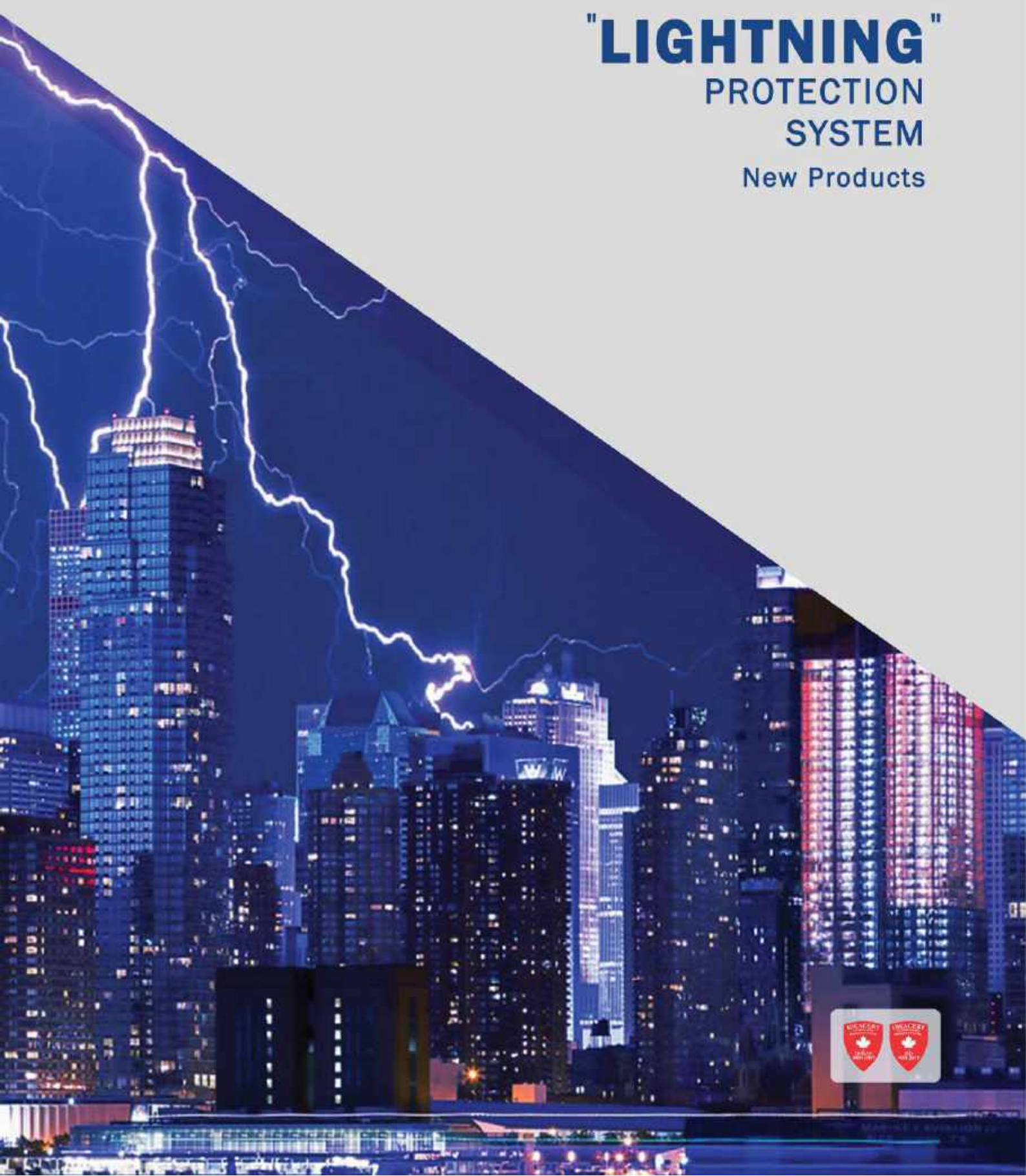
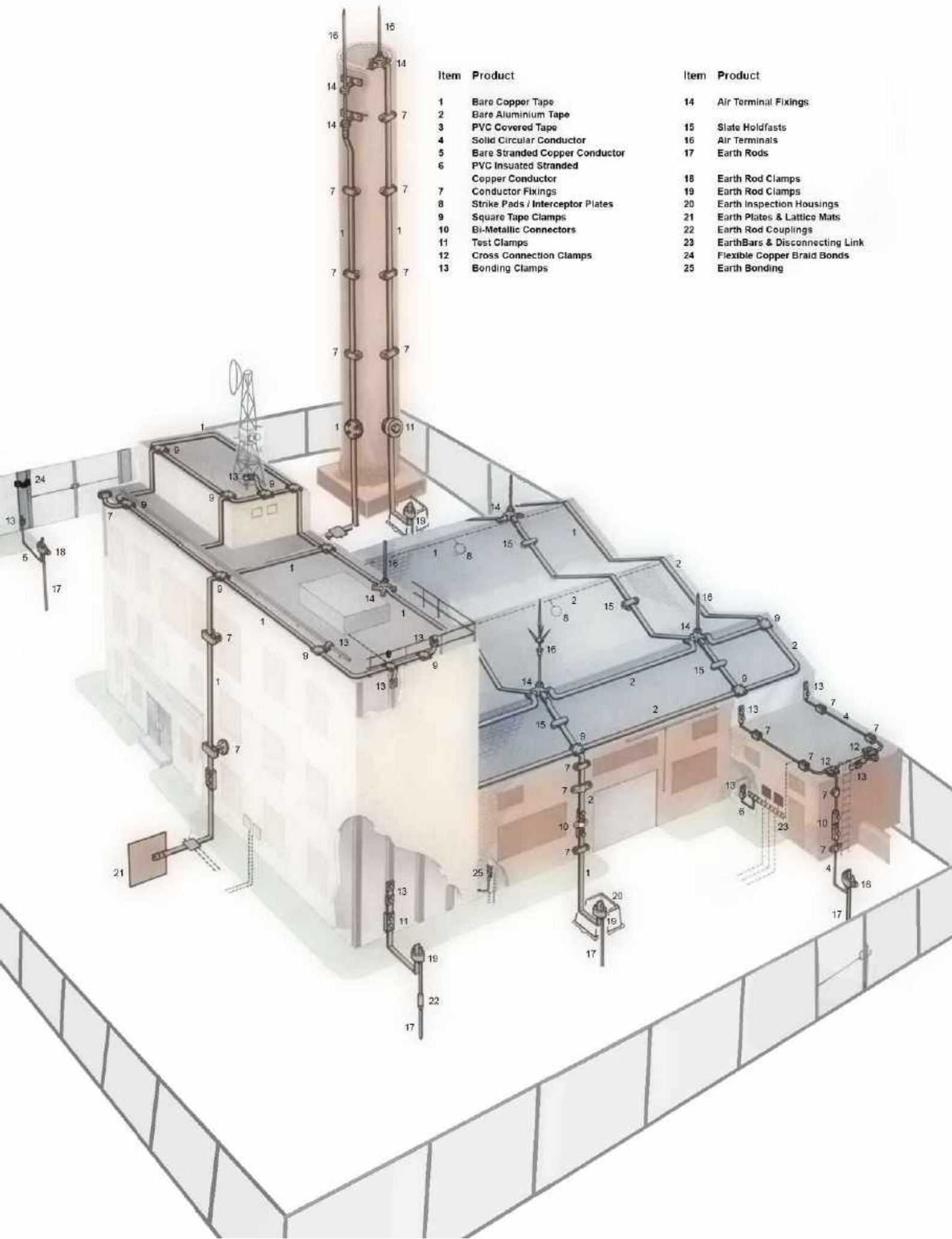




"LIGHTNING"

PROTECTION
SYSTEM
New Products





Item Product

- 1 Bare Copper Tape
- 2 Bare Aluminium Tape
- 3 PVC Covered Tape
- 4 Solid Circular Conductor
- 5 Bare Stranded Copper Conductor
- 6 PVC Insuaded Stranded Copper Conductor
- 7 Conductor Fixings
- 8 Strike Pads / Interceptor Plates
- 9 Square Tape Clamps
- 10 Bi-Metallic Connectors
- 11 Test Clamps
- 12 Cross Connection Clamps
- 13 Bonding Clamps

Item Product

- 14 Air Terminal Fixings
- 15 Slate Holdfasts
- 16 Air Terminals
- 17 Earth Rods
- 18 Earth Rod Clamps
- 19 Earth Rod Clamps
- 20 Earth Inspection Housings
- 21 Earth Plates & Lattice Mats
- 22 Earth Rod Couplings
- 23 EarthBars & Disconnecting Link
- 24 Flexible Copper Braid Bonds
- 25 Earth Bonding

INDEX

•ACTIVE AIR TERMINALS

ESE Air Terminals.....	2
Early Streamer Emission Air Terminal.....	3
Petunia Electromechanical Lightning Strike Counter.....	4
Petunia Digital Lightning Strike Counter.....	4
Early Streamer Emission Tester.....	4

•PASSIVE AIR TERMINALS

Air Terminal.....	5
Multiple Point Air Terminal.....	6
Multiple Point Head.....	7
Light Air Terminal.....	7

•CLAMPS FOR AIR TERMINALS

“L” Shape Air Terminal Base to Wire Clamp.....	7
“L” Shape Air Terminal Base to Tape Clamp.....	7
“T” Shape Air Terminal Base to Wire Clamp.....	8
“T” Shape Air Terminal Base to Tape Clamp.....	8
“V” Shape Air Terminal Base to Wire Clamp.....	8
“V” Shape Air Terminal Base to Tape Clamp.....	8
“Y” Shape Air Terminal Base to Wire Clamp.....	9
“Y” Shape Air Terminal Base to Tape Clamp.....	9
Air Terminal Wall Support to Wire Clamp.....	9
Air Terminal Wall Support to Tape Clamp.....	9
Air Terminal and Pipe Holder.....	10
One Hole Wire Clip.....	10
PVC Covered One Hole Wire Clip.....	10
Two Hole Wire Clip.....	11
Wire Clamp.....	11
PVC Covered Two Hole Wire Clip.....	11
Wire Support Clamp.....	12
Cylindrical Wire Wall Support.....	12
Cylindrical Wire Wall Corner Support.....	12
Plastic Tape Clamp.....	12
Tape Clip.....	13
Tape Clamp.....	13
Back Plate Holdfast.....	13
Tape Support Clamp.....	14
Connection Wire Clamp.....	14
Connection Wire Clamp.....	14
Tape to Wire Conductor Test Clamp.....	14
Cross Connection Cable Clamp.....	15
Wire to Tape Junction Clamp.....	15
Cross Tape Clamp.....	15

Straight Connection Bolted Clamp.....	15
Bimetallic Tape Connector.....	15
Attaching Wire Clamp.....	16
Double Attaching Wire Clamp.....	16
Tower Wire Clamp.....	16
Tower Tape Clamp.....	16
Tower Wire Clamp.....	17
Tape Conductor Support.....	17
Wire Conductor Support.....	17
Metallic Structure to Conductor Clamp.....	17
“L” Type Wire Conductor Support.....	18
Wall Mounting Bracket.....	18
Light Wall Mounting Bracket.....	18
Pipe to Tube Supporting Clamp.....	18
Tube to Rectangular Profile Supporting Clamp.....	19
Air Terminal STUD.....	19
Metallic Wire Guard.....	19
Metallic Tape Guard.....	19
Concrete Roof Wire Holder.....	20
Concrete Roof Tape Holder.....	20
UPVC Roof Wire Holder.....	20
UPVC Roof Tape Holder.....	20

•MASTS FOR AIR TERMINALS

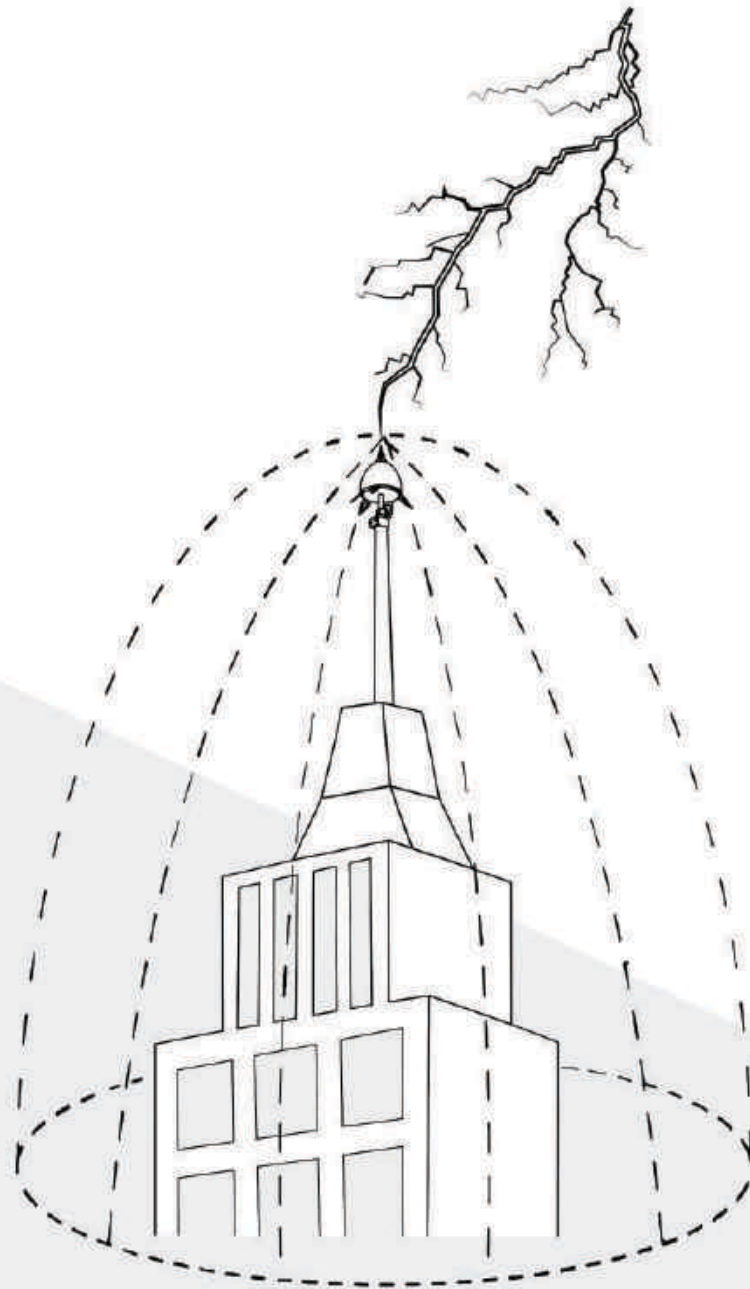
Free Standing Masts.....	21
Lattice Free Standing Masts (LFSM).....	21
Polygonal Free Standing Masts (PFSM).....	21
Pipe Type Free Standing Masts (PTFS).....	21
Telescopic Mast.....	22
H.D.G Mast Support.....	22
Concrete Base Free Standing Mast.....	22
Wall Mounted Air Terminal Support.....	22

LIGHTNING PREVENTION

•ACTIVE AIR TERMINALS

PS-100 Lightning Dissipation Terminals.....	23
PS-400 Lightning Dissipation Terminals.....	24
PS-510 Lightning Dissipation Terminals.....	24
PS-500 Lightning Dissipation Terminals.....	24

ACTIVE AIR TERMINALS



ESE AIR TERMINALS

An Early Streamer Emission air terminal, also known as ESE or as an ionizing lightning rod, is an external lightning protection system with innovative technology. This ESE air terminal is also known as active lightning rod. At its start, the lightning bolt travels through a downward leader that propagates in jumps in any direction. When the bolt approaches the ground it can hit any object. The aim of the lightning rod is to concentrate the discharge point of the bolt in order to achieve a controlled impact without any damages.

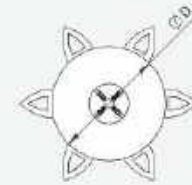
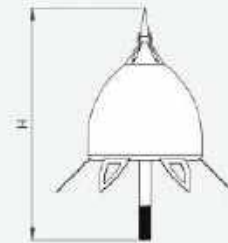
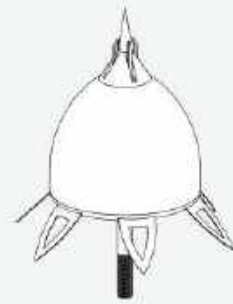
The ESE air terminal emits a continuous upward leader with time of advance to anticipate the descent of lightning and capture it before any other object within its protection area. The time of advance of the ESE determines the protection radius of the ESE air terminal: the more the upward leader anticipates, the higher the downward leader is captured and prevents lightning strikes in a larger area.

An Early Streamer Emission (ESE) Air Terminal is characterized by reacting when lightning approaches, intercepting it earlier than any other element within its protection area in order to conduct it safely to the ground. In fact, the ESE terminals are designed to develop an upward propagating streamer faster than the one generated from a conventional air terminal. The efficiency in the propagation of a streamer allows these terminals to intercept a lightning leader much above the point of their installation resulting in a larger radius of protection.

► EARLY STREAMER EMISSION AIR TERMINAL

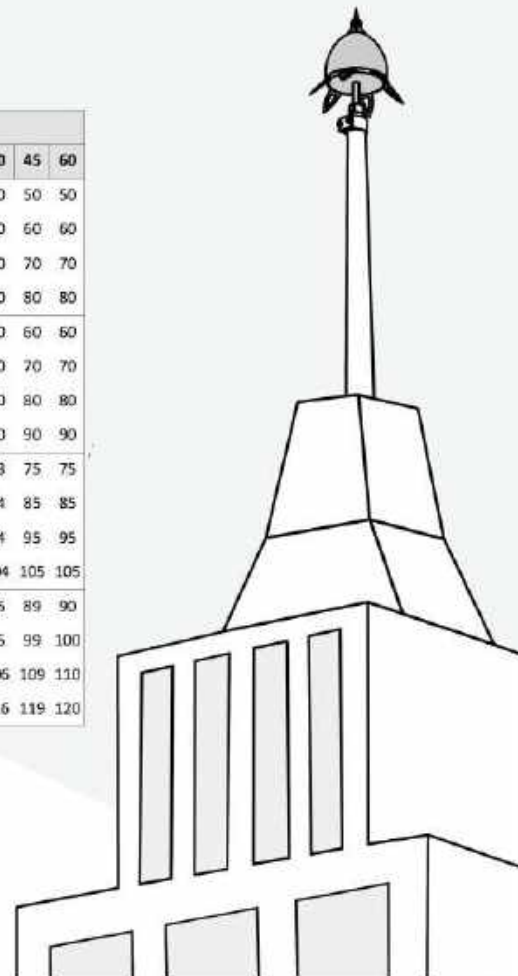
Technical Data:

- According to standards NFC 17-102, UNE 21186
- Electronic circuit, high voltage impulse emitter and upward streamer generator. Working threshold below 50 kV/m potential gradient between atmosphere and ground. This circuit is watertight, located in the central body of the air terminal housing against electric discharges by Faraday cage shaped assembly.
- Triple insulating system protector, which warranties the system performance in all weather conditions.
- Stepped electrostatic charge accumulator and a single discharging tip in order to avoid the ineffective charge spread.
- Housing made of stainless steel (AISI-316) (without aluminum parts to avoid the formation of galvanic pairs and corrosion).
- Atmospheric electric charge as its only power supply, being self-autonomy and maintenance free.



Reference Code	Δt (μs)	I _{imp} (KA)	Operation Temperature	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
					ØD	H		
PESE 30	30	≥200	-20°C to +40°C	Stainless Steel	310	410	1	5
PESE 40	40	≥200	-20°C to +40°C	Stainless Steel	310	410	1	5.3
PESE 50	50	≥200	-20°C to +40°C	Stainless Steel	310	410	1	5.6
PESE 60	60	≥200	-20°C to +40°C	Stainless Steel	310	410	1	5.9

Protection Level	Model	(Δt)	Protection Radius (m)	H (m)												
				2	3	4	5	6	8	10	12	20	30	45	60	
Level 1 (D=20m)	PESE 30	30μs		19	29	38	48	48	49	49	49	50	50	50	50	
	PESE 40	40μs		23	35	46	58	58	59	59	59	60	60	60	60	
	PESE 50	50μs		27	41	54	69	68	69	69	70	70	70	70	70	
	PESE 60	60μs		32	47	63	79	79	79	79	80	80	80	80	80	
Level 2 (D=30m)	PESE 30	30μs		22	33	44	55	55	56	57	57	59	60	60	60	
	PESE 40	40μs		26	39	52	65	66	66	67	68	69	70	70	70	
	PESE 50	50μs		30	46	61	76	76	77	77	78	79	80	80	80	
	PESE 60	60μs		34	52	69	86	87	87	88	88	89	90	90	90	
Level 3 (D=45m)	PESE 30	30μs		25	38	50	63	64	65	66	67	71	73	75	75	
	PESE 40	40μs		30	45	60	75	76	77	77	78	81	84	85	85	
	PESE 50	50μs		34	52	69	86	87	87	88	89	92	94	95	95	
	PESE 60	60μs		39	58	78	97	97	98	99	100	102	104	105	105	
Level 4 (D=60m)	PESE 30	30μs		28	43	57	71	72	73	75	76	81	85	89	90	
	PESE 40	40μs		34	50	67	84	84	86	87	88	92	95	99	100	
	PESE 50	50μs		38	57	76	95	96	97	98	99	102	106	109	110	
	PESE 60	60μs		43	64	86	107	107	108	109	110	113	116	119	120	





► PETUNIA ELECTROMECHANICAL LIGHTNING STRIKE COUNTER

The lightning strikes are detected and monitored by PETUNIA Electromechanical Lightning Strike Counter, which is able to give some information about the service necessity of the lightning protection system. By using an inductive record, the counter is able to accurately count all lightning events for a later reference. PMLSC can be used with any size of cables and strips by adaptive accessories.

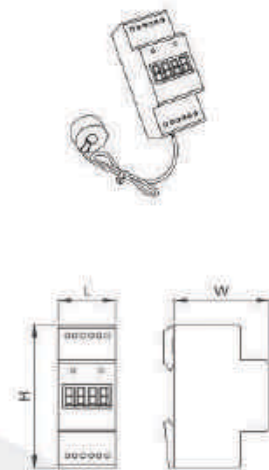
Reference Code	Currents Detected (KA)	Maximum Current	Dimension (mm)			Box Qty	Unit Weight (Kg)
			L	W	H		
ELSC	Detected 1-100	100 KA (10/350)	105	52	40	1	0.14



► PETUNIA DIGITAL LIGHTNING STRIKE COUNTER

The PETUNIA Lightning Counter is designed to effectively count the number of lightning strikes captured by air terminals, Lightning Arresters or Surge Protectors. It is for easy mounting on a down conductor and measures lightning strikes by the induction of current. The digital Lightning strike Counter does not require the use of any external power source.

Reference Code	Minimum Current Detection	Maximum Current	Dimension (mm)			Box Qty	Unit Weight (Kg)
			L	W	H		
DLSC	1 KA (8/20 us)	100 KA (10/350)	50	60	90	1	0.1



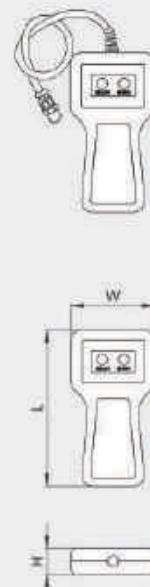
► EARLY STREAMER EMISSION TESTER

The PETUNIA Advanced ESE Tester constitutes an advanced tool for analysing electronic early streamer emission (ESE) lightning rods. This device has been specifically designed for testing ESE lightning rods from the PETUNIA ESE. It uses advanced test methods for measuring several lightning rod functional parameters.

Characteristics:

Several lightning protection standards recommend the realization of periodic inspections of the lightning protection installation and its components. These standards also recommend or establish the need for performing maintenance actions after the occurrence of lightning impacts on the lightning protection system. The PETUNIA Advanced ESE Tester permits the execution of an advanced functional analysis to detect any abnormality in the active air terminal behaviour.

Reference Code	Operating Temperature	Current Consumption	Test Duration	Dimension (mm)			Box Qty	Unit Weight (Kg)
				L	W	H		
ESE Tester	-10°C to +40°C	30mA	1s-to-30s	147	89	25	1	0.14



PASSIVE AIR TERMINALS

PASSIVE AIR TERMINALS

Lightning protection systems have considered for protecting of appliances, electrical systems and building construction since Benjamin Franklin first invented lightning rods in 1752.

Most traditional lightning protection systems are based on the installation of Franklin rods and meshed conductors covering the structure. It is very important that the materials, dimensions and installation of these components follow the in-force regulations.

It should provide a means by which this discharge may enter or leave earth without passing through and damaging non conducting parts of a structure, such as those made of wood, brick, tile or concrete. A lightning protection system does not prevent lightning from striking; it provides a means for controlling it and preventing damage by providing a low resistance path for the discharge of lightning energy.

A meshed cage installation elements:

- Devices to capture atmospheric
- Discharges, consisting of strike points;
- Roof conductors;
- Down conductors;
- Ground posts electrodes.

Petunia has a wide range of air terminals, conductors, clamps and other acc. for this system. Our technical department is available to support you for designing and offering an acceptable offer for your project.

► AIR TERMINAL

These Rods are made up of high conductivity materials as below configurations. according to standards IEC 62561

Reference Code	Rod Dia. (mm)	Material	Length L (mm)	Box. Qty	Unit Weight (kg)
AT 16/500	16	Copper	500	10	0.9
ATs 16/500		Stainless Steel		10	0.8
ATg 16/500		Galvanized Steel		10	0.8
ATc 16/500		Copper Bond		10	0.8
ATa 16/500		Aluminium		10	0.3
AT 16/600	16	Copper	600	10	1.1
ATs 16/600		Stainless Steel		10	0.9
ATg 16/600		Galvanized Steel		10	0.9
ATc 16/600		Copper Bond		10	0.9
ATa 16/600		Aluminium		10	0.3
AT 16/1000	16	Copper	1000	10	1.8
ATs 16/1000		Stainless Steel		10	1.6
ATg 16/1000		Galvanized Steel		10	1.6
ATc 16/1000		Copper Bond		10	1.6
ATa 16/1000		Aluminium		10	0.5
AT 16/1500	16	Copper	1500	10	2.7
ATs 16/1500		Stainless Steel		10	2.4
ATg 16/1500		Galvanized Steel		10	2.4
ATc 16/1500		Copper Bond		10	2.4
ATa 16/1500		Aluminium		10	0.8
AT 16/2000	16	Copper	2000	10	3.6
ATs 16/2000		Stainless Steel		10	3.2
ATg 16/2000		Galvanized Steel		10	3.2
ATc 16/2000		Copper Bond		10	3.2
ATa 16/2000		Aluminium		10	1.1
AT 20/500	20	Copper	500	10	1.4
ATs 20/500		Stainless Steel		10	1.2
ATg 20/500		Galvanized Steel		10	1.2
ATc 20/500		Copper Bond		10	1.2
ATa 20/500		Aluminium		10	0.4
AT 20/600	20	Copper	600	10	1.7
ATs 20/600		Stainless Steel		10	1.5
ATg 20/600		Galvanized Steel		10	1.5
ATc 20/600		Copper Bond		10	1.5
ATa 20/600		Aluminium		10	0.5
AT 20/1000	20	Copper	1000	10	2.8
ATs 20/1000		Stainless Steel		10	2.5
ATg 20/1000		Galvanized Steel		10	2.5
ATc 20/1000		Copper Bond		10	2.5
ATa 20/1000		Aluminium		10	0.8
AT 20/1500	20	Copper	1500	10	4.2
ATs 20/1500		Stainless Steel		10	3.7
ATg 20/1500		Galvanized Steel		10	3.7
ATc 20/1500		Copper Bond		10	3.7
ATa 20/1500		Aluminium		10	1.3
AT 20/2000	20	Copper	2000	10	5.6
ATs 20/2000		Stainless Steel		10	4.9
ATg 20/2000		Galvanized Steel		10	4.9
ATc 20/2000		Copper Bond		10	4.9
ATa 20/2000		Aluminium		10	1.7



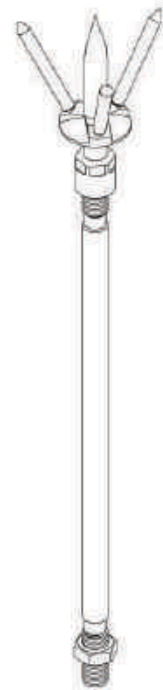
For other Air Terminals configuration/sizes please contact Petunia Co. Experts.

► MULTIPLE POINT AIR TERMINAL

Multi point air terminals will do something more than the conventional type air terminal for us if they are mounted on tall buildings or a large entirely metallic surface with consideration for four below conditions.

- 1-Accepting the theory elaborated on IEEE 998 , IEC 62561 , clause 7 (Leader propagation and intersection methods)
- 2-Installing high enough multi point air terminal on the building or concerned structure.
- 3-Implementing a high quality earthing system for the tall building or concerned structure.
- 4-The tall structure means the structure with height more than 150 feet.

Please pay your attention, we were not talking about the coverage area of air terminal, we were talking about the increase or reduction of strike probability.



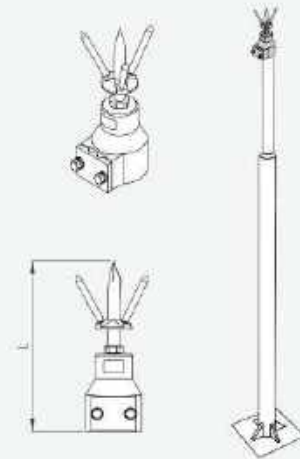
Reference Code	Rod Dia. (mm)	Material	Length L (mm)	Box. Qty	Unit Weight (kg)
MAT 15/500	15	Copper	500	10	0.9
MATs 15/500		Stainless Steel		10	0.8
MATg 15/500		Steel Galvanized		10	0.8
MATc 15/500		Copper Bond		10	0.8
MATa 15/500		Aluminium		10	0.3
MAT 15/600	15	Copper	600	10	1.1
MATs 15/600		Stainless Steel		10	0.9
MATg 15/600		Steel Galvanized		10	0.9
MATc 15/600		Copper Bond		10	0.9
MATa 15/600		Aluminium		10	0.3
MAT 15/1000	15	Copper	1000	10	1.8
MATs 15/1000		Stainless Steel		10	1.6
MATg 15/1000		Steel Galvanized		10	1.6
MATc 15/1000		Copper Bond		10	1.6
MATa 15/1000		Aluminium		10	0.5
MAT 15/1500	15	Copper	1500	10	2.7
MATs 15/1500		Stainless Steel		10	2.4
MATg 15/1500		Steel Galvanized		10	2.4
MATc 15/1500		Copper Bond		10	2.4
MATa 15/1500		Aluminium		10	0.8
MAT 15/2000	15	Copper	2000	10	3.6
MATs 15/2000		Stainless Steel		10	3.2
MATg 15/2000		Steel Galvanized		10	3.2
MATc 15/2000		Copper Bond		10	3.2
MATa 15/2000		Aluminium		10	1.1
MAT 20/500	20	Copper	500	10	1.4
MATs 20/500		Stainless Steel		10	1.2
MATg 20/500		Steel Galvanized		10	1.2
MATc 20/500		Copper Bond		10	1.2
MATa 20/500		Aluminium		10	0.4
MAT 20/600	20	Copper	600	10	1.7
MATs 20/600		Stainless Steel		10	1.5
MATg 20/600		Steel Galvanized		10	1.5
MATc 20/600		Copper Bond		10	1.5
MATa 20/600		Aluminium		10	0.5
MAT 20/1000	20	Copper	1000	10	2.8
MATs 20/1000		Stainless Steel		10	2.5
MATg 20/1000		Steel Galvanized		10	2.5
MATc 20/1000		Copper Bond		10	2.5
MATa 20/1000		Aluminium		10	0.8
MAT 20/1500	20	Copper	1500	10	4.2
MATs 20/1500		Stainless Steel		10	3.7
MATg 20/1500		Steel Galvanized		10	3.7
MATc 20/1500		Copper Bond		10	3.7
MATa 20/1500		Aluminium		10	1.3
MAT 20/2000	20	Copper	2000	10	5.6
MATs 20/2000		Stainless Steel		10	4.9
MATg 20/2000		Steel Galvanized		10	4.9
MATc 20/2000		Copper Bond		10	4.9
MATa 20/2000		Aluminium		10	1.7



► **MULTIPLE POINT HEAD**

The multi-point head can be installed directly to the mast and turn the rig into a high length air terminal.

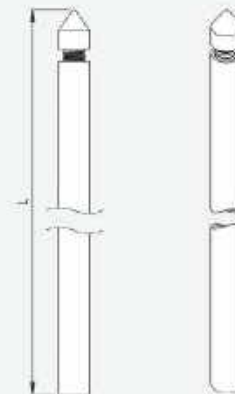
Reference Code	Pipe Dia. (Inch)	Material	Length L (mm)	Box. Qty	Unit Weight (kg)
MATL 1	1 ½	Brass	210	1	1.5
MATL 2	2	Brass	210	1	1.4



► **LIGHT AIR TERMINAL**

Lightweight air rod terminals are made of stainless steel. They have a light weight against their size and have very high strength in stormy weather conditions.

Reference Code	Tube Dia. (Inch)	Material	Length L (mm)	Box. Qty	Unit Weight (kg)
ATLs 20/500	¾	Stainless Steel	500	5	0.5
ATLg 20/500		H.D.G.		5	0.5
ATLs 20/600	¾	Stainless Steel	600	5	0.6
ATLg 20/600		H.D.G.		5	0.6
ATLs 20/1000	¾	Stainless Steel	1000	5	1.0
ATLg 20/1000		H.D.G.		5	1.0
ATLs 20/1500	¾	Stainless Steel	1500	5	1.5
ATLg 20/1500		H.D.G.		5	1.5
ATLs 20/2000	¾	Stainless Steel	2000	5	2.0
ATLg 20/2000		H.D.G.		5	1.9



For other Air Terminals configuration/sizes please contact Petunia Co. Experts.

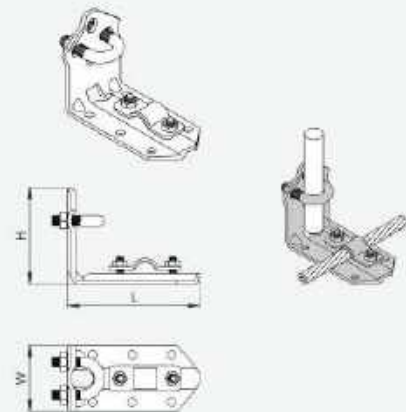
CLAMPS FOR AIR TERMINALS

► **"L" SHAPE AIR TERMINAL BASE TO WIRE CLAMP**

Petunia air terminals base are made of appropriate materials and are designed for installation of air terminals on structure. This is suitable for connecting the wire to air terminals with maximum 20 mm diameter.

Reference Code	Rod Max (mm)	Conductor Range (mm ²)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
				L	W	H		
ABL 35-70	20x500	35-70	CZ 106-108	100	50	70	10	0.29
ABLg 35-70			H. D. G.					
ABL 95-150	20x500	95-150	CZ 106-108	100	50	70	10	0.29
ABLg 95-150			H. D. G.					

For material type not listed, contact PETUNIA Co.

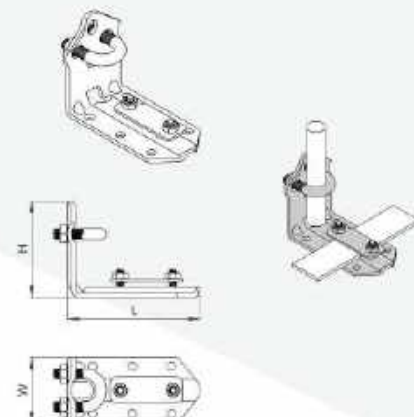


► **"L" SHAPE AIR TERMINAL BASE TO TAPE CLAMP**

Petunia air terminals base are made of appropriate materials and are designed for installation of air terminals on structure. This is suitable for connecting the tape to air terminals with maximum 20 mm diameter.

Reference Code	Rod Max (mm)	Max. Conductor Size (mm)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
				L	W	H		
ABL 30x5	20x500	30x5	CZ 106-108	100	50	70	10	0.30
ABLg 30x5			H. D. G.					

For material type not listed, contact PETUNIA Co.



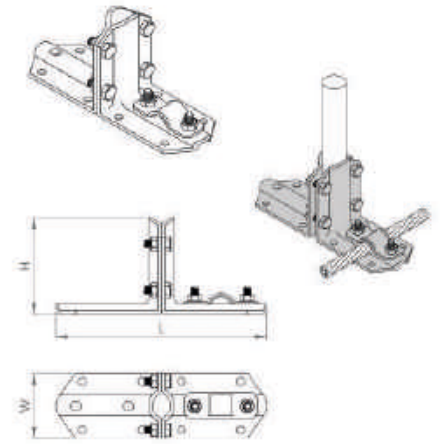


► "T" SHAPE AIR TERMINAL BASE TO WIRE CLAMP

Petunia air terminals base are made of appropriate materials and are designed for installation of air terminals on structure. This is suitable for connecting the wire to higher air terminals with maximum 20 mm diameter.

Reference Code	Rod Max (mm)	Conductor Range (mm ²)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
				L	W	H		
ABT 35-70	20x2000	35-70	CZ 106-108	160	50	73	5	0.42
ABTg 35-70			H. D. G.				5	0.4
ABT 95-150	20x2000	95-150	CZ 106-108	160	50	73	5	0.43
ABTg 95-150			H. D. G.				5	0.41

For material type not listed, contact PETUNIA Co.

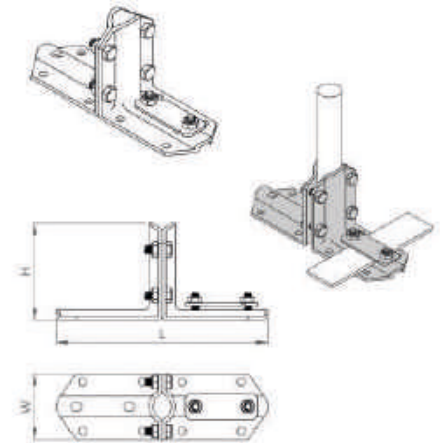


► "T" SHAPE AIR TERMINAL BASE TO TAPE CLAMP

Petunia air terminals base are made of appropriate materials and are designed for installation of air terminals on structure. This is suitable for connecting the tape to higher air terminals with maximum 20 mm diameter.

Reference Code	Rod Max (mm)	Max. Conductor Size (mm)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
				L	W	H		
ABT 30x5	20x2000	30x5	CZ 106-108	160	50	73	5	0.42
ABTg 30x5			H. D. G.				5	0.4

For material type not listed, contact PETUNIA Co.

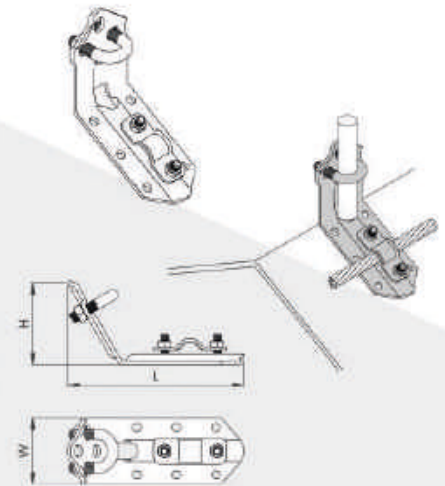


► "V" SHAPE AIR TERMINAL BASE TO WIRE CLAMP

Petunia air terminal bases are made of appropriate materials and are designed for installation of air terminals on sloping surface of structure. This is suitable for connecting the wire to air terminals with maximum 20 mm diameter.

Reference Code	Rod Max (mm)	Conductor Range (mm ²)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
				L	W	H		
ABV 35-70	20x1000	35-70	CZ 106-108	130	50	60	10	0.30
ABVg 35-70			H. D. G.				10	0.28
ABV 95-150	20x1000	95-150	CZ 106-108	130	50	60	10	0.30
ABVg 95-150			H. D. G.				10	0.28

For material type not listed, contact PETUNIA Co.

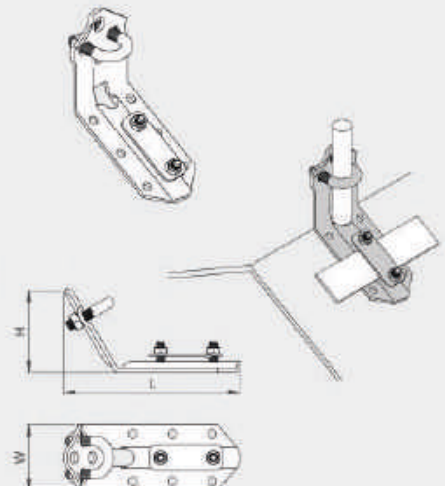


► "V" SHAPE AIR TERMINAL BASE TO TAPE CLAMP

Petunia air terminals base are made of appropriate materials and are designed for installation of air terminals on sloping surface of structure. This is suitable for connecting the tape to air terminals with maximum 20 mm diameter.

Reference Code	Rod Max (mm)	Max. Conductor Size (mm)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
				L	W	H		
ABV 30x5	20x1000	30x5	CZ 106-108	130	50	60	10	0.30
ABVg 30x5			H. D. G.				10	0.27

For material type not listed, contact PETUNIA Co.

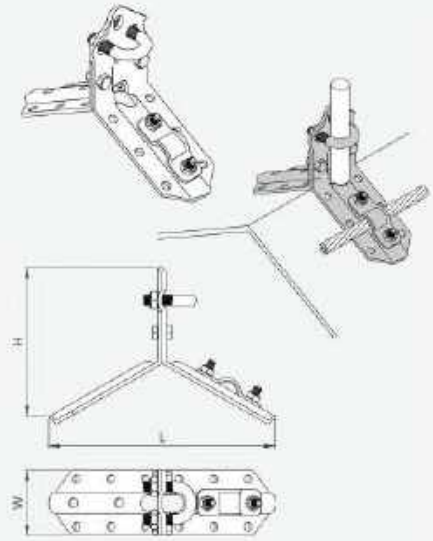


► "Y" SHAPE AIR TERMINAL BASE TO WIRE CLAMP

Petunia air terminals base are made of appropriate materials and are designed for installation of air terminals on sloping surface of structure. This is suitable for connecting the wire to higher air terminals with maximum 20 mm diameter.

Reference Code	Rod Max (mm)	Conductor Range (mm ²)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
				L	W	H		
ABY 35-70	20x2000	35-70	CZ 106-108	170	50	120	5	0.45
ABYg 35-70			H. D. G.					
ABY 95-150	20x2000	95-150	CZ 106-108	170	50	120	5	0.45
ABYg 95-150			H. D. G.					

For material type not listed, contact PETUNIA Co.

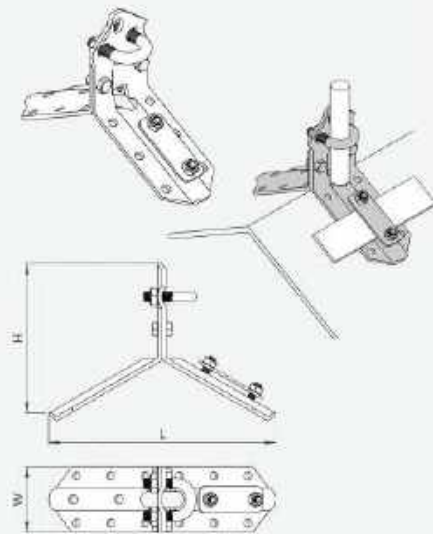


► "Y" SHAPE AIR TERMINAL BASE TO TAPE CLAMP

Petunia air terminals base are made of appropriate materials and are designed for installation of air terminals on sloping surface of structure. This is suitable for connecting the tape to higher air terminals with maximum 20 mm diameter.

Reference Code	Rod Max (mm)	Max. Conductor Size (mm)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
				L	W	H		
ABY 30x5	20x2000	30x5	CZ 106-108	170	50	120	5	0.45
ABYg 30x5			H. D. G.					

For material type not listed, contact PETUNIA Co.

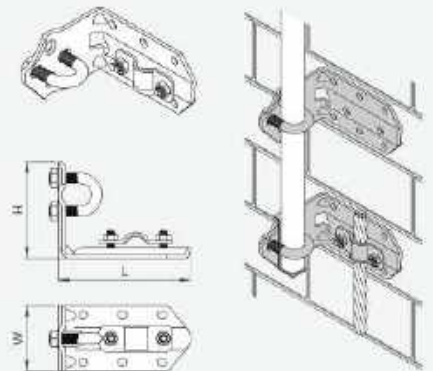


► AIR TERMINAL WALL SUPPORT TO WIRE CLAMP

Petunia air terminals support are made of appropriate materials and are designed for installation of air terminals on wall of structure. This is suitable for connecting the wire to air terminals with maximum 20 mm diameter.

Reference Code	Rod Max (mm)	Conductor Range (mm ²)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
				L	W	H		
ASW 35-70	20	35-70	CZ 106-108	100	50	70	5	0.58
ASWg 35-70			H. D. G.					
ASW 95-150	20	95-150	CZ 106-108	100	50	70	5	0.58
ASWg 95-150			H. D. G.					

For material type not listed, contact PETUNIA Co.

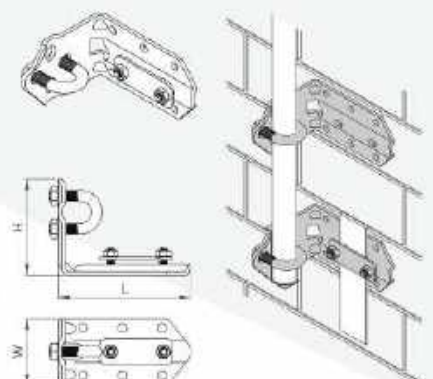


► AIR TERMINAL WALL SUPPORT TO TAPE CLAMP

Petunia air terminals support are made of appropriate materials and are designed for installation of air terminals on wall of structure. This is suitable for connecting the tape to air terminals with maximum 20 mm diameter.

Reference Code	Rod Max (mm)	Max. Conductor Size (mm)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
				L	W	H		
ASW 30x5	20	30x5	CZ 106-108	100	50	70	5	0.58
ASWg 30x5			H. D. G.					

For material type not listed, contact PETUNIA Co.

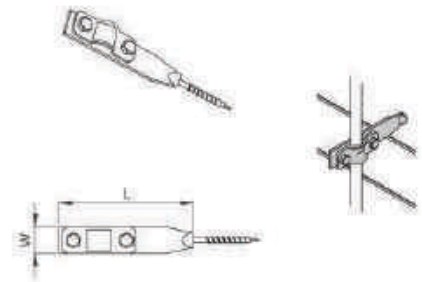


► AIR TERMINAL AND PIPE HOLDER

Petunia air terminal and pipe holders are used for installing air terminal and pipe on various wall structure. This is suitable for installing air terminal/pipe with maximum 20 mm diameter.

Reference Code	Max. Air Terminal/ Pipe dia. (mm)	Material	Dimension (mm)		Box. Qty	Unit Weight (Kg)
			L	W		
APH	20	H.D.G.	100	20	50	0.09

For material type not listed, contact PETUNIA Co.

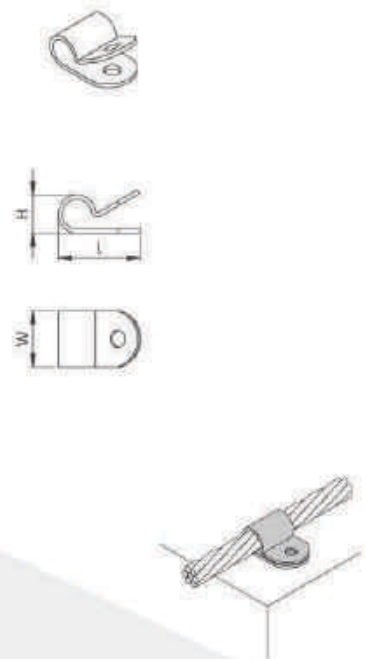


► ONE HOLE WIRE CLIP

Petunia cable clip is suitable for connecting bare conductor to structure. This clamp is simple, affordable and easy to install. (According to IEC 62561)

Reference Code	Max. Air Terminal/ Pipe dia. (mm)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
			L	W	H		
TCW 16	16	Copper	24	15	8	100	0.01
TCWg 16		H.D.G.				100	0.01
TCW 25	25	Copper	30	15	10	100	0.01
TCWg 25		H.D.G.				100	0.01
TCW 35	35	Copper	30	15	11	100	0.01
TCWg 35		H.D.G.				100	0.01
TCW 50	50	Copper	34	20	12	50	0.02
TCWg 50		H.D.G.				50	0.02
TCW 70	70	Copper	36	20	14	50	0.02
TCWg 70		H.D.G.				50	0.02
TCW 95	95	Copper	40	20	16	50	0.02
TCWg 95		H.D.G.				50	0.02
TCW 120	120	Copper	46	20	17	50	0.03
TCWg 120		H.D.G.				50	0.02
TCW 150	150	Copper	48	20	19	50	0.03
TCWg 150		H.D.G.				50	0.02
TCW 185	185	Copper	52	20	20	50	0.03
TCWg 185		H.D.G.				50	0.03
TCW 240	240	Copper	56	20	23	25	0.03
TCWg 240		H.D.G.				25	0.03
TCW 300	300	Copper	60	20	26	25	0.03
TCWg 300		H.D.G.				25	0.03

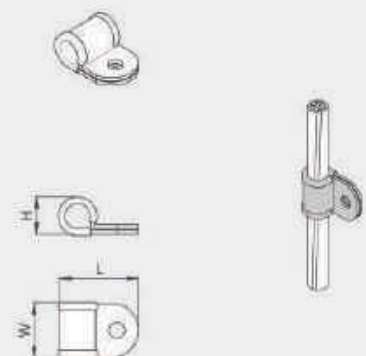
For material type not listed, contact PETUNIA Co.



► PVC COVERED ONE HOLE WIRE CLIP

Petunia PVC covered wire clip is suitable for connecting PVC covered conductor to structure. It can be installed quickly and easily with just a screw and driver.

Reference Code	Wire Size (mm ²)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
			L	W	H		
TCWF 16	16	H.D.G.	27	13	7	100	0.01
TCWF 25	25	H.D.G.	28	13	8	100	0.01
TCWF 35	35	H.D.G.	29	13	9	100	0.01
TCWF 50	50	H.D.G.	30	13	10	100	0.01
TCWF 70	70	H.D.G.	31	13	11	100	0.01
TCWF 95	95	H.D.G.	33	13	13	100	0.01
TCWF 120	120	H.D.G.	35	13	15	100	0.01
TCWF 150	150	H.D.G.	36	20	16	50	0.01
TCWF 185	185	H.D.G.	38	20	18	50	0.01
TCWF 240	240	H.D.G.	41	20	22	50	0.01

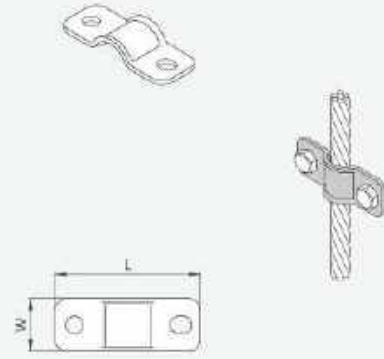


► TWO HOLE WIRE CLIP

Petunia cable clip is suitable for connecting bare conductor to structure. This clamp is simple, affordable and easy to install. (According to IEC 62561)

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			L	W		
THW 10-25	10-25	CZ 106-108	55	20	50	0.03
THWg 10-25		H.D.G.			50	0.02
THW 35-70	35-70	CZ 106-108	55	20	50	0.03
THWg 35-70		H.D.G.			50	0.02
THW 95-150	95-150	CZ 106-108	55	20	50	0.03
THWg 95-150		H.D.G.			50	0.02
THW 185-240	185-240	CZ 106-108	65	20	20	0.04
THWg 185-240		H.D.G.			20	0.03

For material type not listed, contact PETUNIA Co.

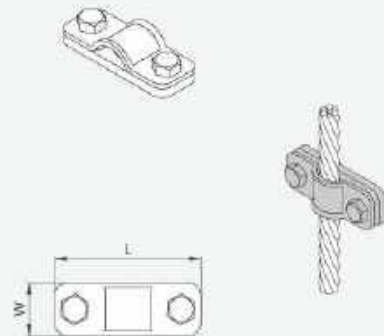


► WIRE CLAMP

Petunia wire clamp is suitable for connecting bare conductor to structure. This clamp is simple, affordable and easy to install. (According to IEC 62561)

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			L	W		
TEW 10-25	10-25	CZ 106-108	55	20	50	0.07
TEWg 10-25		H.D.G.			50	0.06
TEW 35-70	35-70	CZ 106-108	55	20	50	0.07
TEWg 35-70		H.D.G.			50	0.06
TEW 95-150	95-150	CZ 106-108	55	20	30	0.07
TEWg 95-150		H.D.G.			30	0.06
TEW 185-240	185-240	CZ 106-108	65	20	30	0.09
TEWg 185-240		H.D.G.			30	0.08

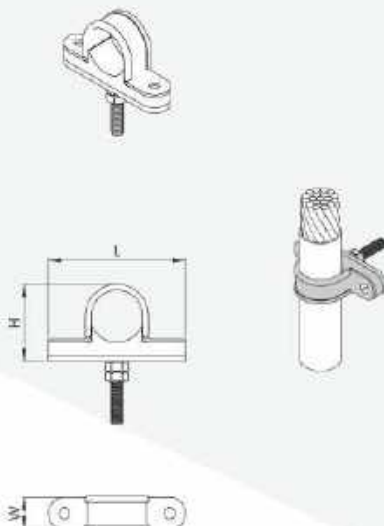
For material type not listed, contact PETUNIA Co.



► PVC COVERED TWO HOLE WIRE CLIP

This clamp is suitable for installing PVC covered wire on metallic structures that can be used for cables more than 20mm diameter.

Reference Code	Cable Dia. (mm)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
			L	W	H		
TEWF 20	20	H.D.G.	73	20	55	20	0.03
TEWF 26	26	H.D.G.	82	20	60	20	0.05
TEWF 33	33	H.D.G.	86	20	65	20	0.08
TEWF 42	42	H.D.G.	93	20	70	10	0.08
TEWF 48	48	H.D.G.	100	20	80	10	0.11
TEWF 60	60	H.D.G.	113	20	90	10	0.11



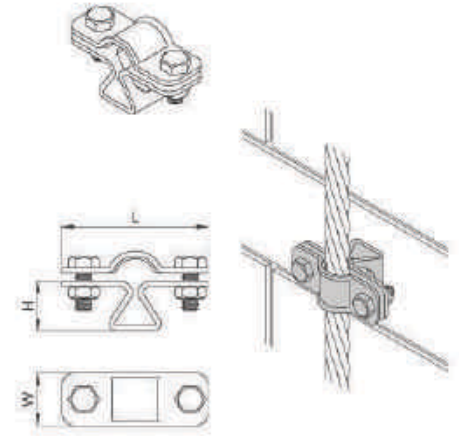


► WIRE SUPPORT CLAMP

Petunia wire support clamp is suitable for connecting bare conductor to structure. This clamp is used to separate the conductor from the surface of the structure. (According to IEC 62561)

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
			L	W	H		
STEW 16-25	16-25	CZ 106-108	55	20	19	100	0.07
STEWg 16-25		H.D.G.				100	0.06
STEW 35-70	35-70	CZ 106-108	55	20	19	50	0.07
STEWg 35-70		H.D.G.				50	0.06
STEW 95-150	95-150	CZ 106-108	55	20	19	30	0.07
STEWg 95-150		H.D.G.				30	0.06

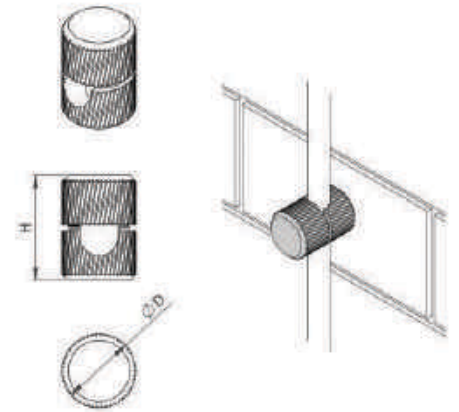
For material type not listed, contact PETUNIA Co.



► CYLINDRICAL WIRE WALL SUPPORT

Petunia cylindrical wire wall support is suitable for connecting bare conductor to wall flat with maximum 10 mm conductor diameter.

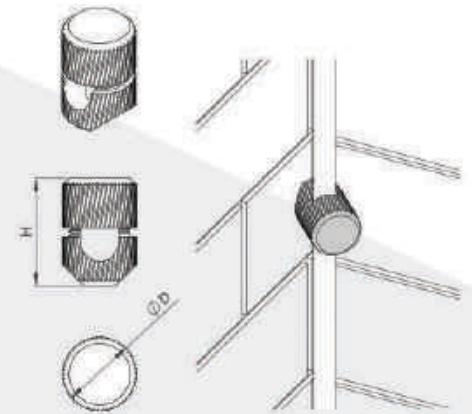
Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			∅D	H		
CYS 1	6-10	Commercial Brass	24	32	50	0.07



► CYLINDRICAL WIRE WALL CORNER SUPPORT

Petunia cylindrical wire wall support is suitable for connecting bare conductor to wall corner with maximum 10 mm conductor diameter.

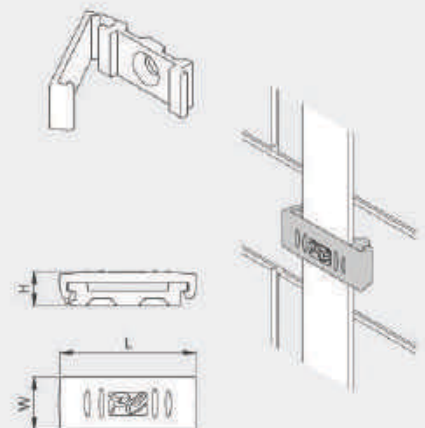
Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			∅D	H		
CYS 2	6-10	Commercial Brass	24	32	50	0.07



► PLASTIC TAPE CLAMP

This one-piece clip, with an integral hinged lid, means no lost or dropped lids. The clips are UV stabilized to prevent degradation from sunlight also are non-brittle to protect against cold weather. Fix using a countersunk woodscrew wall plug.

Reference Code	Conductor Size (mm)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
			L	W	H		
PTV 20x3	20x3	Plastic	40	20	13	50	0.01
PTV 25x3	25x3	Plastic	45	20	13	50	0.01
PTV 30x3	30x3	Plastic	50	20	13	50	0.01

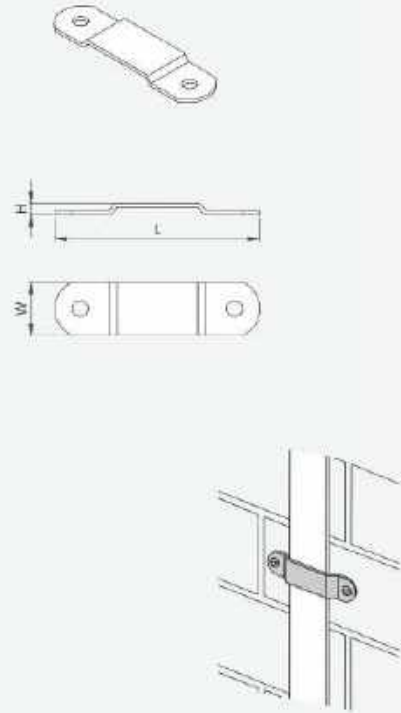


► TAPE CLIP

Petunia tape clip is suitable for connecting tape conductor to structure. This clamp is simple, affordable and easy to install. (According IEC 62561)

Reference Code	Conductor Size (mm)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
			L	W	H		
TC 20x3	20x3	Copper	65	20	5	100	0.02
TCg 20x3		H.D.G.				100	0.02
TCs 20x3		Stainless Steel				100	0.02
TC 25x2	25x2	Copper	70	20	4	100	0.02
TCg 25x2		H.D.G.				100	0.02
TCs 25x2		Stainless Steel				100	0.02
TC 25x3	25x3	Copper	70	20	5	100	0.02
TCg 25x3		H.D.G.				100	0.02
TCs 25x3		Stainless Steel				100	0.02
TC 25x5	25x5	Copper	73	20	7	100	0.03
TCg 25x5		H.D.G.				100	0.02
TCs 25x5		Stainless Steel				100	0.02
TC 30x3	30x3	Copper	75	20	5	100	0.03
TCg 30x3		H.D.G.				100	0.02
TCs 30x3		Stainless Steel				100	0.02
TC 30x5	30x5	Copper	80	20	7	100	0.03
TCg 30x5		H.D.G.				100	0.03
TCs 30x5		Stainless Steel				100	0.03
TC 40x5	40x5	Copper	90	20	7	50	0.03
TCg 40x5		H.D.G.				50	0.03
TCs 40x5		Stainless Steel				50	0.03
TC 50x5	50x5	Copper	100	20	7	50	0.04
TCg 50x5		H.D.G.				50	0.03
TCs 50x5		Stainless Steel				50	0.03
TC 60x5	60x5	Copper	110	20	7	50	0.04
TCg 60x5		H.D.G.				50	0.03
TCs 60x5		Stainless Steel				50	0.03

For material type not listed, contact PETUNIA Co.

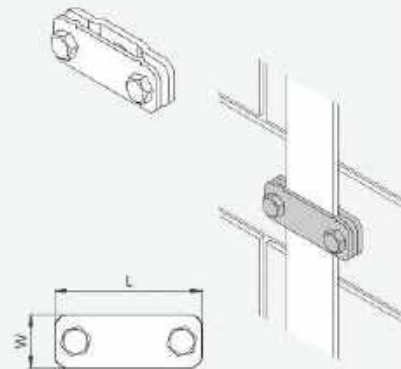


► TAPE CLAMP

Petunia tape clamp is suitable for connecting tape conductor to structure. It has high mechanical strength and is easy to install. (According IEC 62561)

Reference Code	Max. Conductor Size (mm)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			L	W		
DIC 30x5	30x5	CZ 106-108	55	20	50	0.06
DICg 30x5		H.D.G.			50	0.06

For material type not listed, contact PETUNIA Co.

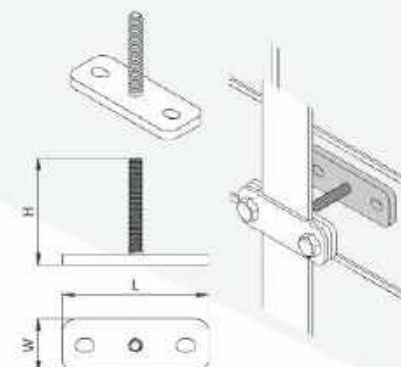


► BACK PLATE HOLDFAST

Petunia back plate holdfast is suitable to provide distance between tape conductor and structure.

Reference Code	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
		L	W	H		
BPH 1	CZ 106-108	55	20	45	20	0.10
BPHg 1	H.D.G.			20	0.09	
BPH 2	CZ 106-108	55	20	75	20	0.10
BPHg 2	H.D.G.			20	0.09	

For material type not listed, contact PETUNIA Co.



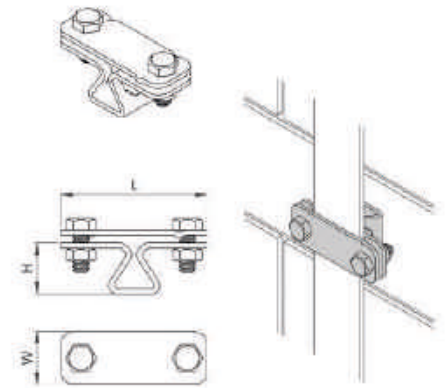


► TAPE SUPPORT CLAMP

Petunia tape support clamp is suitable for connecting tape conductor to structure. This clamp is used to separate the conductor from the surface of the metallic structure. (According to IEC 62561)

Reference Code	Max. Tape Size (mm)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
			L	W	H		
STC 30x5	30x5	CZ 106-108	55	20	19	50	0.07
STCg 30x5		H.D.G.					

For material type not listed, contact PETUNIA Co.

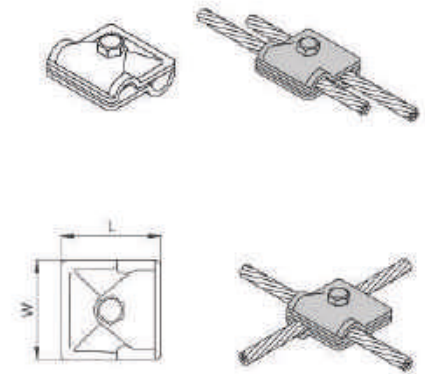


► CONNECTION WIRE CLAMP

Petunia connection wire clamp is suitable for connecting bare conductor together. This clamp is simple and affordable and easy to install. (According to IEC 62561)

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			L	W		
CTEN 16-35	16-35	CZ 106-108	40	40	20	0.08
CTENg 16-35		H. D. G.				
CTEN 50-120	50-120	CZ 106-108	50	50	20	0.1
CTENg 50-120		H. D. G.				
CTEN 150-240	150-240	CZ 106-108	60	60	20	0.16
CTENg 150-240		H. D. G.				

For material type not listed, contact PETUNIA Co.

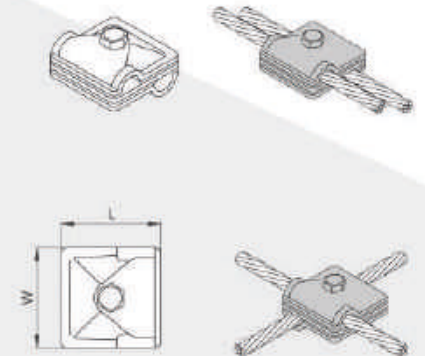


► CONNECTION WIRE CLAMP

Petunia connection wire clamp is suitable for connecting bare conductor together. This clamp is simple and easy to install. (According to IEC 62561)

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			L	W		
DTEN 16-35	16-35	CZ 106-108	40	40	20	0.1
DTENg 16-35		H. D. G.				
DTEN 50-120	50-120	CZ 106-108	50	50	20	0.14
DTENg 50-120		H. D. G.				
DTEN 150-240	150-240	CZ 106-108	60	60	20	0.22
DTENg 150-240		H. D. G.				

For material type not listed, contact PETUNIA Co.

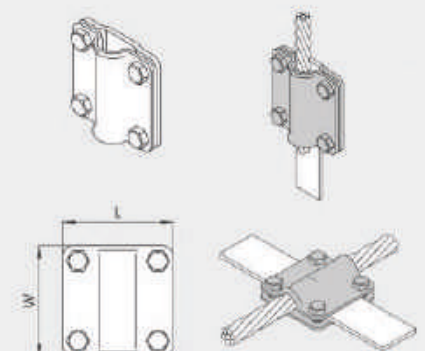


► TAPE TO WIRE CONDUCTOR TEST CLAMP

Petunia tape to wire conductor test clamp is suitable for disconnecting tape from wire in lightning protection system and testing earthing system. This clamp is simple and affordable and easy to install. (According to IEC 62561)

Reference Code	Conductor Range (mm ²)	Max. Tape Size (mm)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
				L	W		
CTCN 25-50	25-50	30x5	CZ 106-108	55	55	20	0.14
CTCNg 25-50			H.D.G.				
CTCN 70-120	70-120	30x5	CZ 106-108	55	55	20	0.14
CTCNg 70-120			H.D.G.				

For material type not listed, contact PETUNIA Co.

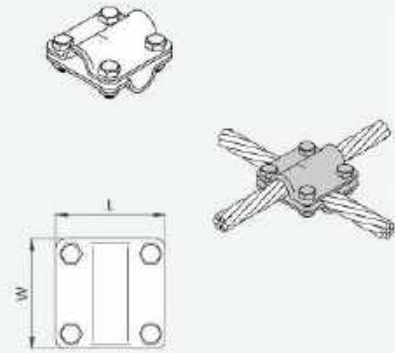


► CROSS CONNECTION CABLE CLAMP

Petunia cross connection cable clamp is suitable for connecting bare conductor together. This clamp is simple and affordable and easy to install. (According to IEC 62561)

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			L	W		
SCC 25-50	25-50	CZ 106-108	55	55	20	0.15
SCCg 25-50		H. D. G.				
SCC 70-120	70-120	CZ 106-108	55	55	20	0.15
SCCg 70-120		H. D. G.				

For material type not listed, contact PETUNIA Co.

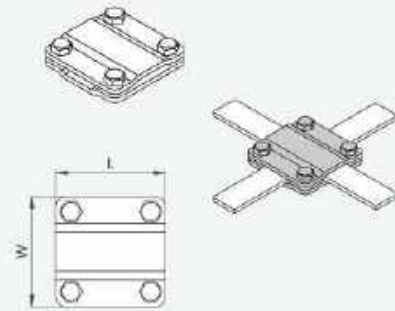


► CROSS TAPE CLAMP

Petunia cross tape clamp is suitable for connecting tape to tape conductor. This clamp is simple, affordable and easy to install. (According to IEC 62561)

Reference Code	Max. Tape Size (mm)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			L	W		
XJC 30x5	30x5	CZ 106-108	55	55	20	0.18
XJcg 30x5		H. D. G.				

For material type not listed, contact PETUNIA Co.

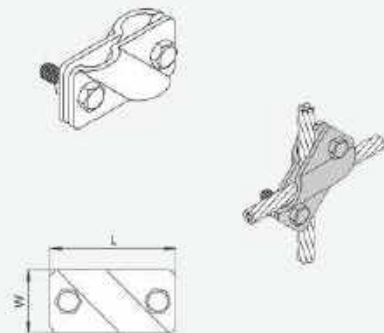


► "X" BOLTED TYPE CONNECTOR CLAMP

This is a Cross-Connection Clamp type for the two wires in different sizes. Although the main body is made of copper and the bolts are also made of stainless steel, according to IEC, it should not be buried underground for connections. Acc. to BS 7430 and IEC 62651.

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (kg)
			L	W		
TXN 16-50	16-50	CZ 106-108	60	30	10	0.13
TXNg 16-50		Galvanized Steel				
TXN 70-120	70-120	CZ 106-108	70	35	10	0.18
TXNg 70-120		Galvanized Steel				

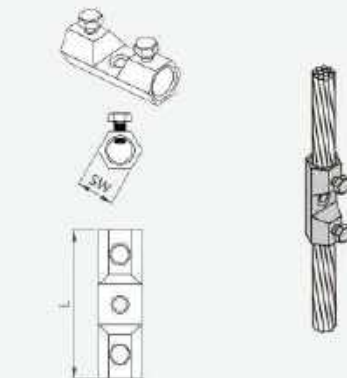
For material type not listed, contact PETUNIA Co.



► STRAIGHT CONNECTION BOLTED CLAMP

Petunia straight connection bolted clamp is suitable for connecting wire to wire conductor. This clamp is simple, affordable and easy to install.

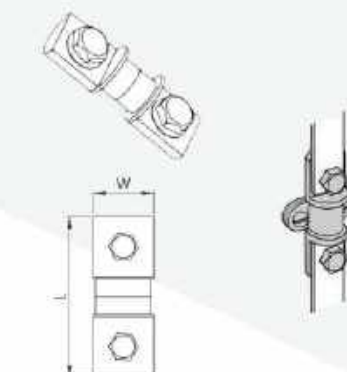
Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			L	SW		
UCC 35-50	35-50	Commercial Brass	75	16	20	0.14
UCC 70-95	70-95	Commercial Brass	75	19	20	0.2



► BIMETALLIC TAPE CONNECTOR

These connectors are used to join aluminum and copper tapes together. This connector is used for connecting aluminum and copper tapes together that prevent galvanic corrosion.

Reference Code	Max. Tape Size (mm)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			L	W		
BTC	30x3	Copper/Aluminium	80	30	5	0.28



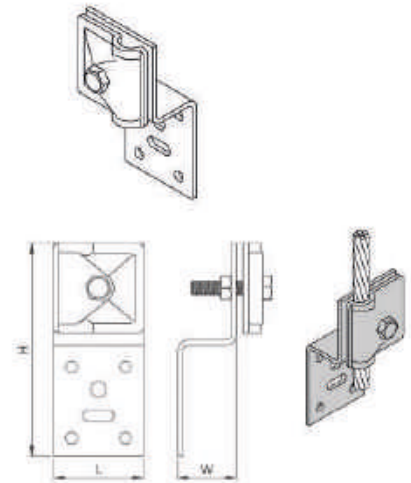


► ATTACHING WIRE CLAMP

Petunia attaching wire clamp is suitable for connecting bare wire conductor to structure. This clamp is used to separate the conductor from the surface of the structure.

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
			L	W	H		
AWC 50-120	50-120	CZ 106-108	50	33	113	10	0.26
AWCg 50-120		H. D. G.					

For material type not listed, contact PETUNIA Co.

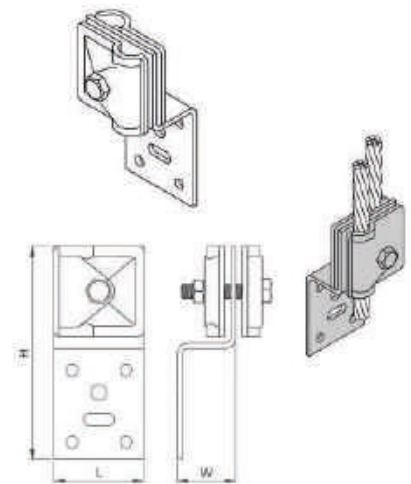


► DOUBLE ATTACHING WIRE CLAMP

Petunia double attaching wire clamp is suitable for connecting two bare wire conductor to structure. This clamp is used to separate the conductors from the surface of the structure.

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
			L	W	H		
DAWC 50-120	50-120	CZ 106-108	50	33	113	10	0.34
DAWCg 50-120		H. D. G.					

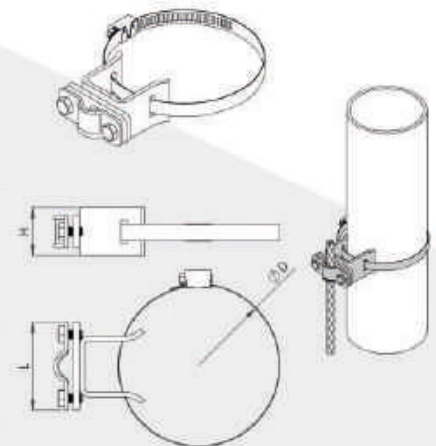
For material type not listed, contact PETUNIA Co.



► TOWER WIRE CLAMP

Petunia tower wire clamp is suitable for connecting wire conductor to tower or mast. This clamp is simple, affordable and easy to install.

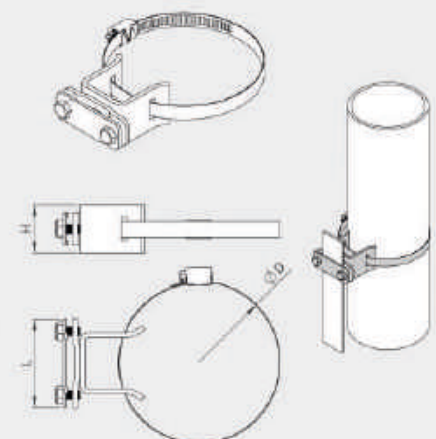
Reference Code	Pipe Size ØD (in)	Conductor Range (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
				L	H		
CWIE 1021	1-2	35-70	Galvanized Steel	55	30	5	0.15
CWIE 1022		95-150					
CWIE 2531	2½-3	35-70	Galvanized Steel	55	30	5	0.15
CWIE 2532		95-150					
CWIE 3541	3½-4	35-70	Galvanized Steel	55	30	5	0.15
CWIE 3542		95-150					
CWIE 4561	4½-6	35-70	Galvanized Steel	55	30	5	0.15
CWIE 4562		95-150					



► TOWER TAPE CLAMP

Petunia tower tape clamp is suitable for connecting tape conductor to tower or mast. This clamp is simple, affordable and easy to install.

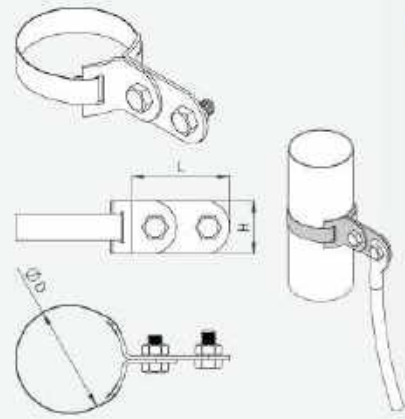
Reference Code	Pipe Size ØD (in)	Max. Tape Size (mm)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
				L	H		
CTIE 102	1-2	30x5	Galvanized Steel	55	30	5	0.15
CTIE 253	2½-3	30x5	Galvanized Steel	55	30	5	0.15
CTIE 354	3½-4	30x5	Galvanized Steel	55	30	5	0.15
CTIE 456	4½-6	30x5	Galvanized Steel	55	30	5	0.15



► TOWER WIRE CLAMP

Petunia tower wire clamp is suitable for connecting wire to tower. This clamp is simple, affordable and easy to install.

Reference Code	Pipe Size ØD (in)	Material	Dimension (mm)		Box. Qty	Unit Weight (Kg)
			L	H		
PBC 102	1-2	Galvanized Steel	55	30	10	0.1
PBC 253	2¼-3	Galvanized Steel	55	30	10	0.1
PBC 354	3¼-4	Galvanized Steel	55	30	10	0.1
PBC 456	4¼-6	Galvanized Steel	55	30	10	0.1

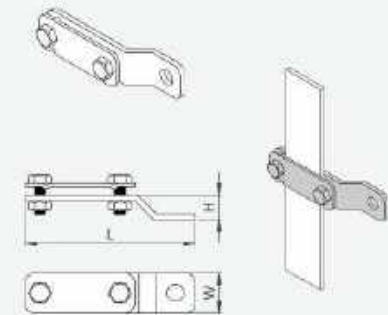


► TAPE SUPPORT CLAMP

This clamp is used for fastening the lightning tape to steel structure.

Reference Code	Conductor Size (mm)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
			L	W	H		
TCS 20×3	20×3	CZ 106-108	85	20	15	50	0.08
TCSg 20×3		H. D. G.					
TCS 25×3	25×3	CZ 106-108	85	20	15	50	0.08
TCSg 25×3		H. D. G.					
TCS 30×3	30×3	CZ 106-108	85	20	15	50	0.08
TCSg 30×3		H. D. G.					

For material type not listed, contact PETUNIA Co.

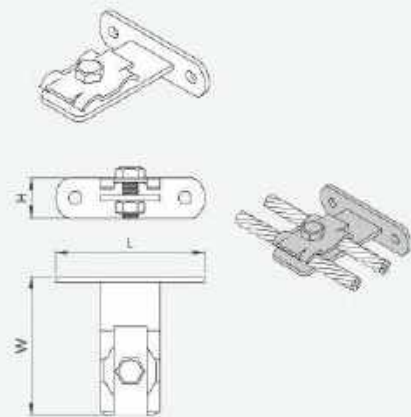


► WIRE SUPPORT CLAMP

Petunia wire conductor support is used for fastening the lightning conductor on roof and wall.

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
			L	W	H		
WCS 16-35	16-35	CZ 106-108	75	70	20	20	0.12
WCSg 16-35		H. D. G.					
WCS 50-120	50-120	CZ 106-108	75	70	20	20	0.13
WCSg 50-120		H. D. G.					

For material type not listed, contact PETUNIA Co.

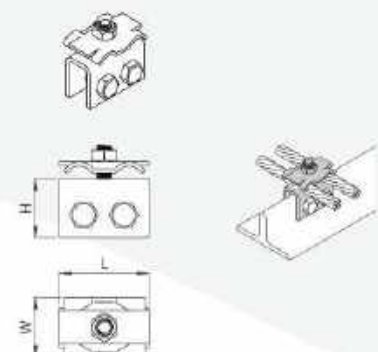


► WIRE STRUCTURAL BEAM CLAMP

These clamps are used for fastening the round wires to steel structure.

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)			Box. Qty	Unit Weight (Kg)
			L	W	H		
MSCC 16-35	16-35	CZ 106-108	45	30	34	20	0.13
MSCCg 16-35		H. D. G.					
MSCC 50-120	50-120	CZ 106-108	45	30	36	20	0.15
MSCCg 50-120		H. D. G.					

For material type not listed, contact PETUNIA Co.



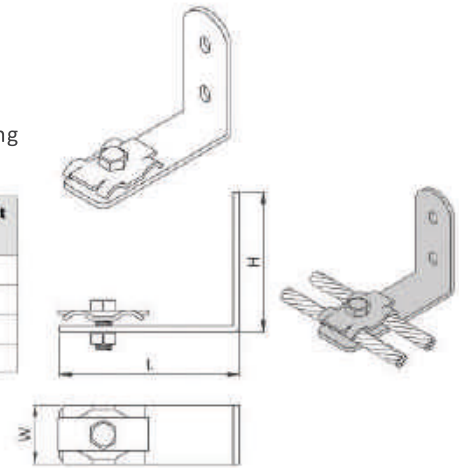


► "L" TYPE WIRE CONDUCTOR SUPPORT

Petunia "L" type wire conductor support is used for fastening the lightning conductor on roof and wall.

Reference Code	Conductor Range (mm ²)	Material	Dimension (mm)			Box Qty	Unit Weight (Kg)
			L	W	H		
LWCS 16-35	16-35	CZ 106-108	90	30	70	20	0.15
LWCSg 16-35		H. D. G.					
LWCS 50-120	50-120	CZ 106-108	90	30	70	20	0.16
LWCSg 50-120		H. D. G.					

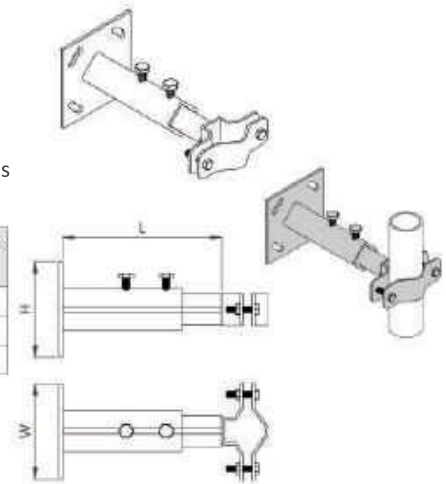
For material type not listed, contact PETUNIA Co.



► WALL MOUNTING BRACKET

Petunia wall mounting bracket is suitable for tube supporting and air terminal rods and adjustable wall brackets between 150-200mm.

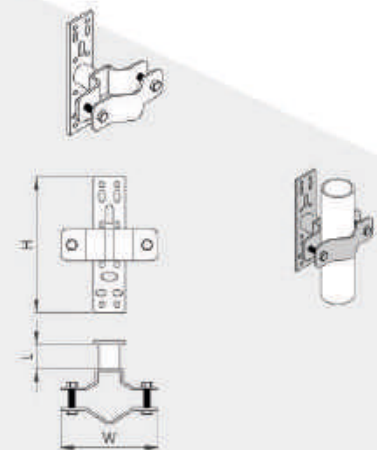
Reference Code	Pipe or Air Terminal Size (in)	Distance From Wall L (mm)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
				W	H		
WMB 1	½-1	150-200	H. D. G. Steel	120	120	1	1.77
WMB 2	1¼-2	150-200	H. D. G. Steel	120	120	1	1.77
WMB 3	2½-3	150-200	H. D. G. Steel	120	120	1	1.77



► LIGHT WALL MOUNTING BRACKET

Petunia light wall mounting bracket is suitable for tube supporting and air terminal rods.

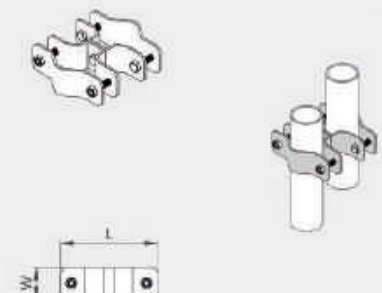
Reference Code	Pipe or Air Terminal Size (in)	Distance From Wall L (mm)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
				W	H		
LWMB 1	½-1	30	H. D. G. Steel	122	170	1	0.54
LWMB 2	1¼-2	30	H. D. G. Steel	122	170	1	0.54
LWMB 3	2½-3	30	H. D. G. Steel	122	170	1	0.54



► PIPE SUPPORTING CLAMP

Petunia pipe supporting clamp is suitable for connecting pipe to pipe and air terminal rods.

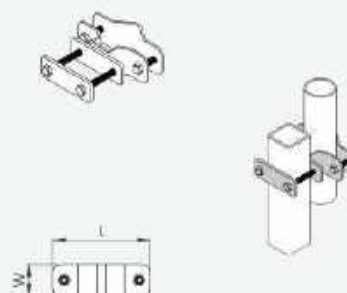
Reference Code	Pipe Range (in)	Pipe or Air Terminal Size (in)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
				L	W		
PTS 1	1¼-2	½-1	H. D. G. Steel	122	40	1	0.62
PTS 2	1¼-2	1¼-2	H. D. G. Steel	122	40	1	0.62



► TUBE TO RECTANGULAR PROFILE SUPPORTING CLAMP

Petunia tube to rectangular profile supporting clamp is suitable for connecting rectangular profile to pipe and air terminal rods.

Reference Code	Square Profile Range (mm)	Pipe or Air Terminal Size (in)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
				L	W		
TRS 1	20-50	1/2-1	H. D. G. Steel	122	40	1	0.57
TRS 2	20-50	1 1/2-2	H. D. G. Steel	122	40	1	0.57

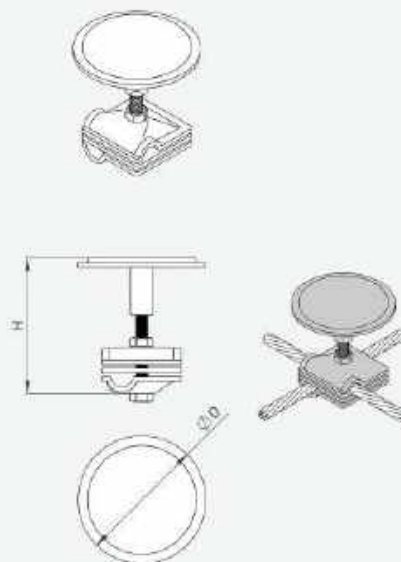


► AIR TERMINAL STUD

Petunia's "Air terminal studs" devices can be applied in the mesh method, for flat roofs that can be walked on and driven on Parking decks. The catch mushroom and the cables can either be laid in the concrete or in the joints of the roadway panel. (According standard IEC 62305-3)

Reference Code	Conductor Size (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			ØD	H		
ATS 16-35	16-35	CZ 106-108	80	85	1	0.38
ATSg 16-35		H. D. G.			1	0.36
ATS 50-120	50-120	CZ 106-108	80	90	1	0.43
ATSg 50-120		H. D. G.			1	0.41
ATS 150-240	150-240	CZ 106-108	90	100	1	0.51
ATSg 150-240		H. D. G.			1	0.49

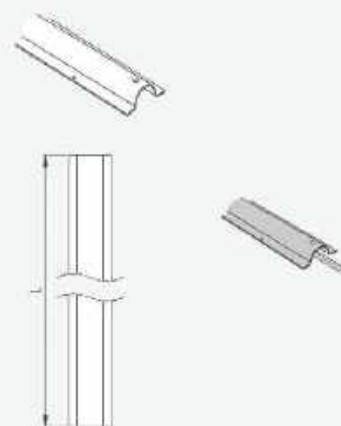
For material type not listed, contact PETUNIA Co.



► METALLIC WIRE GUARD

Petunia metallic wire guards designed for outdoor use, to provide protection from accidental damage, vandalism, and theft. Easy to secure, the guard has a low profile and the galvanized finish, offers long-lasting resistance to corrosion.

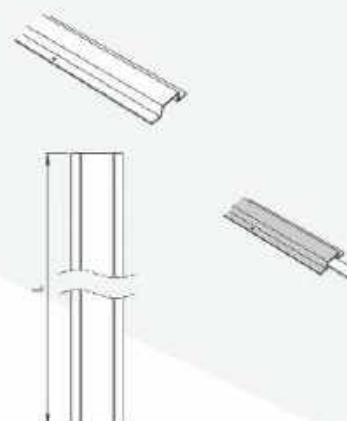
Reference Code	Max. Conductor Size (mm ²)	Material	L (m)	Box Qty	Unit Weight (Kg)
MWG	120	H. D. G. Steel	2	1	0.8



► METALLIC TAPE GUARD

Petunia metallic tape guards provide protection from accidental damage, vandalism, and theft for flat tapes up to 40mm wide. Easy to secure, the guard has a low profile and the galvanized finish, offers long-lasting resistance to corrosion.

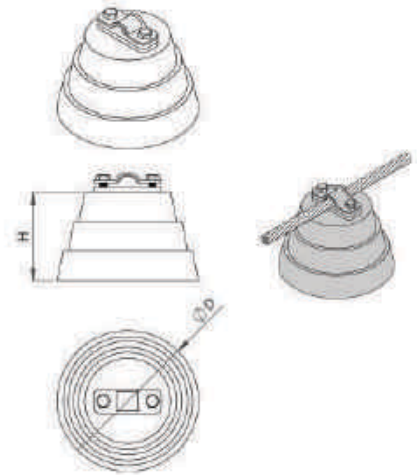
Reference Code	Max. Conductor Size (mm)	Material	L (m)	Box Qty	Unit Weight (Kg)
MTG	40x5	H. D. G. Steel	2	1	1.17



► CONCRETE ROOF WIRE HOLDER

This concrete roof wire holder is suitable for installing lightning protection system conductors on roof. They are made of concrete body and are easy to install.

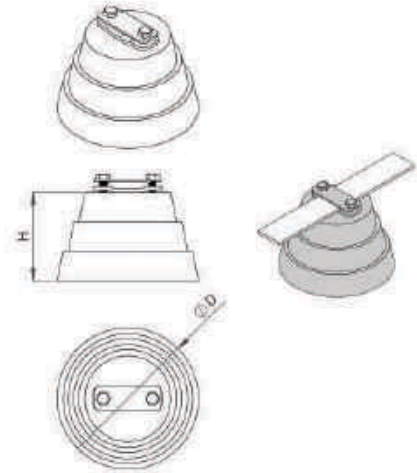
Reference Code	Conductor Size (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			ØD	H		
CRH 35-70	35-70	Concrete	115	72	1	1.25
CRH 95-150	95-150	Concrete	115	72	1	1.25



► CONCRETE ROOF TAPE HOLDER

This concrete roof tape holder is suitable for installing lightning protection system conductors on roof. They are made of concrete body and are easy to install.

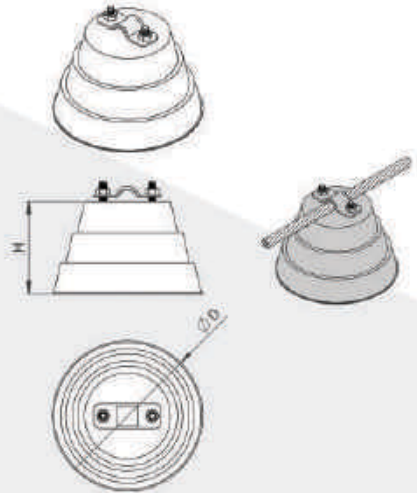
Reference Code	Conductor Size (mm)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			ØD	H		
CRH 20x3	20x3	Concrete	115	72	1	1.25
CRH 25x3	25x3	Concrete	115	72	1	1.25
CRH 25x5	25x5	Concrete	115	72	1	1.25
CRH 30x3	30x3	Concrete	115	72	1	1.25



► UPVC ROOF WIRE HOLDER

This UPVC roof wire holder is suitable for installing lightning protection system conductors on roof. They are made of UPVC body.

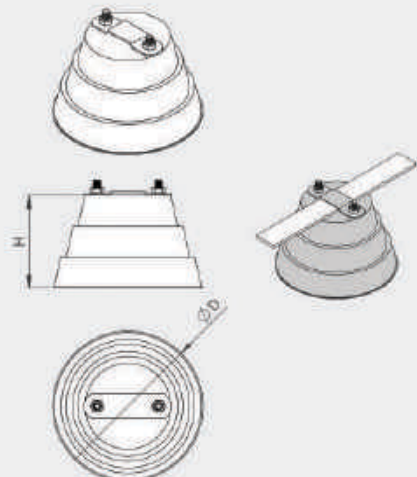
Reference Code	Conductor Size (mm ²)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			ØD	H		
URH 35-70	35-70	Plastic	122	75	1	0.15
URH 95-150	95-150	Plastic	122	75	1	0.15



► UPVC ROOF TAPE HOLDER

This UPVC roof tape holder is suitable for installing lightning protection system conductors on roof. They are made of UPVC body.

Reference Code	Conductor Size (mm)	Material	Dimension (mm)		Box Qty	Unit Weight (Kg)
			ØD	H		
URH 20x3	20x3	Plastic	122	75	1	0.14
URH 25x3	25x3	Plastic	122	75	1	0.14
URH 25x5	25x5	Plastic	122	75	1	0.14
URH 30x3	30x3	Plastic	122	75	1	0.14



MASTS FOR AIR TERMINALS

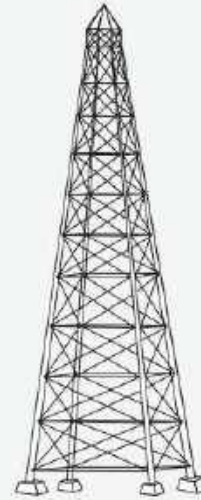
FREE STANDING MASTS

Air termination free standing masts is used for protection against direct lightning strike in places such as residential complex, industrial centers, power plants, biogas plants, PV systems on exposed sites, Ex systems, ammunition dumps, etc. Air termination masts are constructed in different height and suitable for geographical conditions of the environment according to standards. free standing masts include the following types:

► LATTICE FREE STANDING MASTS (LFSM)

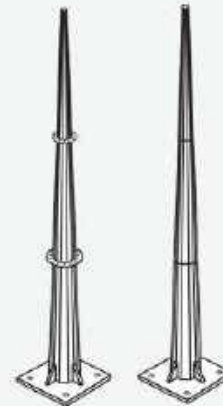
Lattice steel masts are made up of many different steel structural components connected together with bolts or welded. Many different types of lattice steel masts exist. These masts are also called self-supporting masts or free-standing masts due to their ability to support themselves.

This type masts also is fabricated by steel pipe with angle or bracing members, which provides great strength, low weight and wind resistance, and economical in the use of materials.



► POLYGONAL FREE STANDING MASTS (PFSM)

Polygonal free standing masts are generally continuously tapered that contains one or more segment. Polygonal type masts are constructed of overlapped in the form of flanged connections. Design of an Polygonal masts is planned and structured with considering the wind resistance and the workability of the arrangements according to standards.



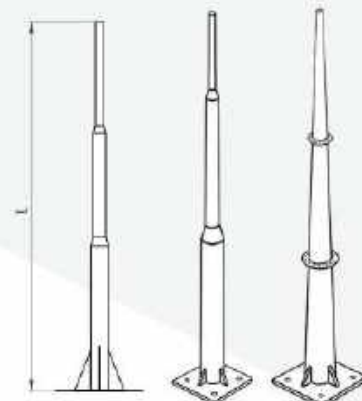
► PIPE TYPE FREE STANDING MASTS

Pipe type masts are one of the types of single base and with different heights and is used in different industries. pipe type masts are constructed in form of welding and flange connections.

Pipe type masts have many advantages, including:

- Design and construction in a short time
- Easy to install
- Easy to transport

Reference Code	Beginning Pipe Size (in)	Material	Lengh L (m)	Box. Qty	Unit Weight (Kg)
HDGT 6	3	H. D. G. Steel	6	1	65
HDGT 8	3	H. D. G. Steel	8	1	95
HDGT 10	4	H. D. G. Steel	10	1	125



For sizes not listed, contact PETUNIA Co.

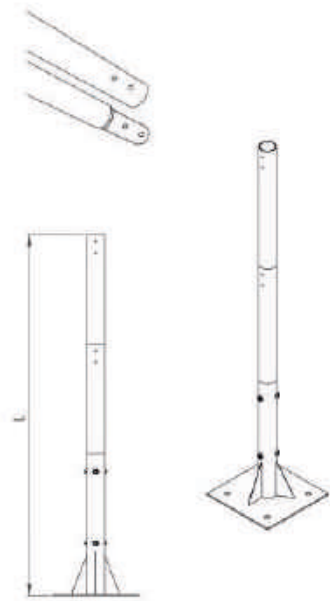


► TELESCOPIC MAST

These Petunia's High Corrosion durability Masts are for fixing and supporting of Air terminals and ESE lightning rods. They should fasten vertically by anchors or suitable saddle.

Easy assembly of them and connecting of air terminals by the head-mast adapter piece, is an advantage of them.

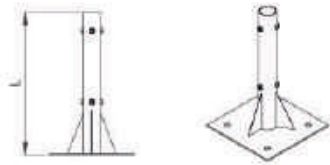
Reference Code	Pipe Size (in)	Material	Length L (m)	Box Qty	Unit Weight (Kg)
TFSM 2	1½	H. D. G.	2	1	10
TFSM 3	1½	H. D. G.	3	1	12
TFSM 4	1½	H. D. G.	4	1	15
TFSM 5	2	H. D. G.	5	1	23
TFSM 6	2	H. D. G.	6	1	26



► H.D.G MAST SUPPORT

Petunia H.D.G mast support is used for installing masts on roof.

Reference Code	Pipe Size (in)	Material	Length L (m)	Box Qty	Unit Weight (Kg)
HDGL	1½	H. D. G. Steel	1	1	7
HDGL	2	H. D. G. Steel	2	1	12.3

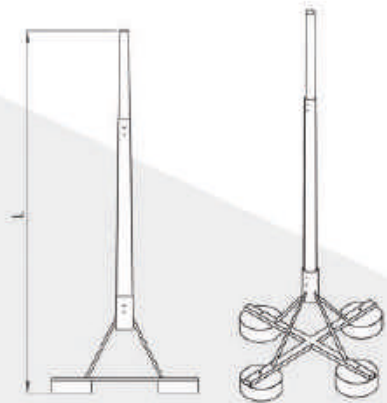


► CONCRETE BASE FREE STANDING MAST

Free standing mast with Concrete Base Weight for flat roofs are included of 4 x Concrete Mounting Blocks in a quick and easy to install. Concrete Mounting Blocks combine special concrete for protection against wet weather.

The mast can be vertically aligned during installation through the adjusting screws on each concrete base weight.

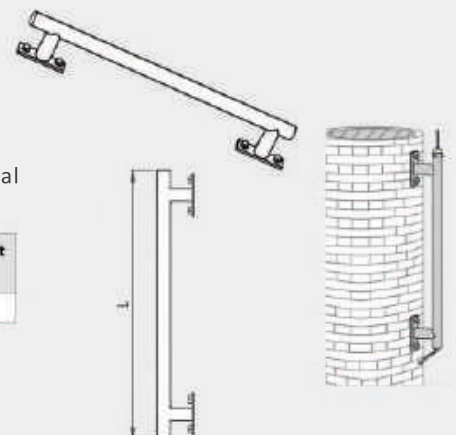
Reference Code	Pipe Size (in)	Material	Length L (m)	Box Qty	Unit Weight (Kg)
CFSM 2	1½	H. D. G.	2	1	45
CFSM 3	1½	H. D. G.	3	1	50
CFSM 4	1½	H. D. G.	4	1	53
CFSM 5	2	H. D. G.	5	1	56
CFSM 6	2	H. D. G.	6	1	58



► WALL MOUNTED AIR TERMINAL SUPPORT

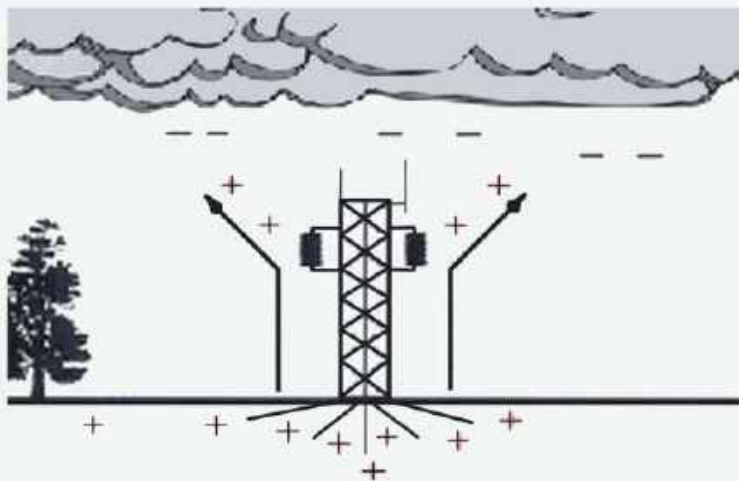
Petunia wall mounted air terminal support is used for installing air terminal on wall, chimney and stack.

Reference Code	Rod Max. (mm)	Material	Length L (m)	Box Qty	Unit Weight (Kg)
ASR	20	H. D. G. Steel	1	1	1.3



ACTIVE AIR TERMINALS

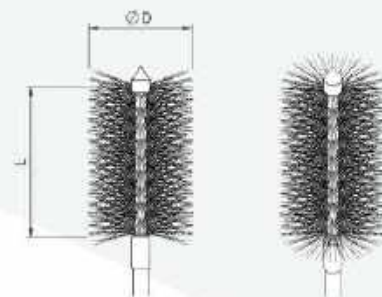
“PETUNIA” offers a complete line of Lightning Dissipation Terminals that utilize the Point Discharge Principle to mitigate direct lightning strikes. Our products are designed to protect anything from the tallest broadcast towers to the smallest remote SCADA system, and almost any type of structure or facility. The Terminals are the latest design in dissipation products and help to prevent direct lightning by dissipating the static electrical charge into the atmosphere through the process of ionization. This ionization process will reduce the formation of streamers, which complete the path of the lightning strike, thereby reducing the likelihood of attracting a direct lightning strike to your structure. As a storm cloud builds and travels overhead, it will concentrate an electrical charge on the earth, which is opposite in charge to the lower portion of the cloud itself. As this charge builds, it will accumulate at the top of the structure until enough charge exists to form a streamer, which attracts and completes the lightning strike. With the installation of Point Discharge Terminals, the small electrodes will break down into corona and ionize this charge into the atmosphere at a relatively low potential, making it less likely to form a streamer. Since the object on the ground that produces the best streamer is the one most likely to be struck, the Terminals, and the structure on which they are installed, are much less likely to sustain a direct lightning strike. Many of our Dissipation Terminals are designed to be included in a UL 96A Master Label lightning protection system. We offer a standard Vertical Dissipation Terminal (PS-100) that is used for most general building applications. For structures or equipment which has a high susceptibility to lightning strikes, we offer our PS-400 Series which has four times the protection of our standard vertical dissipation terminals.



► PS-100 LIGHTNING DISSIPATION TERMINALS

Designed to replace the traditional air terminal in conventional lightning protection systems. The PS-100 converts a standard lightning rod system into a Lightning Dissipation System which mitigates the chances of a direct lightning strike to any building or structure on which it is installed. The PS-100 is available in various materials and sizes to be compatible with all standard lightning protection system components.

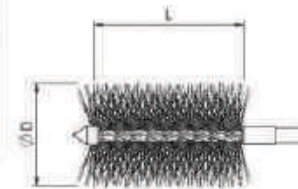
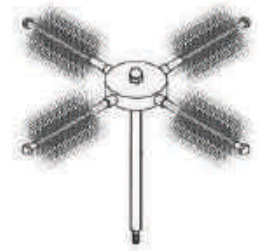
Reference Code	Rod Dia. (in)	Operating Principle	Charge Dissipation Direction	Material	Energy Activity	Dimension (mm)		Box Qty	Unit Weight (Kg)
						ØD (mm)	L		
PS 100 5/8	5/8	Charge Dissipation Principle	Vertical	Stainless Steel	Electric field in the air	114	610	1	1.1
PS 100 1/2	1/2					114	610	1	0.9



► PS-400 LIGHTNING DISSIPATION TERMINALS

It is constructed completely of Stainless Steel and utilizes four dissipation brushes attached to a single elevation conductor for higher dissipation on a single mount. The PS-400 is ideally suited for protecting high mast light poles, security cameras, SCADA antenna systems, and smaller monopoles and towers used for communications.

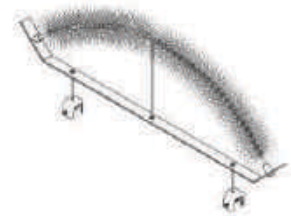
Reference Code	Rod Dia. (mm)	Operating Principle	Charge Dissipation Direction	Material	Energy Activity	Dimension (mm)		Box Qty	Unit Weight (Kg)
						ØD (mm)	L		
PS 400 5/8	5/8	Charge Dissipation Principle	Vertical	Stainless Steel	Electric field in the air	114	610	1	2.1
PS 400 1/2	1/2					114	610	1	2



► PS-510 LIGHTNING DISSIPATION TERMINALS

The PS-510 is the horizontal version of the PS-500 and is designed to be mounted horizontally across the tops of large face section towers, on platforms and antenna arms. The PS-510 can also be used to protect water tanks, storage tanks, commercial cranes and other fall structures that have large areas of horizontal exposed steel.

Reference Code	Operating Principle	Material	Energy Activity	Dimension (mm)		Box Qty	Unit Weight (Kg)
				ØD (mm)	L		
PS 510	Charge Dissipation Principle	Stainless Steel	Electric field in the air	127	915	1	3.6



High Risk Protection Models

► PS-500 LIGHTNING DISSIPATION TERMINALS

PETUNIA Corporation's latest development in dissipation produce! PS utilizes the Point Discharge Principal for the mitigation of direct lightning strikes to communications and broadcast towers and other tall structures. The PS-500 is constructed completely of 300 series stainless steel for durability. The lightweight, low wind load design of the PS-500 facilitates a simple installation without requiring a large amount of valuable real estate for mounting. The PS-500 can be installed on any type of tower or monopole.

Reference Code	Operating Principle	Material	Energy Activity	Dimension (mm)		Box Qty	Unit Weight (Kg)
				ØD (mm)	L		
PS 500	Charge Dissipation Principle	Stainless Steel	Electric field in the air	127	915	1	3.6



High Risk Protection Models



No.11, 2nd St., SARAFRAZ St., BEHESHTI Ave., TEHRAN, IRAN.

P.O. Box: 15875-4834

Tel: +98 (21) 42019, +98 (21) 43057000, +98 (21) 88753898

Fax: +98 (21) 88745214

www.petuniaco.com

info@petuniaco.com

