AXIS™

TESTED PRODUCTS
EFFICIENT SERVICE
TRUSTED BRAND

Product Brochure

Overhead Line Hardware and Connectors

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Earthing & Lightning Protection System and Exo Thermic Welding

LV/HV AB Cable Accessories & Distribution Boxes

Electrical Connectors

Cable Management System

Overhead Line Hardware and Connectors

CERTIFICATIONS

AN ISO 9001 : 2015 COMPANY

20000284 QM15

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Overhead Line Hardware and Connectors

Axis offers a complete range of Overhead Line Hardware for LV & MV Electrical Distribution Line Systems. These products are manufactured taking into consideration International standards such as BS, IS and utility specific requirements.

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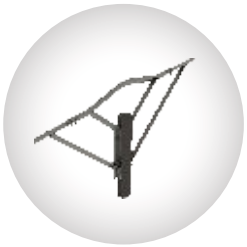

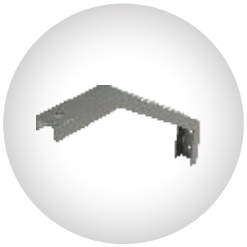

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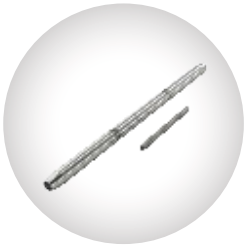

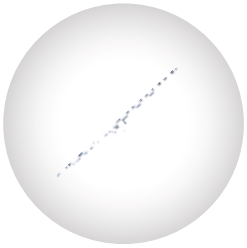

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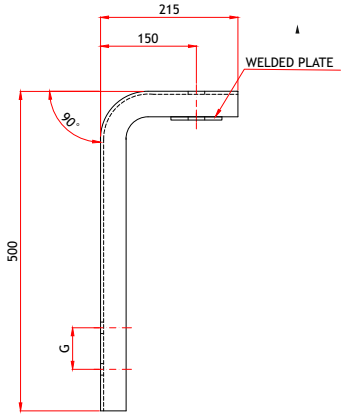
Reinforced Pole Top Bracket (BTR)

This bracket mounted at the top of utility poles are used to handle vertical loads and withstand various environmental stresses at the pole's top. Designed to securely mount pin insulators to the top of the pole. Used primarily in applications where insulators need to be installed at the topmost part of the pole to support overhead conductors.

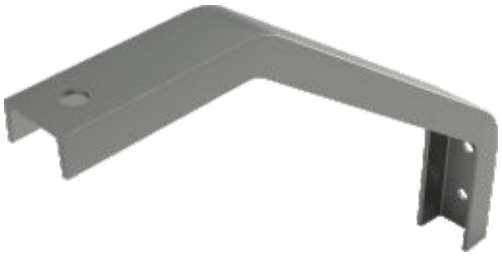
Material : Mild Steel
Finish : Hot Dip Galvanised
Coating Thickness : Avg. 86 Microns min.



Channel	GAP (G)	E - Code
75 x 40 x 4.8 x 7.5	70	ABTR 70-150

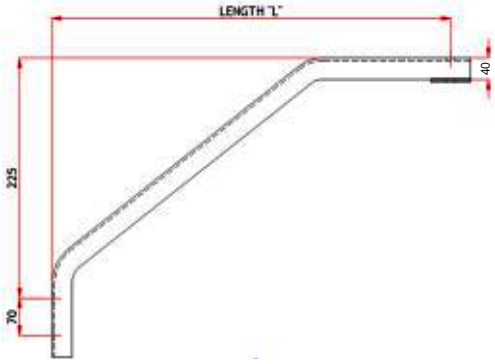
Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Holes will be provided according to the customer's requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.
4. The dimensions and length of the channel profile can be customized according to the customer's requirements and the necessary load specifications.

Reinforced Upset Bracket (BIR)



This Bracket mounted along the length of the utility pole, usually below the top. Features an upset or bend to enhance strength and support horizontal loads. The Reinforced Upset Bracket (BIR) is used in applications requiring additional support for equipment such as transformers, crossarms, or other heavy components installed along the pole.

Material : Mild Steel
Finish : Hot Dip Galvanised to BS EN ISO 1461
Coating Thickness : Avg. 86 Microns min.



Channel	Length (L)	GAP (G)	E - Code
75 x 40 x 4.8 x 7.5	320	70	ABIR70320
75 x 40 x 4.8 x 7.5	700	70	ABIR70700
75 x 40 x 4.8 x 7.5	800	70	ABIR70800

Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and holes can be customized according to customer requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.

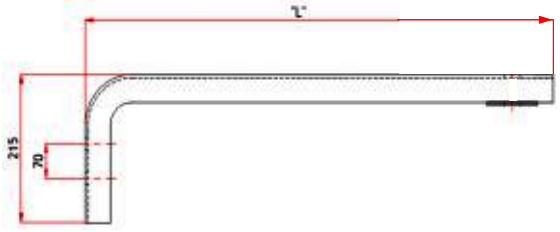
Horizontal Bracket (BPS)

This bracket typically extends horizontally from the pole, providing a mounting point for various components such as insulators, crossarms, or other hardware.It is mainly used to support and stabilize components that are aligned horizontally. This type of bracket is ideal for maintaining the horizontal alignment of conductors or equipment along the pole line.

Material : Mild Steel As per IS 808, Channel Size: 75x40x4.8x7.5mm

Finish : Hot Dip Galvanised

Coating Thickness : Avg. 86 Microns min.



Channel	Length (L)	E - Code
75 x 40 x 4.8 x 7.5	400	ABPS70400
75 x 40 x 4.8 x 7.5	680	ABPS70680

Note:

1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and holes can be customized according to customer requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.
4. The dimensions and length of the channel profile can be customized according to the customer's requirements and the necessary load specifications.

Nappe Voute - Type 1

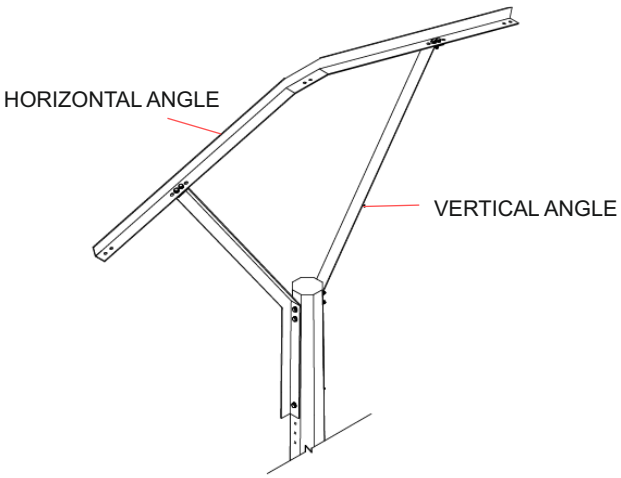
This pole line construction configuration features a single crossarm mounted in a sloping manner on a utility pole, creating an arched canopy effect. Ideal for areas with limited space or aesthetic concerns, it provides support for conductors spaced 1500mm apart, all while minimizing visual impact. Balancing functionality with visual appeal, it's well-suited for urban or scenic environments.

Material : Mild Steel

Finish : Hot Dip Galvanised

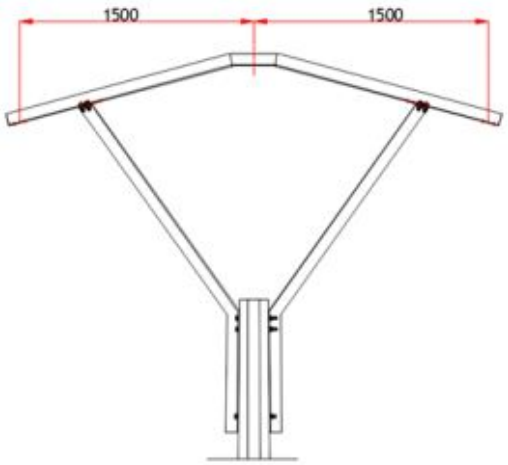
Coating Thickness : Avg. 86 Microns min.

Horizontal Angle Profile	Vertical Angle Profile	E - Code
60 x 60 x 6	60 x 60 x 6	ANV16060
70 x 70 x 7	60 x 60 x 6	ANV17060
70 x 70 x 7	70 x 70 x 7	ANV17070
70 x 70 x 7	80 x 80 x 8	ANV17080
80 x 80 x 8	80 x 80 x 8	ANV18080
90 x 90 x 8	80 x 80 x 8	ANV19080



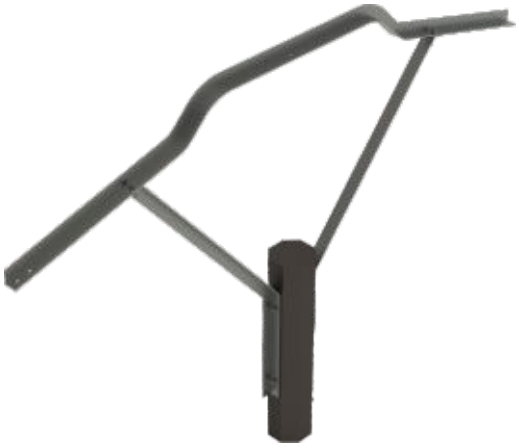
Note:

1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Holes will be provided according to the customer's requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.
4. Suitable Pole Size: 140mm to 320mm



Nappe Voute - Type 2 & Type 'W' (Wide Areas)

Nappe Voute Type - 2 configuration features a single crossarm mounted in a sloping manner on a utility pole, creating an arched canopy effect. Ideal for areas with limited space or aesthetic concerns, it provides support for conductors spaced 1700mm apart, all while minimizing visual impact. Balancing functionality with visual appeal, it's well-suited for urban or scenic environments.



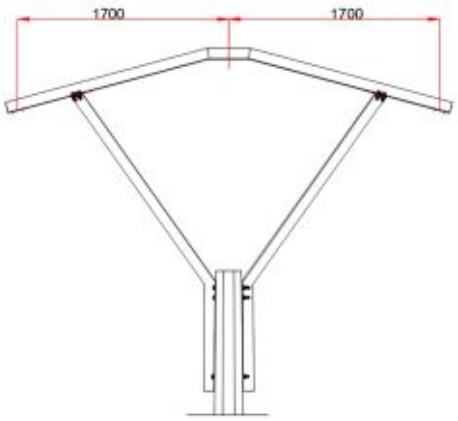
Nappe Voute Wide (NVW) employs a wider crossarm setup on utility poles, offering increased stability and support for conductors. This configuration is particularly useful in areas with higher mechanical loads or where additional space for conductor arrangement is required, ensuring reliable performance in demanding conditions.

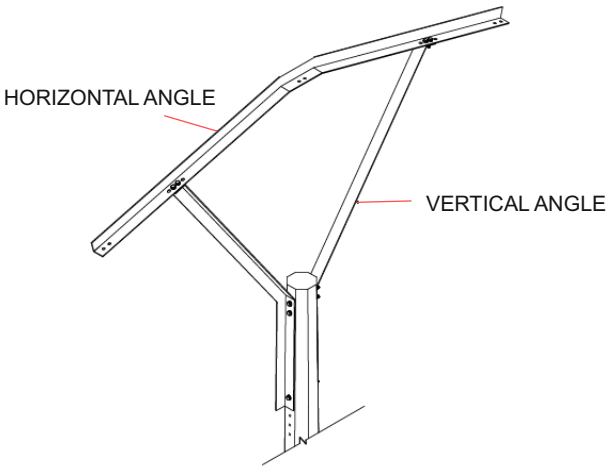
Material : Mild Steel Angle size as per IS 808.

Finish : Hot Dip Galvanised

Coating Thickness : Avg. 86 Microns min.

Horizontal Angle Profile	Vertical Angle Profile	E - Code
50 x 50 x 5	60 x 60 x 6	ANV25060
50 x 50 x 5	70 x 70 x 7	ANV25070
60 x 60 x 6	60 x 60 x 6	ANV26060
70 x 70 x 7	60 x 60 x 6	ANV27060
70 x 70 x 7	70 x 70 x 7	ANV27070
70 x 70 x 7	80 x 80 x 8	ANV27080
80 x 80 x 6	80 x 80 x 8	ANV28080
90 x 90 x 8	90 x 90 x 8	ANV29090
80 x 80 x 6	80 x 80 x 8	ANW28080
90 x 90 x 8	90 x 90 x 8	ANW29090





Note:

1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Holes will be provided according to the customer's requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.
4. Suitable Pole Size: 140mm to 320mm

Nappe Voute Reinforced Type (NVR)

The crossarm design, reinforced for pin type insulator installation, features structural enhancements like additional bracing or thicker material to ensure stability and load-bearing capacity. Variations like "NVR1, NVR2, NVR3" denote models within the series tailored for specific insulators or installation needs.

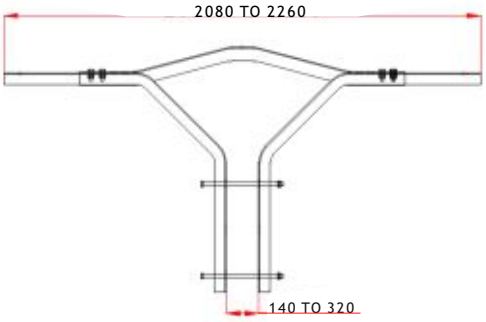
The Armement Nappe-voute NVR is a component used in overhead power lines. The NVR is a specific model of Armement Nappe-voute. It is used for overhead lines on suspended insulators. "Nappe-voutes" are integral components in pole lines, designed to elevate and support electrical cables while distributing mechanical loads on the pylons. Comprising cables or conductors attached to pylon ends, they create a vault-like structure above main cables, ensuring stable and efficient electrical distribution.

Material : Mild Steel Angle size as per IS 808.

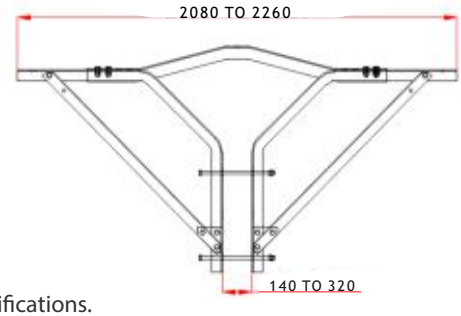
Finish : Hot Dip Galvanised

Coating Thickness : Avg. 86 Microns min.

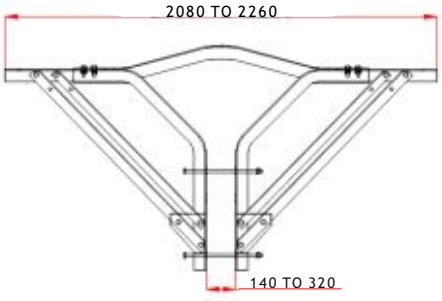
Horizontal Angle Profile	Vertical Angle Profile	Support Angle Profile	Side Support Angle Profile	E - Code
60 x 60 x 6	50 x 50 x 6	-	-	ANVR16050
70 x 70 x 7	60 x 60 x 6	-	-	ANVR17060
60 x 60 x 6	50 x 50 x 6	50 x 50 x 5	-	ANVR26050
70 x 70 x 7	70 x 70 x 7	50 x 50 x 5	-	ANVR27070
70 x 70 x 7	60 x 60 x 6	50 x 50 x 5	40 x 40 x 4	ANVR37060



NVR 1



NVR 2



NVR 3

Note:

1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Holes will be provided according to the customer's requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.
4. Suitable Pole Size: 140mm to 320mm

Upset Bracket Insulator Support (BIS)

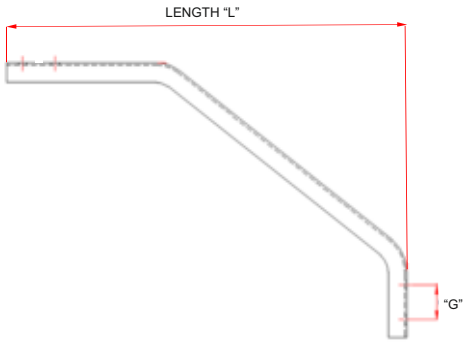
An upset bracket (BIS) is used in poleline construction to securely anchor and support insulators, ensuring stability and proper alignment of electrical conductors.

Material : Mild Steel As per IS 808, Channel Size: 75x40x4.8x7.5mm

Finish : Hot Dip Galvanised

Coating Thickness : Avg. 86 Microns min.

Crossarm Profile	Length (L)	GAP (G)	E - Code
75 x 40 x 4.8 x 7.5	320	70	ABIS70320
75 x 40 x 4.8 x 7.5	600	70	ABIS70600
75 x 40 x 4.8 x 7.5	700	70	ABIS70700
75 x 40 x 4.8 x 7.5	800	70	ABIS70800



Note:

1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and holes can be customized according to customer requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.
3. The dimensions and length of the channel profile can be customized according to the customer's requirements and the necessary load specifications.

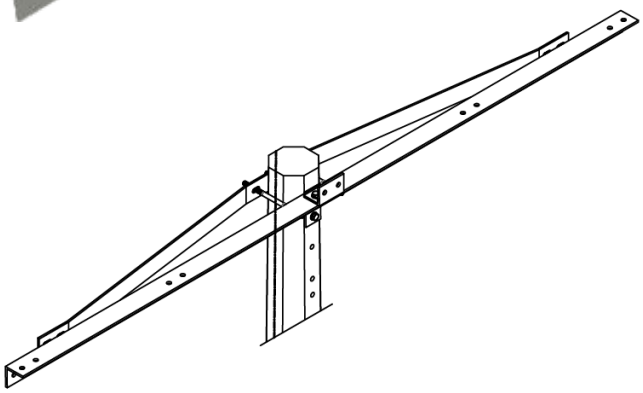
Termination Single Crossarm

The "termination single crossarm" configuration is utilized in pole line construction to provide a secure endpoint for electrical conductors. Typically found at the termination points of power lines.it features a single horizontal beam mounted on a utility pole, equipped with dead-end insulators. This setup ensures the safe and stable termination of conductors, particularly in areas with lower mechanical loads and at the ends of electrical distribution or transmission lines.

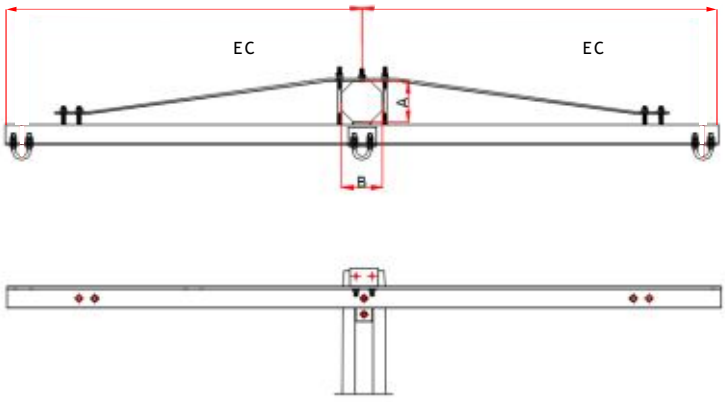
Material : Mild Steel Angle size as per IS 808.

Finish : Hot Dip Galvanised

Coating Thickness : Avg. 86 Microns min.



Angle Profile	Phase Spacing (Ec) (mm)	E - Code
60 x 60 x 6	1050	ASA601050
60 x 60 x 6	1200	ASA601200
60 x 60 x 6	1500	ASA601500
70 x 70 x 7	1050	ASA701050
70 x 70 x 7	1200	ASA701200
70 x 70 x 7	1500	ASA701500
70 x 70 x 7	1700	ASA701700
80 x 80 x 8	1050	ASA801050
80 x 80 x 8	1200	ASA801200
80 x 80 x 8	1500	ASA801500
80 x 80 x 8	1700	ASA801700
90 x 90 x 8	1500	ASA901500
90 x 90 x 8	1700	ASA901700



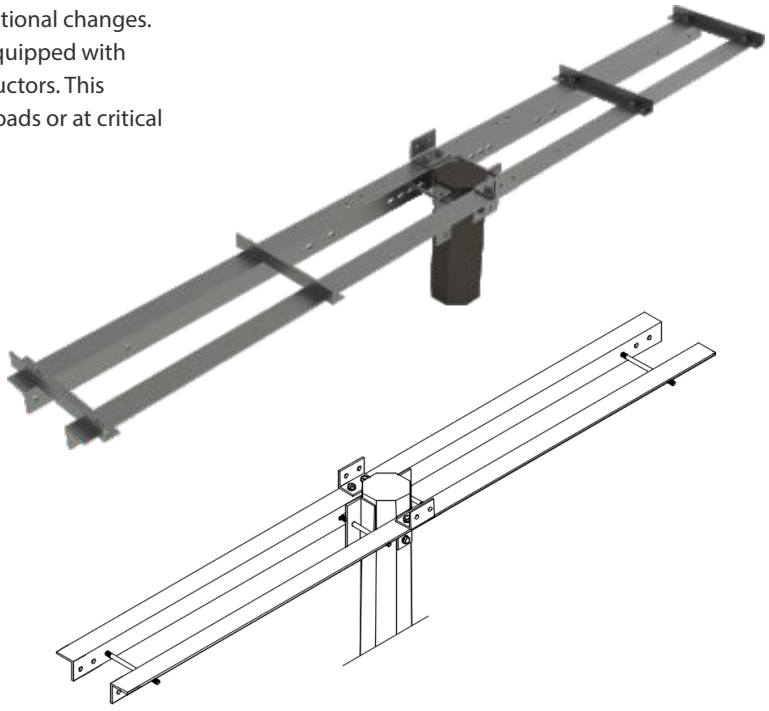
Pole Dimensions		
A	B	Phase Spacing (Ec)
130<A<280	290 MAX	1050
		1200
100<A<335	290 MAX	1500
		1700

Note:

1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and holes can be customized according to customer requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.

Double Dead End Crossarm

The "Double Dead End Crossarm" setup is employed in pole line construction to offer enhanced support and stability at termination points or directional changes. Featuring two horizontal beams mounted on a utility pole, each equipped with dead-end insulators, it provides added strength for securing conductors. This configuration is commonly used in areas with higher mechanical loads or at critical endpoints in electrical distribution or transmission lines.

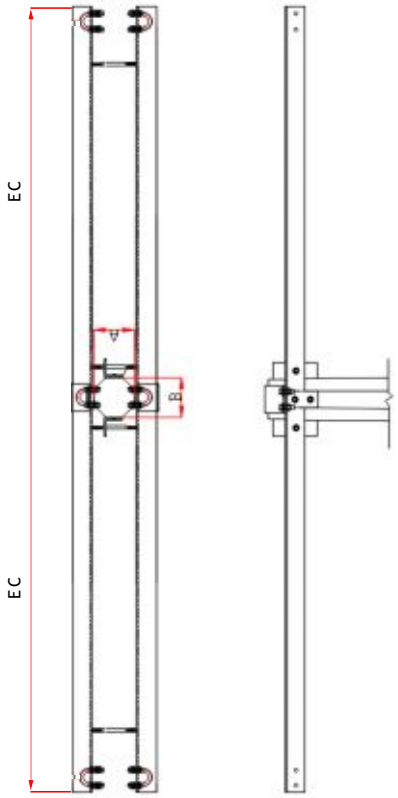


Material : Mild Steel Angle size as per IS 808.

Finish : Hot Dip Galvanised

Coating Thickness : Avg. 86 Microns min.

Angle Profile	Phase Spacing (Ec) (mm)	E - Code
60 x 60 x 6	1050	ADAA601050
60 x 60 x 6	1200	ADAA601200
60 x 60 x 6	1500	ADAA601500
70 x 70 x 7	1050	ADAA701050
70 x 70 x 7	1200	ADAA701200
70 x 70 x 7	1500	ADAA701500
70 x 70 x 7	1700	ADAA701700
80 x 80 x 8	1050	ADAA801050
80 x 80 x 8	1200	ADAA801200
80 x 80 x 8	1500	ADAA801500
80 x 80 x 8	1700	ADAA801700
90 x 90 x 8	1500	ADAA901500
90 x 90 x 8	1700	ADAA901700



Pole Dimensions		
A	B	Phase Spacing (Ec)
130<A<280	290 MAX	1050
		1200
100<A<335	290 MAX	1500
		1700

Note:

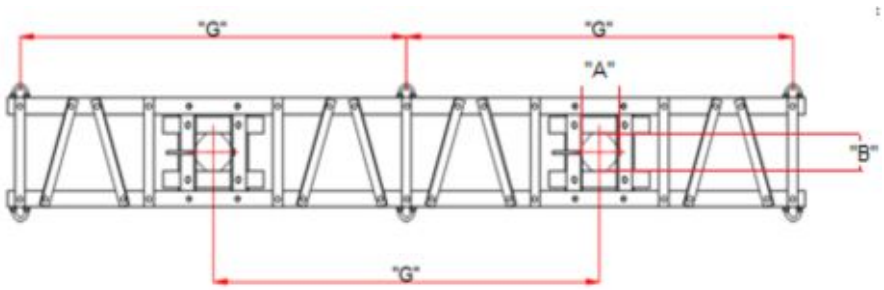
1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and holes can be customized according to customer requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.

Two Poles Crossarm Lattice Type (Gantry Type)

The "Two Poles Crossarm Lattice Type (Gantry Type)" refers to a structure used in overhead power line construction, typically consisting of two utility poles connected by a lattice-type crossarm assembly. This configuration resembles a gantry, providing support for multiple conductors or other equipment between the two poles. It offers versatility in design and allows for the efficient distribution of electrical power over longer distances or across wide areas, often seen in high-voltage transmission systems or industrial settings.

Material	: Mild Steel
Finish	: Hot Dip Galvanised
Coating Thickness	: Avg. 86 Microns min.

Angle Profile	Phase Spacing "G"	E - Code
70 x 70 x 7	1700	AG2P701700
70 x 70 x 7	2500	AG2P702000
80 x 80 x 8	2000	AG2P802000
80 x 80 x 8	2500	AG2P802500
90 x 90 x 8	1500	AG2P901500



Series	Pole Dimensions
Narrow Series	120 < A & B < 330
Large Series	120 < A & B < 550

Note:

1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and holes can be customized according to customer requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.

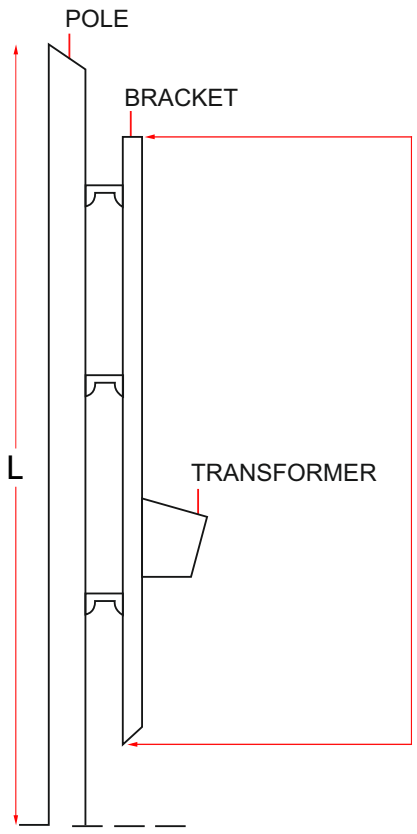
Transformer Supporting Bracket H61

The "Transformer Supporting Bracket for H61 Transformer" is a specialized bracket designed to securely hold and stabilize an H61 transformer unit. It is constructed with durable materials and engineered to withstand the weight and mechanical stresses of the transformer. This bracket plays a crucial role in ensuring the safe installation and operation of the H61 transformer, providing essential support and stability within the electrical infrastructure.

Material : Mild Steel
Finish : Hot Dip Galvanised
Coating Thickness : Avg. 86 Microns min.

Channel Profile	Length (L)	E - Code
75 x 40 x 4.8 x 7.5	1780	ATSB7517
75 x 40 x 4.8 x 7.5	2280	ATSB7522
100 x 50 x 5 x7.7	2280	ATSB1022

Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and holes can be customized according to customer requirements.
3. Material grades can be customized to meet the customer's requirements and tender specifications.



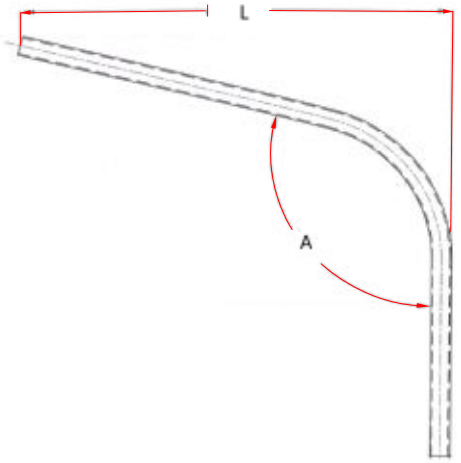
Street Light Mounting Pipe With Bracket

The "Street Light Mounting Pipe with Bracket on Pole" is a fixture used to attach street lights securely to utility poles. It consists of a vertical pipe mounted on the pole, usually made of durable materials like steel or aluminum, with a bracket attached to support the street light fixture. This setup allows for easy installation and adjustment of street lights along roads, pathways, or other outdoor areas, providing illumination for enhanced safety and visibility.

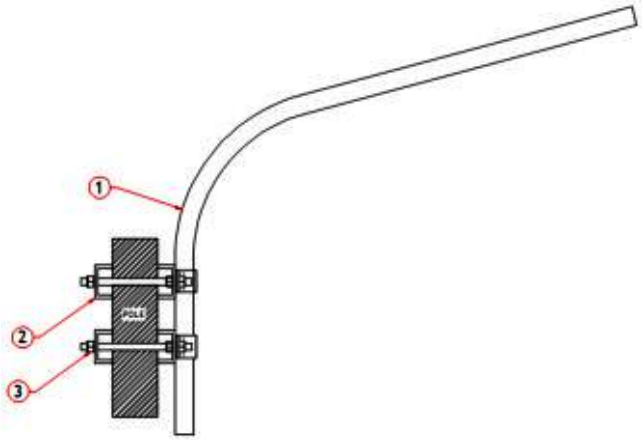
Material : Mild Steel

Finish : Hot Dip Galvanised

Pipe In NB	Length (L)	Bending Angle "A"	E - Code
25	1000	105°	ASLMP251005
25	2000	110°	ASLMP252010
32	1000	105°	ASLMP321005
32	2000	110°	ASLMP322010
40	1000	105°	ASLMP401005
40	2000	110°	ASLMP402010



Sr No.	Parts
1	Pipe
2	Bracket
3	Fasteners



Note:

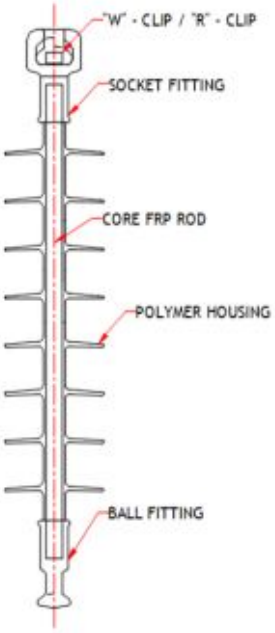
1. All dimensions are in millimeters unless otherwise specified.
2. Additional sizes are available upon request to accommodate customer needs.
3. Brackets and fittings will be tailored to meet the specific requirements of the customer.

Polymeric Strain Insulator

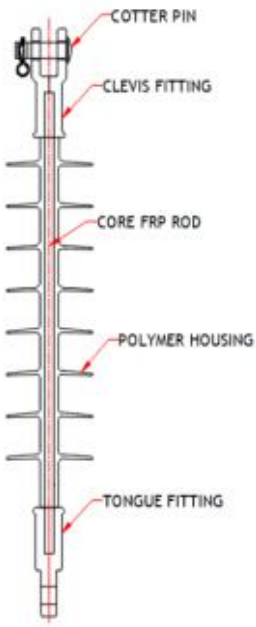
A polymeric strain insulator is a high-performance component for overhead transmission and distribution lines, providing both electrical insulation and mechanical support. Constructed from composite materials like silicone rubber or polymer, it offers superior resistance to UV radiation, pollution, and moisture compared to traditional porcelain or glass insulators. The disc shape is designed to handle high tensile loads, making it ideal for tension points where conductors face significant mechanical stress. Its lightweight construction simplifies installation and maintenance, enhancing the reliability and longevity of the electrical infrastructure.

Part	Material
Metal Fitting	Forged Steel
FRP Rod	ECR Grade - FRP Rod
Housing	Polymer
R Pin / W Clip	Steel

Voltage	Mechanical Breaking Load	Creepage Distance	Type of End Fittings - Code
11KV	40 KN	300 / 650 / 1116 mm	B&S / T&C
22KV	40 / 70KN		
33KV	40 / 70KN		



B & S TYPE



T & C TYPE

Note:

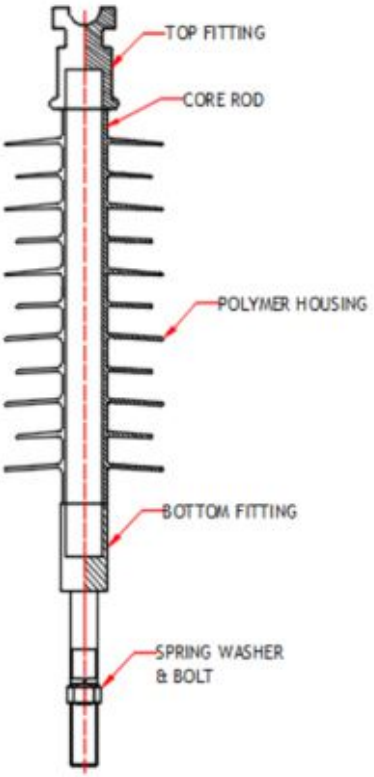
1. B&S - Ball & Socket Type | T&C - Tongue & Clevis Type
2. The number of sheds will be adjusted based on the required voltage capacity for the insulator.

Polymeric Pin Insulator

A polymeric pin insulator is a vital component in electrical distribution systems, designed to support and insulate conductors on overhead lines. Constructed from durable materials like silicone rubber or polymer composites, these insulators offer superior resistance to UV radiation, pollution, and moisture compared to traditional porcelain or glass insulators. Their lightweight nature simplifies handling and installation, while their robust design ensures high mechanical strength and reliability under various load conditions. Additionally, polymeric pin insulators provide excellent dielectric performance and are less prone to breakage, enhancing the overall efficiency and safety of the electrical distribution network.

Polymeric pin insulators are used in electrical distribution systems to support and insulate conductors on overhead lines, offering superior resistance to environmental factors and ensuring reliable performance under various load conditions.

Voltage	Mechanical Breaking Load	Creepage Distance
11KV	10KN	300 / 650 / 900 / 1116 mm
22KV		
33KV		



Note:

1. The length of the shank and the thread can be customized according to the customer's specifications.
2. The number of sheds will be adjusted based on the required voltage capacity for the insulator.

Porcelain Disc Insulator

Porcelain disc insulators are typically used in power transmission line and are designed for specific voltage classes, such as low voltage, medium voltage, high voltage, or extra high voltage.

Voltage	Breaking Load
11KV	70 KN
22KV	
33KV	

Porcelain Pin Insulator

These insulators are typically made of porcelain due to its excellent electrical insulating properties and mechanical strength. The design of porcelain pin insulators usually consists of a cylindrical or elongated shape with grooves or petticoats to increase the leakage distance. The conductor is connected to the upper end, and the lower end is fixed onto the pin or bolt attached to the support structure. Porcelain pin insulators are commonly used in lower voltage distribution lines, such as 11 kV or 33 kV systems.

Porcelain pin insulators are a type of electrical insulator commonly used in distribution and transmission lines to support and insulate conductors from the supporting structures (like poles or towers) and the ground. Pin insulators are designed to be mounted on a pin or bolt that attaches them to the supporting structure.

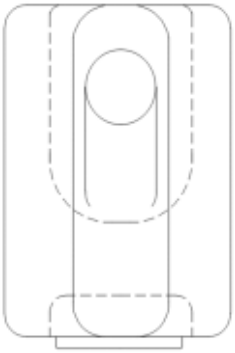
Stay Insulator

Stay insulators are vital in electrical systems, supporting and insulating stay wires for stability in utility poles or towers. Made from durable materials like porcelain or polymer composites, they endure mechanical stress and environmental factors. Preventing electrical leakage, they maintain overhead line integrity, offering reliability in diverse conditions. Available in post and strain types, tailored to installation needs, they enhance safety and longevity of electrical infrastructure.

Stay insulators provide essential support and insulation for stay wires in electrical transmission and distribution systems, ensuring stability and preventing electrical leakage in utility poles or towers.

Material : Porcelain

Voltage	Creepage Distance (mm)	Tensile Strength (KN)	Flash Ove Voltage (KV)		E - Code
			Dry	Wet	
1.1 KV	48	53	22	9	ASI01
11 KV	57	88	27	13	ASI11
33 KV	95	110	45	20	ASI33



Shackle Insulator

Shackle insulators are essential components in electrical distribution systems, providing insulation and mechanical support for conductor attachment points. Typically made from materials like porcelain, glass, or polymer composites, they withstand high mechanical loads and environmental stresses. Their design facilitates secure attachment to crossarms or brackets, ensuring reliable performance and longevity in overhead line installations.

Shackle insulators are used to support and insulate overhead conductors at attachment points on utility poles or structures, ensuring reliable electrical distribution.

Material : Porcelain

Voltage	Tensile Strength (KN)	Flash Ove Voltage (KV)		E - Code
		Dry	Wet	
1.1 KV	15	25	12	ASHI01

Drop Out Fuse

Drop-out fuses are electrical protection devices that protect networks and equipment from overloads and current surges. Drop Out expulsion type fuse cut out suitable for installation in 50Hz, 11kV/22kV/33kV distribution system for protection of H. T. lines and transformer centers tap lines.

Voltag Rating (KV)	Current (KA)	E - Code
11 KV	100 / 200 / 400 / 630 A	ADOF11XX
22 KV	100 / 200 / 400 / 630 A	ADOF22XX
33 KV	100 / 200 / 400 / 630 A	ADOF33XX

Interrupter And Combination Module (I.A.C.M.)

(Manually Operated Overhead Switch)

The Interrupter And Combination Module (IACM), is a critical component in electrical distribution systems, primarily used for the switching and protection of overhead lines.

This modular device combines circuit breaking and load breaking capabilities, allowing for safe and efficient operation during maintenance or fault conditions. The IACM overhead switch is designed to withstand various environmental conditions and mechanical stresses, providing reliable performance in diverse applications. It offers features such as remote operation, fault indication, and optional accessories for integration into smart grid systems, enhancing the overall reliability and efficiency of the electrical network.

The IACM overhead switch is generally placed at the origin of major bypasses and makes it possible to isolate a section of network comprising several clusters of substations.

System Voltage (KV)	Rated Current (KA)	E- Code
11 KV	200 / 400 / 630 A	AIACM11XX
22 KV	200 / 400 / 630 A	AIACM22XX
33 KV	200 / 400 / 630 A	AIACM33XX

Surge Arrester

A lightning arrester, or surge arrester, is essential in electrical power systems to protect transformer and conductor insulation from lightning strikes. It typically has a high-voltage terminal and a ground terminal, intercepting surges and safely redirecting the current to the ground.

This prevents damage to system components. Modern arresters use advanced technologies like metal oxide varistors (MOV) or silicon carbide (SIC) elements for improved performance and swift protection against overvoltages. Regular maintenance and testing are crucial to maintain the arrester's reliability and effectiveness.

Arrester Rating (KV rms)	Arrester Mcov (KV rms)	Maximum Discharge Voltage	Rated Current (KA)	E- Code
18 KV	15.3 KV	5 / 10 / 20 / 40 KA	200 / 400 / 630 A	ASA15XXYY
27 KV	22 KV	5 / 10 / 20 / 40 KA	200 / 400 / 630 A	ASA22XXYY
36 KV	29 KV	5 / 10 / 20 / 40 KA	200 / 400 / 630 A	ASA33XXYY

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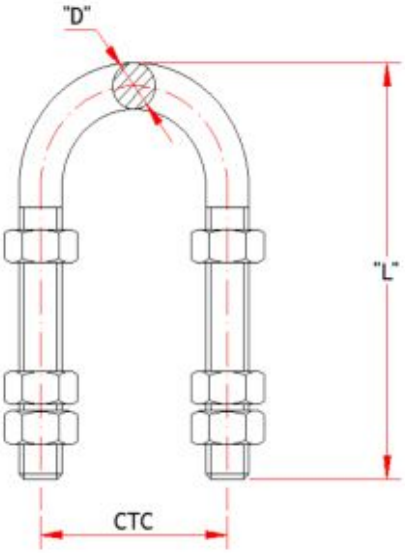
Hardware

U-Bolt Set

A "U-bolt set" in pole line applications is used to securely fasten crossarms, insulators, and other hardware to utility poles, ensuring the stability and integrity of power transmission infrastructure.

Material	: Mild Steel to IS 2062, Grade 'E250'
Finish	: Hot Dip Galvanised to BS EN ISO 1461
Applicable Standard	: BS 3288

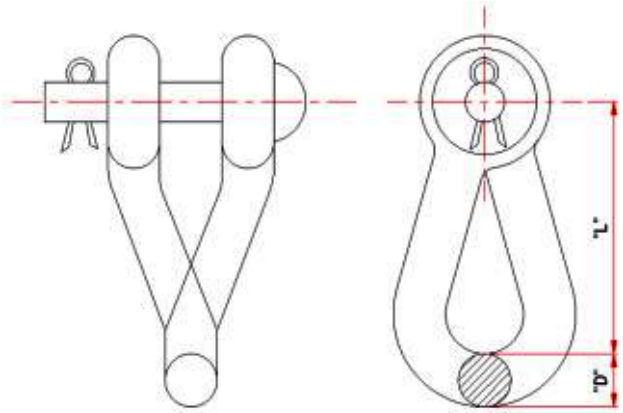
U-bolt Dia "D"	Length "L"	CTC	E -Code
M14	125	70	AUBS14125
M14	200	70	AUBS14200
M16	125	70	AUBS16125
M16	200	70	AUBS16200



Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Twisted Shackle

Material	: Forged Steel - Class IV
Finish	: Hot Dip Galvanised to BS EN ISO 1461
Applicable Standard	: BS 3288



A (mm)	B (mm)	C (mm)	D (mm)	Load	E- Code
76	19	16	16	70KN	ATS01
89	22	19	20	120KN	ATS02
102	22	19	20	120KN	ATS03

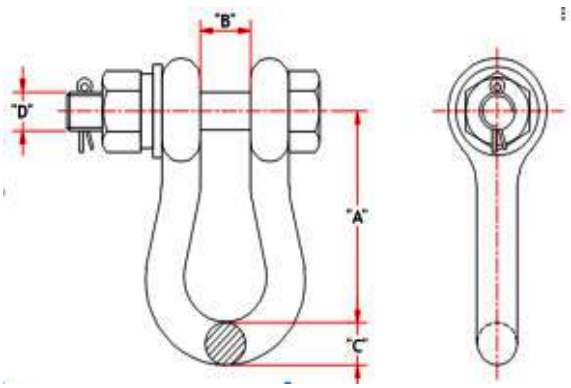
Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Anchor Shackle

An Anchor shackle in pole line is used to connect and secure guy wires to ground anchors, ensuring the stability and support of utility poles.

Material	: Forged Steel, Fastner Steel Grade 5.6
Finish	: Hot Dip Galvanised to BS EN ISO 1461
Applicable Standard	: BS 3288

A (mm)	B (mm)	C (mm)	D (mm)	Load	E- Code
76	19	16	16	70KN	AAS16
89	22	19	20	120KN	AAS20
102	26	25	24	150KN	AAS24
110	35	32	32	240KN	AAS32



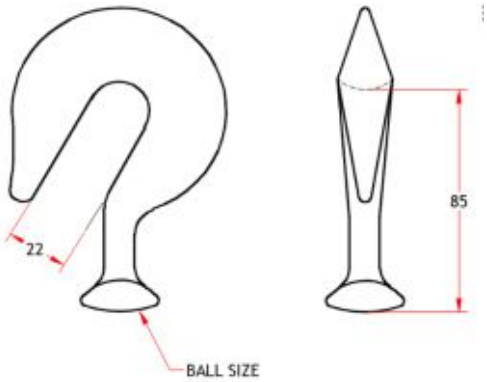
Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Ball Ended Hook

A ball-ended hook is used to connect and secure electrical conductors or cables to insulators, ensuring a reliable and stable attachment point.

Material	: Forged Steel - Class IV
Finish	: Hot Dip Galvanised to BS EN ISO 1461
Applicable Standard	: BS 3288

Ball Size (mm)	Load (KN)	E- Code
16	70	ABH16
20	120	ABH20

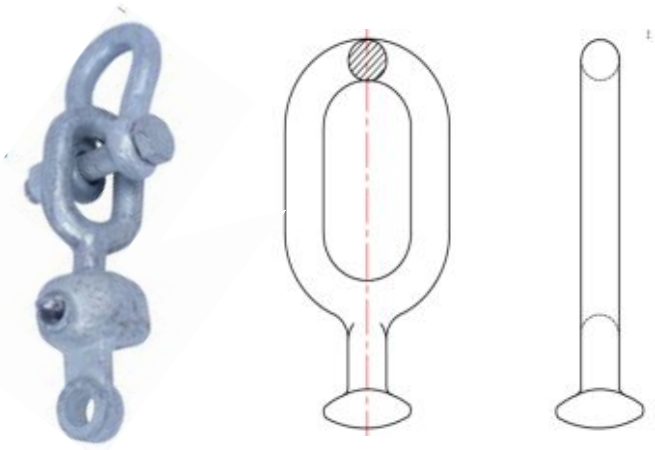


Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Ball Eye Link For Anchor Shackle

Material : Forged Steel - Class IV
Finish : Hot Dip Galvanised to BS EN ISO 1461
Applicable Standard : BS 3288

Size	Load	E- Code
BS 11	40KN	ABEL11
BS 16	70KN	ABEL16



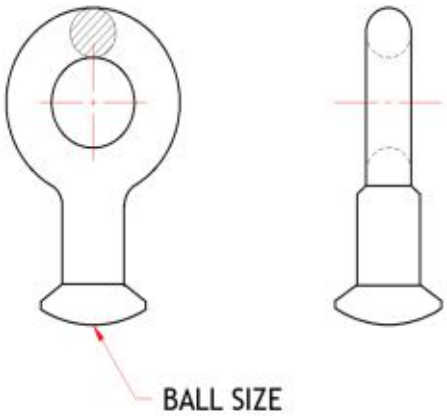
Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Ball Eye Link For 'U' Bolt

Material : Forged Steel - Class IV
Finish : Hot Dip Galvanised to BS EN ISO 1461
Applicable Standard : BS 3288

Size	Load	E- Code
BS 11	40KN	ABEL11
BS 16	70KN	ABEL16

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.



Socket Celvis

Socket clevis in pole line applications are used to create a secure attachment point between insulators and crossarms or other hardware on utility poles, facilitating the reliable suspension of power lines.

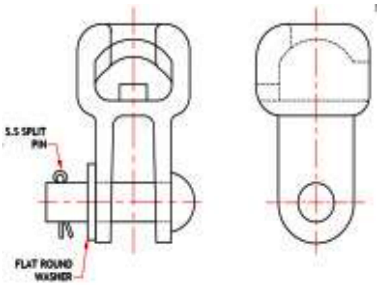
Material : Forged Steel - Class IV

Finish : Hot Dip Galvanised to BS EN ISO 1461

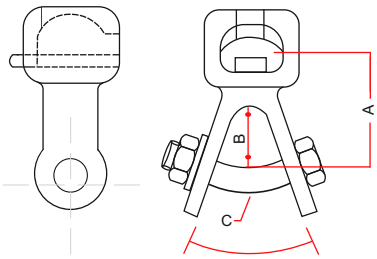
Applicable Standard : BS 3288

Type	A (mm)	B (mm)	C (mm)	Ball Size mm	E- Code
1	54	22	16	16	ASC116
1	64	22	20	20	ASC120
2	59	18	22	20	ASC220

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.



Type 1



Type 2

Socket Eye

Socket eye in pole line applications is used to create a secure attachment point for conductors or hardware, facilitating efficient and reliable transmission of electrical power across utility poles.

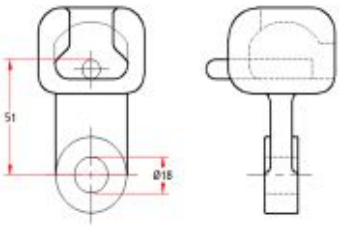
Material : Forged Steel - Class IV

Finish : Hot Dip Galvanised to BS EN ISO 1461

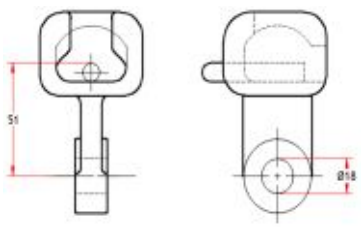
Applicable Standard : BS 3288

Size	Load	E- Code
BS 11	40KN	ASE11
BS 16	70KN	ASE16

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.



Type 1



Type 2

Clevis Eye

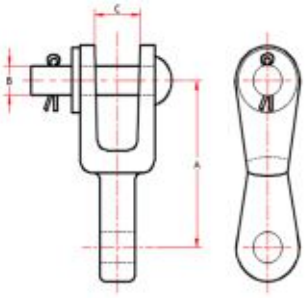
A clevis eye in pole line applications is employed to provide a secure and adjustable attachment point for connecting hardware such as insulators or crossarms to utility poles, facilitating efficient installation and maintenance of power distribution systems.

Material : Forged Steel - Class IV

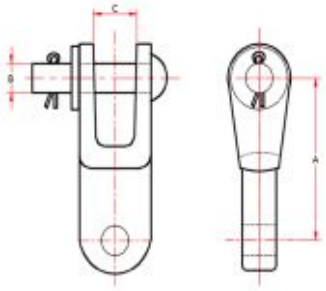
Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : BS 3288

Type	A (mm)	B (mm)	C (mm)	E- Code
1	76	16	22	ACE116
1	90	20	22	ACE120
2	76	16	22	ACE216
2	90	20	22	ACE220



Type 1



Type 2

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Extension Link

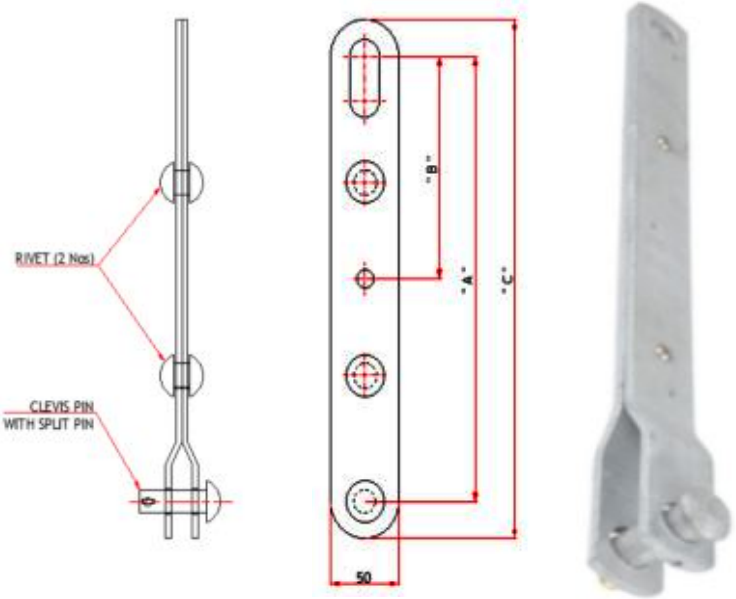
Extension Links provide clearance from the pole or crossarm to the insulator string at deadend installations.

Material : Mild Steel to IS 2062, Grade 'E250'

Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : BS 3288

Description	A (mm)	B (mm)	C (mm)	E- Code
RL - 300	300	150	350	AEL300
RL - 600	600	300	650	AEL600

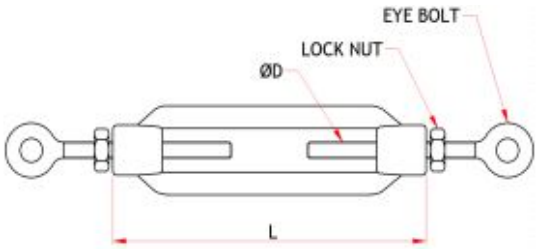


Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Turn Buckle - Eye To Eye Type

A turnbuckle is a type of hardware that can be used to adjust tension and slack in a rope, cable, or other rigging assembly.

Material : Forged Steel
Finish : Hot Dip Galvanised to BS EN ISO 1461
Applicable Standard : BS 3288



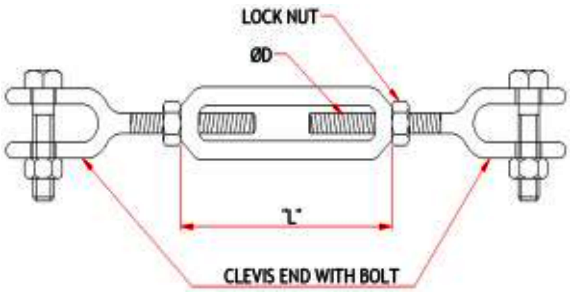
Dimensions In Inch		Dimensions In mm		E - Code
ØD	L	ØD	L	
5/8"	10"	M16	250	ATBEEI12/ ATBEE12
3/4"	12"	M20	300	ATBEEI58/ ATBEE16

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Turn Buckle - Clevis To Clevis Type

A turnbuckle is a type of hardware that can be used to adjust tension and slack in a rope, cable, or other rigging assembly.

Material :Forged Steel
Finish : Hot Dip Galvanised to BS EN ISO 1461
Applicable Standard : BS 3288



Dimensions In Inch		Dimensions In mm		E - Code
ØD	L	ØD	L	
1/2"	8" - 10"	M12	200 - 250	ATBCCI12/ ATBCC12
5/8"	8" - 10"	M16	200 - 250	ATBCCI58/ ATBCC16

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Tension Clamp - Bolted Type

A tension clamp is a single-tension hardware used to secure and provide mechanical support to conductors or cables, typically in conjunction with fittings like clevis and socket eyes on overhead transmission or distribution lines.

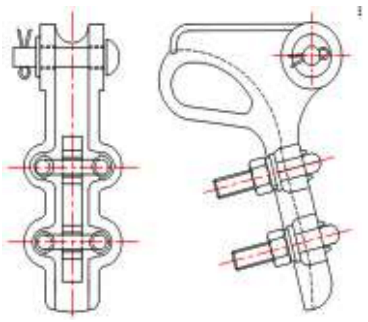
Material : Aluminium Alloy / Mild Steel

Finish : Hot Dip Galvanised Steel / Natural for Aluminium

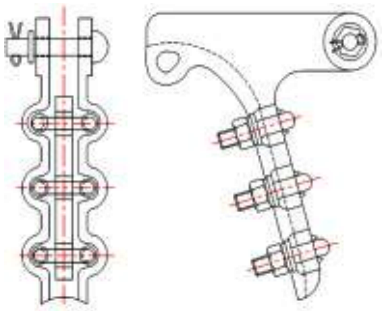
Applicable Standard : BS 3288

Type	No. of Bolts	Conductor Size	Load	E - Code
1	2	5.1 - 14..4	45 KN	ATCB01
2	3	7.6 - 15.2	70 KN	ATCB02
2	3	12.7 - 21.0	70 KN	ATCB03
3	4	14.2 - 22	90 KN	ATCB04
3	4	21.0 - 32.0	120 KN	ATCB05
4	5	14.2 - 22.0	90 KN	ATCB06
4	5	21.0 - 32.0	120 KN	ATCB07

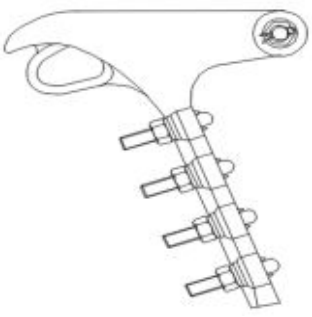
Note:
1. All dimensions are in mm otherwise specified.



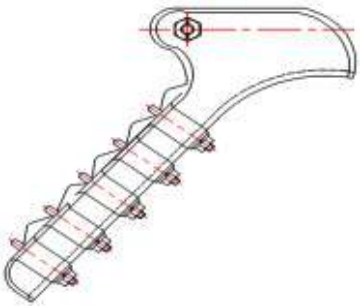
2 'U' BOLTED TC



3 'U' BOLTED TC



4 'U' BOLTED TC

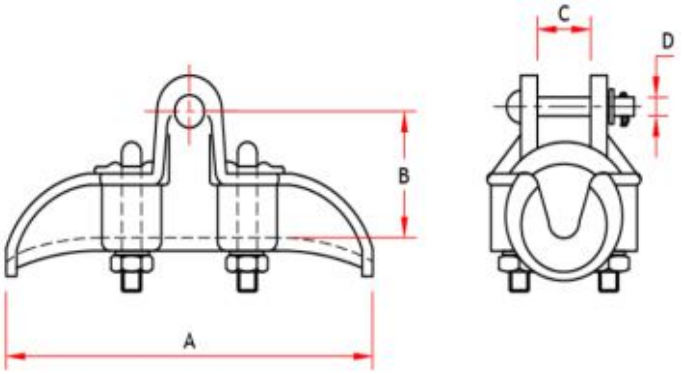


5 'U' BOLTED TC

Suspension Clamp - Bolted Type

Material : Aluminium Alloy / Fastner Mild Steel
Finish : Hot Dip Galvanised Steel / Natural
Applicable Standard : BS 3288

Cond. Range Dia. (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E-Code
3.0 - 18.0	146	55	19	16	ASCB01
10.1 - 22.6	204	65	29	16	ASCB02
12.7 - 26.5	222	73	38	16	ASCB03
25.5 - 37.4	254	90	42	16	ASCB04



Note:
1. All dimensions are in mm otherwise specified.

Vibration Damper

Cable Size (mm^2)	E - Code
50	AVD050
100	AVD100
265	AVD265

Part Description	Material & Finish
Balancing weight	C.I. (Hot dip galvanised)
Clamp	Aluminium alloy
Messenger cable	Galvanised high tension steel wire
Bolt, flat & spring washer	Mild steel, Finish - Hot dip galvanised

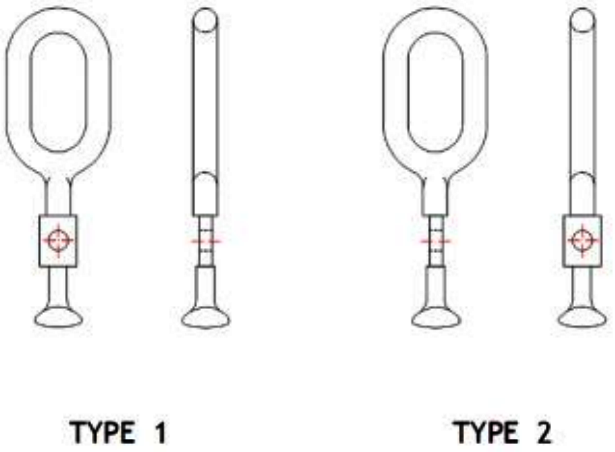
Note:
1. All dimensions are in mm otherwise specified.

Horn Holder Ball Eye

Horn holder ball eye are essential components in overhead power line systems, providing flexibility, reducing stress, and enhancing the durability and safety of the connections between insulators and other hardware. Made from high-strength, corrosion-resistant materials, they ensure reliable performance in various environmental conditions.

Material : Forged Steel
Finish : Hot Dip Galvanised Steel
Applicable Standard : BS 3288

Type	A (mm)	Ball Size (mm)	E- Code
1	152	16	AHHBE116
1	192	20	AHHBE120
2	152	16	AHHBE216
2	192	20	AHHBE220



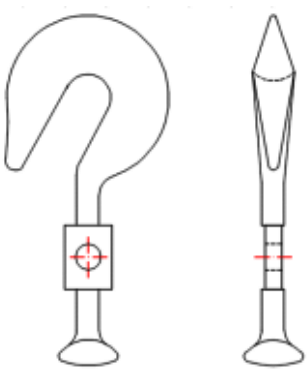
Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Horn Holder Ball Hook

The horn holder ball hook provides mechanical support to insulators, ensuring they are securely attached to the pole or tower.The ball hook design allows for some movement, which helps in accommodating changes in load and reducing mechanical stress on the insulator and conductor.

Material : Forged Steel - Class IV
Finish : Hot Dip Galvanised to BS EN ISO 1461
Applicable Standard : BS 3288

Ball Size (mm)	E - Code
16	AHHBH16
20	AHHBH20



Note:
1. All dimensions are in mm otherwise specified.

Horn Holder Socket Eye

The horn holder socket eye is an essential component in overhead transmission and distribution systems, providing a reliable and durable connection between conductors and insulator strings. Made from high-strength materials and coated for corrosion resistance, it ensures the stability and integrity of high-voltage electrical infrastructure. Proper installation and alignment are crucial for optimal performance and longevity.

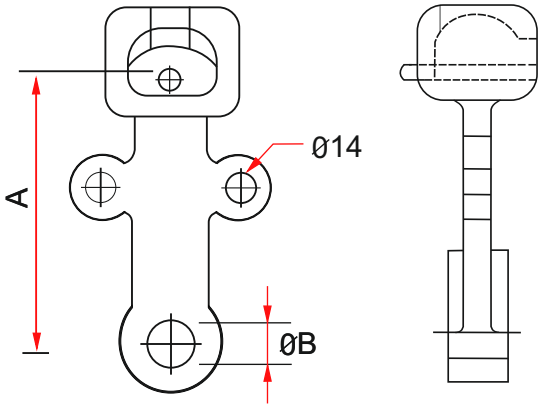
Material : Forged Steel - Class IV

Finish : Hot Dip Galvanised to BS EN ISO 1461

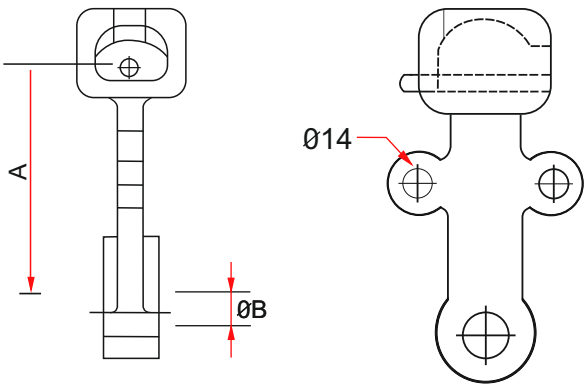
Applicable Standard : BS 3288

Type	A (mm)	B (mm)	Ball Size (mm)	E- Code
1	79	18	16	AHHSE116
2	79	18	16	AHHSE216
1	79	22	20	AHHSE120
2	79	22	20	AHHSE220

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.



Type 1



Type 2

Pig Tail Bolt

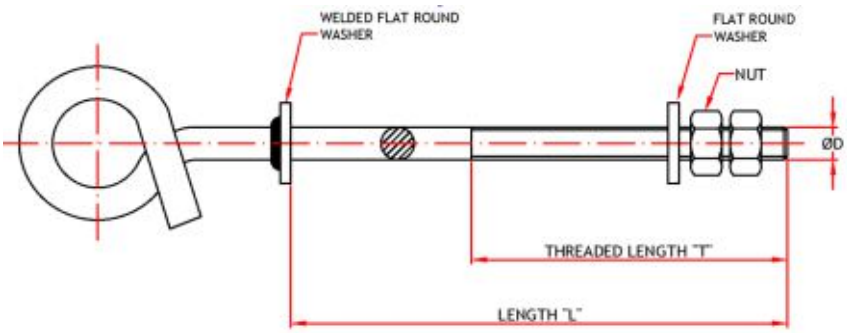
A Pigtail Bolt is a specialized fastener used in pole line construction to securely anchor conductors, guy wires, and hardware to utility poles. Its unique spiral end design provides a firm grip, preventing slippage and ensuring mechanical stability. Made from galvanized steel, it offers high strength and corrosion resistance, essential for the durability and reliability of overhead transmission and distribution lines.

Material : Mild Steel to IS 2062, Grade 'E250'

Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : BS 3288-1 & IEC 61284

ØD	Length 'L'	Threaded Length 'T'	E- Code
M12	120	110	APTB1212
M14	250	150	APTB1425
M14	300	150	APTB1430
M16	200	110	APTB1620
M16	250	150	APTB1625
M16	300	150	APTB1630
M16	350	150	APTB1635
M20	260	150	APTB2026
M20	300	150	APTB2030
M20	380	150	APTB2038



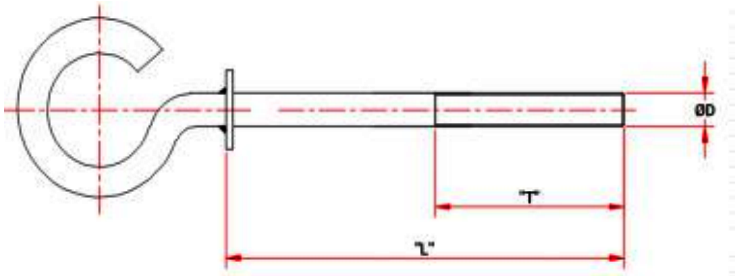
Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Hook Bolt

A hook bolt is a type of fastener used in pole line construction to attach cables, conductors, and other components to utility poles and crossarms. Its hook-shaped end provides a secure attachment point, ensuring stability and ease of installation. Made from galvanized steel for strength and corrosion resistance, it is essential for maintaining the integrity of overhead transmission and distribution systems.

Material : Mild Steel to IS 2062, Grade 'E250'
Finish : Hot Dip Galvanised to BS EN ISO 1461
Applicable Standard : BS 3288-1 & IEC 61284

ØD	Length 'L'	**Threaded Length 'T'**	E- Code
M14	250	150	AHB1425
M14	300	150	AHB1430
M16	200	110	AHB1620
M16	250	150	AHB1625
M16	300	150	AHB1630
M16	350	150	AHB1635
M20	260	150	AHB2026
M20	300	150	AHB2030
M20	380	150	AHB2038



Note:
1. Different sizes are also available on request.

Double Arming Bolt

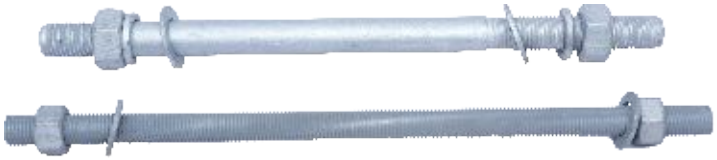
A "Double Arming Bolt with Nuts and Washers" in pole line hardware is a specialized fastening component used to securely attach two crossarms or braces to a utility pole. It consists of a sturdy bolt with threads on both ends, accompanied by nuts and washers. This configuration allows for a strong and stable connection between the pole and the crossarms, providing support and stability to the overhead power line infrastructure. The nuts and washers ensure proper tightening and distribution of load, essential for maintaining the integrity of the pole line system.

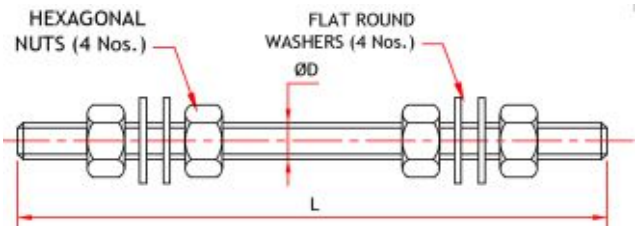
Material : Mild Steel to IS 2062, Grade 'E250'

Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : BS 3288

Bolt Size	ØD (mm)	Length 'L'	E- Code
M14 X 250MM	14	250	ADAB14250
M14 X 300MM	14	300	ADAB14300
M14 X 350MM	14	350	ADAB14350
M14 X 400MM	14	400	ADAB14400
M14 X 500MM	14	500	ADAB14500
M14 X 1000MM	14	1000	ADAB141000
M16 X 250MM	16	250	ADAB16250
M16 X 300MM	16	300	ADAB16300
M16 X 350MM	16	350	ADAB16350
M16 X 400MM	16	400	ADAB16400
M16 X 450MM	16	450	ADAB16450
M16 X 500MM	16	500	ADAB16500
M16 X 550MM	16	550	ADAB16550
M20 X 300MM	20	300	ADAB20300
M20 X 400MM	20	400	ADAB20400
M20 X 450MM	20	450	ADAB20450
M20 X 500MM	20	500	ADAB20500
M20 X 510MM	20	510	ADAB20510
M20 X 550MM	20	550	ADAB20550
M20 X 600MM	20	600	ADAB20600





Note:
1) All dimensions are in millimetres (mm) unless otherwise specified.
2) Material grades can be customized to meet the customer's requirements and tender specifications.

Carriage Bolt

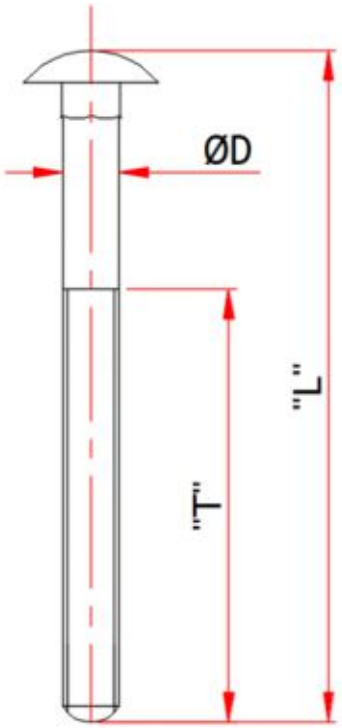
A "Carriage Bolt" in pole line hardware is a type of fastener characterized by a round, smooth head and a square neck directly below the head. This design allows the bolt to be inserted into a pre-drilled hole and held in place as the nut is tightened, preventing the bolt from rotating. Carriage bolts are typically used to secure crossarms, brackets, and other components to utility poles. Their robust construction and secure fastening capabilities make them essential for maintaining the structural integrity and stability of overhead power line systems.

Material : Steel guide 8.5/5.6

Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : ISO 8677

Bolt Size	Dia 'ØD' (mm)	Thread length 'T'	Length 'L'	E- Code
M10 X 100MM	10	75	100	ACB10100
M10 X 110MM	10	75	110	ACB10110
M10 X 125MM	10	75	125	ACB10125
M10 X 150MM	10	75	150	ACB10150
M12 X 110MM	12	75	110	ACB12110
M12 X 125MM	12	75	125	ACB12125
M12 X 150MM	12	75	150	ACB12150
M12 X 175MM	12	100	175	ACB12175



Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

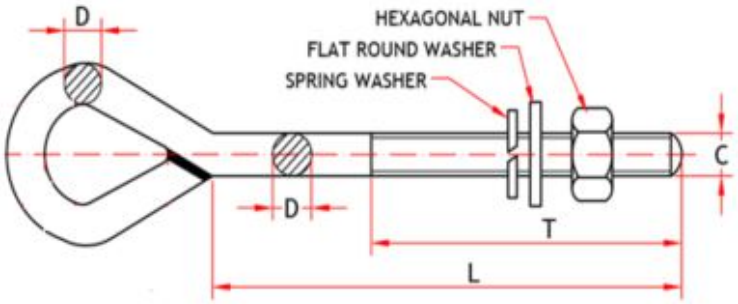
Eye Bolt

A "Welded Eye Bolt" in pole line hardware is a robust fastening device with a loop or eye at one end, which is securely welded to the bolt shaft. This configuration is used to attach guy wires, support insulators, or anchor various components to utility poles. The welded construction ensures a strong, reliable connection point capable of withstanding significant mechanical stress and environmental factors. This type of eye bolt is essential for maintaining the structural integrity and stability of overhead power line systems.

Material : Forged Steel, Fastner Steel Grade

Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : BS 3288-1 & IEC 61284



Bolt Size	C (mm)	L (mm)	T (mm)	E - Code
M16 X 120	16	120	60	AEBW16120
M16 X 200	16	200	100	AEBW16200
M16 X 250	16	250	150	AEBW16250
M16 X 300	16	300	150	AEBW16300
M16 X 350	16	350	150	AEBW16350
M16 X 360	16	360	150	AEBW16360
M20 X 200	20	200	100	AEBW20100
M20 X 220	20	220	150	AEBW20220
M20 X 250	20	250	150	AEBW20250
M20 X 300	20	300	150	AEBW20300
M20 X 320	20	320	150	AEBW20320
M20 X 350	20	350	150	AEBW20350
M20 X 360	20	360	150	AEBW20360
M20 X 400	20	400	150	AEBW20400
M20 X 600	20	600	150	AEBW20600

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

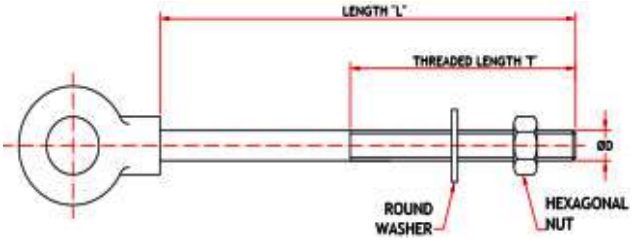
Eye Bolt - Forged Type

An "Eye Bolt Forged" in pole line hardware is a robust, high-strength bolt featuring a loop or eye at one end. It is forged from durable materials, typically steel, to ensure maximum strength and reliability. These bolts are commonly used to secure guy wires, support insulators, or anchor other hardware to utility poles. Their forged construction provides superior load-bearing capacity and resistance to wear and environmental stress, making them essential for the stability and integrity of overhead power lines and other pole-mounted equipment.

Material : Forged Steel

Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : BS 3288-1 & IEC 61284



Eye Bolt Size	ØD (mm)	Length 'L'	Threaded Length 'T'	E - Code
M16 X 110	M16	110	FULL	AEBF16110
M16 X 250	M16	250	150	AEBF16250
M16 X 350	M16	350	150	AEBF16350
M16 X 450	M16	450	150	AEBF16450
M18 X 300	M18	300	150	AEBF18300
M18 X 350	M18	350	150	AEBF18350
M20 X 200	M20	200	150	AEBF20200
M20 X 220	M20	220	150	AEBF20220
M20 X 250	M20	250	150	AEBF20250
M20 X 280	M20	280	150	AEBF20280
M20 X 300	M20	300	150	AEBF20300
M20 X 350	M20	350	150	AEBF20350
M20 X 450	M20	450	150	AEBF20450
M20 X 500	M20	500	150	AEBF20500

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Oval Eye Nut

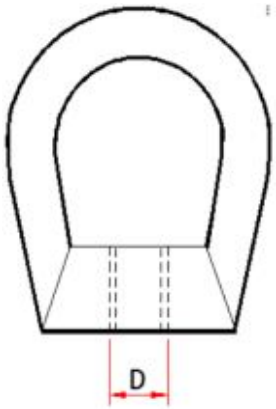
An "Oval Eye Nut" is a type of hardware used in pole line construction to facilitate the attachment of guy wires or other support components to utility poles. Shaped like an oval ring, it features a threaded opening allowing it to be securely fastened onto bolts or threaded rods extending from the pole. Oval Eye Nuts provide a strong, reliable anchor point for guy wires, ensuring stability and support for the pole under various mechanical stresses. This hardware is essential in maintaining the structural integrity of pole lines in overhead power and telecommunication networks.

Material : Forged Steel

Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : BS 3288 & IEC 61284

Eye Nut Size (D)	E - Code
M12	AOEN12
M16	AOEN16
M18	AOEN18
M20	AOEN20



Note:
1. Different sizes are also available on request.

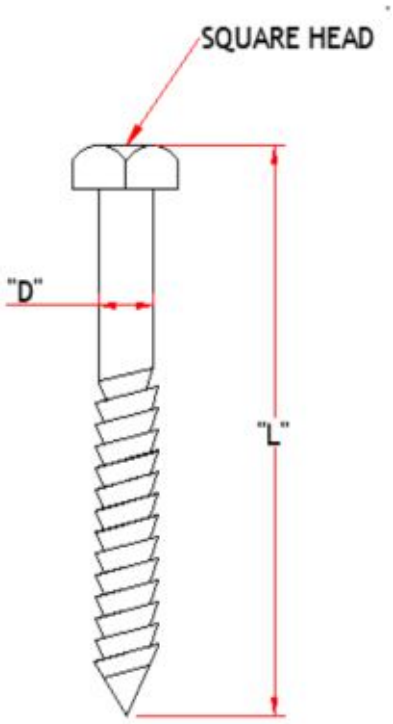
Lag Screw

A lag screw in pole line construction is a heavy-duty fastener designed for securing crossarms, hardware, or cables to wooden utility poles. Its coarse threading and pointed tip enable easy insertion into the wood, providing a strong and reliable connection. Lag screws are typically made from galvanized steel to resist corrosion and ensure long-lasting stability in overhead transmission and distribution line installations.

Material : Mild Steel to IS 2062, Grade 'E250'

Finish : Hot Dip Galvanised to BS EN ISO 1461

Size	Dia (mm)	Length 'L'	E- Code
M6 X 50	M6	50	ALS06050
M6 X 65	M6	65	ALS06065
M8X75	M8	75	ALS08075
M10 X 65	M10	65	ALS10065
M10 X 75	M10	75	ALS10075
M10 X 100	M10	100	ALS10100
M12 X 75	M12	75	ALS12075
M12 X 100	M12	100	ALS12100
M12 X 115	M12	115	ALS12115
M12 X 125	M12	125	ALS12125
M16 X 125	M16	125	ALS16125



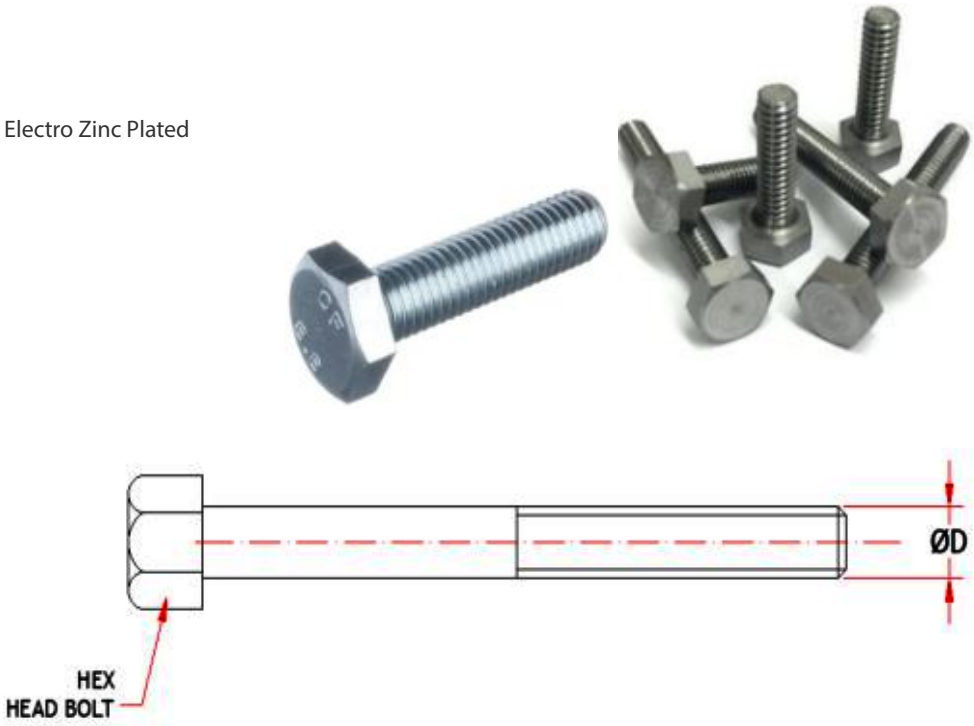
Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Bolt

Material : Forged Steel

Finish : Hot Dip Galvanised/ Electro Zinc Plated

Bolt Size	ØD
M8	8
M10	10
M12	12
M14	14
M16	16
M20	20



Note:
1. All Sizes can be available as per the customer's requirement.
2. Fasteners are also available in stainless steel and copper alloy.
3. Material grades can be customized to meet the customer's requirements and tender specifications.

Nuts

Material : Forged Steel

Finish : Hot Dip Galvanised/ Electro Zinc Plated

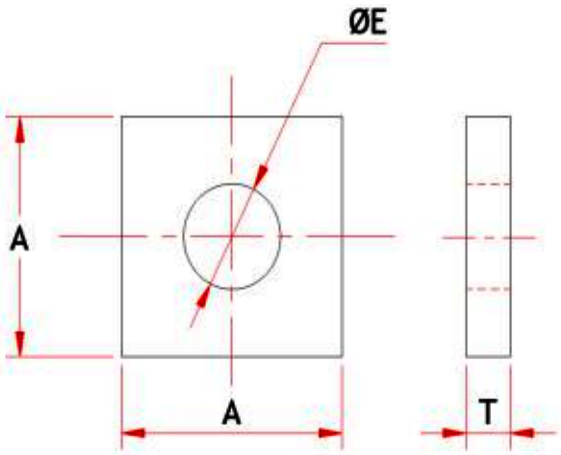
Nut Size	AF	T
M10	16	8
M12	18	10.3
M14	21	12
M16	24	14
M18	27	15
M20	30	17

Note:
1. All Sizes can be available as per the customer's requirement.
2. Fasteners are also available in stainless steel and copper alloy.
3. Material grades can be customized to meet the customer's requirements and tender specifications.

Flat Sqaure Washer

Material : Mild Steel to IS 2062, Grade 'E250'

Finish : Hot Dip Galvanised to BS EN ISO 1461



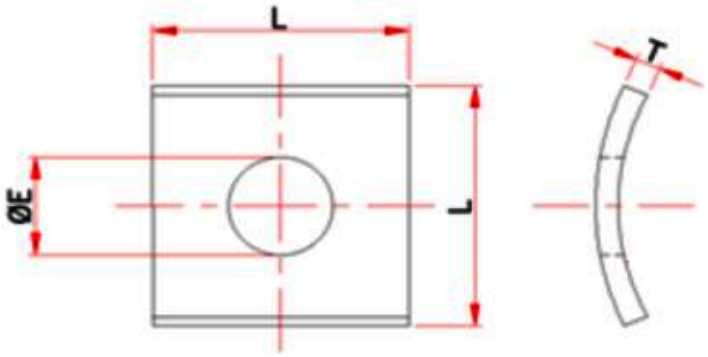
A	T	ØE
35	3	18
35	3	22
50	5	18
50	5	22
50	6	18
50	6	22
57	5	18
57	5	22
57	6	18
57	6	22
65	3	18
65	3	22
75	6	18
75	6	22
100	5	18
100	5	22
100	6	18
100	6	22

Note:
1. Other sizes are also available as per the customer's requirement.

Curved Sqaure Washer

Material : Mild Steel to IS 2062, Grade 'E250'

Finish : Hot Dip Galvanised to BS EN ISO 1461



Bolt Size	L	ØE	T
M16	50	18	5
M16	57	18	5
M16	65	18	3
M16	75	18	5
M18	50	20	6
M20	50	22	3
M20	50	22	6
M20	65	22	6
M20	75	22	6

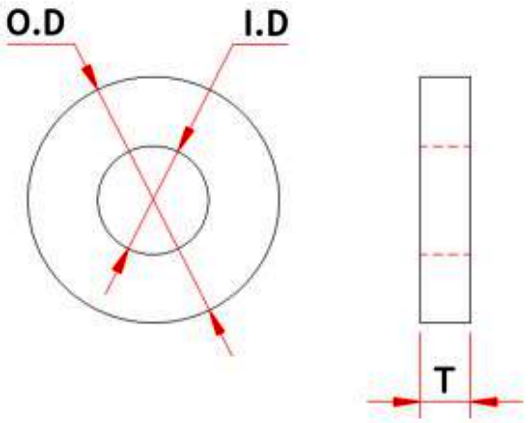
Note:
1. Other sizes are also available as per the customer's requirement.

Round Washer

Material : Mild Steel

Finish : Hot Dip Galvanised/ Electro Zinc Plated

Washer Size	I.D	O.D	T
M6	6.4	12	1.6
M8	8.4	16	1.6
M10	11	21	2
M12	13	24	3
M16	18	30	3
M18	20	34	3
M20	22	38	3



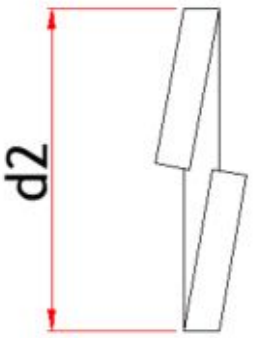
Note:
1. All Sizes can be available as per the customer's requirement.
2. Fasteners are also available in stainless steel and copper alloy.
3. Material grades can be customized to meet the customer's requirements and tender specifications.

Spring Washer

Material : Spring Steel Grade

Finish : Hot Dip Galvanised/ Electro Zinc Plated

Note:
1. All Sizes can be available as per the customer's requirement.
2. Fasteners are also available in stainless steel and copper alloy.
3. Material grades can be customized to meet the customer's requirements and tender specifications.



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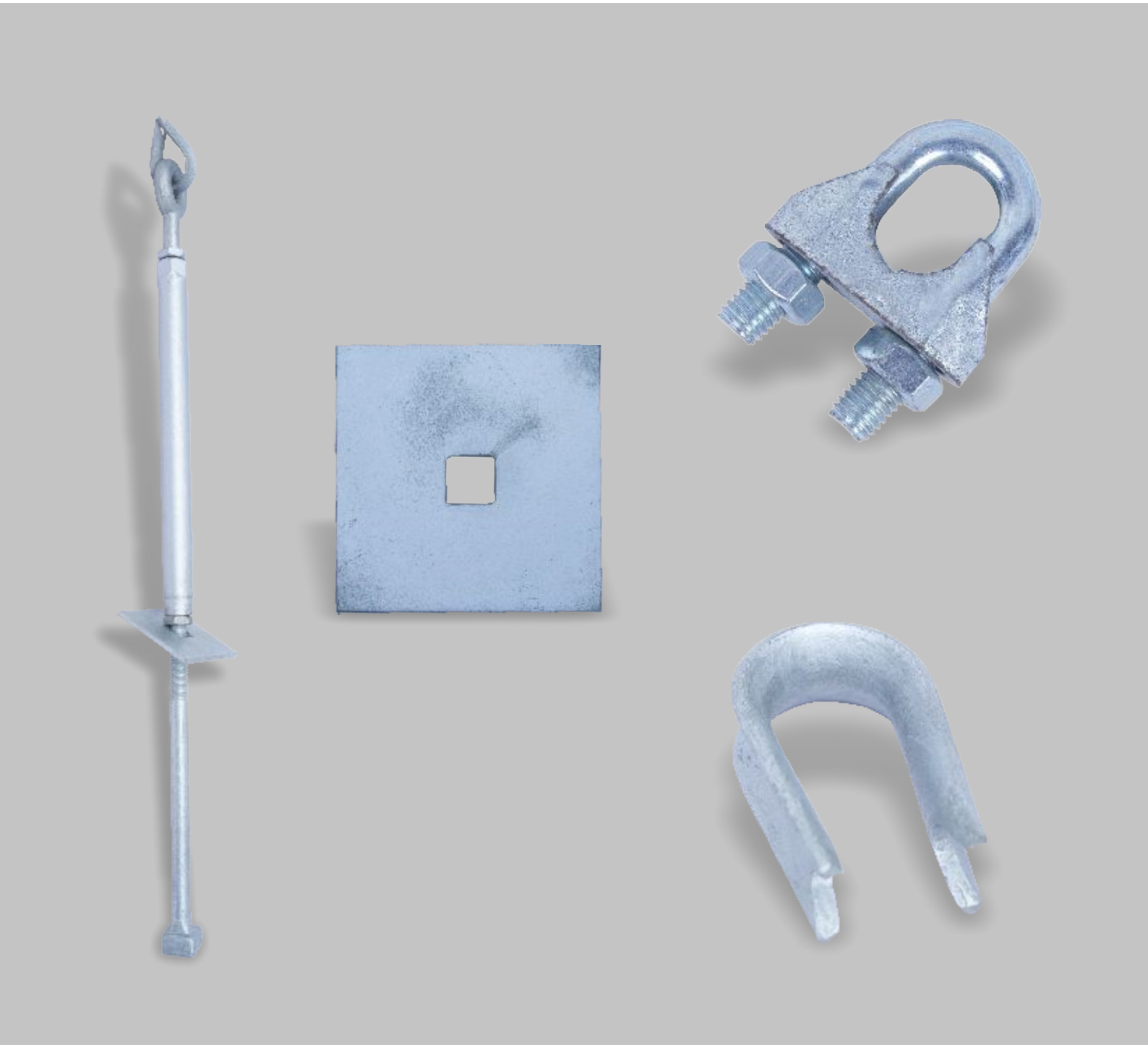


Guying Accessories

Stay Rod

A "Stay Rod in Stay Assembly" in pole line construction refers to a vital component used to provide additional support and stability to utility poles. It typically consists of a long, threaded rod with a eye at one end and a threaded rod coupling at the other. The eye end attaches to the pole, while the coupling end with tubular turn buckle connects to an anchor or another structural element in the ground. This assembly helps prevent pole leaning or tipping, particularly in areas with high wind loads or uneven terrain, ensuring the integrity and safety of the overhead power line system.

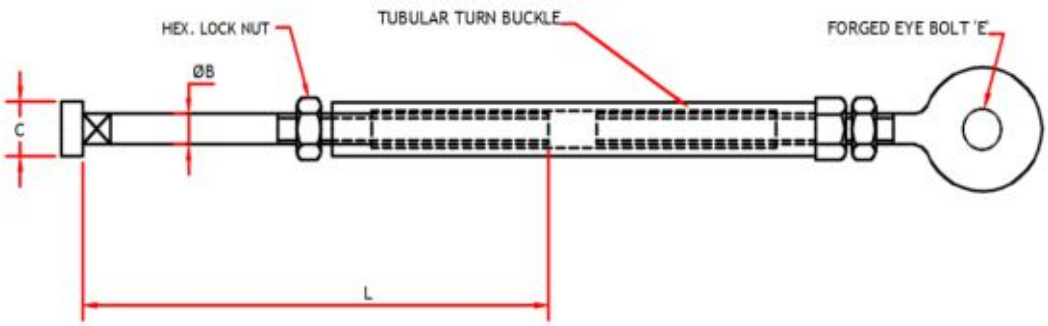
Material : Mild Steel to IS 2062, Grade 'E250'

Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : BS 3288

Sizes	L	B	C	E	E - Code
M16 x 1800mm	1800	16	26	24	ASR161800
M16 x 2400mm	2400	16	30	24	ASR162400
M20 x 1800mm	1800	20	30	28	ASR201800
M20 x 2000mm	2000	20	30	28	ASR202000
M20 x 2400mm	2400	20	30	28	ASR202400
M22 x 2400mm	2400	22	38	30	ASR222400

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

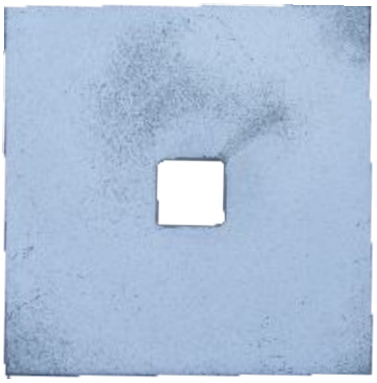


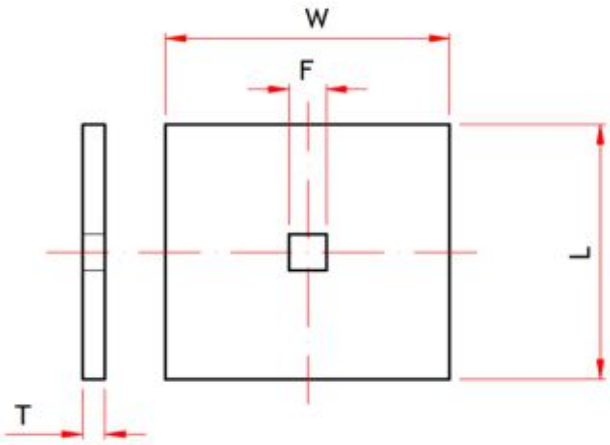
Stay Plate

Material : Mild Steel to IS 2062, Grade 'E250'

Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : BS 3288



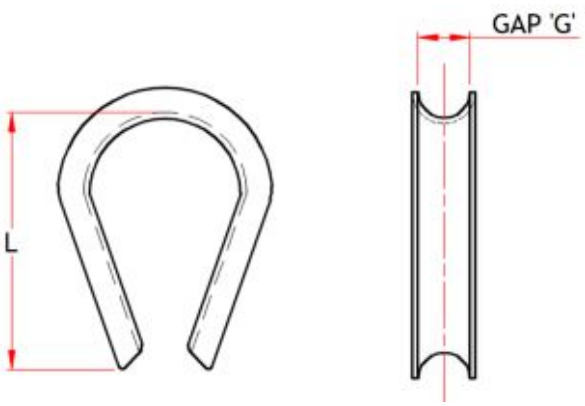


W	L	T	F	E- Code
100	100	6	18	ASP1010616
100	100	6	22	ASP1010620
300	300	6	18	ASP3030616
300	300	6	22	ASP3030620
400	400	6	18	ASP4040616
400	400	6	22	ASP4040620
450	450	4	18	ASP4545416
450	450	6	22	ASP4545620
500	500	6	18	ASP5050616
500	500	6	22	ASP5050620
500	500	8	22	ASP5050820
600	600	6	18	ASP6060616
600	600	6	22	ASP6060620

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Stay Thimble

The thimble used in stay set assembly is a critical component designed to provide robust support and protection for cables and conductors of sizes 3/3.35, 7/3.35, 7/4.00, etc. Crafted from high-quality materials such as galvanized steel, the thimble is engineered to withstand harsh environmental conditions, ensuring durability and longevity. Its primary function is to prevent wear and tear on the cable loop by providing a smooth, rounded surface that maintains the shape of the loop, reducing the stress and friction that can lead to premature failure.It is commonly used in conjunction with guy wires, which provide structural support to poles and towers in various applications, including telecommunications and electrical power transmission. By incorporating thimbles into the assembly, the risk of cable abrasion and damage is significantly minimized, thereby extending the lifespan of the conductors.



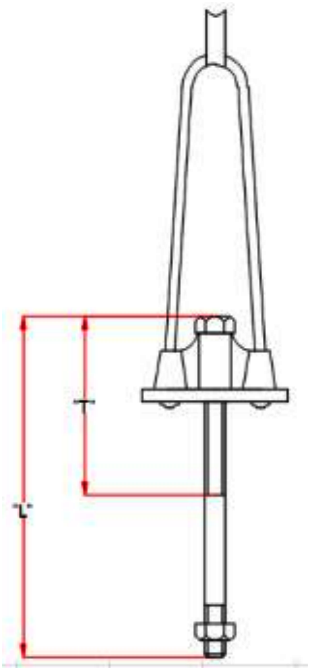
Material : Mild Steel to IS 2062, Grade 'E250'

Finish : Hot Dip Galvanised to BS EN ISO 1461

Applicable Standard : BS 3288

Bow Type Stay Rod

The "Bow Type Stay Rod" is a crucial component in pole line stability. This specialized crosshead, featuring a bow-shaped design, securely connects the stay rod to the anchor or counterweight system. Its resilient construction ensures even distribution of tension forces, effectively anchoring utility poles and preventing leaning or tipping. This configuration is particularly beneficial in areas prone to high wind loads or uneven terrain, enhancing the safety and reliability of the pole line infrastructure.



Material : Mild Steel to IS 2062, Grade 'E250'

Finish : Hot Dip Galvanised to BS EN ISO 146

Rod Dia	Length "L"	Thread "T"	E - Code
16	1800	200	ABTSR161800
16	2000	200	ABTSR162000
20	1800	300	ABTSR201800
20	2000	300	ABTSR202000
20	2400	300	ABTSR202400
22	2500	300	ABTSR222500

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.

Stay Wire

Stay wire in pole line construction refers to a taut wire that is strategically installed to provide additional support and stability to utility poles. Typically made of galvanized steel, stay wires are anchored at one end to the pole and at the other end to an anchor or counterweight system buried in the ground. They help prevent the pole from leaning or tipping, especially in areas with high wind loads or uneven terrain. Stay wires are essential components of pole line infrastructure, ensuring the integrity and safety of overhead power lines by maintaining the vertical alignment of utility poles.Grade of Steel Wire: Grade 700, 1100, 1300 are commonly used.

Material : Steel Grade as per BS 183

Finish : Galvanised as per BS 443

No of Strands	Strand Dia (mm)	E- Code
3	3.35	ASW03335
4	4.00	ASW04400
7	1.80	ASW07180
7	2.20	ASW07220
7	2.65	ASW07226
7	2.85	ASW07285
7	3.00	ASW07300
7	3.35	ASW07335
7	3.50	ASW07350
7	3.60	ASW07360
7	3.84	ASW07384
7	4.00	ASW07400
19	2.50	ASW019250
19	2.95	ASW019295
19	3.55	ASW019355
37	3.10	ASW037310

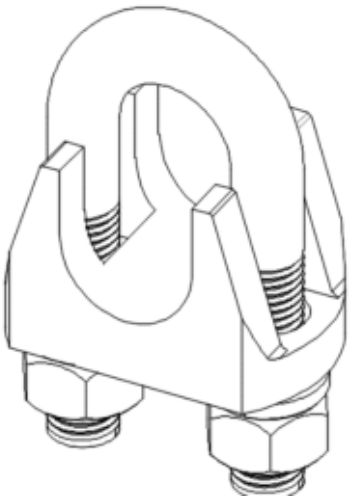
Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Material grades can be customized to meet the customer's requirements and tender specifications.

Bulldog Clamp

A Bulldog Clamp in pole line construction is a heavy-duty fastening device used to secure cables or conductors to utility poles or structures. Its robust design, typically featuring serrated jaws, provides a strong grip on the cable, ensuring a reliable and stable connection. Bulldog clamps are essential components in overhead transmission and distribution lines, contributing to the safety and reliability of the electrical infrastructure.

Material	: Forged Steel
Finish	: Electro Zinc Plated / Hot Dip Galvanised

Note:
1. All dimensions are in mm otherwise specified.
2. Different sizes are also available on request.
3. This clamp can be provided for the cables and conductors of any sizes.



Preformed Top Tie

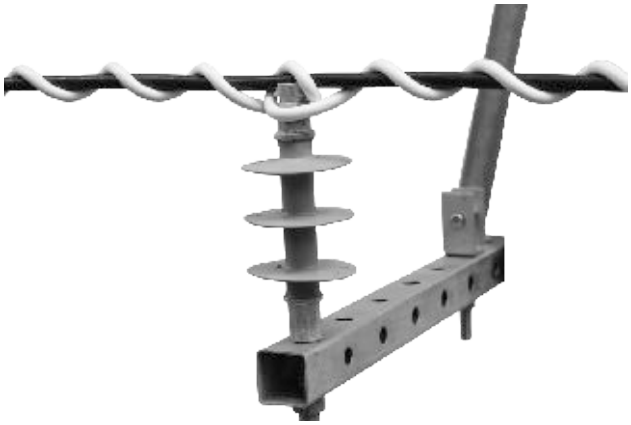
- For securing bare or plastic jacketed conductors to the top of pin-type or post-type insulators.
- AXIS APTT series formed wire distribution ties are designed for use with ACSR, AAC, AAAC.
- Compacted ACSR & Compacted AAC.

Commonly used in overhead power lines where the conductor runs horizontally across the top of the insulator.

Material : Aluminium Alloy

Finish : Natural

Suitable For AAAC/ACSR Conductor	E - Code
25 mm^2	APTT025
50 mm^2	APTT050
100 mm^2	APTT100
120 mm^2	APTT120
150 mm^2	APTT150
185 mm^2	APTT185



Note:
1.Other Sizes Are Also Available As Per Customer's Requirment

Preformed Side Tie

Ideal for situations where the conductor needs to be attached to the side of the insulator rather than the top.

- For securing bare or plastic jacketed conductors to the top of pin-type or post-type insulators.
- AXIS APTT series formed wire distribution ties are designed for use with ACSR, AAC, AAAC.
- Compacted ACSR & Compacted AAC.

Material : Aluminium Alloy

Finish : Natural

Suitable For AAAC/ACSR Conductor	E - Code
25 mm^2	APST025
50 mm^2	APST050
100 mm^2	APST100
120 mm^2	APST120
150 mm^2	APST150
185 mm^2	APST185

Note:
1.Other Sizes Are Also Available As Per Customer's Requirment

Pole Top Make Off

Pole Top Make Off in pole line construction refers to the method of securing and terminating electrical conductors at the top of a utility pole. This setup involves attaching conductors to insulators or other hardware mounted at the pole's peak, ensuring a secure and stable connection.

It often includes the use of preformed ties, clamps, or other fastening devices to hold the conductors in place. This technique is crucial for maintaining the integrity of the electrical distribution system, especially at endpoints or transition points in the network.

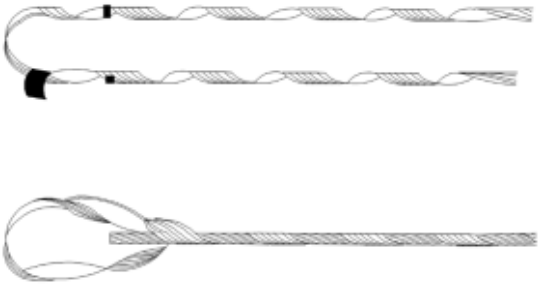
Material : Steel Grade 700/ 1100

Finish : Hot dip galvanised to BS EN 10244-2

Suitable For AAAC/ACSR Conductor	E - Code
3/3.35 mm	APTMO03335
4/4.00 mm	APTMO04400
7/2.12 mm	APTMO07212
7/2.60 mm	APTMO07260
7/3.10 mm	APTMO07310
7/3.35 mm	APTMO07335
7/3.50 mm	APTMO07350
7/3.68 mm	APTMO07368
7/4.00 mm	APTMO07400
19/2.60 mm	APTMO19260

Note:
1. Other Sizes are also available as per the Customer's Requirement.
2. Material Grades can be customized as per the Customer's Requirement/ Tender Specification.

Dead End Guy Grip



A "Dead End Guy Grip" is a preformed wire device used to anchor and stabilize utility poles at termination points or sharp directional changes in pole line construction. Made from high-strength materials, it wraps around the guy wire and provides a secure grip without the need for additional clamps or hardware. This setup ensures the pole remains stable under the tension of conductors, preventing leaning or toppling. Easy to install and highly reliable, dead end guy grips are essential for maintaining the structural integrity of power lines.

Material : Steel Grade 700/ 1100

Finish : Hot dip galvanised

Guy Grip Suitable For Stay Wire	Lay Direction	Length "L"	E - Code
3/3.35 mm (25 mm^2)	Right Hand	610	AGG03335
4/4.00 mm (50 mm^2)	Right Hand	710	AGG04400
7/2.62 mm (35 mm^2)	Right Hand	635	AGG07262
7/3.00 mm (50 mm^2)	Right Hand	710	AGG07300
7/3.35 mm (60 mm^2)	Right Hand	800	AGG07335
7/3.60 mm (70 mm^2)	Right Hand	970	AGG07360
7/4 mm (88 mm^2)	Right Hand	970	AGG07400

Note:
1. Other Sizes are also available as per the Customer's Requirement.
2. Material Grades can be customized as per the Customer's Requirement / Tender Specification.

PG Clamp

An Aluminum Parallel Groove (PG) clamp is used for connecting two parallel conductors in overhead power lines, ensuring a reliable electrical and mechanical connection. It is made of high-strength aluminum alloy, providing excellent corrosion resistance and conductivity. The clamp features grooves that securely hold the conductors in place, tightened by bolts for a firm grip and stable connection.

Material : Body - Aluminium Alloy
Bolts - Steel Grade 5.6

Finish : Body - Natural & degreased
Bolts - Hot dip galvanised

Conductor Size mm^2		No. Of Bolts	E - Code
Min	Max		
16	70	2	APG00001B2
16	95	2	APG00001B2V3
16	120	2	APG00002B2
35	185	2	APG00003B2
16	120	3	APG00002B3
35	185	3	APG00004B3
35	300	3	APG00008B3V5

Note:
1.Other Sizes Are Also Available As Per Customer's Requirment

PG Clamp - Bimetallic

A Bimetallic Parallel Groove (PG) clamp is designed for connecting aluminum and copper conductors in overhead power lines, ensuring a stable electrical and mechanical bond. It consists of an aluminum body with copper inserts to prevent galvanic corrosion, providing compatibility and conductivity between dissimilar metals. The clamp is tightened by bolts to secure the conductors in the grooves, ensuring a durable and efficient connection.

Material : Body - Aluminium Alloy with Copper Linings
Bolts - Steel Grade 5.6

Finish : Body - Natural & degreased
Bolts - Hot dip galvanised

Conductor Size mm^2		No. Of Bolts	E - Code
Al	Cu		
25-150	10-95	2	PGBM00007B2T
25-200	25-185	2	PGBM00009B2
25-150	10-95	3	PGBM00010B3
35-240	25-150	3	PGBM00008B3TV1

Note:
1.Other Sizes Are Also Available As Per Customer's Requirment

Compression Joint For ACSR Conductor

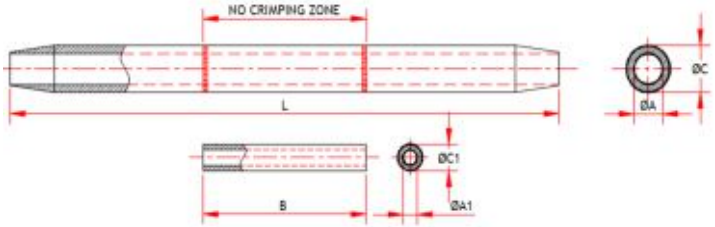
The ACSR (Aluminum Conductor, Steel Reinforced) conductor is a common type of overhead power line conductor used in power transmission. Midspan joints for ACSR conductors are critical components used to join two lengths of conductor in the middle of a span. These joints are designed to maintain the mechanical and electrical continuity of the conductor while minimizing any losses or potential points of failure.

Material : Aluminium & Galvanised Steel Tube

Finish : Natural & Degreased

Cable Size (mm^2)	Cable Code	Dimensions in mm						E - Code
		ØA	ØC	L	B	ØA1	ØC1	
25	---	8	14	180	-	-	-	---
35	FOX	9	16	235	-	-	-	AMS35
50	RABBIT	11.5	20.5	280	-	-	-	AMS50
70	BEVER	13.2	22	330	-	-	-	AMS70
90	CAT	15	24	380	-	-	-	AMS90
100	DOG	15.5	24	410	120	5	10	AMS100
125	LEOPARD	17.2	26	510	160	5.6	12	AMS125
150	WOLF	19.4	30	560	180	8.1	16	AMS150
175	LYNX	21	32	610	205	8.7	18	AMS175
200	PANTHER	22	34	610	205	9.4	20	AMS200
225	LION	23.6	36	610	205	9.9	20	AMS225
250	BEAR	24.8	38	690	230	10.5	22	AMS250
300	GOAT	27.3	40	690	230	11.6	22	AMS300
400	DEER	31.3	46	715	250	13.3	26	AMS400
400	ZEBRA	30	46	715	250	10	20	AMS400Z
500	MOOSE	33.3	52	740	250	11	22	AMS500

Note:
1. All dimensions are in mm otherwise specified.

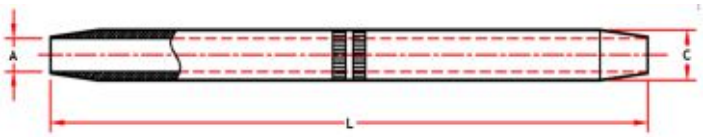


Compression Joint For AAC/AAAC Conductor

A compression joint for AAC (All Aluminum Conductor) or AAAC (All Aluminum Alloy Conductor) conductors typically involves clamping the conductors together using compression fittings. These fittings consist of a sleeve and a compression tool that compresses the sleeve around the conductors, ensuring a secure and reliable electrical connection. This jointing method is commonly used in overhead power transmission and distribution systems for its durability and low maintenance requirements.

Material : Aluminium Alloy Tube

Finish : Natural & Degreased



Cable Size (mm^2)	Dimensions in mm			E - Code
	A	C	L	
16	5.8	12	140	AAC0016
25	6.8	12	140	AAC0025
35	8	14	140	AAC0035
50	10	16	155	AAC0050
54.6	11.5	18.5	165	AAC0070
95	13.5	22	165	AAC0095
117	15.5	25.5	250	AAC0120
148	17	27	300	AAC0150
150	16.5	28.5	300	AAC0150
185	18.5	28.5	330	AAC0185
240	21.5	34.5	350	AAC0240
265	22.0	34.5	350	AAC0265
300	23.5	38.5	400	AAC0300

Note:
1. All dimensions are in mm otherwise specified.

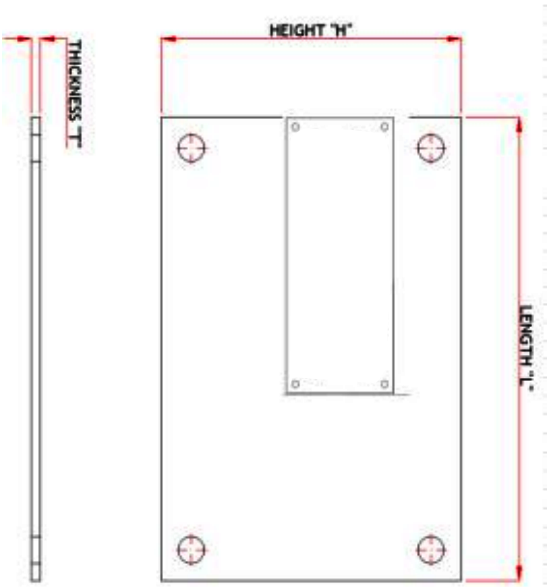
Danger Plate

A Danger Plate used in Poleline installations typically consists of a metal or plastic plate affixed to the pole, displaying warnings such as "Danger: High Voltage" or "Keep Away." These plates serve as visual indicators to alert individuals of the potential hazards associated with the electrical infrastructure.

Material : Mild steel

Finish : Epoxy coated

Length "L" (mm)	Height "H" (mm)	Thickness "T" (mm)	E - Code (Vitreous Enamelled)	E - Code (Epoxy Coated)
100	100	1.6	ADPV101016	ADPE101016
150	150	1.6	ADPV101016	ADPE101016
200	200	1.6	ADPV202016	ADPE202016
250	250	1.6	ADPV252516	ADPE252516
200	150	2	ADPV201520	ADPE201520
300	250	2	ADPV302520	ADPE302520
300	300	2.5	ADPV303025	ADPE303025
400	250	2	ADPV402520	ADPE402520
400	400	2	ADPV404020	ADPE404020
450	450	2.5	ADPV454525	ADPE454525



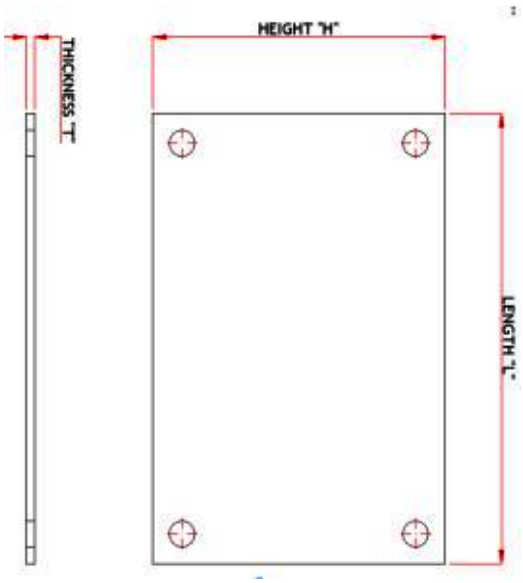
Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and Holes can be customized according to customer requirements.

Number Plate

A number plate used in poleline installations typically displays a unique identification number or code assigned to the pole, facilitating maintenance, inspection, and identification purposes. These plates are often made of durable materials like aluminum or stainless steel for long-term outdoor use.

Material : Mild steel or Aluminium

Finish : Epoxy coated



Length "L" (mm)	Height "H" (mm)	Thickness "T" (mm)	E - Code (Vitreous Enamelled)	E - Code (Epoxy Coated)
100	100	1.6	ANPV101016	ANPE101016
150	150	1.6	ANPV151516	ANPE151516
200	200	1.6	ANPV202016	ANPE202016
250	250	1.6	ANPV252516	ANPE252516
200	150	2	ANPV201520	ANPE201520
300	250	2	ANPV302520	ANPE302520
300	300	2.5	ANPV303025	ANPE303025
400	250	2	ANPV402520	ANPE402520
400	400	2	ANPV404020	ANPE404020
450	450	2.5	ANPV454525	ANPV454525

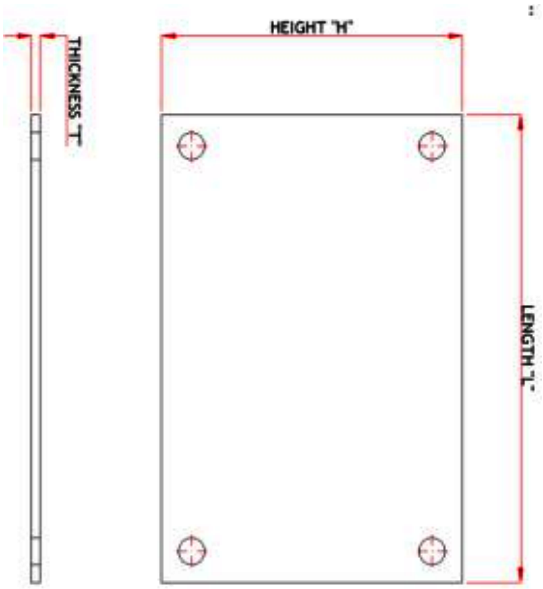
Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and Holes can be customized according to customer requirements.

Aerial Patrol Sign Plate

An aerial patrol sign plate used in poleline installations typically indicates the last date of inspection and serves as a reference for maintenance scheduling. These plates are usually prominently displayed on poles to ensure visibility for aerial inspections.

Material : Mild steel

Finish : Epoxy Coated



Length "L" (mm)	Height "H" (mm)	Thickness "T" (mm)	E - Code (Vitreous Enamelled)	E - Code (Epoxy Coated)
200	150	1.5	AAPV201515	AAPE201515
250	200	1.5	AAPV252015	AAPE252015
350	250	1.6	AAPV352516	AAPE352516
350	300	1.6	AAPV353016	AAPE353016
350	350	1.6	AAPV353516	AAPE353516
400	250	1.6	AAPV402516	AAPE402516
400	350	1.6	AAPV403516	AAPE403516
500	350	2	AAPV503520	AAPE503520
500	400	2	AAPV504020	AAPE504020
500	450	2	AAPV504520	AAPE504520
500	500	2	AAPV505020	AAPE505020

Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and Holes can be customized according to customer requirements.

Phase Plate

Phase Plates, integral in poleline installations, identify the phase (e.g., R for Red, B for Blue and Y for Yellow) of the electrical circuit. Typically affixed to poles, they aid in safe maintenance, repair, and troubleshooting by providing clear phase differentiation. These plates often feature color-coded or labeled symbols for quick and accurate identification by utility workers.

Material : Mild steel Aluminium

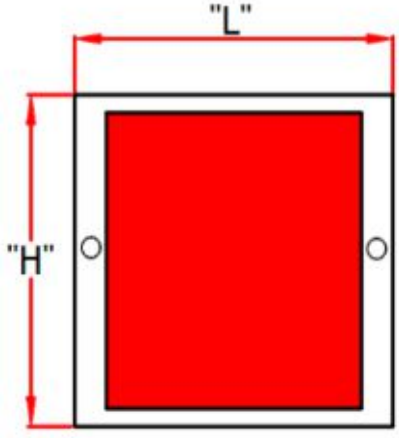
Finish : Epoxy coated

Length "L"	Height "H"	Thickness "T" (mm)	E - Code (Vitreous Enamelled)	E - Code (Epoxy Coated)
100	100	1.2	APPV101012	APPE101012
150	150	1.2	APPV151512	APPE151512
200	200	1.6	APPV202016	APPE202016
200	150	1.6	APPV201516	APPE201516
250	250	1.6	APPV252516	APPE252516
400	200	2	APPV402020	APPE402020
400	250	2	AAPV402520	AAPE402520

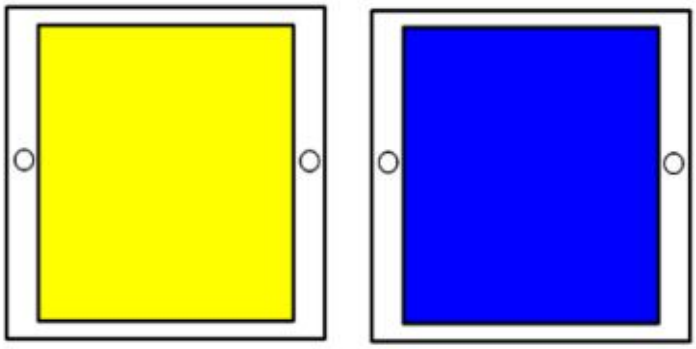
Type - 2

Dia "D" (mm)	Thickness "T" (mm)	E - Code (Vitreous Enamelled)	E - Code (Epoxy Coated)
75	1.6	APPV07516	APPE07516
76	1.6	APPV07616	APPE07616
100	2	APPV10020	APPE10020

Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Dimensions and Holes can be customized according to customer requirements.

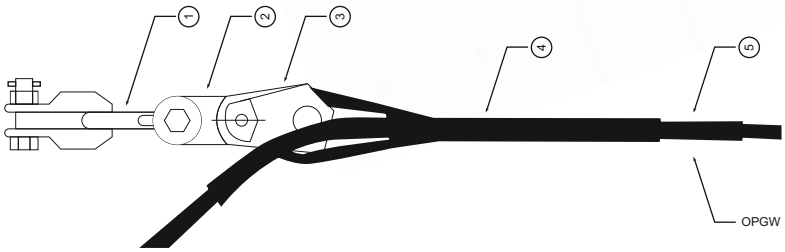


Type - 1



Tension String

All Dead End Clamp assemblies shall preferably be of the preformed armoured grip type and must include all necessary hardware. These clamps should be designed to allow the OPGW to pass through continuously without requiring cable cutting, thereby maintaining the integrity of the optical fibers. Additionally, the slip strength of the dead end clamps shall be rated at not less than 95% of the rated tensile strength of the OPGW, ensuring robust performance and reliability.



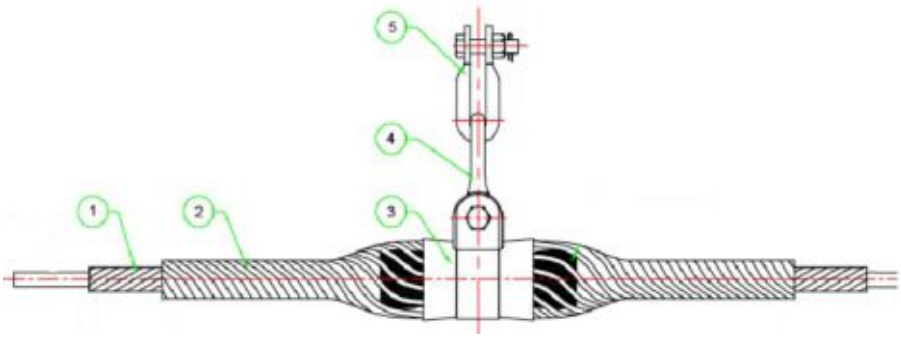
Diameter Range		E - Code
Min. (mm)	Max. (mm)	
10.2	11.4	AOPGWTS01
11.5	12.8	AOPGWTS02
12.9	14.1	AOPGWTS03
14.2	15.5	AOPGWTS04
15.6	17.2	AOPGWTS05
17.3	19.1	AOPGWTS06
19.2	21.1	AOPGWTS07
21.2	23.5	AOPGWTS08
23.6	26.2	AOPGWTS09

Sr No.	Item Decsription
1	Anchor Shackle
2	Extension Strap
3	Thimble Clevis
4	Dead End Component
5	Structural Reinforcing Rod

Note:
1. All dimensions are in millimeters (mm) unless otherwise specified.
2. Different sizes are also available on request.

Suspension Set For OPGW

The Preformed Suspension Clamp is suitable for aluminum base conductors, aluminum coated steel conductors and galvanized steel strands. It is designed to reduce static and dynamic stresses at support points, thereby protecting conductors or strands from vibrations. It also protects the conductors in the bracket from impulses and power flashovers.



Diameter Range		E - Code
Min. (mm)	Max. (mm)	
8.9	9.7	AOPGWSS01
9.7	10.1	AOPGWSS02
10.1	10.6	AOPGWSS03
10.6	11.2	AOPGWSS04
11.2	11.6	AOPGWSS05
12.1	12.8	AOPGWSS06
13.0	13.6	AOPGWSS07
13.6	14.2	AOPGWSS08
14.4	14.6	AOPGWSS09
14.6	15.2	AOPGWSS10
15.2	15.9	AOPGWSS11
15.9	16.9	AOPGWSS12
16.9	18.0	AOPGWSS13
18.5	19.0	AOPGWSS14
19.1	20.0	AOPGWSS15
20.0	20.7	AOPGWSS16
23.1	23.3	AOPGWSS17

Sr No.	Item Decsription
1	Inner Rods
2	Outer Rods
3	Housing
4	Eye Chain Link
5	U Shackle

Note:
1. Different Sizes Are Also Available On Request.

OPGW Clamp

The Down Lead Clamp is mainly used to fix the optical fiber cable that on the tower and rod at the terminal that connecting tower of optical cable line and it can prevent optical cable shaking and avoid fiber optic cable wear. Adapt stainless steel and rubber material. Good corrosion resistance performance,not easy aging.

Diameter Range		E - Code
Min. (mm)	Max. (mm)	
9	11.6	AOPGWCL01
11.7	14.3	AOPGWCL02
14.4	17	AOPGWCL03
17.2	19.7	AOPGWCL04

Note:
1. Different Sizes Are Also Available On Request.

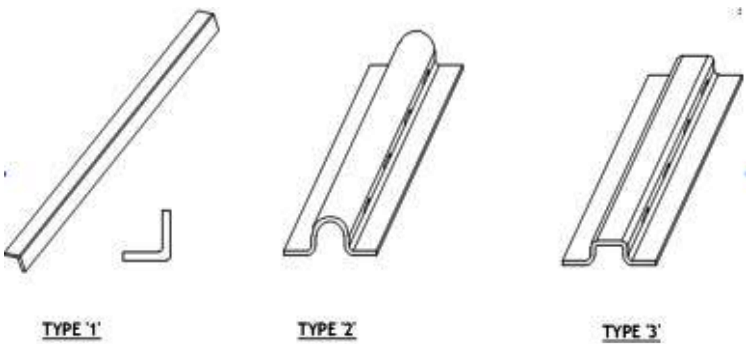
Earth Slat

The Earth Slat shall be used outdoors to cover and protect the section of earthing conductor along the pole on power lines.

Material : PVC / Galvanised M.S Sheet / Aluminium

Colour : Black/ Grey/ Brown

Section	Length "L"	Type	E - Code
30 x 30	2500	1	AGPT303025
35 x 35	2500	2	AGPC353525
60 x 60	2500	2	AGPC606025
90 x 90	2500	2	AGPC909025
120 x 120	2500	2	AGPC12012025
140 x 50	2500	3	AGPC1405025



Note:
1. Different Sizes & Lengths Are Also Available On Request.
2. Mounting Holes Or Slots Will Be Provide
As Per Customer's Requirement.

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2025 Edition

Talk to Us

AXIS ELECTRICAL COMPONENTS (I) P. LTD.

Registered Office: AXIS House, Plot No.149 BCD
Kandivali Co-op Industrial Estate Ltd., Kandivali (W),
Mumbai – 400067, Maharashtra, India. Tel: +91-22-67756000
email: sales@axis-india.com | Website: www.axis-india.com