBW 698-2200 MHz, with interface types DIN Female Bulkhead and DIN Male

Gas Tube

Mfr	Part #	Description
Arrestor Plus® Gas Tube Surge Arrestor, dc pass		
Andrew Solutions		APG-BDFDF-090 (90 V), 45-2170 MHz, with interface types DIN Female Bulkhead and DIN Female
		APG-BDFDF-350 (350 V), 45-2170 MHz, with interface types DIN Female Bulkhead and DIN Female
		APG-BDFDM-090 (90 V), 45-2200 MHz, with interface types DIN Female Bulkhead and DIN Male
		APG-BDFDM-350 (350 V), 45-2200 MHz, with interface types DIN Female Bulkhead and DIN Male

dc Block

Mfr	Part #	Description
Quarterwave Surge Arrestor (Cylindrical)		
Andrew Solutions		APC-BDFDM-700 680-800 MHz, with interface types DIN Female Bulkhead and DIN Male
	Arrestor Plus® Dual Band Quarterwave Surge Arrestor (T-shaped)	
Andrew Solutions		APT-BDFDF-DB 806-960 MHz and 1700-2170 MHz, with interface types DIN Female Bulkhead and DIN Female
		APT-BDFDM-DB 806-960 MHz and 1700-2170 MHz, with interface types DIN Female Bulkhead and DIN Male
		APT-DFDF-DB 824-960 MHz and 1710-2170 MHz, with interface types DIN Female and DIN Female
		APT-DFDM-DB 806-960 MHz and 1700-2170 MHz, with interface types DIN Female and DIN Male

LP-STR-N Series

- Excellent PIM Performance
- DC Blocked for Superior Surge Performance
- Frequency Range: 800-2500 MHz
- Average Power: 500 Watts
- Protection Circuit: DC Blocked

Mfr	Part #	Description
Times Microwave		LP-STR-NFF N Female connectors on surge and protected sides
		LP-STR-NMP N Male connector on protected side with N Female connector on surge side
		LP-STR-NMS N Male connector on surge side with N Female connector on protected side

LP-STR-D Series

- DC Blocked for Superior Surge Protection
- Excellent PIM Performance
- Frequency Range: 800-2500 MHz
- Average Power: 700 Watts
- Protection Circuit: DC Blocked

Mfr	Part #	Description
Times Microwave		LP-STR-DFF 716 DIN Female connectors on surge and protected side
		LP-STR-DMP 716 DIN Male connectors on protected side with 716 DIN Female connector on surge side
		LP-STR-DMS 716 DIN Male connector on surge side with 716 DIN Female connector on protected side

Accessories

Mfr	Part #	Description
Times Microwave	LP-GT	90V/50W N connector type GT replacement kit
	LP-GT-23	230V/210W N connector type GT replacement kit
	LP-GTD	90V/50W DIN connector GT replacement kit
	LP-GTD-23	230V/210W DIN connector GT replacement kit
	LP-GTD-35	350V/550W DIN connector GT replacement kit

RF Surge Protection

LP-BTR Series

- DC Blocked for Maximum Surge Protection
- Frequency Range: 20-1000 MHz
- Protection Circuit: DC Blocked

Mfr	Part #	Description
Times Microwave	 LP-BTR-NFF	N Female connectors on surge and protected sides
	 LP-BTR-NMP	N Male connector on protected side with N Female connector on surge side
	 LP-BTR-NMS	N Male connector on surge side with N Female connector on protected side

LP-STRL-D Series

- Long Term Evolution (LTE) & 700 MHz Public Safety Applications
- Excellent PIM Performance
- DC Blocked for Superior Surge Protection
- Frequency Range: 680-2200 MHz
- Average Power: 700 Watts
- Protection Circuit: DC Blocked

Mfr	Part #	Description
Times Microwave	 LP-STRL-DFF	716 DIN Female connectors on surge and protected side
	 LP-STRL-DMP	716 DIN Male connector on protected side with 716 DIN Female connector on surge side
	 LP-STRL-DMS	716 DIN Male connector on surge side with 716 DIN Female connector on protected side

LP-STRL-N Series

- Long Term Evolution (LTE) & 700 MHz Public Safety Applications
- Excellent PIM Performance
- Frequency Range: 680-2200 MHz
- Average Power: 500 Watts
- Protection Circuit: DC Blocked

Mfr	Part #	Description
Times Microwave	 LP-STRL-NFF	N Female connectors on surge and protected sides
	 LP-STRL-NMP	N Male connector on protected side with N Female connector on surge side
	 LP-STRL-NMS	N Male connector on surge side with N Female connector on protected side

LP-GTR-D Series

- DC Pass Multi-Strike Design
- Replaceable Gas Tube
- Frequency Range: DC-2500 MHz
- Protection Circuit: DC Pass

Mfr	Part #	Description	Average Power
716 DIN Female connectors on both sides - bidirectional			
Times Microwave	 LP-GTR-DFF	(90Vdc/50W)	50 W
	 LP-GTR-DFF-23	(230Vdc/210W)	210 W
	 LP-GTR-DFF-35	(350Vdc/550W)	550 W
716 DIN Male connector on one side and 716 DIN Female connector on the other side-bidirectional			
Times Microwave	 LP-GTR-DFM	(90Vdc/50W)	50 W
	 LP-GTR-DFM-23	(230Vdc/210W)	210 W
	 LP-GTR-DFM-35	(350Vdc/550W)	550 W

LP-GTR-N Series

- DC Pass Multi-Strike Design
- Replaceable Gas Tube
- Frequency Range: DC-3000 MHz
- Protection Circuit: DC Pass

Mfr	Part #	Description	Average Power
N Female connectors on both sides - bidirectional			
Times Microwave	 LP-GTR-NFF	(90 Vdc/50W)	50 W
	 LP-GTR-NFF-23	(230Vdc/210W)	210 W
N Male connector on one side and N Female connector on the other side - bidirectional			
Times Microwave	 LP-GTR-NFM	(90Vdc/50W)	50 W
	 LP-GTR-NFM-23	(230Vdc/210W)	210 W



Universal Flange Adapter

Mfr	Part #
Times Microwave	LP-BFDN-CW

Smart Panel

- Bulkhead-Mounted RF Protectors
- True Single Point Ground by Design
- Low Inductance Ground Plate For Control of Ground Potential Rise
- Eliminates External Coaxial Grounding Kits
- Eliminates Internal Lightning Protector Trapeze
- Can Accommodate EWG-Data-DC-Fiber Entry Ports
- Works With 4" - 8" Wall Thickness

Mfr	Part #	Description	Part #	Description
Times Microwave	Smart Panel		Accessories	
	LP-SP-12N	12 port N hole	LP-FT-DFDF	7/16 DIN Feed - Through Connector
	LP-SP-12D	12 port 7/16 DIN hole	LP-FT-NFNF	N Feed-Through Connector
	LP-SP-24N	24 port N hole	LP-DP	7/16 DIN hole plug
	LP-SP-24D	24 port 7/16 DIN hole	LP-NP	N hole plug

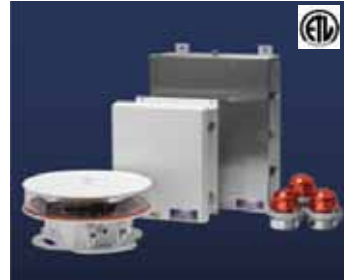
E1 | E2

FAA Tower Types E1 and E2 for Towers 200' to 500'

- White flashing light for day
- Red flashing light for night
- L864 / L865 / L810

- Automatic fail safe to day mode and notification if system has not changed states in 19 hours
- LED indicators to convey operating status
- (2) Year parts warranty on Xenon systems
- (5) Year parts warranty on LED systems
- Flash brand FREP power & FH cable
- TIA-222G certified for all mounting hardware

LED 5-YEAR WARRANTY



FTS 362 Medium Intensity DUAL LED Lighting System with Eagle 2.0

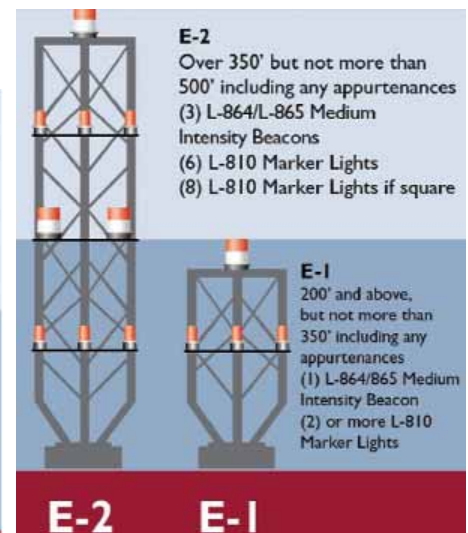
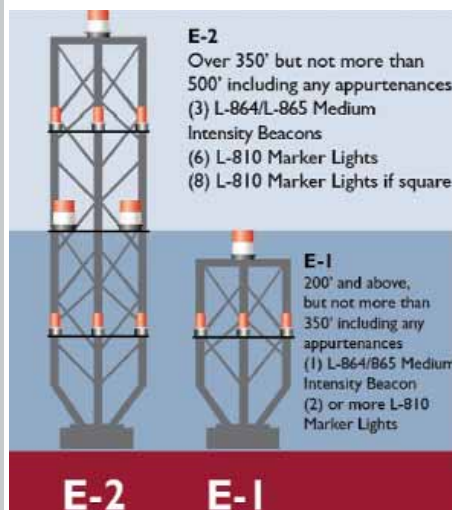
- System: FAA L865/L864
- Includes: white flashing LED light for day, red flashing LED light for night and (3) LED markers
- Add'l Features/Benefits:
 - ETL certified for up to 550' separation between flashhead & power converter
 - L-810 LED marker kit eliminates conduit
 - All serviceable parts at base of tower
 - Flash brand FREP power cable
 - Automatically accomodates 120-240 VAC 50/60 Hz and eliminates phasing considerations
 - Flashhead weight 25 lbs; height 7.3"
- Power Consumption:
 - 90W - White Day
 - 25W - Red Night
 - 6.8W - Per Marker

XENON 2-YEAR WARRANTY



FTB 324 LITE - Medium Intensity DUAL Xenon Lighting System

- System: FAA L865/L864
- Includes: white xenon flashing light for day, red xenon flashing light for night and (3) incandescent markers
- Add'l Features/Benefits:
 - L-810 marker kit design eliminates conduit
 - Wireless synchronization available
 - Optional: upgrade to LED markers
- Power Consumption:
 - 130W - White Day
 - 145W - Red Night
 - 55W - White Night Backup
 - 116W - Per Incandescent Marker
 - (optional): LED markers-6.8W



Mfr	Part #	Tower Type	Description
Flash Technology	1360021	E1	Dual LED
Flash Technology	1360023	E2	Dual LED

Mfr	Part #	Tower Type	Description
	11000004498	E1	Xenon
	11000004499	E2	LITE
Flash Technology	11000006711	E1	with LED
Flash Technology	11000006712	E2	Markers

**FLASH TECHNOLOGY
SYSTEMS**

D1 | D2

FAA Tower Types D1 & D2
for Towers 200' to 500'

- White flashing light for day and night
- L865

- Automatic fail safe to day mode and notification if system has not changed states in 19 hours
- LED indicators to convey operating status
- (2) Year parts warranty on Xenon systems
- (5) Year parts warranty on LED systems
- Flash brand FREP power & FH cable
- TIA-222G certified for all mounting hardware

FLASH TECHNOLOGY
SYSTEMS

LED 5-YEAR WARRANTY



FTS363 Medium Intensity WHITE LED Lighting System with Eagle 2.0

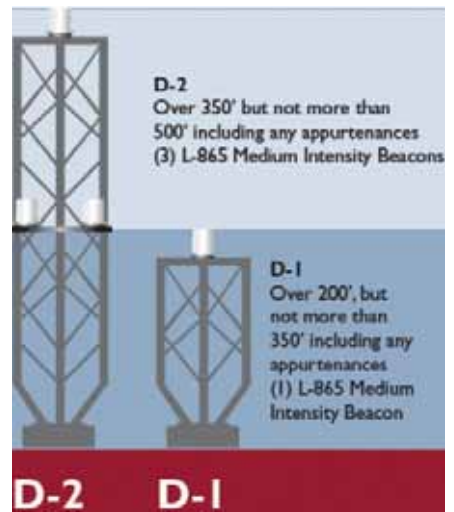
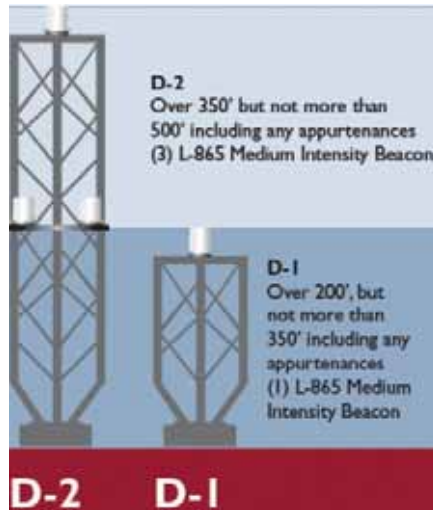
- System: FAA L865
- Includes: white LED flashing light for day and night
- Add'l Features/Benefits:
 - ETL certified for up to 500' separation between flashhead & power converter
 - Automatically accomodates 120-240 VAC 50/60 Hz and eliminates phasing considerations
 - All serviceable parts at base of tower
 - Flashhead weight 25 lbs; height 7.3"
- Power Consumption:
 - 90W - White Day
 - 16W - White Night

XENON 2-YEAR WARRANTY



FTB 310-LITE Medium Intensity WHITE Xenon System

- System: FAA L865
- Includes: white Xenon flashing light for day and night
- Add'l Features/Benefits:
 - (3) dry contact points
 - (12) LED indicators to convey operating status
 - Flash brand FREP power cable
 - NEMA 4X stainless steel outdoor rated enclosure
 - Wireless synchronization available
- Power Consumption:
 - 130W - White Day
 - 55W - White Night



Mfr	Part #	Tower Type	Description
Flash Technology	F1360025	D1	White LED
Flash Technology	F1360027	D2	White LED

Mfr	Part #	Tower Type	Description
Flash Technology	11000010841	D1	Xenon
Flash Technology	11000010843	D2	LITE

A0-A6

FAA Tower Types A0 through A6
- Red flashing lights for night
- L810 and/or L864

LED 5-YEAR WARRANTY



FTS 2201 A0 LED Medium Intensity RED LED Lighting System

- System: FAA OL2 (L810)
- Includes: Red steady burning lights for night
- Add'l Features/Benefits:
 - (1) Dry contact monitoring data point
 - Variable nominal supply voltage 120 VAC or 240 VAC
 - Photocell mode control with status indicators
 - 5 year warranty
 - Lockable weatherproof enclosure
- Power Consumption:
 - 13.6W - Marker fixture
 - 4W - Controller

LED 5-YEAR WARRANTY



FTS 2201 A1 LED Medium Intensity RED LED Lighting System

- System: FAA L864
- Includes: red LED flashing light for night and (3) LED markers
- Add'l Features/Benefits:
 - Patented optics eliminate ground scatter
 - Controls (1) L-864 flashing LED beacon and/or up to (8) LED steady side lights
 - Lockable weatherproof enclosure
 - (1) Dry contact monitoring data point
 - Variable nominal supply voltage 120 VAC or 240 VAC
 - Manual ON-Auto-OFF switch
 - Photocell mode control with status indicators
- 5 year warranty
- Power Consumption:
 - 4W - Controller
 - 20W - Beacon
 - 6.8W - Per Marker

LED 5-YEAR WARRANTY



FTS 361 Medium Intensity RED LED Lighting System with Eagle 2.0

- System: FAA L864
- Includes: red LED flashing lights for night and LED markers
- Add'l Features/Benefits:
 - L-810 LED marker kit design eliminates conduit
 - Flash brand FREP power cable
 - Compact design: 19 lbs, height 8.4", width 15"
- 5 year warranty
- Data available for compliance with QLI waiver
- Power Consumption:
 - 20W - Red Night
 - 6.8W - Per Marker



A-0
Less than 150'
including any appurtenance
(1) OL-2 Double Obstruction

A-0

Mfr	Part #	Tower Type	Description
Flash Technology	11000001120	A0	Red LED

- Automatic fail safe to day mode and notification if system has not changed states in 19 hours
- TIA-222 certified for all mounting hardware

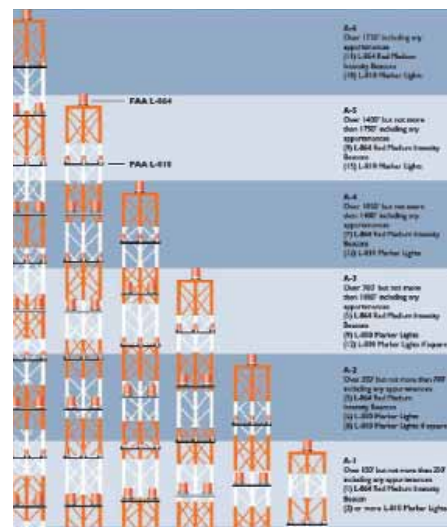
FLASH TECHNOLOGY SYSTEMS



A-1
Over 150' but not more than 350'
including any appurtenances
(1) L-864 Red Medium Intensity Beacon
(2) or more L-810 Marker Lights

A-1

Mfr	Part #	Tower Type	Description
Flash Technology	11000001764	A1	Red LED



Mfr	Part #	Tower Type	Description
Flash Technology	F1360004	A2	Red LED

Meets the U.S. Fish and Wildlife Services recommendation for proposed rule making to the FCC (WT Docket No. 03-187, FCC 06-164) regarding the protection of migratory birds.

*Automatic fail safe to night mode.

Tower Lighting (Flash Technology)

Upgrade/Conversion Kits



LED Marker Upgrade

Converts incandescent markers on Flash FTB 324 & FTB 314 xenon lighting systems to LED. LED fixtures utilize existing marker bases to simplify install. The new red light module replacement provides electronic adjustments for proper marker alarming.

- For Flash FTB 324 and FTB 314 systems only
- (5) year warranty on LED markers
- Reduce tower climbs with long lasting LED
- Power consumption reduced from 116w to 6.8w/marker
- Utilize existing marker bases for easy install

Mfr	Part #
Flash Technology	F1903146



312 to 324 Conversion

Converts an FTB 312 to an FTB 324. The new FH324 is complete with new xenon tubes and carries a full (2) year warranty. This kit can be used in conjunction with the LED marker kit featured to the left.

- (2) year warranty on new xenon flashhead including tubes
- No moving parts in flashhead
- Friction fit flashtube mounting for easier maintenance

Mfr	Part #
Flash Technology	11000003839

Replacement Parts

Flash Tubes

Mfr	Part #	Description
Flash Technology	F8384308	White/Red Flash Tube
	F8384309	Red only Flash Tube
	F8384329	White only Flash Tube

Cable

Mfr	Part #	Description
Flash Technology	F4634000	Cable, Xenon Flashhead
	F4362100	Cable, Dual/White LED Flashhead (FH-3620)
	F5991890	Cable, Side Markers or Red LED/Incandescent Flashheads



F5991890

F4634000

Flashheads

Mfr	Part #	Description
Flash Technology	XENON	
	F1905339	FH324-3 Dual Xenon Flashhead
	F1905336	FH 308-2 White Xenon Flashhead
	F1905335	FH 307-2 Red Xenon Flashhead
	LED	
	11000010307	FH 3610-2 Red LED Flashhead
	F1362102	FH 3620-2 Dual/White LED Flashhead

Power Converters

Mfr	Part #	Description
Flash Technology	XENON	
	F1898990	PC 324-2LT PWR CONV 110-120V 60HZ - LITE
	F1898974	PC 324-2 PWR CONV 110-120V 60HZ - EAGLE
	11000010766	PC 310-7LT PWR CONV 110-120V 60HZ - LITE
	F1775470	PC 310-7 PWR CONV 110-120V 60HZ
	LED	
	F1362364	PC 3620-2 DUAL LED 120-240VAC, 50/60HZ
	F1362365	PC 3630-2 WHITE LED 120-240VAC, 50/60HZ

Flashhead Mounting Brackets/Ice Shields

Mfr	Part #	Description
Flash Technology	F1903106	Shelf Mounting Bracket Kit
	F3991215	Bracket Dual Stool 36" Height
		Bracket Extension 2-6 feet, Universal FH Mount
	F3991200	

Other

Mfr	Part #	Description
Flash Technology		FH 324-3 Upper Red Flashtube Mounting Assy, NO Tube
	F8905341	
		FH307,308,324 Lower Flashtube Mounting Assy, NO Tube
	F8905338	
	F1855001	PEC 510 PHOTOCELL W/20' PIGTAIL
	F4991401	Incandescent Side Marker Bulb (116W, 120V)
	F8288201	Trigger Transformer
	F2458005	HV Rectifier Board

FLASH TECHNOLOGY
KITS AND ACCESSORIES

Systems



BEACON

Mfr	Part #	Description
TWR Lighting	LK1A1MLEDSO	Red LED FAA Type L864 Cable kit Alarmed up to 350'
	LK1E1DBSL	Dual Red/White FAA Type L-864/L-865, Complete Kit 200' to 350'
	LK1D1LVS	White Strobe L-865, Complete Kit 200' to 350'
	LK2-AOLED SO	LED Red FAA Type L-864, Cable Kit, Unalarmed up to 150'
	BEACON	300 mm Beacon, RED, FAA Type L-864

LED Systems



LED Red FAA Type L-864
Medium Intensity Beacon

- Uses 90% less energy than an incandescent
- Creates no EMI/RFI

Intensity	Medium
Horizontal Coverage	360°
Vertical Beam	3° Min
Optics	300 mm Lens
Lamp Description	LED
Effective Candelas Night	2,000 ± 25%
Flashhead Dimensions	17.5" x 15" (44.45 x 38.1 cm)
Flashhead Material	Acrylic
Flashhead Base Material	Aluminum / Blue Powder Coat
Power Requirements	90 to 240V AC 50/60Hz
Wattage	40 Watt
Weight	46 lbs. (20.89 kg)
Operating Temperature	-55°C to +55°C
Wind Load	CAAA 1.2 ft²
Mounting Holes	4- 11/16" Holes Spaced 90° On 13.25" (33.65 cm) Bolt Circle
Also Available For High RF Applications	

Mfr	Part #
TWR	LED BEACON2



OL-2VLED2 FAA Type L-810
Double Obstruction Light

Intensity	Low
Horizontal Coverage	360°
Lamp Description	LED
Effective Candelas	[2] 32.5 min.
Flashhead Height	12" (30.48 cm)
Flashhead Length	13.5" (34.29 cm)
Flashhead Width	4.875" (12.38 cm)
Flashhead Lens Material	Fresnel Acrylic
Flashhead Base Material	Valox™ (RED)*
Power Requirements	100 to 240V AC 50/60Hz - Also in 12,24 and 48VDC
Lamp Current	0.12 Amps
Wattage	15.8 Watts
Weight	5.3 lbs. (2.4 kg)
Operating Temperature	-55°C to +55°C
Wind Load	CAAA 0.5 ft²
Hub Sizes	.075", 1" or 1.25" NPT

Mfr	Part #
TWR	OL-2VLED2

*Also available in cast aluminum base for broadcast applications at an additional charge

Parts

Mfr	Part #	Description
TWR Lighting	AF-250	Replaces Part # FA155 , FA165 TWR Auxilliary Flasher
	CM-250	Programmable Current Sensor Alarm Module
	CS2620KIT	Beacon Lamp Burnout Detector Kit
	FA155	Obsolete Use AF-250
	FA1552	Obsolete Use SF-250
	FB120A	Flasher/Lamp Failure Module, 120 Volt
	FB230A	Flasher/Lamp Failure Module, 230 Volt
	FS15530T	Obsolete Use PF-250
	PF-250	REPLACES FS15530T/FS16530T TWR Primary Flasher 120-240 VAC

Mfr	Part #	Description
TWR Lighting	PM17AY	4 Pole, Double Throw, 120V, Load Contactor Relay
	PRD5AY0	Load Contact Relay - SPDT
	PRD7AGO	Load Contact Relay - DPST
	SCR430T	OBSOLETE USE CM-250 - Program. Current Sensor Alarm Module
	SCR490D	OBSOLETE USE CM-250 - Program. Current Sensor Alarm Module
	SCR630T	OBSOLETE USE CM-250 - Program. Current Sensor Alarm Module
	SPEC218	SPDT Time Delay Relay on Break
	SPEC224	SPDT Time Delay Relay on Make

Tower Lighting (TWR)

Strobe/LED System



**Dual Red/White FAA Type L-864/L-865
Medium Intensity Strobe Lighting System**

Intensity	Medium
Horizontal Coverage	360°
Vertical Beam	3° Minimum
Fresnel Optics	320 mm Lens (Patent Pending)
Lamp Description	1-Xenon Flashtube & an array of LEDs
Effective Candelas Day	20,000 ± 25%
Effective Candelas Night	2,000 ± 25%
# Flashes Per Minute Day	40 ± 2 FPM
# Flashes Per Minute Night	22 ± 2 FPM
Flashhead Dimensions	28" x 17.5" (71.12 x 44.45 cm)
Flashhead Material	Acrylic
Flashhead Base Material	Aluminum / Blue Powder Coat
Power Requirements	100V - 240V AC 50/60 Hz
Wattage Daymode	95 Watts
Red Nightmode	35 Watts
White Nightmode (Backup)	40 Watts
Weight	80 lbs. (36.32 kg)
Operating Temperature	-55°C to +55°C
Wind Load	CAAA 2.1 ft²
Mounting Holes	4- 11/16" holes spaced 90° on 13.25" (33.65 cm) bolt circle

Mfr	Part #
TWR	STLDBEACON2

Strobe System



**White FAA Type L-865
Medium Intensity Strobe Beacon**

Intensity	Medium
Horizontal Coverage	360°
Vertical Beam	3° Minimum
Fresnel Optics	320 mm Lens
Lamp Description	Xenon Flashtube
Effective Candelas Day	20,000 ± 25%
Effective Candelas Night	2,000 ± 25%
# Flashes Per Minute Day	40 ± 2 FPM
# Flashes Per Minute Night	40 ± 2 FPM
Flashhead Dimensions	17.5" x 17.5" (44.45 cm x 44.45 cm)
Flashhead Material	Acrylic
Flashhead Base Material	Aluminum / Blue Powder Coat
Power Requirements	200V / 230V AC 60 Hz 120 / 230V AC
Wattage Daymode	95 Watts
Wattage Nightmode	35 Watts
Weight	21 lbs. (9.54 kg)
Operating Temperature	-55°C to +55°C
Wind Load	CAAA 1.2 ft²

Mfr	Part #
TWR	STLDBEACON7

Flashtubes & Bulbs

Mfr	Part #	Description
		White Strobe Flash- tube, (3 Turn Helix) (STBEACON)
	STFLSHTB4	
		White Strobe Flashtube, (2 Turn Helix) (STBEACON5 or STBEACON6)
	STFLSHTB5	
		Flashtube, Day Mode Dual Beacon
	STFLSHTB6	
		Flashtube, Night Mode Dual Beacon, (STDBEACON)
	STFLSHTB7	
		Flashtube, Day Mode, Dual Strobe/ LED Beacon (STLDBEACON2)
	STFLSHTB8	
	620PS40P	Incandescent Bea- con Bulb, 620 Watt, 120 Volt
		Incandescent Obstruction Light Bulb, 116 Watt, 120 Volt
	116A21TS	

TWR Lighting



STFLSHTB4



STFLSHTB5



STFLSHTB7

More Tower Lighting
Mounts and Shields



Tower Lighting - Mounts / Shields

Beacon Ice Shields

- Protects side-mounted beacons from falling ice
- Mounts to round straight leg tower
- Hot dip galvanized steel
- Includes ice shield, mounting hardware

Mfr	Part #	Description
	MD-SQ2	2' Square Shield
Andrew	MD-SQ3	3' Square Shield
Solutions	MD-SQ4	4' Square Shield



MD-SQ2



MD-SQ3

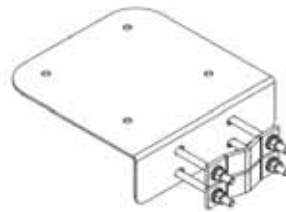


MD-SQ4

Beacon Mount

- Side mount, attaches to round straight leg tower
- Features (4) 11/16" D holes on a 13-1/4" D bolt circle for a beacon
- Hot dip galvanized steel
- Includes mounting hardware

Mfr	Part #
Andrew Solutions	MTC3140B



MTC3140B

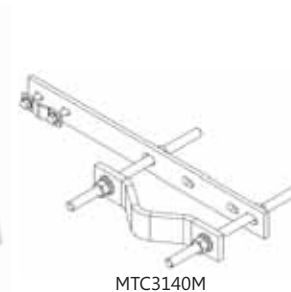
Obstruction Light Mount

- Single or double obstruction light on round leg towers
- Bottom conduit entrance; conduit 3/4" or 1"
- Attaches to round leg towers
- Hot dip galvanized steel
- Includes hardware for attachment to tower leg and conduit

Mfr	Part #	Description
Andrew Solutions	MTC3140S	for 1-1/2" to 3-1/2" round legs
	MTC3140M	for 3" to 9" round legs
	MTC3140L	for 8" to 16" round legs



MTC3140S



MTC3140M



MTC3140L

Tapes & Weatherproofing

Thin Wall Heat Shrink 2:1

Heat shrinkable flexible polyolefin tubing that offers outstanding balance of electrical, physical, and chemical properties for wide range of applications



Mfr	Part #	Size	Description	Color
Σ	FP301-3/8-BLK-100	3/8"	100' Spool	Black
	FP301-1/2-BLK-100	1/2"	100' Spool	
	FP301-3/4-BLK-50	3/4"	50' Spool	
	FP301-1-BLK-50	1"	50' Spool	
	FP301-1.5-BLK-50	1-1/2"	50' Spool	

Also available in clear, white, red, blue, yellow, green

Adhesive Lined Heat Shrink 3:1

Heat shrinkable flexible polyolefin tubing that offers outstanding balance of electrical, physical, and chemical properties for wide range of applications



Mfr	Part #	Size	Description	Color
Σ	EPS300-3/8-CLR	3/8"	48" Stick	Clear
	EPS300-1/2-CLR	1/2"	48" Stick	
	EPS300-3/8-BLK	3/8"	48" Stick	Black
	EPS300-1/2-BLK	1/2"	48" Stick	
	EPS300-1.5-BLK	1-1/2"	48" Stick	

Also available in clear, white, red, blue, yellow, green

Cold Shrink

Provides additional moisture seal for cable connections



Mfr	Part #	Description
Andrew Solutions		1/2" through 7/8" antenna and device connections
	245174	
	245173	1/2" thru 3/8" cable to 1/2" thru 3/8" cable
	245171	7/8" to 1/4" thru 1/2" connections
	245172	1-5/8" or 1-1/4" to 1/4" thru 1/2" connections

Universal Weatherproofing Kit

Application: Coax Protection

Design: Tape kit for multi-layer wrap

Feature: Multi-connection protection

Material: Butyl and vinyl

Includes: 5 rolls butyl mastic, 1 roll 2" x 20' and 2 rolls of 3/4" x 66' PVC tape



Mfr	Part #
Andrew Solutions	252133

Premium Weatherproofing Kit

Includes:

- (2) rolls Super 33+ Black Tape, 3/4" x 66' (33+Tape)
- (1) Super 88 Black Tape, 2" x 20' (88+Tape-2X20)
- (6) rolls butyl tape (PE-BUTYLTAPE)

Part #
PE-WP-PREMIUM



3M Color Tape

- Scotch® Professional use vinyl electrical tape for color coding
- Excellent insulating properties
- Resist UV rays, abrasion, corrosion, alkalines, and acid



Mfr	Length	Thickness	Color	Part #	
				35-Series	1700-Series
3M	3/4" x 66'	7 mil	Blue	35-Blue	1700-Blue
	3/4" x 66'	7 mil	Brown	35-Brown	1700-Brown
	3/4" x 66'	7 mil	Gray	35-Gray	1700-Gray
	3/4" x 66'	7 mil	Green	35-Green	1700-Green
	3/4" x 66'	7 mil	Orange	35-Orange	1700-Orange
	3/4" x 66'	7 mil	Red	35-Red	1700-Red
	3/4" x 66'	7 mil	Violet	35-Violet	1700-Violet
	3/4" x 66'	7 mil	White	35-White	1700-White
	3/4" x 66'	7 mil	Yellow	35-Yellow	1700-Yellow

Note: Colors shown above may be different than actual color
 UL Listed
 UV Resistance exceeds UL510

Enclosures



GSIC-1/2-7/8

Provides additional moisture seal for cable connections

Mfr	Part #	Description
Andrew Solutions	AWE-A12-C	for 1/2" jumpers to antennas or devices
	AWE-7812	for 7/8" to 1/2" connections
	AWE-11412	for 1-1/4" to 1/2" connections
	AWE-15812	for 1-5/8" to 1/2" connections
Tyco	GSIC-1/2-ANT-L	for 1/2" to ANT
	GSIC-1/2-7/8	for 1/2" to 7/8"
	GSIC-1/2-1-1/4	for 1/2" to 1-1/4"
	GSIC-1/2-1-5/8	for 1/2" to 1-5/8"

3M Black Tape

Mfr	Part #	Product	Description	Thick-ness	UV Resistance	Temp Rating	Specs/Certifications
3M	1700-Black	3M Temflex General All Purpose Tape, 3/4" x 66'	Economical, flexible, general purpose	7 mil	Meets UL510 req.	176°F 80°C	ASTM D-2301 Type 1 UL Listed
	33+	Scotch Professional Use Premium Vinyl Electrical Tape, 3/4" x 66'	Highly comfortable, super stretchy, resists UV rays, abrasion, corrosion	7 mil	Exceeds UL510 req.	220°F 105°C req.	A-A-55809 ASTM D3005 Type I UL Listed
	SUPER88	Scotch Professional Use Premium Vinyl Electrical Tape, 3/4" x 66'	All weather; heavy duty, abrasion resistant, fast build up	8.5 mil	Exceeds UL510 req.	220°F 105°C req.	ASTM D-3005 Type II UL Listed
	700-BLACK	3M 700 General Purpose Vinyl Electrical Tape, 2" x 20'	Economical, flexible, general purpose	7 mil	Meets UL510 req.	176°F 80°C	ASTM D-2301 Type I UL Listed
	88+2x20	Scotch Professional Use Vinyl Electrical Tape, 2" x 20'	All weather, heavy duty, abrasion resistant, fast build up	8.5 mil	Exceeds UL510 req.	220°F 105°C req.	ASTM D-3005 Type II UL Listed

Mastic Tape

Part #	Description
PE-BUTYL	2.5" x 24" Mastic Tape



Self Fusing Tape

Mfr	Part #	Description
Andrew	FT-TB	15' Roll Black Fusing Tape
MoCap	TPE-XR1510B	1.5" x 10' X-Treme Tape

Caution Tape



Job site caution tape

Part #	Description
CAUTION	3" x 1,000' Roll

Chemicals and Paint

Tower Paint and Primer

Flexi-Coat Aviation Coatings are pure 100% acrylic emulsion coating formulated for use on galvanized antenna towers. The alkalinity of the vehicle will etch into the zinc unlike ordinary enamels and form a chemical bond. Dries quickly and has excellent weathering properties.



Mfr	Part #	Description
Anchor Paint Mfg Co.	Tower Paint	
	AA4514	Aviation White Paint, 1 Gallon
	AA4514-5GAL	Aviation White Paint, 5 Gallons
	AA4515	Aviation Orange Paint, 1 Gallon
	AA4515-5GAL	Aviation Orange Paint, 5 Gallon
	Tower Primer	
	2722	Anchor Paint, Tower Primer
	2722-5GAL	Anchor Paint, Tower Primer, 5 Gallons

NOTE: These paints meet Federal Standard 595 color #17875 White and color #12197 Orange. Also complies with Bureau of Standards Report NBS1R75-663 and FAA A/C70/7460-1H.

Penetrating Catalyst

Part #	Description	Size
16-PB	Penetrating Catalyst	11 oz



Dish Spray

Part #	Description	Size
WX2100-11	Cytonix Dish Spray	11 oz



Coatings and Protectants



4 oz Brush-on Sealant



15 oz Can Scotchkote



14 oz MRO Galv Spray

Mfr	Part #	Mfr	Part #	Part #
3M	SCOTCHKOTE-4	3M	SCOTCHKOTE-15	GALV SPRAY

Spray Foam

Part #	Description	Size
HANDI-FOAM	Spray Foam Sealant	11 oz

Copper Anti-Seize

Part #	Description	Size
2000/4OZ	Copper Anti-Seize	4 oz
2000/8OZ	Copper Anti-Seize	8 oz
2000/10OZ	Copper Anti-Seize	10 oz



Copper Antioxidants



Antioxidant Joint Compound

Mfr	Part #	Size
Harger	HAAJC8	8 oz



Antioxidant Paste

Mfr	Part #	Size
Harger	NOOXCLR	8 oz



Copper Antioxidant

Mfr	Part #	Size
Harger	HCAJC8	8 oz

Caulks



Part #	Description	Color	Size
SILICONE CAULK	DAP Silicone Caulk	Clear	10.1 oz
HM-270-CLEAR	Caulking Sealant	Clear	10.1 oz
NP-1AG	Caulking Sealant	Aluminum Gray	10.1 oz
NP-1OW	Caulking Sealant	Off White	10.1 oz
NP-1B	Caulking Sealant	Black	10.1 oz
NP-1T	Caulking Sealant	Tan	10.1 oz

Stackable Snap-in Hangers

Application: Coaxial cable support

Size: 1/2" to 1-5/8" coaxial cable

Design: Stackable snap-in hanger solution

Feature: Compact coaxial cable bundles

Mounts to: 3/4" (19.1 mm) holes

Material: Stainless steel

Includes: 10 hangers

Order Separately: Additional mounting accessories



Mfr	Part #	Description	Fit Code
Andrew Solutions	SnapStak Hanger Kit		
	SSH-12	for 1/2" corrugated cable, kit of 10	
	SSH-78	for 7/8" corrugated cable, kit of 10	
	SSH-114	for 1-1/4" corrugated cable, kit of 10	
	SSH-158	for 1-5/8" coaxial cabl, kit of 10	
	SSH-158-3	for 1-5/8" coaxial cable, Triple stack capability, includes reinforcement bar, kit of 10	
	SSHR-10	SnapStack Reinforcement Bar, kit of 10	
	SSHAK-3812	for RET cable, kit of 10, includes hanger and insert	
	SSHA-38	Insert, adapts 1/2" snap-in hanger to RET cable, kit of 10	

Universal Snap-in Hangers

Application: Coaxial cable support

Size: 1/2" to 2-1/4" coaxial cable

Design: One-piece hanger solution

Feature: Simplifies coaxial cable installation

Mounts to: 3/4" (19.1 mm) holes

Material: Stainless steel

Includes: Hangers, kit of 10

Order Separately: Additional mounting accessories



Mfr	Part #	Description	Fit Code
Andrew Solutions	Universal Snap-in Hanger		
	252113	for 1/2" corrugated, smooth wall, and 600 braided coaxial cable	CSB
	252114	for 5/8" corrugated and 900 braided coaxial cable	CB
	252115	for 7/8" corrugated, smooth wall, and 1200 braided coaxial cable	CSB
	252116	for 1-1/4" corrugated and 1700 braided coaxial cable	CB
	252117	for 1-5/8" corrugated and smooth wall coaxial cable	CS
	252118	for 2-1/4" corrugated coaxial cable	S

Snap-in Hangers - Elliptical

Mfr	Part #	Description
Andrew Solutions	Snap-in Hangers - Elliptical	
	EWSH-90	for EW90 waveguide
	EWSH-63	for EW63 waveguide
	EWSH-52	for EW52 waveguide



Fit Code Legend

C = Corrugated Cable

S = Smooth Wall Cable

B = Braided Cable

Mini Coax Support Blocks

Application: Coaxial cable support

Size: 1/2" to 2-1/4" coaxial cable

Design: Two-run block hangers

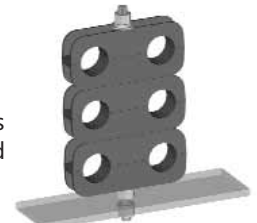
Feature: Compact coaxial cable bundles

Mounts to: 3/8" or 10 mm threaded rod

Material: Long glass polypropylene

Includes: Blocks only, kit of 10

Order Separately: 3/8" or 10 mm mounting hardware kits and additional accessories



Mfr	Part #	Description	Fit Code
Andrew Solutions	Mini Coax Support Blocks		
	252125	for 1/2" corrugated coaxial cable	CS
	252126	for 5/8" corrugated or 900 braided coaxial cable	CB
	252127	for 7/8" corrugated coaxial cable	CS
	252128	for 1-1/4" corrugated coaxial cable	CS
	252129	for 1-5/8" corrugated or smooth wall coaxial cable	CS
	HA294187	for 2-1/4" corrugated cable	C
	68MCLICK	Click-on hangers for 6-8 mm cable (FSJ1A, CNT-240, CNT-300)	-
	912MCLICK	Click-on hangers for 6-8 mm cable (LDF4, LDF4-50A, CNT-500, CNT-600)	-

Butterfly Hangers

Application: Coaxial cable support

Size: 1/2" to 2-1/4" coaxial cable

Design: Bolt-on single run hanger

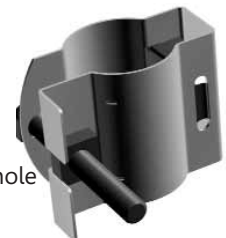
Feature: Traditional hanger solution

Mounts to: 7/16" (11.1 mm) pre-punched hole

Material: Stainless steel

Includes: Hangers and set bolts, kit of 10

Order Separately: Hanger hardware kits (pg 103) and additional accessories



Mfr	Part #	Description	Fit Code
Andrew Solutions	Butterfly Hanger Kit		
	252119	for 3/8" and 1/2" corrugated, smooth wall, and braided coaxial cable* (EW180, 220, 240)	CSB
	252120	for 5/8" corrugated and braided coaxial cable* (EW127A, 132)	CB
	252121	for 7/8" corrugated, smooth wall, and braided coaxial cable* (EW85, EW90)	CSB
	252122	for 1-1/4" CB corrugated, smooth, and braided coaxial cable* (EW63)	CSB
	252123	for 1-5/8" corrugated and smooth wall coaxial cable* (EW52)	CS
	252124	for 2-1/4" corrugated coaxial cable*	C

*Hanger hardware kit not included, order separately (pg 103)

Coax Accessories and Port Entry Solutions

Mounting Hardware Kits for Coax Support Blocks

Application: Coaxial cable support
Size: 3/8" to 10 mm versions
Design: 1, 2, and 3-stack threaded rod kits
Feature: Stacks coaxial cable blocks
Mounts to: 3/8" or threaded rod
Material: (3/8") Galvanized steel
Includes: Threaded rod and hardware, kit of 10

Mfr	Part #	Description
Andrew Solutions	3/8" Galvanized Hardware Kit	
	294750	for (1) Coaxial Cable Support Block
	294751	for 1-5/8" Coaxial Cable Support Block
	294752	for (2) Coaxial Cable Support Blocks
	294753	for (2) 1-5/8" Coaxial Cable Support Blocks
	294754	for (3) Coaxial Cable Support Blocks
	294755	for (3) 1-5/8" Coaxial Cable Support Blocks

Hanger Hardware Kits

Application: Coaxial cable support
Design: Hardware kit for hanger attachment to member
Material: Stainless steel
Includes: Bolts, nuts, lockwashers, kit of 10
Order Separately: Hangers (pg 102)



Part #	Description
HK-38100/10	3/8" x 1" SS hardware, kit of 10
HK-38114/10	3/8" x 1-1/4" SS hardware, kit of 10

Angle Adapters

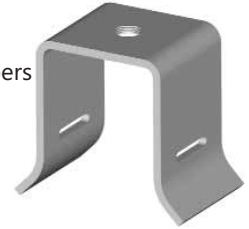
Application: Coaxial cable support
Design: Adapts hangers to angle members
Mounts to: Up to 7/8" angle members
Material: Stainless steel
Includes: Adapters, set bolt, hanger hardware kit, kit of 10
Order Separately: Hangers (pg 102)



Mfr	Part #	Description
Andrew Solutions	252130	Universal Angle Adapter (insert included)
	294571	Universal Angle Adapter, Snap-in version (insert not included)
	294572	Angle Adapter with 3/8" tapped holes
	252131	Compact angle adapter with 3/8" tapped holes

Stand-Off Adapters

Application: Coaxial cable support
Design: Adapts hangers to round members
Includes: Stand-offs, kit of 10



Mfr	Part #	Description
Andrew Solutions	294561*	Stand-off Adapter with 3/8" tapped hole
	294562*	Snap-in, Stand-Off Adapter

*Round member adapters (pg 104) must be purchased separately.



Clamp Heads

Mfr	Part #	Description
Andrew Solutions	MF19901-10	Clamp head, kit of 10



Universal Angle Adapter Inserts

Mfr	Part #	Description
Andrew Solutions	UAAI	3/8" Universal Angle Adapter Insert, Package of 10

Snap-in Adapter Block

Application: Coaxial cable support
Size: 3/4" (19.1 mm) holes
Design: Three run cluster bracket
Feature: Compact mounting solution
Mounts to: Round member, angle member, cable ladders, and channel sections
Material: Stainless steel
Includes: Ten brackets
Order Separately: Hangers (pg 102) & mounting hardware (pgs 65 and 104)



Mfr	Part #	Description
Andrew Solutions	SA-38	Snap-in Adapter Block, kit of 10
	ARA-22	Strut snap-in fitting

Mini Cluster Block

- Made from 2" x 1/8" flat stock
- Galvanized steel
- 7/16" and 3/4" holes on 3 sides and a 7/16" hole on 1 side
- Sold in kits of 10



Mfr	Part #	Description
Connect-It	MCB	Mini Cluster Block, kit of 10

Round Member Adapters

Application: Coaxial cable support

Size: 1/2" (12.7 mm) wide

Design: Slotted hose clamps

Feature: Adapts hangers to round members

Mounts to: Versions for 1" to 10"

Material: Stainless steel

Includes: Adapters, kit of 10

Order Separately: Hangers (pg 102)



Mfr	Part #	Description
Andrew Solutions	294555	1"-2" OD (25.4 mm-50.8 mm OD)
	294556	2"-3" OD (50.8 mm-76.2 mm OD)
	294557	3"-4" OD (76.2 mm-101.6 mm OD)
	294558	4"-5" OD (101.6 mm-127.0 mm OD)
	294559	5"-6" OD (127.0 mm-152.4 mm OD)
	294560	6"-8" OD (152.4 mm-203.2 mm OD)
	RM-A800	2"-10" OD (203.2 mm-254.0 mm OD)

Make-A-Clamp Kit

Make any size stainless steel clamp

- Maintenance "clamp system" in a box.
- Make any size 100% stainless steel worm-drive clamp from 3" to 10' in diameter in the field
- Kit includes 100' of continuous banding and 25 clamp brackets
- No banding tools necessary
- Great for monopoles



Part #	Description
4001	Make-A-Clamp Kit

Lace-Up Hoisting Grips

Application: Coaxial cable and waveguide support

Size: Versions for coaxial and elliptical waveguide

Design: Mesh grip with single eye support

Feature: Lace-up installation at any point on coaxial

Material: Tinned bronze

Includes: Grip, self-locking clip, and tape



Mfr	Part #	Description	Fit Code
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Lace-up Hoisting Grip

Andrew Solutions	252107	for 1/2" corrugated, smooth wall, and braided coaxial cable, WE190, WE191, and E185	CSB
	252108	for 5/8" corrugated and braided coaxial cable EW122, EW127, EW132, EW85, EW90, WE108, E105, WE122, WE130, WE150, E130, and E150	CB
	252109	for 7/8" corrugated, smooth wall, and braided coaxial cable EW77, WE78, and E78	CSB
	252110	for 1-1/4" corrugated and braided coaxial cable EW63, EW64, WE65, and WE70	CSB
	252111	for 1-5/8" corrugated and smooth wall coaxial cable EW52 and WE61	CS
	252112	for 2-1/4" corrugated coaxial cable W37, WE37, E38, EW43, WE46, and ES46	C

Cable Ties

Part #	Description
AL-07-50-0-C	8", 50 LB, UV Black, 100 CT
AL-11-50-0-C	11", 50 LB, UV Black, 100 CT
AL-14-50-0-C	14", 50 LB, UV Black, 100 CT
AL-17-50-0-C	17", 50 LB, UV Black, 100 CT
AL-21-50-0-C	21", 50 LB, UV Black, 100 CT
AL-14-120-0-C	14", 120 LB, UV Black, 100 CT
AL-18-120-0-C	18", 120 LB, UV Black, 100 CT
AL-24-175-L-C	24", 175 LB, UV Black, 50 CT



Velcro Cable Ties

Part #	Description
VT-60050-BK	6", Black, 50 CT
VT-60050-BL	6", Blue, 50 CT
VT-60050-GN	6", Green, 50 CT
VT-60050-RD	6", Red, 50 CT
VT-60050-YE	6", Yellow, 50 CT
VT-80050-BK	8", Black, 50 CT
VT-80050-BL	8", Blue, 50 CT
VT-80050-GN	8", Green, 50 CT
VT-80050-RD	8", Red, 50 CT
VT-80050-YE	8", Yellow, 50 CT
VT-120050-BK	12", Black, 50 CT
VT-120050-BL	12", Blue, 50 CT
VT-120050-GN	12", Green, 50 CT
VT-120050-RD	12", Red, 50 CT
VT-120050-YE	12", Yellow, 50 CT



Pre-Laced Hoisting Grips

Application: Coaxial cable support

Size: 1/4" to 2-1/4" coaxial cable

Design: Mesh grip with single eye support

Feature: Pre-laced to simplify installation

Material: Tinned bronzed

Includes: One hoisting grip and clamp

Mfr	Part #	Part #	HELIAX® Cable	
			Size	Type
Andrew Solutions	L2SGRIP	L2SGRIP-21K	3/8"	LDF2
	L4SGRIP	L4SGRIP-41K	1/2"	LDF4
	L5SGRIP	L5SGRIP-51K	7/8"	LDF5, AVA5
	L6SGRIP	L6SGRIP-61K	1-1/4"	LDF6, AVA6
	L7SGRIP	L7SGRIP-71K	1-5/8"	LDF7, AVA7



Fit Code Legend

C = Corrugated Cable

S = Smooth Wall Cable

B = Braided Cable

Coax Accessories and Port Entry Solutions

Universal Ground Kits

Application: Grounding
Size: Fits coaxial and elliptical waveguide
Design: Coil-up installation
Feature: One-size-fits-all design
Mounts to: Coaxial outer conductor
Material: Tinned copper
Includes: Ground kit, lug, and weatherproofing kit



Mfr	Part #	Description	Fit Code
Andrew Solutions	252172	5' lead with unattached 1/4" and 3/8" two-hole lugs	CSB

Clip-on Ground Kits

Application: Grounding
Size: 1/2" to 2-1/4" coaxial cable
Design: One-piece style
Mounts to: Coaxial outer conductor
Material: Tinned copper
Includes: Ground kit, lug, and weatherproofing kit



Mfr	Part #	Description	Fit Code
Andrew Solutions	294500	for 1/2" corrugated coaxial cable, includes 5' lead with unattached 3/8" two-hole lug	C
	294502	for 5/8" corrugated coaxial cable, includes 5' lead with unattached 3/8" two-hole lug	C
	294504	for 7/8" corrugated coaxial cable, includes 5' lead with unattached 3/8" two-hole lug	C
	294506	for 1-1/4" corrugated coaxial cable, includes 5' lead with unattached 3/8" two-hole lug	C
	294508	for 1-5/8" corrugated coaxial cable, includes 5' lead with unattached 3/8" two-hole lug	C
	294510	for 2-1/4" corrugated coaxial cable, includes 5' lead with unattached 3/8" two-hole lug	C
	SG12-12B2U	FXL540, LDF4 1/2" smooth wall and corrugated	CS
	SG78-12B2U	FXL780, AVA5 7/8" smooth wall and corrugated	CS
	SG114-12B2U	FXL1480, AVA6 1-1/4" smooth wall & corrugated	CS
	SG158-12B2U	FXL1873, AVA7 1-5/8" smooth wall & corrugated	CS

Fit Code Legend

C = Corrugated Cable
S = Smooth Wall Cable
B = Braided Cable

Feed-Thru Boot Assemblies

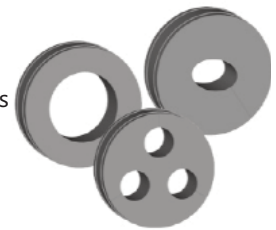
Application: Entry port solutions
Size: 4" and 5"
Design: Compression boot for aluminum entry panels
Feature: One-piece design simplifies installation
Mounts to: Entry panels
Material: EPDM rubber
Includes: Boot, two hose clamps
Order Separately: Cushion inserts (below), entry panel (pg 106)



Mfr	Part #	Description
Andrew Solutions	294573	4" Boot Assembly, cushion not included
	294574	5" Boot Assembly, cushion not included

Cushion Inserts

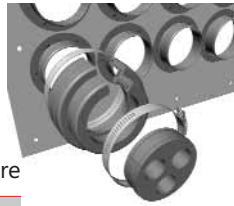
Application: Entry port solutions
Size: Versions for coaxial cable
Design: Compression fit round cushions
Feature: Dependable seal
Mounts to: Feed-thru boot assembly
Material: EPDM rubber
Includes: Cushion
Order Separately: Boot assembly (above), entry panel (pg 106)



Mfr	Part #	Description	Fit Code
Andrew Solutions	PE-SC-B	Blank (no holes)	-
	PE-SC38-1	with 1 hole for 3/8" corrugated and smooth wall coaxial cable	CS
	294682	with 3 holes for 3/8" corrugated and smooth wall coaxial cable	CS
	294684	with 1 hole for 1/2" corrugated and smooth wall coaxial cable	CS
	294685	with 2 holes for 1/2" corrugated and smooth wall coaxial cable	CS
	294686	with 3 holes for 1/2" corrugated and smooth wall coaxial cable	CS
	294687	with 4 holes for 1/2" corrugated and smooth wall coaxial cable	CS
	294693	with 1 hole for 5/8" corrugated and 900 braided coaxial cable	CB
	294694	with 2 holes for 5/8" corrugated and 900 braided coaxial cable	CB
	294695	with 3 holes for 5/8" corrugated and 900 braided coaxial cable	CB
	294696	with 4 holes for 5/8" corrugated and 900 braided coaxial cable	CB
	294697	with 1 hole for 7/8" corrugated coaxial cable	CS
	294698	with 2 holes for 7/8" corrugated coaxial cable	CS
	294699	with 3 holes for 7/8" corrugated and smooth wall coaxial cable	CS
	294700	with 4 holes for 7/8" corrugated and smooth wall coaxial cable	CS
	294701	with 1 hole for 1-1/4" corrugated and smooth wall coaxial cable	CS
	294702	with 1 hole for 1-5/8" corrugated and smooth wall coaxial cable	CS
	294703	with 1 hole for 2-1/4" corrugated coaxial cable	C

4" Feed-Thru Entry Panels

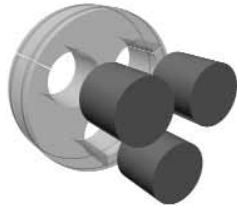
Application: Entry port solutions
 Size: Six configurations
 Design: Entry plates with round ports
 Feature: Easy to install solution
 Mounts to: Walls
 Material: Aluminum
 Includes: Port, caps, mounting hardware



Mfr	Part #	Description
Andrew Solutions	252134	1 port, 1 x 1, compact
	252135	1 port, 1 x 1, standard
	252136	4 port, 2 x 2, standard
	252137	6 port, 2 x 3
	252138	8 port, 2 x 4, standard
	252139	12 port, 3 x 4, standard

Cushion Plugs

Application: Entry port solutions
 Size: 1/2" to 1-5/8" coaxial cable
 Design: Plugs for unused cushion holes
 Feature: Allows for future expansion
 Mounts to: Cushion inserts
 Material: EPDM rubber
 Includes: Plugs, kit of 5
 Order Separately: Cushion inserts or boot assemblies (pg 105)



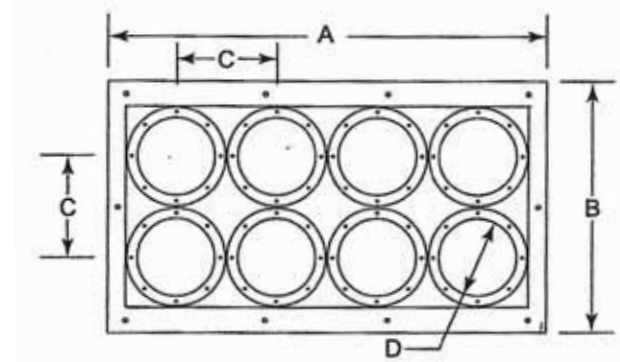
Mfr	Part #	Description
Andrew Solutions	294735	for 1/2" corrugated coaxial cable
	294736	for 3/8" corrugated & smooth wall coaxial cable
	294737	for 5/8" corrugated and LMR-900 coaxial cable
	294738	for 7/8" corrugated coaxial cable
	294739	for 1-1/4" corrugated coaxial cable
	294740	for 1-5/8" corrugated & smooth wall coaxial cable

Entry Panels

Mfr	Part #	Description
Harger	HLG1334	12 port, 3 x 4
	HLG1447	16 port, 4 x 4
	HLG1333	18 port, 3 x 6
	HLG1861	20 port 4 X 5
	HLG1340	24 port, 4 x 6



HLG1334



ENTRY PANEL REFERENCE GUIDE					
Port Size	A	B	C	D	Primus Part #
1 X 1					
Compact	5	5	N/A	4"	PE-EP4-1X1C
1 X 1					
Standard	7	7	N/A	4"	PE-EP4-1X1
1 X 2	1' 3-1/2"	9-1/2"	6"	4"	PE-EP4-1X2
1 X 3	1' 8"	9-1/2"	5-1/2"	4"	PE-EP4-1X3
1 X 4	2' 1-1/2"	9-1/2"	5-1/2"	4"	PE-EP4-1X4
1 X 6	3' 1/2"	9-1/2"	5-1/2"	4"	PE-EP4-1X6
2 X 2	1' 5-1/2"	1' 5-1/2"	5-1/2" x 7"	4"	PE-EP4-2X2
2 X 3	1' 11"	1' 5-1/2"	5-1/2"	4"	PE-EP4-2X3
2 X 4	2' 1-1/2"	1' 5-1/2"	5-1/2"	4"	PE-EP4-2X4
3 X 3	1' 11"	1' 11"	5-1/2"	4"	PE-EP4-3X3
2 X 5	2' 7"	1' 5-1/2"	5-1/2"	4"	PE-EP4-2X5
2 X 6	3' 3-1/2"	1' 5-1/2"	5-1/2"	4"	PE-EP4-2X6
3 X 4	2' 4-1/2"	2' 1-1/2"	5-1/2"	4"	PE-EP4-3X4
3 X 5	2' 10"	1' 11"	5-1/2"	4"	PE-EP4-3X5
2 X 8	4' 2-1/2"	1' 5-1/2"	5-1/2"	4"	PE-EP4-2X8
4 X 4	2' 1-1/2"	2' 1-1/2"	5-1/2"	4"	PE-EP4-4X4
3 X 6	3' 3-1/2"	2' 1-1/2"	5-1/2"	4"	PE-EP4-3X6
4 X 5	2' 7"	2' 4-1/2"	5-1/2"	4"	PE-EP4-4X5
4 X 6	3' 3-1/2"	2' 7"	5-1/2"	4"	PE-EP4-4X6

JUMPERS

STANDARD

LDF4-50A Sureflex® Jumper with interface types 7-16 DIN Male and 7-16 DIN Male Right Angle
PIM Tested

Mfr	Part #	Length
Andrew Solutions	L4A-DMDR-3-P	3'
	L4A-DMDR-6-P	6'
	L4A-DMDR-8-P	8'
	L4A-DMDR-10-P	10'
	L4A-DMDR-15-P	15'
	L4A-DMDR-20-P	20'
	L4A-DMDR-25-P	25'
	L4A-DMDR-30-P	30'

LDF4-50A Sureflex Jumper with interface types 7-16 DIN Male and 7-16 DIN Male
PIM Tested

Mfr	Part #	Length
Andrew Solutions	L4A-DMDM-3-P	3'
	L4A-DMDM-4-P	4'
	L4A-DMDM-6-P	6'
	L4A-DMDM-8-P	8'
	L4A-DMDM-10-P	10'
	L4A-DMDM-12-P	12'
	L4A-DMDM-15-P	15'
	L4A-DMDM-20-P	20'
	L4A-DMDM-25-P	25'
	L4A-DMDM-30-P	30'

SUPERFLEX

FSJ4-50B Sureflex Jumper with interface types 7-16 DIN Male and 7-16 DIN Male
PIM Tested

Mfr	Part #	Length
Andrew Solutions	F4A-DMDM-3-P	3'
	F4A-DMDM-4-P	4'
	F4A-DMDM-6-P	6'
	F4A-DMDM-8-P	8'
	F4A-DMDM-10-P	10'
	F4A-DMDM-12-P	12'
	F4A-DMDM-15-P	15'
	F4A-DMDM-20-P	20'
	F4A-DMDM-25-P	25'
	F4A-DMDM-30-P	30'

FSJ4-50B Sureflex Jumper with interface types 7-16 DIN Male and 7-16 DIN Male Right Angle
PIM Tested

Mfr	Part #	Length
Andrew Solutions	F4A-DMDR-3-P	3'
	F4A-DMDR-6-P	6'
	F4A-DMDR-8-P	8'
	F4A-DMDR-10-P	10'
	F4A-DMDR-15-P	15'

CORRUGATED & SMOOTHWALL CABLE

CORRUGATED

FSJ4-50B, HELIAX Superflexible Foam Coaxial Cable -CORRUGATED COPPER-



Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	FSJ4-50B	FSJ4-50B, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/2", black PE jacket	Corrugated Copper	Superflexible	Copper-clad Aluminum Wire
	FSJ4RK-50B	FSJ4-50B, HELIAX Superflexible Foam Coaxial Cable, corrugated copper, 1/2", black non-halogenated, fire retardant polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	 F4PDF-C	7-16 DIN Female for 1/2" FSJ4-50B cable
	 F4PDMV2-C	7-16 DIN Male for 1/2" FSJ4-50B cable
	 F4DR-C	7-16 DIN Male Right Angle for 1/2" FSJ4-50B cable
	 F4PNF-C	Type N Female for 1/2" FSJ4-50B cable
	 F4PNMV2-HC	Type N Male for 1/2" FSJ4-50B cable
	 F4PNR-HC	Type N Male Right Angle for 1/2" FSJ4-50B cable

SMOOTHWALL

SFX-500, HELIAX Superflexible Foam Coaxial Cable -SMOOTHWALL ALUMINUM-



Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	SFX-500	SFX-500, HELIAX Superflexible Coaxial Cable, smoothwall aluminum, 1/2", black PE jacket	Smoothwall Aluminum	Superflexible	Copper-clad Aluminum Wire
	SFX-500-NHR	SFX-500, HELIAX Superflexible Coaxial Cable, smoothwall aluminum, black non-halogenated, fire retardant, low smoke, riser rated polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	 SFX-ADF	7-16 DIN Female for 1/2" SFX-500 cable
	 SFX-ADM	7-16 DIN Male for 1/2" SFX-500 cable
	 SFX-ADMR	7-16 DIN Male Right Angle for 1/2" SFX-500 cable
	 SFX-ANF	Type N Female for 1/2" SFX-500 cable
	 SFX-ANM	Type N Male for 1/2" SFX-500 cable
	 SFX-ANMR	Type N Male Right Angle for 1/2" SFX-500 cable

CORRUGATED & SMOOTHWALL CABLE (cont.)

CORRUGATED

LDF4-50A, HELIAX Low
Density Foam Coaxial Cable
-CORRUGATED COPPER-



Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	LDF4-50A	LDF4-50A, HELIAX Low Density Foam Coaxial Cable, corrugated copper, 1/2", black PE jacket	Corrugated Copper	Standard	Copper-clad Aluminum Wire
	LDF4RK-50A	LDF4-50, HELIAX Low Density Foam Coaxial Cable, corrugated copper, 1/2", black non-halogenated, fire retardant polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	 L4DR-PS	7-16 DIN Male Right Angle Positive Stop™ for 1/2" LDF4-50A cable
	 L4NR-PS	Type N Male Right Angle Positive Stop for 1/2" LDF4-50A cable
	 L4TDF-PSA	7-16 DIN Female Positive Stop for 1/2" AL4RPV-50, LDF4-50A cable
	 L4TDM-PSA	7-16 DIN Male Positive Stop for 1/2" AL4RPV-50, LDF4-50A cable
	 L4TNF-PSA	Type N Female Positive Stop for 1/2" AL4RPV-50, LDF4-50A cable
	 L4TNM-PSA	Type N Male Positive Stop for 1/2" AL4RPV-50, LDF4-50A cable

SMOOTHWALL

FXL-540, HELIAX Flexible
Coaxial Cable
-SMOOTHWALL ALUMINUM-



Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	FXL-540	FXL-540, HELIAX Flexible Coaxial Cable, smooth-wall aluminum, 1/2", black PE jacket	Smoothwall Aluminum	Superflexible	Copper-clad Aluminum Wire
	FXL-540-NHR	FXL-540, HELIAX Flexible Coaxial Cable, smooth-wall aluminum, 1/2", black non-halogenated, fire retardant, low smoke, riser rated polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	 540EZDFV2	7-16 DIN Female EZFit® for 1/2" FXL-540 cable
	 540EZDMRV2	7-16 DIN Male Right Angle EZFit for 1/2" FXL-540 cable
	 540EZDMV2	7-16 DIN Male EzFit for 1/2" FXL-540 cable
	 540EZNFBV2	Type N Female EzFit for 1/2" FXL-540 cable
	 540EZNMBV2	Type N Male EzFit for 1/2" FXL-540 cable
	 540EZNFBV2	Type N Female EzFit for 1/2" FXL-540 cable

CORRUGATED

LDF4.5-50, HELIAX
Coaxial Cable
-CORRUGATED COPPER-



Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	LDF4.5-50	HELIAX Low Density Foam Coaxial Cable, corrugated copper, 5/8", black PE jacket	Corrugated Copper	Standard	Copper-clad Aluminum Wire
	LDF4.5RK-50	HELIAX Low Density Foam Coaxial Cable, corrugated copper, 5/8", black non-halogenated, fire retardant polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	 L4.5PDF-RC	7-16 DIN Female RingFlare™ for 5/8" LDF4.5-50 cable
	 L4.5PDM-RC	7-16 DIN Male RingFlare for 5/8" LDF4.5-50 cable
	 L4.5PNF-RC	Type N Female RingFlare for 5/8" LDF4.5-50 cable
	 L4.5PNM-RC	Type N Male RingFlare for 5/8" LDF4.5-50 cable
	 L4.5PNM-RC	Type N Male RingFlare for 5/8" LDF4.5-50 cable

More Corrugated
and Smoothwall Cable



CORRUGATED & SMOOTHWALL CABLE (cont.)

CORRUGATED

AVA5-50, HELIAX Andrew
Virtual Air™ Coaxial Cable
-CORRUGATED COPPER-

Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	AVA5-50	AVA5-50, HELIAX Andrew Virtual Air™ Coaxial Cable, corrugated copper, 7/8", black PE jacket	Corrugated Copper	Standard	Copper Tube
	AVA5RK-50	AVA5-50, HELIAX Andrew Virtual Air Coaxial Cable, corrugated copper, 7/8", black non-halogenated, fire retardant polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	 AL5DF-PSA	7-16 DIN Female Positive Stop for 7/8" AL5-50 and AVA5-50 cable
	 AL5DM-PSA	7-16 DIN Male Positive Stop for 7/8" AL5-50 and AVA5-50 cable
	 AL5NF-PSA	Type N Female Positive Stop for 7/8" AL5-50 and AVA5-50 cable
	 AL5NM-PSA	Type N Male Positive Stop for 7/8" AL5-50 and AVA5-50 cable

SMOOTHWALL

FXL-780, HELIAX Flexible
Coaxial Cable
-SMOOTHWALL ALUMINUM-

Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	FXL-780	FXL-780, HELIAX Flexible Coaxial Cable, smooth-wall aluminum, 7/8", black PE jacket	Smoothwall Aluminum	Flexible	Copper
	FXL-780-NHR	FXL-780, HELIAX Flexible Coaxial Cable, smooth-wall aluminum, 7/8", black non-halogenated, fire retardant, low smoke, riser rated polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	 78EZDF	7-16 DIN Female Ezfit for 7/8" FXL-780 and AVA5-50 cable
	 78EZDM	7-16 DIN Male EzFit for 7/8" FXL-780 and AVA5-50 cable
	 78EZNF	Type N Female EzFit for 7/8" FXL-780 and AVA5-50 cable
	 78EZNM	Type N Male EzFit for 7/8" FXL-780 and AVA5-50 cable

CORRUGATED

AVA6-50, HELIAX Andrew
Virtual Air™ Coaxial Cable
-CORRUGATED COPPER-

Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	AVA6-50	AVA6-50, HELIAX Andrew Virtual Air Coaxial Cable, corrugated copper, 1-1/4", black PE jacket	Corrugated Copper	Standard	Corrugated Copper Tube
	AVA6RK-50	AVA6-50, HELIAX Andrew Virtual Air Coaxial Cable, corrugated copper, 1-1/4", black, fire retardant polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	 AL6DF-PSA	7-16 DIN Female Positive Stop for 1-1/4" AVA6-50 cable
	 AL6DM-PSA	7-16 DIN Male Positive Stop for 1-1/4" AVA6-50 cable
	 114EZNF	Type N Female EZFit for 1-1/4" FXL1480 and AVA6-50 cable
	 114EZNM	Type N Male EzFit for 1-1/4" FXL1480 and AVA6-50 cable

SMOOTHWALL

FXL-1480, HELIAX Flexible
Coaxial Cable
-SMOOTHWALL ALUMINUM-

Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	FXL-1480	FXL-1480, HELIAX Flexible Coaxial Cable, smoothwall aluminum, 1-1/4", black PE jacket	Smoothwall Aluminum	Flexible	Copper
	FXL-1480-NHR	FXL-1480, HELIAX Flexible Coaxial Cable, smoothwall aluminum, 1-1/4", black non-halogenated, fire retardant, low smoke, riser rated polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	 114EZDF	7-16 DIN Female EzFit for 1-1/4" FXL1480 and AVA6-50 cable
	 114EZDM	7-16 DIN Male EzFit for 1-1/4" FXL1480 and AVA6-50 cable
	 114EZNF	Type N Female EZFit for 1-1/4" FXL1480 and AVA6-50 cable
	 114EZNM	Type N Male EzFit for 1-1/4" FXL1480 and AVA6-50 cable

CORRUGATED & SMOOTHWALL CABLE (cont.)

CORRUGATED

AVA7-50, HELIAX Andrew
Virtual Air Coaxial Cable
-CORRUGATED COPPER-



Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	AVA7-50	AVA7-50, HELIAX Andrew Virtual Air Coaxial Cable, corrugated copper, 1-5/8", black PE jacket	Corrugated Copper	Standard	Corrugated Copper Tube
	AVA7RK-50	AVA7-50, HELIAX Andrew Virtual Air Coaxial Cable, corrugated copper, 1-5/8", black non-halogenated, fire retardant polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	AL7NF-PSA	Type N Female Positive Stop for 1-5/8" AVA7-50 cable
	AL7NM-PSA	Type N Male Positive Stop for 1-5/8" AVA7-50 cable
	AL7DF-PSA	7-16 DIN Female Positive Stop for 1-5/8" cable
	AL7DM-PSA	7-16 DIN Male Positive Stop for 1-5/8" cable

SMOOTHWALL

FXL-1873, HELIAX
Flexible Coaxial Cable
-SMOOTHWALL ALUMINUM-



Mfr	Part #	Description	Outer Conductor Material	Flexibility	Inner Conductor Material
Andrew Solutions	FXL-1873	FXL-1873, HELIAX Flexible Coaxial Cable, smooth-wall aluminum, 1-5/8", black PE jacket	Smoothwall Aluminum	Flexible	Copper
	FXL-1873-NHR	FXL-1873, HELIAX Flexible Coaxial Cable, smooth-wall aluminum, 1-5/8", black non-halogenated, fire retardant, low smoke, riser rated polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	158EZDF	7-16 DIN Female EzFit for 1-5/8" FXL-1873 and AVA7-50 cable
	158EZDM	7-16 DIN Male EzFit for 1-5/8" FXL-1873 and AVA7-50 cable
	158EZNF	Type N Female EzFit for 1-5/8" FXL-1873 and AVA7-50 cable
	158EZNM	Type N Male EzFit for 1-5/8" FXL-1873 and AVA7-50 cable

PLENUM AIR CABLE

CORRUGATED

HL4-50A, HELIAX Plenum-Rated
Air Dielectric Coaxial Cable
-CORRUGATED COPPER-



Mfr	Part #	Description
Andrew Solutions	HL4RP-50A	HL4-50A, HELIAX Plenum Rated Air Dielectric Coaxial Cable, corrugated copper, 1/2", blue PVDF jacket

Mfr	Part #	Description
Andrew Solutions	L4DR-PS	7-16 DIN Male Right Angle Positive Stop for 1/2" HL4RP-50A cable
	L4NR-PS	Type N Male Right Angle Positive Stop for 1/2" HL4RP-50A cable
	L4TDF-PSA	7-16 DIN Female Positive Stop for 1/2" HL4RP-50A cable
	L4TDM-PSA	7-16 DIN Male Positive Stop for 1/2" HL4RP-50A cable
	L4TNF-PSA	Type N Female Positive Stop for 1/2" HL4RP-50A cable
	L4TNM-PSA	Type N Male Positive Stop for 1/2" HL4RP-50A cable

SMOOTHWALL

HJ5-50, HELIAX Plenum-Rated
Air Dielectric Coaxial Cable
-CORRUGATED COPPER-



Mfr	Part #	Description
Andrew Solutions	HJ5RP-50	HJ5-50, HELIAX Plenum Rated Air Dielectric Coaxial Cable, corrugated copper, 7/8", blue PVDF jacket

Mfr	Part #	Description
Andrew Solutions	H5PDF	7-16 DIN Female with gas barrier for 7/8" HJ5-50 air dielectric cable
	H5PDM	7-16 DIN Male for with gas barrier 7/8" HJ5-50 air dielectric cable
	H5PNF	Type N Female with gas barrier for 7/8" HJ5-50 air dielectric cable
	H5PNM	Type N Male with gas barrier for 7/8" HJ5-50 air dielectric cable

More Plenum Air Cable

PLENUM AIR CABLE (cont.)

CORRUGATED

**HJ7-50A, HELIAX Plenum-Rated
Air Dielectric Coaxial Cable
-CORRUGATED COPPER-**


Mfr	Part #	Description
Andrew Solutions	HJ7RP-50A	HJ7-50A, HELIAX Plenum Rated Air Dielectric Coaxial Cable, corrugated copper, 1-5/8", blue PVDF jacket

Mfr	Part #	Description
Andrew Solutions	 H7PDF	7-16 DIN Female with gas barrier for 1-5/8" HJ7-50A air dielectric cable
	 H7PDM	7-16 DIN Male with gas barrier for 1-5/8" HJ7-50A air dielectric cable
	 H7PNF	Type N Female with gas barrier for 1-5/8" HJ7-50A air dielectric cable

BRAIDED CABLE

**CNT-195, CNT® 50 Ohm
Braided Coaxial Cable
-BRAIDED-**


Mfr	Part #	Description	Braid Material	Shield Tape Material	Inner Conductor Material
Andrew Solutions	CNT-195-1000	CNT-195, CNT 50 Ohm Braided Coaxial Cable, 1000', black PE jacket	Tinned Copper	Aluminum	Copper
	CNT-195-DB	CNT-195-DB, CNT 50 Ohm Braided Coaxial Cable, flooded, black PE jacket			
	CNT-195-FR	CNT-195-FR, CNT 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket			
	CNT-195-R	CNT-195, CNT 50 Ohm Braided Coaxial Cable, black fire retardant riser-rated PVC jacket			

Mfr	Part #	Description
Andrew Solutions	 195PNF-BH-CR	Type N Female Bulkhead for CNT-195 braided cable
	 195PNF-CR	Type N Female for CNT-195 braided cable
	no image available 195PNFR-BH-CR	Type N Female Right Angle Bulkhead for CNT-195 braided cable
	 195PNM-CR	Type N Male for CNT-195 braided cable
	 195PNR-CR	Type N Male Right Angle for CNT-195 braided cable
	 195PTF-C-CR	TNC Female for CNT-195 braided cable
	no image available 195PTM-C-CR	TNC Male for CNT-195 braided cable

More Braided Cable 
**CNT-240, CNT 50 Ohm
Braided Coaxial Cable
-BRAIDED-**


Mfr	Part #	Description	Braid Material	Shield Tape Material	Inner Conductor Material
Andrew Solutions	CNT-240	CNT-240, CNT 50 Ohm Braided Coaxial Cable, black PE jacket	Tinned Copper	Aluminum	Copper
	CNT-240-DB	CNT-240-DB, CNT 50 Ohm Braided Coaxial Cable, flooded, black PE jacket			
	CNT-240-FR	CNT-240-FR, CNT 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket			
	CNT-240-R	CNT-240, CNT 50 Ohm Braided Coaxial Cable, black fire retardant riser-rated PVC jacket			

Mfr	Part #	Description
Andrew Solutions	 240APNF-BHC-CR	Type N Female Bulkhead for CNT-240 braided cable
	 240APNF-CR	Type N Female for CNT-240 braided cable
	 240APNM-C-CR	Type N Male for CNT-240 braided cable
	no image available 240PDF-BHC-CR	7-16 DIN Female Bulkhead for CNT-240 braided cable
	 240PDM-C-CR	7-16 DIN Male for CNT-240 braided cable
	 240PDR-CR	7-16 DIN Male Right Angle for CNT-240 braided cable
	 240PNF-CR	Type N Female for CNT-240 braided cable
	 240PNR-CR	Type N Male Right Angle for CNT-240 braided cable
	 240PTF-C	TNC Female for CNT-240 braided cable
	 240PTM-CR	TNC Male for CNT-240 braided cable

BRAIDED CABLE

CNT-400, CNT 50 Ohm Braided Coaxial Cable -BRAIDED-



Mfr	Part #	Description	Braid Material	Shield Tape Material	Inner Conductor Material
Andrew Solutions	CNT-400	CNT-400, CNT 50 Ohm Braided Coaxial Cable, variable, black PE jacket	Tinned Copper	Aluminum	Copper-clad Aluminum Wire
	CNT-400-DB	CNT-400-DB, CNT 50 Ohm Braided Coaxial Cable, flooded, black PE jacket			
	CNT-400-FR	CNT-400-FR, CNT 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket			
	CNT-400-P	CNT-400, CNT 50 Ohm Plenum Rated Braided Coaxial Cable, white PVC jacket			
	CNT-400-R	CNT-400, CNT 50 Ohm Braided Coaxial Cable, black fire retardant riser-rated PVC jacket			

Mfr	Part #	Description
Andrew Solutions	 400APNF-C-CR	Type N Female for CNT-400 braided cable
	 400APNM-CR	Type N Male for CNT-400 braided cable
	 400PDF-BHC-CR	7-16 DIN Female Bulkhead for CNT-400 braided cable
	 400PDR-CR	7-16 DIN Male Right Angle for CNT-400 braided cable
	 400PTF-C	TNC Female for CNT-400 braided cable
	 400PTM-C	TNC Male for CNT-400 braided cable
	 400PUM	UHF Male for CNT-400 braided cable

CNT-600, CNT 50 Ohm Braided Coaxial Cable -BRAIDED-



Mfr	Part #	Description	Braid Material	Shield Tape Material	Inner Conductor Material
Andrew Solutions	CNT-600	CNT-600, CNT 50 Ohm Braided Coaxial Cable, black PE jacket	Tinned Copper	Aluminum	Copper-clad Aluminum Wire
	CNT-600-DB	CNT-600-DB, CNT 50 Ohm Braided Coaxial Cable, flooded, black PE jacket			
	CNT-600-FR	CNT-600-FR, CNT 50 Ohm Braided Coaxial Cable, black non-halogenated, fire retardant polyolefin jacket			

Mfr	Part #	Description
Andrew Solutions	 600APNM-C	Type N Male for CNT-600 braided cable
	 600PDF-C	7-16 DIN Female for CNT-600 braided cable
	 600PDM-C	7-16 DIN Male for CNT-600 braided cable
	 600PDR-C	7-16 DIN Male Right Angle for CNT-600 braided cable
	 600PNF-BHC	Type N Female Bulkhead for CNT-600 braided cable
	 600PNR-H	Type N Male Right Angle for CNT-600 braided cable
	 600PTM-C	TNC Male for CNT-600 braided cable

More Braided Cable 

BRAIDED CABLE

LMR-195 3/16"
 Flexible Low Loss
 Communications Coax


Mfr	Part #	Application	Jacket	Color
Times Microwave	LMR-195	Outdoor	PE	Black
	LMR-195-DB	Outdoor/Watertight	PE	
	LMR-195-FR	Indoor-Riser CMR	FRPE	

Construction Specifications

Mfr	Description	Material	in.
Times Microwave	Inner Conductor	Solid BC	0.037
	Dielectric	Foam PE	0.11
	Outer Conductor	Aluminum Tape	0.116
	Overall Braid	Tinned Copper	0.139
	Jacket	(see table above)	0.195

Connectors

Mfr	Part #	Description	Interface	VSWR** Freq. (GHz)	Coupling Nut	Inner Contact Attach	Outer Contact Attach
Times Microwave	TC-195-NM	Straight Plug	N Male	<1.25:1 (2.5)	Knurl	Solder	Crimp
	TC-195-TM	Straight Plug	TNC Male				

**VSWR spec based on 3' cable with a connector

Install Tools

Mfr	Part #	Description
Times Microwave	CT-240/200/195/100	Crimp tool for LMR-100, 195, 200 and 240 connectors
	CCT-01	Cable end flush cut tool
	DBT-U	Deburr Tool, Removes center conductor rough edges

LMR®-240 1/4"
 Flexible Low Loss
 Communications Coax


Mfr	Part #	Application	Jacket	Color
Times Microwave	LMR-240	Outdoor	PE	Black
	LMR-240-DB	Outdoor/Watertight	PE	
	LMR-240-FR	Indoor-Riser CMR	FRPE	

Construction Specifications

Mfr	Description	Material	in.
Times Microwave	Inner Conductor	Solid BC	0.056
	Dielectric	Foam PE	0.15
	Outer Conductor	Aluminum Tape	0.155
	Overall Braid	Tinned Copper	0.178
	Jacket	(see table above)	0.24

Connectors

Mfr	Part #	Description	Interface	VSWR** Freq. (GHz)	Coupling Nut	Inner Contact Attach	Outer Contact Attach
Times Microwave	EZ-240-NMH-D	Straight Plug	N Male	<1.25:1 (2.5)	Hex./Knurl	Spring Finger	Crimp
	TC-240-NMH-D	Straight Plug	N Male	<1.25:1 (2.5)			
	TC-240-NF-BH	Bulk-head Jack	N Female	<1.25:1 (2.5)	-	Solder	
	EZ-240-TM	Straight Plug	TNC Male	<1.25:1 (2.5)	Knurl	Spring Finger	
	TC-240-TM	Straight Plug	TNC Male	<1.25:1 (2.5)	Knurl	Solder	

**VSWR spec based on 3' cable with a connector

Install Tools

Mfr	Part #	Description
Times Microwave	ST-240EZ	Strip tool for EZ connectors

More Braided Cable



BRAIDED CABLE

LMR-400 3/8" Flexible Low Loss Communications Coax



Mfr	Part #	Application	Jacket	Color
Times Microwave	LMR-400	Outdoor	PE	Black
	LMR-400-DB	Outdoor/Watertight	PE	
	LMR-400-FR	Indoor/Riser CMR	FRPE	

Construction Specifications

Mfr	Description	Material	in.
Times Microwave	Inner Conductor	Solid BCCAI	0.108
	Dielectric	Foam PE	0.285
	Outer Conductor	Aluminum Tape	0.291
	Overall Braid	Tinned Copper	0.320
	Jacket	(see table above)	0.405

Connectors

Mfr	Part #	Description	Interface	VSWR** Freq. (GHz)	Coupling Nut	Inner Contact Attach	Outer Contact Attach
Times Microwave	TC-400-716-FC	Straight Jacket	7-16 DIN Female	<1.25:1 (2.5)	-	Solder	Clamp
	EZ-400-716-M	Straight Jacket	7-16 DIN Male	<1.25:1 (2.5)	Hex	Spring Finger	Crimp
	EZ-400-716M-RA	Right Angle	7-16 DIN Male	<1.35:1 (6)	Hex		
	EZ-400-NF	Straight Jacket	N Female	<1.25:1 (2.5)	-		
	EZ-400-NMH-D	Straight Plug	N Male	<1.25:1 (10)	Hex/Knurled		

**VSWR spec based on 3' cable with a connector

Install Tools

Mfr	Part #	Type
Times Microwave	HX-4	Crimp Handle
	Y1719	Crimp Dies, 0.429"
	CT-400/300	Crimp Tool
	CR-400	Crimp Rings, 10 ct.
	CST-400	Strip Tool, Crimp & Clamp
	GST-400	Mid-Span Strip Tool
	TK-400EZ	Tool Kit, Crimp Style Includes: CCT-01, CST-400, CT-400/300, Tool Pouch

LMR®-600 1/2" Flexible Low Loss Communications Coax



Mfr	Part #	Application	Jacket	Color
Times Microwave	LMR-600	Outdoor	PE	Black
	LMR-600-DB	Outdoor/Watertight	PE	
	LMR-600-FR	Indoor-Riser CMR	FRPE	

Construction Specifications

Mfr	Description	Material	in.
Times Microwave	Inner Conductor	Solid BCCAI	0.176
	Dielectric	Foam PE	0.455
	Outer Conductor	Aluminum Tape	0.461
	Overall Braid	Tinned Copper	0.490
	Jacket	(see table above)	0.590

Connectors

Mfr	Part #	Description	Interface	VSWR** Freq. (GHz)	Coupling Nut	Inner Contact Attach	Outer Contact Attach
Times Microwave	TC-600-716FC	Straight Jack	7-16 DIN Female	<1.25:1 (2.5)	-	Solder	Clamp
	EZ-600-716MH	Straight Plug	7-16 DIN Male	<1.25:1 (2.5)	Hex	Spring Finger	Crimp
	EZ-600-716M-RA	Right Angle	7-16 DIN Male	<1.35:1 (6)	Hex		
	EZ-600-NF	Straight Jack	N Female	<1.25:1 (.25)	-		
	EZ-600-NMH-D	Straight Plug	N Male	<1.25:1 (8)	Hex/Knurled		

**VSWR spec based on 3' cable with a connector

Install Tools

Mfr	Part #	Type
Times Microwave	HX-4	Crimp Handle
	Y1720	Crimp Dies, 0.610"
	CR-600	Crimp Rings, 10 ct.
	ST-600C	Strip Tool, Clamp Style
	ST-600EZ	Strip Tool, Crimp Style
	GST-600A	Midspan Strip Tool
	TK-600EZ	Tool Kit, Crimp Style Includes: CCT-01, ST-600EZ, HX-4, Y1720, DBT-U, Tool Pouch

Connector Tools

Cable Prep Tools

Mfr	Handheld	Cable Type	Blades
Andrew Solutions			
	MCPT-1412	FSJ1 & FSJ4	209874
	MCPT-3812	MSJ2 & FSJ4	209874
	MCPT-L4	LDF4	MCPT-BK4
	MCPT-78	LDF5 & AVA5	MCPT-BK5
	Automated	Cable Type	Blades
			
	CPT-F4B	FSJ4	CPT-BKSF4
	CPT-L4ARC1	LDF4	CPT-BKS1
	CPT-12U	LDF4	CPT-BK12U
	CPT-L45RC	LDF4.5	CPT-BKS1
	CPT-78U	LDF5 & AVA5	CPT-BK5
	A5-EZPT	AVA5 EZ FFT CONN	N/A
	CPT-114U	LDF6 & AVA6	CPT-BK6
	A6-EZPT	AVA6 EZ FFT CON	N/A
	CPT-158U	LDF7 & AVA7	CPT-BK7
	A7-EZPT	AVA7 EZ FFT CONN	N/A

Mfr	Handheld	Cable Type
Commscope	12-HPT	1/2" coaxial cable
	78-HPT	7/8" coaxial cable
	Automated	Cable Type
	SFXACT-1	SFX500 (A Series)
	SFxEZPT	SFX500 (EZ FIT)
	540EZPT	FXL540
	780EZPT	FXL780
	1480PT	FXL1480
	FXL/CR1873PT	FXL1873

Replacement blades not offered by Commscope

Mfr	Handheld	Cable Type	Blades
RFS			
	TRIM-12-5-06	SCF12	TRIM-B09
	TRIM-12-L	LCF12	TRIM-B09
	TRIM-58-L	LCF58	TRIM-B09
	TRIM-78-L	LCF78 (Rapid fit)	TRIM-B09
	TRIM-78-LF	LCF78 (Omni Fit)	TRIM-B09
	Automated	Cable Type	Blades
			
	TRIM-S12-A	SCF12	916831
	TRIM-L12-A	LCF12	916586
	TRIM-L78-A	LCF78/4LCF78	916577
	TRIM-L114-A	LCF114	916578
	TRIM-L158-A	LCF158	916579

Cable Prep Kits

Mfr	Andrew Solutions	Commscope	RFS
Part #	PREPKIT-ANDREW	PREPKIT-COMMSCOPE	PREPKIT-RFS
(1) Large Carrying Case	1550-BLACK	1550-BLACK	1550-BLACK
(1) 1/2" Superflex Ground Stripper	GKT-F4A	SFXMSS	-
(1) 1/2" Ground Stripper	GKT-L4A	540MSS	JSTRIP-12
(1) 7/8" Ground Stripper	GKT-78A	780MSS	JSTRIP-78
(1) 1-1/4" Ground Stripper	GKT-114A	1480MSS	JSTRIP-114
(1) 1-5/8" Ground Stripper	GKT-158A	1873AMSS	JSTRIP-158
1/2" Superflex Auto Prep	CPT-F4B	SFxEZPT	TRIM-S12-A
(1) 1/2" Auto Prep	CPT-L4ARC1	540EZPT	TRIM-L12-A
(1) 7/8" Auto Prep	CPT-78U	780EZPT	TRIM-L78-A
(1) 1-1/4" Auto Prep	CPT-114U	1480PT	TRIM-L114-A
(1) 1-5/8" Auto Prep	CPT-158U	FXL/CR1873PT	TRIM-L158-A
Hand Prep Tool	MCPT-1412	540HPT	-
(2) Spanner Wrenches	-	-	34-358



Cable Preparation Kit

Includes cutting tool, hex wrench, and jacket stripping tool

Mfr	Part #	Cable Type
Andrew Solutions	CPT-BR400-KIT	CNT400

Ground Kit Tools

Mfr	Ground Kit Tools	Cable Type	Blades
Andrew Solutions			
	GKT-F4A	FSJ4	GKT-BKF4
	GKT-L4A	LDF4	GKT-BK512
	GKT-L4SG	LDF4	GBK-SG1278
	GKT-78A	AVA5	GKT-BK512
	GKT-785G	AVA5	GBK-SG1278
	GKT-114A	AVA6	GKT-BK67
	GKT-114SG	AVA6	GBU-SG114158
	GKT-158A	AVA7	GKT-BK67

Mfr	Ground Kit Tools	Cable Type
Commscope		
	SFXMSS	SFX500
	540MSS	FXL540
	780MSS	FXL780
	1480MSS	FXL1480
	1873AMSS	FXL1873

Mfr	Ground Kit Tools	Cable Type	Blades
RFS			
	JSTRIP-12	1/2"	916529-001
	JSTRIP-78	7/8"	916529-002
	JSTRIP-114	1 1/4"	916529-003
	JSTRIP-158	1 5/8"	916529-004

Misc. Tools



Cable Flaring Tool

Separates foam from outer conductor of coaxial cable

Mfr	Part #	Description
	224363	1/2"
Andrew	224368	7/8"
Solutions	224373	1-1/4"



Combo Tool

Open end wrench for connector body, chamfer tool, file, inner conductor gauge, jacket cut-off gauge for 1/2" and 7/8" cable

Mfr	Part #
Andrew Solutions	CT-7812



Adjustable Spanner Wrench

1-1/4" - 3" for RFS Connectors

Part #
34-358

Torque Wrenches



Mfr	Part #	Cable Type	Connector Type
	244377	All	7-16 DIN coupling nut
	244379	All	Type N coupling nut
Andrew Solutions	Part #	Description	
	TW-SFX-EZFC	for 3/8" EZfit® connectors, 17 mm	
	TW-12-EZFC	for Front Clamping Nut on 1/2" EZfit connectors, 20 mm	
	TW-78-EZFC	for 7/8" EZfit connectors, 34 mm	
	TW-114-EZFC	for 1-1/4" EZfit connectors, 45 mm	
	TW-158-EZFC	for 1-5/8" EZfit connectors, 60 mm	

Microwave Components

Flat Panel Antennas

Xcelerator™ Flat Panel Antenna

- Enhanced system performance
- Superior VSWR of 1.4:1 across 5.15-5.85 GHz frequency band
- Excellent front-to-back ratio of 40 dB
- Low profile: Less than 1/2" thick
- Three year warranty



Mfr		Radiowaves		
Radiowaves	Part #	FP.5-5-18	FP1-5-24	FP2-5-28
	Frequency	5.15 - 5.85 GHz	5.15 - 5.85 GHz	5.15 - 5.85 GHz
	Low	17.7	23.6	27.8
	Mid	17.9	23.8	28.0
	High	18.1	24.2	28.2
	Beamwidth -3dB	18°	9°	4.5°
	X-Pol. Rejection	25 dB	30 dB	30 dB
	F/B Ratio	30 dB	40 dB	40 dB
	VSWR, Max.	1.4:1	1.4:1	1.4:1
	Dimensions	6" x 6" x 0.5"	12" x 12" x 0.5"	24" x 24" x 0.5"
	Weight	3 lbs	5 lbs	10 lbs
	RF Interface	"N" (F)		
Mount	Included			

Product specifications may change without notice

Low Profile Flat Panel Antenna

- Lightweight and rugged design
- Low windload
- Easily installed
- RF Connector Interface: Type "N" female
- Plane Polarized
- Superior sidelobe performance



Mfr	Radiowaves	
Part #	FP-18-5	FP-24-5
Frequency	5.25 - 5.85 GHz	5.25 - 5.85 GHz
Gain dBi (nominal)	17.5	23.5
Beamwidth -3dB	18	9
X-Pol. Rejection	25	25
F/B Ratio	30 dB	35 dB
VSWR, Max (R.L., dB)	1.5:1 (14.0)	1.5:1 (14.0)
Dimensions	9" x 9" x 1.5"	14" x 14" x 1.5"
Connection Interface	Type "N" female	
Standard Mount	Accommodates a 1" - 2.5" pipe mast	

Dimensions measured square across flats
Other mounts available upon request

Grid Parabolic Antennas

MAG Grid Series Parabolic Antenna for Unlicensed Band Use

- MAG Grid line is made of materials such as magnesium alloy, aluminum, & stainless steel
- Each antenna is supplied with a 24" RG8 pigtail
- Antennas allow for up to a 60° tilt adjustment



Mfr	Part #	Gain, dBi	Frequency
Andrew	18T-2400-1	17	2.4-2.5 GHz
Solutions	26T-2400-1	23	2.4-2.5 GHz

Antennas ship disassembled for minimum freight costs

Grid Parabolic Antennas

- Corrosive resistant: materials are of coated aluminum, hot dipped galvanized or stainless steel
- Lightweight design, easily installed
- Reduced windloading by 30 - 40% of equivalent size solid parabolics



Mfr				
Radiowaves	Part #	G3-2.4	G4-2.4	G6-2.4
	F/B Ratio, dB	28	30	32
	Gain, Mid	24.5	27.0	30.3
	Beamwidth -3dB	9.2°	7.1°	4.6°
	X-Pol. Disc.	25 dB	25 dB	25 dB
	F/B Ratio	28 dB	30 dB	32 dB
	VSWR, Max.	1.5:1 (14.0)	1.5:1 (14.0)	1.5:1 (14.0)
	Diameter	3'	4'	6'
	Weight	25 lbs	35 lbs	80 lbs
	Connector Interface	Type "N" Female		

Product specifications may change without notice

Backhaul Dish Antennas

- Units are single polarized antennas with a low VSWR
- Most models feature attachment via Type N connector, F flange, or 7/8" EIA
- Antennas with Type N connectors are listed below
- Single Polarized Models



Mfr	Part #	Radome	Frequency	Gain, dBi	Solid Dish
Andrew Solutions	2' Solid Dish				
	P2F-23-N7A	None	2.3-2.5 GHz	21.6	2'
	P2F-23-NXA	Yes, Molded	2.3-2.5 GHz	21.6	
	P2F-52-N7A	None	5.25-5.85 GHz	29.4	
	P2F-52-NXA	Yes, Molded	5.25-5.85 GHz	29.4	
	3' Solid Dish				
	P3F-52-N7A	None	5.25-5.85 GHz	33.4	3'
	P3F-52-NXA	Yes, Molded	5.25-5.85 GHz	33.4	
	4' Solid Dish				
	P4F-23-N7A	None	2.3-2.5 GHz	27.3	4'
	P4F-23-NXA	Yes, Molded	2.3-2.5 GHz	27.3	
	P4F-52-N7A	None	5.25-5.85 GHz	34.9	
	P4F-52-NXA	Yes, Molded	5.25-5.85 GHz	34.9	
	6' Solid Dish				
	P6F-52-N7A	None	5.25-5.85 GHz	37.6	6'
	P6F-52-NXA	Yes, Molded	5.25-5.85 GHz	37.6	

8', 10', and 12' solid dish models are also available as well as Dual Polarized models for the 5.xx GHz band antennas in 2' through 6' dish sizes.

Standard Parabolic Antennas

2.4 - 2.45 GHz Parabolic Subscriber Antennas

- Lightweight and rugged design
- Low windload and easily installed
- Standard antenna mount (NS) provides fine adjustment for azimuth & elevation; accommodates a 1.0" to 4.5" D pipe
- NL Series removes the fine adjustment feature for azimuth and elevation; accommodates a 1.0" to 2.25" pipe
- Optional mounting kit available for NL Series to mount to a 2.5" to 4.5" diameter pipe



Mfr	Mfr			
Radiowaves	Part #	SP1-2.4	SP2-2.4	SP3-2.4
	Frequency	2.4-2.5 GHz	2.4-.5 GHz	2.4 - 2.7 GHz
	F/B Ratio, dB	25	28	30 dB
	Gain (nominal)	14.0 dBi	21.3 dBi	24.3 dBi
	Beamwidth -3dB	28.0	14.0	15.4°
	X-Pol. Rejection	17 dB	28 dB	30 dB
	VSWR, Max. (R.L., dB)	1.5:1 (14.0)	1.5:1 (14.0)	1.5:1 (14.0)
	Radome	Standard	Optional	Optional
	Connector Interface	Type "N" Female		
	Polarization	Single		

Standard color white; other colors available on request

5.250 -5.850 & 5.725 -5.850 GHz Parabolic Subscriber Antennas

- Lightweight and rugged design
- Easily installed



Mfr	Radiowaves											
Part #	SP1-5.2	SP1.5-5.2	SP2-5.2	SP3-5.2	SP4-5.2	SP6-5.2	SP1-5.8	SP1.5-5.8	SP2-5.8	SP3-5.8	SP4-5.8	SP6-5.8
Frequency	5.25 - 5.850 GHz						5.725 - 5.850 GHz					
F/B Ratio, dB	30	32	36	38	42	44	30	31	36	38	42	44
Gain (nominal)	22.0	25.3	28.0	31.2	34.6	37.6	22.5	25.7	28.5	31.4	34.8	37.9
Beamwidth -3dB	12.0	8.5	6.2	4.2	3.4	2.2	11.7	8.0	6.2	4.2	3.0	2.0
X-Pol. Rejection	17	20	28	30	30	30	17	20	28	30	30	30
VSWR, Max. (R.L., dB)	1.5:1 (14.0)											
Diameter	1'	1.5'	2'	3'	4'	6'	1'	1.5'	2'	3'	4'	6'
Weight, lbs	15	18	22	35	60	90	15	18	22	35	60	90
Radome	Standard		Optional				Standard		Optional			
Connector Interface	Type "N" Female											
Polarization	Single											

Standard color white; other colors available on request
Dual polarity models also available

Microwave Components

Elliptical Waveguide and Accessories

EW52

Mfr	Andrew Solutions
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Elliptical Waveguide EW52

Part #	Description
 EW52	EW52, Helix® Standard Elliptical Waveguide, 5.6–6.425 GHz, black PE jacket

Hangers for EW52

Part #	Description
 42396A-8	Butterfly hanger for EW52
 EWSH-52	Universal Snap-in hanger for EW52

Connector Reattachments for EW52

Part #	Description
 33544-25	Connector Reattachment Kit for EW52; Includes: Compression ring o-ring, 1 o-ring, Silicone grease, 2 EW gaskets, 2 gaskets
 33544-38	Connector Reattachment Kit for EW52; Includes: Compression ring o-ring, Silicone grease, 2 EW gaskets, 2 split flare ring o-rings
image not available 45594-152B	Hardware Kit for 152 or 252 Connectors

Connectors for EW52

Part #	Description
- 152DZ	Splice for EW52
 152SE	Fixed-tuned CPR159G for EW52
- 152SEM	Fixed-tuned PDR58 for EW52
 252SE	Fixed-tuned CPR137G for EW52
 252SEM	Fixed-tuned PDR70 for EW52

Ground Kit for EW52

Part #	Description
 252172	5' Lead with unattached 1/4" & 3/8" 2-hole lug, includes ground kit, lug, & weatherproofing kit

Tools for EW52

Part #	Description
- 245311	Saw Guide for EW52
 EWBTK-2	Bending Tool Kit for EW52 to EW85
 EWFTK-52	Flaring Tool Kit for EW52

Boot Assemblies for EW52

Part #	Description
 WGB4-52	4" Boot Assembly for EW52

EW63

Mfr	Andrew Solutions
-----	------------------

Elliptical Waveguide EW63

Part #	Description
 EW63	EW63, Helix Standard Elliptical Waveguide, 5.925–7.125 GHz, black PE jacket

Hangers for EW63

Part #	Description
 42396A-7	Butterfly hanger for EW63
 EWSH-63	Universal Snap-in hanger for EW63

Connector Reattachments for EW63

Part #	Description
 33544-30	Connector Reattachment Kit for EW63; Includes: Compression ring o-ring, Silicone grease, 2 EW gaskets
 33544-33	Connector Reattachment Kit for EW63; Includes: Compression ring o-ring, Saw guide, Silicone grease, 2 EW gaskets, 2 split flare ring o-rings
- 45593-163	Hardware Kit for EW63 Splice
- 45594-163B	Hardware Kit for 163 Connectors

Connectors for EW63

Part #	Description
- 163DZ	Splice for elliptical EW63
 163SC	Fixed-tuned UG-344U for EW63
 163SE	Fixed-tuned CPR137G for EW63
 163SEM	Fixed-tuned PDR70 for EW63

Ground Kit for EW63

Part #	Description
 252172	5' Lead with unattached 1/4" & 3/8" 2-hole lug, includes ground kit, lug, & weatherproofing kit

Tools for EW63

Part #	Description
- 245311	Saw Guide for EW52, 63,64, and 77
 EWBTK-2	Bending Tool Kit for EW52 to EW85
 EWFTK-63	Flaring Tool Kit for EW63

Boot Assemblies for EW63

Part #	Description
 WGB4-63	Boot assembly, 4" for EW63

Elliptical Waveguide and Accessories (cont.)

EW90	
Mfr	Andrew Solutions
Elliptical Waveguide EW90	
Part #	Description
 EW90	EW90, Helix Standard Elliptical Waveguide, 10.2–11.7 GHz, black PE jacket

Hangers for EW90

Part #	Description
 42396A-5	Butterfly hanger for EW90
 EWSH-90	Universal Snap-in hanger for EW90

Connector Reattachments for EW90

Part #	Description
 33544-26	Connector Reattachment Kit for EW90; Includes: Compression ring o-ring, 2 packs silicon grease, 2 EW gaskets
 33544-37	Connector Reattachment Kit for EW90; Includes: Compression ring o-ring, flange gasket, silicon grease, 2 EW gaskets
- 45594-190A	Hardware Kit for 190 Connectors

Connectors for EW90

Part #	Description
- 190DZ	Splice for EW90
 190SC	Fixed-tuned UG-39/U for EW90
 190SCM	Fixed-tuned PBR100 for EW90
 190SE	Fixed-tuned CPR90G for EW90
 190SEM	Fixed-tuned PDR100 for EW90
 290SC	Fixed-tuned WR75 Pressurizable Cover Flange for EW90

Ground Kit for EW90

Part #	Description
 252172	5' Lead with unattached 1/4" & 3/8" 2-hole lug, includes ground kit, lug, & weatherproofing kit

Tools for EW90

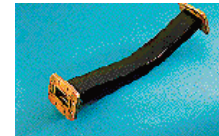
Part #	Description
- 245312	Saw Guide for EW90, 127A and 132
 EWBTK-1	Bending Tool Kit for EW90 to 240
 204919	Flaring Tool Kit for EW90

Boot Assemblies for EW90

Part #	Description
 WGB4-90	Boot assembly, 4" for EW90

Pressure Windows

Mfr	Part #	Description	Operating Frequency Band
	55001-137	Pressure Window for WR137, Mates to CR137G	5.85 - 8.2 GHz
	55001-90	Pressure Window for WR90, Mates to CPR90G	8.2 - 12.4 GHz



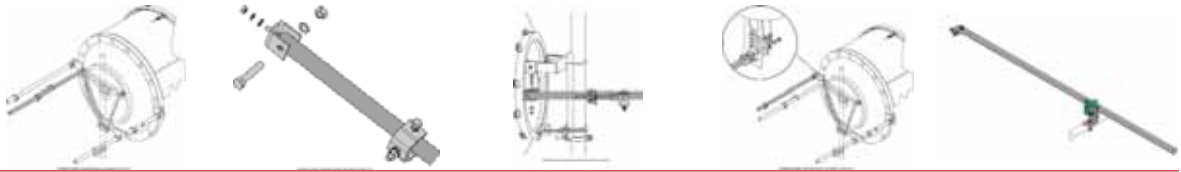
Flex Twists

Andrew Solutions

Mfr	Part #	Description	Length	Operating Frequency Band	Interface	Interface 2
Interface Types CPR137G						
F137CCS1	Flexible Twist for WR137	12"	5.85 - 8.2 GHz	CPR137G	CPR137G	
F137CCS2	Flexible Twist for WR137	24"				
F137CCS3	Flexible Twist for WR137	35"				
F137CCS4	Flexible Twist for WR137	39"				
F137CCS5	Flexible Twist for WR137	47"				
Interface Types CPR90G						
F090CCS1	Flexible Twist for WR90	12"	8.2 - 12.4 GHz	CPR90G	CPR90G	
F090CCS2	Flexible Twist for WR90	24"				
F090CCS3	Flexible Twist for WR90	35"				
F090CCS4	Flexible Twist for WR90	39"				
F090CCS5	Flexible Twist for WR90	47"				

Microwave Components

Microwave Strut Kits

Mfr						
	Part #	520570-1	520570-10	520570-2	520570-3	VSTRUT-P3KIT
Andrew Solutions	Description	Inboard Side Strut Kit for 8', 10', and 12' microwave antennas	Inboard Side Strut Kit for 6' microwave antennas	Fixed Inboard Side Strut Kit for 6' (pre-2009 models), 8', 10' and 12' microwave antennas	Outboard Side Strut Kit for 8' and 12' microwave antennas	Inboard Side Strut Kit for 4' and 6' microwave and ValuLine® antennas
	Includes	Azimuth adjustment kit, bracket, hardware, strut, strut collar assembly	Bracket, hardware, strut, strut collar assembly	Bracket, hardware, strut, strut collar assembly	Bracket, hardware, strut collar assembly	Bracket, hardware, strut
	Aligning Function	Adjustable	Fixed	Fixed	Fixed	Fixed
	Mounting Pipe Length	10.5'	10.5	10.5'	10.5'	5'

*Other sizes and models are available

Strut Accessories

Andrew Solutions	Mfr			
	Part #	520477	520568	520569
	Description	Strut Collar Assembly	Reflector Strut Bracket Kit	Azimuth Adjustment Kit
	Application	Provides tower interface and strut securement point	Provides attachment point for fixed strut	Allows fine movement of antenna during alignment
	Includes	Clamp assembly and hardware	Bracket and hardware	Hardware and threaded rod assembly
	Package Qty	1	2	1

*Other sizes and models are available

Dehydrators

Mfr	Part #	Description	Includes	Mount Type	Alarm Type	Port Count	Port Type	Voltage	Suggested Circuit Breaker Size	Dehydrator Type
Andrew Solutions	 MT050B-81015	DryLine® Dehydrator, Low-pressure membrane, 19 in rack mountable, 3.0-5.0 psig, with summary alarm, 115 Vac, 50/60 Hz	3/8" polyethylene tubing, 90° elbow fitting, instruction sheet, male connector fitting, needle valve, power cord, power cord connector lock, PTFE tape, screws	Floor, Rack, Shelf, Wall	Summary	1	3/8 in PE Tube	115 Vac ± 10%	20 A	Automatic Membrane
	 MT050B-81315	DryLine® Dehydrator, Low-pressure membrane, 19 in rack mountable, 3.0-5.0 psig, with discrete alarm, 115 Vac, 50/60 Hz	3/8" polyethylene tubing, 90° elbow fitting, instruction sheet, male connector fitting, needle valve, power cord, power cord connector lock, PTFE tape, screws	Floor, Rack, Shelf, Wall	Discrete	1				
	 PMT200B-81015	DryLine® Dehydrator, Low-pressure membrane, wall mountable, 3.0-5.0 psig, with summary alarm, 115 Vac, 50/60 Hz	3/8" polyethylene tubing, drill template, instruction sheet, male connector fitting, power cord, power cord connector lock, street tee fitting, union tee	Floor, Shelf, Wall	Summary	4				
	 PMT200B-81315	DryLine® Dehydrator, Low-pressure membrane, wall mountable, 3.0-5.0 psig, with discrete alarm, 115 Vac, 50/60 Hz	3/8" polyethylene tubing, drill template, instruction sheet, male connector fitting, power cord, power cord connector lock, street tee fitting, union tee	Floor, Shelf, Wall	Discrete	4				

Manifolds



2-Port Distribution Manifold
Wall mountable, 0-15.0 psig,
25' of tubing per port

Mfr	Part #
Andrew Solutions	6600D-2



4-Port Distribution Manifold
Wall mountable, 0-15.0 psig,
25' of tubing per port

Mfr	Part #
Andrew Solutions	6600D-4



6-Port Distribution Manifold
Wall mountable, 0-15.0 psig,
25' of tubing per port

Mfr	Part #
Andrew Solutions	6600D-6

Microwave Dishes

Mfr	Part #	Description	Packing	Radome Color	Radome Material	Reflector Construction	Antenna Input	Operating Frequency Band
6' Microwave Dishes								
Andrew Solutions	 PAR6-59-PXA/B	6' Parabolic Unshielded Antenna for Relocation-Category A, single-polarized	Standard Pack	Gray with Flash	Molded	1-piece Reflector	CPR137G	5.925 - 6.425 GHz
	 PAR6-59W-PXA/A	6' Parabolic Unshielded Antenna for Relocation-Category A, single-polarized	Standard Pack	Gray with Flash	Molded	1-piece Reflector	CPR137G	5.925 - 7.125 GHz
	 PAR6-65-PXA/B	6' Parabolic Unshielded Antenna for Relocation-Category A, single-polarized	Standard Pack	Gray with Flash	Molded	1-piece Reflector	CPR137G	6.425 - 7.125 GHz
	 PAR6-105-PXA/A	6' Parabolic Unshielded Antenna for Relocation-Category A, single-polarized	Standard Pack	Gray with Flash	Molded	1-piece Reflector	CPR90G	10.500 - 10.700 GHz
8' Microwave Dishes								
Andrew Solutions	 PAR8-59-PXA	8' Parabolic Unshielded Antenna for Relocation-Category A, single-polarized	Standard Pack	Gray	Molded	1-piece Reflector	CPR137G	5.925 - 6.425 GHz
	 PAR8-59W-PXA	8' Parabolic Unshielded Antenna for Relocation-Category A, single-polarized	Standard Pack	Gray	Molded	1-piece Reflector	CPR137G	5.925 - 7.125 GHz
	 PAR8-65-PXA	8' Parabolic Unshielded Antenna for Relocation-Category A, single-polarized	Standard Pack	Gray	Molded	1-piece Reflector	CPR137G	6.425 - 7.125 GHz
	 PAR8-105-PXA	8' Parabolic Unshielded Antenna for Relocation-Category A, single-polarized	Standard Pack	Gray	Molded	1-piece Reflector	CPR90G	10.500 - 10.700 GHz

*Other sizes and models are available

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- Laird Technology
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- PCTEL/Maxrad
- Powerwave
- Radiowaves
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- Sinclair Technology
- Stico
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- and many more!

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RET Cable

RET Control Cable



Description	Length	Mfr	
		Andrew Solutions	Kathrein Scala
	0.5 m	ATCB-B01-C50	-
	1 m	ATCB-B01-001	860 10007
	2 m	ATCB-B01-002	860 10008
	3 m	ATCB-B01-003	-
	4 m	ATCB-B01-004	-
	5 m	ATCB-B01-005	860 10009
	6 m	ATCB-B01-006	-
	9 m	ATCB-B01-009	-
	10 m	ATCB-B01-010	860 10010
	15 m	ATCB-B01-015	-
	20 m	ATCB-B01-020	860 10032
	25 m	-	860 10011
	30 m	ATCB-B01-030	-
	40 m	ATCB-B01-040	860 10012
	50 m	ATCB-B01-050	860 10033
	60 m	ATCB-B01-060	860 10013
	80 m	-	860 10014
	100 m	-	860 10015
	150 m	-	840 10451
	200 m	-	840 10452

RET Cable



Teletilt® AISG RET Two-Way Splitter

Protocol: AISG 1.1 | AISG 2.0

AISG Input Connector:

8-pin DIN Male, Straight, Qty: 1

AISG Output Connector:

8-pin DIN Female, Straight, Qty: 2

Mfr	Part #
Andrew Solutions	ATS-A01-002



RET Control Cable Grounding Kit

Includes grounding bracket assembly with band clamp and grounding cable with lugs

Mfr	Part #
Andrew Solutions	ATGK-CABLE



AISG 2.0 Two-Way Splitter

Standard AISG 2.0 Protocol Compatible

Mfr	Part #
RFS	CA005-Y



Grounding Kit

Includes grounding cable with attached lug, 1 roll of butyl rubber tape, 1 roll of PVC tape, and hardware

Mfr	Part #
Kathrein Scala	GC-1

Lightning Protection



Description	Mfr	
	Andrew Solutions	Kathrein Scala
Lightning Protection Unit	ATLP200-001	860 10030

Portable Control Adapters



Teletilt Portable Controller

Mfr	Part #
Andrew Solutions	ATC200-LITE-USB



Portable Control Adapter

Mfr	Part #
Kathrein Scala	860 10046



Protocol Adapter

Mfr	Part #
RFS	PA-USB/485-2

Remote Control Units



Optimizer RT® Antenna Control Unit

Mfr	Part #
RFS	ACU-A20-N



Antenna Control Unit

Mfr	Part #	Start-Up
Kathrein Scala	860 10025	AISG 1.1
	860 10118	3GPP/ AISG2.0



Teletilt Actuator, AISG 2.0 Default Protocol

Mfr	Part #
Andrew Solutions	ATM200-A20

Antennas and RET Components

Bias Tees



Bias Tee Kit

Antenna Interface: 7-16 DIN Female
BTS Interface: 7-16 DIN Male

Mfr	Part #
Andrew Solutions	ATBTK-MF



Bias Tee Kit

Antenna Interface: 7-16 DIN Male
BTS Interface: 7-16 DIN Female

Mfr	Part #
Andrew Solutions	ATBTK-FM

Bias Tees

Mfr	Part #	BTS Port Connector Type	Antenna Port Connector Type	DC Input Connector Type
Kathrein n Scala	782 10615	7/16 DIN Male	7/16 DIN Female	SMA Female
	782 10616	7/16 DIN Female	7/16 DIN Male	SMA Male
	782 10617	7/16 DIN Male	7/16 DIN Female	TNC Female
	782 10618	7/16 DIN Female	7/16 DIN Male	TNC Male

Junction Boxes

- Serve as a hub to divide 1 AISG control cable out into 7 or 7 data lines for flexibility in RET configurations, which support up to 32 actuators or other AISG antenna line devices
- Various configurations can be achieved
- For proper grounding, use 1 RET component grounding kit for each junction box

Mfr	Part #	Des.
Andrew Solutions	ATJB200-A01-004	4-Way Junction Box
	ATJB200-A01-007	7-Way Junction Box

Smart Bias Tees

Mfr	Part #	Description	ANT Connector	BTS Connector	Operates at	Operating Frequency Band
Andrew Solutions	ATSBT-BOTTOM-FM	Teletilt Bottom Smart Bias Tee	7-16 DIN Male	7-16 DIN Female	10-30 Vdc	698-2180 MHz
	ATSBT-BOTTOM-MF	Teletilt Bottom Smart Bias Tee	7-16 DIN Female	7-16 DIN Male	10-30 Vdc	698-2180 MHz
	ATSBT-TOP-FF	Teletilt Top Smart Bias Tee	7-16 DIN Female	7-16 DIN Female	10-30 Vdc	698-2180 MHz
	ATSBT-TOP-MF	Teletilt Top Smart Bias Tee	7-16 DIN Female	7-16 DIN Male	10-30 Vdc	698-2180 MHz
	ATSBT-TOP-FM	Teletilt Top Smart Bias Tee	7-16 DIN Male	7-16 DIN Female	10-30 Vdc	698-2180 MHz

AISG 1.1 and 2.0 compliant

Mfr	Part #	Description	Port 1	Port 2	Frequency Range
Kathrein n Scala	782 10253	Smart Bias Tee 12V/BTS	7-16 DIN Male	7-16 DIN Female	800-2170 MHz
	782 10254	Smart Bias Tee 12V/Antenna	7-16 DIN Male	7-16 DIN Female	800-2170 MHz
	782 10255	Smart Bias Tee 24V/BTS	7-16 DIN Male	7-16 DIN Female	800-2170 MHz
	782 10256	Smart Bias Tee 24V/Antenna	7-16 DIN Male	7-16 DIN Female	800-2170 MHz
	782 10453	Smart Bias Tee 12V/BTS	7-16 DIN Female	7-16 DIN Male	800-2170 MHz
	782 10454	Smart Bias Tee 12V/Antenna	7-16 DIN Female	7-16 DIN Male	800-2170 MHz
	782 10455	Smart Bias Tee 24V/BTS	7-16 DIN Female	7-16 DIN Male	800-2170 MHz
	782 10456	Smart Bias Tee 24V/Antenna	7-16 DIN Female	7-16 DIN Male	800-2170 MHz



Bias-T with Surge Protection

RF Port: 7/16 Female
RF+DC Port: 7/16 Male
2.176 MHz signaling
AISG 2.0 Male on COM port

Mfr	Part #
RFS	BITA2S-2AL20

AISG 2.0 compliant



Bias-T with Surge Protection

RF Port: 7/16 Female
RF+DC+COM Port: 7/16 Female
2.176 MHz signaling
AISG 2.0 Male on COM port

Mfr	Part #
RFS	BITA2S-AL20

AISG 2.0 compliant

Quick-Check Tension Meter

Ordering a Quick-Check is easy:

1. Select Quick-Check maximum capacity
2. Select desired sheaves
3. Select calibrations
4. Select carry case if desired

1 Ordering a Quick-Check is easy:

1. Select Quick-Check maximum capacity
2. Select desired sheaves
3. Select calibrations
4. Select carry case if desired

Select capacity (select one):

Mfr	Part #	Capacity and Resolution
Dillon	36289-0022	2,000 x 2 lbf/1,000 x 1 kgf/ 10,000 x 10 N
	36289-0014	10,000 x 10 lbf/4,500 x 5 kgf/45,000 x 50 N

Quick-Check includes first set of sheaves. Must specify sheave size



2 Ordering a Quick-Check is easy:

1. Select Quick-Check maximum capacity
2. Select desired sheaves
3. Select calibrations
4. Select carry case if desired

Select Sheave (select at least one of three, with bearings):

Mfr	Part #	Sheave Code	Accommodates Wire Diameters (min-max)
Dillon	36309-0085	L	3/16" - 1/4"
	36309-0044	P	3/16" - 1/2"
	36309-0010	S	1/4" - 3/4"
	36309-0101	T	1/2" - 1"

See chart (right) for helpful information on selecting sheave size for a wire range. Other sizes are available if required.

Popular Stranded Wire		Wire Type					
		1 x 7	1 x 19	6 x 19	6 x 19 IWRC	7 x 19	8 x 19
Wire size	Default load*	EHS	EHS	Fiber Core	Wire Core	Wire Core	Fiber Core
3/16"	1000 lbf	Y	Y	Y		Y	
1/4"	2000 lbf	Y	Y	Y	Y	Y	
5/16"	3000 lbf	Y		Y		Y	
3/8"	3500 lbf	Y	Y	Y	Y	Y	
7/16"	4000 lbf	Y		Y			
1/2"	5000 lbf	Y	Y	Y		Y	Y
9/16"	6000 lbf	Y	Y	Y			
5/8"	7000 lbf	Y	Y	Y	Y		Y
3/4"	8000 lbf		Y	Y	Y		
7/8"	9000 lbf		Y	Y			
1"	10,000 lbf		Y	Y			

*Or maximum capacity of Quick-Check / whichever is lower

3 Ordering a Quick-Check is easy:

1. Select Quick-Check maximum capacity
2. Select desired sheaves
3. Select calibrations
4. Select carry case if desired

Select Calibrations (select at least one):

- First wire calibration is included with each Quick-Check
- Additional calibrations available - up to 15 total per instrument
- Indicate what wire size(s) and type(s) to calibrate: (See chart for calibration slings on hand)

4 Ordering a Quick-Check is easy:

1. Select Quick-Check maximum capacity
2. Select desired sheaves
3. Select calibrations
4. Select carry case if desired

Select carry case (if desired):

- Medium-duty. Die-cut high density foam protection

Mfr	Part #	Carry Case
Dillon	36328-0017	28" x 16" x 8"

Test & Measurement Equipment and Accessories

Dynamometers



AP Dynamometers

Includes: Dynamometer, shackles and pins, maximum pointer, zero adjust for tare, molded plastic carrying case on 5" models

Mfr	Part #	Diameter Dial	Capacity & Dial Divisions (lb)
Dillon	30006-0050	5"	5,000 x 50
	30006-0084	5"	10,000 x 100
	30007-0059	10"	5,000 x 20
	30007-0083	10"	10,000 x 50

*More weight capacities available upon request



EDxtreme Electronic Dynamometers

An extremely configurable force measurement instrument

Mfr	Part #	Working Load Limit
Dillon	36189-0049	5,000 lb
	36189-0056	10,000 lb

*More weight capacities available upon request



EDjunior Dynamometer with 2 Anchor Shackles

Cost effective basic instrument for reading tensile forces

Mfr	Part #	Working Load Limit
Dillon	36190-0046	5,000 lb
	36190-0053	10,000 lb

*More weight capacities available upon request

Carry Cases for EDjunior Dynamometers

Mfr	Part #	Description
Dillon	36244-0026	5K Carry Case
	36244-0034	10K Carry Case

PimPro PIM Precision Passive Intermod Analyzers/Testers



Provides precise measurement of the 3rd, 5th, 7th and 9th order of intermodulation of any system or component under high-power conditions. In addition, the unit will provide VSWR and Return Loss values. PiMPro can be used to verify the integrity of individual passive components including connectors, cable assemblies, antennas, filters, making it an integral performance tool in the field and in the lab.



PiM-Pro-850

PiM-Pro-1921

PiM-Pro-700

PiM-Pro-AK
Accessory Kit

PiM-Pro Analyzers/Testers

Mfr	Part #	PiM-Pro-700	PiM-Pro-850	PiM-Pro-1921
Dillon	Frequency Bands	LTE 700L	LTE 700U	Cellular 850
	Receive Range MHz	698-716	776-798	824-846
	Transmit Range MHz	728-746	746-768	869-894
	Weight	< 36 lbs		
	Power Test Port	2 variable signals adjustable from 33 – 46 dBm (40 Watts)		

PiM-Pro Accessory Kit

Mfr	Part #	PiM-Pro-AK
Dillon	Description	Accessory Kit



Satellite Positioning Antenna Alignment Tool

SPAA05-NEX Kit Includes:

- GPS Antenna Boom with an integrated Alignment Computer and Bluetooth Transmitter
- Fast Lock Antenna Clamp
- Home/Car Portable Battery Charger
- HP IPAQ Touch-Screen PDA
- Wired Remote Display Unit

- Hard Carrying Case for Entire Package
- Soft carrying case for Tower use
- Data Translator Back-office Processing Software & Report Generator
- ON/OFF Key Dongle and Battery Check-Safety Lanyard

Mfr	Part #	Description
		Satellite Positioning Antenna Alignment Tool
3Z	SPAA05-NEX	
3Z	SPAA05-ST51	Strap-on Tilt Sensor for SPAA05-NEX

Site Master™ Handheld Cable and Antenna Analyzers



S331E

Cable & Antenna Analyzer

- 2 MHz – 4 GHz with built-in DTF Spectrum Analyzer as an option

Mfr	Part #
Anritsu	S331E



S332E

Cable and Antenna Analyzer

- 2 MHz – 4 GHz with built-in DTF Spectrum Analyzer
- 2 Port Testing standard feature
- Can add Bias-Tee as an option

Mfr	Part #
Anritsu	S332E



S361E

Cable & Antenna Analyzer

- 2 MHz-6 GHz with built-in DTF
- High Accuracy Power Meter, GPS
- 2 Port Test Measurements

Mfr	Part #
Anritsu	S361E



S362E

Cable & Antenna Analyzer

- 2 MHz-6 GHz
- 100 kHz to 6 GHz Spectrum Analyzer
- Return Loss, Cable Loss, VSWR, DTF
- 2 port Transmission Measurements
- Spectrum Analyzer, Interference Analyzer
- High Accuracy Power Meter
- Bias Tee built in

Mfr	Part #
Anritsu	S362E

Site Master S33XE Series Options	
Part #	Description
Option 10	Bias –Tee
Option 19	High-Accuracy Power Meter (requires external sensor)
Option 21	Transmission Measurement
Option 25	Interference Analysis
Option 27	Channel Scanner
Option 28	CW Signal Generator (requires CW Signal Generator Kit)
Option 29	Power Meter
Option 31	GPS Receiver (requires GPS antenna)
Option 90	Gated Sweep

Broadband Site Master Microwave Transmission Line and Antenna Analyzer



Mfr	Part #	Description
Anritsu	S810D	3.3 to 10.5 GHz
Anritsu	S820D	3.3 to 20 GHz

S810D and S820D

Broadband Site Master Microwave Transmission Line and Antenna Analyzer

S810D: 3.3 to 10.5 GHz with built-in DTF

S820D: 3.3 to 20 GHz with built-in DTF

Site Master S8XXD Series Options	
Part #	Description
S8X0D-2	S820D with 2 MHz Low Frequency Extension
S8X0D-5	S820D with Power Monitor (Detector not included)
S8X0D-22NF	S820D with 2-port N-female Cable Loss
S8X0D-22SF	S820D with 2-port SMA female Cable Loss



Handheld Spectrum Master Analyzer Series



MS2711E
Spectrum Master Handheld
Analyzer

Mfr	Part #
Anritsu	MS2711E

Handheld Spectrum Master Analyzer Series Options	
Part #	Description
MS2711E-0031	GPS Built-in Receiver (Requires Antenna P/N 2000-1528-R, sold separately)
MS2711E-0019	High Accuracy Power Meter (Requires USB Power Sensor)
MS2711E-0029	Power Meter
MS2711E-0025	Interference Analyzer
MS2711E-0027	Channel Scanner
MS2711E-0509	AM/FM/PM Signal Analyzer
MS2711E-0008	Preamplifier
MS2711E-0098	Standard Calibration (ANSI 2540-1-1994)
MS2711E-0099	Premium Calibration (ANSI 2540-1-1994 plus test data)



MS2721B
Spectrum Master Handheld
Analyzers

Analysis of Wireless LAN, Cellular signals including 802.11a, 3G, ultra wideband

Mfr	Part #	Operates
Anritsu	MS2721B	9 kHz to 7.1 GHz

Handheld Spectrum Master Analyzer Series Options			
Part #	Description	Part #	Description
Option 9	RF & Demodulation Hardware	Option 40	GSM/GPRS/EDGE RF Measurement
Option 19	High Accuracy Power Meter (PSN50 sensor not included)	Option 41*	GSM/GPRS/EDGE Demodulation cdmaOne/CDMA2000 1X RF
Option 25	Interference Analysis w/spectrogram display	Option 42*	Measurements
Option 27	Channel Scanner	Option 43*	cdmaOne/CDMA2000 1X Demodulator
Option 31	GPS (includes GPS antenna)	Option 44*	W-CDMA/HSDPA RF Measurements
Option 33*	cdmaOne/CDMA2000 1X Over The Air (OTA) Measurements	Option 45*	W-CDMA Demodulator
Option 34*	CDMA2000 1xEV-DO Over the Air (OTA) Measurements	Option 46	WiMAX "D" Measurements
Option 35*	W-CDMA/HSDPA (OTA)	Option 47*	WiMAX "D" Demodulation
Option 37*	Mobile WiMAX, Over the Air	Option 60*	TD-SCDMA/HSDPA RF Measurements
Option 38*	TD-SCDMA/HSDPA (OTA)		

*Requires Option 9
More options are available

Cell Master Compact Base Station Analyzer



MT8212E
Cell Master Compact Base Station Analyzer
100kHz to 4GHz Spectrum Analyzer,
2MHz to 4GHz Cable and Antenna Analyzer

Mfr	Part #
Anritsu	MT8212E

- Smallest, lightest and most economical solution for 2/3G/4G, WiMAX and ISDB-T base station transmitter testing
- 30 Analyzers in one
- Touch Screen
- USB Connectivity

- 3GPP, 3GPP2, WiMAX signal analyzers
- Ideal for installation and commissioning as well as for maintenance & troubleshooting

- Internal Bias Tee
- Measures Occupied Bandwidth, Channel Power
- Interference Analyzer, spectrogram, signal strength, RSSI, Signal ID

Cell Master Compact Base Station Analyzer Options	
Part #	Description
Option 010	High Voltage Variable Bias Tee
Option 019	High Accuracy Power Meter (requires USB Power Sensor)
Option 021	2-port Transmission Measurement
Option 025	Interference Analysis
Option 027	Channel Scanner
Option 028	CW Signal Generator, requires external CW Signal Generator Kit sold separately
Option 030	ISDB-T Digital Video Measurements
Option 031	GPS Built-in Receiver

Bird® Site Analyzer XT Series



SA-3600XT and SA-6000XT 25-6000 MHz, Site Analyzer®

Mfr	Part #	Frequency Range	Frequency Resolution
Bird Technologies	SA-3600XT	25-3600 MHz	25 kHz; 25-800 MHz
			50 kHz; 800-2500 MHz
			150 kHz; 2500-3600 MHz
	SA-6000XT	25-6000 MHz	25 kHz; 25-800 MHz
			50 kHz; 800-2500 MHz
			150 kHz; 2500-6000 MHz

Includes:

- AC Adapter (15 Vdc Output)
- Automobile Cigarette Lighter Adapter
- Soft Carrying Case
- USB Interface Cable
- PC Interface Software Kit
- Instruction Manual
- Internal Battery Pack with 4-pin Connector

Handheld Site Analyzer Options

Part #	Description	Part #	Description
CAL-MN-C	Calibration Combo, (M) N	TC-MNFN-3.0	Test Cable, 3 m., N (M)/N (F) conn.
CAL-FN-C	Calibration Combo, (F) N	TC-MNME-1.5	Test Cable, 1.5 m., N (M) - 7/16 DIN (M)
CAL-ME-C	Calibration Combo, (M) 7/16 DIN	TC-MNME-3.0	Test Cable, 3 m., N (M) - 7/16 DIN (M)
CAL-FE-C	Calibration Combo, (F) 7/16 DIN	TC-MNFE-1.5	Test Cable, 1.5 m., N (M) - 7/16 DIN (F) conn.
5012A	Wideband Power Sensor 350 MHz - 4000 MHz	TC-MNFE-3.0	Test Cable, 3 m., N (M) - 7/16 DIN (F) conn.
5014	Directional Power Sensor 2 - 2700 MHz	PA-MNME	Adapter, N (M) to 7/16 DIN (M)
5015	Terminating Power Sensor 40 MHz - 4000 MHz	PA-FNME	Adapter, N (F) to 7/16 DIN (M)
5015EF	Terminating Power Sensor 40 MHz - 12 GHz	PA-MNFE	Adapter, N (M) to 7/16 DIN (F)
5016	Wideband Power Sensor 350 MHz - 4000 MHz	PA-FNFE	Adapter, N (F) to 7/16 DIN (F)
5017	Wideband Power Sensor 25 MHz - 1000 MHz	4240-550	Precision Connector Adapter Kit, 7/16 DIN, SA -Series
TC-MNMN-1.5	Test Cable, 1.5 m., N (M) conn.	7002C870	Hard Shell Transit Case
TC-MNMN-3.0	Test Cable, 3 m., N (M) conn.	SA-BATPAK-1	External Battery Pack
TC-MNFN-1.5	Test Cable, 1.5 m., N (M)/N (F) conn.	RPK5C2431-2	Battery, Spare

Bird SignalHawk Spectrum Analyzers



SignalHawk - Spectrum Analyzer
100 kHz - 3.6 GHz
SH-36S



PC SignalHawk - Spectrum Analyzer
100 kHz - 3.6 GHz
SH-36S-PC



SignalHawk - Rack-Mount Spectrum Analyzer
100 kHz - 3.6 GHz
SH-36S-RM

Mfr	Part #	Description	Frequency Range	Frequency Resolution
Bird Technologies	SH-36S	SignalHawk - Spectrum Analyzer	100 kHz - 3.6 GHz	1 Hz
	SH-36S-PC	PC SignalHawk - Spectrum Analyzer	100 kHz - 3.6 GHz	1 Hz
	SH-36S-RM	SignalHawk - Rack-Mount Spectrum Analyzer	100 kHz - 3.6 GHz	1 Hz

Test & Measurement Equipment and Accessories

SignalHawk Spectrum and/or Vector Network Analyzers



SignalHawk Spectrum and/or Vector Network Analyzers



SH-362S Rear Panel

Mfr	Part #	Description	Frequency Range	Frequency Resolution
Bird Technologies	SH-361S	SignalHawk - 1-Port, Vector Network and Spectrum Analyzer	VNA: 1.6 MHz to 3.6 GHz Spectrum Analyzer: 100 kHz to 3.6 GHz	VNA: 40 kHz Spectrum Analyzer: 1 Hz
	SH-362S	SignalHawk - 2-Port, Vector Network Analyzer & Spectrum Analyzer	VNA: 1.6 MHz to 3.6 GHz Spectrum Analyzer: 100 kHz to 3.6 GHz	VNA: 40 kHz Spectrum Analyzer: 1 Hz
	SH-362	SignalHawk - 2-Port, Vector Network Analyzer	1.6 MHz to 3.6 GHz	+/-2 ppm uncertainty, 40 kHz res

Bird ACM - Antenna and Cable Monitor



ACM Series, Antenna & Cable Monitors

136-225 MHz | 225-520 MHz
470-960 MHz | 960-2400 MHz

- Service providers and self maintained end user's can rely on this monitor and alarm to keep their critical sites up and running
- Accurately monitors your antenna and cable system VSWR levels
- Integral coupler with high directivity optimizes measurement accuracy; measures small changes in antenna VSWR with high feeder and interface losses
- Provides alarms if an antenna or cable failure should occur
- Monitors transmitter output power and includes low or high power alarms
- Measures true average power of signals with high peak-to-average characteristics - works with any modulation
- Sample ports allow measurement of the forward and reflected signals without the need for system downtime ACM-SS15 Surge suppressor for 15-pin power and alarm connector, compatible with +11 to +26 VDC or ± 36 to ± 72 VDC

Part # Example:

ACM500-M-NMNFH

Model / Power Range RF Input Connector RF Output Connector Monitor Port Conn. Input Voltage

Freq. Range

This will have a frequency range of 470-960, "N" connectors and operate from 36-72 VDC

Mfr	Model / Power Range (W)	Freq. Range (MHz)	RF Input Conn.	RF Output Conn.	Monitor Port Conn.	Input Voltage
Bird Technologies	ACM = 2.5 - 100	L1 = 136 - 225	NM = N Male	NM = N Male	N = N Female	L = + (11 to 25) VDC
	ACM 500 = 12.5 - 500	L2 = 225 - 520	NF = N Female	NF = N Female	T = TNC Female	H = $\pm$ (36 to 72) VDC
		M = 470 - 960	DM = 7/16 DIN Male	DM = 7/16 DIN Male	B = BNC Female	
		H = 960 - 2400 *	DF = 7/16 DIN Female	DF = 7/16 DIN Female		

* "H" Frequency Band Unavailable with the ACM 500 Version

Hand-Held Digital Power Meter



- Ideally suited for those who need to make power measurements
- Indoor/outdoor viewable monochrome VGA display with backlight
- Up to 60 hours of continuous use battery life
- Single key allows 1-hand

toggling through operations

- Locking mechanism prevents unintentional sensor disconnects
- Compliant with MIL spec drop test
- Lightweight at 1.4 lbs.
- Automatically detects sensor and displays appropriate power measurement screen
- Data logging capability with 1 GB of memory, storing and transfer of up to 7 days of data

Applications:

Signals measured: WiMAX, (IEEE 802.16), GSM/EDGE, W-CDMA, LTE, WiFi (802.11), HSUPA/HSDPA, TD-SCDMA, TETRA, P25, Zigbee (IEEE 802.15), Bluetooth, RFID, DVB, DMB and MediaFlo

Measurements performed:

VSWR, peak power, true average power, crest factor, CCDF and burst power

Mfr	Part #	Description
Bird Technologies	5000-XT	Hand-Held Digital Power Meter

General Purpose Wattmeter



- Insertion-type instrument designed to measure both forward and reflected CW power in coaxial transmission lines under any load condition
- Accurate CW field power measurement over 450 kHz to 2.7 GHz and 100 mW to 10 kW
- Uses industry standard Bird elements with space to store 2 additional within the meter housing
- Rugged metal housing for most demanding environments
- Quick Change (QC) connectors to minimize the need for adaptors when making critical measurements

Power Range	100 mW to 10 kW using Bird® Plug-in Elements
Frequency Range	450 kHz - 2.7 GHz (depending on element)
Accuracy	± 5% of full scale
Insertion VSWR	with N Connectors 1.05 max. to 1000 MHz
Connectors	QC Type (Female N normally supplied)
Finish	Gray Powder Coat
Nominal Size	6-7/8" x 5-1/8" x 3-5/8" (H x W x D), including connectors
Weight	4 lbs

Mfr	Part #	Description
Bird Technologies	43	General Purpose Wattmeter

Phase Stable Test Port Cable



Mfr	Part #	Description
Anritsu	Test Port Cable Armored	
	15ND50-1.5C	1.5 m, N-Male to 7/16" Din Male, 6 GHz
	15NDF50-1.5C	1.5 m, N-Male to 7/16" Din Female, 6 GHz
	15NN50-1.5C	1.5 m, N-Male to N-Male, 6 GHz
	15NN50-5.0C	5.0 m, N-Male to N-Male, 6 GHz
	15NNF50-1.5C	1.5 m, N-Male to N-Female, 6 GHz
	15NNF50-5.0C	5.0 m, N-Male to N-Female, 6 GHz
	Test Port Extension Cable, Armored, with Reinforced Grip	
	15RDFN50-1.5-R	1.5 m, D(f)-N(m), 6 GHz, 50 Ohm
	15RDFN50-3.0-R	3.0 m, D(f)-N(m), 6 GHz, 50 Ohm

Phase Stable Test Port Cables



Mfr	Part #	Description
Times Microwave	Tuff Grip Test Cable	
	SLS06-NM7FG-01.50M	N-Male to Din Female, 1.5 m
	SLS06-NM7FG-03.0M	N-Male to Din Female, 3.0 m
	SLS06-NM7MG-01.50M	N-Male to Din Male, 1.5 m, 6 GHz
	SLS06-NM7MG-03.00M	N-Male to Din Male, 3.0 m, 6 GHz
	SLA06-NMNFG-01.50M	N-Male to N-Female, 1.5 m, 6 GHz

Site Master Calibration Components



Mfr	Part #	Description
Anritsu	2000-1618-R	Precision Open/Short/Load, DC to 6 GHz, 7/16" Din Male
	2000-1619-R	Precision Open/Short/Load, DC to 6 GHz, 7/16" Din Female
	OSLN50-1	Precision Open/Short/Load, DC to 4 GHz, 50 Ohm N-male
	OSLNF50-1	Precision Open/Short/Load, DC to 4 GHz, 50 Ohm N-female
	OSLK50	Precision K (m) Open/Short/Load DC to 20 GHz
Spinner	SM/PL-1	Precision N-male Load, 42 dB, 4 GHz
	SM/PLNF-1	Precision N-female Load, 42 dB, 4 GHz
	533863	Precision Open/Short/Load, N-Female
	533864	Precision Open/Short/Load, N-Male
	533865	Precision Open/Short/Load, DC to 6 GHz 7/16" Din Female
	533866	Precision Open/Short/Load, DC to 6 GHz 7/16" Din Male

Precision and Non-Precision Adapters



Mfr	Part #	Description
Anritsu	34NN50A	Precision Adapter, N-male to N-male, DC to 18 GHz
	34NFN50	Precision Adapter, N-female to N-female, DC to 18 GHz
	34RNKNF50	Precision Adapter, Ruggedized K male to N-female, 20 GHz
	34RSN50	Precision Ruggedized WSMA male to N-male Adapter, 20 GHz
	510-90-R	Adapter, 7/16" Din Female to N-Male, DC to 7.5 GHz
	510-91-R	Adapter, 7/16" Din Female to N-Female, DC to 7.5 GHz
	510-93-R	Adapter, 7/16" Din Male to N-Female, DC to 7.5 GHz
	510-96-R	Adapter, 7/16" Din Male to 7/16" Din Male, DC to 7.5 GHz
	510-97-R	Adapter, 7/16" Din Female to 7/16" Din Female, DC to 7.5 GHz

Transport Cases, Replacement Batteries, and DC Power Supply



760-235



760-243-R



633-27

Mfr	Part #	Description
Anritsu	633-27	Rechargeable Battery, NiMH
	633-44	Rechargeable Battery, Li-Ion
	40-168-R	DC Power Supply
	760-235	Transit Case for S31XD, S33XD, S251C, MS2711D or MT8212B models only
	760-243-R	Transit Case (for all handheld model sizes)

Adapter Kits

Includes the following carrying case and the following adapters:

- 7/16 DIN Male to 7/16 DIN Female
- 7/16 DIN Female to 7/16 DIN Female
- 7/16 DIN Male to N Male
- 7/16 DIN Male to N Female
- 7/16 DIN Female to N Male
- 7/16 DIN Female to N Female



Mfr	Part #
RF Industries	RFA-4013

Precision and Non-Precision Adapters



Mfr	Part #	Description
Spinner	Adapters	
	293650	N-Male to N-Male Adapter
	393360	Din Male to Din Male Adapter
	293750	N-Female to N-Female Adapter
	196400	Din Female to Din Female Adapter
	293800	N-Male to Din Male Adapter
	293900	N-Male to Din Female Adapter
	194400	N-Female to Din Male Adapter
	294000	N-Female to Din Female Adapter
	Adapter Kit	
Primus	PE-ADAPT-KIT	Includes small storm case and all of the above

Schedule 40 PVC

Schedule 40 PVC is sunlight resistant and manufactured in accordance and complies to UL-651 and NEMA TC-2

Part #	Description	Qty
PVC1	1" Schedule 40 PVC	10' stick
ELL1	1" 90° Schedule 40 PVC elbow	ea
ELL1-45D	1" 45° Schedule 40 PVC elbow	ea
CPL1	1" Coupling	ea
TA1	1" Terminal Adapt	ea
FA1	1" Female Adapt	ea
CAP1	1" PVC Cap	ea
1903	Two hole strap	

PVC114	1-1/4" Schedule 40 PVC	10' stick
ELL114	1-1/4" 90° Schedule 40 PVC elbow	ea
ELL114-45D	1-1/4" 45° Schedule 40 PVC elbow	ea
CPL114	1-1/4" PVC coupling	ea
TA114	1-1/4" Terminal Adapt	ea
FA114	1-1/4" Female Adapt	ea
CAP114	1-1/4" PVC Cap	ea
1904	Two hole strap	

PVC112	1-1/2" Schedule 40 PVC	10' stick
ELL112	1-1/2" 90° Schedule 40 PVC elbow	ea
ELL11245D	1-1/2" 45° Schedule 40 PVC elbow	ea
CPL112	1-1/2" PVC coupling	ea
TA112	1-1/2" Terminal Adapt	ea
FA112	1-1/2" Female Adapt	ea
CAP112	1-1/2" PVC Cap	ea
1905	Two hole strap	

PVC2	2" Schedule 40 PVC	10' stick
ELL2	2" 90° Schedule 40 PVC elbow	ea
ELL245D	2" 45° Schedule 40 PVC elbow	ea
CPL2	2" PVC coupling	ea
TA2	2" Terminal Adapt	ea
FA2	2" Female Adapt	ea
CAP2	2" PVC Cap	ea
1906	Two hole strap	

Schedule 80 PVC

Schedule 80 PVC is sunlight resistant and manufactured in accordance and complies to UL-651 and NEMA TC-2

Part #	Description	Qty
CONDS801	1" Schedule 80 PVC	10' stick
EL1SCH80	1" 90° Schedule 80 PVC elbow	ea
EL145SCH80	1" 45° Schedule 80 PVC elbow	ea
CPL1	1" Coupling	ea
TA1	1" Terminal Adapt	ea
FA1	1" Female Adapt	ea
CAP1	1" PVC Cap	ea
1903	Two hole strap	

CONDS80114	1-1/4" Schedule 80 PVC	10' stick
EL114SCH80	1-1/4" 90° Schedule 80 PVC elbow	ea
EL11445SCH80	1-1/4" 45° Schedule 80 PVC elbow	ea
CPL114	1-1/4" PVC coupling	ea
TA114	1-1/4" Terminal Adapt	ea
FA114	1-1/4" Female Adapt	ea
CAP114	1-1/4" PVC Cap	ea
1904	Two hole strap	

CONDS80112	1-1/2" Schedule 80 PVC	10' stick
EL112SCH80	1-1/2" 90° Schedule 80 PVC elbow	ea
EL11245SCH80	1-1/2" 45° Schedule 80 PVC elbow	ea
CPL112	1-1/2" PVC coupling	ea
TA112	1-1/2" Terminal Adapt	ea
FA112	1-1/2" Female Adapt	ea
CAP112	1-1/2" PVC Cap	ea
1905	Two hole strap	

CONDS802	2" Schedule 80 PVC	10' stick
EL2SCH80	2" 90° Schedule 80 PVC elbow	ea
EL245SCH80	2" 45° Schedule 80 PVC elbow	ea
CPL2	2" PVC coupling	ea
TA2	2" Terminal Adapt	ea
FA2	2" Female Adapt	ea
CAP2	2" PVC Cap	ea
1906	Two hole strap	



Terminal Adapter



Female Adapter



Coupling



90° Elbow



45° Elbow

Conduit

EMT

EMT is precision manufactured from high grade mild strip steel for durability and long-life and thin-walled EMT reduces electromagnetic fields and reduces interference.



Part #	Description	Qty
EMT1	1" EMT	10' stick
ELEMT1	1" 90° EMT elbow	ea
ELEMT145	1" 45° EMT elbow	ea
232DC2	1" Set screw EMT connector	ea
242DC	1" Set screw EMT coupling	ea
252DC2	1" Compression EMT connector	ea
262DC	1" Compression EMT coupling	ea
343	1" Plastic pull cap	ea
1922	Two hole strap	25/box

EMT114	1-1/4" EMT	10' stick
ELEMT114	1-1/4" 90° EMT elbow	ea
ELEMT11445	1-1/4" 45° EMT elbow	ea
233DC2	1-1/4" Set screw EMT connector	ea
243DC	1-1/4" Set screw EMT coupling	ea
253DC2	1-1/4" Compression EMT connector	ea
263DC	1-1/4" Compression EMT coupling	ea
344	1-1/4" Plastic pull cap	ea
1923	Two hole strap	25/box

EMT112	1-1/2" EMT	10' stick
ELEMT112	1-1/2" 90° EMT elbow	ea
ELEMT11245	1-1/2" 45° EMT elbow	ea
234DC2	1-1/2" Set screw EMT connector	ea
244DC	1-1/2" Set screw EMT coupling	ea
254DC2	1-1/2" Compression EMT connector	ea
264DC	1-1/2" Compression EMT coupling	ea
345	1-1/2" Plastic pull cap	ea
1924	Two hole strap	50/box

EMT2	2" EMT	10' stick
ELEMT2	2" 90° EMT elbow	ea
ELEMT245	2" 45° EMT elbow	ea
235DC2	2" Set screw EMT connector	ea
245DC	2" Set screw EMT coupling	ea
255DC2	2" Compression EMT connector	ea
265DC	2" Compression EMT coupling	ea
346	2" Plastic pull cap	ea
1925	Two hole strap	25/box



IMC

IMC is lightweight with the strength of rigid. IMC is hot galvanized and highly corrosion resistant and lubricated to make pulling easier.



Part #	Description	Qty
IMC1	1" x 10' Stick	10' stick
ELGAL1	1" 90° Galvanized elbow	ea
ELGAL145	1" 45° Galvanized elbow	ea
152P	1" Set screw connector	ea
162	1" Set screw coupling	ea
CPR3	1" Compression connector	ea
CPR23	1" Compression coupling	ea
343	1" Plastic pull cap	ea
1903	Two hole straps	25/box

IMC114	1-1/4" x 10' Stick	10' stick
ELGAL1-1/4	1-1/4" 90° Galvanized elbow	ea
ELGAL1-1/445	1-1/4" 45° Galvanized elbow	ea
153P	1-1/4" Set screw connector	ea
163	1-1/4" Set screw coupling	ea
CPR4	1-1/4" Compression connector	ea
CPR24	1-1/4" Compression coupling	ea
344	1-1/4" Plastic pull cap	ea
1904	Two hole straps	25/box

IMC1-1/2	1-1/2" x 10' Stick	10' stick
ELGAL1-1/2	1-1/2" 90° Galvanized elbow	ea
ELGAL1-1/245	1-1/2" 45° Galvanized elbow	ea
154P	1-1/2" Set screw connector	ea
164	1-1/2" Set screw coupling	ea
CRP5	1-1/2" Compression connector	ea
CPR25	1-1/2" Compression coupling	ea
345	1-1/2" Plastic pull cap	ea
1905	Two hole straps	25/box

IMC2	2" x 10' Stick	10' stick
ELGAL2	2" 90° Galvanized elbow	ea
ELGAL245	2" 45° Galvanized elbow	ea
155P	2" Set screw connector	ea
165	2" Set screw coupling	ea
CPR6	2" Compression connector	ea
CPR26	2" Compression coupling	ea
346	2" Plastic pull cap	ea
1906	Two hole straps	25/box

Galvanized Conduit

Galvanized conduit is long lasting and dependable. Manufactured from high strength steel that resists damage, but easy for cutting and joining



Part #	Description	Qty
GAL1	1" GAL	10' stick
ELGAL1	1" 90° Galvanized elbow	ea
ELGAL145	1" 45° Galvanized elbow	ea
152P	1" Set screw connector	ea
162	1" Set screw coupling	ea
CPR3	1" Compression connector	ea
CPR23	1" Compression coupling	ea
343	1" Plastic pull cap	ea
1903	Two hole strap	

GAL1-1/4	1-1/4" GAL	10' stick
ELGAL1-1/4	1-1/4" 90° Galvanized elbow	ea
ELGAL1-1/445	1-1/4" 45° Galvanized elbow	ea
153P	1-1/4" Set screw connector	ea
163	1-1/4" Set screw coupling	ea
CPR4	1-1/4" Compression connector	ea
CPR24	1-1/4" Compression coupling	ea
344	1-1/4" Plastic pull cap	ea
1904	Two hole strap	

GAL1-1/2	1-1/2" GAL	10' stick
ELGAL1-1/2	1-1/2" 90° Galvanized elbow	ea
ELGAL1-1/245	1-1/2" 45° Galvanized elbow	ea
154P	1-1/2" Set screw connector	ea
164	1-1/2" Set screw coupling	ea
CPR5	1-1/2" Compression connector	ea
CPR25	1-1/2" Compression coupling	ea
345	1-1/2" Plastic pull cap	ea
1905	Two hole strap	

GAL2	2" GAL	10' stick
ELGAL2	2" 90° Galvanized elbow	ea
ELGAL245	2" 45° Galvanized elbow	ea
155P	2" Set screw connector	ea
165	2" Set screw coupling	ea
CPR6	2" Compression connector	ea
CPR26	2" Compression coupling	ea
346	2" Plastic pull cap	ea
1906	Two hole strap	

Conduit Cover

- Highly visible and durable
- Easy to install system to mark and identify the contents of conduits and pipes
- May be easily cut with scissors where required
- Supplied in 5' lengths (2 needed per 10' Stick)
- Guaranteed for 7 years



Part #	Color	Conduit / PipeTrade Size	Reflectivity
A-R100-R	Red	3/4" - 1-1/4"	With reflective markings
A-R100-O	Orange	3/4" - 1-1/4"	
A-R100-Y	Yellow	3/4" - 1-1/4"	
B-R100-R	Red	1-1/2" - 3"	
B-R100-O	Orange	1-1/2" - 3"	
B-R100-Y	Yellow	1-1/2" - 3"	
A-N100-R	Red	3/4" - 1-1/4"	Without reflective markings
A-N100-O	Orange	3/4" - 1-1/4"	
A-N100-Y	Yellow	3/4" - 1-1/4"	
B-N100-R	Red	1-1/2" - 3"	
B-N100-O	Orange	1-1/2" - 3"	
B-N100-Y	Yellow	1-1/2" - 3"	

Conduit

Innerduct

Protect-N-Duct™ - Plenum

- For use in Plenum applications
- Lightweight non-metallic corrugated flexible innerduct
- Standard orange or white; special colors and put ups are available

Reference & Ratings

- Plenum – FT6 rated
- ETL Listed to UL 2024 (Optical Fiber Cable Raceway)
- CSA Certified to CSA C22.2 No. 262-04 (Optical fiber and communication cable raceway systems)



Plenum Innerduct

Part #	Trade Size
PDPU0500	1/2"
PDPU0750	3/4"
PDPU1000	1"
PDPU1250	1-1/4"
PDPU1500	1-1/2"
PDPU2000	2"



Snap Coupling Fittings

Part #	Trade Size
PFCSP0500W	1/2"
PFCSP0750W	3/4"
PFCSP1000W	1"
PFCSP1250W	1-1/4"
PFCSP1500W	1-1/2"
PFCSP2000W	2"



Snap Threaded TA Fittings

Part #	Trade Size
PFTTP0500W	1/2"
PFTTP0750W	3/4"
PFTTP1000W	1"
PFTTP1250W	1-1/4"
PFTTP1500W	1-1/2"
PFTTP2000W	2"



Snap Snap TA Fittings

Part #	Trade Size
PFTSP0500W	1/2"
PFTSP0750W	3/4"
PFTSP1000W	1"

Protect-N-Duct™ - Riser

- Strong and lightweight non-metallic corrugated flexible innerduct
- For use in vertical shaft runs or between floors
- Standard color is orange; special colors and put ups are available

Reference & Ratings

- Riser – FT4 rated
- UL 2024 (Optical Fiber Cable Raceway)
- CSA Certified to CSA C22.2 No. 262-04 (Optical fiber and communication cable raceway systems)



Riser Innerduct

Part #	Trade Size
PDRU0500	1/2"
PDRU0750	3/4"
PDRU1000	1"
PDRU1250	1-1/4"
PDRU1500	1-1/2"
PDRU2000	2"



Snap Coupling Fittings

Part #	Trade Size
PFCSR0500B	1/2"
PFCSR0750B	3/4"
PFCSR1000B	1"
PFCSR1250B	1-1/4"
PFCSR1500B	1-1/2"
PFCSR2000B	2"



Snap Threaded TA Fittings

Part #	Trade Size
PFTTR0500B	1/2"
PFTTR0750B	3/4"
PFTTR1000B	1"
PFTTR1250B	1-1/4"
PFTTR1500B	1-1/2"
PFTTR2000B	2"



Snap Snap TA Fittings

Part #	Trade Size
PFTSR0500B	1/2"
PFTSR0750B	3/4"
PFTSR1000B	1"

Kortech™ - Single Wall HDPE

- HDPE (High Density Polyethylene)
- General purpose applications
- Light weight with outstanding flexibility
- Easy to handle
- Less wear on installation equipment
- Available in orange, green, black, gray, red, white, blue, yellow



Riser Innerduct

Part #	Trade Size
PDCN0500	1/2"
PDCN0750	3/4"
PDCN1000	1"
PDCN1250	1-1/4"
PDCN1500	1-1/2"
PDCN2000	2"
PDCN3000	3"



Snap Coupling Fittings

Part #	Trade Size
PFCSC0500G	1/2"
PFCSC0750G	3/4"
PFCSC1000G	1"
PFCSC1250G	1-1/4"
PFCSC1500G	1-1/2"
PFCSC2000G	2"



Snap Threaded TA Fittings

Part #	Trade Size
PFTHC0500B	1/2"
PFTHC0750B	3/4"
PFTHC1000B	1"
PFTHC1250B	1-1/4"
PFTHC1500B	1-1/2"
PFTHC2000B	2"



Compression Coupling Fittings

Part #	Trade Size
PFCHC0500W	1/2"
PFCHC0750W	3/4"
PFCHC1000W	1"
PFCHC1250W	1-1/4"
PFCHC1500W	1-1/2"
PFCHC2000W	2"
PFCHC3000W	3"



Compression Plug

Part #	Trade Size
PFPHC0500	1/2"
PFPHC0750	3/4"
PFPHC1000	1"
PFPHC1250	1-1/4"
PFPHC1500	1-1/2"
PFPHC2000	2"

NEMA Type 3R Large Continuous Hinge Cover Weatherproof Cabinets

Construction:

- Designed for outdoor use primarily to provide a degree of protection against rain, sleet, and damage from external ice formation
- Fabricated in accordance with UL specifications from code gauge steel
- Galvanized continuous hinge with stainless steel hinge pin
- Cabinets under 37" have an AB-10 tee handle
- Cabinets 37" + have an AB-6 three point lever handle with roller arms
- Seamless dripshield
- External mounting feet
- Standard collar studs for mounting optional panel



Finish:

Austin large hinge cover NEMA 3R cabinets are constructed standard in galvanized steel with an ANSI 61 gray polyester powder coating; optional panels are painted white

Options:

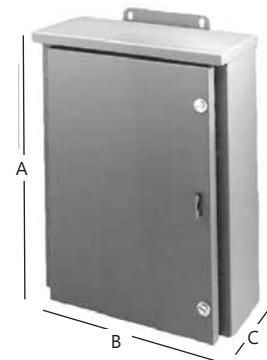
- Special knockouts or knockout arrangements in bottom only
- Special materials
- Special finishes
- Custom box size or construction

Part #	Enclosure Size (A x B x C)	Part #	Enclosure Size (A x B x C)	Part #	Enclosure Size (A x B x C)
AB-16126WL	16 x 12 x 6	AB-30248WL	30 x 24 x 8	AB-362412WL	36 x 24 x 12
AB-16166WL	16 x 16 x 16	AB-36248WL	36 x 24 x 8	AB-363012WL	36 x 30 x 12
AB-20166WL	20 x 16 x 16	AB-36308WL	36 x 30 x 8	AB-363612WL	36 x 36 x 12
AB-24186WL	24 x 18 x 6	AB-36368WL	36 x 36 x 8	AB-423012WL	42 x 30 x 12
AB-24246WL	24 x 24 x 6	AB-242410WL	24 x 24 x 10	AB-423612WL	42 x 36 x 12
AB-36366WL	36 x 36 x 6	AB-362410WL	36 x 24 x 10	AB-483612WL	48 x 36 x 12
AB-20208WL	20 x 20 x 8	AB-363610WL	36 x 36 x 10	AB-484812WL	48 x 48 x 12
AB-24208WL	24 x 20 x 8	AB-484810WL	48 x 48 x 10	AB-603612WL	60 x 36 x 12
AB-24248WL	24 x 24 x 8	AB-303012WL	30 x 30 x 12		

Type 3R Large Continuous Hinge Cover Enclosures

Construction:

- Used as wiring boxes, junction and pull boxes
- Protects against falling rain, sleet and external ice formation
- Enclosure and door are fabricated from code gauge galvaneal steel
- Enclosure standard without knockouts
- Door is secured to the body with a continuous hinge and stainless steel pin on one side and captive screws on the opposite side
- Door has padlock hasp with sealing hole provision
- #10-32 tapped hole provision for optional ground lug kit
- 375-16 collar studs are furnished for mounting optional panel
- External mounting feet are provided for secure wall mounting



Finish:

- Wash and phosphate undercoat
- ANSI 61 gray polyester powder finish

Standards:

- UL 50 listed, Type 3R
- CSA C22.2 No. 40 certified, Type 3R
- Conforms to NEMA standard for Type 3R
- IEC 60529, IP32

Part #	Enclosure Size (A x B x C)	Part #	Enclosure Size (A x B x C)	Part #	Enclosure Size (A x B x C)
16126RHC	16 x 12 x 6	24248RHC	24 x 24 x 8	363612RHC	36 x 36 x 12
16166RHC	16 x 16 x 6	30248RHC	30 x 24 x 8	423012RHC	42 x 30 x 12
20166RHC	20 x 16 x 6	303012RHC	30 x 30 x 12	423612RHC	42 x 36 x 12
20208RHC	20 x 20 x 8	362412RHC	36 x 24 x 12	483612RHC	48 x 36 x 12
24208RHC	24 x 20 x 8	363012RHC	36 x 30 x 12	603612RHC	60 x 36 x 12

Enclosures

Type 3R Screw Cover Painted Enclosures

Construction:

- Used as wiring boxes, junction and pull boxes and protects against falling rain, sleet and external ice formation
- Enclosure and cover are fabricated from code gauge galvaneal steel for painted steel
- Enclosure body has embossed mounting holes on the back
- Available with or without knockouts on the bottom end of enclosures less than 30" wide
- Cover is held secure by sliding it under the top end flange and fastening it with plated screws on the bottom end flange (larger sizes use two studs and wing nuts)
- #10-32 tapped hole provision for optional ground lug kit



Finish:

- Wash and phosphate undercoat
- ANSI 61 gray acrylic electrocoat finish

Standards:

- UL 50 listed, Type 3R
- CSA C22.2 No. 40 certified, Type 3R
- Conforms to NEMA standard for Type 3R
- IEC 60529, IP32

Part #	Enclosure Size (A x B x C)	Part #	Enclosure Size (A x B x C)	Part #	Enclosure Size (A x B x C)
12124RTSC	12 x 12 x 4	18186RTSC	18 x 18 x 6	24168RTSC	24 x 16 x 8
866RTSC	8 x 8 x 6	24246RTSC	24 x 24 x 6	24188RTSC	24 x 18 x 8
1086RTSC	10 x 8 x 6	10108RTSC	10 x 10 x 8	24248RTSC	24 x 24 x 8
1286RTSC	12 x 8 x 6	12128RTSC	12 x 12 x 8	242412RTSC	24 x 24 x 12
12126RTSC	12 x 12 x 6	18188RTSC	18 x 18 x 8	362412RTSC	36 x 24 x 12

Type 3 Gasketed Screw Cover Enclosures

Construction:

- Used as wiring boxes, junction and pull boxes
- Intended for indoor or outdoor use
- Protects against windblown dust, rain, sleet, external ice formation and dripping noncorrosive liquids
- Enclosure and cover are fabricated from code gauge G-90 grade galvanized steel
- All continuous welded seams are finished smooth
- Enclosure standard without knockouts
- Cover is attached with gasketed screws
- Cover has a fixed, oil and water resistant gasket
- #10-32 weldnut is furnished for optional ground lug kit



Finish:

- Bright galvanized finish
- Zinc-rich coating over all external welds

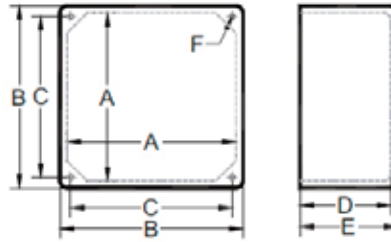
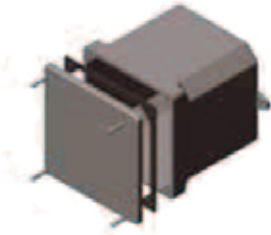
Standards:

- UL 508 listed, Type 3 and Type 12
- Conforms to NEMA standard for Type 3 and Type 12
- IEC 60529, IP66

Part #	Enclosure Size (A x B x C)	Part #	Enclosure Size (A x B x C)	Part #	Enclosure Size (A x B x C)
444-SCG	4 x 4 x 4	888-SCG	8 x 8 x 6	24246-SCG	24 x 24 x 6
664-SCG	6 x 6 x 4	10106-SCG	10 x 10 x 6	12128-SCG	12 x 12 x 8
864-SCG	8 x 6 x 4	12106-SCG	12 x 10 x 6	20208-SCG	20 x 20 x 8
884-SCG	8 x 8 x 4	12126-SCG	12 x 12 x 6	24208-SCG	24 x 20 x 8
1084-SCG	10 x 8 x 4	16126-SCG	16 x 12 x 6	24248-SCG	24 x 24 x 8
10104-SCG	10 x 10 x 4	16166-SCG	16 x 16 x 6	242412-SCG	24 x 24 x 12
12124-SCG	12 x 12 x 4	18186-SCG	18 x 18 x 6	303012-SCG	30 x 30 x 12
666-SCG	6 x 6 x 6	20166-SCG	20 x 16 x 6	363612-SCG	36 x 36 x 12

PVC Boxes

Junction Boxes with Gasket



Part #	Nominal Size (in)	Inside Length & Width (in) (A)	Outside Length & Width (in) (B)	Length to Screw (C)	Outside Height (E)	Inside Height (D)	Screw Size (F)	Volume (in ³)
59250	4 x 4 x 2	3.675	4.000	3.450	2.125	2.000	8-32	25.4
59251	4 x 4 x 4	3.675	4.000	3.450	4.188	3.750	8-32	47.5
59252	4 x 4 x 6	3.675	4.000	3.450	6.225	6.000	8-32	76.1
59253	5 x 5 x 2	4.680	5.000	4.485	2.000	1.845	8-32	38.7
59254	6 x 6 x 4	6.000	6.375	5.813	4.188	4.000	10-32	139.5
59255	6 x 6 x 6	6.000	6.375	5.813	6.188	6.000	10-32	209.3
59256	8 x 8 x 4	8.075	8.625	7.996	4.230	4.005	1/4-20	258.6
59257	8 x 8 x 7	8.100	8.625	7.996	7.250	7.035	1/4-20	455.6
59258	12 x 12 x 4	12.085	12.580	11.874	4.256	4.030	1/4-20	578.3
59259	12 x 12 x 6	12.085	12.580	11.874	6.240	6.025	1/4-20	864.6
802944	12 x 12 x 8	12.085	12.580	11.874	8.250	8.025	1/4-20	1,151.6

Harnesses

3M™ Elevation™ Fall Arrest Harness

- Premium padding for enhanced comfort and durability
- Intuitive adjustment hardware
- Tight weave web designed for improved abrasion resistance
- Rubber protective shield for label pack
- Integrated lanyard storage and web keepers designed to help reduce entanglement hazards
- Back pad promotes tangle-free donning
- Quick-connect



Mfr	Part #
3M	7512E

'H' Style Premier Tower Harness

Tower and Rescue

- 'H' style full body harness with a built in body belt that features a Dri-lex® shell that wicks moisture away from the user
- Dri-lex shoulder and leg pads for comfort
- Patented split tongue quick connect buckles on chest & leg straps
- Steel dee dorsal attachment & spring-loaded friction buckles used for height adjustment
- Frontal chest D-ring adjusts up and down independently of shoulder straps
- PVC shoulder loops to stow lanyard hardware when not in use



Mfr	Part #	Size
Buckingham	61995-S	Small
	61995-M	Medium
	61995-L	Large
	61995-XL	X-Large

'X' Style Full Body Harness

Tower and Rescue

- 'X' style full body harness with built-in body belt that features interlocking torso buckles for height adjustment
- Grommet leg straps and steel dee ring for dorsal attachment
- Removable cushioned shoulder pads with nylon loops to stow lanyard hardware when not in use



Mfr	Part #	Size
Buckingham	603K469E3T9-S	Small
	603K469E3T9-M	Medium
	603K469E3T9-L	Large
	603K469E3T9-XL	X-Large

Meets all applicable ANSI and OSHA standards
Non-standard sizes available

'H' Style Full Body Harness

Tower, Hi-line, and Wind Energy

- 'X' style full body harness with specially designed straps to attach a body belt
- Interlocking buckles at the leg & torso positions
- Web loop at front for use with a cable/rope grab or rescue
- Web dorsal loop for reduced weight
- Shoulder loops to store snaps of "Y" lanyard
- Shown with model 1997T2 lightweight body belt



Mfr	Part #	Size
Buckingham	603E3720N8R3-S	Small
	603E3720N8R3-M	Medium
	603E3720N8R3-L	Large
	603E3720N8R3-XL	X-Large

Meets all applicable ANSI and ASTM standards
Non-standard sizes available

Lightweight Body Belt



Mfr	Part #
Buckingham	1997T2

Eagle Tower™ Harness

- 6 steel D-rings: back, chest, hips, and seat strap
- Breakaway lanyard clips
- Tongue buckles on leg straps
- Quick-connect buckles on chest strap
- Padded backpad & removable tool belt

Mfr	Part #	Size
Elk River	66611	Small
	66612	Medium
	66613	Large
	66614	X-Large



Harnesses (cont.)

Pinnacle™ Tower Harness

- 6 D-rings: steel D-ring at chest, back, hips, and saddle
- Breakaway lanyard clips
- Quick-connect chest and leg straps
- Padded backpad & removable tool belt
- Adjustable saddle with easily removable aluminum bar

Mfr	Part #	Size
Elk River	68601	Small
	68602	Medium
	68603	Large
	68604	X-Large

Classifications: Class A, Class P, Class L



Eagle Tower™ LX Harness

- 6 D-rings: steel D-ring at chest, back, hips, and seat strap
- Quick-connect buckle on chest
- Tongue buckles on leg straps
- Aluminum bar in seat strap
- Breakaway lanyard clips
- Shoulder pads & removable tool belt
- 5" Padded backpad & seat strap
- 2 Accessory rings attached to center-back of backpad

Mfr	Part #	Size
Elk River	66621	Small
	66622	Medium
	66623	Large
	66624	X-Large

Classifications: Class A, Class P, Class D, Class L



ExoFit XP Tower Climbing Vest Style Harness

- 'X' design padding wraps around wearer for no-tangle donning
- Front & side D-Rings, & back "stand-up" D-Ring
- 3-D mesh lining wicks away moisture
- Removable seat sling with positioning rings
- One-handed quick-connect buckles
- Shoulder, back, seat, hip & leg padding that always stays in place
- Hip pad and body belt for comfort
- Coated hardware for corrosion resistance



Mfr	Part #	Size
Capital Safety	1110300	Small
	1110301	Medium
	1110302	Large
	1110303	X-Large

Meets or exceeds OSHA, ANSI, and ANSI Z359

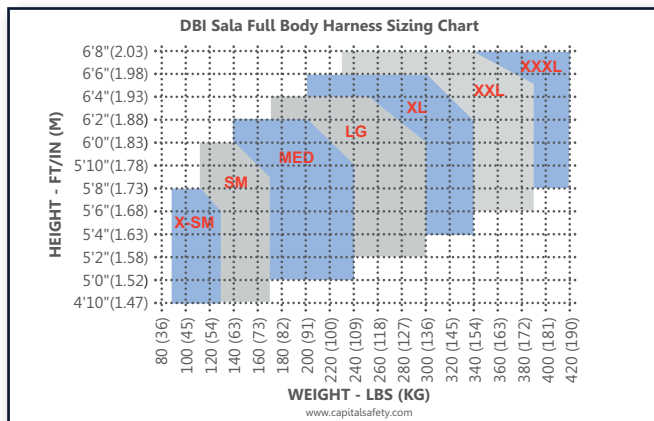
ExoFit NEX™ Tower Climbing Harness

- Duo-Lok™ quick-connect buckles
- Covered Labels and i-Safe™: Velcro® cover protects labels and positions them in an easy-to access location
- Revolver™ simple and fast adjustment that locks into position
- Tech-Lite™ aluminum D-rings: lightweight alloy adds to comfort
- Integrated trauma straps
- Reflective material provides better visibility
- Impact indicator stitches
- Built-in carrying pocket on chest and covered labels
- Breakaway lanyard keepers
- Max capacity: 420 lbs



Mfr	Part #	Size
Capital Safety	1113190	Small
	1113191	Medium
	1113192	Large
	1113193	X-Large
	1113194	XX-Large

Meets or exceeds OSHA, ANSI, and ANSI Z359



Safety and Rigging

Harnesses (cont.)

TechnaCurv Tower Harness

- Pullover style harness with shoulder and sub-pelvic padding
- Secure-Fit connectors on the legs
- Integral body belt and removable saddle
- Body belt and saddle both include two side D-rings
- Saddle height is adjustable
- One size fits most

Mfr	Part #	Size
MSA	10048344	Small - Large



Avatar Harness

Rescue

- Versatile, comfortable, and useful harness
- Eight attachment points: dorsal, sternal, waist, hip, shoulder, and lumbar attachments
- Available in two sizes to fit 30" to 55" waists
- Fully adjustable rear leg risers and chest harness
- Ergonomic padding and interchangeable, removable chest harness

Mfr	Part #	Size
PMI	SG51036	Standard
	SG51042	Large - 2XL

Meets NFPA 1983 Class III, ANSI Z359.1, 2007



Navaho® Bod Harness

Work Positioning and Fall Arrest

- Excellent balance between suspended comfort and freedom of movement
- Waist belt and shoulder straps equipped with self-locking Double-Back buckles
- Waist belt, leg loops, and shoulder straps lined with breathable perforated foam for maximum comfort when suspended
- 5 attachment points (sternal, dorsal, ventral, and 2 lateral)



Mfr	Part #	Description
Petzl	C71000	With Self-locking DoubleBack Buckles on Leg Loops
	C710FN	With FAST Buckles on Leg Loops, Black

Certifications: ANSI Z359.1; CE EN 361; CE EN 358; CE EN 813, NFPA 1983 Class III; CSA Z259.10

Navaho® Bod Croll Fast Harness

Fall Arrest and Rope Access

- Integrated CROLL ventral rope clamp for ascending ropes
- Excellent balance between suspended comfort and freedom of movement
- Waist belt and shoulder straps equipped with self-locking Double-Back buckles
- Leg loops equipped with FAST automatic buckles for quick and easy opening and closing without the need to readjust them

Mfr	Part #
Petzl	C71CF0

Certifications: ANSI Z359.1; CE EN 361; CE EN 358; CE EN 813; CE EN 12841 Type B



Podium Seat Harness Accessory

- Designed for prolonged suspension
- Wide, comfortable sitting position offers excellent stability
- Adjustable straps with self-locking DoubleBack buckles
- 3 equipment loops positioned on back

Mfr	Part #
Petzl	S70



TowerPro™ AL Tower Harness

- 5 aluminum D-rings at back, hips, and saddle; 1 steel D-ring at chest
- 6 points of comfort adjustments
- Padded shoulders, waist, and legs
- Removable padded saddle with aluminum bar
- Aluminum click buckle connections at chest and each leg strap
- Removable tool belt and accessory rings
- Harness bag included
- One size fits most



Mfr	Part #	Description	Weight	Size
	G-1080-AL	with Aluminum D-rings	8.5 lbs	1 size fits most
Skylotec	G-1080*	with Steel D-rings	9.7 lbs	

Meets ANSI Z359.3-2007 and CSA Z259.10-06

TowerTec™ Tower Harness

- Comfort in tower climbing
- Rotating belt
- Removable bar in seat
- Semi-fixed steel D-rings at hips
- Aluminum click buckles at leg loops

Mfr	Part #	Size	Weight
	G-1082-SM	XS - M	
Skylotec	G-1082-LXL	L - XL	7.2 lbs

Meets ANSI Z359.3 and CSA Z259.10-06



Harnesses (cont.)

RescuePro™ Tower Harness

- Rope access harness
- Fixable D-ring
- Superior padded support in waist and legs
- Aluminum D-rings
- Built-in rope clamp
- Fall indicator
- Easy lock buckles



Mfr	Part #	Size	Weight
	G-1081-AL-SM	XS - M	7.2
Skylotec	G-1081-AL-LXL	L - XL	lbs
Meets ANSI Z359.3 and CSA Z259.10-06			

RescueTec™ Tower Harness

- Rope access harness
- Semi-fixed D-rings at waist
- 4 gear loops at waist; 1 gear loop on each leg
- Fall indicator



Mfr	Part #	Size	Weight
	G-1081-SM	XS - M	6.5
Skylotec	G-1081-LXL	L - XL	lbs
Meets ANSI Z359.3 and CSA Z259.10-06			

Formotion Wind Harness

- Intelligent power harness
- 4 D-rings
- Flexible lateral connection ring makes climbing easier
- Adjustable harness strap
- Adjustable back D-ring height
- Back PVC protection cover for climbing in wind power plants with one's back to the tower



Mfr	Part #	Size	Weight
	G-0051-W-M/L	M-L	7.3
Skylotec	G-0051-W-L/XXL	L - 2XL	lbs
Meets ANSI Z359.1-2007, EN 358, EN 361, ISO 10333-1:2000, CSA Z259.10-06, CA:21.389, GOST R 12.4.224-99, GOST R 12.4.205-99			

Shock-Absorbing Lanyards: Twin-Leg



SafeAbsorb XTRA Twin-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Rebar hook on both ends
- Snaphook at center
- 310 lbs rated

Mfr	Part #
3M	4750/0241
Meets ANSI Z359.1-2009; CSA Z259.11-05; OSHA 1910.66 and OSHA 1926.502	



Dual Buck-Stop Twin-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Locking ladder snaps with 2-1/2" opening on both ends
- Swivel locking rope snap at center
- Elastic core reduces length while climbing

Mfr	Part #
Buckingham	5V6716RD4X6+Z
Meets ANSI Z359.1-2009	



Buckyard Twin-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- Locking snaphook on anchor end
- A loop to half hitch to the web dorsal attachment

Mfr	Part #
Buckingham	8V6716D+JW4X6
Meets ANSI Z359.1-2009	



Buck Stop Tie-Back Twin-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Large auto-locking carabiners on both ends
- Aluminum double-locking rope snap at center

Mfr	Part #
Buckingham	8+66716D+J+6 gham W4
Meets OSHA 1926.502	



ShockWave2™ Twin-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- Self-locking snap-hook at center
- Aluminum hooks with 2-1/4" opening on both ends
- 100% Tie-off style

Mfr	Part #
DBI Sala	1244409
Meets OSHA, ANSI Z359.1	

More Twin-Leg and Single-leg Shock-Absorbing Lanyards



Shock-Absorbing Lanyards: Twin-Leg (cont.)



NoPac® Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Zsnaphooks at center and on both ends
- 1-1/4" polyester web

Mfr	Part #
Elk River	35246
Meets ANSI Z359.1-2007	



Flex-NoPac® Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- Zsnaphook at center and rebar hook on both ends (3.6M Gate)
- 1-1/2" polyester web

Mfr	Part #
Elk River	35478
Meets ANSI Z359.1-2007	



NoPac® Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Zsnaphook and rebar hook (3.6M Gate)
- 1-1/4" polyester web

Mfr	Part #
Elk River	35379
Meets ANSI Z359.1-2007	



Flex-NoPac® Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- Captive Eye carabiner at center
- Aluminum carabiner on both ends
- 1-1/2" polyester web

Mfr	Part #
Elk River	35716
Meets ANSI Z359.1-2007	



TX-12 Flex-NoPac® Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- CenturionZ snap-hook at center & rebar hook on both ends (3.6M Gate)
- Rescue rings
- Steel connectors
- 1-1/2" nylon and polyester web

Mfr	Part #
Elk River	35679
Meets ANSI Z359.1-2007	



ZORBER® Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Snaphook at center and on both ends
- 1" nylon web

Mfr	Part #
Elk River	36267
Meets ANSI Z359.1-2007	



Centurion™ ZORBER® Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Zsnaphook at center & rebar hook on both ends (3.6M Gate)
- 1" nylon web

Mfr	Part #
Elk River	36357
Meets ANSI Z359.1-2007	



Flex-ZORBER® Twin-Leg Energy Absorbing Web Lanyard

- 6' Length
- Contracts to 4-1/2'
- Zsnaphook at center & rebar hook on both ends (3.6M Gate)
- 1-1/2" web

Mfr	Part #
Elk River	36897
Meets ANSI Z359.1-2007	



Flex-ZORBER® Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- Snaphook at center & carabiner on both ends (3.6M Gate)
- 1-1/2" nylon and polyester web

Mfr	Part #
Elk River	36806
Meets ANSI Z359.1-2007	



FP5K™ Tie-Back Twin-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Adjustable
- Snap hook at center, FP5K carabiner on both ends
- Monster-Edge™ webbing

Mfr	Part #
MSA	10047085
Meets OSHA regulations, ANSI 10.32, ANSI Z359.1-2007, and is certified to CSA Z259.11-05 E4	

Shock-Absorbing Lanyards: Twin-Leg (cont.)



Workman® Twin-Leg Energy Absorbing Lanyard

- Snaphook at center and both ends
- Lightweight with low profile body

Mfr	Part #
MSA	10073708
Meets ANSI A10.32, applicable OSHA regulations, and is certified to CSA Z259.11-05 E4	



Workman® Twin-Leg Energy Absorbing Lanyard

- Snaphook at center and rebar hooks on both ends
- Lightweight with low profile body

Mfr	Part #
MSA	10072475
Meets ANSI A10.32, applicable OSHA regulations, and is certified to CSA Z259.11-05 E4	



heightec-PMI™ Tensor Twin-Leg Energy Absorbing Lanyard

- 1.5 m
- Sewn terminations
- 25 kN scaffold hook ends
- Snap hook for secure harness attachment
- Safety Step Energy Absorber

Mfr	Part #
PMI	SG51235
Certified ANSI Z359.1, 2007	



FIRST™ Stretch Twin-Leg Shock Absorbing Lanyard

- 6' Stretch Tubular Lanyard
- 100% Tie-off
- Standard snap hooks at each end

Mfr	Part #
Protecta	AE57830
Meets ANSI Z359.1, 2007	



FIRST™ Stretch Twin-Leg Shock Absorbing Lanyard

- 6' Stretch Tubular Lanyard
- Contracts to 4-1/2'
- 100% Tie-off
- Flat steel rebar hook with 2-1/4" gated hook on leg ends
- Standard snap hook at center

Mfr	Part #
Protecta	AE57831
Meets ANSI Z359.1, 2007	



Shockyard™ Flex Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- 1 Kobra Trilock and 2 FS 90 ANSI
- Encased in elastic tubing
- Integrated rescue loops
- Hidden label protects against abrasion

Mfr	Part #
Skylotec	L-0437-1.8
Meets ANSI Z359.13; CSA Z259.11; EN 354; EN 355	



Shockyard™ Flex AL Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Aluminum carabiners
- each leg w/2" gates; 1 ANSI captive eye carabiner at harness
- 16kN

Mfr	Part #
Skylotec	L-0511-1.8
ANSI Z359.13-2009; and CSA Z259.11-04	



ProFlex™ EA Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- 3/4" snaphook (3.6M Gate) at center & 2-1/2" gate (3.6M Gate) snaphook on both ends

Mfr	Part #
Skylotec	L-0494-1.8
Meets ANSI Z359.13 and CSA Z259.11	



ProFlex™ AL Twin-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- 3/4" snaphook (3.6M Gate) at center & 2" gate (3.6M Gate) aluminum carabiner on both ends

Mfr	Part #
Skylotec	L-0496-1.8
Meets ANSI Z359.13 and CSA Z259.11	

Shock-Absorbing Lanyards: Single-Leg



Buckyard Single-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- Locking snaphooks on both ends
- Elastic bungee cord

Mfr	Part #
Buckingham	8VV714.5X6
Meets ANSI Z359.13-2009	



Buckyard Single-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- Locking snaphook on anchor end
- A loop to half hitch to the web dorsal attachment

Mfr	Part #
Buckingham	84V716X6
Meets ANSI Z359.13-2009	



Buck Stop Tie-Back Single-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Specially designed snaphook "ties back" to itself
- 1" wide polyester with red warning center to warn of excessive wear

Mfr	Part #
Buckingham	5V+T7A16X6
Meets ANSI Z359.13-2009	



ShockWave2™ Single-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- Self-locking snaphooks on both ends
- Impact indicator allows user to visually inspect unit for a fall

Mfr	Part #
DBI Sala	1244306
Meets or exceeds OSHA, ANSI and ANSI Z359	



ShockWave2™ Single-Leg Tie-Back Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- 5,000 lb. carabiner capacity
- Impact indicator provides instant status of lanyard

Mfr	Part #
DBI Sala	1244650
Meets ANSI Z359.1 2007 and OSHA 1926	



EZ Stop® II Single-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Self-locking snaphooks on both ends
- 1" wide polyester webbing

Mfr	Part #
DBI Sala	1240006
Meets OSHA, ANSI and ANSI Z359.1-2007	



EZ Stop® II Single-Leg Shock Absorbing Lanyard

- 6' Lanyard
- Snaphook on one end, aluminum hook with 2-1/4" gate opening on other end
- 1" wide web

Mfr	Part #
DBI Sala	1240077
Meets ANSI Z359.1-2007	



NoPac® Single-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Zsnaphook on both ends, 3.6M Gate
- 1-1/4" wide polyester web

Mfr	Part #
Elk River	35216
Meets ANSI Z359.1-2007	



NoPac® Single-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Zsnaphook on one end (3.6M Gate), rebar hook on other end
- 1-1/4" wide polyester web

Mfr	Part #
Elk River	35378
Meets ANSI Z359.1-2007	



Flex-NoPac® Single-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- Zsnaphook on one end (3.6M Gate), Rebar Hook on other end
- 1-1/2" wide polyester web

Mfr	Part #
Elk River	35477
Meets ANSI Z359.1-2007	

Shock-Absorbing Lanyards: Single-Leg (cont.)



ZORBER® Single-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Snaphook on both ends
- 1" wide nylon web

Mfr	Part #
Elk River	27226



CenturionZ™ ZORBER® Single-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Zsnaphook on ZORBER end (3.6M Gate), Rebar hook on other end
- 1" wide nylon web

Mfr	Part #
Elk River	36356
Meets ANSI Z359.1-2007	



Flex-ZORBER® Single-Leg Energy Absorbing Web Lanyard

- 6' Lanyard
- Contracts to 4-1/2'
- Zsnaphook on one end (3.6M Gate), Rebar hook on other end
- 1-1/2" wide nylon web

Mfr	Part #
Elk River	36887
Meets ANSI Z359.1-2007	



FP5K™ Tie-Back Single-Leg Shock Absorbing Web Lanyard

- 6' Lanyard
- Adjustable
- FP5K Carabiner on one end, Tie-back lanyard connector with a 5,000 lb. gate strength and 1" Gate opening on other end

Mfr	Part #
MSA	10047084

Meets OSHA, ANSI 10.32, and ANSI Z359.1-2007. Certified to CSA Z259.11-05 E4.



heightec-PMI™ Tensor Single-Leg Shock Absorbing Lanyard

- Integral, automatically deployed foot loop
- Sewn terminations
- 25 kN scaffold hook end

Mfr	Part #
PMI	SG51233
Meets ANSI Z359.1, 2007	



FIRST™ Stretch Single-Leg Shock Absorbing Lanyard

- 6' Stretch Tubular Lanyard
- Contracts to 4-1/2'
- Snap hooks on ends
- Impact indicator allows user to visually inspect unit for a fall

Mfr	Part #
Protecta	AE57800
Meets ANSI Z359.1, 2007	



FIRST™ Stretch Single-Leg Shock Absorbing Lanyard

- 6' Stretch Tubular Lanyard
- Contracts to 4-1/2'
- Snap hook at center
- Flat steel rebar with 2-1/4" gate hook on leg ends
- Impact indicator allows user to visually inspect unit for a fall

Mfr	Part #
Protecta	AE57801
Meets ANSI Z359.1, 2007	

Positioning Lanyards - Rope



Lightweight Adjustable Positioning Lanyard

- 5' Lanyard
- 5004B Buckgrab makes adjusting length easy
- Attachment eye helps ensure it is positioned correctly
- Double-locking aluminum snap hook
- Red core in rope alerts of excessive wear

Mfr	Part #
	9+N08K15
	Buckingham A2M4



Rope Positioning Lanyard

- Different lengths available (see below)
- Easy to use self-locking snap hooks on both ends
- 1/2" nylon rope

Mfr	Part #	Length
DBI Sala	1232314	3'
	1232354	6'

Meets or exceeds applicable industry standards including OSHA and ANSI



Rope Positioning Lanyard with Flat Steel Hook at One End

- 6' Lanyard
- Easy to use self-locking snap hook on one end
- Flat steel hook with 2-1/2" gate opening at other end
- 1/2" nylon rope

Mfr	Part #
DBI Sala	1232528

Meets or exceeds applicable industry standards including OSHA and ANSI



CenturionZ™ Rope Positioning Lanyard

- Different lengths available (see below)
- Zsnaphook on both ends (3.6M Gate)
- 1/2" rope

Mfr	Part #	Length
Elk River	28013	3'
	28014	4'
	28015	5'
	28016	6'

Meets ANSI Z359.1, 2007



Quick-Adjustable Rope Positioning Lanyard

- 6' Lanyard
- Adjustable
- Features Rope Grab, Zsnaphook, & Carabiner (3.6M Gate)
- 5/8" rope

Mfr	Part #
Elk River	34406

Meets ANSI Z359.1, 2007



Quick-Adjustable Rope Positioning Lanyard

- 6' Lanyard
- Adjustable
- Features Zsnaphook (3.6M Gate)
- Carabiner required (order separately)

Mfr	Part #	Des.
Elk River	34496	1/2" Rope
	34416	5/8" Rope

Meets ANSI Z359.1, 2007



Sure-Grab™ Adjustable Positioning Lanyard

- 6' Lanyard
- Chrome locking swivel snaphook (3.6M Gate)
- 5/8" blue rope

Mfr	Part #
MSA	10105980

Meets ANSI Z359.1-2007



GRILLON Adjustable Rope Positioning Lanyard

- Different lengths available (see below)
- Removable protective sheath protects rope

Mfr	Part #	Length
Petzl	L52A-002	2 m
	L52A-003	3 m
	L52A-005	5 m
	L52A-010	10 m
	L52A-015	15 m
	L52A-020	20 m

Certification: CE EN 358



GRILLON HOOK Adjustable Rope Positioning Lanyard

- Different lengths available (see below)
- Hook connector
- Removable protective sheath protects rope

Mfr	Part #	Length
Petzl	L52H-002	2 m
	L52H-003	3 m
	L52H-005	5 m

Certification: CE EN 358

Positioning Lanyards - Rope (cont.)



GRILLON MGO Adjustable Rope Positioning Lanyard

- 3 m Lanyard
- MGO large opening connector
- Used in single mode

Mfr	Part #
Petzl	L52M-003
Certification: CE EN 358	



heightec-PMI™ Piranha Adjustable Positioning Lanyard

- 2 m Lanyard
- Adjustable
- Sewn terminations
- Stainless steel body & cam
- Available with safety hook for secure harness attachment

Mfr	Part #	Safety Hook
PMI	HD26179	Yes
	HD26178	No
Certified EN 358, EN 361		



Nylon Rope Positioning Lanyard

- Different lengths available
- 1/2" diameter with locking snaps

Mfr	Part #	Length
3M	3110	3'
	3112	6'



Atlas™ Adjustable Rope Positioning Lanyard

- 6' x 5/8"
- Adjustable
- 3/4" snaphooks on each end (3.6M Gate)

Mfr	Part #
Skylotec	L-0498-1.8
ANSI Z359.3-2007 and CSA Z259.11-05	



ErgoGrip™ Adjustable Rope Positioning Lanyard

- Different sizes available
- Slide adjuster for quick adjustments
- 3/4" snaphooks on each end (3.6M Gate) (includes carabiner)

Mfr	Part #	Length
Skylotec	L-0051-1.8	6' x 1/2"
	L-0499-1.8	6' x 5/8"
ANSI Z359.3-2007 & CSA Z259.11-05		

Web Positioning Lanyards 

Rebar Assemblies / Tower Positioning Devices



Tower Positioning Kit
Includes 2-1/4" throat opening swivel form hook, auto-twist carabiner, 3/4" throat opening Centurion™ auto-locking separator snaphook

Mfr	Part #
Elk River	13400



Rebar Chain Assembly
25-1/2" with adjuster and two snaphooks and a swivel rebar hook

Mfr	Part #
Elk River	13425



Rebar Web Assembly
1" x 18" with rebar hook and two Zsnaphooks 3600 lb. gate

Mfr	Part #
Elk River	29741
Meets ANSI Z359.1-2007	



Rebar Assembly
• Rebar chain assembly
• GL3100 snaphook with 2-1/4" gate

Mfr	Part #
MSA	10044811
Meets applicable OSHA regulations and ANSI A10.32	



Tower Positioning Device
• Little D TRI Carabiner
• Rebarstyle snaphook with swivel
• Spreader Snaphook 3.6M/16kN

Mfr	Part #
Skylotec	H-148+
	H-146+H-154
Meets ANSI Z359.1-2007	

Positioning Lanyards - Web



Adjustable Positioning Web Lanyard

- 6' Lanyard
- Adjustable length
- Easy to use locking snap hooks on both ends
- 1" polyester web

Mfr	Part #
Buckingham	7VV126
Meets ANSI Z359.1-2007	



Adjustable Nylon Positioning Lanyard

- 6' Lanyard
- Friction buckle for easy adjustment
- Red warning center to alert of excessive wear
- Locking snap hook on both ends
- Nylon

Mfr	Part #
Buckingham	496099E



Polyester Web Positioning Lanyards

- Different lengths available (see below)
- Easy to use self-locking snap hooks on both ends
- Built-in wear indicator
- 1" polyester webbing

Mfr	Part #	Length
DBI Sala	1231102	2'
	1231103	3'
	1231106	6'

Meets or exceeds applicable industry standards including OSHA and ANSI



Adjustable Polyester Web Positioning Lanyard

- 6' Lanyard
- Adjustable
- Easy to use self locking snap hooks on both ends
- Built-in wear indicator
- 1" polyester webbing

Mfr	Part #
DBI Sala	1231016

Meets or exceeds applicable industry standards including OSHA and ANSI



CenturionZ™ Web Positioning Lanyards

- Different lengths available (see below)
- Zsnaphook on both ends (3.6M Gate)
- 1" nylon web

Mfr	Part #	Length
Elk River	29023	3'
	29026	6'

Meets ANSI Z359.1-2007



Eagle® Series Web Positioning Lanyards

- Different lengths available (see below)
- CenturionZ Zsnaphook on both ends (3.6M Gate)
- 1" nylon web

Mfr	Part #	Length
Elk River	63013	3'
	63016	6'

Meets ANSI Z359.1-2007



CenturionZ™ Adjustable Web Positioning Lanyard

- 6' Lanyard
- Adjustable
- Zsnaphook on both ends (3.6M Gate)
- 1" nylon web

Mfr	Part #
Elk River	29506

Meets ANSI Z359.1-2007



Adjustable Web Restraint Lanyard

- 6' Lanyard
- Snaphook on both ends
- 1" nylon web

Mfr	Part #
MSA	10089345

Meets applicable OSHA regulations, ANSI A10.32, and ANSI Z359.1-2007



Atlas™ Adjustable Web Positioning Lanyard

- Adjustable
- 3/4" snaphooks on each end (3.6M Gate)

Mfr	Part #	Length
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Skylotec L-0497-1.8 6' x 1"
ANSI Z359.3-2007 & CSA Z259.11-05

Ascenders



Elk River Ascenders
8-1/2" x 3-1/4" for ropes 3/8" (9 mm) and 1/2" (13 mm)

Mfr	Part #	Des.
Elk River	19701*	Right (green)
	19700*	Left (red)

*Professional training required to use these devices



MSA Suretyman Hand Ascenders
Large grip, for ropes 1/4" - 1/2", aluminum alloy

Mfr	Part #	Des.
MSA	SRP210	Left (red)
	SRP220	Right (green)



Petzl Ascension Hand Ascenders
Wide handle, toothed cam, for ropes 8 mm-13 mm

Mfr	Part #	Des.
Petzl	B17WRA	Right (yellow)
	B17WLA	Left (black)



PMI heightec-PMI™ Pulsar Ascender
Comfortable grip, X-cam™, 1 upper & 2 lower attachment points

Mfr	Part #	Des.
PMI	HD26183	Right (lime)
	HD26208	Left (black)



PMI heightec-PMI™ Twist Ascender
X-Cam™, 1 upper & 1 lower attachment points

Mfr	Part #
PMI	HD26185

Descenders



Buckingham Descender
Easy to use descender for use on 10-12 mm rope with a built-in anti-panic feature

Mfr	Part #
Buckingham	DSD-30



Capital Safety Descender™ Device
Stainless steel construction, simple & effective descent control system

Mfr	Part #
Capital Safety	2103189



MSA Anthron Descender
Cast Aluminum, Cam, 7/16" (11 mm) rope

Mfr	Part #
MSA	SDSD25



Petzl Rig Compact Self-Braking Descender
Safety gate, pivoting cam, for ropes 10.5 mm-11.5 mm

Mfr	Part #	Des.
Petzl	D21A	Yellow
	D21AN	Black



Petzl I'D S Self-Braking Descender with Anti-Panic Function - Small
Safety gate, pivoting cam, for ropes 10 mm - 11.5 mm

Mfr	Part #	Des.
Petzl	D200SO	Yellow
	D200SN	Black



Petzl I'D L Self-Braking Descender with Anti-Panic Function - Large
Safety gate, pivoting cam, for ropes 11.5 mm - 13 mm

Mfr	Part #	Des.
Petzl	D200LO	Yellow
	D200LN	Black



PMI SMC Spider Auto-Braking Descender
Optimal strength and performance, for ropes 11 mm-12.5 mm

Mfr	Part #
PMI	SM220300N

Certified NFPA 1983, L



PMI heightec-PMI™ Prism Descender
Versatile, secondary panic lock, smooth descent

Mfr	Part #
PMI	HD26181



PMI Large Steel Figure 8 Classic Descender
Accepts single or double wrapping braking. For ropes up to 16 mm (5/8"). Bottom hole.

Mfr	Part #
PMI	HD26100

Certified NFPA 1983, G



PMI RA/SMC Rescue 8 Full-Size Descender
Solid heat treated aluminum. Carabiner hole functions as sticht plate for 1/2" rope.

Mfr	Part #	Color
PMI	SM128701N	Black
	SM128702N	Gray

Certified NFPA 1983, G

Safety and Rigging

Rescue Equipment



AltezzaSM Powered Ascenders

- Compact and easy to carry
- Patented rope grab system
- Straightforward user interface
- Rope: EN1891 kernmantle with 10-12.5 mm diameter
- Battery & Gasoline-powered models available



Mfr	Part #	Description
Altezza	50-160-001 ACC	Battery-Powered Ascender

Altezza 50-151-001 PME Gasoline-Powered Ascender

Both units above meet EEC directives and require certified Altezza training

	ACC Battery-Powered Ascender	PME Gasoline-Powered Ascender
Safe Working Load	440 lbs (rescue 550 lbs)	660 lbs
Speed (Max)	72 ft/min 440 lb load (both directions)	63 ft/min 440 lb load (up only with descent possible with Petzl ID/Fisk)
Capacity	Internal battery 650-980 ft @220 lb load (optional external battery available)	2,950 ft with 0.5 gallon of 95 octane unleaded gasoline
Remote	Range 330-490 ft	N/A
Includes	Ascender, integrated battery pack, charger and flight case	Ascender and flight case
Rope	EN1891 kernmantle with 10-12.5 mm diameter	



Buckingham High Elevation Self-Rescue System

Provides all components necessary for self-rescue or aiding in rescuing a fellow employee. (75' of 1/2" braided rope).

Mfr	Part #
Buckingham	101SR75



Elk River EZE-Man[®] Auto Descent Self-Rescue Device with Hub Lifting Function
Ideal for self-rescue or multiple escapes and approved for two person rescue

Mfr	Part #	Length
Elk River	19910	100'
	19920	200'
	19930	300'
	19935	400'

Compliance: OSHA 1926, Subpart M, Appendix C. ANSI Z359.4-2007, CSA Z259.2.3-99 / EN 341A



Capital Safety RollglissTM R500 Rescue & Escape Device

Includes: rescue hub, 3 anchor slings, 3 carabiners, pulley, edge protector, rope grab, and carrying bag

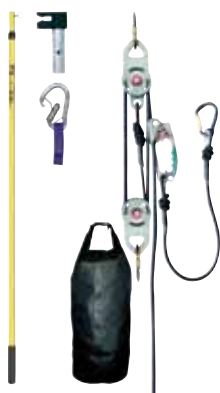
Mfr	Part #	Length
Capital Safety	3321100	100'
	3321200	200'
	3321300	300'
	3321400	400'
	3321500	500'



Milan Hub Lightweight Rescue Device

Features automatic speed control and controlled brake. Device keeps speed constant enabling swift and safe rescue.

Mfr	Part #	Description
Skylotec	A-024	Milan with hub
	L-0409-80	9.5 mm x 80 m rope
	ACS-0014-L	Drybag



MSA Fall Protection Rescue Kit

Designed as "out of the bag" rescue system. Includes:

- Adjustable pole: 6' to 12' (1.8 m to 3.6 m)
- Pole adapter (converts pole to hold remote hook)
- Remote hook for remote attachment
- Storage bag for pole & remote hook
- Rescue Utility System (SRS15200)

Mfr	Part #	Description
MSA	200' SuretyMan Rescue Utility System	
	10030025	



PMI heightec-PMITM TowerpackTM Self Evacuation or Rescue of Another by Rappelling

- Allowing for descent of a rope. Includes:
- 11 mm PMI Access Pro Rope
 - 120 cm anchor sling
 - 4 steel ANSI-rated carabiners
 - 1 powerlock rescue descender
 - 1 pair EMT shears
 - 1 casualty attachment sling
 - 1 carrying bag

Mfr	Part #	Length
PMI	KT36148	50 m Towerpack
	KT36149	66 m Towerpack
	KT36150	100 m Towerpack

Relief Steps



BuckStep Suspension Trauma Rescue System
Attaches to any full body harness & is fully adjustable

Mfr	Part #
Buckingham	105RS



Suspension Trauma Safety Straps
One pair, connects to most harnesses

Mfr	Part #
Capital Safety	9501403



Rescue Etrier
6 foot loops are reinforced/stiffened for easier foot placement. Length: 7' (2.1 m).

Mfr	Part #
MSA	SRS3200



Looping 4-Step Etrier
Underfoot strap is abrasion-resistant & slightly rigid to make it easier to step into

Mfr	Part #
Petzl	C25



Etrier
Reinforced steps in contrasting colors. 1" tubular webbing.

Mfr	Part #	Length
PMI	SG51040	4 Steps, 4'3"
	SG51034	5 Steps, 5'3"
	SG51096	6 Steps, 6'3"

Pulleys



SuretyMan™ Pulley
Single, 4" (10 cm), Std/ Prusik, Aluminum, Yellow. For 3/8" to 1/2" static kernmantle rope.

Mfr	Part #
MSA	SPPPU8710



Mobile Versatile Ultra-Compact Single Pulley
For hauling systems and deviations. Sheave mounted on self-lubricating bushings. For ropes ≤ 13 mm.

Mfr	Part #
Petzl	P03A



Fixe Versatile Compact Single Pulley
For hauling systems and deviations. Fixed side plates. Sheave mounted on self-lubricating bushings. For ropes ≤ 13 mm.

Mfr	Part #
Petzl	P05W



Rescue High Strength, High Efficiency Pulley
For rescue professionals, heavy loads/intensive use. Large diameter sheave mounted on sealed ball bearings. Accepts up to 3 carabiners. For ropes ≤ 13 mm.

Mfr	Part #
Petzl	P50A



Minder Highly Efficient Prusik Pulley
Special side plates as seen in P59A. Large diameter sheave mounted on sealed ball bearings. Accepts up to 3 carabiners to facilitate use. For ropes ≤ 13 mm.

Mfr	Part #
Petzl	P60A



Twin Highly Efficient Double Prusik Pulley
Special side plates as seen in P59A. Parallel mounted sheaves & auxiliary attachment point. Large diameter sheaves mounted on sealed ball bearings. Accepts up to 3 carabiners. For ropes ≤ 13 mm.

Mfr	Part #
Petzl	P65A



SMC 3" Prusik Minding Pulley
Ball bearing. Large top hole accepts 3 large carabiners. Aluminum side plates and sheaves. Sealed bearings. For 11-13 mm rope.

Mfr	Part #
PMI	SM158000N
Certified NFPA 1983 G	



SMC Kootenay HX Pulley
Sealed ball bearings. Aluminum side plates and sheave. Primary carabiner hole accepts many rescue carabiners; secondary carabiner holes for use with tag or belay lines. Includes 2 quick-release pins. For 10-13 mm rope.

Mfr	Part #
PMI	SM125500

Safety and Rigging

Slings



Buckingham Sling

Utilizes a small dee to pass through a larger dee making a secure anchor. Length: 6' (72")

Mfr	Part #
Buckingham	3902-6



Buckingham Web Slings

Can be chocked/hitched around a suitable anchor to provide the user a man-rated attachment point. 1" polyester webbing

Mfr	Part #	Description
Buckingham	3905E-18	18" endless
	3905E-24	24" eye to eye
	3905E-36	36" eye to eye
	3905E-24	24" eye to eye



Capital Safety Tie-Off Adapters

Pass-through design. 1-3/4" polyester (5,000 lb. min. tensile strength). 3" wide polyester wear pad.

Mfr	Part #	Length
Capital Safety	1003000	3'
	1003006	6'

Meets OSHA, ANSI, and ANSI Z359



Elk River Eagle Tie-off Web Sling

1" x 3' Full-length wear pad with 4" half loop web eye at both ends

Mfr	Part #	Description
Elk River	63676	1" x 3'
	63786	1-3/4" x 6'



Elk River Cable Sling

Vinyl coating GAC Anchorage Connector with 2" and 3" rings. Man rated 310 lbs.

Mfr	Part #	Length
Elk River	13604	3'
	13606	6'



Elk River EZE-Man™ Slings

1-3/4" with 2 D-rings

Mfr	Part #	Length
Elk River	26773	3'
	26774	4'
	26776	6'
	26778	8'



Anchorage Connector Strap

5'. D-ring on one end, sewn loop on other end. Nylon.

Mfr	Part #
MSA	505282



Double D-ring Anchorage Connector Strap

SFP2267503: 3'
SFP2267506: 6'

Mfr	Part #
MSA	SFP2267503
	SFP2267506



SuretyMan™ Anchorage Sling

4' Nylon tube webbing

Mfr	Part #
MSA	SFP2267404



Petzl Anneau Webbing Loop

Breaking strength: 22 kN

Mfr	Part #	Length
Petzl	C40-60	60 cm
	C40-80	80 cm
	C40-120	120 cm
	C40-150	150 cm

Certification: CE EN 566, CE EN 795 B



PMI Sewn Webbing Loops

Made with 1" tubular webbing. MBS: 7300 lbf

Mfr	Part #	Description
PMI	SG51141	5' Green
	SG51142	12' Yellow
	SG51143	15' Blue
	SG51144	20' Red
	SG51145	25' Black



PMI Power Slings

Ultra high strength. 12 mm width. Abrasion resistant. MBS: 5000 lbf (22 kN).

Mfr	Part #	Length
PMI	SG51157	60 cm
	SG51158	120 cm
		Certified UIAA, CE120



PMI Anchor Slings

1-3/4" webbing. Steel D-rings on both ends. Fast connection. MBS: 8100 lbf (36 kN).

Mfr	Part #	Length
PMI	SG51029	3'
	SG51030	4'
	SG51031	6'
		Meets OSHA, ANSI, & ANSI Z359



Petzl Connexion Fixe Anchor Straps

Forged steel D-rings at both ends. MBS: 35 kN

Mfr	Part #	Length
Petzl	C42-100	100 cm
	C42-150	150 cm
	C42-200	200 cm
	C42F	Ad-justable

Certification: CE EN 795 B, CE EN 354



Skylotec Loop Sling

3 lengths available, MBS: 35kN (man-rated)

Mfr	Part #	Length
Skylotec	L-0010-0.6	2'
	L-0010-1.5	5'
	L-0010-1.8	6'

Wire & Rope Grabs



Cable Grab

Should user fall while ascending or descending, this prevents user from falling more than 1'

Mfr	Part #	Description
Buckingham	5013	for 3/8" cable
	5012	for 5/16" cable



Ascender

Lightweight aluminum, for use on 1/2" diameter kernmantle rope

Mfr	Part #
Buckingham	5004K



Lad-Saf® Cable Sleeve

Available with & without carabiner. For use on 8 mm & 3/8" diameter 1 x 7 or 7 x 19 solid core cable.

Mfr	Part #	Description
Capital Safety	6116540	with carabiner
	6116541	without carabiner



Cabloc™ Sleeve with Carabiner
Includes carabiner. For use on 1 x 7 or 7 x 19 solid core cable.

Mfr	Part #	Cable.
Capital Safety	AC350A	5/16" dia. cable
	AC351A	3/8" dia. cable



Rope Grabs

5000335: 5/8" diameter mobile rope
5000338: 3/8" diameter static wire rope grab

Mfr	Part #	Description
Capital Safety	5000335	See above
	5000338	See above



Cobra™ Auto/Mobile Rope Grab

For use on 9/16" to 3/4" rope. AC202A10: Includes 3' shock absorbing lanyard

Mfr	Part #	Description
Capital Safety	AC202D	without lanyard
	AC202A10	Includes lanyard



Dual Wire Rope Grab

3/8" to 5/16" wire, requires 17450 Auto-twist lock carabiner (pg 164)

Mfr	Part #
Elk River	19400



Wire Rope Grab

Requires 17450 Auto-twist lock carabiner (pg 164)

Mfr	Part #	Des.
Elk River	19401	3/8" Wire
	19402	5/16" Wire



Rope Grab

1/2" rope grab with 2" ring

Mfr	Part #
Elk River	19100



Dual Size Trailing Rope Grab

5/8" x 3/4" dual size trailing rope grab with 2" ring, with anti-inversion feature

Mfr	Part #
Elk River	19250



Rope Grab

5/8" rope grab with attached web 1" x 3' ZORBER® Lanyard with CenturionZ Snaphook 3.6M Gate

Mfr	Part #
Elk River	19273



Cable Grabs

Extremely durable

Mfr	Part #	Des.
Tuf Tug	TTWG-500-1/4	1/4" Wire
	TTWG-500-516	5/16" Wire
	TTWG-500	3/8" Wire



Trailing Rope Grab Fall Arrester Uses 5/8" rope, with Sure-Stop shock absorbing lanyard and 36C snaphook

Mfr	Part #
MSA	415940



Rope Grab Fall Arrester Uses 5/8" rope

Mfr	Part #
MSA	10054077
Meets ANSI Z359.1-2007	



SureGrab™ Rope Grab Fall Arrester

Automatic/manual, open body, c/w 1-3/4" x 12" web lanyard, LS snaphook

Mfr	Part #
MSA	SVLR78LS
Meets ANSI Z359.1-2007 and OSHA standards and is CSA certified	



SureClimb Wire Rope Fall Arrester Uses 5/16" galvanized steel cable. Includes carabiner.

Mfr	Part #
MSA	10040010
Meets OSHA, ANSI & CSA	



Basic Frame-loaded Rope Clamp Lower and upper hole. For single ropes between 8-13 mm in dia.

Mfr	Part #
Petzl	B18AAA
Certification CE EN 567	

Safety and Rigging

Wire & Rope Grabs (cont.)



Microcender Cam-loaded Rope Clamp
Removable axle and locking pin. For single ropes between 9-13 mm in diameter.

Mfr	Part #
Petzl	B54
Certification CE EN 567	



Rescucender Cam-loaded Rope Clamp
Removable axle and locking pin. For single ropes between 9-13 mm in diameter.

Mfr	Part #
Petzl	B50
Certification CE EN 567	



Macrocenter Cam-loaded Rope Clamp for Large Diameter Ropes
Removable axle and locking pin. For single ropes between 12-19 mm in diameter.

Mfr	Part #
Petzl	B51
Certification CE EN 567	



Mio Self-Trailing Rope Grabs
Removable dual action pin. Comes with lanyard and ANSI snap hook.

Mfr	Part #	Description
PMI	HD26114	7/16" Rope (yellow pin)
	HD26005	1/2" Rope (blue pin)
	HD26006	5/8" Rope (black pin)
	Meets ANSI & OSHA requirements	



Wire Grab 10 - Wire Rope Grab
3/8" Wire Rope Grab. Can be used on any 3/8" galvanized or stainless steel wire rope vertical lifeline; includes carabiner

Mfr	Part #
Skylotec	H-155
Meets ANSI & CSA Standards	

Height Access Rail System



- (1) Doubled guide rollers for resistless climbing over rail joints.
- (2) Solid housing of milled aluminium.
- (3) Durable rollers of stainless steel with sleeve bearings.

Mfr	Part #
Skylotec	SPEED
Certified to ANSI and CSA Standards	

- (4) Flexibly moving follower roller for automatic adjustment to various rail thicknesses and a permanent contact pressure.
- (5) Redundant release system with a pull-back function and centrifugal force control independently working from each other.

- (6) Stable snap-fit hook of stainless steel
- (7) Element for damping - energy absorber. The falling impact remains under 6 kN even with drop impact tests with a steel weight.
- (8) Self-bolting trilock carabiner

Anchors & Beamers



Mega Swivel 10K Steel and Concrete Anchor with Concrete Bolt
Swivel ring design allows D-ring to rotate 360° and flip back and forth at 180°; Optional: Backing plate

Mfr	Description	Part #
Climb Tech	Mega Swivel 10K Anchor	MS-C-10K*
	Backing Plate: 9" x 6" with 14-1/2 full thread bolt, nut, flat. Works on anything more than 1/2 thick	MS-HC-KIT

*Load Rating: 10,000 lbs/22kn | *Meets ANSI Z359.1



Step Bolt
Length: 8-1/2"
Tread length: 5"
Thread length: 2-1/2"

Mfr	Part #	Thread Diameter
Buckingham	3075	3/4"
	3058	5/8"



Anchor Flange
Installed on steel structures every 3rd step under existing bolt step

Mfr	Part #	Step Bolt
Buckingham	30-F1	11/16"
	30-F2	15/16"
	30-F3	13/16"
	30-F4	1-1/16"



Concrete D-ring Anchor

Mfr	Part #
Capital Safety	2104560
Meets OSHA, ANSI and ASTM E488	



Step Bolts
C40-044-002:
5/8" x 7"
C40-044-006:
3/4" x 7-1/2"

Mfr	Part #
Sabre	C40-044-002
Sabre	C40-044-006



Step Bolt Anchor
For 5/8" or 3/4" step bolts

Mfr	Part #
Tuf-Tug	115-154



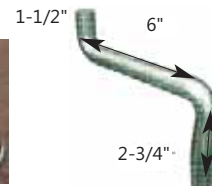
45° Step Bolt Anchor
For 5/8" or 3/4" step bolts

Mfr	Part #
Tuf-Tug	115-154 - Formed



Bolt on Step Bolt,
2" to 6" OD leg

Mfr	Part #
Tuf-Tug	115-178



Removable Step Bolt

Mfr	Part #
Valmont	167200

Lifelines



Buckingham 1/2" Kernmantle Lifeline

Features stitched eye with steel thimble to attach to suitable anchor point. Length: 150'

Mfr	Part #	Length
Buckingham	39SQ1-150	150'

Additional lengths available



Capital Safety 5/8" Poly Rope with Snap Hooks

5/8" rope
Length: 350'

Mfr	Part #	Length
Capital Safety	1202962	350'

Additional lengths available



Elk River 5/8" Nylon Rope Lifeline

5/8" nylon rope with Zsnaphook on each end. 3600 lb. gate. Lengths: 50' and 100'.

Mfr	Part #	Length
Elk River	34175	50'
Elk River	34200	100'

Additional lengths available



MSA 50' of 5/8" Rope

Polyester/polypropylene, with twist-lock carabiner on one end

Mfr	Part #
MSA	416049



Capital Safety Sayline™ (Synthetic) Horizontal Lifeline System

Complete kit includes kernmantle rope lifeline assembly with tensioning device, two tie-off adapters to anchor the system to a structure. Length: 60'.

Mfr	Part #	Length
Capital Safety	7600506	60'

Meets OSHA and ANSI standards
Additional lengths available



Capital Safety Sayline™ Cable Horizontal Lifeline System

Complete kit includes cable lifeline assembly and turnbuckle device. Incorporates the Zorbit™ shock absorber for added safety, allowing use of a standard 5,000 lb. rated anchorage connector. Length: 60'.

Mfr	Part #	Length
Capital Safety	7602060	60'

Meets OSHA and ANSI Standards
Additional lengths available



Capital Safety EZ-Line™ Retractable Horizontal Lifeline System

Tension and impact indicators. Horizontal mobility and continuous protection for 2 users per span, up to 6 users per system.

Mfr	Part #	Length
Capital Safety	7605060	60'

Additional lengths available



MSA Sure-Line™ Cable Horizontal Lifeline System

Includes an integral shock absorber. Uses a 3/8", 6 x 36 galvanized cable. Rated for 2 people. Includes turnbuckle.

Mfr	Part #	Length
MSA	SHL2009060	60' (18 m)

Also available in 40'



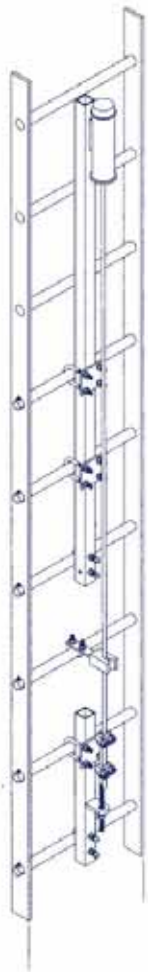
MSA Dyna-Line™ Synthetic Horizontal Lifeline System

Highly visible 12-strand red rope will not hackle and minimizes fall distance due to low stretch properties. 2-worker system.

Mfr	Part #	Length
MSA	10013153	60' rope

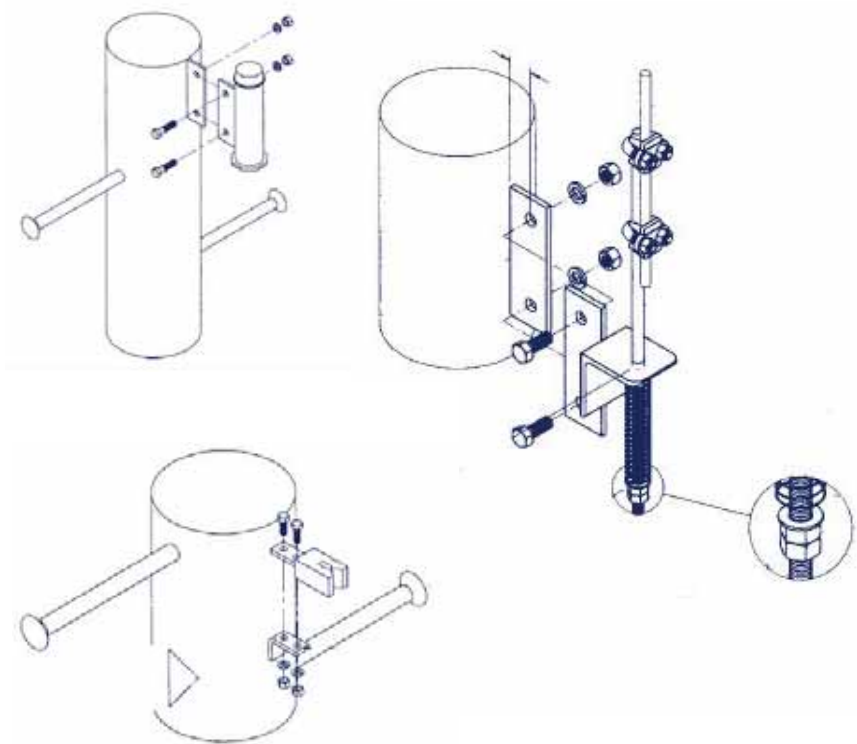
Meets ANSI A10.32 standards and OSHA requirements. Also available in 30'

Safety Climbs



Capital Safety Tower Safety Climb

Mfr	Part #	Description
Capital Safety	Tower	
	6116280	Fixed Ladder System, Flex Top Bracket, Galvanized, 1-1/8" Rung, Tri-Rung
	6100090	Fixed Ladder System, Flex Bottom Bracket, Galvanized
	6100400	Fixed Ladder System, Flex Cable Guide with U bolt, Galvanized, for 1-1/8" rung (requires 1 every 25')
	Flex Cable	
	6110000	Flex Cable, 3/8" 1 x 7 Galvanized, specify length in feet



Capital Safety Monopole Safety Climb

Mfr	Part #	Description
Capital Safety	Monopole	
	6116261	Steel Pole System, Flex Top Bracket, Weld On or Bolt On (If no bracket exists on the pole, use 6100710 weld on bracket)
	6100035	Steel Pole System, Flex Bottom Bracket, Bolt On (If no bracket exists on the pole, use 6100710 weld on bracket)
	6100710	Steel Pole System, Flex Weld On Stand Off Bracket for Top and Bottom Bracket, Stainless Steel (requires 2 per system if brackets do not already exist on pole)
	6100430	Steel Pole System, Flex Cable Guide with 2 bolts to attach to 6100136 weld on bracket, Galvanized (requires 1 every 25')
	6100136	Steel Pole System, Flex Cable Guide Support Bracket to attach to 6100430 cable guides, Stainless Steel (requires 1 every 25')
	Flex Cable	
	6110000	Flex Cable, 3/8" 1 x 7 Galvanized, specify length in feet

Safety Climbs (cont.)

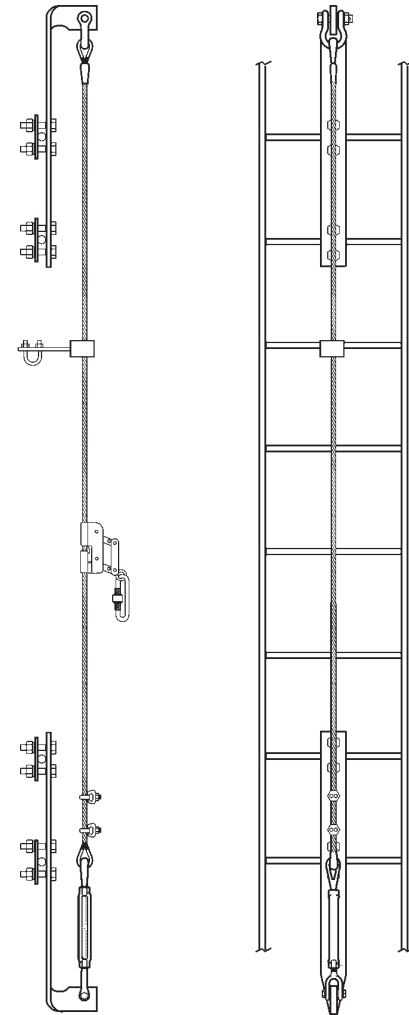


MSA Sure-Climb™ Temporary Cable System

- Quick & easy attachment to approved ladder or structure
- Applications include telecommunication towers, light poles, water towers, hydroelectric towers, stacks, and any other climbable structure
- 5/16" galvanized steel cable
- Integral shock absorber
- Includes anchor bracket, anchor shackle, cable guides, wire rope clips, turnbuckle, and cable
- Uses stainless steel fall arrester* (order separately-see below)

Mfr	Part #	Description
Temporary Cable System		
MSA	SFPLS353050	Sure-Climb System with Integral Shock Absorber, 50' (16 m)
	SFPLS353100	Sure-Climb System with Integral Shock Absorber, 100' (30 m)
	10040010	Sure-Climb Slider (Fall Arrester) with Carabiner

Meets all applicable OSHA regulations and ANSI standards, and CSA certified
Additional lengths available from 50' up to 200' in 50' increments



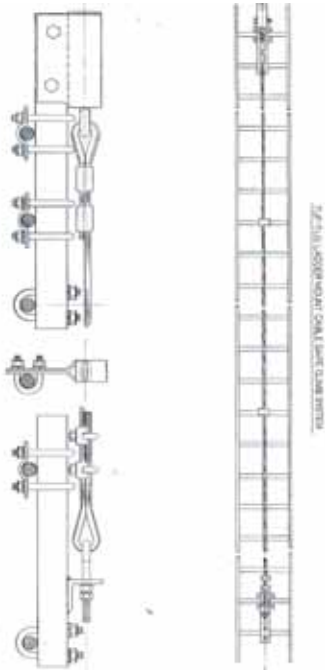
MSA Sure-Climb™ Permanent Cable System

- Applications include telecommunication towers, light poles, water towers, hydroelectric towers, stacks, and any other climbable structure
- 5/16" galvanized steel cable
- Energy-absorbing, galvanized steel top and bottom mounting brackets
- Incorporates cable guides to minimize cable vibration & wear
- Includes anchor bracket, anchor shackle, cable guides, wire rope clips, turnbuckle, and cable
- Uses stainless steel fall arrester* (order separately-see below)

Mfr	Part #	Description
Permanent Cable System		
MSA	SFPLS350050	Sure-Climb System, 50' (16 m)
	SFPLS350100	Sure-Climb System, 100' (30 m)
	10040010	Sure-Climb Slider (Fall Arrester) with Carabiner

Meets all applicable OSHA regulations and ANSI standards, and CSA certified
Additional lengths available from 20' up to 300' in 10' increments

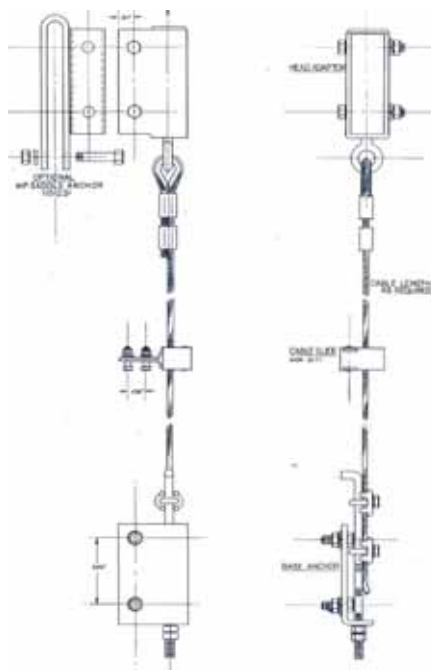
Safety Climbs (cont.)



Standard Ladder Mounted Safety Climb System

Mfr	Part #	Description
Tuf-Tug	115-114-PRIM	Heavy Duty Upright Mounting Bracket Solid Rung Ladders spaced no more than 15" apart, 1-1/8" Rung
	115-203-PRIM	Ladder Mounted Cable Guide with U Bolt for 1-1/8" Rung (requires 1 every 25')
	115-202/115-110-PRIM	Ladder Mounting Bottom Bracket Assembly

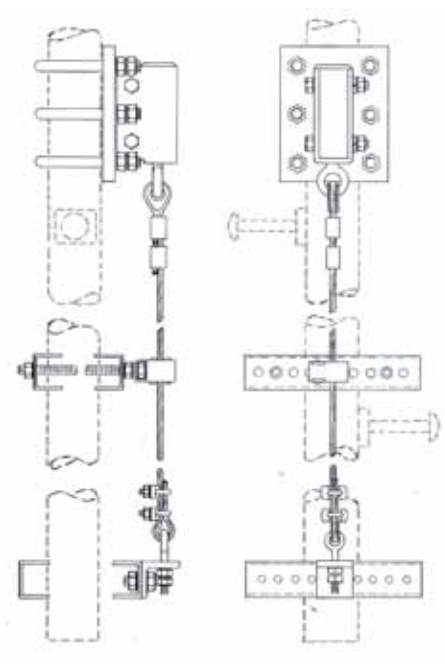
Order cable assembly below



Pole Mounted Safety Climb System

Mfr	Part #	Description
Tuf-Tug	115-231-PRIM	Universal Saddle Mount Top Bracket (use if pole does not have a tab weldment at the top)
	115-303-PRIM	Monopole Cable Guide, Bolt Style (requires 1 every 25')
	115-309/115-310-PRIM	Monopole Bottom Bracket Assembly

Order cable assembly below



Round Leg Mounted Safety Climb System

Mfr	Part #	Description
Tuf-Tug	115-147-2.0-PRIM	Round Leg Top Bracket 2.0" OD
	115-147-2.5-PRIM	Round Leg Top Bracket 2.5" OD
	115-147-3.0-PRIM	Round Leg Top Bracket 3.0" OD
	115-147-3.5-PRIM	Round Leg Top Bracket 3.5" OD
	115-147-4.0-PRIM	Round Leg Top Bracket 4.0" OD
	120-203-PRIM	Universal Leg Adapter Bracket for Stud Mounted Cable Guide Attachment 2" to 8" OD Leg (requires 1 every 25')
	115-317-PRIM	Cable Guide, Stud Mounted (requires 1 every 25')
	115-107/120-203-PRIM	Round Leg Bottom Bracket Assembly

Order cable assembly to the left

Cable Assembly for the Above Systems

Mfr	Part #	Length	Description
Tuf-Tug	TTMP-50'CHA-PRIM	50'	Cable Assembly, Cable & Head Assembly, Factory Swaged Head with Impact Attenuator
	TTMP-100'CHA-PRIM	100'	
	TTMP-150'CHA-PRIM	150'	
	TTMP-200'CHA-PRIM	200'	
	TTMP-250'CHA-PRIM	250'	
	TTMP-300'CHA-PRIM	300'	
	TTMP-350'CHA-PRIM	350'	
	TTMP-400'CHA-PRIM	400'	
	TTMP-450'CHA-PRIM	450'	
	TTMP-500'CHA-PRIM	500'	



Please call for custom applications:
If you can climb it, TUF-TUG can build a system to climb it!

Rescue Kits



Buckingham High Elevation Rescue Kit

- Complete kit with everything needed to self rescue or rescue another from an elevated location
- Features:
 - An anti-panic descender
 - 250' of braided rope
 - 3' anchor sling
 - 7003 pick-off strap
 - Knife/sheath
 - 3 locking carabiners
 - Packed in a back pack rope bag

Mfr	Part #
Buckingham	101SRQ38-250
Meets all applicable ANSI standards	



Buckingham Rescue Kit

- Designed to easily lift a victim on a tower or structure to disconnect their shock-absorbing lanyard
- 4:1 mechanical advantage eases process
- Includes an anchor sling and micro grab to anchor to a lifeline
- 10' lifting height
- Packed in a storage bag that easily attaches to a harness or belt

Mfr	Part #
Buckingham	3816



Rescue Kit

Includes:

- 1 Spreader bar (13150)
- 1 Large steel carabiner (17426)
- 2 Small steel carabiners (17443)
- 1 Fisk descender (2103189)
- 1 3' Tie-off sling (26773)
- 1 1/2" x 300' red kernmantle (RR125RW092E) or 1/2" x 600' red kernmantle (RR125RD183E)
- 1 Red rescue bag (SA-106-RD)
- 1 Rope termination plate (SRIW1000)

Part #	Description
Rescue-Kit	Rescue Kit with 1/2" x 300' Red Kernmantle
Rescue-Kit-600	Rescue Kit with 1/2" x 600' Red Kernmantle

Safety and Rigging

Steel Carabiners



Saflok® Steel Carabiner
3600 lb self closing/locking gate, 11/16" opening

Mfr	Part #
Capital Safety	2000112
ANSI Z359.1-2007	



Saflok® Steel Carabiner
3600 lb self closing/locking gate, 1-3/16" opening

Mfr	Part #
Capital Safety	2000113
ANSI Z359.1-2007	



Saflok® Steel Carabiner
3600 lb self closing/locking gate, 2-3/16" opening

Mfr	Part #
Capital Safety	2000114
ANSI Z359.1-2007	



Steel Carabiner
3600 lb gate, auto twist-lock, 1/2" opening

Mfr	Part #
Elk River	17450
ANSI Z359.1-2007	



Steel Carabiner
3600 lb gate, auto twist-lock, 3/4" opening

Mfr	Part #
Elk River	17451
ANSI Z359.1-2007	



Steel Carabiner
3600 lb gate, auto twist-lock, pin, 1" opening

Mfr	Part #
Elk River	17443
ANSI Z359.1-2007	



Steel Carabiner
3600 lb gate, auto twist-lock, pin, 1" opening

Mfr	Part #
Elk River	17440
ANSI Z359.1-2007	



Steel Carabiner
3600 lb gate, auto twist-lock, pin, 2" opening

Mfr	Part #
Elk River	17435
ANSI Z359.1-2007	



Steel Carabiner
3600 lb gate, auto twist-lock, pin, 2-1/16" opening

Mfr	Part #
Elk River	17420
ANSI Z359.1-2007	



Steel Carabiner
3600 lb gate, auto twist-lock, pin, 2-1/4" opening

Mfr	Part #
Elk River	17426
ANSI Z359.1-2007	



Steel Carabiner
3600 lb self closing/locking gate, 9/16" opening

Mfr	Part #
MSA	10089205
ANSI Z359.1-2007	



Steel Carabiner
3600 lb self closing/locking gate, 1" opening

Mfr	Part #
MSA	10089207
ANSI Z359.1-2007	



Steel Carabiner
3600 lb gate, auto twist-lock, pin, 2.1" opening

Mfr	Part #
MSA	10089209
ANSI Z359.1-2007	



OXAN TRIACT-LOCK Steel Carabiner, 3600 lb gate, 3/4" opening

Mfr	Part #
Petzl	M72TLA
ANSI Z359.1-2007	



OXAN TRIACT-LOCK Steel Carabiner, Black, 3600 lb gate, 3/4" opening

Mfr	Part #
Petzl	M72TLN
ANSI Z359.1-2007	



VULCAN TRIACT LOCK Steel Carabiner, 3600 lb gate, 1-1/8" opening

Mfr	Part #
Petzl	M73TLA
ANSI Z359.1-2007	



VULCAN TRIACT LOCK Steel Carabiner, Black, 3600 lb Gate, 1-1/8" opening

Mfr	Part #
Petzl	M73TLN
ANSI Z359.1-2007	



SMC ANSI LITE Steel Carabiner auto lock 3600 lb gate, 1" opening

Mfr	Part #
PMI	SM102100
ANSI Z359.1-2007	



Viper Steel TW Carabiner 3600 lb gate, 1-1/16" twist-lock gate, 16kN

Mfr	Part #
Skylootec	H-002
ANSI Z359.1-2007	



Steel D TW Carabiner 3600 lb gate, 3/4" twist-lock gate, 16kN

Mfr	Part #
Skylootec	H-129
ANSI Z359.1-2007	



Steel D Tri Carabiner, 3600 lb gate, 3/4" tri-lock gate, 16kN

Mfr	Part #
Skylootec	H-132
ANSI Z359.1-2007	



Big Angle TW Carabiner 3600 lb gate, Scaffold-angled 2-1/8" twist-lock gate, 16kN

Mfr	Part #
Skylootec	H-143
ANSI Z359.1-2007	



Big Round TW Carabiner 3600 lb gate, Scaffold round 2" twist-lock gate, 16kN

Mfr	Part #
Skylootec	H-144
ANSI Z359.1-2007	



Big V TW Carabiner 3600 lb Gate, Ladder-style 1-1/8" twist-lock gate, 16kN

Mfr	Part #
Skylootec	H-145
ANSI Z359.1-2007	



Little D TW Carabiner 3600 lb Gate, 1/2" twist-lock gate, KeyLoc, 16kN

Mfr	Part #
Skylootec	H-147
ANSI Z359.1-2007	



Little D Tri Carabiner 3600 lb Gate, 1/2" tri-lock gate, KeyLoc, 16kN

Mfr	Part #
Skylootec	H-148
ANSI Z359.1-2007	



Super D TW Carabiner 3600 lb Gate, 1" twist-lock gate, KeyLoc, 16kN

Mfr	Part #
Skylootec	H-149
ANSI Z359.1-2007	



Sidewinder TW Carabiner, 3600 lb gate, 1-3/4" twist-loc gate, KeyLoc, 16kN

Mfr	Part #
Skylootec	H-150
ANSI Z359.1-2007	

Aluminum Carabiners



Aluminum Captive Eye Carabiner
auto twist-lock,
3600 lb gate,
3/4" opening

Mfr Part #

Elk River 13195
ANSI Z359.1-2007



Aluminum Carabiner
3600 lb gate,
7/8" opening

Mfr Part #

Elk River 17442
ANSI Z359.1-2007



Aluminum Carabiner
auto twist-lock,
pin, 3600 lb gate,
2" opening

Mfr Part #

Elk River 17237
ANSI Z359.1-2007



Big AL TW Large Round Aluminum Carabiner
2" twist loc gate;
KeyLoc 16kN

Mfr Part #

Skylotec H-151
ANSI Z359.1-2007



KOBRA AL TW Captive Eye Aluminum Carabiner
Captive eye
3/4" twist-loc
gate, 16kN

Mfr Part #

Skylotec H-152
ANSI Z359.1-2007



AL PEAR TW Aluminum Pear Carabiner
3/4" twist-loc
gate, 16kN

Mfr Part #

Skylotec H-153
ANSI Z359.1-2007



WILLIAM SCREW LOCK Aluminum Carabiner
1" gate, 25kN

Mfr Part #

Petzl M36SL*



WILLIAM BALL LOCK Aluminum Carabiner
1" gate, 25kN

Mfr Part #

Petzl M36BL*



WILLIAM TRIACT LOCK Aluminum Carabiner
1" gate, 25kN

Mfr Part #

Petzl M36TL*



Am'D SCREW LOCK Aluminum Carabiner
7/8" gate, 28kN

Mfr Part #

Petzl M34SL*



Am'D BALL LOCK Aluminum Carabiner
7/8" gate, 28kN

Mfr Part #

Petzl M34BL*



Am'D TRIACT LOCK Aluminum Carabiner
7/8" gate, 28kN

Mfr Part #

Petzl M34TL*

* This part does NOT meet ANSI Z359.1-2007 Standards

Snaphooks



Separator Snaphook
3600 lb gate,
3/4" opening,
"Spreader Bar"

Mfr Part #

Elk River 13450
ANSI Z359.1-2007



Steel CenturionZ Snaphook
3600 lb gate,
3/4" opening

Mfr Part #

Elk River 13101
ANSI Z359.1-2007



Steel CenturionZ Swivel Snaphook
Fall Indicator,
Autolock,
3600 lb gate,
3/4" opening

Mfr Part #

Elk River 13321
ANSI Z359.1-2007



Steel CenturionZ Swivel Snaphook
Autolock
3600 lb gate,
3/4" opening

Mfr Part #

Elk River 13314
ANSI Z359.1-2007



Steel CenturionZ Swivel Rebar Form Snaphook
Fall Indicator,
Autolock,
3600 lb gate,
2-1/2" opening

Mfr Part #

Elk River 13329
ANSI Z359.1-2007



Steel CenturionZ Rebar Snaphook
Autolock,
3600 lb gate,
2-1/2" opening

Mfr Part #

Elk River 13218
ANSI Z359.1-2007



Steel Captive Eye Snaphook
Triple-lock
3600 lb gate,
11/16" opening

Mfr Part #

Elk River 13180
ANSI Z359.1-2007



Captive Eye Snaphook
Auto-twist lock
3600 lb gate,
3/4" opening

Mfr Part #

Elk River 13190
ANSI Z359.1-2007



MGO Steel Connector
2-1/8" gate,
25kN

Mfr Part #

Petzl MGO60*



Swivel Rebar Snaphook
3600 lb (3.6M)
gate, 2-1/4"
opening

Mfr Part #

Skylotec H-146
ANSI Z359.1-2007



ANSI Snaphook
3600 lb (3.6M)
gate, 3/4" auto-
lock gate

Mfr Part #

Skylotec H-154
ANSI Z359.1-2007

* This part does NOT meet ANSI Z359.1-2007 Standards

Safety and Rigging

Load Rope

NOVABLU Polyester Double Braided Load Rope

- High strength and high abrasion resistance
- Constructed from the highest quality UV stabilized yarns
- Balanced core and cover construction insures easy splicing



Mfr	Part #	Description	Tensile Strength
Novatec Braids	NB38600	3/8" x 600'	4,900 lbs
	NB381200	3/8" x 1200'	4,900 lbs
	NB12600	1/2" x 600'	10,400 lbs
	NB121200	3/8" x 1200'	10,400 lbs
	NB58600	5/8" x 600'	15,500 lbs
	NB581200	5/8" x 1200'	15,500 lbs

ALL LINE Polyester Double Braid Load Rope

Mfr	Part #	Description	Tensile Strength
All Line	DYB06EE-4242	3/8" x 600'	3,420 lbs
	DYB160-03EE-4242	1/2" x 300'	5,940 lbs
	DYB160-06EE-4242	1/2" x 600'	5,940 lbs
	DYB160-12EE-4242	1/2" x 1200'	5,940 lbs
	DYB20-06EE-4242	5/8" x 600'	9,000 lbs
	DYB20-12EE-4242	5/8" x 1200'	9,000 lbs

11 mm (7/16") Static Kernmantle Rope

Petzl Vector 11 mm (7/16") Static Kernmantle Rope

- Versatile rope designed for difficult to access environments and for fall protection
- Fusion Process™ helps maintain the rope's shape and gives it excellent handling
- Available in four colors

11 mm (7/16") Petzl Static Kernmantle Rope				
Rope size	White	Red	Blue	Black
11 mm (7/16") x 46 m (150')	R1146W	R1146R	R1146B	R1146N
11 mm (7/16") x 61 m (200')	R1161W	R1161R	R1161B	R1161N
11 mm (7/16") x 183 m (600')	R11183W	R11183R	R11183B	R11183N
11 mm (7/16") x 366 m (1200')	R11366W	-	-	R1136N

PMI 11 mm (7/16") Static Kernmantle Rope

- "Time tested" burly sheath design makes it a favorite for professionals who must routinely subject ropes to high abrasion applications
- Available in seven colors

11 mm (7/16") PMI Static Kernmantle Rope							
Rope size	White/Black	Yellow/Black	Orange/Black	Red/Black	Blue/Black	Red	Black
11 mm (7/16") x 46 m (150')	RR110WB046E	RR110YB046E	RR110OB046E	RR110RB046E	RR110BB046E	RR110RD046E	RR110BL046E
11 mm (7/16") x 92 m (300')	RR110WB092E	RR110YB092E	RR110OB092E	RR110RB092E	RR110BB092E	RR110RD092E	RR110BL092E
11 mm (7/16") x 183 m (600')	RR110WB183E	RR110YB183E	RR110OB183E	RR110RB183E	RR110BB183E	RR110RD183E	RR110BL183E

PMI Sewn Eyes

- Streamlined permanent termination
- No knots
- Nearly as strong as the rope
- Stronger than knots

Mfr	Part #	Rope Diameter	Description
PMI	KT36084	11 mm (7/16")	Sewn One End
	KT36085	11 mm (7/16")	Sewn Two Ends
	KT36080	12.5 mm (1/2")	Sewn One End
	KT36083	12.5 mm (1/2")	Sewn Two Ends



PMI Swaged Terminations

- Formed using aluminum sleeves and a stainless steel thimble
- High strength termination
- Stronger than knots

Mfr	Part #	Rope Diameter	Description
PMI	KT36027	11 mm (7/16")	Swaged One End
	KT36028	11 mm (7/16")	Swaged Two Ends
	KT36025	12.5 mm (1/2")	Swaged One End
	KT36026	12.5 mm (1/2")	Swaged Two Ends



12.5 mm (1/2") Static Kernmantle Rope

Petzl Vector 12.5 mm (1/2") Static Kernmantle Rope

- Rope designed specifically for fire rescue teams
- Fusion Process™ helps maintain the rope's shape and gives it excellent handling
- Available in six colors

12.5 mm (1/2") Petzl Static Kernmantle Rope						
						
Rope size	White	Red	Blue	Yellow	Orange	Black
12.5 mm (1/2") x 46 m (150')	R1246W	R1246R	R1246B	R1246Y	R1246O	-
12.5 mm (1/2") x 61 m (200')	R1261W	R1261R	R1261B	R1261Y	R1261O	-
12.5 mm (1/2") x 183 m (600')	R12183W	R12183R	R12183B	R12183Y	R12183O	R12183N
12.5 mm (1/2") x 366 m (1200')	R12366W	-	-	-	-	R12366N

PMI 12.5 mm (1/2") Static Kernmantle Rope

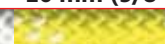
- Classic 6,6 nylon line for any rugged or harsh environment
- High abrasion resistance makes this the toughest rope for any professional
- Available in seven colors

12.5 mm (1/2") PMI Static Kernmantle Rope							
							
Rope size	White/Orange	Yellow/White	Red/White	Blue/White	Black	Blue	Red
12.5 mm (1/2") x 46 m (150')	RR125WO046E	RR125YW046E	RR125RW046E	RR125BW046E	RR125BK046E	RR125BL046E	RR125RD046E
12.5 mm (1/2") x 92 m (300')	RR125WO092E	RR125YW092E	RR125RW092E	RR125BW092E	RR125BK092E	RR125BL092E	RR125RD092E
12.5 mm (1/2") x 183 m (600')	RR125WO183E	RR125YW183E	RR125RW183E	RR125BW183E	RR125BK183E	RR125BL183E	RR125RD183E

16 mm (5/8") Static Kernmantle Rope

PMI 16 mm (5/8") Static Kernmantle Rope

- Extra heavy duty work horse that is easy to grip
- Can take on any job

16 mm (5/8") PMI Static Kernmantle Rope							
							
Rope size	White/Orange	Yellow/White	Red/White	Blue/White	Black	Blue	Red
16 mm (5/8") x 46 m (150')	RR160WO046E	RR160YW046E	RR160RW046E	RR160BW046E	RR160BK046E	RR160BL046E	RR160RD046E
16 mm (5/8") x 92 m (300')	RR160WO092E	RR160YW092E	RR160RW092E	RR160BW092E	RR160BK092E	RR160BL092E	RR160RD092E
16 mm (5/8") x 183 m (600')	RR160WO183E	RR160YW183E	RR160RW183E	RR160BW183E	RR160BK183E	RR160BL183E	RR160RD183E



Custom lengths are available.
Call Primus for all of your rope
needs at (800) 435-1636.

Safety and Rigging

Rope Bags



PMI Rope Bags

- 1000 denier heavy coated Cordura
- Double-sewn seams
- Drawstring closure
- 1" tubular handles with rope insert
- 5/8" grommet on side of bag
- Pocket for rope history card
- Internal clip-in loop at bottom of bag

Small

10-1/2" x 14-1/2"

Part #	Color
RB44010	Black
RB44011	Blue
RB44012	Red
RB44009	Orange

Medium

10-1/2" x 21-1/2"

Part #	Color
RB44013	Black
RB44014	Blue
RB44015	Red
RB44026	Orange

Large

10-1/2" x 25"

Part #	Color
RB44016	Black
RB44017	Blue
RB44018	Red
RB44027	Orange

Rope Packs



PMI Rope Packs

- 1000 denier heavy coated Cordura
- Double-sewn seams
- Drawstring closure
- Padded backpack straps
- 5/8" grommet on side of bag
- Pocket for rope history card
- Internal clip-in loop at bottom of bag

Medium

10-1/2" x 20"

Part #	Color
RB44043	Black
RB44042	Blue
RB44041	Red
RB44040	Orange

Large

10-1/2" x 25"

Part #	Color
RB44019	Black
RB44020	Blue
RB44021	Red
RB44028	Orange

X-Large

16" x 23"

Part #	Color
RB44022	Black
RB44023	Blue
RB44024	Red
RB44029	Orange

XX-Large

16-1/2" x 28"

Part #	Color
RB44058	Black
RB44057	Blue
RB44056	Red
RB44055	Orange



PMI Deluxe Rope Pack

- 1000 denier heavy coated Cordura
- Double-sewn seams
- Drawstring closure
- Roomy rope compartment
- Padded backpack straps
- 5/8" grommet on side of bag
- 2" webbing carrying handles
- 2 large outside pockets with snap buckle closure
- Internal clip-in loop at bottom of bag

Large

10-1/2" x 25"

Part #	Color
RB44004	Blue
RB44006	Red
RB44002	Orange

PMI Rope Capacities

Max Rope Length (Classic Static)

	10 mm	11 mm	12-1/2 mm	16 mm	Diameter	Wall Height	Volume (cubic inches)
Small	80 m	70 m	46 m	3 m	10-1/2"	14-1/2"	1256
Medium	120 m	100 m	75 m	61 m	10-1/2"	21-1/2"	1862
Large	160 m	120 m	92 m	75 m	10-1/2"	25"	2165
X-Large	250 m	200 m	170 m	140 m	16-1/2"	24"	5132
XX-Large	285 m	230 m	200 m	160 m	16-1/2"	28"	5987

Rope Accessories



Whip End Dip

- Water-based liquid vinyl compound sealant
- Seals rope ends to prevent fraying
- Perfect for color coding multiple ropes
- Easy to apply
- Available in three colors
- 4 oz.

Mfr	Part #	Color
PMI	RC48011	Clear
	RC48012	Red
	RC48013	White



Rope ID Kit

- Record important information on ID tags
- Includes 6 tags & 12" of shrink tube
- Marks any rope
- Easy to apply
- Long lasting

Mfr	Part #
PMI	RC48030

Rope Termination Plates



5/8" Termination Plate

Mfr	Part #
MSA	SRI1000



7/16" - 3/4" Rope Termination Plate

Mfr	Part #
Tractel	V4260



Caterpillar Articulated Protector

- Protects a moving rope from abrasion
- Modules are connected with quick links
- Each module can be positioned independently to adapt to the terrain
- Sold as a kit: 4 modules and 6 links

Mfr	Part #
Petzl	P68



Edge Roller System

- Anodized aluminum
- Lightweight
- Anodized aluminum
- Folds for compact storage
- More flexible than fixed edge rollers
- 22" L x 5" W

Mfr	Part #
PMI	HD26086



Spiroll®

- Protection for stationary ropes
- Rugged polyurethane material
- Single rope use
- For ropes greater than 9.5 mm
- Perfect for anchors
- Easily moveable
- Internal clip-in loop at bottom of bag
- Length: 23.5"

Mfr	Part #	Color
PMI	RC48032	Orange
PMI	RC48033	Black



Protec Flexible Protection

- Protects a fixed rope from abrasion
- Lightweight, durable PVC sheath
- Velcro® closure and clip for easy and quick installation

Mfr	Part #
Petzl	C45



PMI Bokar Rope Washer

- Hooks up to hose then turn on water & pull rope through
- Built in brush scrubs dirt off
- Easy to use
- Use with PMI Rope Soap (RC48031)

Mfr	Part #
PMI	RC48002



Rope Soap

- Gently removes dirt, oil, grease, soot, smoke, and other grime
- 1 bottle does up to 12 loads
- Mix 6 to 8 oz with 15 gallons of water
- Biodegradable
- Low pH
- 2.25 lbs

Mfr	Part #
PMI	RC48031



Laundry Bag

- Black polyester mesh bag
- Great for washing rope & webbing and for keeping rope sorted
- Works with front or top loading machines
- Holds 250' of 11 mm Classic Static

Mfr	Part #
PMI	RB44046



Rope Cutter

- Heats and seals up to 1"
- Come with a 2-5/16" blade

Mfr	Part #
All Line	ALC1-HKRC-0115

Tuf-Tug Cable Hoist/Pullers

- Solid steel construction
- Dual-ratchet drive design
- Fiberglass handles available



Small Frame

Part #	Capacity	Reach
TT1-15C	1000 lb Lift/2000 lb Pull	15' Single Line
TT2-7.5C	2000 lb Lift/4000 lb Pull	7.5' Double Line

Medium Frame

Part #	Capacity	Reach
TT2000-12C	1000 lb Lift/2000 lb Pull	12' Single Line
TT3000-6C	1500 lb Lift/3000 lb Pull	6' Double Line
TT15/30-12CDC	1500 lb Lift/3000 lb Pull	12' Single Line, 6' Double Line
TT4000-6C	2000 lb Lift/4000 lb Pull	6' Double Line

Large Frame

Part #	Capacity	Reach
TT3000-12C	1500 lb Lift/3000 lb Pull	12' Single Line
TT25/50-20CDC	2500 lb Lift/5000 lb Pull	20' Single Line, 6' Double Line
TT6000-6C	3000 lb Lift/6000 lb Pull	6' Double Line

Compact Cable Hoist Puller with Carry Case

Part #	Capacity	Reach
TT1500-15C-FHB	750 lb Lift/1500 lb Pull	15' Single Line
TT3000-7.5C-FHB	1500 lb Lift/3000 lb Pull	7.5' Double Line



Tuf-Tug Web-Strap Hoist/Pullers

- Solid steel construction
- Dual-ratchet drive design
- Fiberglass handles available



Small Frame

Part #	Capacity	Reach
TT1-8W	1000 lb Lift/2000 lb Pull	8' Single Line
TT2-4W	2000 lb Lift/4000 lb Pull	4' Double Line
TT1-25W	2000 lb Pull Only	25' Single Line, 4' Take-up

Medium Frame

Part #	Capacity	Reach
TT2000-8W	1000 lb Lift/2000 lb Pull	8' Double Line
TT4000-4W	2000 lb Lift/4000 lb Pull	4' Double Line
TT2000-25W	2000 lb Pull Only	25' Single Line, 4' Take-up

Large Frame

Part #	Capacity	Reach
TT3000-12W	1500 lb Lift/3000 lb Pull	12' Single Line
TT6000-6W	3000 lb Lift/6000 lb Pull	6' Double Line

Compact Cable Hoist Puller with Carry Case

Part #	Capacity	Reach
TT1500-8W-FHB	750 lb Lift/1500 lb Pull	8' Single Line
TT3000-4W-FHB	1500 lb Lift/3000 lb Pull	4' Double Line
TT1500-25W-FHB	1500 lb Pull Only	25' Single Line

Safety and Rigging

Crosby Blocks & Latches



418 Block with Hook
Forged alloy heat treated hooks
Order safety latch separately

Mfr Part #	Dia-meter	Wire Rope Size (in)	Working Load Limit
108038	3"	5/16"-3/8"	2 ton
108065	4-1/2"	3/8"-1/2"	4 ton
108127	6"	5/8"-3/4"	8 ton
Latches			
1096421	Latch for 418 Block 3"		
1096468	Latch for 418 Block 4.5"		
1096562	Latch for 418 Block 6" to 14"		



419 Block with Shackle
Forged steel shackles

Mfr Part #	Dia-meter	Wire Rope Size (in)	Working Load Limit
109037	3"	5/16-3/8"	2 ton
109064	4-1/2"	3/8-1/2"	4 ton
109126	6"	6"	8 ton

Replacement Sheaves
Brushed bronze sheaves

Mfr Part #	Description
2023196	for 418/419 Block 3"
2023183	for 418/419 Block 4.5"
2023137	for 418/419 Block 6"

Rope Hoist/Puller



Rope Hoist/Block & Tackle

- 350 lb Lift/700 lb Pull
- 12' (50' Rope)
- Cam Lever Load Lock
- Hooks with Latch

Mfr	Part #
Tuf-Tug	TTRH700-50

Kearney Blocks

3" Handline Block

- Aluminum with Hook and Latch
- Up to 5/8" rope
- 1,000 lb safe working load

Mfr	Part #
Kearney	303B4PH



4" Handline Block

- Aluminum with Hook and Latch
- Up to 7/8" rope
- 1,000 lb safe working load

Mfr	Part #
Kearney	404B2PJ



Capstans

1,000 lb



Deck and Mount Truck

Part #
CHAC4176015



90° Mount for Capstan

Part #
CHAC4176016



Swivel Hitch Mount

Part #
CHAC4176017



115 Vac Capstain Hoist with Foot Switch
1,000 lbs

Mfr	Part #
AB Chance	C308-1170



C Bracket w/ Mounting Bolts
for 1,000 lb Hoist

Mfr	Part #
AB Chance	C308-0890



Swivel Bracket
for 1,000 lb Hoist

Mfr	Part #
AB Chance	C308-0903



Reese Hitch Receiver Mount
for 1,000 lb Hoist

Mfr	Part #
AB Chance	T308-0999



All Purpose Chain Mount Bracket, Pole, Pipe, Angle
for 1,000 lb Hoist

Mfr	Part #
AB Chance	C308-1335

3,000 lb



115 Vac Capstain Hoist with Foot Switch
3,000 lbs

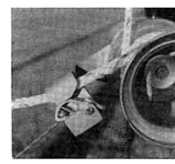
Mfr	Part #
AB Chance	C308-1370



C Bracket w/ Mounting Bolts
for 3,000 lb Hoist

Mfr	Part #
AB Chance	C308-1443

Both 1,000 and 3,000 lb



Rope Lock Device with Hardware
Both 1,000 and 3,000 lbs

Mfr	Part #
AB Chance	C308-0856



Replacement Foot Pedal
Both 1,000 and 3,000 lbs

Mfr	Part #
AB Chance	C417-0337

Tuf-Tug Blocks & Latches

3"



3" Drop Side Snatch Block
with Swivel Eye
Up to 1/2" Wire Rope
2,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug TTSNB-2000SE](#)



3" Drop Side Snatch Block
with Hook & Latch
Up to 1/2" Wire Rope
2,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug TTSNB-2000SH](#)



3" Aluminum Bolt Style Snatch Block
with Swivel Eye
Up to 1/2" Wire Rope
2,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug ALSNB-2000SE](#)



3" Aluminum Bolt Style Snatch Block
with Hook & Latch
Up to 1/2" Wire Rope
2,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug ALSNB-2000SH](#)



3" Aluminum Drop Side Snatch Block
Plain
Up to 1/2" Wire Rope
2,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug ALDSB-2000P](#)

4"



4" Drop Side Snatch Block
with Swivel Eye
Up to 5/8" Wire Rope
3,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug TTSNB-3000SE](#)



4" Drop Side Snatch Block
with Hook & Latch
Up to 5/8" Wire Rope
3,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug TTSNB-3000SH](#)



4" Aluminum Bolt Style Snatch Block
with Swivel Eye
Up to 5/8" Wire Rope
3,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug ALSNB-3000SE](#)



4" Aluminum Bolt Style Snatch Block
with Hook & Latch
Up to 5/8" Wire Rope
3,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug ALSNB-3000SH](#)



4" Aluminum Drop Side Snatch Block
Plain
Up to 5/8" Wire Rope
3,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug ALDSNB-3000P](#)

6"



6" Drop Side Snatch Block
with Swivel Eye
Up to 5/8" Wire Rope
6,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug TTSNB-6000SE](#)



6" Drop Side Snatch Block
with Hook & Latch
Up to 5/8" Wire Rope
6,000 lb Capacity

Mfr	Part #
-----	--------

[Tuf-Tug TTSNB-6000SH](#)

Safety and Rigging

TWINTEX Endless Roundslings

Capacity in Tons													
Mfr	Color Code				Min. Length	Approx. Diameter (no load)	Approx. Weight per foot (lbs.)	Part # 3ft	Part # 4ft	Part # 6ft	Part # 8ft	Part # 10ft	Part # 12ft
Spanset	Purple	2,600	2,100	5,200	3'	0.625	0.3	E30x3	E30x4	E30x6	E30x8	E30x10	E30x12
	Green	5,300	4,200	10,600	3'	0.875	0.4	E60x3	E60x4	E60x6	E60x8	E60x10	E60x12
	Yellow	8,400	6,700	16,800	3'	1.125	0.5	E90x3	E90x4	E90x6	E90x8	E90x10	E90x12
	Tan	10,600	8,500	21,200	3'	1.125	0.6	E120x3	E120x4	E120x6	E120x8	E120x10	E120x12
	Red	13,200	10,600	26,400	3'	1.375	0.8	E150x3	E150x4	E150x6	E150x8	E150x10	E150x12
	White	16,800	13,400	33,600	6'	1.375	0.9	E180x3	E180x4	E180x6	E180x8	E180x10	E180x12
	Blue	21,200	17,000	42,400	6'	1.625	1.3	E240x3	E240x4	E240x6	E240x8	E240x10	E240x12

Liftex Nylon Eye and Eye Slings

Eye & Eye Nylon Sling Capacity Chart														
Mfr		Web Width (in.)	Rated Capacity (lbs.)			Eye Dimensions		Minimum Standard Length						
			Vertical	Choker	Vertical Basket	Width	Length							
Liftex	One Ply	1	1,600	1,250	3,200	1"	9"	3'	EE1-91x4	EE1-91x6	EE1-91x8	EE1-91x10	EE1-91x12	
		2	3,200	2,500	6,400	2"	9"	4'	EE1-92x4	EE1-92x6	EE1-92x8	EE1-92x10	EE1-92x12	
		3	4,800	3,800	9,600	1-1/2"	9"	4'	EE1-93x4	EE1-93x6	EE1-93x8	EE1-93x10	EE1-93x12	
		4	6,400	5,000	12,800	1-1/2"	12"	4'	EE1-94x4	EE1-94x6	EE1-94x8	EE1-94x10	EE1-94x12	
	Two Ply	1	3,200	2,500	6,400	1"	9"	3'	EE2-91x4	EE2-91x6	EE2-91x8	EE2-91x10	EE2-91x12	
		2	6,400	5,000	12,800	2"	9"	3'	EE2-92x4	EE2-92x6	EE2-92x8	EE2-92x10	EE2-92x12	
		3	8,600	6,900	17,200	1-1/2"	9"	4'	EE2-93x4	EE2-93x6	EE2-93x8	EE2-93x10	EE2-93x12	
		4	11,500	9,200	23,000	1-1/2"	12"	4'	EE2-94x4	EE2-94x6	EE2-94x8	EE2-94x10	EE2-94x12	

Sumner Econo Mac Reel Stands

Sumner Econo Mac 75 Reel Jack with Roller Wheels

- Self-lubricating roller bearings; no grease required
- Quick-action lock washer for fast positioning
- Fall Guard feature to reduce pinching
- One-bolt disassembly-no welding required for service
- Capacity: 2,500 lbs.
- Range: 23.75" to 52.75"



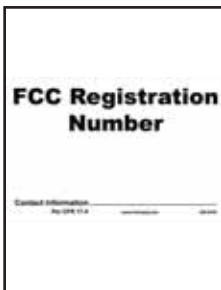
Part #	Mfr
780935	Sumner

Sumner Reel Mac Spindle

- Designed to be used with Reel Mac reel jacks

Part #	Mfr
780230	Sumner

Signs

 RF Site Guidelines Sign Vinyl Decal with Self-Adhesive Back, 11" x 8.5" <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>RSI</td><td>6401D</td></tr></table>	Mfr	Part #	RSI	6401D	 RF Site Guidelines Sign Mounting Holes 11" x 8.5" <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>RSI</td><td>6401P</td></tr></table>	Mfr	Part #	RSI	6401P	 Blue NOTICE BEYOND THIS POINT RF Sign Mounting Holes, 12" x 18" <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>RSI</td><td>6403</td></tr></table>	Mfr	Part #	RSI	6403	 Yellow CAUTION BEYOND THIS POINT RF Sign 12" x 18" <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>RSI</td><td>6404</td></tr></table>	Mfr	Part #	RSI	6404	 Red WARNING RF BEYOND THIS POINT Sign 12" x 18" <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>RSI</td><td>6405</td></tr></table>	Mfr	Part #	RSI	6405	 Red WARNING CONTACT CURRENT /RF BURN Sign 12" x 18" <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>RSI</td><td>6407</td></tr></table>	Mfr	Part #	RSI	6407
Mfr	Part #																												
RSI	6401D																												
Mfr	Part #																												
RSI	6401P																												
Mfr	Part #																												
RSI	6403																												
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Mfr	Part #																												
RSI	6405																												
Mfr	Part #																												
RSI	6407																												
 FCC Tower Registration Sign Blank, Mounting Holes 12" x 18" <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>RSI</td><td>6410</td></tr></table>	Mfr	Part #	RSI	6410	 Blue "NOTICE" COMPETENT CLIMBER ONLY Sign 12" X 18" <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>RSI</td><td>6412</td></tr></table>	Mfr	Part #	RSI	6412	 Red "WARNING" RF BEYOND THIS POINT Sign 12" x 18" <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>RSI</td><td>6418</td></tr></table>	Mfr	Part #	RSI	6418	 CAUTION CLIMBING PATH OBSTRUCTED Sign with Wire Rope Clips <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>Tuf-Tug</td><td>TTCAUTION</td></tr></table>	Mfr	Part #	Tuf-Tug	TTCAUTION	 DANGER DO NOT USE SAFETY CLIMB Sign with Wire Rope Clips <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>Tuf-Tug</td><td>TTDANGER</td></tr></table>	Mfr	Part #	Tuf-Tug	TTDANGER	 WARNING PLATFORM NOT INTENDED FOR PERSONNEL ACCESS Sign with Wire Rope Clips <table><tr><th>Mfr</th><th>Part #</th></tr><tr><td>Tuf-Tug</td><td>TTWARNING</td></tr></table>	Mfr	Part #	Tuf-Tug	TTWARNING
Mfr	Part #																												
RSI	6410																												
Mfr	Part #																												
RSI	6412																												
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Tuf-Tug	TTDANGER																												
Mfr	Part #																												
Tuf-Tug	TTWARNING																												

Safety and Rigging

Compasses



Brunton Sight Master Compass
Azimuth,
Graduated to 1°
Estimates to 1/4°

Mfr	Part #
Brunton	31196



Brunton Nomad V2 Digital Compass
Resolution: 1°
Accuracy: ±2°

Mfr	Part #
Brunton	37501



Suunto KB-20 Vista Compasses
Plastic, Azimuth,
Floats/Waterproof,
Graduated to 1°
Estimates to 1/2°

Part #	Color
37021	Yellow
37022	Graphite



Suunto KB-14 Compasses
Aluminum with Nylon
Carrying Case

Part #	Description
37010	Azimuth, Graduated to 1/2° Estimates to 1/4°
37015	Quadrant, Graduated to 1° Estimates to 1/2°
	Declination Adj.
	Azimuth, Graduated to 1/2°
37049	Estimates to 1/4°



Suunto KB-14Q Compass
Aluminum,
Quadrant,
Declination Adj.,
Graduated to 1°
Estimates to 1/2°

Mfr	Part #
Suunto	37052



Suunto Cordura Compass Case
Fits most
compasses

Mfr	Part #
Suunto	37004

Digital Levels & Accessories

Use as a level, plumb, and clinometer. Displays angles in degrees, percent slope, and pitch to an accuracy of 1/10°



SmartTool™ Digital Level
6.5", Includes 9V Battery

Mfr	Part #
M-D Building Products	92346



SmartTool™ Digital Level
Sensor module in a 24"
Rail, Includes 9V Battery

Mfr	Part #
M-D Building Products	92288

SmartTool™ Digital Level
Sensor module in a 48"
Rail, Includes 9V Battery

Mfr	Part #
M-D Building Products	92296



Digital Level Accessories

Mfr	Part #	Description
M-D Building Products	92296	Magnetic Bracket, for use with Module
	92910	Soft Carrying Case for 6.5" Level
	92908	Soft Carrying Case for 24" Level
	92924	Soft Carrying Case for 48" Level

Safety Knives



Maxisafe Knife
Automatic blade
"shoot back", Blunt Tip
blade installed,
GS tested for safety

Mfr	Part #
Martor USA	101106



Maxisafe 3-Sided Slider Knife
Automatic blade
"shoot back", Blunt Tip
blade installed,
GS tested for safety

Mfr	Part #
Martor USA	101806



Megasafe Heavy Duty Knife
Aluminum handle,
blade automatically
retracts when it loses
contact with material
being cut, uses straight
or hooked blade, Blunt
Tip blade installed,
GS tested for safety

Mfr	Part #
Martor USA	116006



**ALLFIT Trapezoid
Blades, Deep-Edged**
100 ct box

Mfr	Part #
Martor USA	99-100



**ALLFIT Trapezoid
Blades, Blunt Tip**
100 ct box

Mfr	Part #
Martor USA	60099-100

Adjustable-Head Construction Wrench

- Versatile wrench fits nuts and bolts to 1-1/2" (38 mm)
- Eliminates the need for carrying several fixed-size wrenches
- Forged from select alloy steel with continuous-taper handle for aligning bolt and/or rivet holes
- Industrial black finish for corrosion resistance



Mfr	Part #	Max Size	Length
Klein Tools	3239	1-1/2"	16"

Erection Wrenches

- Forged from select alloy steel to withstand high-leverage and heavy loads
- Continuous taper of handle makes lining-up bolt holes easy and works on a range of bolt-hole sizes without binding
- Extra large hub area works on larger diameter holes better than other wrenches



Mfr	Nut Type	Bolt Size	Nominal Opening	Head Width	Taper Diameter	Overall Length	Part #
Klein Tools	US Heavy Nut	1/2"	7/8"	2-1/4"	7/8" to 3/16"	14-3/4"	3210
		5/8"	1-1/16"	2-1/4"	7/8" to 3/16"	14-3/4"	3211
		3/4"	1-1/4"	2-1/2"	1" to 1/4"	16-5/8"	3212
		7/8"	1-7/16"	3"	1-1/8 to 9/32"	17-3/8"	3213
		1"	1-5/8"	3-5/8"	1-1/8" to 1/4"	18"	3214
	US Regular Nut	1/2"	3/4"	2-1/4"	7/8" to 3/16"	14-3/4"	3219
		1/2"	13/16"	2-1/4"	7/8" to 3/16"	14-3/4"	3220
		5/8"	1"	2-1/4"	7/8" to 3/16"	14-3/4"	3221
		3/4"	1-1/8"	2-1/2"	1" to 1/4"	16-5/8"	3222
		7/8"	1-5/16"	3"	1-1/8" to 9/32"	17-3/8"	3223
		1"	1-1/2"	3-5/8"	1-1/8" to 1/4"	18"	3224
	US Utility Nut	5/8"	15/16"	2-1/4"	7/8" to 3/16"	14-3/4"	3231
		3/4"	1-1/16"	2-1/2"	1" to 1/4"	16-5/8"	3232

Safety and Rigging

Measuring Tapes



Klein Tools High Visibility Tape
1" x 25', power return
16" & 19.2" stud-center marks

Mfr	Part #
Klein Tools	928-25HV



Klein Tools High Visibility Tape
1" x 25', Magnetic tip, dual end hook, double-sided tape, power return, rubber grip

Mfr	Part #
Klein Tools	918-25RE



25' Power-Return Rule – Magnetic Tip Tape,
1" x 25', magnetic tip, power return, rubber grip

Mfr	Part #
Klein Tools	916-25RE



25' Power-Return Rule – Double-Sided
Easy reading of elevations, flat surface, and pipe conduit measurements

Mfr	Part #
Klein Tools	908-25



Keson® K-Line High Speed Rewind Fiberglass Tapes

1/2" PVC-coated fiberglass tapes. Graduated in feet, inches, 8ths on one side; feet, 10ths, 100ths on other side.

Mfr	Part #	Description
Keson	39921	100' High Speed Rewind
Keson	39922	200' High Speed Rewind
Keson	39923	300' High Speed Rewind



Keson® RoadRunner® Distance Measuring Wheels
Plastic-covered, five-digit counter that measures to 9,999' in inches and feet, completely enclosed gears, zero reset button, telescopic handles and more

Mfr	Part #	Description
		RR-418 RoadRunner Measuring Wheel, 15-1/2" Diameter, 4' Circumference
Keson	39010	
		RR-318 RoadRunner Measuring Wheel, 12-1/2" Diameter, 3' Circumference
Keson	39024	

Flashlight/Wands



Flashlight output: 10,000 beam candlepower; requires 2 D Cell Batteries (not included). Flashlight's lens ring accepts a 6.5" snap-in wand (sold separately).

Mfr	Part #	Description
Bright Star	2458	Heavy Duty Industrial Flashlight
		6.5" Red Snap-in Wand for 2458
Bright Star	2459	Flashlight

SmartOne™ Personal RF Monitor



Monitors strength of RF fields from mobile phone towers, microwave ovens, radio and television installations, high frequency welders, and other common workplace RF sources between 10 and 10,000 MHz.

Mfr	Part #
LBA Group	SI-1000



Hand Wipes

Waterless Hand Wipes, 75 Pre-moistened 10.5" x 12.25" wipes per bucket

Mfr	Part #
Kimberly-Clark	63-WYPALLHANDWI

Climbing Helmets



Vertex® Vent Helmet
Ventilated helmet for work at height & rescue, with chin strap and adjustable headband

Mfr	Part #	Color
Petzl	A10VBA	Blue
	A10VNA	Black
	A10VOA	Orange
	A10VRA	Red
	A10VWA	White
	A10VYA	Yellow

Certification: CE EN 12492, ANSI Z89.1-2003 Type 1 Class C



Vertex® Best Helmet
Non-ventilated helmet for work at height & rescue, with chin strap and adjustable headband

Mfr	Part #	Color
Petzl	A10BBA	Blue
	A10BNA	Black
	A10BOA	Orange
	A10BRA	Red
	A10BWA	White
	A10BYA	Yellow

Certification: CE, ANSI Z89.1-2003 Type 1 Class E



Vertex® Best Duo LED 14 Helmet
Vertex Best helmet with waterproof hybrid headlamp for use in confined spaces, rescue, and nighttime work

Mfr	Part #	Color
Petzl	E66W1	White

Certification: CE, ANSI Z89.1-2003 Type 1 Class C



Advantage Helmet
Fully adjustable helmet with 3-point chinstrap, headlamp retainer, and goggle mount

Mfr	Part #	Color
PMI	HL33014	White
	HL33012	Red
	HL33011	Orange
	HL33013	Blue

Certified: NFPA 1951, ANSI Z359.1, Type 1



Alto Helmet
Lightweight helmet with 3-point suspension, headlamp or goggle retainer, & cloth chinstrap

Mfr	Part #	Color
PMI	HL33015	White

Certified: CE



Pod Helmet
Lightweight helmet for vertical work and confined spaces that accepts a Pelican MityLite 2420 (sold separately)

Mfr	Part #	Color
PMI	HL33026	White
	HL33025	Red
	Pelican MityLite 2420	
	HG32015	Yellow

Certified: ANSI Z359.1, 2007, Type 1



Ventilator Helmet
Light-duty rescue helmet with a vent, 3-point chinstrap, headlamp retainer, earmuff clip & reflectors

Mfr	Part #	Color
PMI	HL33060	Silver
	HL33068	Red

Certified: ANSI Z359.1, 2007, Type 1

Hard Hats



Slotted Hard Cap
Features a rain trough for extra protection against snow, rain, & dust. 4-point suspension and accessory slots.

Mfr	Part #	Color
Bullard	24558	White
	24561	Red
	24557	Yellow
	24574	Blue
	24556	Orange

Meets ANSI Z89.1-2003 Class E and G



V-Gard® Protective Hat
Non-slotted hard hat with polyethylene shell and Fas-Trac suspension

Mfr	Part #	Color
MSA	475369	White
	475371	Red
	475368	Blue

Additional colors available
Meets ANSI Z89.1-2003, Type 1 Class E



Skullgard® Protective Hat
Heavy-duty hat with Fas-Trac suspension. For use in steel mills and other industries where elevated temperatures are common.

Mfr	Part #	Color
MSA	475408	White
	475407	Tan

Meets ANSI Z89.1-2003, Type 1 Class G

Helmet Accessories

Safety and Rigging

Helmet Accessories



Plastic Chinstrap

Attaches to the shell

Mfr	Part #
MSA	88128

Elastic Chinstrap

Attaches to the suspension

Mfr	Part #
MSA	81391



Tikka® Plus 4 LED Headlamp
Water-resistant 4 LED headlamp with 3 lighting levels & 2 lighting modes

Mfr	Part #
Petzl	E47 PBY



Tikka® 3 LED Headlamp
Water-resistant 3 LED headlamp with single lighting level

Mfr	Part #
Petzl	E43 PBY



Tikka 2 LED Headlamp
Water resistant 2 LED headlamp with single lighting level

Mfr	Part #
Petzl	E41 PBY



e-Lite® Emergency Headlamp
Waterproof headlamp with whistle for use in emergency situations

Mfr	Part #
Petzl	E02 P2



Pelican 2420 MityLite
Corrosion proof, indestructible hand held light with twist turn to turn on. Submersible to 500 ft.

Mfr	Part #
PMI	HG32015



Spot Headlamp
3 SuperBright LED headlamp with 4 lighting levels and strobe

Mfr	Part #
PMI	HG32023



Cosmo Headlamp
Fully stormproof headlamp with 8 brightness settings and strobe

Mfr	Part #	Color
PMI	HG32017	Silver
	HG32021	Spice



Ion Headlamp
Pocket-size headlamp with 1 SuperBright LED in a pivoting head; head or wrist mountable

Mfr	Part #
PMI	HG32018

Safety Glasses

Easy-Flex™ Protective Eyewear

- Flex for a comfortable fit
- Polycarbonate lenses for high-impact protection
- Hard-coated lenses



Clear lens
Blue-gray frame

Mfr	Part #
MSA	10070917



Gray lens
Blue-gray frame

Mfr	Part #
MSA	10070918



Sky-orange lens
Metallic frame

Mfr	Part #
MSA	10070921

Pyrenees™ Protective Eyewear

- Dual injection soft tip temples
- Full-side protection
- Meets Z87+ and CSA Z94.3



Clear lens
Black frame

Mfr	Part #
MSA	10033716



Gray lens
Black frame

Mfr	Part #
MSA	10033717

Trix Safety Glasses

- 99% UV protection
- Temples are universal length
- Meets ANSI Z87.1-2003



Clear lens
Black frame

Mfr	Part #
Elvex	23287



Gray lens
Black frame

Mfr	Part #
Elvex	23288

Prevail™ Protective Eyewear

- Fog-Ban® lenses resist fogging
- Frame w/ side impact protection
- Meets Z87.1-1997



Clear lens
Black frame

Mfr	Part #
Willson	23214



Gray lens
Black frame

Mfr	Part #
Willson	23215



Striketeam Goggles
High-impact, anti-fog & anti-scratch lenses. Closed cell foam padding for a perfect fit.

Mfr	Part #
PMI	HL33023
ANSI compliant	



Advancer V-12™ Goggles
Ballistic lenses open and close to regulate ventilation and filtration. Out-rigger strap system.

Mfr	Part #
PMI	HL33067
ANSI Z87.1-03	



Standard Eyewear Lanyard
- Holds eyewear securely
- Clips into holes in eyewear temple ends
- Pack of 12

Mfr	Part #
MSA	10020872



Eyewear Cleaning Towelettes
- Pre-moistened towelettes
- Box of 100

Mfr	Part #
MSA	10022087

Safety Glasses Accessories

warming

Head Liners



N-Ferno® 6952 3-Layer Extreme Winter Liner

- Sherpa fleece comfort with warming pack pockets
- 3-layer nylon/foam/sherpa, single wash FR treated
- Shoulder length

Mfr	Part #
Ergodyne	6952



N-Ferno® 6852 2-Layer Cold Series Winter Liner

- With warming pack pockets for cold conditions
- 2-layer cotton/fleece
- Single wash FR treated
- Shoulder length with hook & loop chin wrap

Mfr	Part #
Ergodyne	6852



N-Ferno® 6850 2-Layer Cold Series Winter Liner

- Liner with warming pack pockets for cold conditions
- 2-layer cotton/fleece
- Single wash FR treated
- Regular length with hook & loop chin wrap

Mfr	Part #
Ergodyne	6850



N-Ferno® 6821 Balaclava

- Stretch fleece keeps head and neck comfortable
- Long length
- Single wash FR treated
- Polyester fleece

Mfr	Part #
Ergodyne	6821



N-Ferno® 6970 Extreme Balaclava with Hot Rox

- Thick fleece covers neck, ears, head, and face for ultra warmth
- Hot Rox Heat Exchanger for core body heat retention and antifatigue

Mfr	Part #
Ergodyne	6970



Extended-Neck Zero Hood Winter Liner

- 1-piece, 2-ply liner
- Extended neck tucks into coat or jacket
- Nonmetallic Velcro-adjustable chinstrap

Mfr	Part #
MSA	88587



Knit Cap Winter Liner

- Made of Orlon material
- No chinstrap or other attachments
- Not for use around open flames, sparks or molten metal

Mfr	Part #
MSA	34929



Stretch Winter Liner

- Mounts over brim of a hard hat
- Can adjust to cover neck and ears
- Not for use around open flames, sparks or molten metal

Mfr	Part #
MSA	695350



N-Ferno® 6990 Hand-Style Warming Packs

- Self-contained packs add heat anywhere when exposed to air
- To activate, just open the pack
- All natural ingredients heat up when they contact oxygen
- Warms up to 8 hours

Mfr	Part #
Ergodyne	6990

cooling

Head Sweats



Chill-Its® 6717 Cooling Hard Hat Pad with Neck Shade

- Attaches to hard hat suspension headband
- Lightweight, cooling acrylic polymers
- Protects neck from harmful UV rays

Mfr	Part #
Ergodyne	6717



Ergodyne Chill-Its® 6715 Evaporative Cooling Hard Hat Pad

- Attaches to hard hat suspension headband
- Lightweight, cooling acrylic polymers
- Hook & loop closures

Mfr	Part #
Ergodyne	6715



Ergodyne Chill-Its® 6716 Evaporative Cooling Hard Hat Liner

- Attaches to hard hat suspension headband
- Lightweight, cooling acrylic polymers
- Hook & loop closures

Mfr	Part #
Ergodyne	6716



Chill-Its® 6607 Sponge Sweatband

- Keeps sweat out of eyes for comfort and safety
- Cellulose, absorbent sponge band
- Elasticized back
- Hand wash

Mfr	Part #
Ergodyne	6607



Custom Terri-Band Sweatband

- Custom design fits all MSA helmets
- Washable
- Plastic snaps

Mfr	Part #
MSA	10068911



Chill-Its® 6609 Terry Sweatband

- Keeps sweat out of eyes
- Fits most hard hat suspension systems
- Machine washable

Mfr	Part #
Ergodyne	6609



Chill-Its® 6615 High-Performance Dew Rag

- Wicks moisture away
- Comfortable to wear under hats, helmets or alone
- Absorbent terry head band
- Elastic band

Mfr	Part #	Color/Pattern
Ergodyne	6615SS	Stars & Stripes
	6615NW	Navy Western
	6615F	Flames
	6615S	Skulls

Also available in different patterns



Chill-Its® 6700 Evaporative Cooling Bandana-Tie

- Activated polymers bring cooling power where you need it most
- Tie closure

Mfr	Part #	Color/Pattern
Ergodyne	6700SS	Stars & Stripes
	6700NW	Navy Western
	6700F	Flames
	6700S	Skulls

Also available in different patterns



Ergodyne Chill-Its® 6602 Evaporative Cooling Hard Hat Pad

- Reduces effect of heat stress & fights fatigue
- Wear for hours, or wipe off for quick relief
- Simply re-wet the towel to reactivate

Mfr	Part #
Ergodyne	6602

Chill-Its® Cooling: Hydration Series



Chill-Its® 5155 Low Profile Hydration Pack

- 420D nylon shell stands up to long term wear & tear
- Zip-up cap cover keeps debris & contaminants at bay
- Closed cell insulation keeps water cool for hours
- TPE polymer bladder for water that tastes like water, not plastic
- Big mouth opening for simple filling and cleaning
- H2O Capacity: 70 oz. (2 l), 3 hrs.

Mfr	Part #	Color
Ergodyne	5155B	Black
Ergodyne	5155L	Hi-Vis Lime

First Aid Kits



Weekender Medical Kit

Outfitted with the Easy Care System, an ingenious design that helps anyone—from novices to EMTs—quickly and confidently administer first aid. Designed to support groups of up to 7 people for up to a week long trip.

Mfr	Part #
Adventure Medical Kits	WEEKENDER



62-Piece First Aid Kit

10-person kit contains 62 pieces of first aid supplies. Latex-free contents. Includes instant cold compress.

Mfr	Part #
MSA	10070148



160-Piece First Aid Kit

Includes major wound bandage and instant cold pack. Dispenser tray helps keep contents organized.

Mfr	Part #
MSA	10049585
Exceeds ANSI Z308.1-2003 for Type II First Aid Kit	



10, 25, & 50 Person First Aid Kits

Neat, orderly interior packaging makes contents easy to locate and use! All contents are housed in a weatherproof, plastic storage case.

Part #	Description
25223	10-Unit Kit
25222	25-Unit Kit
25228	50-Unit Kit

Contents in 25223, 25222, and 25228 meet or exceed requirements of ANSI Standard Z308.1-2003



First Aid 4-Shelf Station

This 4-shelf station keeps all your first aid supplies neat and organized. Metal case with hinged door measures 14" x 21" x 5-7/8".

Part #	Description
25233	First Aid 4-Shelf Station

Ear Protection



Round-Shaped Disposable Ear Plugs

FormFit™ round disposable urethane foam ear plugs. Dispenser box of 200 individually packaged pairs.

Mfr	Part #	Description
MSA	10009333	Non-corded
	10009332	Corded



Conical-Shaped Disposable Ear Plugs

FormFit™ round disposable urethane foam ear plugs. Dispenser box of 200 individually packaged pairs.

Mfr	Part #	Description
MSA	10051348	Non-corded
	10051347	Corded



Reusable Ear Plugs

Tri-Seal reusable silicone ear plugs. Corded. Dispenser box (suitable for wall hanging) of 100 individually packaged pairs.

Mfr	Part #	Description
MSA	10005607	Corded



Quattro™ Reusable Corded Earplugs

Resistant to ear wax and body oils. Provided with nylon cord and packaged in a plastic case with chain. NRR 25dB.

Mfr	Part #
Elvex	94172



Nitro™ Earplugs

Ultra-soft foam earplugs with superior noise reduction. Box of 200 with an assortment of colors. NRR 32dB.

Mfr	Part #
Peltor	94150



PTT™ Earmuffs (Push to Talk)

Push once to turn on & again to turn off speaker for easy listening without removing earmuffs

Mfr	Part #	Description
PMI	HL33043	Earmuffs
	HL33045	Mounting Clips



NRR 24dB Earmuffs

Excellent attenuation at low & high frequencies. Two low mounting points provide comfort.

Mfr	Part #	Description
PMI	HL33042	Earmuffs
	HL33045	Mounting Clips

Safety / Traffic Cones and Accessories



Safety Cones

One-piece molded to help prevent cracking

Mfr	Part #	Size
MSA	10073426	12" H
	10073425	18" H
	10073424	28" H



Traffic Cones

Fluorescent, highly visible traffic cones with molded 13" square rubber base

Part #	Size
24879	18" H
24880	28" H
24875	36" H
24876	28" H w/ Reflectors
24877	36" H w/ Reflectors



Traffic Cone Safety Warning Signs

Specially designed slots quickly attach signs firmly on safety cones. Highly visible & strong plastic. 12-3/4" x 10-1/2".

Part #	Size
37531	Single Arrow Sign
37537	SURVEY PARTY Sign
37533	SLOW sign
37538	MEN WORKING Sign

Pad Locks



Combination Locks

Set your own combination to rugged brass case locks. Includes 4-digit direct dial operation, 2" wide solid brass case & can be reset.

Mfr	Part #	Shackle Size
Master Lock	95173	5/16" x 1" x 1"
	95174	5/16" x 2-1/4" x 1"



Key Tumbler Padlock

Laminated steel body with hardened steel shackle, 4-pin cylinder, and dual-locking levers

Mfr	Part #	Size
Master Lock	94741	1-9/16" Body, 3/4" Deep, 5/8" Opening

Tie Hooks

Squids® 3540 and 3560 Tie Hooks

- Super-duty, reusable locking tie hook for organizing and cinching hoses, cords, pipe, and almost anything else
- Adjustable sliding belt lock mechanism
- Temp range: -40°F - 176°F (-40°C-80°C)



Locking Tie Hooks

- Large locking hook attachment with 360° swivel
- Cable lock for security and increased load capacity

Mfr	Part #	Size
Ergodyne	3540S	11.8" (30 cm) belt
	3540M	15.8" (40 cm) belt
	3540L	19.7" (50 cm) belt



Tie Hook Hand Grip

- Large hand grip with 360° swivel
- Grip opens to lock around anchor point

Mfr	Part #	Size
Ergodyne	3560M	15.8" (40 cm) belt
	3560L	19.7" (50 cm) belt

Tool Lanyards

Tethers tools to help worker prevent injury, damage and lost productivity from dropped tools



Squids® 3102 Tool Lanyard

- Detachable aluminum carabiner tethers tools to help worker prevent dropped tools
- Quick release buckle
- Adjustable barrel lock for tool attachment
- Maximum safe working capacity: 5 lbs (2.26 kg)

Mfr	Part #	Color
Ergodyne	3102L	Lime
Ergodyne	3102B	Black



Squids® 3103 Tool Lanyard Loops

- Detachable loops attach to Tool Lanyard (3102) for quick exchanges of multiple tools
- Quick release buckle
- Adjustable barrel lock for tool attachment
- Lock stitching for extra security

Mfr	Part #	Color
Ergodyne	3103L	Lime
Ergodyne	3103B	Black

Accessory not included



Squids® 3115 Wrist Lanyard

- Polyester webbing cuff secures to wrist
- Tether length 7.5" (19 cm)
- Maximum safe working capacity: 2 lbs (0.9 kg)
- Adjustable barrel lock for tool attachment
- Ribbed pull cord

Mfr	Part #	Color
Ergodyne	3115	Black

Fire Extinguishers



ABC Stored Pressure Multi-Purpose Dry Chemical Fire Extinguishers

- UL® approved, manufactured to standards under ISO-9002, and contain required HMIS information.
- Extinguishers operate in upright position: Squeeze grip handle, pull pin, and mounting bracket.
- The unique extinguishing agent is a non-conductor of electricity which clings to surfaces and smothers flames. Available in a wide range of sizes.
- Effective temperature range: -65°F to +120°F.
- Approval Codes:
 - Class A – Safe to use on common combustibles (wood, paper, cloth, rubber, trash, and most plastics)
 - Class B – Safe to use on flammable liquids (gasoline, kerosene, oil, grease, solvents, gases, and paint)
 - Class C – Safe to use around live electrical equipment (computers, lamps, and electrical appliances)

Model B417TM / 2-1/2 lb. / Nozzle

U/L Rating: 1A: 10B:C
 Rating: Dry Chemical - A, B, C, Multi
 Discharge Time: 10 sec.
 Range: 9'-15'
 Dimensions:
 14-5/8" H x 5-3/4" W, 3" Dia.
 Bracket Supplied: Vehicle/Marine

Mfr	Part #	Description
Amerex	85472	2-1/2 lb. Nozzle

Model B500T/5 lb./Hose

U/L Rating: 2A: 10B:C;
 Rating: Dry Chemical - A, B, C, Multi
 Discharge Time: 14 sec.
 Range: 12'-18'
 Dimensions:
 15-1/4" H x 7-1/4" W, 4-1/4" Dia.
 Bracket Supplied: Wall - Requires
 Model 821 Bracket for U.S.C.G.
 Approval

Mfr	Part #	Description
Amerex	85473	5 lb. Hose

Model B456 / 10 lb. / Hose

U/L Rating: 4A: 60B:C
 Rating: Dry Chemical - A, B, C, Multi
 Discharge Time: 20 sec.
 Range: 15'-21'
 Dimensions:
 20-1/2" H x 8-3/4" W, 5" Dia.
 Bracket Supplied: Wall - Requires
 Model 809 Bracket for U.S.C.G.
 Approval

Mfr	Part #	Description
Amerex	85474	10 lb. Hose



Water Stored Pressure Fire Extinguisher

- Utilizes pressurized water to safely kill Class A type fires.
- Features an attractive stainless steel cylinder which is easy to maintain and service.
- Note: Water Stored Pressure Extinguishers do not ship charged. Extinguisher must be filled and pressurized upon receipt by a qualified service technician.
- Effective temperature range: 40°F to 120°F

Model 240 / 2-1/2 lb. / Hose

U/L Rating: 2A
 Rating: Water A
 Discharge Time: 50 sec.
 Range: 45'-55'
 Dimensions: 24-1/2" H x 9" W, 7" Dia.
 Bracket Supplied: Wall

Mfr	Part #	Description
Amerex	85481	2-1/2 gal. Hose

Safety Vests



GloWear® 8205HL Class 2 Super Econo Vest

- ANSI-certified polyester mesh (3.3 oz.)
- Hook & loop closure
- 2" Level 2 ANSI-certified tape
- Lime, Orange

Mfr	Part #	Size	Color
Ergodyne	8205HL-O-S	S/M	Orange
	8205HL-O-L	L/XL	Orange
	8205HL-O-XXL	2XL/3XL	Orange
	8205HL-L-S	S/M	Lime
	8205HL-L-L	L/XL	Lime
	8205HL-L-XXL	2XL/3XL	Lime

Additional sizes available



GloWear® 8249Z Class 2 Economy Surveyors Vest

- ANSI-certified poly solid front (3.6 oz.) mesh back (3.3 oz.)
- Zipper closure
- 2" Level 2 ANSI-certified tape
- Pockets: two inside, two outside
- Lime, Orange

Mfr	Part #	Size	Color
Ergodyne	8249Z-O-S	S/M	Orange
	8249Z-O-L	L/XL	Orange
	8249Z-O-XXL	2XL/3XL	Orange
	8249Z-L-S	S/M	Lime
	8249Z-L-L	L/XL	Lime
	8249Z-L-XXL	2XL/3XL	Lime

Additional sizes available



GloWear® 8252Z Class 2 Vest with D-Ring Access

- ANSI-certified polyester mesh (3.3 oz.)
- Zipper closure
- 2" Level 2 ANSI-certified tape (3M™ Scotchlite™)
- Pockets: Two inside, three outside
- D-ring access slot
- Lime, Orange

Mfr	Part #	Size	Color
Ergodyne	8252Z-O-S	S/M	Orange
	8252Z-O-L	L/XL	Orange
	8252Z-O-XXL	2XL/3XL	Orange
	8252Z-L-S	S/M	Lime
	8252Z-L-L	L/XL	Lime
	8252Z-L-XXL	2XL/3XL	Lime

Additional sizes available



Class II Safety Vest

- Meets ANSI Class II Vest requirements for traffic up to 50 mph
- Unique integral back pocket storage for when vest is not in use
- Horizontal and vertical stripes for excellent visibility even when bending
- Popular high-viz lime green color stands out better around orange traffic barriers

Mfr	Part #	Color
MSA	10053455	Lime



High Visibility Safety Vest

- One size fits all to accommodate most wearers
- Hook and loop closures keep vest closed
- Elastic straps automatically adjust to waistline

Mfr	Part #	Color
MSA	818040	Orange



Reflective Safety Vest

- Reflective stripes provide increased visibility
- Hook and loop closures keep vest closed
- Elastic straps automatically adjust to waistline

Mfr	Part #	Color
MSA	817890	Lime

More Safety Vests and Clothing 

Safety and Rigging

Safety Vests / Clothing



ANSI Class II Mesh Vests

- Lightweight mesh polyester fabric
- 2" reflective silver tape in a 360° horizontal stripe with 2 vertical stripes
- Hook and loop front closure
- Lime or High Vis Orange
- Large/XL: 38" - 46" chest
- 2XL/3XL: 48" - 56" chest

Part #	Size	Color
24947	L/XL	Orange
24948	2XL/3XL	Orange
24934	L/XL	Lime
24935	2XL/3XL	Lime

Compliant with ANSI/ISEA 107-2004



ANSI Class II / IL DOT Class II Mesh Safety Vests

- Hook and loop closures in the front allow easy on/off wearability
- Genuine 3M™ reflective, double-stitched bar tacks and durable seams
- Two pockets, 1 inside and 1 outside
- Lime or Orange

Part #	Size	Color
24914	L	Orange
24920	XL	Orange
24937	2XL	Orange
24905	L	Lime
24906	XL	Lime
24909	2XL	Lime

Meets IL DOT Class II standards and ANSI Class II standards



GloWear® 8289 Class 2 Economy T-Shirt

- ANSI-certified polyester knit (3.3 oz.)
- Moisture wicking treatment
- 2" Level 2 ANSI-certified tape
- Lime, Orange

Mfr	Size	Orange Part #	Lime Part #
Ergodyne	Small	8289S-O	8289S-L
	Medium	8289M-O	8289M-L
	Large	8289L-O	8289L-L
	X-Large	8289XL-O	8289XL-L
	2XL	8289XXL-O	8289XXL-L

Also available in larger sizes



GloWear® 8380 Class 3 Bomber Jacket

- Weatherproof outer shell constructed of 100% polyester
- Breathable PU coating
- Inner jacket with 300g fleece lining; can be worn with or without fleece lining
- 2" Level 2 ANSI-certified tape (3M™ Scotchlite™)
- Inset hood with drawstring & stoppers
- Storm front with zipper and snap closure
- YKK #5 Zippers

Mfr	Size	Orange Part #	Lime Part #
Ergodyne	Small	8380S-O	8380S-L
	Medium	8380M-O	8380M-L
	Large	8380L-O	8380L-L
	X-Large	8380XL-O	8380XL-L
	2XL	8380XXL-O	8380XXL-L

Also available in larger sizes



Heavy-Duty Rainwear

- Made of premium waterproof PVC
- Features beaded reflective tape, durable zipper, & long-lasting elastic
- Generously sized to fit over heavy clothing

Class III Rain Jacket

Features an attached, stowable hood, vented cape back, two outside patch pockets with snaps, and adjustable hook and loop straps on cuffs

Part #	Size	Color
94247	L	Lime
94248	XL	Lime
94249	2XL	Lime

Class E Bib Overalls

Become Class III compliant when worn with a Class II or higher upper. Features include a snap-fly front and heavy-duty suspenders with quick-release buckles

Part #	Size	Color
94218	M	Lime
94219	L	Lime
94220	XL	Lime

CORE Performance Work Wear™

- Wicking fabrics
- Anti-stink treatments help workers remain unscented
- Comfort design
- Soil release treatments make cleaning easy
- 50+ UPF for protection against harmful UV



CORE Performance Work Wear™ 6435 Long Sleeve

- Medium weight wicking fabric for warmth
- Comfort design: raglan sleeves, stretch fabrics, flat seams
- Long tail design: Just Say No To Crack
- Reflective accents help keep workers safe and seen

Mfr	Part #	Size
Ergodyne	6435M	Medium
	6435L	Large
	6435XL	XL
	6435XXL	2XL
	6435XXXL	3XL

Also available in gray and navy



CORE Performance Work Wear™ 6480 Bottoms

- Wicking fabrics and venting for multi-climate comfort
- Comfort design: stretch fabrics, flat seams, tagless waistband

Mfr	Part #	Size
Ergodyne	6480M	Medium
	6480L	Large
	6480XL	XL
	6480XXL	2XL
	6480XXXL	3XL



CORE Performance Work Wear™ 6418 Short Sleeve

- Wicking fabrics and venting for multi-climate comfort
- Comfort: raglan sleeves, stretch fabrics, flat seams
- Long tail design: Just Say No To Crack
- Reflective accents help keep workers safe and seen

Mfr	Part #	Size
Ergodyne	6418M	Medium
	6418L	Large
	6418XL	XL
	6418XXL	2XL
	6418XXXL	3XL

Also available in gray and navy



CORE Performance Work Wear™ 6425 Long Sleeve

- Wicking fabrics and venting for multi-climate comfort
- Comfort: raglan sleeves, stretch fabrics, flat seams
- Long tail design: Just Say No To Crack
- Reflective accents help keep workers safe and seen

Mfr	Part #	Size
Ergodyne	6425M	Medium
	6425L	Large
	6425XL	XL
	6425XXL	2XL
	6425XXXL	3XL

Also available in gray



CORE Performance Work Wear™ 6443 Fleece Vest

- Mid-weight fleece offers soft warmth
- Wicking fabrics and venting for multi-climate comfort

Mfr	Part #	Size
Ergodyne	6443M	Medium
	6443L	Large
	6443XL	XL
	6443XXL	2XL
	6443XXXL	3XL

Also available in gray



CORE Performance Work Wear™ 6463 Thermal Vest

- Tough outer shell
- Soft, warm fleece lining
- Storm flap front
- Pockets: several including back document & front cell
- Drawstring waist
- Reflective accents

Mfr	Part #	Size
Ergodyne	6463M	Medium
	6463L	Large
	6463XL	XL
	6463XXL	2XL
	6463XXXL	3XL



CORE Performance Work Wear™ 6465 Thermal Jacket

- Tough outer shell
- Soft, warm fleece lining
- Storm flap front
- Pockets: several, including back document & front cell
- Drawstring waist and adjustable cuffs
- Reflective accents

Mfr	Part #	Size
Ergodyne	6465M	Medium
	6465L	Large
	6465XL	XL
	6465XXL	2XL
	6465XXXL	3XL

Gloves



Ergodyne Proflex® 710 Full-Fingered Trades Gloves

- Akton visco-elastic polymer to dampen shock and impact
- Abrasion resistant, textured PVC on palm and fingers
- Terry thumb brow wipe
- Full finger design

Mfr	Part #	Size
Ergodyne	710S	Small
	710M	Medium
	710L	Large
	710XL	X-Large
	710XXL	2XL



Ergodyne Proflex® 840 Leather Trades Gloves

- Leather Trades: combines goatskin, Kevlar, and rubber armor
- Split leather reinforced fingertips
- Knuckle pad to protect against bumps and bruises
- Gauntlet cuff with pull tab for easy on/off

Mfr	Part #	Size
Ergodyne	840S	Small
	840M	Medium
	840L	Large
	840XL	X-Large
	840XXL	2XL



Ergodyne Proflex® 846 3/4-Finger Lightweight Trades Gloves

- Breathable stretch spandex with neoprene knuckle pads
- Abrasion resistant PVC on palm and fingers
- Terry thumb brow wipe
- 3/4-finger on thumb, index, and middle fingers

Mfr	Part #	Size
Ergodyne	846S	Small
	846M	Medium
	846L	Large
	846XL	X-Large
	846XXL	2XL



Ergodyne Proflex® 818WP Thermal Waterproof Utility Gloves

- Amara synthetic leather with PVC reinforced palm & fingers
- 40g 3M™ Thinsulate™ Insulation
- Hipora breathable waterproof & windproof liner
- Breathable spandex back with foam knuckle pad

Mfr	Part #	Size
Ergodyne	818WPS	Small
	818WPM	Medium
	818WPL	Large
	818WPXL	X-Large
	818WPXXL	2XL



Ergodyne Proflex® 740 Fire & Rescue Rope Gloves

- Specially designed glove with awesome fit and special rope channel
- Double-reinforced, EVA-padded rope zone with rope channel
- EVA knuckle pad with reflective pattern
- Adjustable wrist cinch anchor for extra security

Mfr	Part #	Size
Ergodyne	740S	Small
	740M	Medium
	740L	Large
	740XL	X-Large
	740XXL	2XL



Klein Tools Journeyman Heavy-Duty Protection Utility Gloves

- Streamlined high-density accordion knuckle panel reduces impact
- High profile, impact absorbing molded Thermal Plastic Rubber finger protection
- Non-slip rubberized Zeus™ Carino® finger & thumb grippers
- Two-ply synthetic leather palm with anatomically die cut EVA foam padded impact zones

Mfr	Part #	Size
Klein Tools	40062	Medium
	40063	Large
	40064	X-Large

Gloves (cont.)



Klein Tools Journeyman Leather Work Gloves

- Genuine goatskin professional-grade leather offers comfort and protection
- Two-way form-fitting spandex top increases ventilation, comfort, and fit
- Molded Thermal Plastic Rubber rib offer flexible protection
- Lightly padded palm
- Stretch knuckle with EVA foam padding

Mfr	Part #	Size
Klein Tools	40067	Medium
	40068	Large
	40069	X-Large

Klein Tools Heavyweight Jersey Gloves

- Soft, comfortable, general-purpose gloves
- Made of 100% cotton jersey
- Comfortable knit wrist
- Dark brown color
- 40001: Fleece lining with an open cuff

Mfr	Part #	Size
Klein Tools	40002	1 size fits most
	40001	Lined, 1 size fits most



Petzl Cordex Lightweight Belay/Rappel Gloves

- Natural high-quality leather
- Durable double layer of leather in high-wear areas
- Back made of breathable stretch nylon
- Low profile neoprene cuffs with Velcro® closure
- Carabiner hole to attach gloves to harness
- Black

Mfr	Part #	Size
Petzl	K52SN	Small
	K52MN	Medium
	K52LN	Large
	K52XLN	X-Large



Petzl Cordex Plus Lightweight Belay/Rappel Gloves

- Natural high-quality leather with reinforced palm
- Back made of durable leather with abrasion-resistant stretch nylon at key flex areas
- Black

Mfr	Part #	Size
Petzl	K53SN	Small
	K53MN	Medium
	K53LN	Large
	K53XLN	X-Large



PMI Rope Tech Gloves

- Synthetic leather (palm base layer)
- Cowhide layer (finger wear points and palm)
- Two-way stretch spandex on top and fingers for greater mobility and breathability
- Elastic cuff with pull-tab & Velcro® closure
- Carabiner loop stores inside for snag free operations

Mfr	Part #	Size
PMI	GL22302	Small
	GL22303	Medium
	GL22304	Large
	GL22305	X-Large



PMI Lightweight Rappel Gloves

- Lightweight, pliable goatskin provides excellent finger dexterity
- Two extra layers of cowhide across palm maximize protection in key areas
- No exposed seams on palm

Mfr	Part #	Size
PMI	GL22002	Small
	GL22003	Medium
	GL22004	Large
	GL22005	X-Large



PMI Heavyweight Gloves

- Lightweight, pliable goatskin provides excellent finger dexterity
- Two extra layers of cowhide across palm maximize protection in key areas
- No exposed seams on palm

Mfr	Part #	Size
PMI	GL22100	Small
	GL22101	Medium
	GL22102	Large
	GL22103	X-Large

Safety and Rigging

Tool Belts



Arsenal® 5518 16-Pocket Aerial Tool Pouch

- Easily attaches to any belt
- 16 pockets for tools and fasteners
- Top cover flap with hook and loop closure
- 4 nickel-plated D-rings for tool lanyard attachment
- PVC-reinforced pouch bases
- Maximum safe working capacity: 33 lbs

Mfr	Part #
Ergodyne	5518



10-Pocket Deluxe Tool Pouches

- Soft Diamond Tanned Leather
- Large main pocket / medium inner pocket
- Front nail pocket and 6 tool pockets
- 2 Leather loops for hammer, wrench etc.
- Constructed with heavy duty washer rivets
- 11" W x 12" H

Mfr	Part #
Graber Harness	04-0007

Also available in black
Made in the USA and has a life-time repair service



10-Pocket Supreme Tool Pouches

- Soft Diamond Tanned Leather
- Large main pocket / medium inner pocket
- 6 Tool pockets
- Swanson square holder
- Front nail pocket
- Leather loops for hammer, wrench etc.
- Wire hammer holder
- Leather tape holder
- Constructed with heavy duty washer rivets
- 10 3/4" W x 12" H

Mfr	Part #
Graber Harness	04-0008



04-0025-BK

04-0022

Graber Leather Spud Wrench Holder with Rings

- Handcrafted from 11/12 oz Harness leather & oil dipped to provide strength and durability
- Copper rivets and 1-1/4" stainless steel rings
- 04-0025-BK: angle iron with 1" hole
- Belt loop fits up to 3" belt
- Made in the US with US hides

Mfr	Part #	Des.
	04-0025	2-ring w/ angle iron
Graber Harness	04-0022	3-ring



Leather Tool Belts

- Hand Crafted Amish Quality
- 12 oz. durable harness leather
- Durable nickel plated buckle
- Superior comfort
- Small: 32" - 40" waist
- Medium: 36" - 46" waist
- Large: 44" - 54" waist

Mfr	Part #	Width	Size
	TLBLT-1S	1-1/2"	Small
	TLBLT-1M	1-1/2"	Medium
Graber Harness	TLBLT-1L	1-1/2"	Large
	TLBLT-2S	2"	Small
	TLBLT-2M	2"	Medium
	TLBLT-2L	2"	Large
	TLBLT-3S	3"	Small
	TLBLT-3M	3"	Medium
	TLBLT-3L	3"	Large

Made in the USA and has a lifetime repair service



Tape Measure Holder

- Made of 10 oz., oil-treated strap leather
- Fits up to 2-1/2" wide belts
- Riveted in four places
- Embossed with a serpentine edge
- Made in USA

Mfr	Part #	Color
Graber Harness	TMH-BR	Brown
	TMH-BL	Black



Hammer Loop

- Made of 10 oz, oil treated strap leather
- Fits up to 2-1/2" wide belts
- Double reinforced, large #25 steel hammer loop
- Double ply leather stitched and riveted
- Available in black or brown
- Made in USA

Mfr	Part #	Color
Graber Harness	04-0013-BR	Brown
	04-0013-BK	Black



Cell Phone Holders

- Top quality cell phone holders will last and last
- Made of quality, double stitched leather
- Sturdy belt clip riveted in place with 5 nickel-plated rivets
- Made in USA
- Medium: 2.328" W x 4" H x 1" D
- Large: 2.5" W x 4" H x 1" D

Mfr	Part #	Color	Size
Graber Harness	CPH-MB	Brown	Medium
	CPH-LB	Brown	Large
	CPH-MC	Chestnut	Medium
	CPH-LC	Chestnut	Large
	CPH-MB	Black	Medium
	CPH-LB	Black	Large

Made in the USA and has a lifetime repair service

All Graber Harness products are made in the USA and carry a 1-year warranty against defects and a lifetime repair service.

Kneepads



Ergodyne Proflex® 357 Short Cap Honeycomb Gel Knee Pad

- Patented suspension design redirects pressure away from the patella
- Patented cover design delivers stability on all terrain and surfaces
- Upper and lower elastic sleeves hold knee pad in place
- Silicone-free

Mfr	Part #	Size
Ergodyne	357	One Size, Pair

Fulfills requirements of EN 14404:2004



Ergodyne Proflex® 300 Rounded Cap Knee Pad

- Abrasion resistant rounded short hard cap best for swiveling and pivoting
- 840D nylon fabric cover
- 15 mm EVA padding
- Anti-bacterial treatment
- Buckle closure and gray cap

Mfr	Part #	Size
Ergodyne	300	One Size, Pair



Ergodyne Proflex® 380 Kneeling Pad

- Comfort for static kneeling situations
- Closed-cell foam is non-conductive, resistant to petroleum, & silicone-free
- Convenient handle
- Compact size for optimal portability

Mfr	Part #	Size
Ergodyne	380	14" x 21" x 1"

Gear Bags



Ergodyne Arsenal® 5143 Back Pack

- 420D nylon
- Lots of storage pockets
- Padded back wall
- 3" padded shoulder straps w/ keeper and phone hold
- Top handle & heavy duty zippers
- 20" x 13" x 6" main hold

Mfr	Part #
Ergodyne	5143



Petzl Transport Large Capacity Backpack

- Welded construction for greater strength
- Padded waist belt, shoulder straps, and back panel
- Lid flap with elastic border and quick closing buckle
- Zippered id pocket
- Height: 67 cm

Mfr	Part #
Petzl	C024



Petzl Portage Large Capacity Pack

- Welded construction for greater strength
- Shape makes it easy to pack and access contents
- Inside flap protects contents
- Side handle & top loop for carrying and hauling
- Height: 60 cm

Mfr	Part #
Petzl	S32



Petzl Bucket Fabric Pack

- Pack remains upright and has exterior folding lid
- External zippered pocket
- External ID window
- Two large carrying handles
- Adjustable webbing; interior ring can be used as attachment point for rope
- Lined bottom

Mfr	Part #	Capacity
Petzl	S41Y-25	25 Liters
	S41Y-35	35 Liters

More Gear Bags



Safety and Rigging

Gear Bags



Elk River Duffle Bag

- Heavy duty nylon bag
- Carry handles
- Shoulder strap
- 22.5" x 11" x 11"

Mfr	Part #
Elk River	88010



Elk River Utility Bag

- Sturdy weather resistant bag
- Heavy duty zipper
- Rigid bottom
- Footed cleats
- 11" x 24" x 14" deep

Mfr	Part #
Elk River	84221



Ergodyne Arsenal® Duffle Bag

- Polyester w/PVC backing
- Removable adjustable shoulder strap & strap grabber
- Two end zipper pockets

Mfr	Part #	Size
Ergodyne	5020S	Small
Ergodyne	5020M	Medium



Straight Ahead Large Gear Bag

- 1000 Codura
- 1 exterior zippered pocket
- 1 exterior ID slot
- Removable hard bottom
- 16" x 28" x 15"

Mfr	Part #	Color
Straight Ahead	SA-102-GR	Green
	SA-102-NB	Navy Blue
	SA-102-OR	Orange
	SA-102-RD	Red
	SA-102-YE	Yellow



Straight Ahead Red Rescue Bag

- 1000 Codura
- Dual compartment
- Bottom section designed to hold 300' of rope & top section to hold rescue equipment
- 1 exterior zippered pocket
- 16" x 28" x 15"

Mfr	Part #
Straight Ahead	SA-106-RD



Klein Tools XL Nylon Equipment Bag

- Vinyl-coated nylon fabric
- Bottom reinforced with 1/4" plywood & metal studs
- Nylon-web handles
- Wide opening steel frame securely riveted in top
- Extra flap for storm protection
- 18" x 24" x 10"

Mfr	Part #
Klein Tools	5180



PMI Duffel

- 1000 Codura
- Streamlined & super durable
- 2 exterior storage pockets with velcro closure
- Wrap around padded handle
- 12" x 24" x 11"

Mfr	Part #
PMI	SG51190



PMI Riggers Bag

- 1000 Codura
- 6 zippered compartments
- Detachable shoulder strap included
- Padded handles
- Clear ID holder
- 12" x 24" x 11"

Mfr	Part #
PMI	RB44031



Protecta Equipment Bag

- Nylon construction
- Adjustable shoulder strap
- Zipper closure
- Front storage pocket
- 10" x 8' x 17"

Mfr	Part #
Protecta	AK066A



Ergodyne Arsenal® 5116 Gear Bag

- 420D nylon
- 2 Zippered end pockets
- Heavy duty ribbed straps, top, and side
- 1.5" heavy duty adjustable padded shoulder strap
- 14" x 16" x 11" main hold

Mfr	Part #
Ergodyne	5116

Tool Bags



Elk River Red Canvas Bolt Bag

- Belt tunnel
- 2.5" x 10" x 9"

Mfr	Part #
Elk River	84520



Elk River Red Canvas Bolt Bag

- Belt tunnel
- Draw String
- 2.5" x 10" x 9"

Mfr	Part #
Elk River	84521



Elk River White Duck Bolt Bag

- Nylon strap
- Inside pocket with belt snap straps
- 8" x 4" x 10"

Mfr	Part #
Elk River	88199



Elk River Canvas Deep Bolt Bag

- Nylon strap
- Inside pocket with belt snap straps
- 8" x 4" x 10"

Mfr	Part #
Elk River	84522



Ergodyne Arsenal® 5728 Tall Safety Bolt Bag

- 16 oz. canvas
- Cinch-up top keeps gear safe and secure
- 2 exterior tool loops
- Nickel-plated storm drain
- Loop attachment
- 10" x 5" x 13"

Mfr	Part #
Ergodyne	5728



Ergodyne Arsenal® 5725 Safety Bolt Bag

- 16 oz. canvas
- Cinch-up top keeps gear safe and secure
- Nickel-plated rivets
- 2 exterior tool loops
- Nickel-plated storm drain
- Loop attachment
- 10" x 5" x 9"

Mfr	Part #
Ergodyne	5725



Ergodyne Arsenal® 5722 Nut and Bolt Pouch

- 16 oz. canvas
- 3 exterior tool pockets
- Interior pocket
- Leather reinforced base
- Screened nickel-plated storm drains
- Loop attachment
- 9" x 3.5" x 10"

Mfr	Part #
Ergodyne	5722



Ergodyne Arsenal® 5774 Small Leather Bottom Bag

- 16 oz. canvas
- Leather reinforced base
- Steel frame mouth
- 11 pockets: 10 interior, 1 exterior
- Leather straps with buckles
- Shoulder strap included
- 14" x 6" x 13"

Mfr	Part #
Ergodyne	5774



Ergodyne Arsenal® 5775 Long Leather Bottom Bag

- 16 oz. canvas
- Leather reinforced base
- Steel frame mouth
- 11 pockets: 10 interior, 1 exterior
- Leather straps with buckles
- Shoulder strap included
- 24" x 7.5" x 14"

Mfr	Part #
Ergodyne	5775



Ergodyne Arsenal® 5720 Ironworker Pouch

- Loop design with wide body for maximum storage capacity
- Nickel-plated rivets
- 6- and 12-ply nylon stitching
- 2 exterior tool loops
- Loop attachment
- 10" x 5" x 9"

Mfr	Part #
Ergodyne	5720



Accessories not included

Ergodyne Arsenal® 5789 Small Zipper Bag

- Easy storage for wrenches, pliers, and other small hand tools
- 16 oz. canvas
- YKK metal zipper
- Heavy gauge nylon stitching
- 9.75" x 1" x 5"

Mfr	Part #
Ergodyne	5789

Accessories seen in pictures are not included

More Tool Bags

Safety and Rigging

Tool Bags (cont.)



Black Leather Supreme Bolt Bag

- Top quality leather
- Laced bull pin holder on 1 end, crescent wrench holder on other
- Specify right or left

Mfr	Part #
Graber Harness	04-0010-BK



Canvas & Leather Bolt Bag

- No. 4 canvas with double ply bottom
- Leather trim around top gives easy access
- Leather crescent wrench holders on ends

Mfr	Part #
Graber Harness	04-0035



Bolt Bag

- Top quality US leather
- Diamond tanned for strength
- All seams stitched and riveted for strength and performance
- 8W x 4.5D x 8.5H

Mfr	Part #
Graber Harness	04-0010



Jumbo Bolt Bag

- Handcrafted from top quality US leather
- All seams stitched and riveted for strength and performance
- 10.5W x 4.5D x 8.5H

Mfr	Part #
Graber Harness	04-0010-LG

All Graber Harness products are made in the USA and have a lifetime repair service



Hi-Line Glove Bag

- 18" canvas bag
- Two-pocket canvas glove bag

Mfr	Part #
Hi-Line	5905



Hi-Line Canvas Bucket

- Hard side bucket
- 13 outside pockets and 15 inside pockets

Mfr	Part #
Hi-Line	5281



Klein Tools Canvas Bull-Pin and Bolt Bag

- No. 4 canvas with double bottom
- Bolt bag with bull-pin loop on each side
- Belt capacity
- 5" x 9" x 10"

Mfr	Part #
Klein Tools	5416



Klein Tools Canvas Bull-Pin and Bolt Bag with Tunnel Loop

- No. 4 canvas with double bottom
- Bolt bag with bull-pin loop on each side
- Belt capacity
- 5" x 9" x 10"

Mfr	Part #
Klein Tools	5416-T



Klein Tools Leather Bull-Pin and Bolt Bag with Tunnel Loop

- Leather version
- Bolt bag with bull-pin loop on each side
- Belt capacity
- 5" x 9" x 10"

Mfr	Part #
Klein Tools	5416L



Klein Tools XL Canvas Utility Bag

- Heavy No. 8 natural canvas
- Includes interior pocket
- Reinforced inside bottom
- Formed-top opening
- Metal snaps on loops for easy attachment to belts
- 10" x 12" x 5"
- Top opening size: 9" x 5"

Mfr	Part #
Klein Tools	5141-P



Klein Tools 12" and 24" Canvas Tool Bags

- Heavy-duty No. 8 natural canvas
- Rivet-reinforced for durability
- Steel-frame mouth with hinge for rugged use
- Stitched & riveted leather handles
- Moisture-resistant, vinyl bottom & lower sides
- Non-scratch studs on base
- Includes leather strap with pad & snap hooks, rings & fasteners for attaching rings to bags

Mfr	Part #	Description
Klein Tools	5102-12	12" Canvas Tool Bag, 12" x 6" x 10"
Klein Tools	5102-24	24" Canvas Tool Bag, 24" x 6" x 15"



Klein Tools Canvas Zipper Bags, 4-Pack

- Includes four assorted colors: olive, orange, royal blue, and yellow
- Constructed of No. 10 canvas with heavy-duty brass zipper
- Convenient storage for pliers, wrenches, screwdrivers, nut drivers, and other tools and spare parts
- 12-1/2" x 7"

Mfr	Part #
Klein Tools	5140

Tool Bags (cont.)



PMI Gear Bucket

- Bucket remains upright while stacking rope inside
- Semi-rigid sides
- Outside mesh pockets with velcro closures
- Holds up to:
 - 80 m (260') of 10 mm rope
 - 70 m (150') of 11 mm rope
 - 46 m (230') of 12.5 mm rope
 - 30 m of 16 mm rope
- 11" x 14"

Mfr	Part #
PMI	RB44049



PMI Gear Pocket

- Codura material
- Organize gear without overloading your gear loops
- Attaches to any harness with sleek padded velcro straps
- 2 interior mesh pockets with velcro closure
- 10" W x 7" H x 1.5" D

Mfr	Part #	Color
PMI	SG51150	Red
PMI	SG51168	Black



Straight Ahead Tool Bag with Snap Flap

- Long radio pocket
- Drawstring
- 3 pockets: 2 interior, 1 exterior
- 2 interior elastic secure straps
- 12" tall

Mfr	Part #	Description
Straight Ahead	SA-101-ADF-(color)*	Long radio pocket
	SA-101-AEF-(color)*	Short cell pocket



Straight Ahead Tool Bag with Hooks

- Short cell pocket
- Drawstring
- 3 pockets: 2 interior, 1 exterior
- 2 interior elastic secure straps
- 12" tall

Mfr	Part #	Description
Straight Ahead	SA-101-BDF-(color)*	Long radio pocket
	SA-101-BEF-(color)*	Short cell pocket

Note: Straight Ahead bags listed above come in the following colors: Red (RD), Navy Blue (NB), Royal Blue (RB), Green (GR), Orange (OR), and Yellow (YE)

Grunt Buckets



Ergodyne Arsenal® 5860 56-Pocket Bucket Organizer

- 1680D ballistic polyester
- 56 pockets: 35 exterior, 18 interior
- Padded cordless drill holster
- Elastic strap for long-handled tools
- Hammer and tape loops
- Security pocket with fastened closure
- Reflective binding
- Fits a 5 gallon bucket

Mfr	Part #
Ergodyne	5860



Ergodyne Arsenal® 5878 6-Pocket Cinch-Up Bag

- 1680D ballistic polyester
- 6 compartments for fasteners, etc.
- 13 exterior pockets
- Cinch closure
- Reflective binding
- Nickel-plated grommets
- 10" D x 7" H

Mfr	Part #
Ergodyne	5878



Ergodyne Arsenal® 5730 & 5740 Large Leather Bottom Bucket

- 20 oz. canvas
- Leather reinforced base
- Molded plastic top ring
- PP rope handle
- Interior pocket
- 5740: Nickel-plated swivel snap
- 12.5" D x 17" H

Mfr	Part #	Description
Ergodyne	5730	PP Rope Handle
	5740	with Swivel Snap



Ergodyne Arsenal® 5734 & 5744 Small Plastic Bottom Bucket

- Small size for easy toting and lighter loads
- Molded plastic base
- Molded plastic top ring
- PP rope handle
- Two interior pockets
- 5744: Nickel-plated swivel snap
- 10" D x 14" H

Mfr	Part #	Description
Ergodyne	5734	PP Rope Handle
	5744	with Swivel Snap

Grunt Buckets (cont.)



Ergodyne Arsenal® 5733 & 5743 Large Plastic Bottom Bucket

- 18 oz. canvas
- Molded plastic base
- Molded plastic top ring
- PP rope handle
- Interior pocket
- 5743: Nickel-plated swivel snap
- 12.5" D x 15" H

Mfr	Part #	Description
Ergodyne	5733	Bucket
	5743	with Swivel Snap



Ergodyne Arsenal® 5746 Tapered Plastic Bottom Bucket with Swivel Snap

- 18 oz. canvas
- Molded plastic base
- Molded plastic top ring
- PP rope handle
- 15 interior pockets
- 12.5" wide mouth for easy loading
- Nickel-plated swivel snap
- 12.5" top D x 7" H

Mfr	Part #
Ergodyne	5746



Ergodyne Arsenal® 5755 22-Pocket Oval Bucket with Swivel Snap

- 18 oz. canvas
- Molded plastic base
- Molded plastic top ring
- PP rope handle
- 22 pockets: 13 exterior, 9 interior
- Nickel-plated swivel clip
- 14" x 7" x 10"

Mfr	Part #
Ergodyne	5755



Ergodyne Arsenal® 5738 & 5739 Canvas Bucket Safety Top

- Easy on, easy off bucket cover for safely hoisting equipment
- Best in class YKK buckles
- Heavy gauge nylon stitching
- PP webbing reinforced

Fits Ergodyne Buckets:		
Mfr	Part #	Buckets:
Ergodyne	5730, 5740, 5738	5723, & 5743
	5739	5734 & 5744



Klein Tools Leather Bottom Bucket with Swivel Snap

- No. 1 canvas
- Leather-reinforced bottom extends 3" (76 mm) up the sides
- Inside pocket measures 8" x 8"
- Rope handle
- Comes with swivel snap
- 12" D x 17" H

Mfr	Part #
Klein Tools	5104S



Klein Tools Heavy-Duty Tapered Wall Bucket with Swivel Snap

- Tough No. 4 canvas
- Riveted leather glove strap
- Comes with swivel snap
- Black molded polypropylene bottom
- Rope handle
- 12" D top (9" D bottom) x 12" H

Mfr	Part #
Klein Tools	5103S



Klein Tools Oval Bucket with 41 Pockets

- No. 6 canvas
- 41 pockets: 26 interior, 15 exterior
- Tripod suspension rope for greater stability
- Rope handle
- Equipped with swivel snap hook
- Black molded polypropylene bottom
- 14" L x 7" W x 10" H

Mfr	Part #
Klein Tools	5152S



Klein Tools Oval Bucket with 15 Interior Pockets

- No. 6 canvas
- 15 interior pockets
- Tripod suspension rope for greater stability
- Rope handle
- Equipped with swivel snap hook
- Black molded polypropylene bottom
- Rope handle
- 14" L x 7" W x 10" H

Mfr	Part #
Klein Tools	5144S



Klein Tools Tool Organizer

- Constructed of double-layered, 600 x 300 denier polyester to resist wear & tear
- Water-resistant
- 45 pockets: 10 interior, 35 exterior
- Heavy-duty webbing keeps pockets open for easy access to supplies & tools
- Fits standard 5-gallon bucket

Mfr	Part #
Klein Tools	5777



Klein Tools 10-Compartment Draw String Bag

- 12 oz. olive canvas
- 10 compartments to hold small parts
- Drawstring for easy closing
- 11" D x 6" H

Mfr	Part #
Klein Tools	5151

Accessories seen in pictures are not included



ANRITSU

Primus Electronics is proud to have teamed up with Anritsu to offer the following certification courses in the tower industry:

Anritsu Site Master™ Certified Line Sweep Training

2 Day Course

This intense, hands-on course focuses on RF-line sweep theory, technology, and practical applications. Students will learn the skills necessary to install, test, and maintain RF cable feed lines and antenna systems and gain unique insights to line sweeping projects. Upon successful completion of the course, which includes a certification exam, students will receive a Site Master Certificate of Completion along with a photo identification card.

Attendees should include:

- Wireless Carriers
- Base Station OEMs
- Tower Companies
- Field Engineers
- Installers
- Site Managers

Upon successful completion of the course, students will learn:

- Technical aspects of line sweeping
- How to set up a line sweep
- How cable length, cable type and system components affect line sweep measurements
- How to use DTF to get accurate and meaningful distance to fault results
- How to identify, locate, document, and resolve cable line transmission faults

e-Learning Courses

These courses are offered at no charge thru Anritsu. All you need to do is register for the course(s) on Anritsu's website. Registration will give you access for 30 days and you can view the course as often as you like.

Site Master Line Sweep Web-Based eLearning Course

This on-line course provides training on the basics of line sweeping and operation of Site Master. This is not a certification course.

Line Sweep Interpretation Web-Based eLearning Course

On-line course that provides training on how to interpret Line Sweep data and how to use Handheld Software Tools and Master Software Tools. It includes instruction on important technical terms, how a Line Sweep measurement is made, what reflections look like and how to determine if they are in spec or not. This is not a certification course.

Protecting Performance eLearning Course

This on-line course provides training on maximizing the life of your handheld test equipment such as the Site Master, calibration components and power sensors. A passing score results in the opportunity to print a training certificate.

Site Master TMA Measurements Web-Based eLearning Course

Free on-line course that provides training on performance verification of Tower Mount Amplifiers. The course includes quiz questions and the opportunity to print a training certificate at the end of the course if you pass the test.

Master Software Tools (MST) Web-based eLearning Course

Free on-line course that provides training on performance verification of Tower Mount Amplifiers. The course includes quiz questions and the opportunity to print a training certificate at the end of the course if you pass the test.

Introduction to Spectrum Analysis Web-based eLearning Course

This on-line course provides training on the basics of spectrum analysis. It is a beginner level course and there are no prerequisites. A virtual spectrum analyzer is included and is used for virtual labs in a demonstration of key concepts.

All of the above e-Learning courses can be accessed online at www.anritsu.com

REGISTRATION INFORMATION

For more information or to register for the class listed above,
call Primus Electronics at (800) 435-1636 or visit us online at www.primuselectronics.com.



All courses can be taken to earn a Basic Certificate in Communications Industry Safety Training, an Accreditation Program offered on-site or by Kankakee Community College, Kankakee, IL.

CITCA Certifications

Primus Electronics is proud to have teamed up with Communications Industry and Training Certification Academy (CITCA) to offer the following certification courses in the tower industry:

Authorized Climber Certification

8 Hour Class

Prepares individuals with little or no experience to be able to safely climb and work on towers of various types and styles. Upon completion of this program, the authorized climber should be able to demonstrate proper knowledge, understanding, and application of the equipment used, as well as safe practices to be employed at all times when he or she is working on the tower. The course is designed in cooperation with OSHA and meets or exceeds all of the recommended training called for in the NATE guidelines for Qualified Climber. Upon successful completion, each student will receive a wallet card certifying them as an Authorized Climber.

Train-the-Trainer Courses

Training is a critical component in safe work practices. It is an expensive component as well. And sometimes, scheduling training around work schedules and client deadlines is nearly impossible. CITCA's Train the Trainer program gives you the opportunity to have your own employees trained as CITCA instructors, and allows you to offer CITCA's acclaimed training courses as an in-house program, using your instructors, at your facility, at your convenience, and at a substantially less cost. At the same time, upon completion, your employees still receive CITCA certification, which is recognized and accepted across the nation. Train-the-Trainer Courses available in the following:

Authorized Climber Train the Trainer

Trains the instructor to teach Authorized Climber, a one day certification course that teaches basic tower climbing and tower safety techniques.

Tower Rescue / Competent Climber Train the Trainer

Trains the instructor to teach Tower Rescue and Competent Climber, a 24-hour course that provides training in advanced tower climbing techniques, as well as lifesaving training in techniques of self-rescue and partner rescue.

NOTE: All CITCA Train-the-Trainer instructors must first hold CITCA certification in the class they are being trained to teach

OSHA Construction Industry

10 Hour Class

Meets the requirement for the OSHA 1926.21 for the construction industry with an emphasis on tower work in wireless communications. This is a 13 component class with a Final Exam. For certification purposes, all classes are taught by certified OSHA instructors.

Other Available Classes

Advanced Understanding of Rigging and Ropes, 8 Hour Class

Tower Erection Basics, 8 Hour Class

RF Safety and Hazard Awareness, 8 Hour Class

Emergency Medical Response, 8 Hour Class

REGISTRATION INFORMATION

For more information or to register for any of the classes listed above, call Primus Electronics at (800) 435-1636 or visit us online at www.primuselectronics.com.



HARGER Educational Presentations

Primus Electronics is proud to have teamed up with Harger to offer the following educational presentations in the tower industry:

General Grounding & Bonding

60 Minute Presentation

Provides an overview of electrical grounding and bonding and the role it plays as the foundation to any electrical protection and power quality scheme. Relevant codes, standards and practices, as well as the elements of a properly designed grounding system will be reviewed. The purpose and means for equipment and system grounding will be presented. The hazards of step and touch potentials will be discussed and how they are eliminated as a threat to personal safety. Soil and ground system testing will be discussed and their importance to system design. Grounding and bonding for lightning protection, computers installations and telecommunications will also be reviewed.

Ultraweld Exothermic Welding Certification Training (Classroom and Hands-On)

90 to 120 Minute Presentation

Provides an understanding of the Ultraweld exothermic welding process. The exothermic welding process is presented as a means of making permanent electrical grounding connections. The tools required to make a connection as well as the inspection process are discussed. This course includes hands-on training and the certification process.

Lightning Protection Systems

60 Minute Presentation

Provides the audience with a review of lightning and the need for lightning protection systems. The Basic Principles of Lightning Protection are discussed—technology universally recognized and approved by the worldwide academic community. Also discussed are unapproved non-conventional lightning protection devices such as early stream emitters (ESE) and charge transfer systems (CTS) which promote technically unaccepted claims of increased areas of protection, or the ability to prevent lightning strikes entirely. The method for conducting a Lightning Risk Assessment (per NFPA780) is presented. Applicable lightning protection Codes and Standards are presented. The basic components of a traditional Franklin Style Lightning Protection Systems are reviewed.

Lightning Protection & Grounding Wireless Communications Sites

100 Minute Presentation

Covers the approaches taken and products used for grounding wireless communication sites. Focus is placed on the different types of ground electrodes used and recommendations for difficult grounding conditions. Ultraweld exothermic connections are discussed as well as consideration for different types of ground conductors. Ground system design considerations are discussed including soil conditions and site conditions/applications such as raw land, co-locate, and rooftop. Ground test procedures are also reviewed and standards are addressed.

Basics of Ground Testing

45 Minute Presentation

Reviews the different types of testing procedures and equipment used for soil resistivity and ground system testing. Focus is placed on the 4-Point Wenner test for soil resistivity measurements and the 3-Point Fall-of-Potential Method for measuring the resistance to remote ground of a ground electrode system. Clamp-on ground testers are discussed with focus on the advantages and the disadvantages of this method for measuring ground resistance.

REGISTRATION INFORMATION

For more information or to register for any of the classes listed above, call Primus Electronics at (800) 435-1636 or visit us online at www.primuselectronics.com.



BIRD Technologies Training

Site Analyzer Certificate Training*

2 Day Course

Bird® Electronic Corporation offers specialized training for all of its Site Analyzer (SA) family of products from the SA-1700EX, 1700-EXP, SA-2500EX and SA-6000EX. Bird® Site Analyzers® (pages 131-132) are an easy to operate, user friendly solution for troubleshooting even the most complex antenna and feed line systems. The Site Analyzer provides sweep and match data, showing VSWR, Return Loss, or Cable Loss (Insertion Loss) depending upon the users preference, as well as distance to fault measurement for system repair and maintenance. Topics will include basic RF theory, site overview and operation, equipment set-up and use, test and measurement of feed line and antenna system characteristics, and documentation and report analysis.

Attendees should include: Cell Site Manager, Site Technicians, Field Engineers, Site Installers, Cell Carriers and Construction Companies

Line & Antenna Sweeping Certificate Training*

2 Day Course

Bird Technologies Global Educational Services offers specialized training for all of its Site Analyzer® (SA) family of products from the SA-1700EX, 1700EXP, SA-2500EX and SA-6000EX, as well as the Anritsu Site Master®. Topics will include basic RF theory, site overview and operation, equipment set-up and use, test and measurement of feed line and antenna system characteristics, and documentation and report analysis. Training centers on a practical, real-world approach to line sweeping and distance to fault measurement. Upon completion of training, each participant will receive Site Analyzer® or Site Master® certification, issued by Bird Electronic Corporation, that shows the participant has acquired the skills and understanding to successfully operate the Bird Site Analyzer or Anritsu Site Master under the field conditions covered by the course.

Attendees should include: Cell Site Manager, Site Technicians, Field Engineers, Site Installers, Cell Carriers and Construction Companies

*Non-certification classes are also available which do not include testing, but does offer familiarization training with the products and processes. Good for those needing an overview or refresher, but not in depth operational training.

REGISTRATION INFORMATION

For more information or to register for any of the classes listed above,
call Primus Electronics at (800) 435-1636 or visit us online at www.primuselectronics.com.



BIRD Technologies Training

Bird Signal Hawk Certificate Training*

2 Day Course

Signal investigation techniques have never been easier with the use of portable equipment including the Bird Signal Hawk. The Signal Hawk is a hand held spectrum analyzer which will aid in understanding the RF environment in an area or the RF output of a device. The class primarily focuses on the Bird Signal Hawk and its initial implementation as a spectrum analyzer. Upon completion of training, each participant will receive a Bird Spectrum Analyzer Certification, issued by the Bird Technologies Group, that shows that the participant has acquired the skills and understanding to successfully operate the Bird Signal Hawk under field conditions covered by the course.

Attendees should include: Field Engineers, Shop Technicians, Design Engineers, Communications Contractors, Site Construction Companies and Communication Site Managers

In-Building Coverage Certificate Training

2 Day Course

TX RX Systems Inc., part of the Bird Technologies Group, through GES, offers specialized training in the assessment, design, installation and commissioning of RF coverage enhancement systems, as well as comprehensive, hands-on training in the operation and optimization of the TX RX Signal Booster product line. Topics will include basic RF theory, FCC rules and regulations governing Signal Booster systems, typical applications, system design and optimization, equipment set-up and use, and system maintenance. Upon completion of training, each participant will receive Signal Booster II certification, issued by the BTG/GES, that shows the participant has acquired the skills and understanding to successfully operate the Signal Booster II under the field conditions covered by the course.

Attendees should include: RF Site Manager, RF Site Technicians, RF Site Installers, RF Field Engineers and RF System Engineers

*Non-certification classes are also available which do not include testing, but does offer familiarization training with the products and processes. Good for those needing an overview or refresher, but not in depth operational training.

REGISTRATION INFORMATION

For more information or to register for any of the classes listed above, call Primus Electronics at (800) 435-1636 or visit us online at www.primuselectronics.com.

Common Conversions

Length			Weight			Force		
From	To	Multiply By	From	To	Multiply By	From	To	Multiply By
inch (in)	millimeter (mm)	25.4	pound (lb)	kilogram (kg)	0.4536	pound-force (lbf)	Newton (N)	4.44822
millimeter (mm)	Inch (in)	0.0394	kilogram (kg)	pound (lb)	2.2046	Newton (N)	pound-force (lbf)	0.2248
foot (ft)	meter (m)	0.3048				kilonewton (kN)	pound-force (lbf)	224.8089
meter (m)	foot (ft)	3.2808				pound-force (lbf)	kilonewton (kN)	0.0044
meter (m)	inch (in)	39.3700				Newton (N)	kilonewton (kN)	0.001
inch (in)	meter (m)	0.0254				kilonewton (kN)	Newton (N)	1000.0

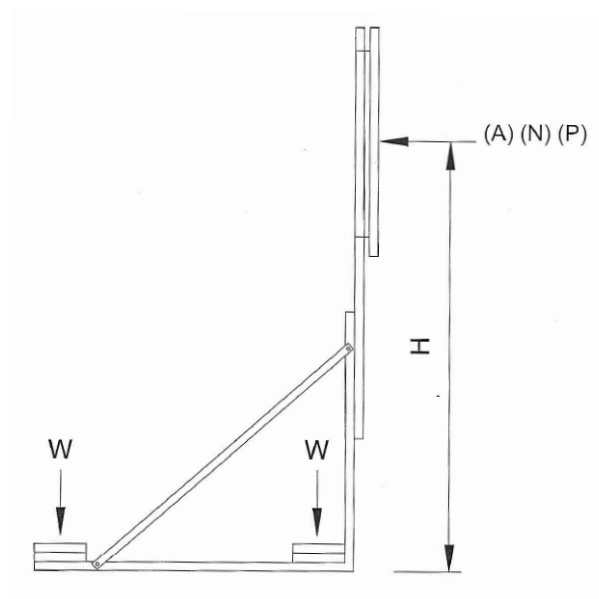
Ballast Formula for RF-N Series Mounts

$$W = 0.150 (P)(A)(N)(H)$$

Where W = required ballast per tray (2 trays per mount) in pounds
 P = design wind pressure per UBC formula
 A = area of one antenna (sq ft)
 N = number of antennas
 H = distance from center of antenna to roof surface (ft)

The total ballast weight required is $2 \times W$

Source: Andrew Solutions



Universal Tripod Mounts

Ballast Formula for TP-G Series Mounts

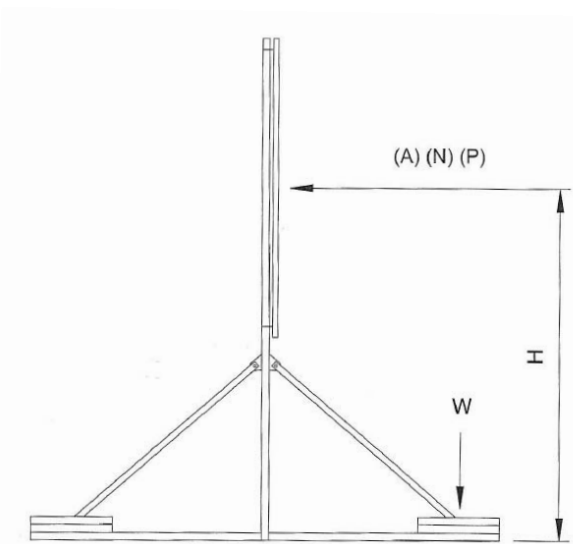
$$W = (0.147 (P)(A)(N)(H)) - 83 \quad (1.25 \text{ factor of safety for overturning})$$

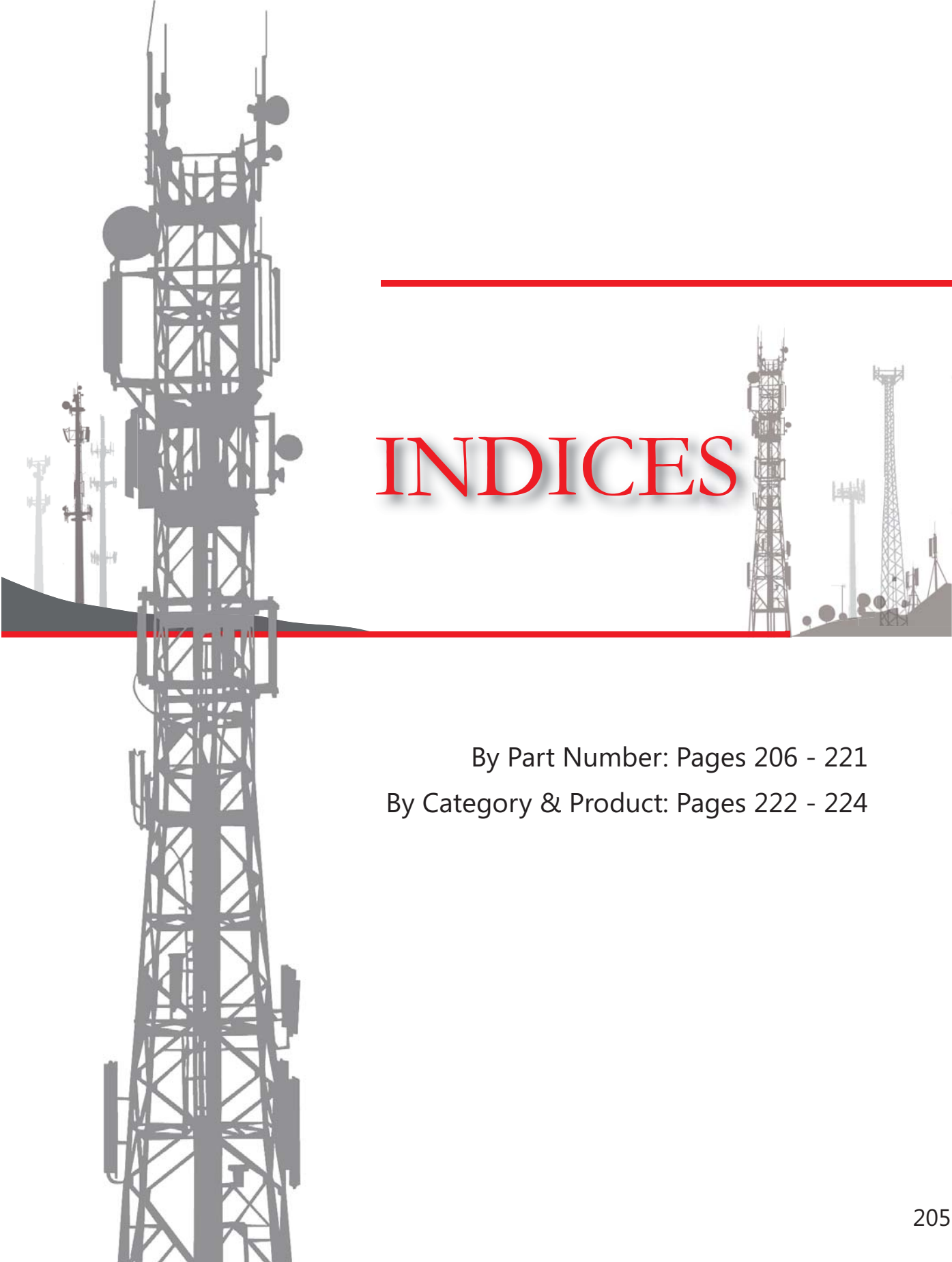
$$W = (0.176 (P)(A)(N)(H)) - 83 \quad (1.50 \text{ factor of safety for overturning})$$

Where W = required ballast per tray (2 trays per mount) in pounds
 P = design wind pressure per UBC formula
 A = area of one antenna (sq ft)
 N = number of antennas
 H = distance from center of antenna to roof surface (ft)

The total ballast weight required is $3 \times W$

Source: Andrew Solutions





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