

# MAEICO Al Masoudia Electrical Industries Co. Ltd.

شركة المسعودية للصناعات الكهربائية

## General Catalogue

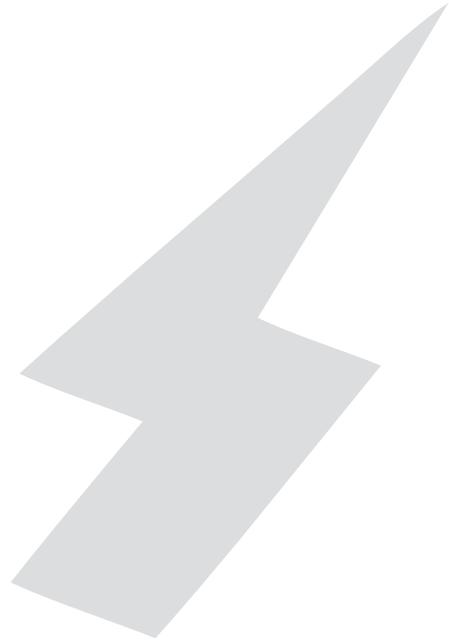
### Cable Management Systems

- Cable Trays & Ladders
- Cable Glands
- Earthing Systems
- Solar Systems
- Guardrail

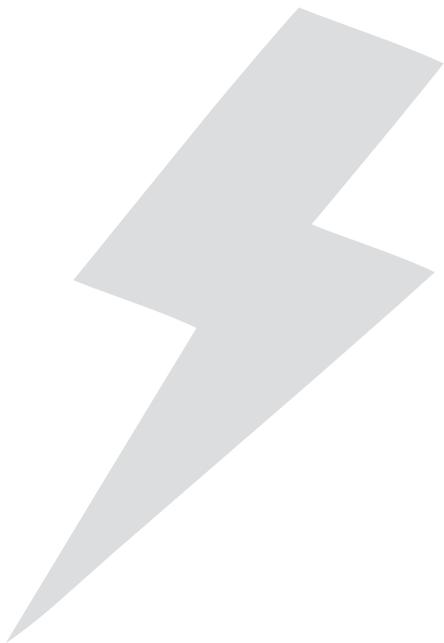
**ISO**  
9001:2015  
CERTIFIED



MASEICO



MASEICO



Al-Masoudia Electrical Industries Co. has been established to serve the industry of cable management systems including cable trays, cable ladders, cable glands, cable lugs, earthing, lightening systems and junction boxes, focusing on the Jordanian local market, Arabian Gulf and Middle East countries as well.

The extended experience in this industrial field of the qualified production, design engineers and staff who have more than 20 years spirited service tuned up the quality, productivity and reliability of MASEICO products to reach the top level.

While, covering the commercial, high rise building towers, industrial, petrochemical, oil, gas and power generation sectors with wide variety of systems and materials designs to comply with projects requirements and specifications, employed and tested based on the international electrical standards like NEMA, IEC, BS, UL, ATEX specifications.

Various types of materials including the stainless steel, hot dip galvanized steel, pre-galvanized steel, aluminum, brass and copper in all required finishes alleviated the magnificent quality and products availability to server is all environments and conditions.

Products are being produced using the latest developed computerized developed machines and technology, guided by the required ISO certification and developed ERP and production systems which escorted the excel to follow MASEICO in all aspect.

## CONTENTS

Theory .....	10
<b>Cable Trays Systems</b> .....	22
Straight Perforated Cable Trays .....	23
Perforated Cable Trays Fittings .....	24
Covers for Straight Perforated Cable Trays .....	27
Covers for Perforated Cable Trays Fittings .....	28
Accessories For Perforated Cable Trays Fittings .....	29
<b>Cable Ladders Systems</b> .....	30
Straight Cable Ladders .....	31
Cable Ladder Fittings .....	32
Covers for Straight Cable Ladders .....	38
Covers for Cable Ladders Fittings .....	39
Accessories For Cable Ladders .....	41
<b>Trunking Systems</b> .....	43
Straight Trunking .....	44
Trunking Fittings .....	45
Gusset Type Trunking Fittings .....	47
Accessories for Trunking .....	48
<b>Rack Support Systems</b> .....	50
Introduction .....	51
Support Profiles .....	52
U-channel Cantilevers .....	54
Base Plates .....	55
Accessories for U-Channel Support System .....	56
Beam Clamps .....	59
I-Beam Support System and Accessories .....	60
U- Beam Support System and Accessories .....	63
Cable Clamps and Cleats .....	64
<b>Cable Glands</b> .....	67
Introduction .....	68
A2M Industrial type with single outer seal .....	69
A2EM Increased safety type with single outer seal .....	69
BWM Industrial type without seal .....	70

## Cable Gland

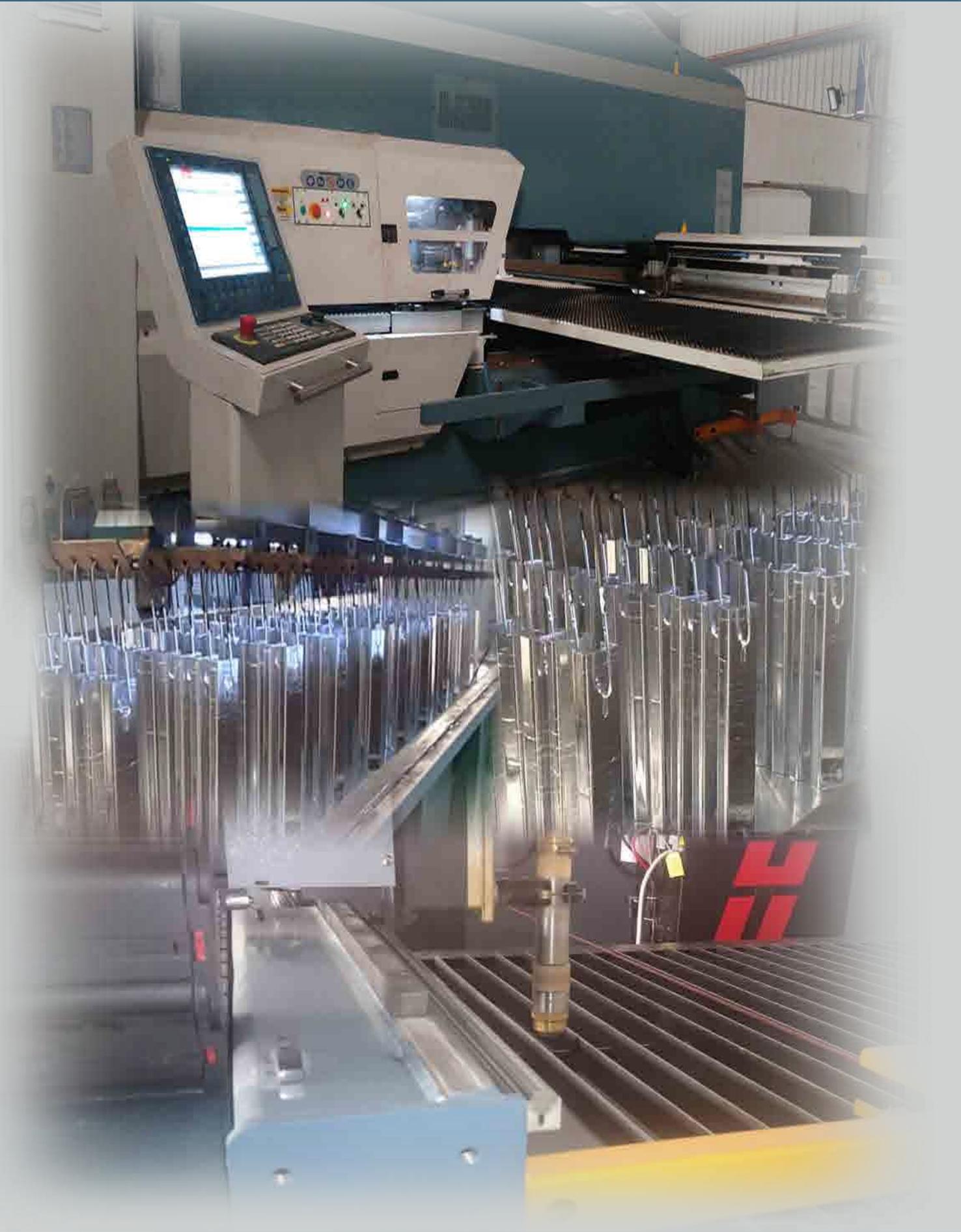
BWLM Heavy duty Industrial type without seal	70
BXLM Heavy duty Industrial type without seal	71
CWM Industrial type with single outer seal	72
CWEM Increased safety type with single outer seal	72
CXM Industrial type with single outer seal	73
CXEM Increased safety type with single outer seal	73
CZM Industrial type with single outer seal	74
CZEM Increased safety type with single outer seal	74
E1WM Industrial type with double seal	75
E1WEM Increased safety type with double seal	75
E1XM Industrial type with double seal	76
E1XEM Increased safety type with double seal	76
E1ZM Industrial type with double seal	77
E1ZEM Increased safety type with double seal	77
BARM Explosion proof EEx d, Increased safety EEx e, type with compound barrier	78
BRWM Explosion proof EEx d, Increased safety EEx e, type with compound barrier	78
BRXM Explosion proof EEx d, Increased safety EEx e type with compound barrier	79
E1WFM Flame proof EEx d, Increased safety EEx e, type	80
E1XFM Flame proof EEx d, Increased safety EEx e, type	80
E1ZFM Flame proof EEx d, Increased safety EEx e, type	81
Optional Accessories	82
How To Order	85
General technical information	86
Junction Boxes	93
Switch Boxes	94
<b>Earthing and lightning systems</b>	<b>97</b>
Introduction	98
Air terminal multiple point	100
Air terminal	100
Air terminal bases	100
Air terminal ridge saddle	101
Air terminal fixing bracket	101
Air terminal to tape coupling	101

DC tape clip -----	102
Oblong junction clamp -----	102
Tape Clip -----	102
Plate test clamp -----	103
Screwdown test clamp -----	103
Bare copper tape -----	103
One hole cable clips -----	104
Heavy duty cable saddle -----	104
Square clamp -----	104
Jointing parallel clamp -----	105
Tee joint solid conductor clamp -----	105
Junction clamp -----	105
Re-bar clamp -----	106
Tower clamp -----	106
Test conductor clamp -----	106
Square conductor clamp -----	107
Double plate tower clamp -----	107
Square tape clamp -----	107
Earth rods -----	108
Solid copper earth plate -----	111
Lattice copper earth plate -----	111
Earth rod to tabe clamp -----	112
Earth rod to cable clamp -----	112
Earth rod u-bolt clamp -----	112
Earth rod to cable GUV tybe clamp -----	113
Earth rod to cable lug clamp -----	113
Beam to tape bond -----	114
Rain pipe to tape bond -----	114
Water pipe tape bond -----	114
Flexible copper earth braid -----	115
Static earth receptacle -----	115
Single hole earth point -----	115
Two hole earth point -----	116
Four hole earth point -----	116
Earth bar -----	117
Earth bar with single disconnecting link -----	117

Earth bar with twin disconnecting link -----	117
Disconnecting link -----	118
Swan - neck link -----	118
Exothermic Weld System -----	119
Exothermic Welding System -----	120
How to inspect the mold -----	121
Weld connection -----	121
Weld powder -----	122
Weld accessories -----	122
Welding Instruction -----	123
Cable to cable connection -----	125
Cable to rod / rod to rod connection -----	127
Cable to concrete steel re-bar connection -----	130
Cable to steel surface and cable to steel pipe connection -----	133
Cable to copper tape connection -----	135
Busbar to busbar connection -----	138
Information -----	139
Cable Lugs Connectors Termination -----	140
Compression cable lugs -----	141
Heavy duty compression cable lugs -----	142
Long barrel compression cable lugs -----	142
Two hole compression cable lugs -----	142
Four holes compression cable lugs -----	143
Aluminium compression cable lugs -----	143
Aluminium long barrel compression cable lugs -----	144
Aluminium compression joints -----	144
Standard barrel compression joints -----	145
Mechanical cable lugs -----	145
Bus bar connectors -----	146
Mechanical straight connectors -----	146
Mechanical parallel tap connectors -----	146
Split-bolt connector -----	147
Aluminium parallel groove connector -----	148
Aluminium copper parallel groove connector -----	148
(C) type comprission connectors -----	149

<b>Solar Panels Mounting System</b> .....	151
Introduction .....	152
Ground Mounting System .....	153
Roof Mount .....	155
Accessories .....	156
<b>Safety Barriers &amp; Guardrail</b> .....	159
Introduction .....	160
Steel post for Guardrail .....	161

# MASEICO



## **Cable Trays**

- **Perforated Type**
- **Ladder Type**
- **Trunk Type**

In the electrical wiring of buildings, a cable tray system is used to support insulated electrical cables used for power distribution, control, and communication.

Cable trays are used as an alternative to open wiring or electrical conduit systems, and are commonly used for cable management in commercial and industrial construction. They are especially useful in situations where changes to a wiring system are anticipated, since new cables can be installed by laying them in the tray, instead of pulling them through a pipe.

According to the National Electrical Code (NEC), a cable tray is a unit or assembly of units or sections and associated fittings forming a rigid structural system used to securely fasten or support cables and raceways.

### Types

Several types of tray are used in different applications.

- A solid-bottom tray provides the maximum protection to cables, but requires cutting the tray or using fittings to enter or exit cables. A deep, solid enclosure for cables is called a (cable channel) or (cable trough) types.

- A ventilated (perforated) tray has openings in the bottom of the tray, allowing some air circulation around the cables, water drainage, ease of cables fixation and allowing some dust to fall through the tray. Small cables may exit the tray through the ventilation openings, which may be either slots or holes punched in the bottom.

- A ladder tray has the cables supported by a traverse bar, similarly to the rungs of a ladder, at regular intervals on the order of 4 to 12 inches (100 to 300 mm).

Ladder, ventilated and solid-bottom trays may have solid covers to protect cables from falling objects, dust, and water. Tray covers for use outdoors or in dusty locations may have a peaked shape to shed debris including dust, ice or snow.

Lighter cable trays are more appropriate in situations where a great number of small cables are used, such as for telephone or computer network cables. These trays may be made of wire mesh, called "cable basket", or be designed in the form of a single central spine (rail) with ribs to support the cable on either side.

Channel Tray provides an economical support for cable drops and branch cable runs from the backbone cable tray system. Channel cable tray is used for installations with limited numbers of tray cable when conduit is undesirable.

Large power cables laid in the tray may require support blocks to maintain spacing between conductors, to prevent overheating of the wires, hence, cable ladders are considered as best choice for large cables. Smaller cables may be laid unsecured in horizontal trays, or secured with cable ties to the bottom of vertically mounted trays.

To maintain support of cables at changes of elevation or direction of a tray, a large number of specialized cable tray fittings are made compatible with each style and manufacturer. Horizontal elbows change direction of a tray in the same plane as the bottom of the tray and are made in 30, 45 and 90 degree forms. Inside and outside vertical elbows are for changes perpendicular to the tray bottom. Reducers are for changing between cable trays widths. These can be in various shapes, degrees and widths including tees and crosses. Adjustable elbows are useful for field-fitting a tray around obstacles or around irregular shapes.

## **Materials**

Various clamping, supporting and splicing accessories are used with the cable tray to provide a complete functional tray system, cable trays elements and fittings are connected by normal, expansion or adjustable splice plates, fixed to the support members by hold down clamps.

Common cable trays are made of corrosion-resistant metal (Galvanized low-carbon steel, stainless steel or aluminum alloy). The material for

a given application is chosen based on where it will be used. Galvanized tray may be made of pre-galvanized steel sheet fabricated into tray, or may be hot-dip galvanized after fabrication. When galvanized tray is cut to length in the field, usually the cut surface will be painted with a zinc-rich compound to protect the metal from corrosion.

## **Low-Carbon Steel**

Roll formed structural quality steel is used to manufacture the cable trays, fittings and accessories, giving the high strength with low cost. But, high care shall be taken in consideration while galvanizing the product in order to give enough protection against corrosion, keeping in mind that the pre-galvanized steel will be subject to direct corrosion, thus, hot dip galvanizing after fabrication is the best way to give very high protection and long life for the product, while, the poor electrical conductivity and heavy weight are also considered as main disadvantages when using steel cable trays.

## **Aluminium**

- Extruded Aluminum alloy is used to manufacture the cable trays providing the high strength, light weight, excellent corrosion resistance, excellent conductivity and high class finish, while the ease of installation takes a big role when going for this choice. non-magnetic characteristic is very important to reduce the electrical loss. As well, the ease of fabrication and fast delivery is one of the most important advantages for using the Aluminum trays.

## **Stainless Steel**

- Roll formed AISI types 304 and 316 stainless steel are used to manufacture the cable trays, the superior mechanical characteristics and ultimate corrosion resistance give the advantage for the stainless steel to be used in harsh environment where chemicals or dyestuffs exist, as well, when higher yield and creep strength are required. On the other hand the heavy weight and high cost are considered as the main disadvantages for Stainless Steel.

## **Steel Products Finish**

### **Low-Carbon Steel**

- It is being called Mill-Galvanized, Pre-Galvanized or Electro-Galvanized.
- Galvanizing process is performed in the rolling mill, passing the materials through molten zinc chamber, and then delivered as galvanized materials, low thickness of zinc layer cannot help in protecting the materials for long periods, while fabrication processes on the materials such as cutting, punching, bending and welding remove the zinc layer and expose the surface to external environment, which results in corroded spots and product failure.
- Pre-Galvanized materials come in different coating thicknesses G90, G60, G40 or G20 which indicates how many ounces of zinc per square feet of steel surface.
- Pre-Galvanized finish can be suitable for dry indoor environments.

### **Hot Dip Galvanized After Fabrication**

- Hot Dip Galvanizing is applied on the black steel fabricated materials after going through the chemical pickling processes, and then dipped into the a bath of zinc salts, the whole surfaces are being covered and bonded to a pure zinc layer, which protects the steel against corrosion, a combination of zinc oxides, hydroxides, and carbonates forms a protective film protecting the zinc layer.
- The thickness of the zinc coating layer identified as per British standard (BS1461) and/or the client requirements which controls the life span of the product protection. and being achieved by immersion time in the bath, speed of removal and chemical pickling parameters.
- No fabrication shall be applied on articles after galvanizing, since, the galvanizing must take place after fabrication.
- Cleaning, filing and zinc touch up after galvanizing are being applied as shown in the British standard.
- Hot Dip Galvanized steel is highly recommended for outdoor, indoor and marine or harsh environments.

### **Hot Dip Galvanized After Fabrication with extra protective coating**

For hazardous locations where cable trays are exposed to high corrosion and severe environments, MASEICO can provide additional

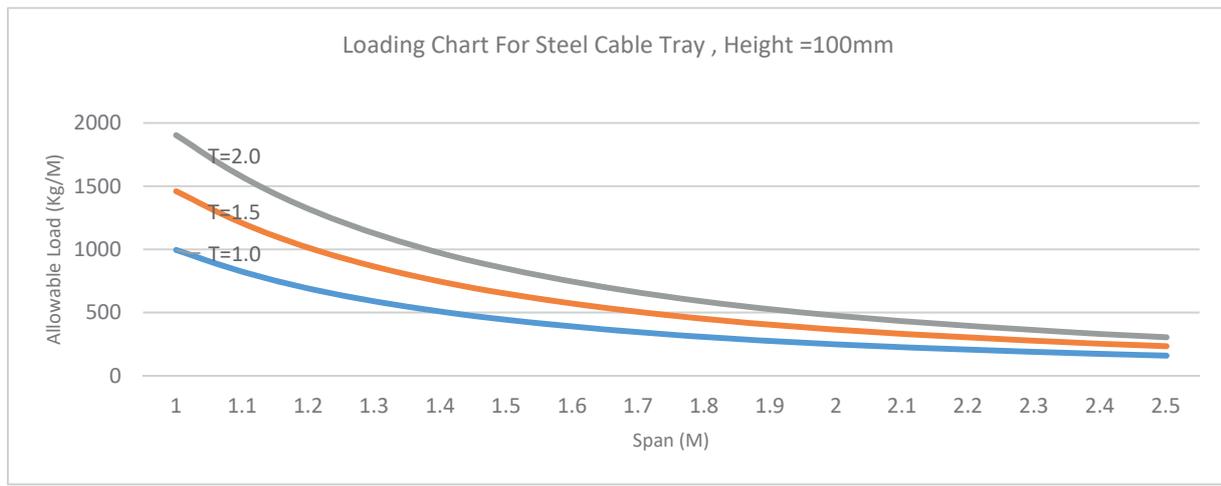
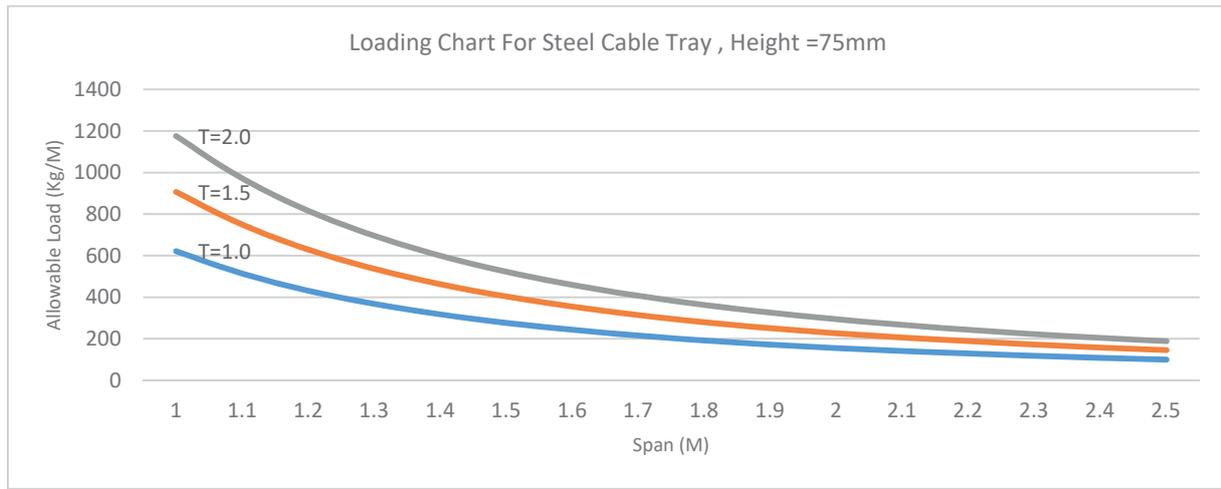
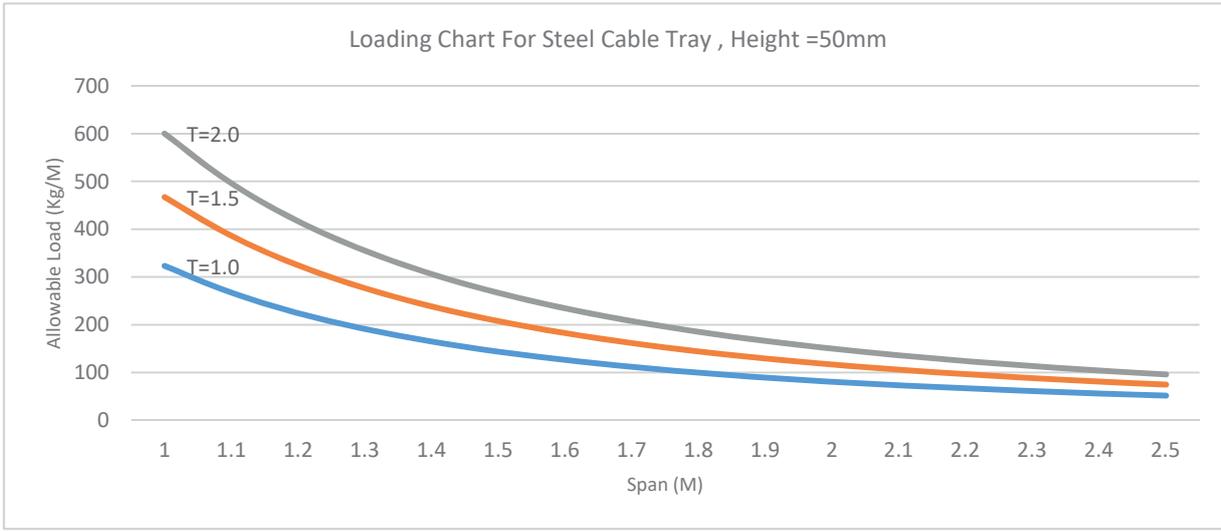
powder or liquid coating, Polyester, PVC, epoxy, polyurethane or any protective coat as per client request on top of hot dip galvanized materials, in order to have additional layer of protection which extends the materials life and durability.

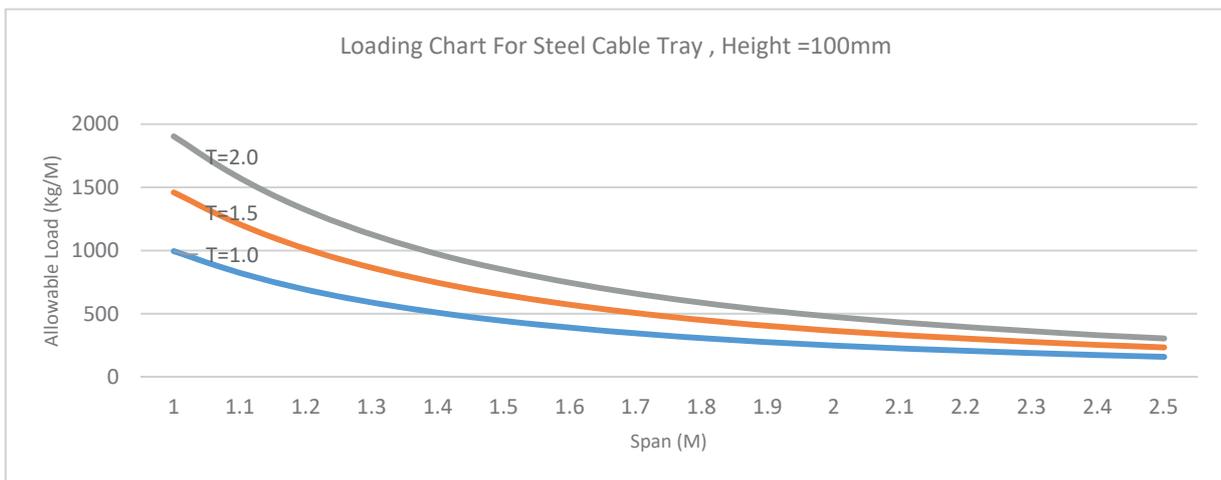
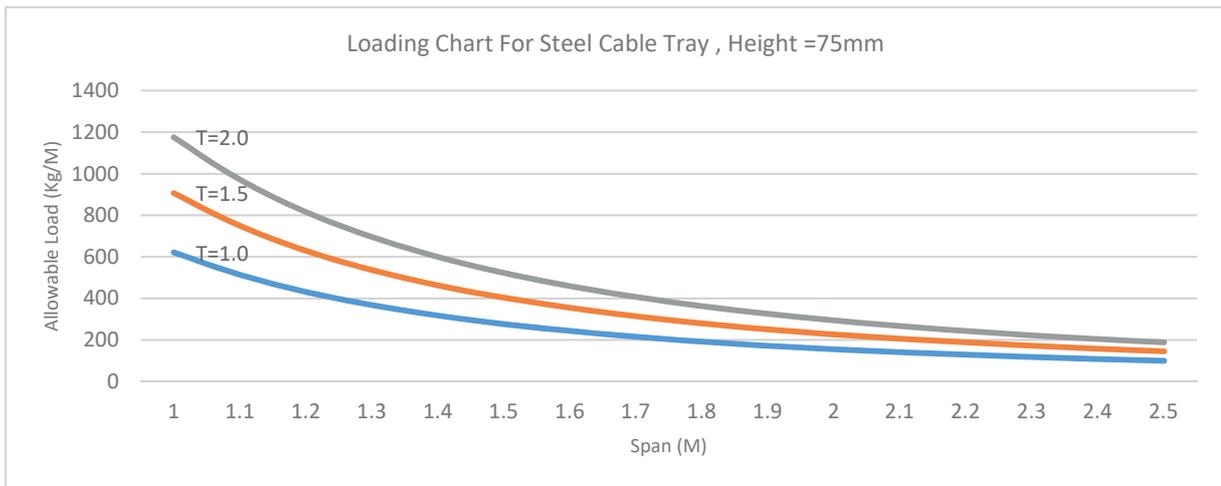
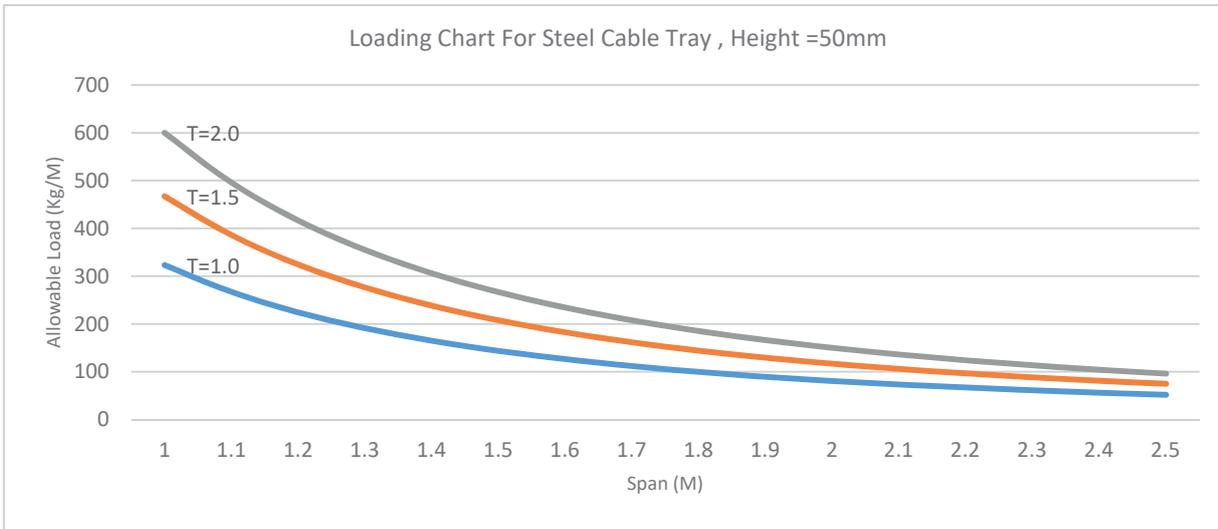
## **Hot Dip Galvanizing Plant**

MASEICO has its own state-of-the-art hot dip galvanizing facility which has been imported from one of best galvanizing plants manufacturer in the world. In order to provide superior quality for MASEICO products as well serving the external market galvanizing requirements according to the international standards: BS EN ISO 1461

The dimension of zinc bath is 7 meters long x 1.0 meters wide x 2.5 meters deep. The proven capacity of the plant is 4,000 MT per year. The galvanizing furnace is equipped with pulse fireburners which are controlled by a PLC system. while following the seven tank process and considering all the guidelines of the Pollution Control Board. The galvanizing facility is equipped with zinc and acid fumes extraction systems, Effluent Treatment Plant for waste acid and rinsing water which helps in controlling pollution.

Hot-dip galvanizing is the process of coating iron or steel with a zinc layer by passing the steel through a molten bath of zinc at a temperature of around 860°F (460°C). When exposed to the atmosphere, pure zinc reacts with oxygen to form zinc oxide, which further reacts with carbon dioxide to form zinc carbonate, a dull grey, fairly strong material that resists corrosion in many circumstances, protecting the steel from the corrosive elements. Galvanized steel is widely used in applications where rust resistance is needed, and can be identified by the crystallization pattern on the surface.





Load And Deflection data for steel cable ladder						w = Allowable Working Load (kg/M) d = Deflection at Midspan (mm) k = Deflection for each Kg of load (mm)											
						Allowable Load Capacity-Evenly distributed span (M). Simple beam- safety factor =1.5											
NEMA Class Load per Span	MASEICO System Code	Load Dep.	H	Flange	Thick.	1.8 M			2.4 M			3.1 M			3.7 M		
		mm	mm	mm	mm	w	d	k	w	d	k	w	d	k	w	d	k
8A	MLS-W-76-1.2-21-T-S	76	108	21	1.2	432.160	5.842	0.014	242.720	10.668	0.044	152.440	16.002	0.105	102.120	22.606	0.221
	MLS-W-102-1.2-21-T-S	102	133	21	1.2	566.840	4.572	0.008	310.800	7.874	0.025	187.960	11.684	0.062	122.840	15.748	0.128
	MLS-W-127-1.2-21-T-S	127	159	21	1.2	528.360	2.794	0.005	287.120	4.572	0.016	176.120	7.112	0.040	116.920	9.652	0.083
	MLS-W-152-1.2-21-T-S	152	184	21	1.2	621.600	2.286	0.004	335.960	4.064	0.012	205.720	5.588	0.027	136.160	7.620	0.056
8B	MLS-W-76-1.2-21-T-S	76	108	21	1.2	432.160	5.842	0.014	242.720	10.668	0.044	152.440	16.002	0.105	102.120	22.606	0.221
	MLS-W-102-1.2-21-T-S	102	133	21	1.2	566.840	4.572	0.008	310.800	7.874	0.025	187.960	11.684	0.062	122.840	15.748	0.128
	MLS-W-127-1.2-21-T-S	127	159	21	1.2	528.360	2.794	0.005	287.120	4.572	0.016	176.120	7.112	0.040	116.920	9.652	0.083
	MLS-W-152-1.2-21-T-S	152	184	21	1.2	621.600	2.286	0.004	335.960	4.064	0.012	205.720	5.588	0.027	136.160	7.620	0.056
8C	MLS-W-76-1.2-21-T-S	76	108	21	1.2	432.160	5.842	0.014	242.720	10.668	0.044	152.440	16.002	0.105	102.120	22.606	0.221
	MLS-W-102-1.2-21-T-S	102	133	21	1.2	566.840	4.572	0.008	310.800	7.874	0.025	187.960	11.684	0.062	122.840	15.748	0.128
	MLS-W-127-1.2-21-T-S	127	159	21	1.2	528.360	2.794	0.005	287.120	4.572	0.016	176.120	7.112	0.040	116.920	9.652	0.083
	MLS-W-152-1.2-21-T-S	152	184	21	1.2	621.600	2.286	0.004	335.960	4.064	0.012	205.720	5.588	0.027	136.160	7.620	0.056

Load And Deflection data for steel cable ladder						w = Allowable Working Load (kg/M) d = Deflection at Midspan (mm) k = Deflection for each Kg of load (mm)											
						Allowable Load Capacity-Evenly distributed span (M). Simple beam- safety factor =1.5											
NEMA Class Load per Span	MASEICO System Code	Load Dep.	H	Flange	Thick.	1.8 M			2.4 M			3.1 M			3.7 M		
		mm	mm	mm	mm	w	d	k	w	d	k	w	d	k	w	d	k
12A	MLS-W-76-1.2-21-T-S	76	108	21	1.2	432.160	5.842	0.014	242.720	10.668	0.044	152.440	16.002	0.105	102.120	22.606	0.221
	MLS-W-102-1.2-21-T-S	102	133	21	1.2	566.840	4.572	0.008	310.800	7.874	0.025	187.960	11.684	0.062	122.840	15.748	0.128
	MLS-W-127-1.2-21-T-S	127	159	21	1.2	528.360	2.794	0.005	287.120	4.572	0.016	176.120	7.112	0.040	116.920	9.652	0.083
	MLS-W-152-1.2-21-T-S	152	184	21	1.2	621.600	2.286	0.004	335.960	4.064	0.012	205.720	5.588	0.027	136.160	7.620	0.056
12B	MLS-W-76-1.2-21-T-S	76	108	21	1.2	532.800	6.604	0.012	293.040	11.684	0.040	183.520	17.780	0.097	124.320	24.892	0.200
	MLS-W-102-1.2-21-T-S	102	133	21	1.2	566.840	4.572	0.008	310.800	7.874	0.025	187.960	11.684	0.062	122.840	15.748	0.128
	MLS-W-127-1.2-21-T-S	127	159	21	1.2	528.360	2.794	0.005	287.120	4.572	0.016	176.120	7.112	0.040	116.920	9.652	0.083
	MLS-W-152-1.2-21-T-S	152	184	21	1.2	1006.400	3.048	0.003	485.440	4.826	0.010	269.360	6.604	0.025	158.360	7.874	0.050
12C	MLS-W-76-1.5-21-T-S	76	108	21	1.5	670.440	6.858	0.010	368.520	11.938	0.032	230.880	18.034	0.078	156.880	25.400	0.162
	MLS-W-102-1.2-21-T-S	102	133	21	1.2	674.880	5.080	0.008	361.120	8.382	0.023	224.960	12.954	0.058	152.440	18.034	0.118
	MLS-W-127-1.5-21-T-S	127	159	21	1.5	680.800	2.794	0.004	370.000	4.826	0.013	227.920	7.366	0.032	152.440	10.160	0.067
	MLS-W-152-1.2-21-T-S	152	184	21	1.2	1006.400	3.048	0.003	485.440	4.826	0.010	269.360	6.604	0.025	158.360	7.874	0.050

Load And Deflection data for STEEL cable ladder						w = Allowable Working Load (kg/M) d = Deflection at Midspan (mm) k = Deflection for each Kg of load (mm)																	
						Allowable Load Capacity-Evenly distributed span (M). Simple beam- safety factor =1.5																	
NEMA Class Load per Span	MASEICO System Code	Load Dep.	H	Flange	Thick.	1.8 M			2.4 M			3.1 M			3.7 M			4.9 M			6.1 M		
		mm	mm	mm	mm	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k
16A	MLS-W-76-1.2-32-T-S	76	108	32	1.2				429.20	13.462	0.031	269.36	20.574	0.076	186.48	43.434	0.233	96.20	48.514	0.737			
	MLS-W-102-1.2-32-T-S	102	133	32	1.2				565.36	10.668	0.019	362.60	16.764	0.046	251.60	23.876	0.095	127.28	39.116	0.457			
	MLS-W-127-1.2-32-T-S	127	159	32	1.2				396.64	5.080	0.013	245.68	7.874	0.032	164.28	10.922	0.066	85.84	18.034	0.305			
	MLS-W-152-1.2-32-T-S	152	184	32	1.2				476.56	4.318	0.009	294.52	6.604	0.022	196.84	9.144	0.046	102.12	14.732	0.203			
16B	MLS-W-76-1.5-32-T-S	76	108	32	1.5				563.88	14.224	0.025	361.12	22.352	0.062	250.12	32.258	0.129	130.24	52.832	0.610			
	MLS-W-102-1.2-32-T-S	102	133	32	1.2				565.36	10.668	0.019	362.60	16.764	0.046	251.60	23.876	0.095	127.28	39.116	0.457			
	MLS-W-127-1.2-32-T-S	127	159	32	1.2				630.48	7.874	0.012	383.32	11.684	0.030	253.08	15.748	0.062	127.28	25.146	0.305			
	MLS-W-152-1.2-32-T-S	152	184	32	1.2				476.56	4.318	0.009	294.52	6.604	0.022	196.84	9.144	0.046	111.00	16.002	0.203			
16C	MLS-W-76-1.9-32-T-S	76	108	32	1.9				720.76	14.732	0.020	461.76	23.114	0.050	319.68	33.274	0.104	167.24	54.864	0.483			
	MLS-W-102-1.5-32-T-S	102	133	32	1.5				657.12	10.668	0.016	404.04	16.002	0.040	275.28	22.606	0.082	148.00	38.354	0.381			
	MLS-W-127-1.5-32-T-S	127	159	32	1.5				849.52	8.890	0.010	543.16	13.970	0.026	362.60	19.304	0.053	182.04	30.988	0.254			
	MLS-W-152-1.2-32-T-S	152	184	32	1.2				745.92	6.350	0.009	452.88	9.398	0.021	298.96	12.954	0.043	149.48	20.320	0.203			

Load And Deflection data for STEEL cable ladder						w = Allowable Working Load (kg/M) d = Deflection at Midspan (mm) k = Deflection for each Kg of load (mm)																	
						Allowable Load Capacity-Evenly distributed span (M). Simple beam- safety factor =1.5																	
NEMA Class Load per Span	MASEICO System Code	Load Dep.	H	Flange	Thick.	1.8 M			2.4 M			3.1 M			3.7 M			4.9 M			6.1 M		
		mm	mm	mm	mm	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k
20A	MLS-W-76-1.5-32-T-S	76	108	32	1.5										250.12	32.258	0.129	130.24	52.832	0.610	76.96	75.692	1.448
	MLS-W-102-1.5-32-T-S	102	133	32	1.5										275.28	22.606	0.082	148.00	38.354	0.381	78.44	49.276	0.940
	MLS-W-127-1.5-32-T-S	127	159	32	1.5										362.60	19.304	0.053	182.04	30.988	0.254	97.68	40.386	0.610
	MLS-W-152-1.5-32-T-S	152	184	32	1.5										263.44	9.652	0.037	137.64	15.748	0.178	81.40	23.114	0.432
20B	MLS-W-76-1.9-38-T-S	76	108	38	1.9										371.48	34.544	0.093	193.88	56.896	0.432	113.96	82.042	1.067
	MLS-W-102-1.9-32-T-S	102	133	32	1.9										414.40	25.908	0.063	214.60	42.418	0.305	125.80	60.960	0.711
	MLS-W-127-1.5-32-T-S	127	159	32	1.5										398.12	20.320	0.051	205.72	32.512	0.229	119.88	46.228	0.559
	MLS-W-152-1.5-32-T-S	152	184	32	1.5										430.68	14.986	0.035	219.04	24.130	0.152	125.80	33.782	0.406
20C	MLS-W-76-2.5-38-T-S	76	108	38	2.5										534.28	32.004	0.060	242.72	52.324	0.330	148.00	78.486	0.330
	MLS-W-102-1.9-38-T-S	102	133	38	1.9										449.92	25.400	0.056	232.36	25.400	0.254	148.00	63.500	0.635
	MLS-W-127-1.9-32-T-S	127	159	32	1.9										438.08	20.066	0.046	224.96	20.066	0.203	155.40	48.514	0.457
	MLS-W-152-1.9-32-T-S	152	184	32	1.9										560.92	16.764	0.030	282.68	16.764	0.127	150.96	34.798	0.330

Load And Deflection data for ALUMINIUM cable ladder						w = Allowable Working Load (kg/M) d = Deflection at Midspan (mm) k = Deflection for each Kg of load (mm)											
Allowable Load Capacity-Evenly distributed span (M). Simple beam- safety factor =1.5																	
NEMA Class Load per Span	MASEICO System Code	Load Dep.	H	Flange	Thick.	1.8 M			2.4 M			3.1 M			3.7 M		
		mm	mm	mm	mm	w	d	k	w	d	k	w	d	k	w	d	k
8A	MLS-W-76-1.5-20.6-T-AL	76	108	20.6	1.5	267.88	8.64	0.032238	150.96	15.24	0.100954	96.2	23.88	0.248191	66.6	34.544	0.518679
	MLS-W-102-1.5-20.6-T-AL	102	133	20.6	1.5	479.52	8.38	0.01748	269.36	14.986	0.055636	173.16	22.1	0.127616	113.96	32.004	0.280835
	MLS-W-127-2-20.6-T-AL	127	159	20.6	2	531.32	5.59	0.010517	282.68	9.398	0.033246	229.4	13.97	0.060898	111	18.796	0.169333
	MLS-W-152-1.5-20.6-T-AL	152	184	20.6	1.5	615.68	4.57	0.007426	327.08	7.874	0.024074	196.84	22.1	0.112264	128.76	15.748	0.122305
8B	MLS-W-76-1.5-20.6-T-AL	76	108	20.6	1.5	267.88	8.64	0.032238	150.96	15.24	0.100954	96.2	23.88	0.248191	66.6	34.544	0.518679
	MLS-W-102-1.5-20.6-T-AL	102	133	20.6	1.5	479.52	8.38	0.01748	269.36	14.986	0.055636	173.16	22.1	0.127616	113.96	32.004	0.280835
	MLS-W-127-2-20.6-T-AL	127	159	20.6	2	531.32	5.59	0.010517	282.68	9.398	0.033246	170.2	13.97	0.08208	111	18.796	0.169333
	MLS-W-152-1.5-20.6-T-AL	152	184	20.6	1.5	615.68	4.57	0.007426	327.08	7.874	0.024074	196.84	22.1	0.112264	128.76	15.748	0.122305
8C	MLS-W-76-1.5-20.6-T-AL	76	108	20.6	1.5	267.88	8.64	0.032238	150.96	15.24	0.100954	96.2	23.88	0.248191	66.6	34.544	0.518679
	MLS-W-102-1.5-20.6-T-AL	102	133	20.6	1.5	479.52	8.38	0.01748	269.36	14.986	0.055636	173.16	22.1	0.127616	113.96	32.004	0.280835
	MLS-W-127-2-20.6-T-AL	127	159	20.6	2	531.32	5.59	0.010517	282.68	9.398	0.033246	170.2	13.97	0.08208	111	18.796	0.169333
	MLS-W-152-1.5-20.6-T-AL	152	184	20.6	1.5	615.68	4.57	0.007426	327.08	7.874	0.024074	196.84	22.1	0.112264	128.76	15.748	0.122305

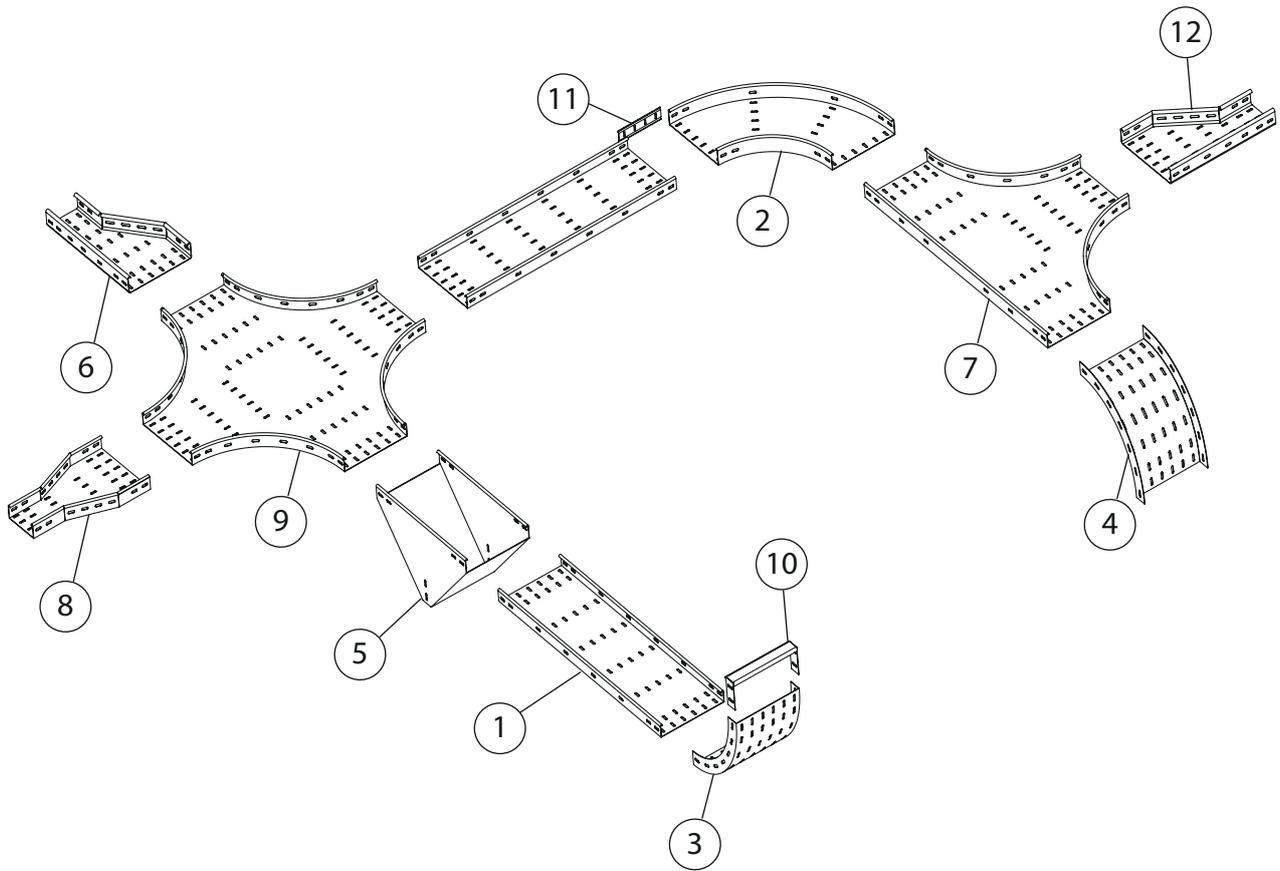
Load And Deflection data for ALUMINIUM cable ladder						w = Allowable Working Load (kg/M) d = Deflection at Midspan (mm) k = Deflection for each Kg of load (mm)											
Allowable Load Capacity-Evenly distributed span (M). Simple beam- safety factor =1.5																	
NEMA Class Load per Span	MASEICO System Code	Load Dep.	H	Flange	Thick.	1.8 M			2.4 M			3.1 M			3.7 M		
		mm	mm	mm	mm	w	d	k	w	d	k	w	d	k	w	d	k
12A	MLS-W-76-1.2-21-T-AL	76	108	20.6	1.5	328.56	8.89	0.027057	185	16.002	0.086497	118.4	25.15	0.212382	81.4	36.068	0.443096
	MLS-W-102-1.2-21-T-AL	102	133	20.6	1.5	479.52	8.38	0.01748	269.36	14.986	0.055636	173.16	22.1	0.127616	113.96	32.004	0.280835
	MLS-W-127-1.2-21-T-AL	127	159	20.6	2	531.32	5.59	0.010517	282.68	9.398	0.033246	170.2	13.97	0.08208	111	18.796	0.169333
	MLS-W-152-1.2-21-T-AL	152	184	20.6	1.5	615.68	4.57	0.007426	327.08	7.874	0.024074	196.84	11.68	0.059358	128.76	15.748	0.122305
12B	MLS-W-76-1.2-21-T-AL	76	108	20.6	2	523.92	11.4	0.021816	282.68	19.304	0.068289	173.16	28.96	0.167221	115.44	39.878	0.345444
	MLS-W-102-1.2-21-T-AL	102	133	20.6	1.5	479.52	8.38	0.01748	269.36	14.986	0.055636	173.16	22.1	0.127616	113.96	32.004	0.280835
	MLS-W-127-1.2-21-T-AL	127	159	20.6	2	531.32	5.59	0.010517	282.68	9.398	0.033246	170.2	13.97	0.08208	111	18.796	0.169333
	MLS-W-152-1.2-21-T-AL	152	184	20.6	1.5	615.68	4.57	0.007426	327.08	7.874	0.024074	196.84	11.68	0.059358	128.76	15.748	0.122305
12C	MLS-W-76-1.5-21-T-AL	76	108	20.6	2.5	663.04	9.91	0.01494	371.48	17.526	0.047179	238.28	27.43	0.115125	165.76	39.37	0.237512
	MLS-W-102-1.2-21-T-AL	102	133	20.6	2	583.12	7.87	0.013503	328.56	13.97	0.042519	210.16	21.84	0.10394	148	31.496	0.212811
	MLS-W-127-1.5-21-T-AL	127	159	20.6	2	710.4	6.1	0.008581	380.36	10.16	0.026712	230.88	15.24	0.066008	150.96	20.574	0.136288
	MLS-W-152-1.2-21-T-AL	152	184	20.6	2.5	799.2	4.32	0.005403	423.28	7.366	0.017402	254.56	10.92	0.042905	164.28	14.478	0.08813

NEMA Class	Load per Span	MASEICO System Code	Load Dep.	H	Flange	Thick.	1.8 M			2.4 M			3.1 M			3.7 M			4.9 M			6.1 M		
			mm	mm	mm	mm	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k
			mm	mm	mm	mm	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k
16A	MLS-W-76-1.5-20.6-T-AL	76	108	20.6	2.5				371.48	17.526	0.047179	238.28	27.432	0.115125	165.76	39.37	0.237512	75.48	57.404	0.760519	37	69.85	1.887838	
	MLS-W-102-1.5-20.6-T-AL	102	133	31.75	2.5				384.8	11.176	0.029044	245.68	17.526	0.071337	142.08	20.828	0.146593	75.48	34.544	0.457658	41.44	46.482	1.12167	
	MLS-W-127-2-20.6-T-AL	127	159	31.75	2				404.04	9.398	0.02326	229.4	12.954	0.056469	149.48	17.526	0.117246	75.48	27.94	0.370164	35.52	32.512	0.915315	
	MLS-W-152-1.5-20.6-T-AL	152	184	31.75	2				420.32	6.604	0.015712	269.36	10.414	0.038662	162.8	13.208	0.08113	76.96	19.812	0.257432	44.4	27.94	0.629279	
16B	MLS-W-76-1.5-20.6-T-AL	76	108	31.75	2				506.16	18.288	0.036131	324.12	28.448	0.08777	224.96	40.894	0.181783	121.36	69.596	0.573467	76.96	108.458	1.409278	
	MLS-W-102-1.5-20.6-T-AL	102	133	31.75	3				516.52	12.954	0.025079	330.04	20.32	0.061568	229.4	29.21	0.127332	116.92	46.99	0.401899	75.48	73.406	0.972523	
	MLS-W-127-2-20.6-T-AL	127	159	31.75	1.5				562.4	12.446	0.02213	328.56	17.526	0.053342	227.92	25.4	0.111443	115.44	40.894	0.354245	74	63.754	0.861541	
	MLS-W-152-1.5-20.6-T-AL	152	184	38.1	1.5				557.96	8.128	0.014567	356.68	12.7	0.035606	220.52	16.256	0.073717	115.44	26.924	0.233229	74	41.91	0.566351	
16C	MLS-W-76-1.5-20.6-T-AL	76	108	31.75	2.5				657.12	18.034	0.027444	420.32	17.78	0.042301	278.24	38.862	0.139671	156.88	69.342	0.442007	96.2	103.378	1.074615	
	MLS-W-102-1.5-20.6-T-AL	102	133	31.75	2				777	13.97	0.017979	497.28	21.844	0.043927	344.84	31.496	0.091335	176.12	51.054	0.289882	112.48	79.756	0.709068	
	MLS-W-127-2-20.6-T-AL	127	159	44.45	2				711.88	10.414	0.014629	455.84	16.256	0.035662	318.2	23.368	0.073438	179.08	41.402	0.231193	113.96	64.77	0.568357	
	MLS-W-152-1.5-20.6-T-AL	152	184	38.1	1.5				802.16	11.176	0.013932	470.64	15.748	0.033461	327.08	22.86	0.069891	176.12	38.862	0.220656	112.48	60.706	0.539705	

Load And Deflection data for ALUMINIUM cable ladder		w = Allowable Working Load (kg/M) d = Deflection at Midspan (mm) k = Deflection for each Kg of load (mm) Allowable Load Capacity-Evenly distributed span (M). Simple beam- safety factor =1.5																							
NEMA Class	Load per Span	MASEICO System Code	Load Dep.	H	Flange	Thick.	1.8 M			2.4 M			3.1 M			3.7 M			4.9 M			6.1 M			
			mm	mm	mm	mm	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	w	d	k	
20A	MLS-W-76-1.2-21-T-AL	76	108	31.75	2												224.96	40.894	0.181783	121.36	69.596	0.573467	76.96	108.458	1.409278
	MLS-W-102-1.2-21-T-AL	102	133	31.75	3												229.4	38.354	0.167193	116.92	46.99	0.401899	75.48	73.406	0.972523
	MLS-W-127-1.2-21-T-AL	127	159	31.75	1.5												227.92	25.4	0.111443	115.44	40.894	0.354245	74	63.754	0.861541
	MLS-W-152-1.2-21-T-AL	152	184	38.1	1.5												327.08	22.86	0.069891	176.12	38.862	0.220656	112.48	60.706	0.539705
20B	MLS-W-76-1.2-21-T-AL	76	108	38.1	2												331.52	38.862	0.117224	177.6	65.786	0.370417	113.96	102.87	0.902685
	MLS-W-102-1.2-21-T-AL	102	133	31.75	2												344.84	31.496	0.091335	176.12	51.054	0.289882	112.48	79.756	0.709068
	MLS-W-127-1.2-21-T-AL	127	159	44.45	2												318.2	23.368	0.073438	179.08	41.402	0.231193	113.96	64.77	0.568357
	MLS-W-152-1.2-21-T-AL	152	184	38.1	1.5												327.08	22.86	0.069891	176.12	38.862	0.220656	112.48	60.706	0.539705
20C	MLS-W-76-1.5-21-T-AL	76	108	38.1	2.5												441.04	45.466	0.103088	238.28	77.978	0.327254	152.44	121.666	0.798124
	MLS-W-102-1.2-21-T-AL	102	133	31.75	2.5												429.2	34.29	0.079893	230.88	58.42	0.253032	148	91.186	0.616122
	MLS-W-127-1.5-21-T-AL	127	159	44.45	2.5												467.68	31.242	0.066802	263.44	55.626	0.211152	168.72	87.122	0.51637
	MLS-W-152-1.2-21-T-AL	152	184	50	2												463.24	23.622	0.050993	260.48	42.164	0.16187	167.24	65.786	0.393363



## Cable Trays Systems



**1: Straight**

**2: 90° Horizontal Elbow**

**3: 90° Inside Vertical Elbow**

**4: 90° outside Vertical Elbow**

**5: Vertical Tee**

**6: Left Hand Reducer**

**7: Horizontal Tee**

**8: Straight Reducer**

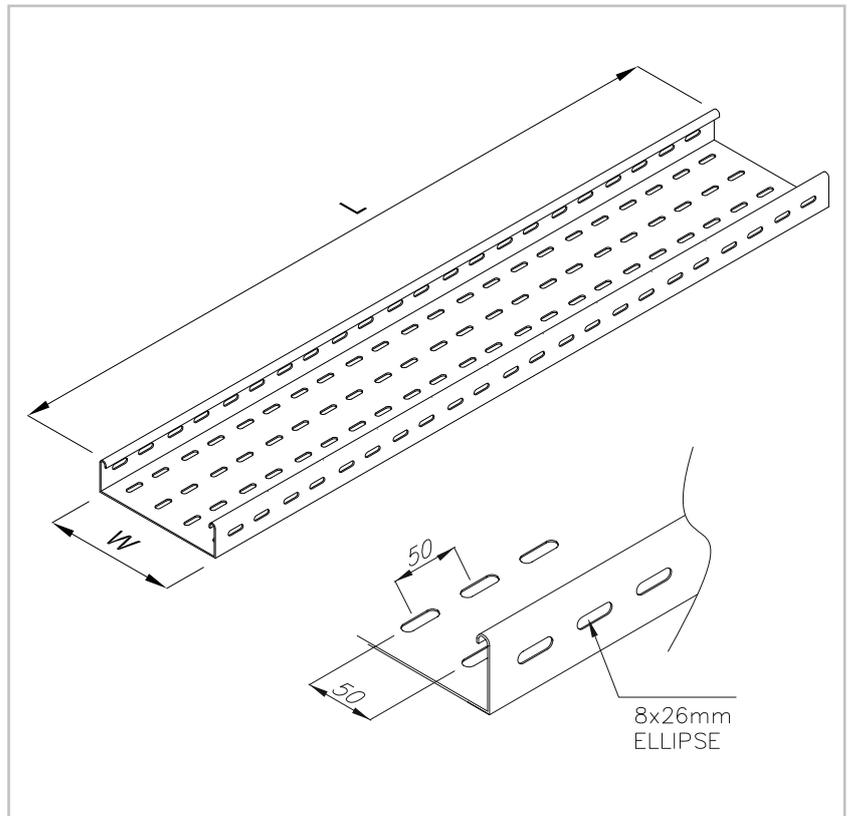
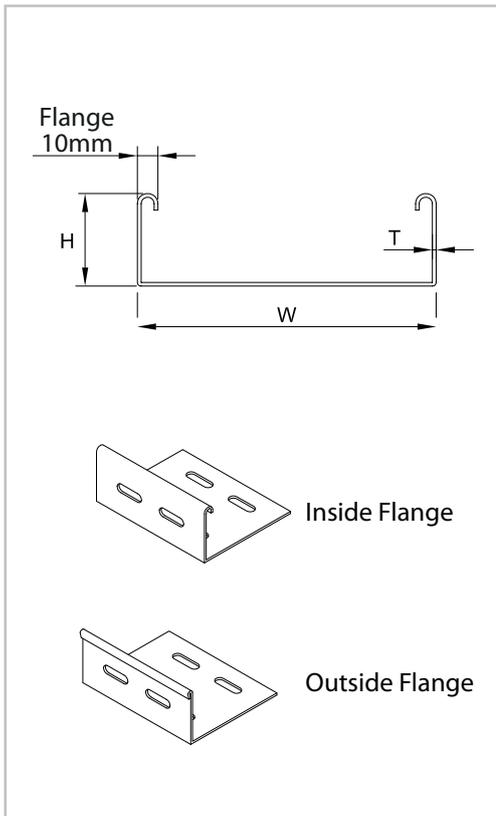
**9: Cross**

**10: Blind End**

**11: Straight Joint**

**12: Right Hand Reducer**

## Straight Perforated Cable Trays



### Ordering Instructions For Straight Perforated Cable Trays

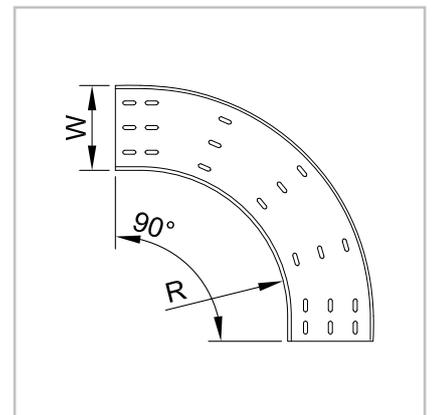
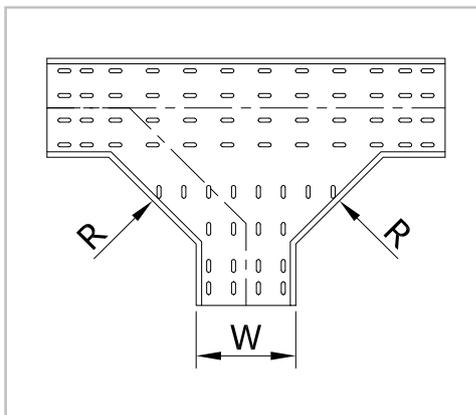
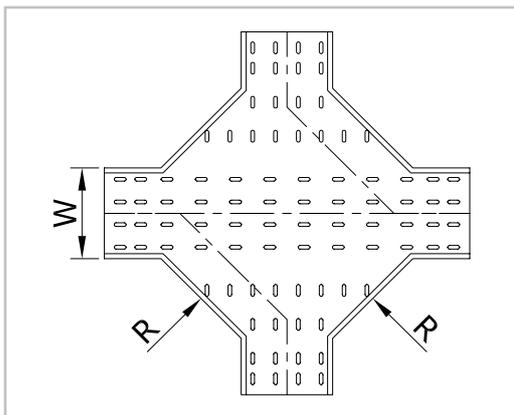
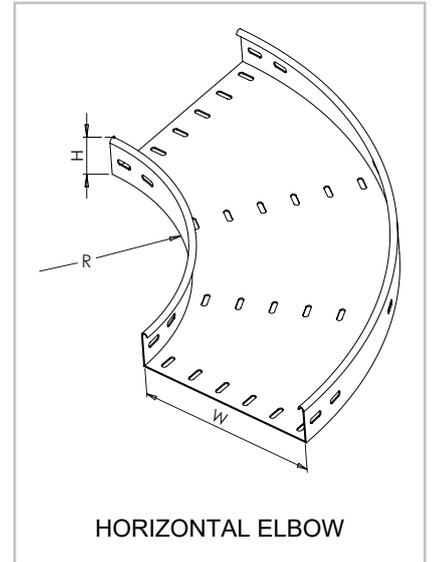
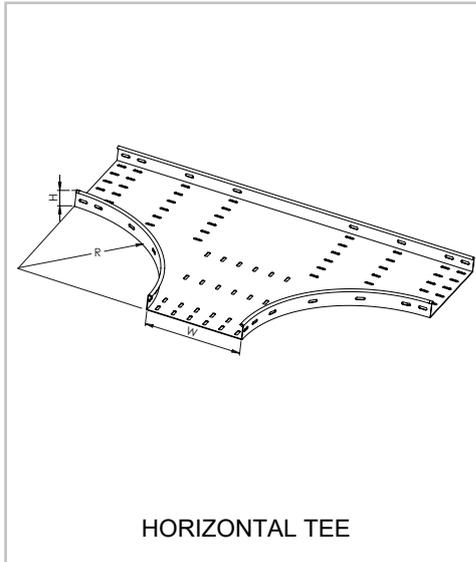
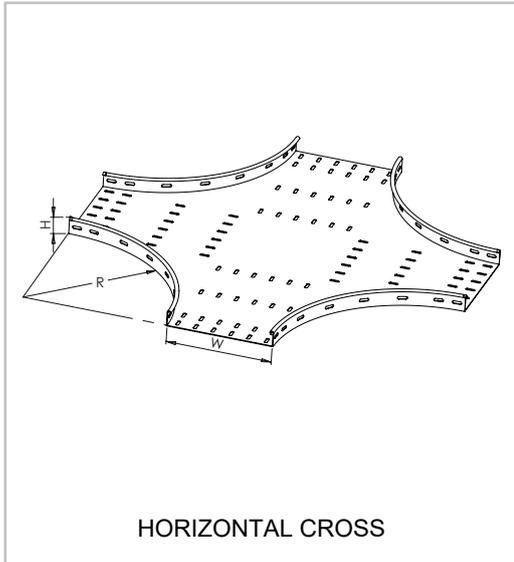
**M P S - W - H - T - L - M**

MASEICO	M for Manufacturer Name	←
Punching	P (Perforated) , S (Solid - Non Perforated)	←
Shape	S ( Straight )	←
Width (mm)	Standard Widthes : 50 , 100 , 150 , 200 , 300 , 400 , 500 , 600 , 900	←
Side Height (mm)	Standard Heights : 35 , 50 , 75 , 100	←
Thickness (mm)	Standard Thicknesses : 1.0 , 1.2 , 1.3 , 1.5 , 2.0 , 2.5	←
Length (m)	Standard Lengths : 1.5 , 2 , 2.44 , 3	←
Material type	GI (Pre-galv Steel) , HDG (Hot Dip Galv Steel) , AL (Aluminum) , SS (Stainless Steel)	←

- Above lengths, thickness and side heights are standard figures, any customized dimensions can be manufactured upon client request, while, the requested dimensions can be inserted in the code accordingly.
- Shown perforation type in above drawing is B-class (according to perforation area ratio) while, C-class or any other class can be manufactured according to client/project request.
- Hot dip galvanizing process is being performed according to BS:EN:1461. Any required coating thickness more than the standard specified can be achieved based on client/project request.

# MASEICO

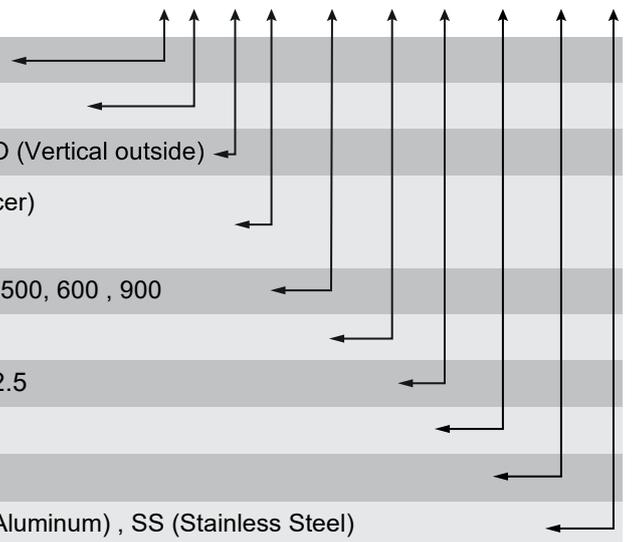
## Perforated Cable Trays Fittings



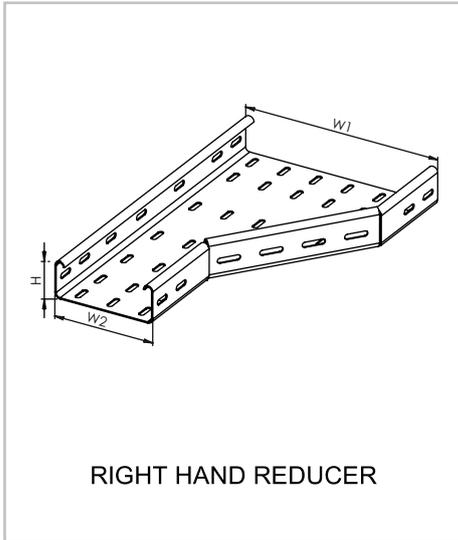
### Ordering instructions for perforated cable trays fittings

MASEICO	M for manufacturer name	←
Punching	P (Perforated) , S (Solid - Non perforated)	←
Direction	H (Horizontal) , V (Vertical) , VI (Vertical Inside) , VO (Vertical outside)	←
Shape	E (Elbow) , T (Tee) , C (Cross) , SR (Straight Reducer) RR (Right hand reducer) , LR (Left hand reducer)	←
Width (mm)	Standard Widthes : 50 , 100 , 150 , 200 , 300 , 400 , 500 , 600 , 900	←
Side Height (mm)	Standard Heights : 35 , 50 , 75 , 100	←
Thickness (mm)	Standard Thicknesses : 1.0 , 1.2 , 1.3 , 1.5 , 2.0 , 2.5	←
Radius (mm)	Standard Radii : 300 , 600	←
Degree	Standard Degrees : 30 , 45 , 60 , 90	←
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	←

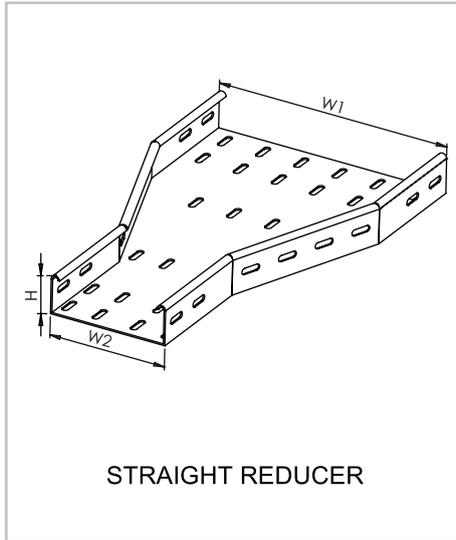
**MPDS-W-H-T-R-C-M**



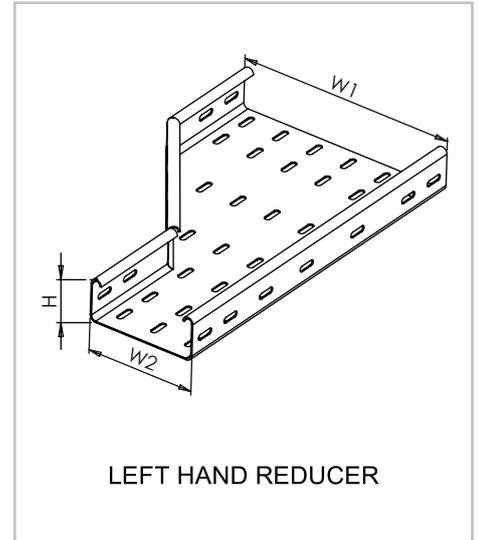
## Perforated Cable Trays Fittings



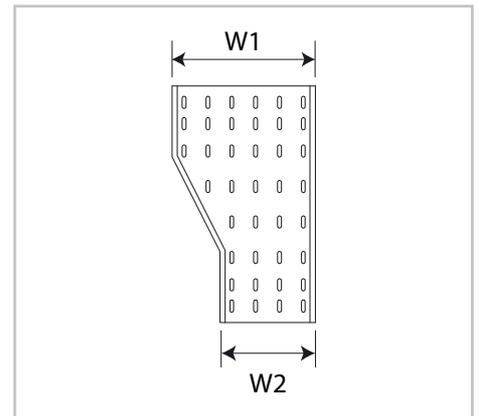
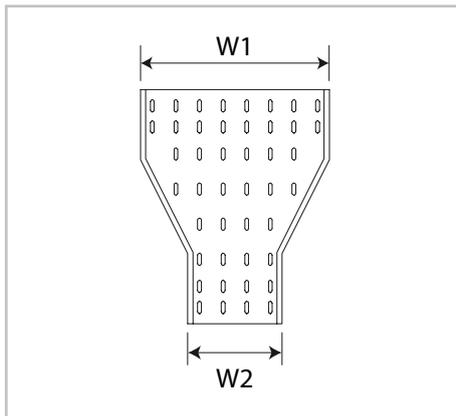
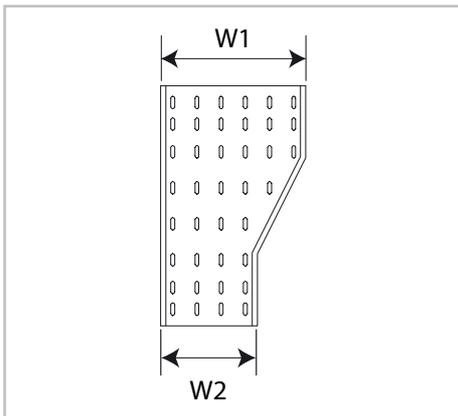
RIGHT HAND REDUCER



STRAIGHT REDUCER



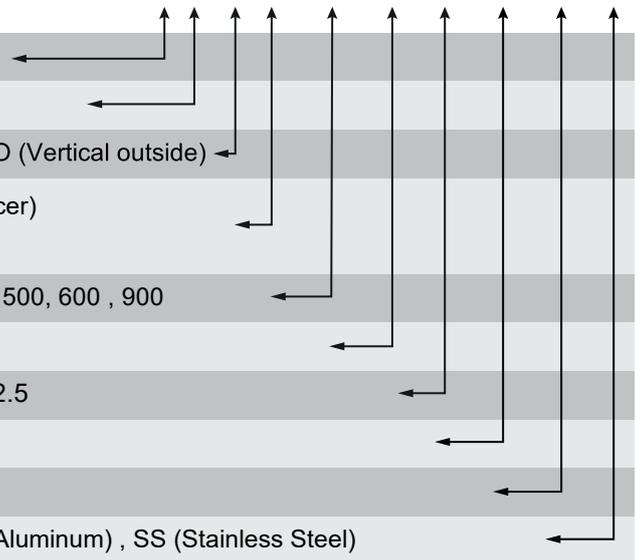
LEFT HAND REDUCER



### Ordering instructions for perforated cable trays fittings

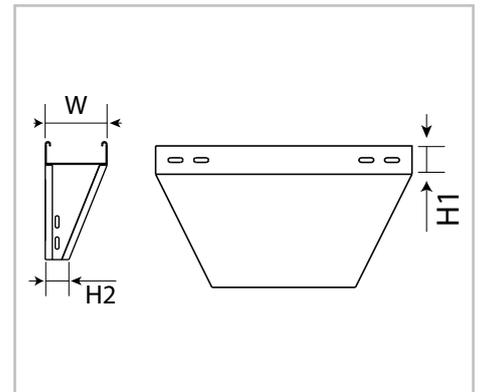
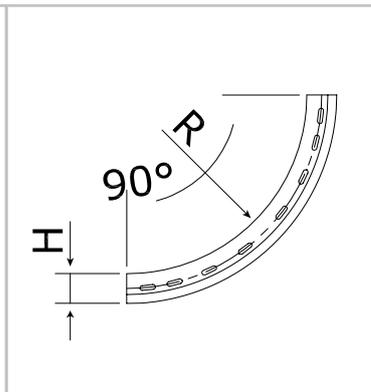
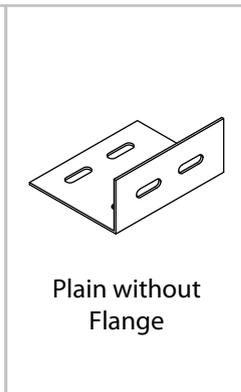
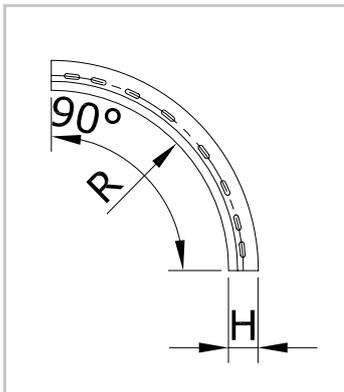
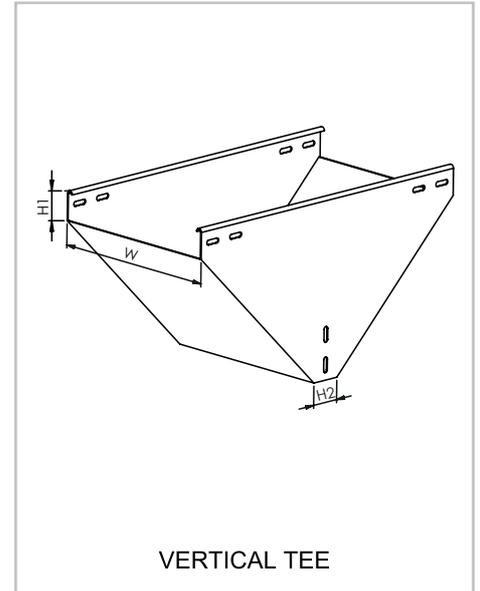
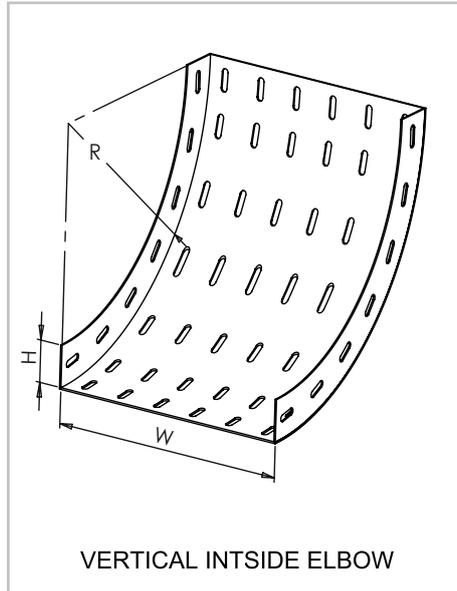
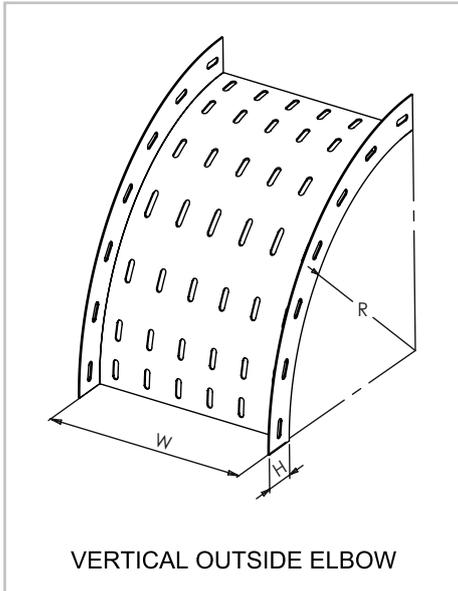
MASEICO	M for manufacturer name	←
Punching	P (Perforated) , S (Solid - Non perforated)	←
Direction	H (Horizontal) , V (Vertical) , VI (Vertical Inside) , VO (Vertical outside)	←
Shape	E (Elbow) , T (Tee) , C (Cross) , SR (Straight Reducer) RR (right hand reducer) , LR (left hand reducer)	←
Width (mm)	Standard Widthes : 50 , 100 , 150 , 200 , 300 , 400 , 500 , 600 , 900	←
Side Height (mm)	Standard Heights : 35 , 50 , 75 , 100	←
Thickness (mm)	Standard Thicknesses : 1.0 , 1.2 , 1.3 , 1.5 , 2.0 , 2.5	←
Radius (mm)	Standard Radii : 300 , 600	←
Degree	Standard Degrees : 30 , 45 , 60 , 90	←
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	←

**MPDS-W-H-T-R-C-M**



# MASEICO

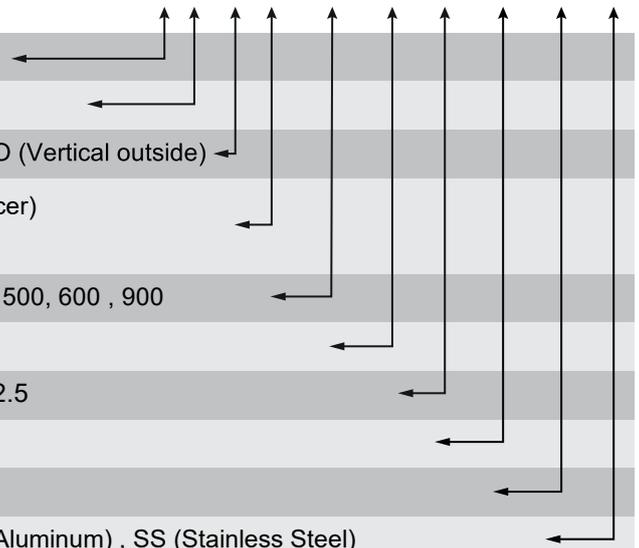
## Perforated Cable Trays Fittings



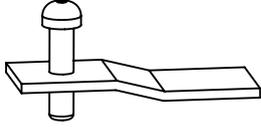
### Ordering instructions for perforated cable trays fittings

MASEICO	M for manufacturer name	←
Punching	P (Perforated) , S (Solid - Non perforated)	←
Direction	H (Horizontal) , V (Vertical) , VI (Vertical Inside) , VO (Vertical outside)	←
Shape	E (Elbow) , T (Tee) , C (Cross) , SR (Straight Reducer) RR (right hand reducer) , LR (left hand reducer)	←
Width (mm)	Standard Widthes : 50 , 100 , 150 , 200 , 300, 400, 500, 600 , 900	←
Side Height (mm)	Standard Heights : 35 , 50 , 75 , 100	←
Thickness (mm)	Standard Thicknesses : 1.0 , 1.2 , 1.3 , 1.5 , 2.0 , 2.5	←
Radius (mm)	Standard Radii : 300 , 600	←
Degree	Standard Degrees : 30, 45, 60, 90	←
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	←

### MPDS-W-H-T-R-C-M

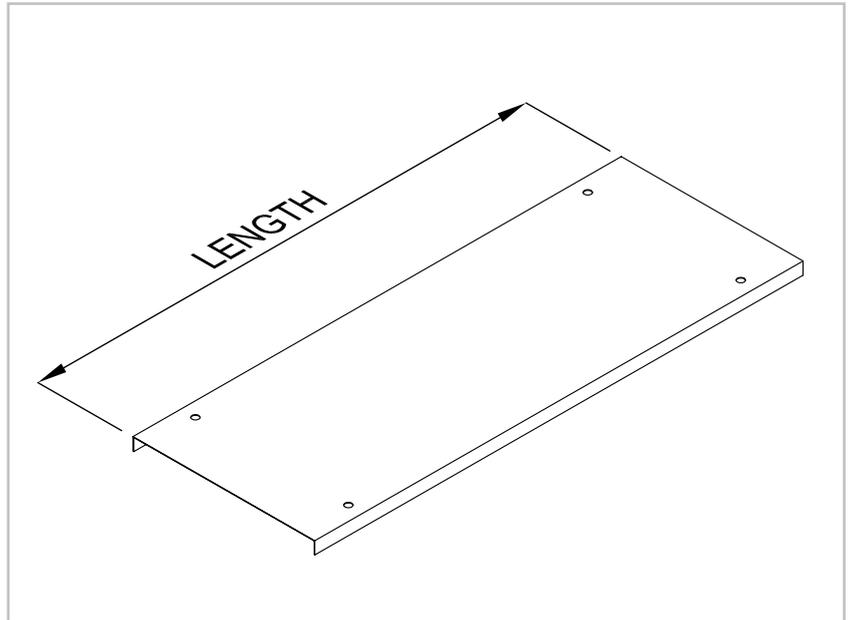


## Covers For Straight Perforated Cable Trays



**Cover Lock device**

Code CLD



### Ordering instructions for straight perforated cable trays covers

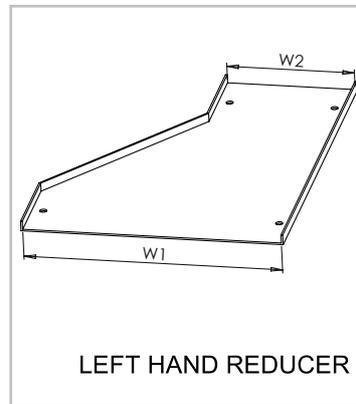
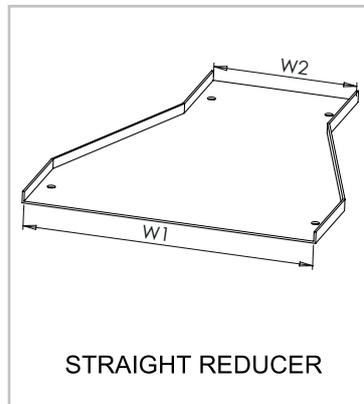
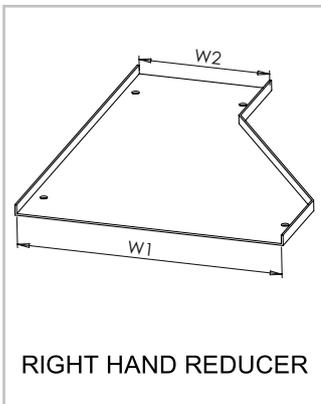
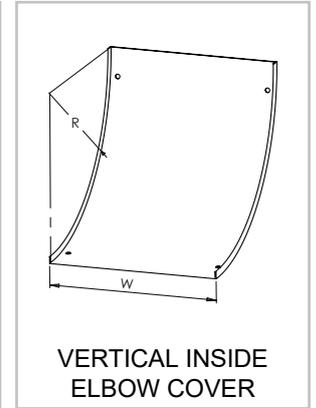
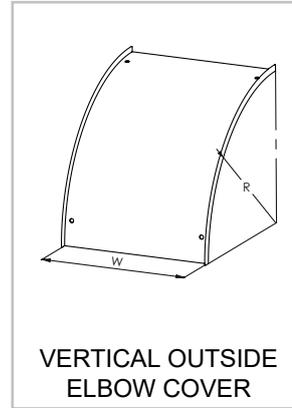
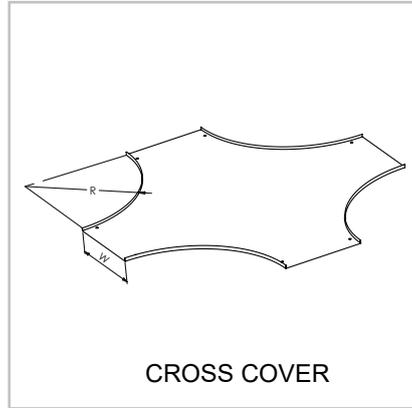
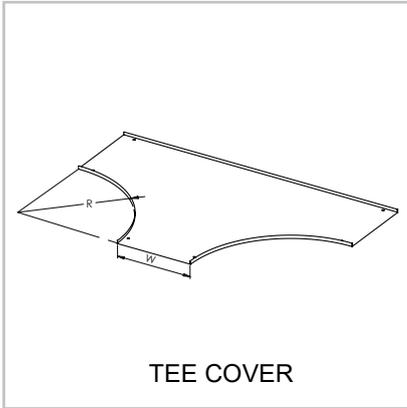
**M P SC - W - T - L - M**

MASEICO	M for manufacturer name	←
for tray type	P (for perforated type) , L(For ladder type)	←
Shape	SC(For straight cover)	←
Width (mm)	Tray Standard Widthes : 50 , 100 , 150 , 200 , 300, 400, 500, 600 , 900	←
Thickness (mm)	Standard Thicknesses : 1.0 , 1.5 , 2.0 , 2.5	←
Length (m)	Standard Lengths : 1.0 , 1.2 , 1.3 , 1.5 , 2.0 , 2.5	←
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	←

- Above lengths, thickness and side heights are standard figures, any customized dimensions can be manufactured upon client request, while, the requested dimensions can be inserted in the code accordingly.
- Shown perforation type in above drawing is B-class (according to perforation area ratio) while, C-class or any other class can be manufactured according to client/project request.
- Hot dip galvanizing process is being performed according to B S:EN:1461. Any required coating thickness more than the standard specified can be achieved based on client/project request.

# MASEICO

## Covers For Perforated Cable Trays Fittings

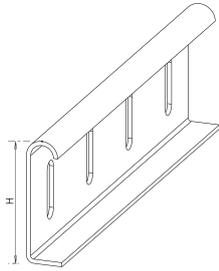


### Ordering instructions for perforated cable trays fittings covers

### MPDS-W-T-R-C-M

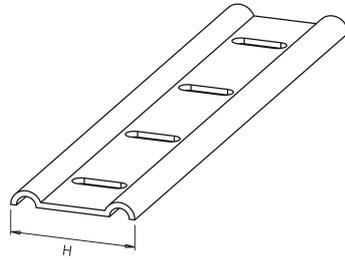
MASEICO	M for manufacturer name	
For tray type	P (For perforated type) , L(For ladder type)	
Direction	H (Horizontal) , V (Vertical) , VI (Vertical Inside) , VO (Vertical outside)	
Shape	EC (Elbow Cover), TC (Tee Cover), CC (Cross Cover), SRC (Straight Reducer Cover) RRC (Right hand reducer Cover), LRC (Left hand reducer Cover)	
Width (mm)	Standard Widthes : 50 , 100 , 150 , 200 , 300, 400, 500, 600 , 900	
Thickness (mm)	Standard Thicknesses : 1.0 , 1.2 , 1.3 , 1.5 , 2.0 , 2.5	
Radius (mm)	Standard Radii : 300 , 600	
Degree	Standard Degrees : 30, 45, 60, 90	
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	

## Accessories For Perforated Cable Trays Fittings



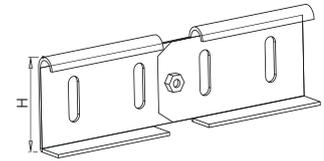
**Angle Joint**

Code: PAJ - H  
H: Cable Tray Height



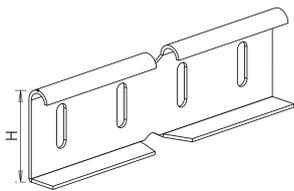
**Straight Joint**

Code: PSJ - H  
H: Cable Tray Height



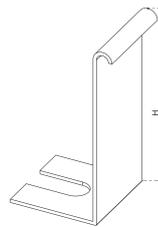
**Vertical hinged Joint**

Code: PVHJ - H  
H: Cable Tray Height



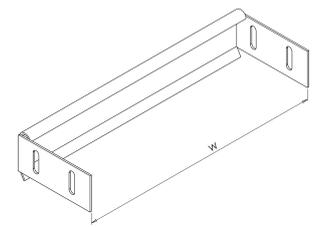
**Horizontal Angle Joint**

Code: PHAJ - H  
H: Cable Tray Height



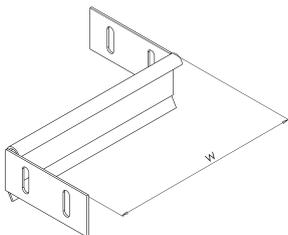
**Hod Down Clamp**

Code: PHDC - H  
H: Cable Tray Height



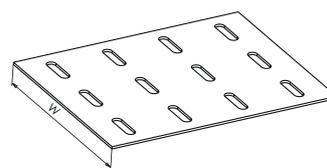
**End Plate**

Code: PEP - W  
W: Cable Tray Width



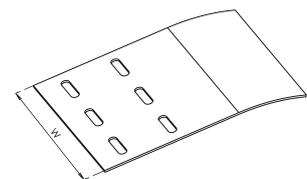
**Reducing Joint**

Code: PRJ - W  
W: Reduction Width



**Fish Plate**

Code: PFP - W  
W: Cable Tray Width



**Drop Out**

Code: DO - W  
W: Cable Tray Width

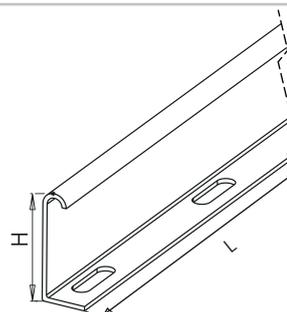
**Separator**

Code : PS - H-L-T

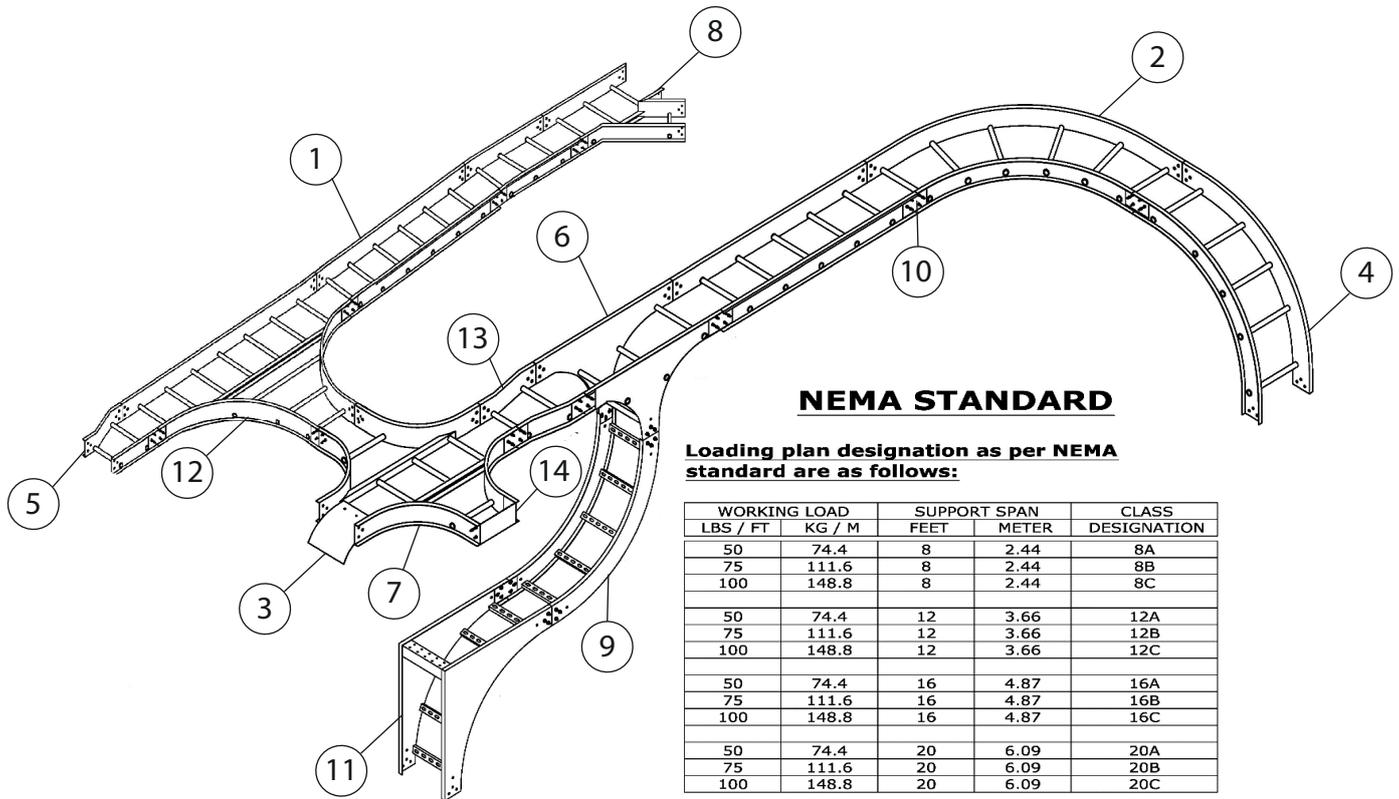
H for tray height (mm)

L for sepatoe length (m)

T for thickness (mm)



## Cable Ladders Systems



**1: Straight**

**2: 90° Horizontal Elbow**

**3: Drop-out**

**4: 90° Outside Vertical Elbow**

**5: Left Hand Reducer**

**6: Vertical Tee**

**7: Horizontal Cross**

**8: Left Hand 'Y' Branch**

**9: 90° Inside Vertical Elbow**

**10: Connector**

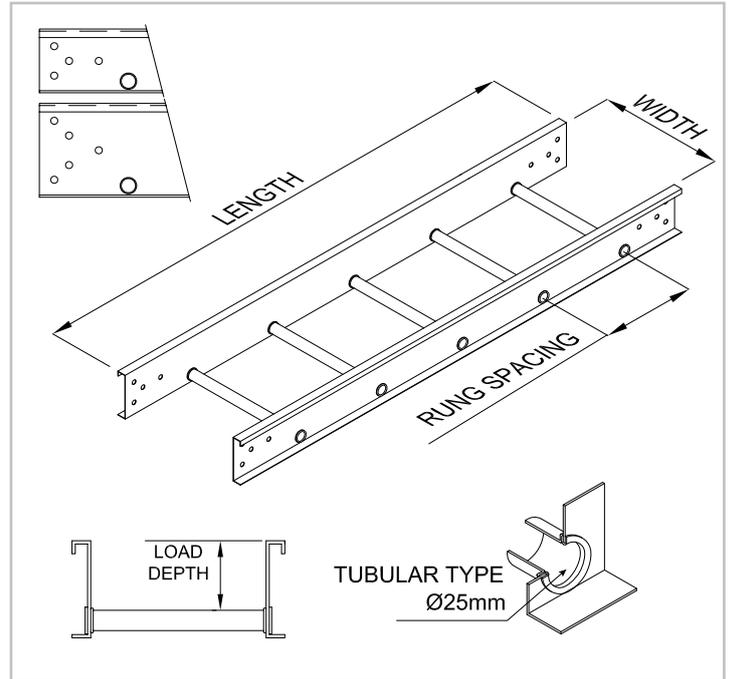
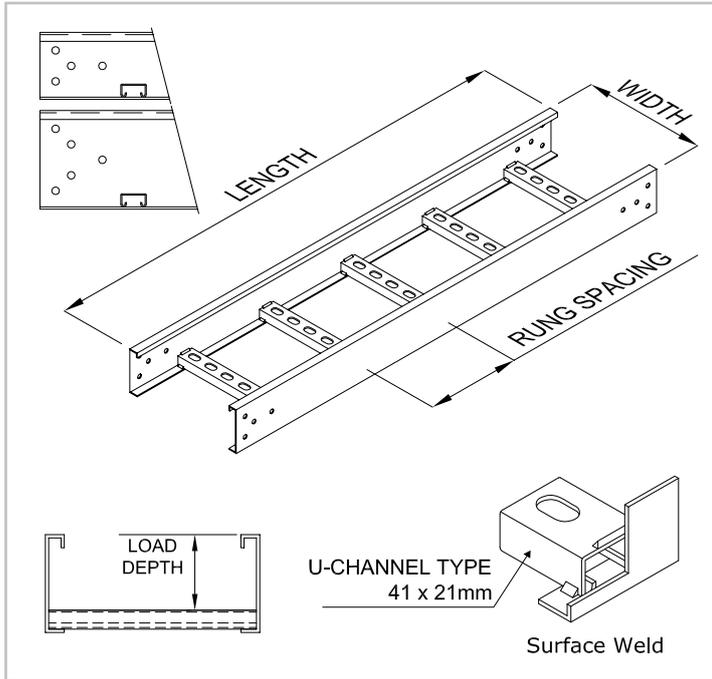
**11: 90° Vertical Cable Support Elbow**

**12: Horizontal Tee**

**13: Straight Reducer**

**14: Blind End**

## Straight Cable Ladders



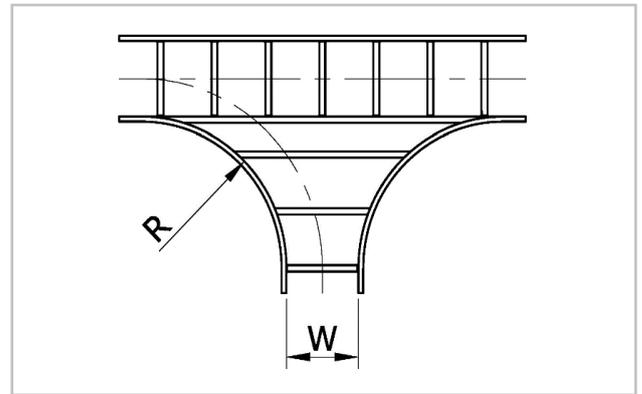
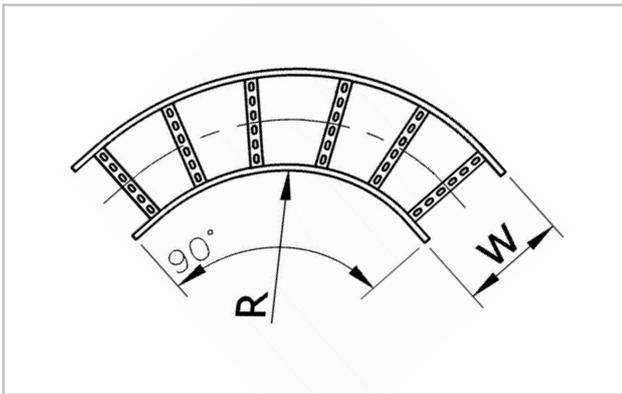
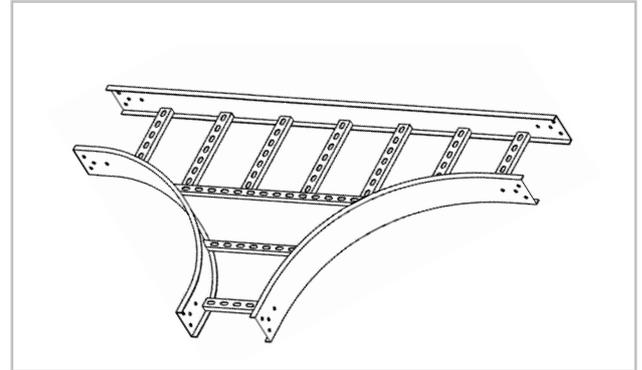
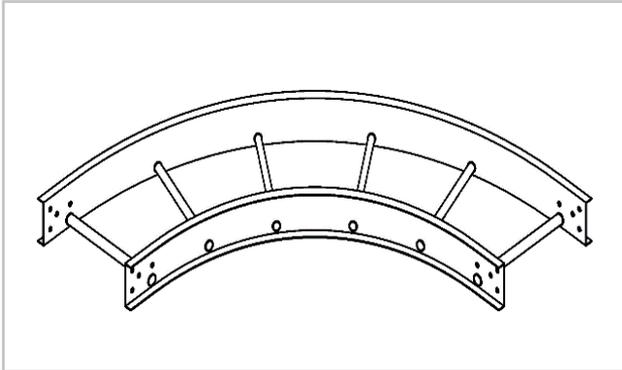
### Ordering instructions for straight cable ladders

MASEICO	M for manufacturer name	<p><b>MLS-W-D-T-F-R-C-L-M</b></p>
Tray type	LS (Straight Ladder)	
Internal width (mm)	Standard Widthes : 150 , 200 , 300, 450, 600, 750 , 900	
load depth (mm)	Standard load depths : 76, 102, 127, 152	
Side rail Thickness (mm)	Standard Thicknesses : 1.5, 2.0, 2.5	
Flange size (mm)	Standard flanges : 21, 32, 38, 44, 50	
Rung spacing (mm)	Standard rung spacings : 150, 225, 300, 450	
Category	T(Tubular rung), WI(Wlided rung at Inside flange, WO(Welded rung at Outside flange)	
Ladder length (m)	Standard lengths : 3, 3.7, 6	
Material	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	

- Above lengths, thickness and side heights are standard figures, any customized dimensions can be manufactured upon client request, while, the requested dimensions can be inserted in the code accordingly.
- Shown perforation type in above drawing is B-class (according to perforation area ratio) while, C-class or any other class can be manufactured according to client/project request.
- Hot dip galvanizing process is being performed according to B S:EN:1461. Any required coating thickness more than the standard specified can be achieved based on client/project request.

# MASEICO

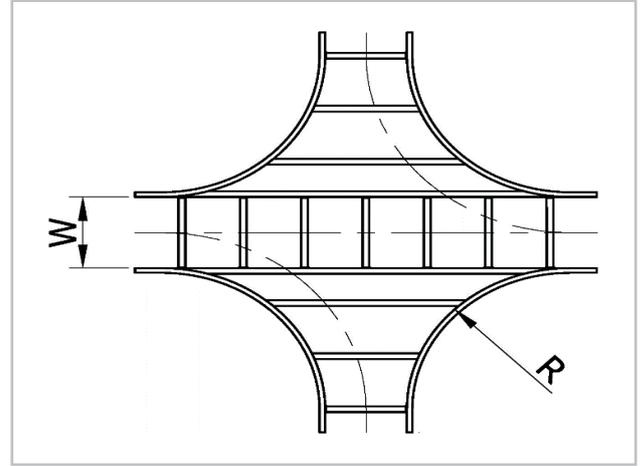
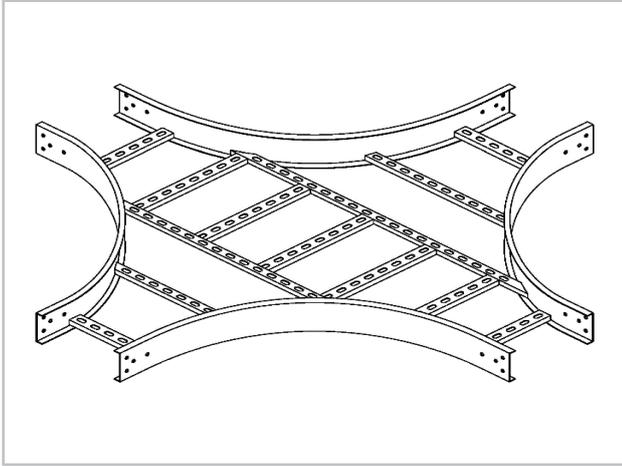
## Cable Ladder Fittings



### Ordering instructions for cable ladders fittings

MASEICO	M for manufacturer name	<p><b>MLDS-W-H-T-R-A-C-M</b></p>
Tray Type	L (Ladder)	
Direction	H (Horizontal), V (Vertical), VI (Vertical Inside), VO (Vertical Outside)	
Shape	E (Elbow), T (Tee), C (Cross), SR (Straight Reducer), AE (Adjustable Elbow), RR (Right hand Reducer), LR (Left hand Reducer), LY (Left hand Y Branch), RY (Right hand Y Branch)	
Width (mm)	Standard Widthes : 150 , 200 , 300 , 450 , 600 , 750 , 900	
Load Depth (mm)	Standard load Depths : 76 , 102 , 127 , 152	
Thickness (mm)	Standard Thicknesses : 1.5 , 2.0 , 2.5	
Radius (mm)	Standard Radii : 300 , 600	
Degree	Standard Degrees : 30 , 45 , 60 , 90	
Category	T(Tubular Rung), WI(Wilded rung at Inside flange, WO(Welded rung at Outside flange)	
Material Type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	

## Cable Ladder Fittings

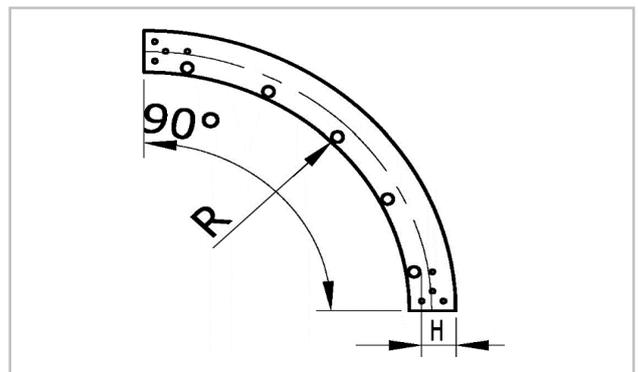
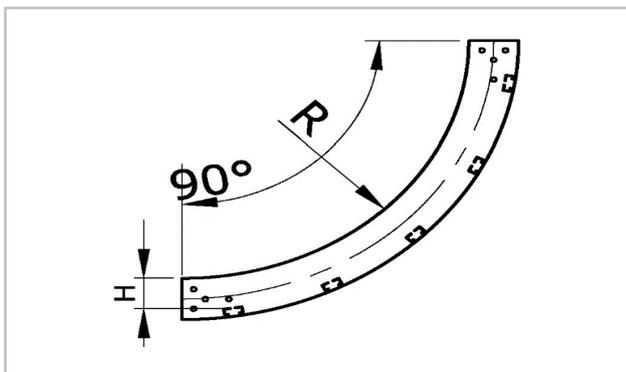
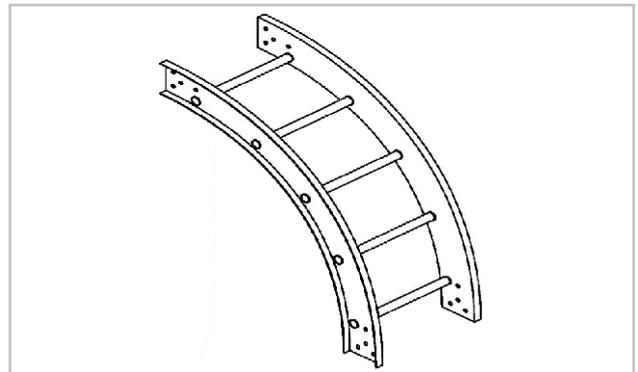
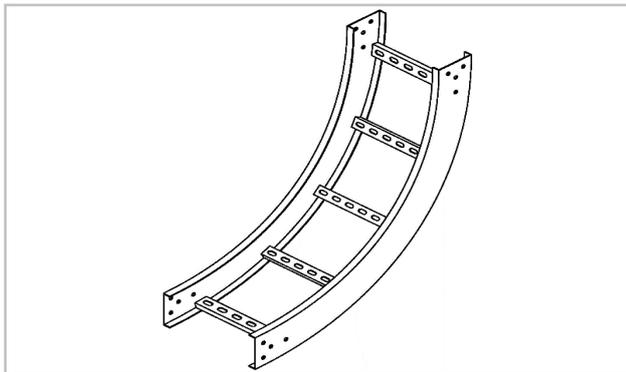


### Ordering instructions for cable ladders fittings

MASEICO	M for manufacturer name	<p><b>MLDS-W-H-T-R-A-C-M</b></p>
Tray Type	L (Ladder)	
Direction	H (Horizontal), V (Vertical), VI (Vertical Inside), VO (Vertical Outside)	
Shape	E (Elbow), T (Tee), C (Cross), SR (Straight Reducer), AE (Adjustable Elbow), RR (Right hand Reducer), LR (Left hand Reducer), LY (Left hand Y Branch), RY (Right hand Y Branch)	
Width (mm)	Standard Widthes : 150 , 200 , 300 , 450 , 600 , 750 , 900	
Load Depth (mm)	Standard load Depths : 76 , 102 , 127 , 152	
Thickness (mm)	Standard Thicknesses : 1.5 , 2.0 , 2.5	
Radius (mm)	Standard Radii : 300 , 600	
Degree	Standard Degrees : 30 , 45 , 60 , 90	
Category	T(Tubular Rung), WI(Wlded rung at Inside flange, WO(Welded rung at Outside flange)	
Material Type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	

# MASEICO

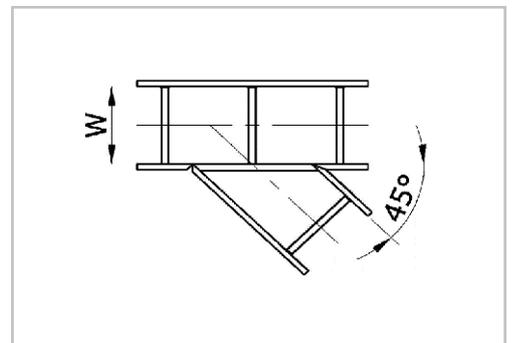
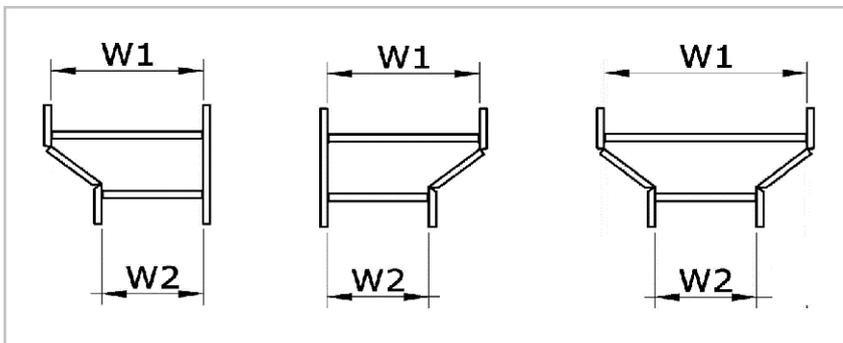
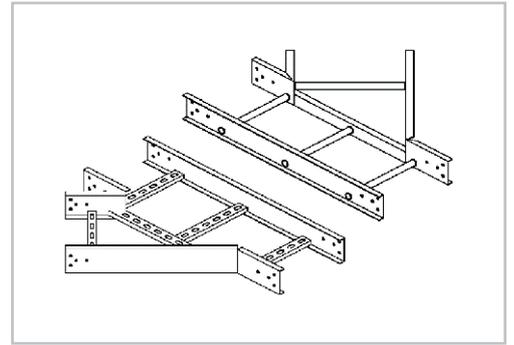
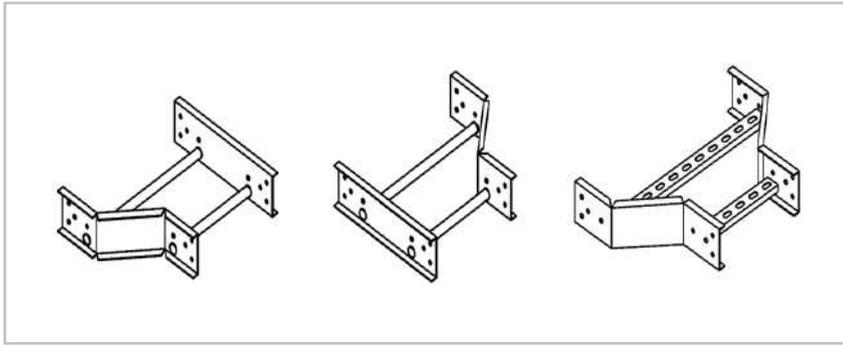
## Cable Ladder Fittings



### Ordering instructions for cable ladders fittings

MASEICO	M for manufacturer name	<p><b>MLDS-W-H-T-R-A-C-M</b></p>
Tray Type	L (Ladder)	
Direction	H (Horizontal), V (Vertical), VI (Vertical Inside), VO (Vertical Outside)	
Shape	E (Elbow), T (Tee), C (Cross), SR (Straight Reducer), AE (Adjustable Elbow), RR (Right hand Reducer), LR (Left hand Reducer), LY (Left hand Y Branch), RY (Right hand Y Branch)	
Width (mm)	Standard Widthes : 150 , 200 , 300, 450, 600, 750 , 900	
Load Depth (mm)	Standard load Depths : 76, 102, 127, 152	
Thickness (mm)	Standard Thicknesses : 1.5, 2.0, 2.5	
Radius (mm)	Standard Radii : 300 , 600	
Degree	Standard Degrees : 30, 45, 60, 90	
Category	T(Tubular Rung), WI(Wided rung at Inside flange, WO(Welded rung at Outside flange)	
Material Type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	

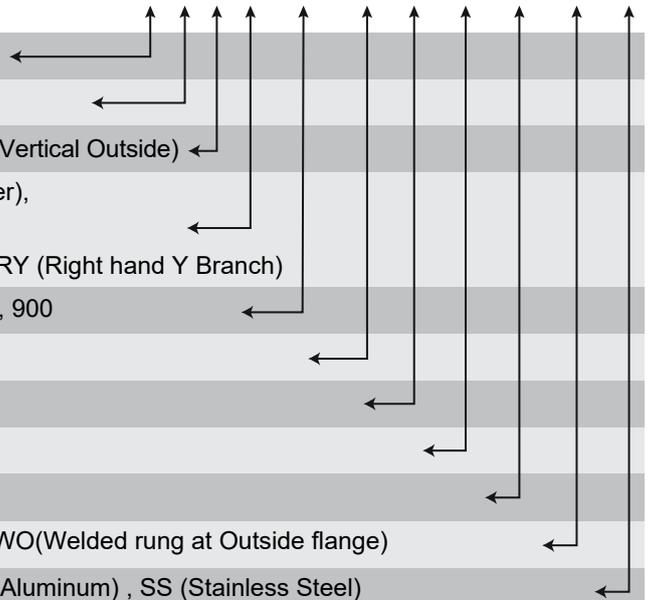
## Cable Ladder Fittings



### Ordering instructions for cable ladders fittings

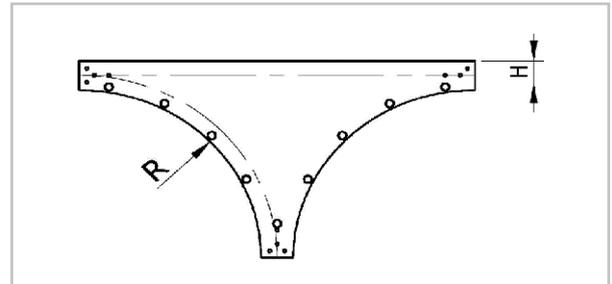
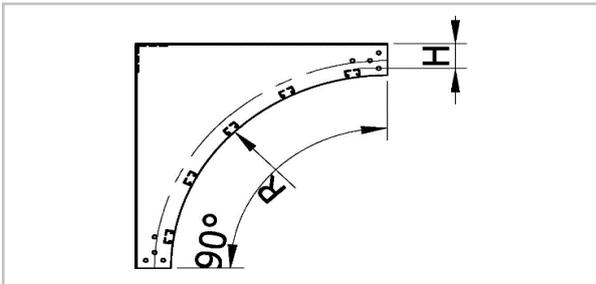
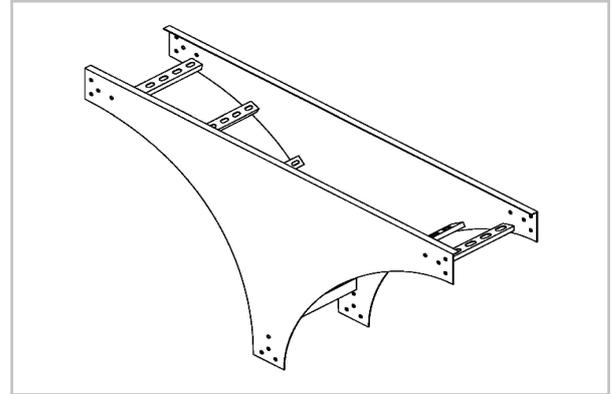
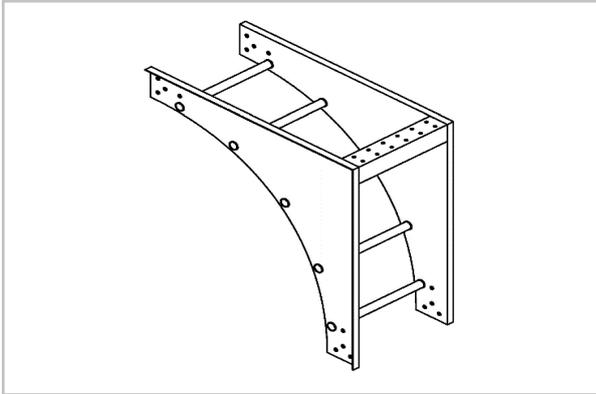
MASEICO	M for manufacturer name	←
Tray Type	L (Ladder)	←
Direction	H (Horizontal), V (Vertical), VI (Vertical Inside), VO (Vertical Outside)	←
Shape	E (Elbow), T (Tee), C (Cross), SR (Straight Reducer), AE (Adjustable Elbow), RR (Right hand Reducer), LR (Left hand Reducer), LY (Left hand Y Branch), RY (Right hand Y Branch)	←
Width (mm)	Standard Widthes : 150 , 200 , 300 , 450 , 600 , 750 , 900	←
Load Depth (mm)	Standard load Depths : 76 , 102 , 127 , 152	←
Thickness (mm)	Standard Thicknesses : 1.5 , 2.0 , 2.5	←
Radius (mm)	Standard Radii : 300 , 600	←
Degree	Standard Degrees : 30 , 45 , 60 , 90	←
Category	T(Tubular Rung), WI(WIded rung at Inside flange, WO(Welded rung at Outside flange)	←
Material Type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	←

**MLDS-W-H-T-R-A-C-M**



# MASEICO

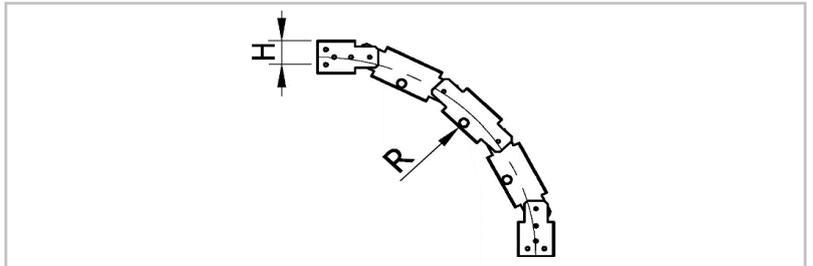
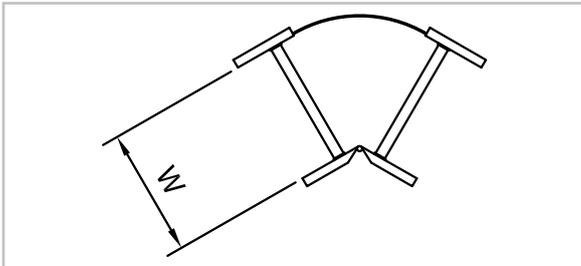
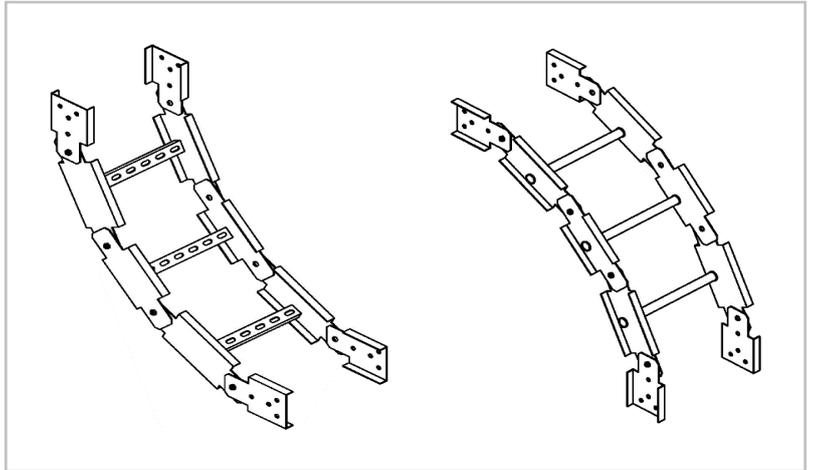
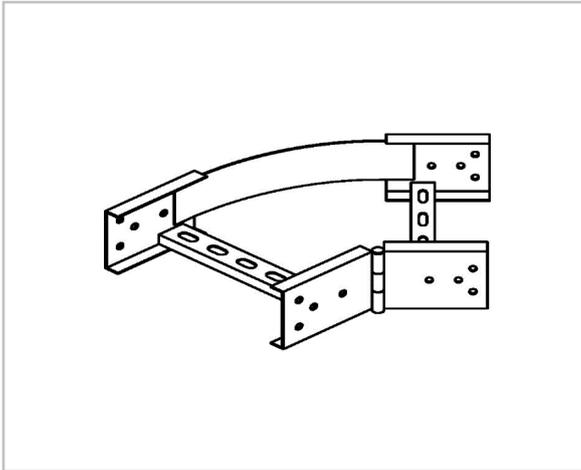
## Cable Ladder Fittings



### Ordering instructions for cable ladders fittings

MASEICO	M for manufacturer name	<p style="text-align: center;"><b>MLDS-W-H-T-R-A-C-M</b></p>
Tray Type	L (Ladder)	
Direction	H (Horizontal), V (Vertical), VI (Vertical Inside), VO (Vertical Outside)	
Shape	E (Elbow), T (Tee), C (Cross), SR (Straight Reducer), AE (Adjustable Elbow), RR (Right hand Reducer), LR (Left hand Reducer), LY (Left hand Y Branch), RY (Right hand Y Branch)	
Width (mm)	Standard Widthes : 150 , 200 , 300, 450, 600, 750 , 900	
Load Depth (mm)	Standard load Depths : 76, 102, 127, 152	
Thickness (mm)	Standard Thicknesses : 1.5, 2.0, 2.5	
Radius (mm)	Standard Radii : 300 , 600	
Degree	Standard Degrees : 30, 45, 60, 90	
Category	T(Tubular Rung), WI(Wided rung at Inside flange, WO(Welded rung at Outside flange)	
Material Type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	

## Cable Ladder Fittings

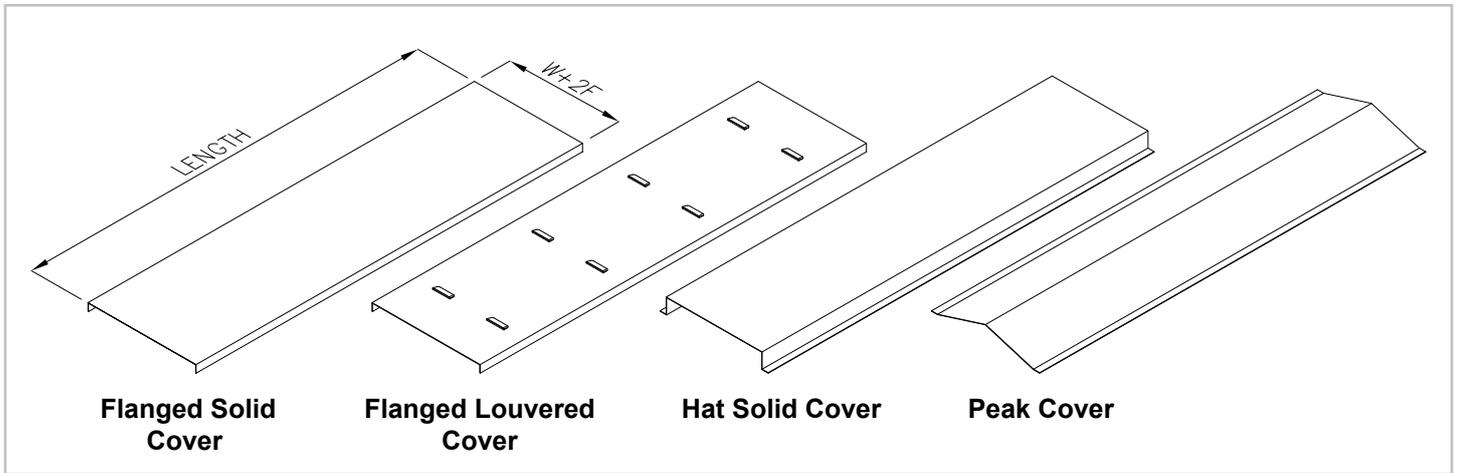


### Ordering instructions for cable ladders fittings

MASEICO	M for manufacturer name	<p><b>MLDS-W-H-T-R-A-C-M</b></p>
Tray Type	L (Ladder)	
Direction	H (Horizontal), V (Vertical), VI (Vertical Inside), VO (Vertical Outside)	
Shape	E (Elbow), T (Tee), C (Cross), SR (Straight Reducer), AE (Adjustable Elbow), RR (Right hand Reducer), LR (Left hand Reducer), LY (Left hand Y Branch), RY (Right hand Y Branch)	
Width (mm)	Standard Widthes : 150 , 200 , 300 , 450 , 600 , 750 , 900	
Load Depth (mm)	Standard load Depths : 76 , 102 , 127 , 152	
Thickness (mm)	Standard Thicknesses : 1.5 , 2.0 , 2.5	
Radius (mm)	Standard Radii : 300 , 600	
Degree	Standard Degrees : 30 , 45 , 60 , 90	
Category	T(Tubular Rung), WI(Wilded rung at Inside flange, WO(Welded rung at Outside flange)	
Material Type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	

# MASEICO

## Covers For Straight Cable Ladders

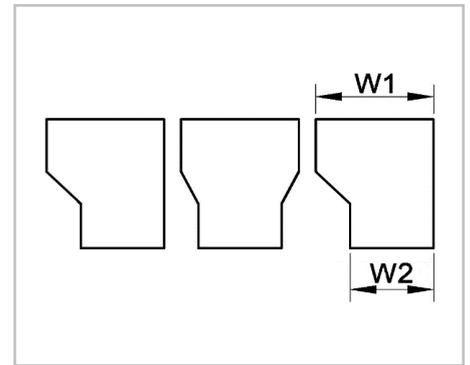
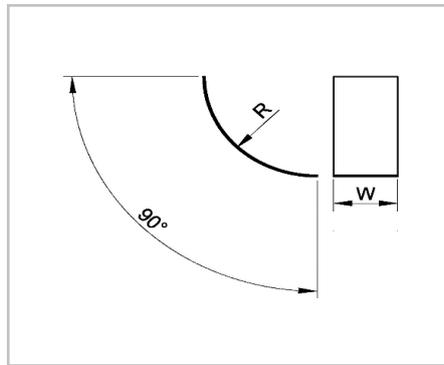
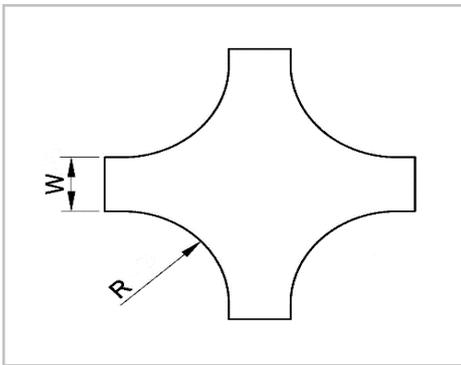
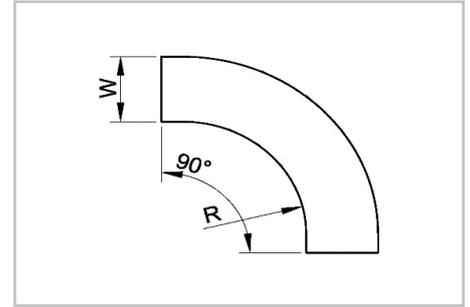
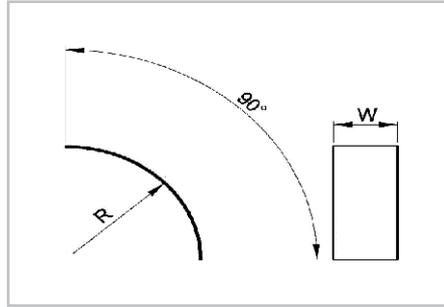
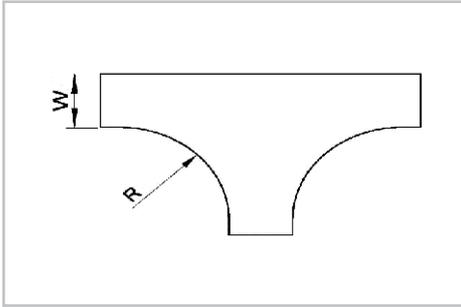


### Ordering instructions for Straight cable Ladders covers

		MLS-W-D-S-T-L-M
MASEICO	M for manufacturer name	←
Tray type	L (For ladder type)	←
Shape	SFS (Straight Flanged Solid), SFL (Straight Flanged Louvered) SHS (Straight Hat Solid), SP (Straight Peak)	←
Ladder Width (mm)	Standard Ladder Widthes : 150 , 200 , 300, 450, 600, 750 , 900	←
Flange Direction	Cable ladder Flange Direction : I (Inside flange), O (Outside flange)	←
Flange size (mm)	Standard Flanges : 21, 32, 38, 44, 50	←
Thickness (mm)	Standard thicknesses : 1.0 , 1.5 , 2.0 , 2.5	←
Length (m)	Standard lengths : 1.5 , 2 , 2.44 , 3	←
Material Type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	←

- Above lengths, thickness and side heights are standard figures, any customized dimensions can be manufactured upon client request, while, the requested dimensions can be inserted in the code accordingly.
- Shown perforation type in above drawing is B-class (according to perforation area ratio) while, C-class or any other class can be manufactured according to client/project request.
- Hot dip galvanizing process is being performed according to B S:EN:1461. Any required coating thickness more than the standard specified can be achieved based on client/project request.

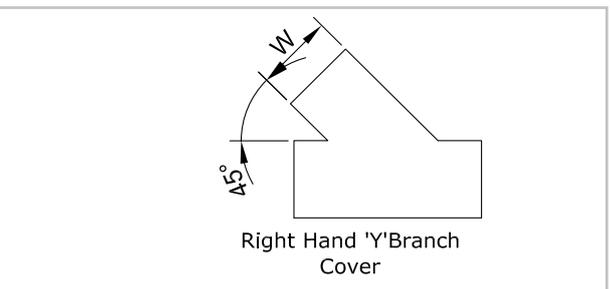
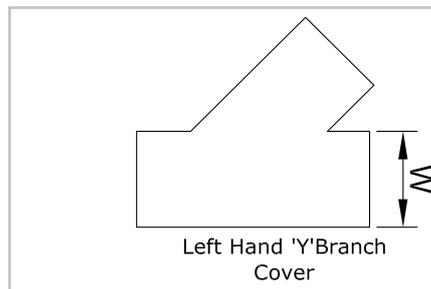
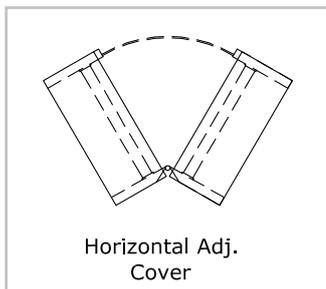
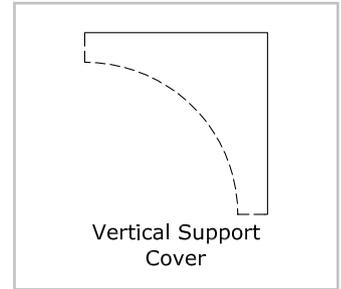
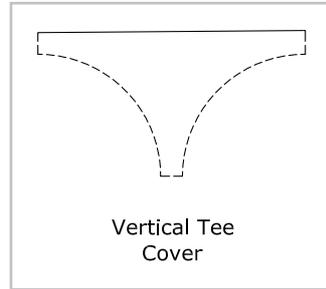
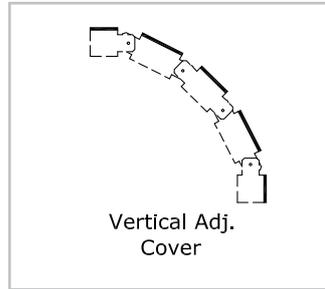
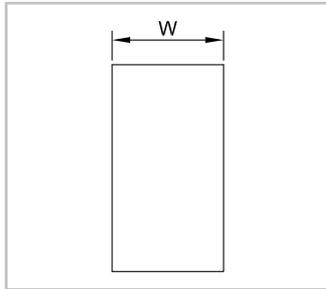
## Covers For Cable Ladders Fittings



		<b>MLDS-W-F-T-R-C-M</b>
MASEICO	M for manufacturer name	←
Tray type	L (For ladder type)	←
Direction	H (Horizontal) , V (Vertical) , VI (Vertical Inside) , VO (Vertical Outside)	←
Shape	EC (Elbow) , TC (Tee) , CC (Cross) , SRC (Straight Reducer), RRC (Right hand Reducer), LRC (Left hand Reducer), LYC (Left hand Y Branch), RYC (Right hand Y Branch) AEC(Adjustable elbow)	←
Ladder Width (mm)	Standard Ladder widths : 150 , 200 , 300 , 450 , 600 , 750 , 900	←
Flange direction	Cable ladder Flange Direction : I (Inside flange), O (Outside flange)	←
Thickness (mm)	Standard thicknesses : 1.0 , 1.5 , 2.0 , 2.5	←
Radius (mm)	Standard Radii : 300 , 600	←
Degree	Standard degrees : 30, 45, 60, 90	←
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	←

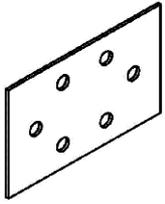
# MASEICO

## Covers For Cable Ladders Fittings



		<b>MLDS-W-F-T-R-C-M</b>
MASEICO	M for manufacturer name	←
Tray type	L (For ladder type)	←
Direction	H (Horizontal) , V (Vertical) , VI (Vertical Inside) , VO (Vertical Outside)	←
Shape	EC (Elbow) , TC (Tee) , CC (Cross) , SRC (Straight Reducer), RRC (Right hand Reducer), LRC (Left hand Reducer), LYC (Left hand Y Branch), RYC (Right hand Y Branch) AEC(Adjustable elbow)	←
Ladder Width (mm)	Standard Ladder widths : 150 , 200 , 300 , 450 , 600 , 750 , 900	←
Flange direction	Cable ladder Flange Direction : I (Inside flange), O (Outside flange)	←
Thickness (mm)	Standard thicknesses : 1.0 , 1.5 , 2.0 , 2.5	←
Radius (mm)	Standard Radii : 300 , 600	←
Degree	Standard degrees : 30, 45, 60, 90	←
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	←

## Accessories For Cable Ladders

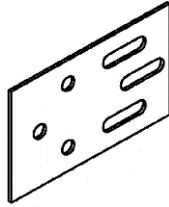


**Ladder Universal joint**

Code: MLUJ - H

H: Ladder load depth (mm)

M: Material (GI, HDG, AL or SS)

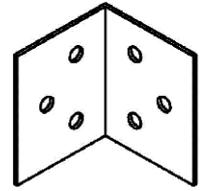


**Ladder Expansion joint**

Code: MLEJ - H

H: Ladder load depth (mm)

M: Material (GI, HDG, AL or SS)

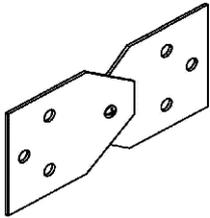


**Ladder 90 deg angle joint**

Code: MLAJ - H

H: Ladder load depth (mm)

M: Material (GI, HDG, AL or SS)

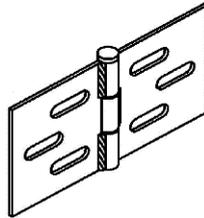


**Ladder Vertical adjustable joint**

Code: MLUJ - H

H: Ladder load depth (mm)

M: Material (GI, HDG, AL or SS)

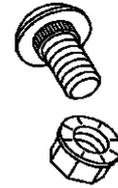


**Ladder Horizontal adjustable joint**

Code: MLVAJ - H

H: Ladder load depth (mm)

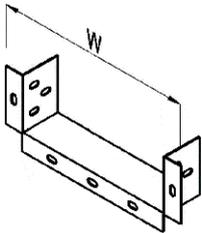
M: Material (GI, HDG, AL or SS)



**3/8" x 16mm Spline bolt  
with serrated flanged nut**

Code: SBSN - M

M: Materials (GI, HDG, or SS)



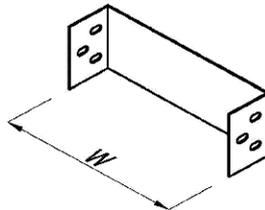
**Ladder Box Joint**

Code: MLBJ-H-W-M

H: Ladder load depth (mm)

W: Ladder width (mm)

M: Material (GI, HDG, AL or SS)



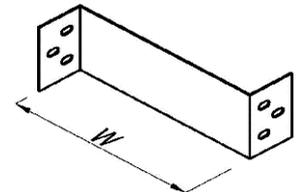
**Ladder Blind End**

Code: MLBE-H-W-M

H: Ladder load depth (mm)

W: Ladder width (mm)

M: Material (GI, HDG, AL or SS)



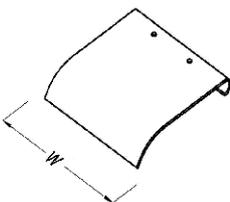
**Ladder Reducing Joint**

Code: MLRJ-H-W-M

H: Ladder load depth (mm)

W: Ladder width (mm)

M: Material (GI, HDG, AL or SS)

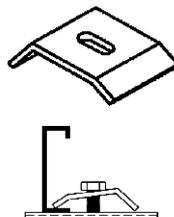


**Ladder Drop out**

Code: MLDO-W-M

W: Ladder width

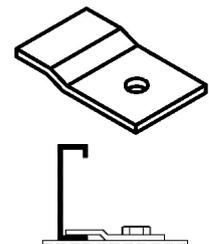
M: Material (GI, HDG, AL or SS)



**Ladder Horizontal hold down clamp**

Code: MLHHDC-M

M: Material (GI, HDG, AL or SS))



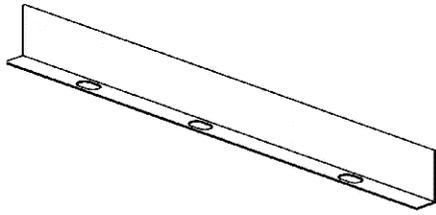
**Ladder Horizontal Expansion Guide**

Code: MLHEG-M

M: Material (GI, HDG, AL or SS)

# MASEICO

## Accessories For Cable Ladders



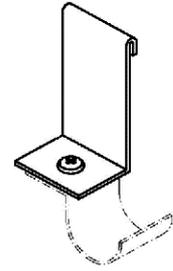
Ladder straight separator

Code: MLSS-H-L-M

H: Ladder load depth (mm)

L: Length (m)

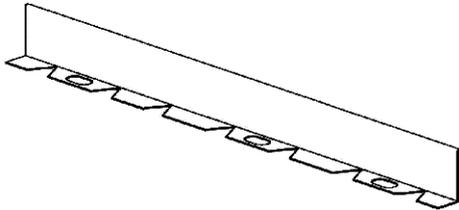
M: Material (GI, HDG, AL or SS)



Tubulad ladder separator clamp

Code: MLTSCJ-M

M: Material (GI, HDG, AL or SS)



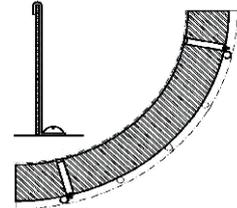
Ladder horizontal fittings separator

Code: MLHS-H-L-M

H: Ladder load depth (mm)

L: Length (m)

M: Material (GI, HDG, AL or SS)



Ladder Vertical fittings separator

Code: MLVS-H-R-M

H: Ladder load depth (mm)

R: Radius (mm)

M: Material (GI, HDG, AL or SS)



Bonding Jumper  
Bare Stranded Copper



Bonding Jumper  
Yellow/Green Insulate  
Stranded Copper

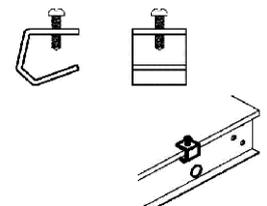


Bonding Jumper  
Flexible Copper Braid

### Bonding Jumpers

Code: MBJ-S

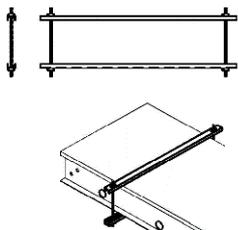
S	AWG	Size (Sq mm)	Amp
1	(1/0)	50	800
2	(#2)	35	500
3	(#3)	25	400



Ladder Cover clip

Code: MLCC-M

M: Material (GI, HDG, AL or SS)



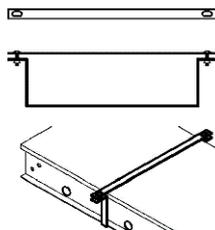
Ladder double cover clamp

Code: MLDCC-H-W-M

H: Ladder load depth (mm)

W: Ladder width (mm)

M: Material (GI, HDG, AL or SS)



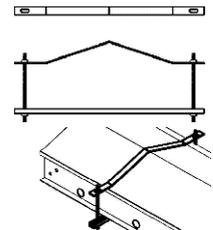
Ladder wraparounds cover clamp

Code: MLDWCC-H-W-M

H: Ladder load depth (mm)

W: Ladder width (mm)

M: Material (GI, HDG, AL or SS)



Ladder Peak Cover clamp

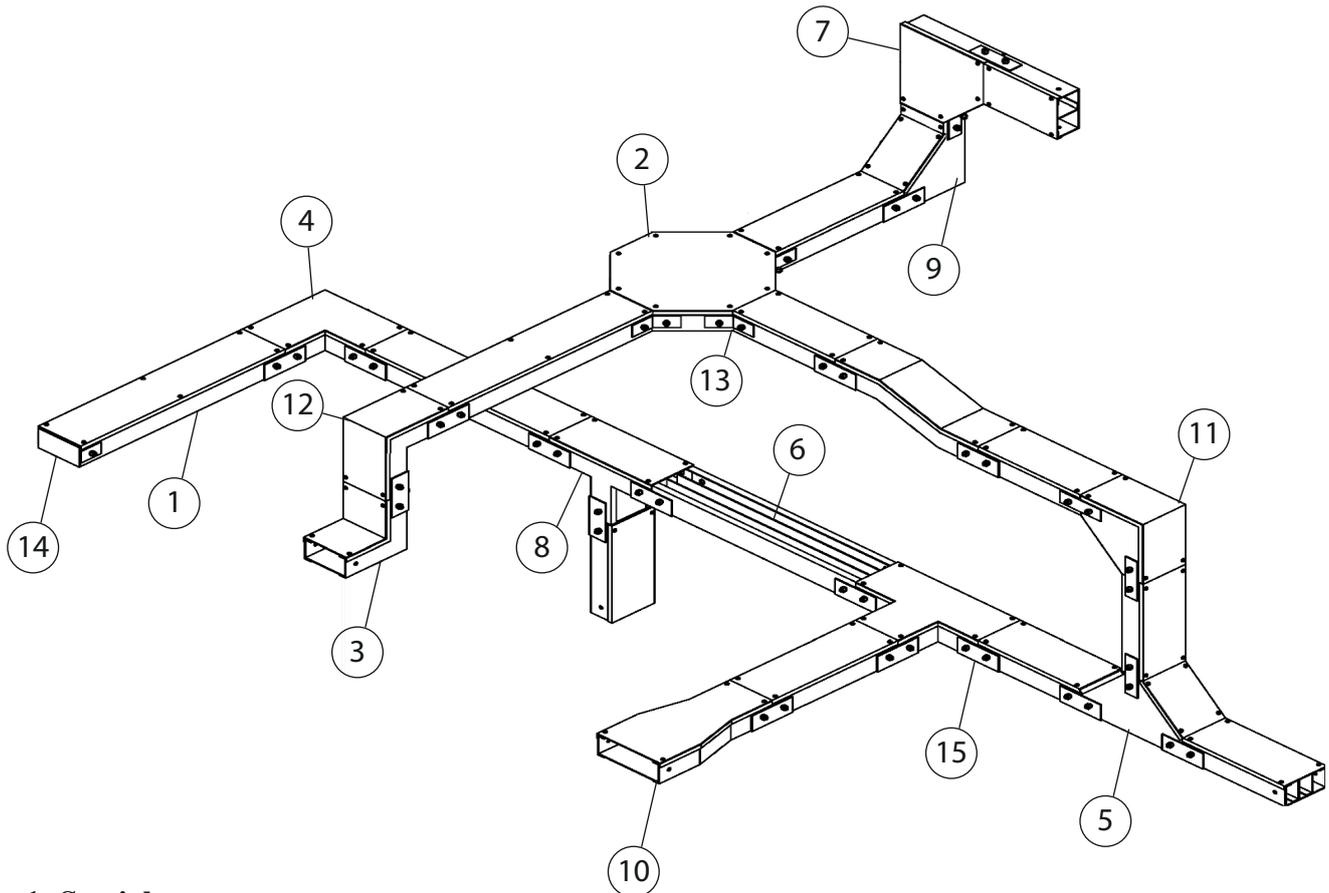
Code: MLDPCC-H-W-M

H: Ladder load depth (mm)

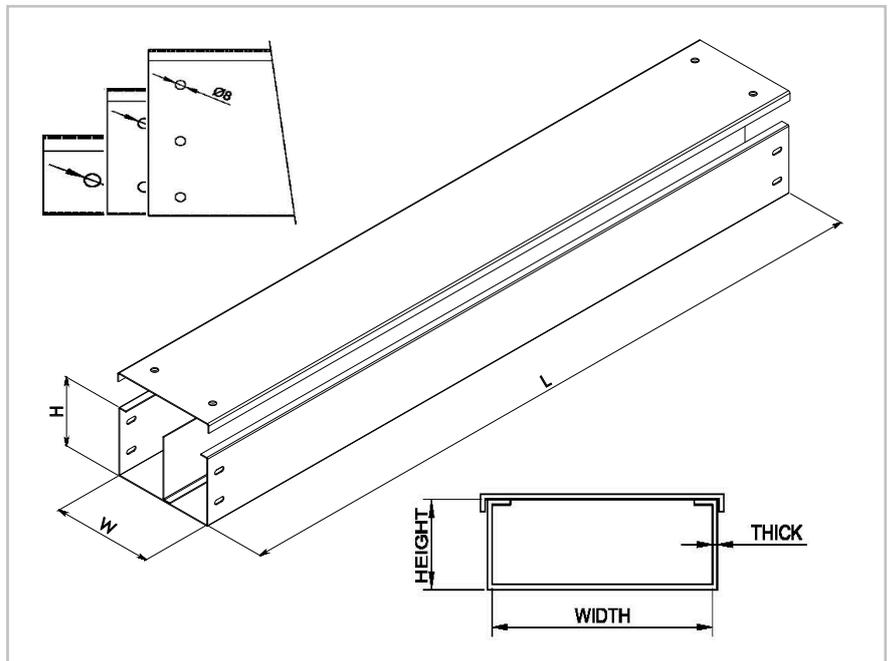
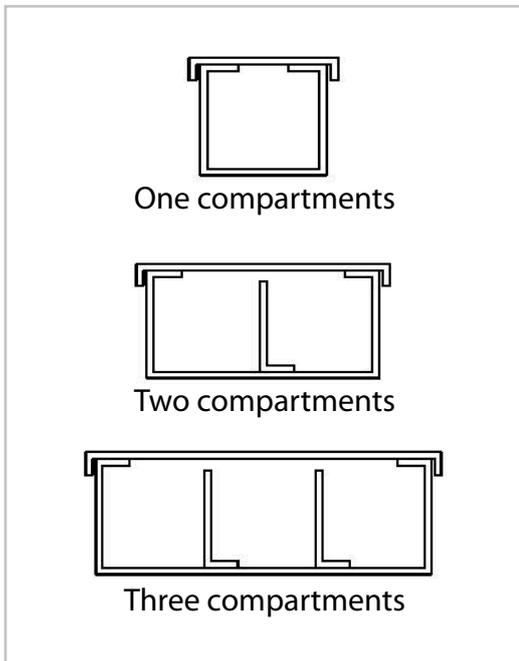
W: Ladder width (mm)

M: Material (GI, HDG, AL or SS)

## Trunking Systems



- 1: Straight**
- 2: Cross Gusset Type**
- 3: 90° Inside Vertical Elbow**
- 4: 90° Horizontal Elbow**
- 5: Vertical Tee Gusset Type**
- 6: Compartments**
- 7: 90° Horizontal Elbow Gusset Type**
- 8: Vertical Tee**
- 9: 90° Vertical Elbow Gusset Type**
- 10: Straight Reducer**
- 11: 90° Inside Vertical Elbow Gusset Type**
- 12: 90° Outside Vertical Elbow**
- 13: Angle Connector**
- 14: Blind End**
- 15: Connector**

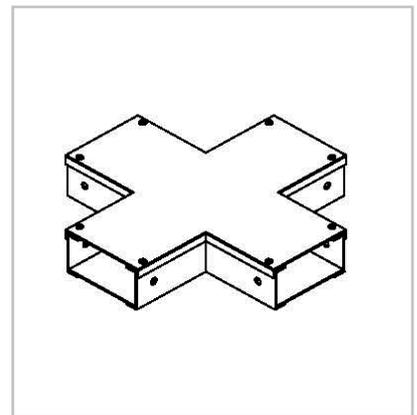
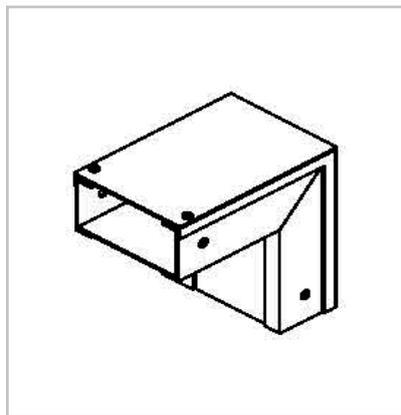
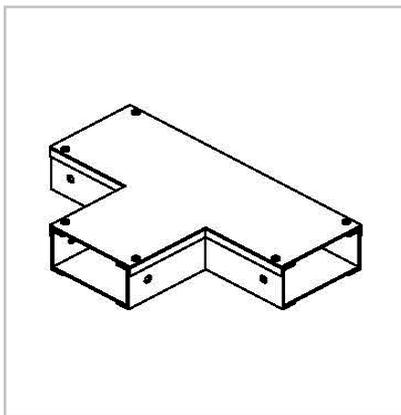
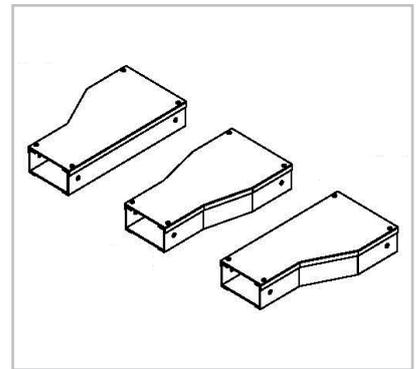
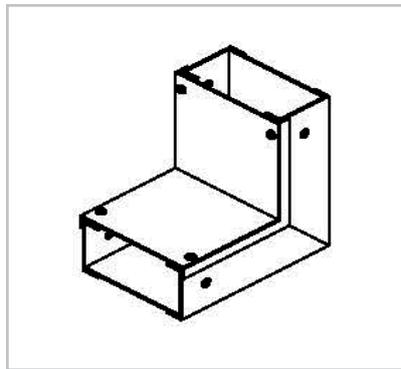
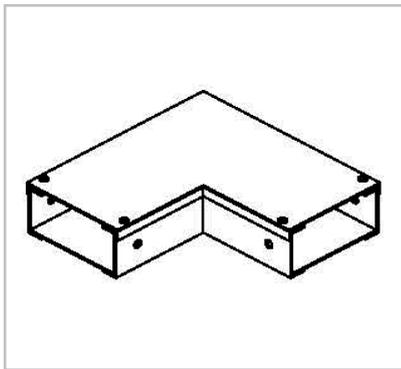


### Ordering instructions for straight trunkss

MASEICO	M for manufacturer name	<p><b>MTS-N-W-H-T-L-M</b></p>
Type	T (Trunk)	
Shape	For article shape (Straight)	
No. Of Compartment	Standard Numbers: 1, 2 or 3	
Width (mm)	Standard Widthes : 50 , 75, 100, 150, 200, 225, 300	
Side Height (mm)	Standard Heights : 50, 75, 100, 150, 200, 225, 300	
Thickness (mm)	Standard Thicknesses : 1.0 , 1.2 , 1.3 , 1.5 , 2.0 , 2.5	
Length (m)	Standard Lengths : 1.5 , 2 , 2.44 , 3	
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	

- Above lengths, thickness and side heights are standard figures, any customized dimensions can be manufactured upon client request, while, the requested dimensions can be inserted in the code accordingly.
- Shown perforation type in above drawing is B-class (according to perforation area ratio) while, C-class or any other class can be manufactured according to client/project request.
- Hot dip galvanizing process is being performed according to B S:EN:1461. Any required coating thickness more than the standard specified can be achieved based on client/project request.

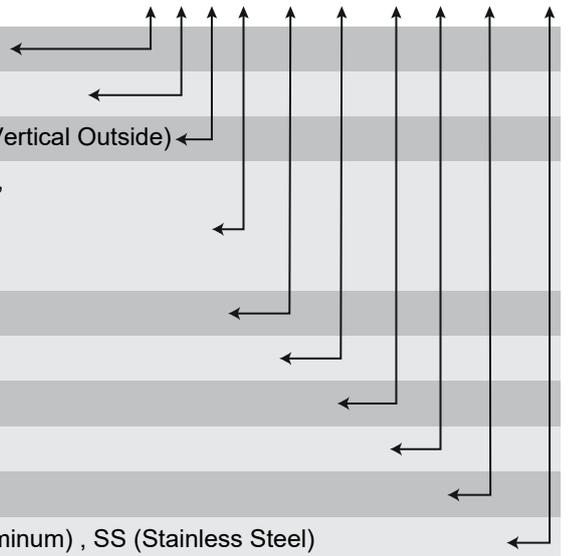
## Trunking Fittings



### Ordering instructions for trunking fittings

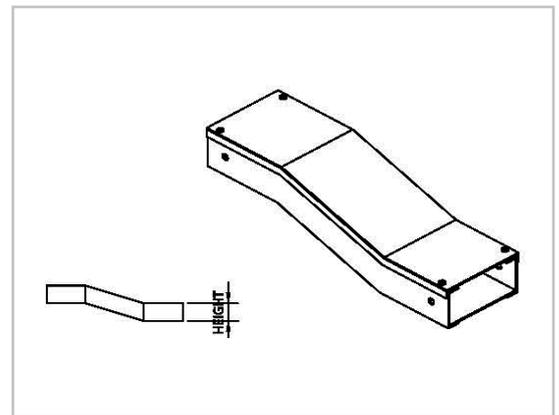
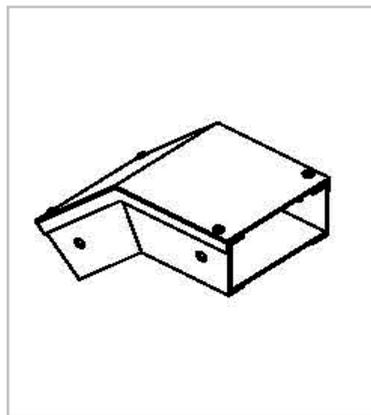
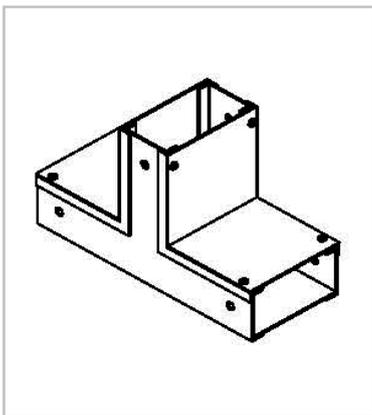
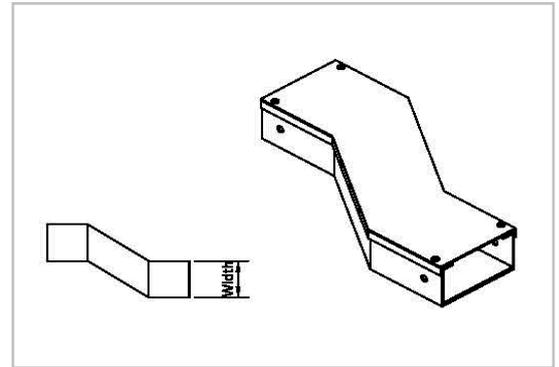
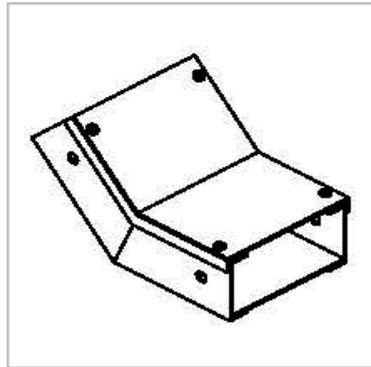
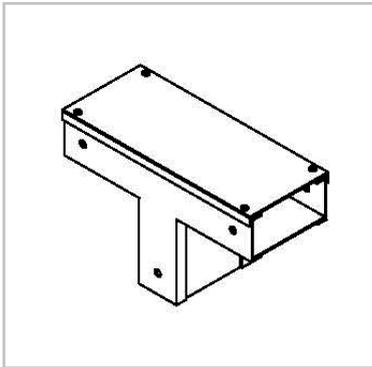
MASEICO	M for manufacturer name	←
Type	T (Trunking)	←
Direction	H (Horizontal) , V (Vertical) , VI (Vertical Inside) , VO (Vertical Outside)	←
Shape	E (Elbow) , T (Tee) , C (Cross) , SR (Straight Reducer), RR (Right hand Reducer), LR (Left hand Reducer), VO (Vertical Offset), HO (Horizontal Offset)	←
No. Of Compartment	Standard Numbers: 1, 2 or 3	←
Width (mm)	Standard Widthes : 50 , 75, 100, 150, 200, 225, 300	←
Side Height (mm)	Standard Heights : 50, 75, 100, 150, 200, 225, 300	←
Thickness (mm)	Standard Thicknesses : 1.0 , 1.2 , 1.3 , 1.5 , 2.0 , 2.5	←
Degree	Standard Degrees : 30, 45, 60, 90	←
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	←

**MTDS-N-W-H-T-C-M**



# MASEICO

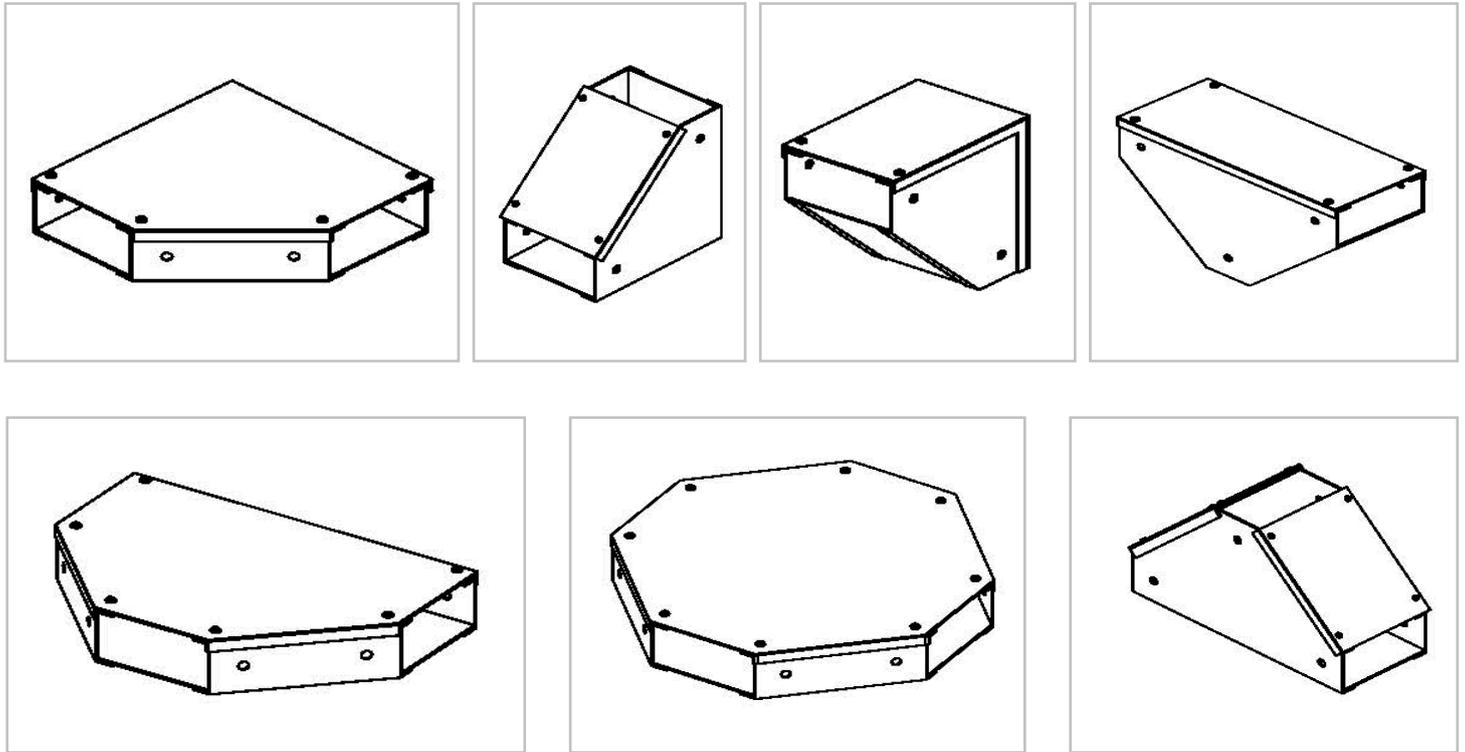
## Trunking Fittings



### Ordering instructions for trunking fittings

MASEICO	M for manufacturer name	<p><b>MTDS-N-W-H-T-C-M</b></p>
Type	T (Trunking)	
Direction	H (Horizontal) , V (Vertical) , VI (Vertical Inside) , VO (Vertical Outside)	
Shape	E (Elbow) , T (Tee) , C (Cross) , SR (Straight Reducer), RR (Right hand Reducer), LR (Left hand Reducer), VO (Vertical Offset), HO (Horizontal Offset)	
No. Of Compartment	Standard Numbers: 1, 2 or 3	
Width (mm)	Standard Widthes : 50 , 75, 100, 150, 200, 225, 300	
Side Height (mm)	Standard Heights : 50, 75, 100, 150, 200, 225, 300	
Thickness (mm)	Standard Thicknesses : 1.0 , 1.2 , 1.3 , 1.5 , 2.0 , 2.5	
Degree	Standard Degrees : 30, 45, 60, 90	
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	

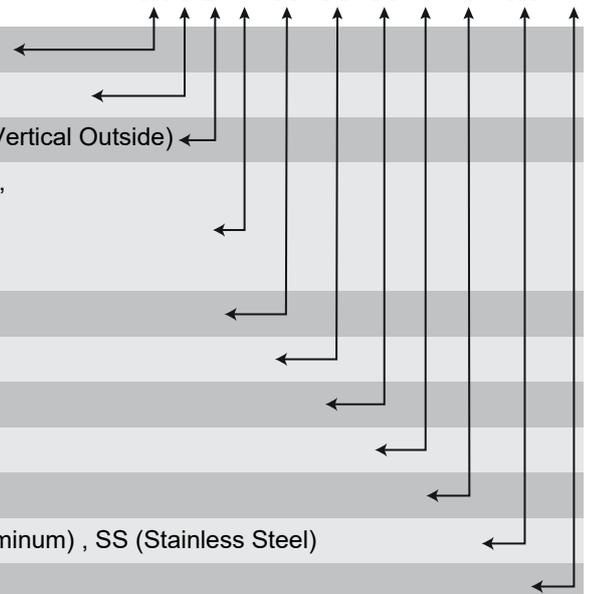
## Gusset Type Trunking Fittings



### Ordering instructions for trunking fittings

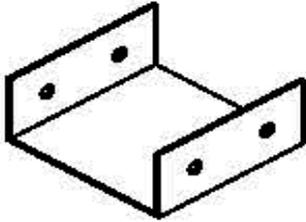
MASEICO	M for manufacturer name	←
Type	T (Trunking)	←
Direction	H (Horizontal) , V (Vertical) , VI (Vertical Inside) , VO (Vertical Outside)	←
Shape	E (Elbow) , T (Tee) , C (Cross) , SR (Straight Reducer), RR (Right hand Reducer), LR (Left hand Reducer), VO (Vertical Offset), HO (Horizontal Offset)	←
No. Of Compartment	Standard Numbers: 1, 2 or 3	←
Width (mm)	Standard Widthes : 50 , 75, 100, 150, 200, 225, 300	←
Side Height (mm)	Standard Heights : 50, 75, 100, 150, 200, 225, 300	←
Thickness (mm)	Standard Thicknesses : 1.0 , 1.2 , 1.3 , 1.5 , 2.0 , 2.5	←
Degree	Standard Degrees : 30, 45, 60, 90	←
Material type	GI (pre-galv steel) , HDG (Hot dip Galv steel) , AL (Aluminum) , SS (Stainless Steel)	←
For gusset type		←

**MTDS-N-W-H-T-C-M-G**



# MASEICO

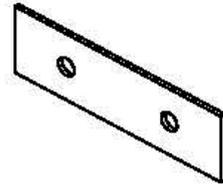
Accessories for Trunking



**Standard Connector**

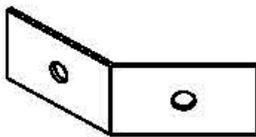
**Code: MTSC - W**

**W : Width**



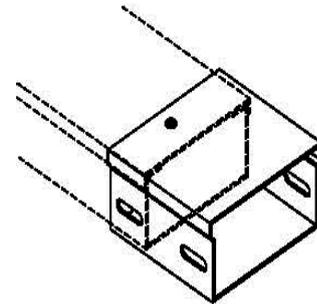
**Flat Connector**

**Code: MTFC**



**Angle Connector**

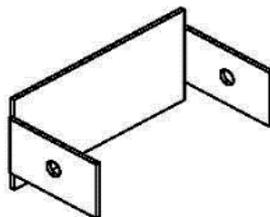
**Code: MTAC**



**Expansion Connector**

**Code: MTEC - W**

**W : Width**



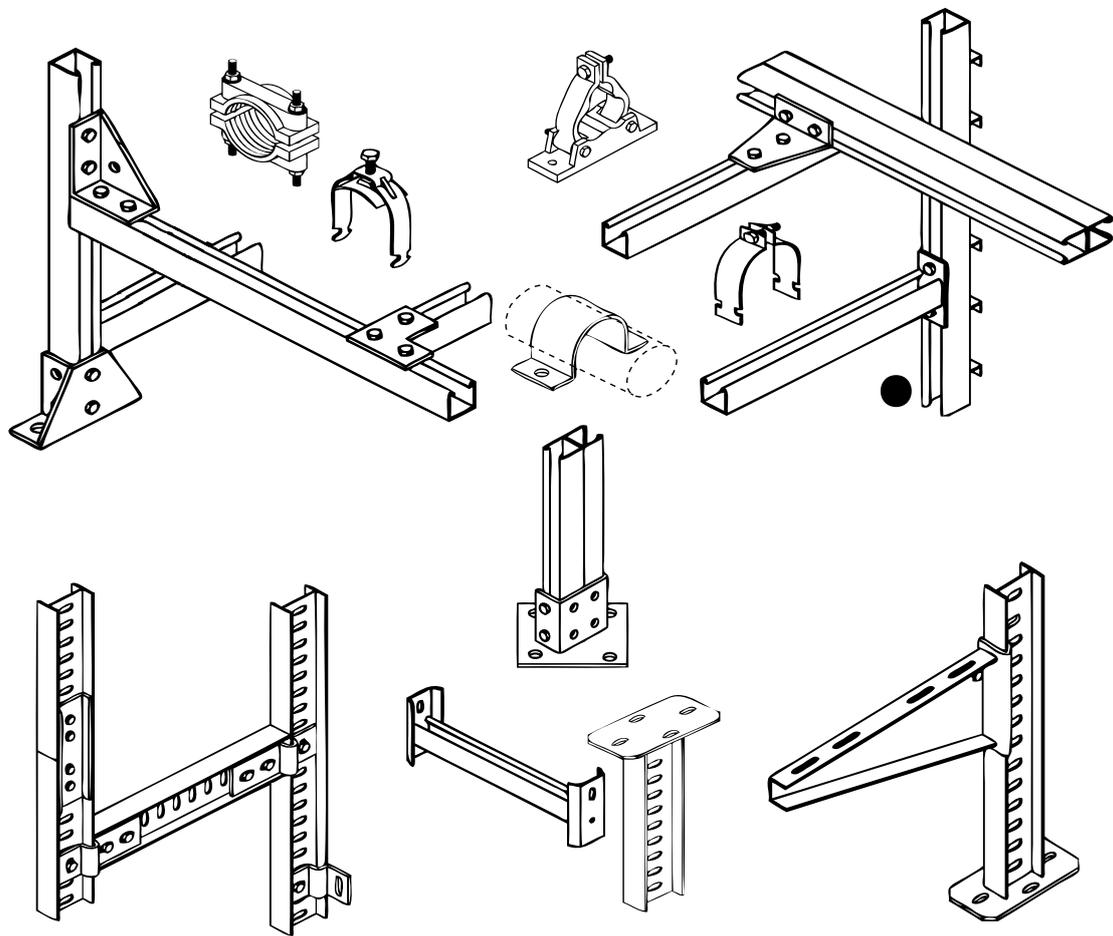
**Blind End**

**Code: MTBE - W**

**W : Width**



## Rack Support Systems



## Introduction

### **MASEICO Rack Supports**

MASEICO Rack Support System has been designed and developed to cover wide range of supporting single profiles, profile combinations, cantilevers, brackets, clamps and accessories according to the latest international standards and measures in order to provide the best installation solutions considering the quality, product life, practical installation method and cost.

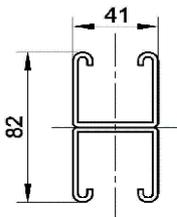
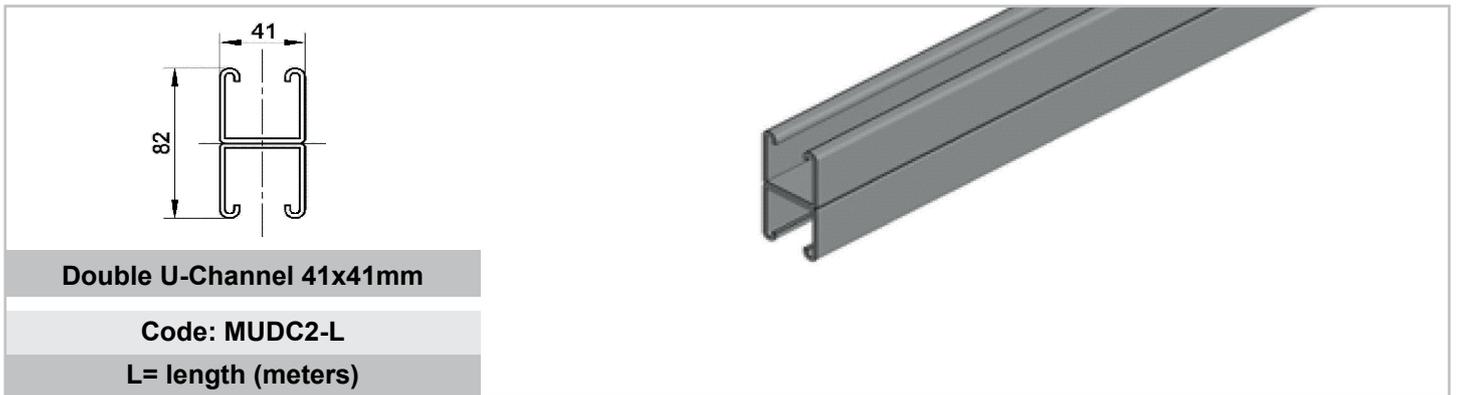
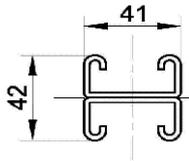
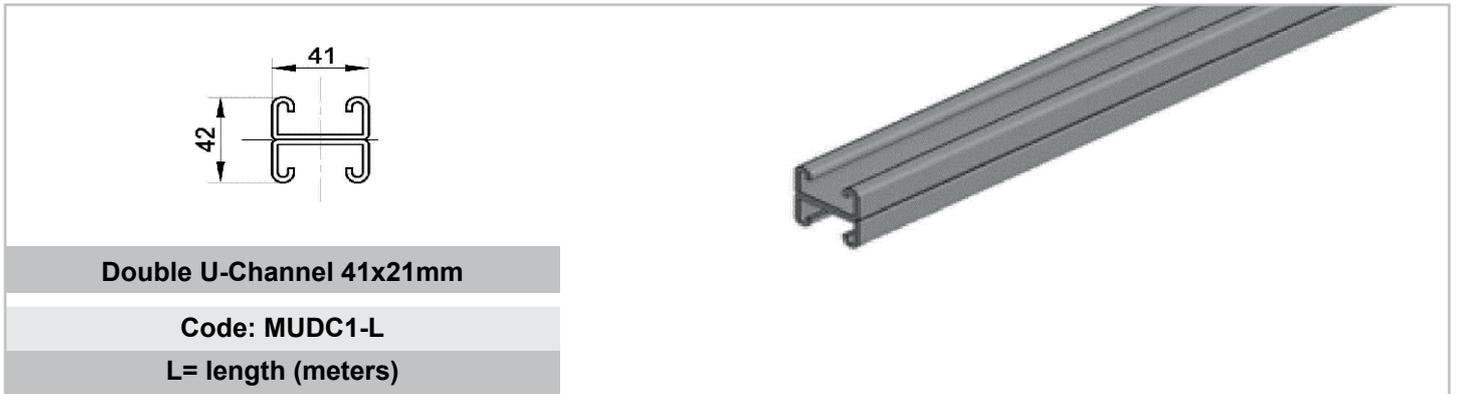
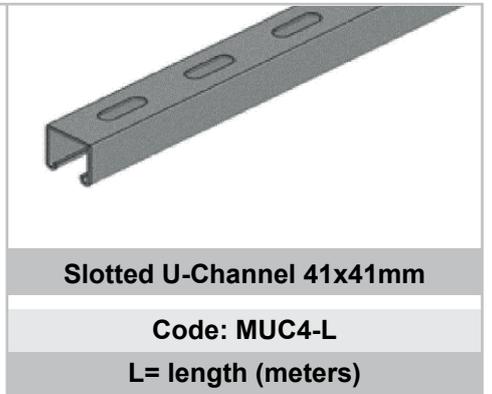
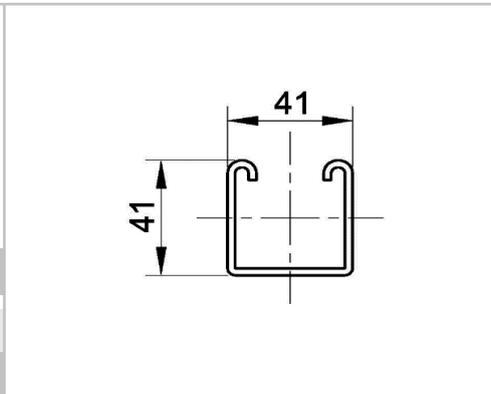
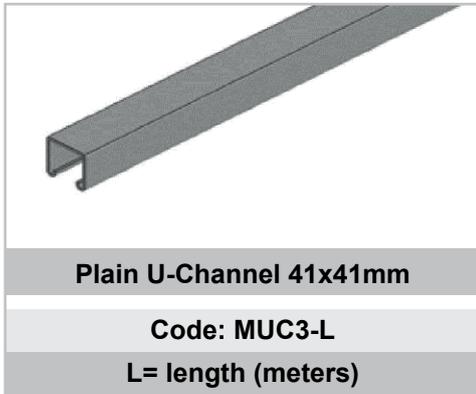
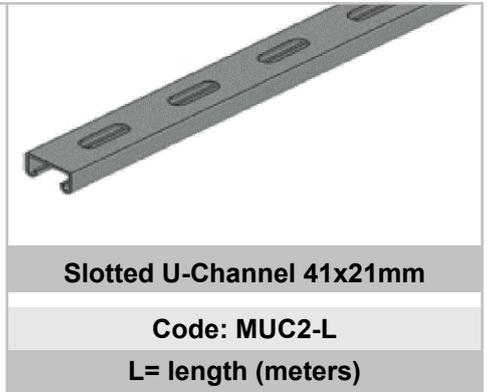
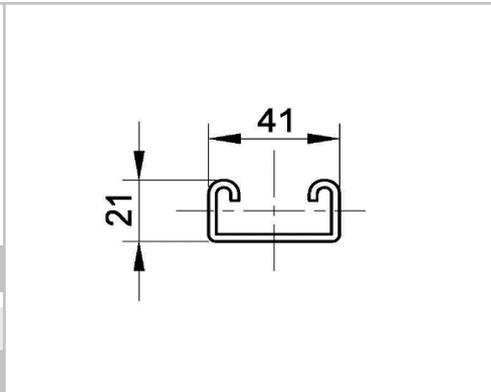
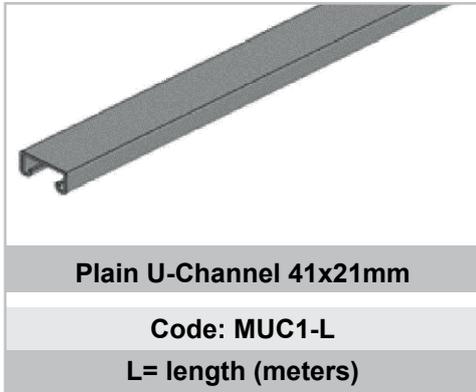
Long experience with high technology automation lines are being employed to produce our unique output to serve and comply with the market variable requirements with full compliance with the electrical international standards.

Support system parts are available in Hot Dip Galvanized steel, Pre-Galvanized steel and Stainless steel (304 and 306), while, any customized or special dimensions can be maintained as per the request.

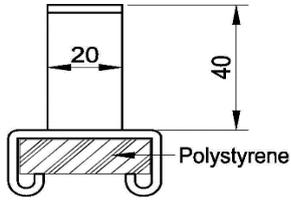
The loading design is being well maintained and considered to enable our parts to do their job in the best shape, those design data and charts are available and can be considered and submitted to comply with the project's designs and requirements.

# MASEICO

## Support Profiles



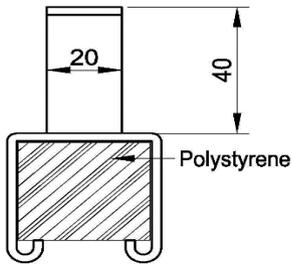
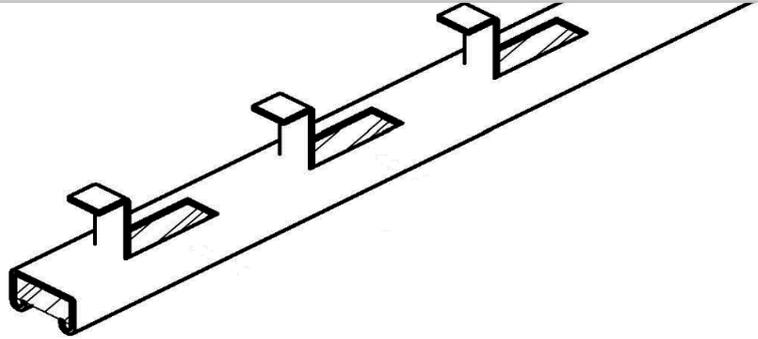
## Support Profiles



**Concrete Insert 41x21 mm**

**Code: MCI1-L**

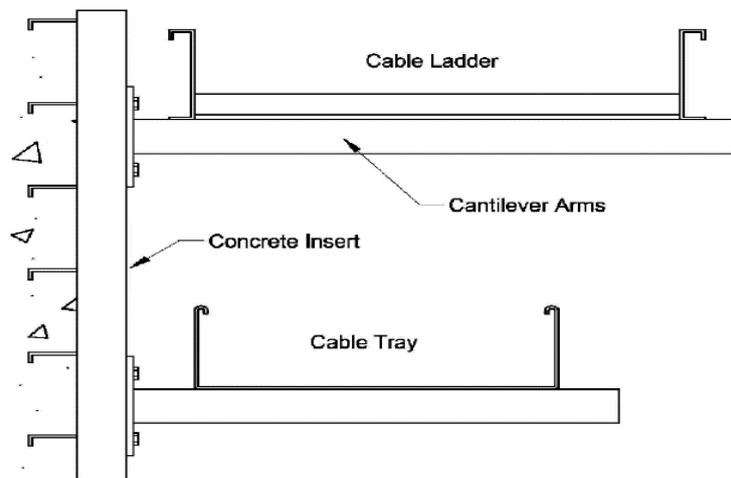
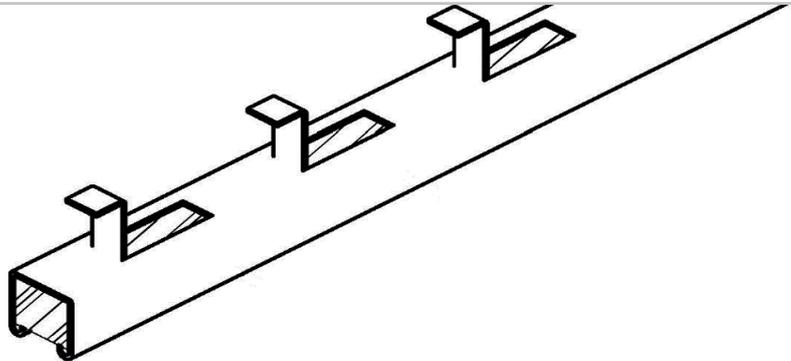
**L= length (meters)**

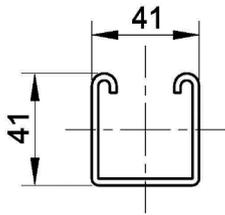


**Concrete Insert 41x41 mm**

**Code: MCI2-L**

**L= length (meters)**

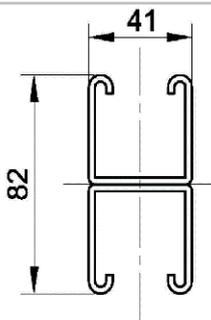
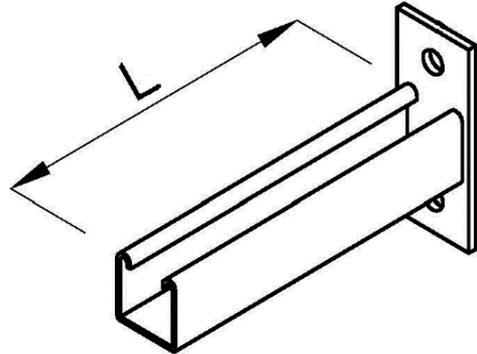




Single cantilever arm

Code: MSCA-L

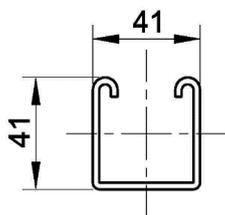
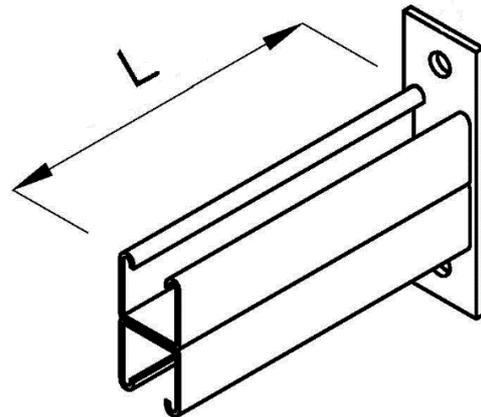
L= length (meters)



Double cantilever arm

Code: MDCA-L

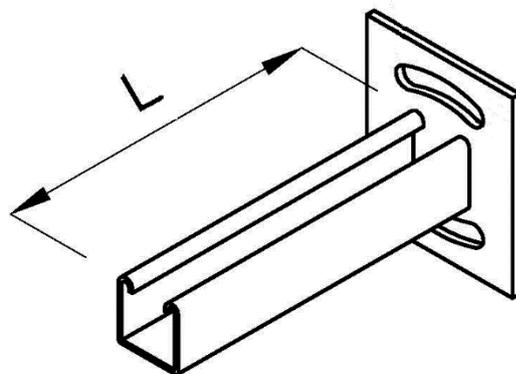
L= length (meters)



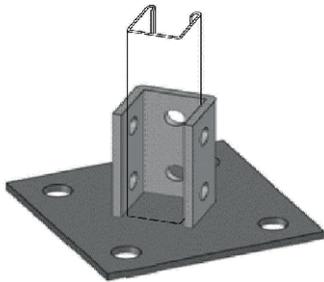
Adjustable cantilever arm

Code: MACA-L

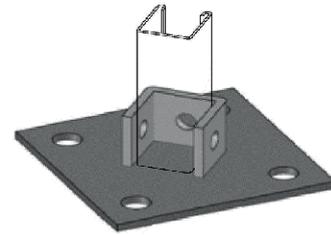
L= length (meters)



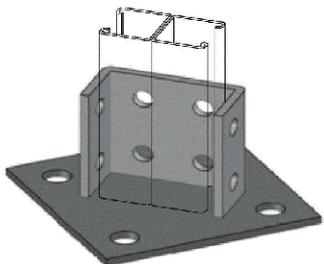
## Base Plates



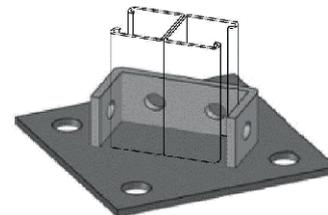
**Long neck base plate for single channel**  
**Code: MBP10**



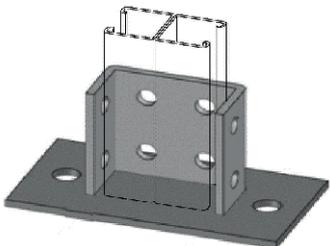
**Short neck base plate for single channel**  
**Code: MBP11**



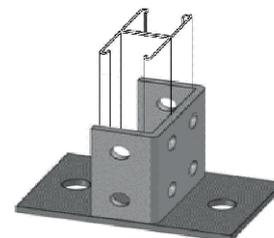
**Long neck base plate for double channel**  
**Code: MBP20**



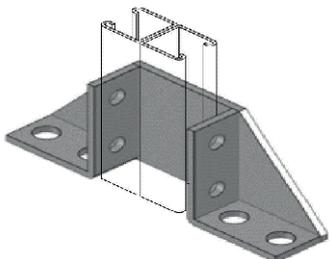
**Short neck base plate for double channel**  
**Code: MBP21**



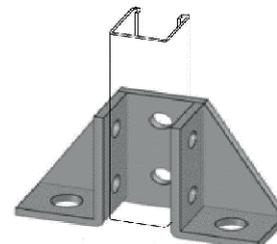
**Long neck base plate for double channel**  
**Code: MBP22**



**Long neck base plate for double channel**  
**Code: MBP23**



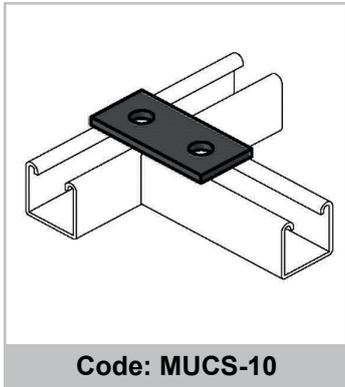
**Long neck base plate for double channel**  
**Code: MBP24**



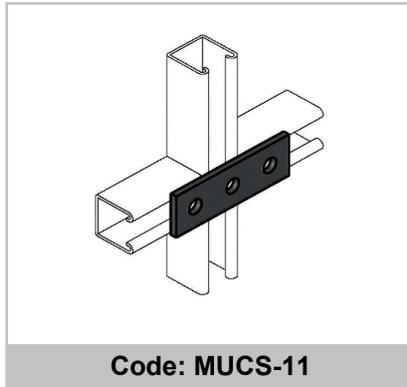
**Long neck base plate for Single channel**  
**Code: MBP12**

- 14mm neck holes diameters to match M12 bolts
- 16mm base holes diameters to match M14 anchor bolts
- Any different sizes should be specified at the time of ordering

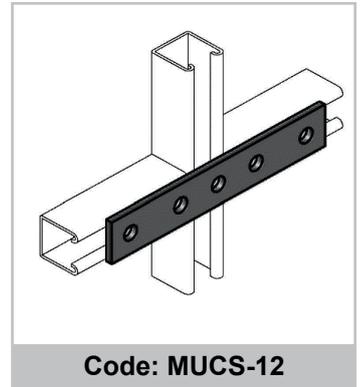
## Accessories for U-Channel Support System



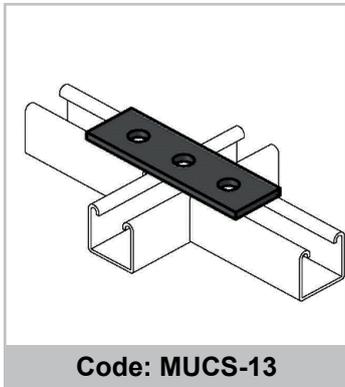
Code: MUCS-10



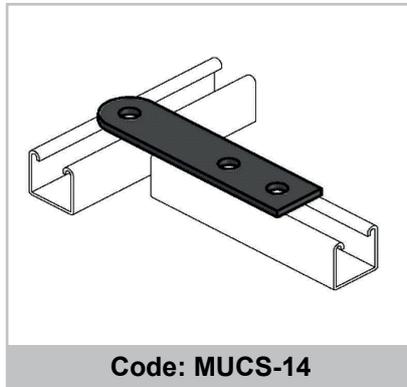
Code: MUCS-11



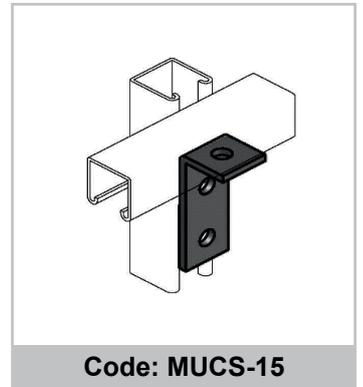
Code: MUCS-12



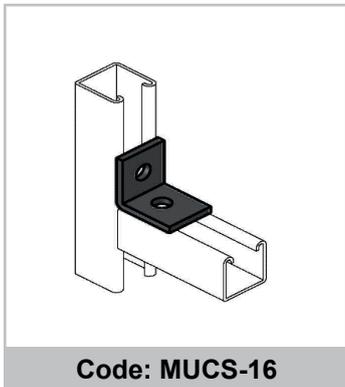
Code: MUCS-13



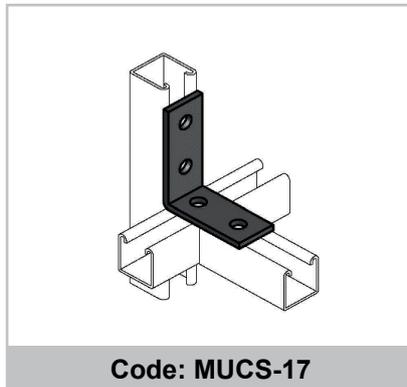
Code: MUCS-14



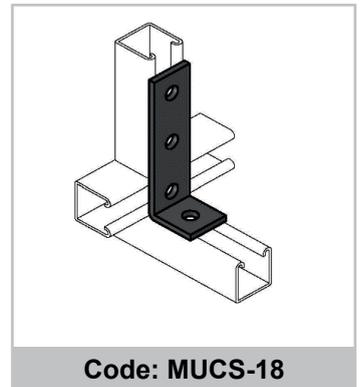
Code: MUCS-15



Code: MUCS-16



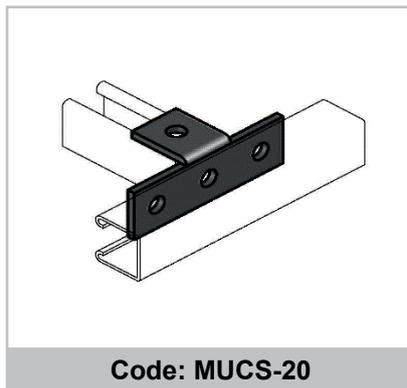
Code: MUCS-17



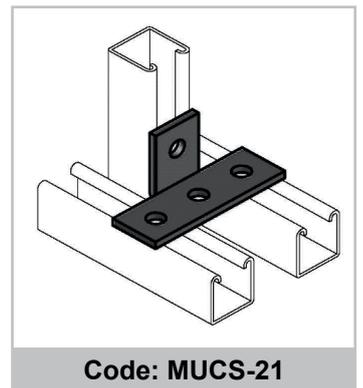
Code: MUCS-18



Code: MUCS-19

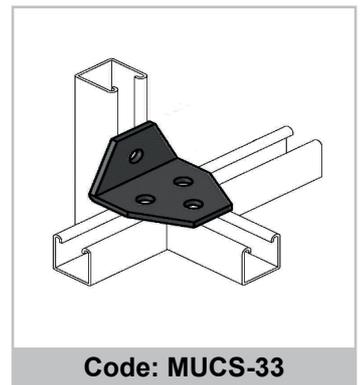
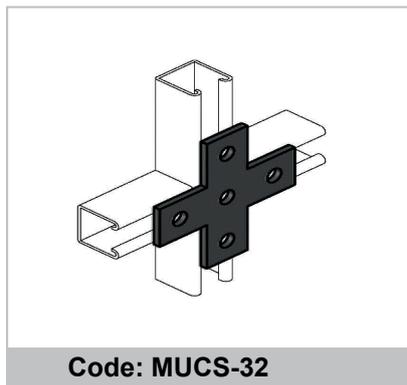
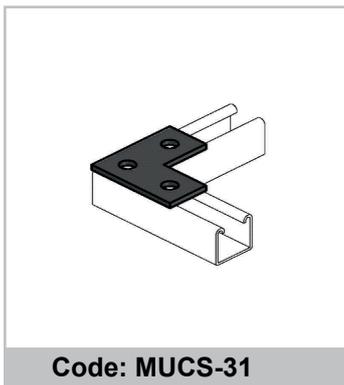
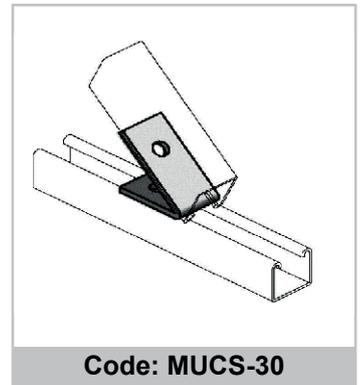
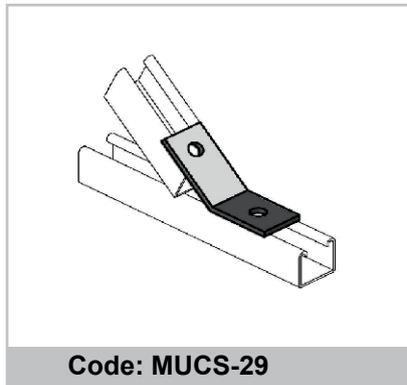
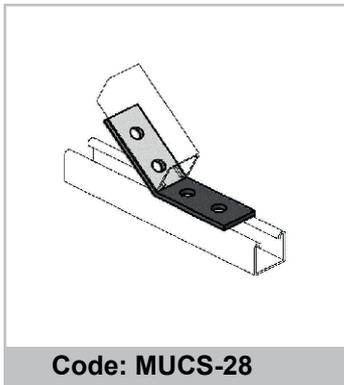
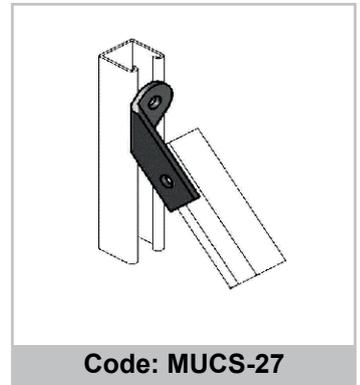
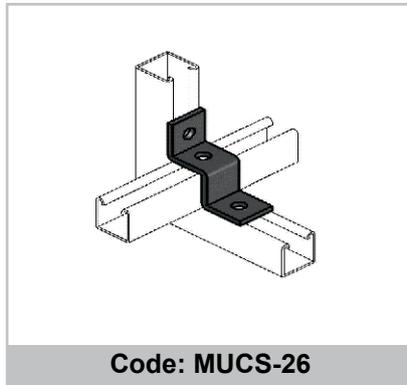
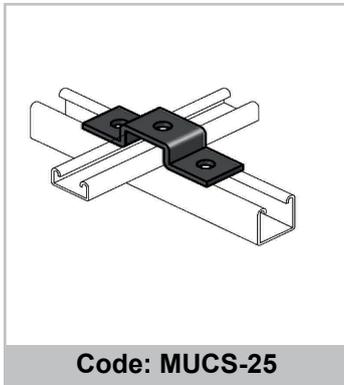
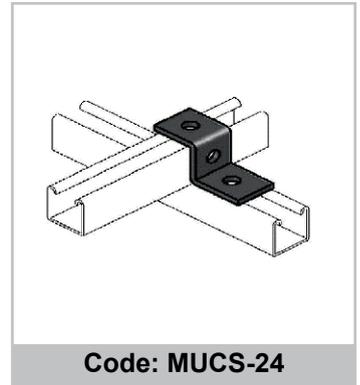
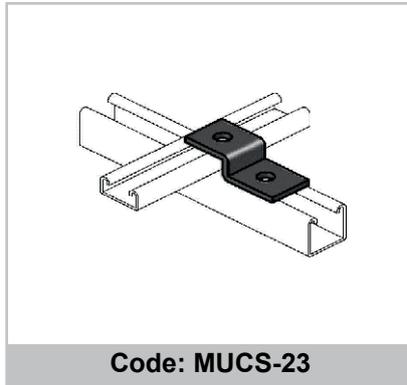
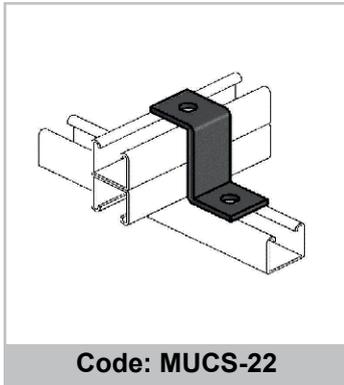


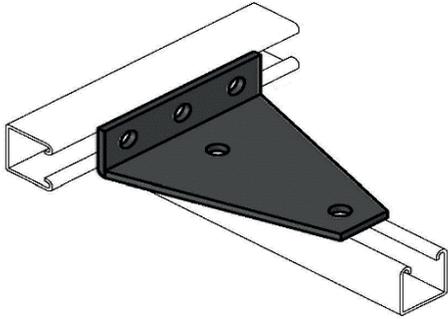
Code: MUCS-20



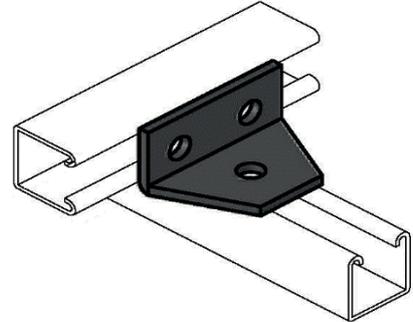
Code: MUCS-21

## Accessories for U-Channel Support System

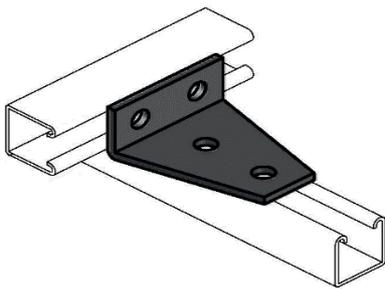




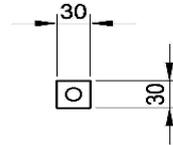
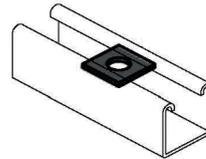
Code: MUCS-34



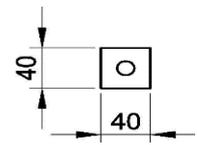
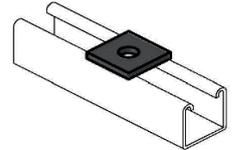
Code: MUCS-35



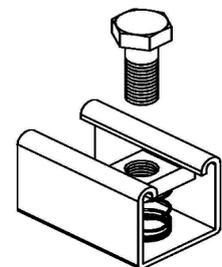
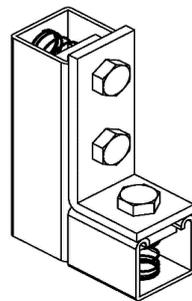
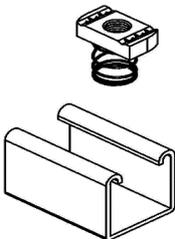
Code: MUCS-36



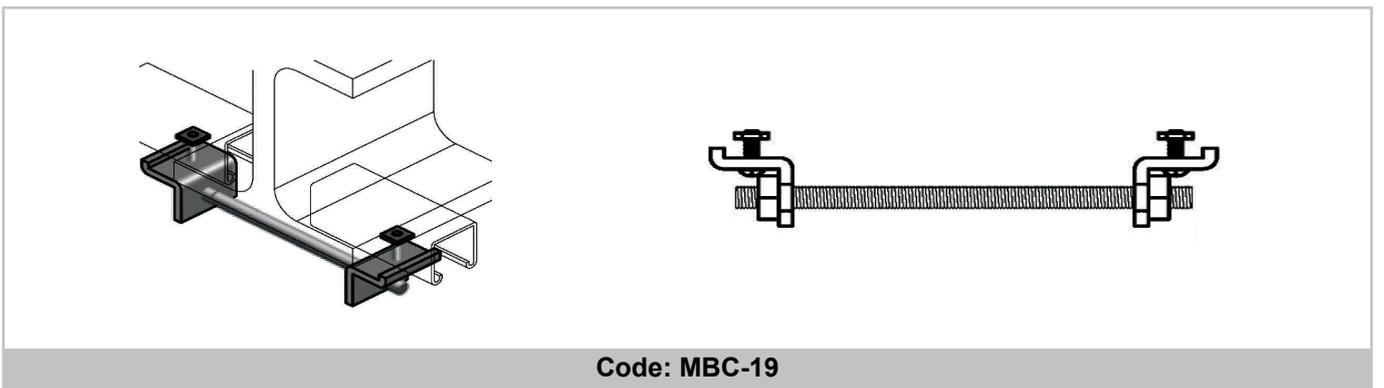
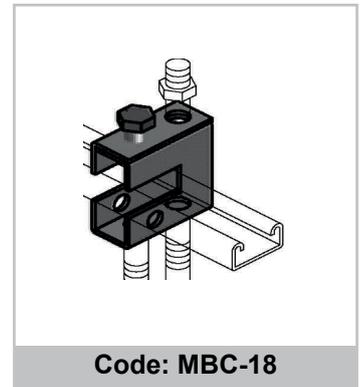
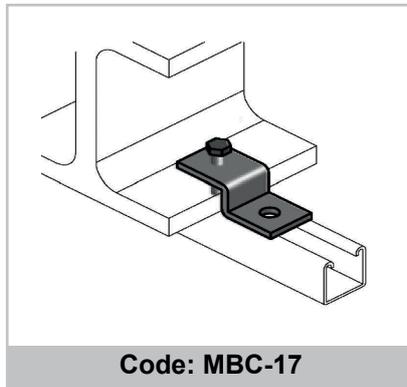
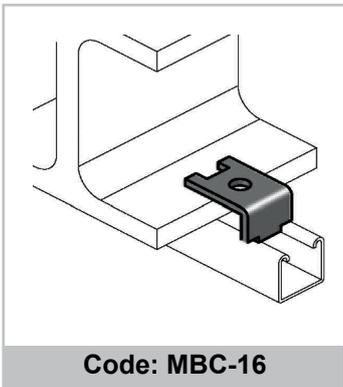
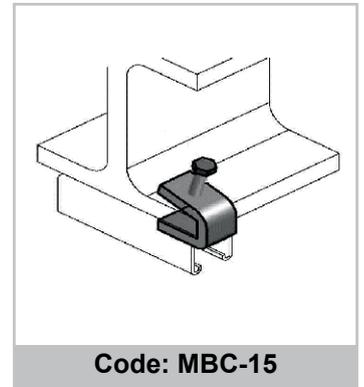
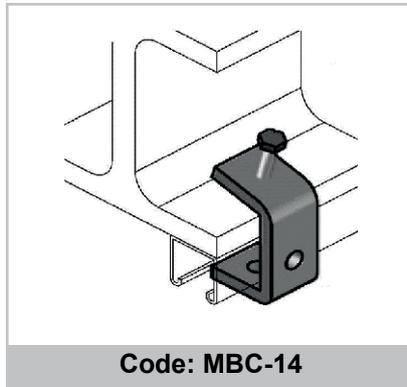
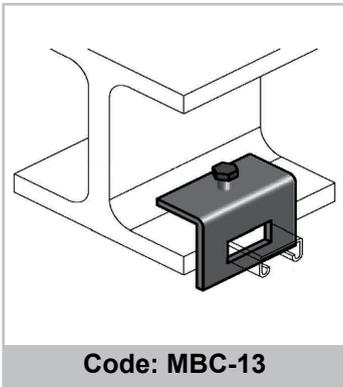
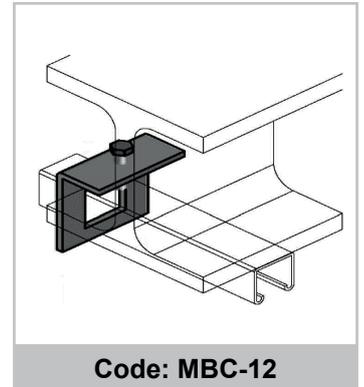
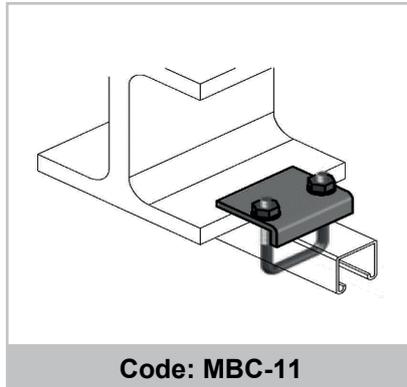
Code: MUCS-37

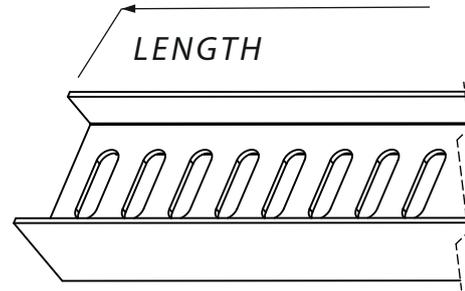
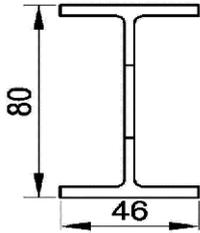


Code: MUCS-38



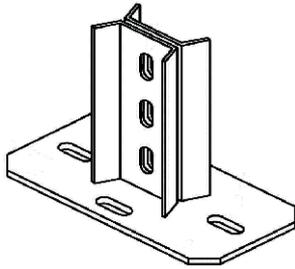
## Beam Clamps





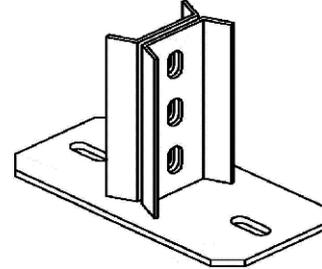
**Straight I-Beam**

Code: MSIB-L    L: length in meters



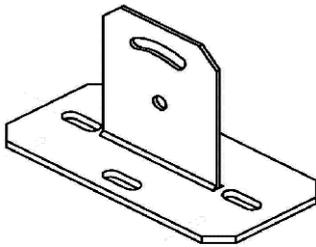
**Base plate for I-Beam support**

Code: MBPI10



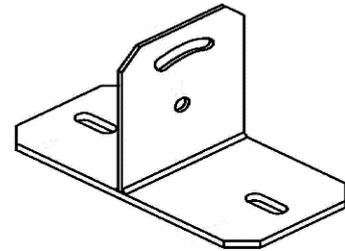
**Base plate for I-Beam support**

Code: MBPI11



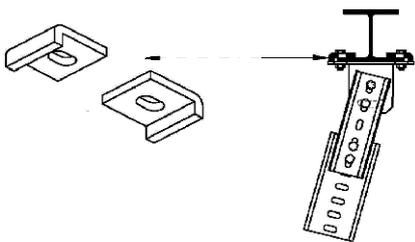
**Adjustable angle I-Beam Hanger**

Code: MAHI-10



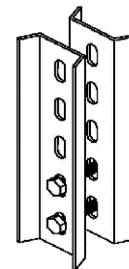
**Adjustable angle I-Beam Hanger**

Code: MAHI-11



**Fixing brackets for I-Beam Hanger**

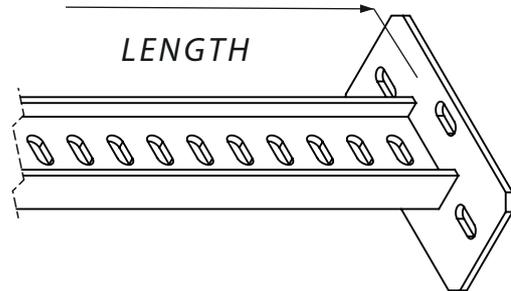
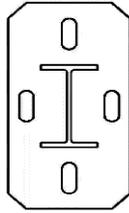
Code: MBHI



**I-Beam to hanger jointing pieces**

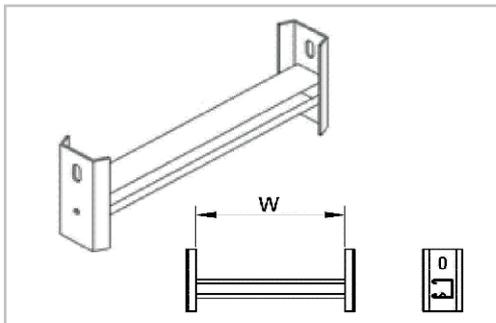
Code: MIHJP

## I-Beam Support System and Accessories



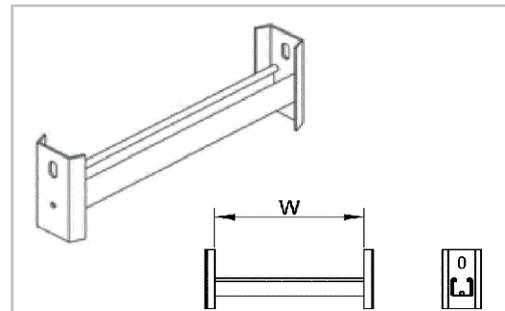
**Base supported I-Beam**

**Code: MBSI-L**      **L: length in meters**



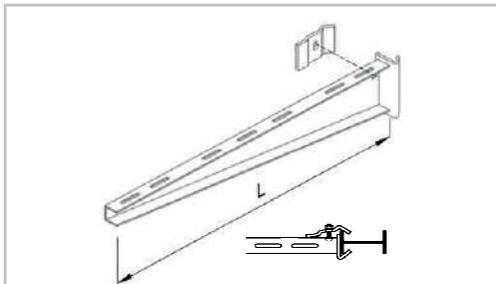
**Vertical mounting I-Bracket**

**Code: MVMIB-W**      **W: internal width**



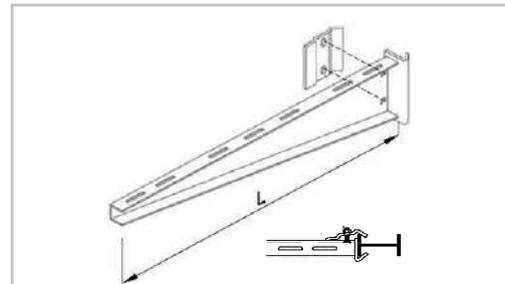
**Horizontal mounting I-Bracket**

**Code: MHMIB-W**      **W: internal width**



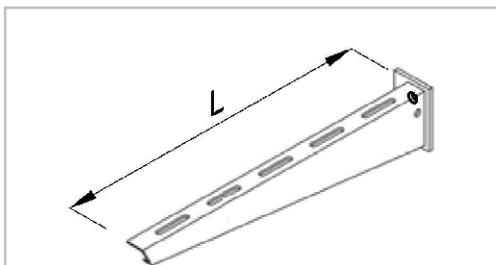
**Medium duty I-support cantilever**

**Code: MMIC-L**      **L:Length**



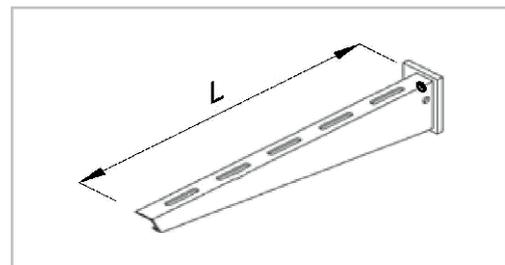
**Heavy duty I-support cantilever**

**Code: MHIC-L**      **L:Length**



**Medium duty wall bracket**

**Code: MHWB-L**      **L:Length**

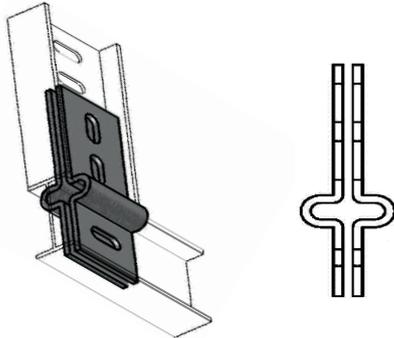


**Heavy duty wall bracket**

**Code: MHWB-L**      **L:Length**

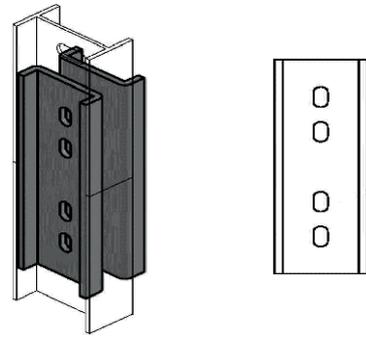
# MASEICO

## I-Beam Support System and Accessories



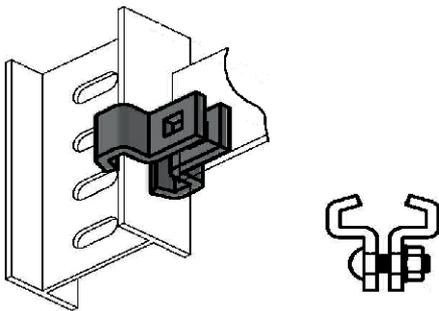
**Beam to Beam perpendicular connection clamp**

**Code: MBCP**



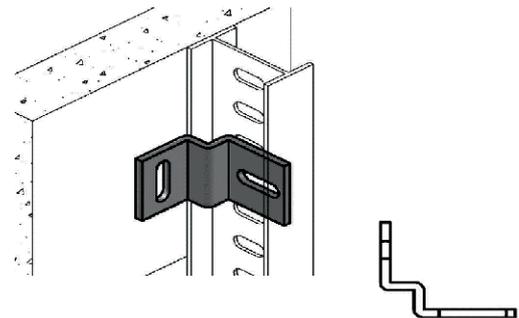
**I-Beam Connector**

**Code: MIBC**



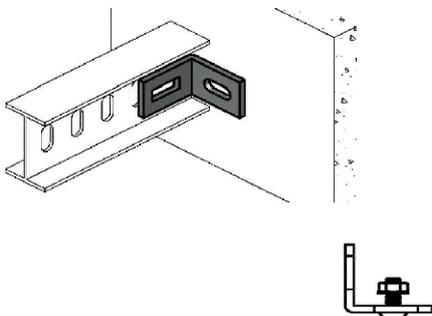
**Beam to plate jointing clamp**

**Code: MBPJC**



**Beam to wall jointing angle**

**Code: MBWJA**



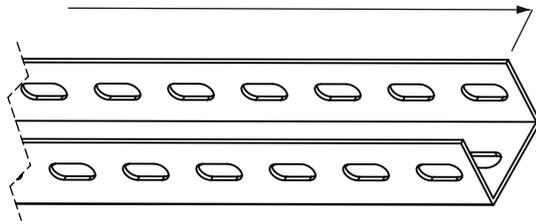
**Beam to wall perpendicular jointing angle**

**Code: MBWPJA**

## U-Beam Support System and Accessories

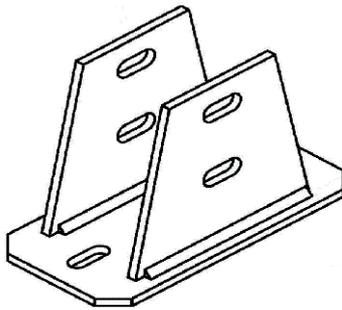


LENGTH



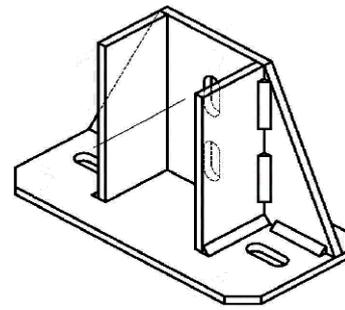
**Straight U-Piece**

**Code: MSUB-L**    **L: length in meters**



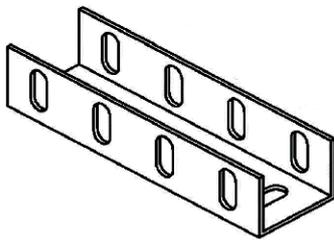
**Base plate for U-Piece support**

**Code: MBPU10**



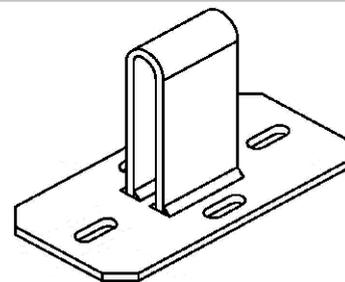
**Base plate for U-Piece support**

**Code: MBPU11**



**Connector for U-Support lengths**

**Code: MCU**

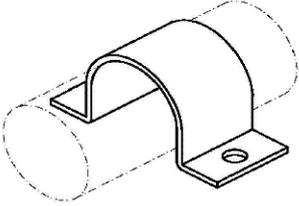


**Base plate for U-Piece support**

**Code: MBPU12**

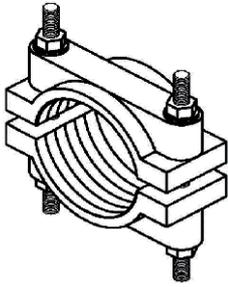
# MASEICO

## Cable Clamps and Cleats



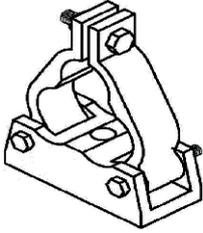
D
21.3
26.9
33.7
42.4
48.3
60.3
76.1
88.9
114.3
134.7
168.3
174.6
187.3

**Cable clamps P-Type**  
Code: MCCP - D    D: Cable diameter



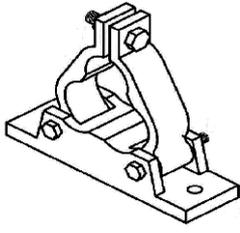
D	1	32 to 38
2	38 to 44	
3	44 to 50	
4	50 to 57	
5	57 to 63	
6	63 to 70	
7	70 to 77	
8	77 to 83	
9	83 to 89	
10	89 to 95	
11	95 to 101	
12	101 to 108	
13	108 to 113	
14	113 to 120	

**Single Cable cleat**  
Code: MSCC - D    D: Cable external diameter range



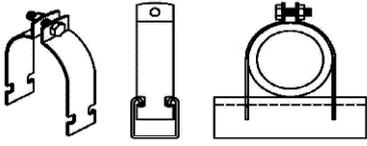
D	30 to 32
	32 to 34
	34 to 36
	36 to 38
	38 to 40
	42 to 44
	44 to 46
	46 to 48
	48 to 50
	50 to 55
	55 to 60
	60 to 66
	65 to 70
	70 to 75

**Trifoil Cable Cleat**  
Code: MTCCS - D    D: Cable external diameter range



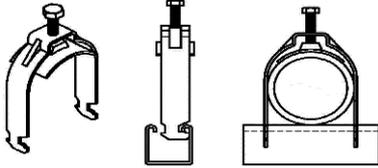
D	15	75 to 80
	16	80 to 85
	17	85 to 90
	18	90 to 95
	19	95 to 100
	20	100 to 110
	21	110 to 120

**Trifoil Cable Cleat**  
Code: MTCC - D    D: Cable external diameter range



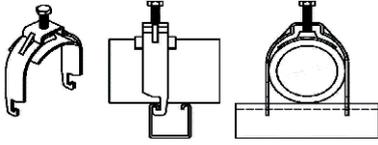
D	1	8 to 10	D	10	36 to 40
	2	10 to 12		11	40 to 46
	3	12 to 14		12	46 to 51
	4	14 to 16		13	51 to 56
	5	16 to 18		14	56 to 62
	6	18 to 22		15	62 to 68
	7	22 to 26		16	68 to 74
	8	26 to 30		17	74 to 82
	9	30 to 36		18	82 to 90

**C-Clamp**  
Code: MCC - D    D: Cable external diameter range



D	1	8 to 10	D	10	58 to 64
	2	12 to 16		11	64 to 70
	3	16 to 22		12	70 to 76
	4	22 to 28		13	76 to 82
	5	28 to 34		14	82 to 90
	6	34 to 40		15	90 to 100
	7	40 to 46		16	
	8	46 to 52		17	
	9	52 to 58		18	

**U-Clamp**  
Code: MUC1 - D    D: Cable external diameter range



D	1	8 to 10	D	10	58 to 64
	2	12 to 16		11	64 to 70
	3	16 to 22		12	70 to 76
	4	22 to 28		13	76 to 82
	5	28 to 34		14	82 to 90
	6	34 to 40		15	90 to 100
	7	40 to 46		16	
	8	46 to 52		17	
	9	52 to 58		18	

**U-Clamp**  
Code: MUC2 - D    D: Cable external diameter range



# MASEICO

## Cable Glands



## Introduction

As one of the leaders in cable management systems industry, MASEICO maintained the unique success by producing its developed range of cable glands.

MASEICO cable glands were designed and manufactured covering the international range of cable glands for indoor, outdoor, industrials and hazardous areas requirements based on the vital certifications for weather and gas proof, flameproof, expulsion proof considering the increased safety exposure.

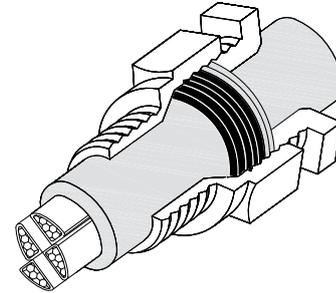
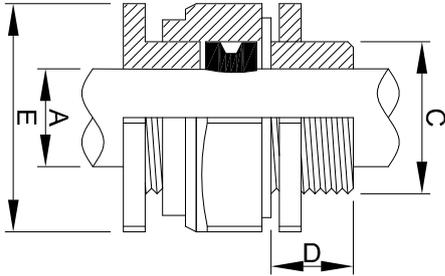
On the other hands, counting the wide range of features which bring several benefits to operators, installers, owners and contractors, which maintain the best installation solutions, high quality, long life and best cost considerations.

MASEICO utilizes its long experience with high technology computerized machines to produce that unique output to serve and comply to the market variable requirements providing full compliance with the electrical international standards.

MASEICO glands are available in Brass, Nickel plated Brass, Aluminum and Stainless steel, while, the design requirements can be considers as per clients request considering the threads, cable diameters and installation special requirements.

## A2M Cable Gland: Industrial cable gland with single outer seal

For indoor and outdoor use, applicable for all types of unarmoured cables, providing a seal on the outer sheath.



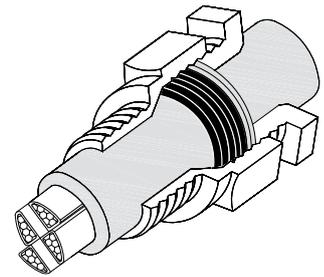
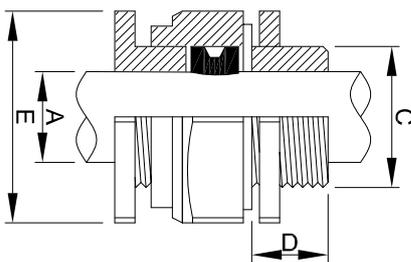
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	10	8.6	8.6	21.9	A2M16
20SS	20	1/2"	10	8.6	8.6	25.4	A2M20SS
20S	20	1/2"	10	11.6	11.6	25.4	A2M20S
20	20	1/2"	10	13.9	13.9	28.8	A2M20
25S	25	3/4"	10	16.5	16.5	34.6	A2M25S
25	25	3/4"	10	19.9	19.9	34.6	A2M25
32	32	1"	10	26.2	26.2	46.1	A2M32
40	40	1-1/4"	15	32.1	32.1	54.2	A2M40
50S	50	1-1/2"	15	37.0	37.0	64.6	A2M50S
50	50	2"	15	44.0	44.0	75.0	A2M50
63S	63	2"	15	49.9	49.9	80.8	A2M63S
63	63	2-1/2"	15	55.9	55.9	86.6	A2M63
75S	75	2-1/2"	15	61.9	61.9	92.3	A2M75S
75	75	3"	20	67.9	67.9	98.1	A2M75
95	95	3-1/2"	20	***	***	121.2	A2M95
100	100	4"	20	***	***	127.0	A2M100

### Technical Data:

- Design Specifications as per BSEN50262 Part 1 Type A2
- Ingress protection: IP66, IP67 & IP68 (10 meters depth for 7 days)
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Unarmoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## A2EM Cable Gland: Increased safety cable gland with single outer seal

Flameproof (Type 'd') and Increased Safety (Type 'e') For indoor and outdoor use, applicable for all types of unarmoured cables providing a flameproof seal on the outer sheath, designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas.



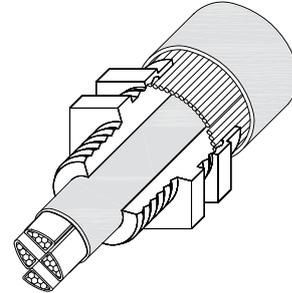
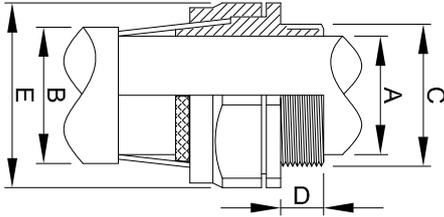
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	8.6	21.9	A2EM16
20SS	20	1/2"	15	8.6	8.6	25.4	A2EM20SS
20S	20	1/2"	15	11.6	11.6	25.4	A2EM20S
20	20	1/2"	15	13.9	13.9	28.8	A2EM20
25S	25	3/4"	15	16.5	16.5	34.6	A2EM25S
25	25	3/4"	15	19.9	19.9	34.6	A2EM25
32	32	1"	15	26.2	26.2	46.1	A2EM32
40	40	1-1/4"	20	32.1	32.1	54.2	A2EM40
50S	50	1-1/2"	20	37.0	37.0	64.6	A2EM50S
50	50	2"	20	44.0	44.0	75.0	A2EM50
63S	63	2"	20	49.9	49.9	80.8	A2EM63S
63	63	2-1/2"	20	55.9	55.9	86.6	A2EM63
75S	75	2-1/2"	20	61.9	61.9	92.3	A2EM75S
75	75	3"	25	67.9	67.9	98.1	A2EM75
95	95	3-1/2"	25	***	***	121.2	A2EM95
100	100	4"	25	***	***	127.0	A2EM100

### Technical Data:

- Design Specifications as per EN50014, EN50018, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx d IIC & EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66, IP67 & IP68 (10 meters depth for 7 days)
- Deluge protection: DTS 01:1991
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath
- Gland material: Brass, Nickel plated brass, SS, Aluminum
- Cable type: Unarmoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## BWM Cable Gland: Industrial cable gland without seal

For indoor use, applicable for all types of steel wire armoured cables, providing mechanical cable retention with electrical continuity through armour wire termination



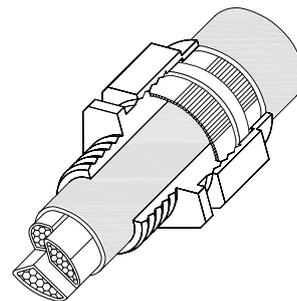
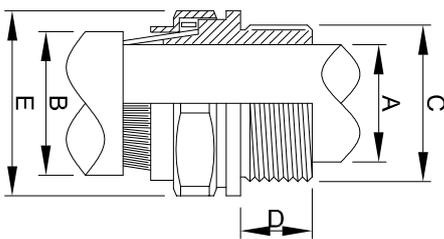
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	10	8.6	13.4	25.4	BWM16
20SS	20	1/2"	10	8.6	13.9	25.4	BWM20SS
20S	20	1/2"	10	11.6	16.1	28.8	BWM20S
20	20	1/2"	10	13.9	21.1	34.6	BWM20
25S	25	3/4"	10	19.1	24.5	34.6	BWM25S
25	25	3/4"	10	19.9	27.4	42.7	BWM25
32	32	1"	10	26.2	34.4	54.2	BWM32
40	40	1-1/4"	15	32.1	42.1	64.6	BWM40
50S	50	1-1/2"	15	38.1	50.1	75.0	BWM50S
50	50	2"	15	44.0	55.7	80.8	BWM50
63S	63	2"	15	50.0	62.4	92.3	BWM63S
63	63	2-1/2"	15	55.9	65.3	92.3	BWM63
75S	75	2-1/2"	15	61.9	71.6	103.9	BWM75S
75	75	3"	20	67.9	78.0	115.4	BWM75
95	95	3-1/2"	20	***	***	121.2	BWM95
100	100	4"	20	***	***	132.7	BWM100

### Technical Data:

- Design Specifications as per BS6121, Part 1
- Ingress protection: IP2X
- Operating Temperature Range: -60°C to +100°C.
- Provides mechanical cable retention with electrical continuity through armour wire termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Steel wire armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## BWLM Cable Gland: Heavy duty Industrial cable gland without seal

For indoor use, applicable for all types of steel wire armoured cables, providing mechanical cable retention with electrical continuity through armour wire termination



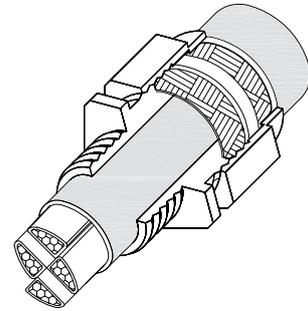
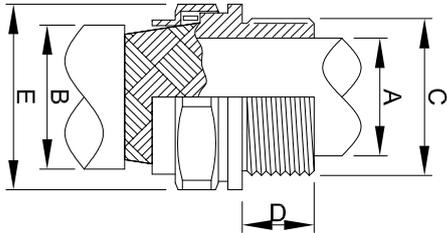
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	10	8.6	13.4	25.4	BWLM16
20SS	20	1/2"	10	8.6	13.9	25.4	BWLM20SS
20S	20	1/2"	10	11.6	15.9	28.8	BWLM20S
20	20	1/2"	10	13.9	20.9	34.6	BWLM20
25S	25	3/4"	10	19.1	24.5	34.6	BWLM25S
25	25	3/4"	10	19.9	27.4	42.7	BWLM25
32	32	1"	10	26.2	33.9	54.2	BWLM32
40	40	1-1/4"	15	32.1	40.4	64.6	BWLM40
50S	50	1-1/2"	15	38.1	46.7	75.0	BWLM50S
50	50	2"	15	44.0	53.1	80.8	BWLM50
63S	63	2"	15	50.0	62.4	92.3	BWLM63S
63	63	2-1/2"	15	55.9	68.2	92.3	BWLM63
75S	75	2-1/2"	15	61.9	72.1	103.9	BWLM75S
75	75	3"	20	67.9	78.5	115.4	BWLM75
95	95	3-1/2"	20	***	***	121.2	BWLM95
100	100	4"	20	***	***	132.7	BWLM100

### Technical Data:

- Design Specifications as per BS6121, Part 1
- Ingress protection: IP2X
- Operating Temperature Range: -60°C to +100°C.
- Provides mechanical cable retention with electrical continuity through armour wire termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Steel wire armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## BXLM Cable Gland: Heavy duty Industrial cable gland without seal

For indoor use, applicable for all types of braid or steel tape armoured cables, providing mechanical cable retention with electrical continuity through armour braid termination.



Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	10	8.6	13.4	25.4	BXLM16
20SS	20	1/2"	10	8.6	13.9	25.4	BXLM20SS
20S	20	1/2"	10	11.6	15.9	28.8	BXLM20S
20	20	1/2"	10	13.9	20.9	34.6	BXLM20
25S	25	3/4"	10	19.1	24.5	34.6	BXLM25S
25	25	3/4"	10	19.9	27.4	42.7	BXLM25
32	32	1"	10	26.2	33.9	54.2	BXLM32
40	40	1-1/4"	15	32.1	40.4	64.6	BXLM40
50S	50	1-1/2"	15	38.1	46.7	75.0	BXLM50S
50	50	2"	15	44.0	53.1	80.8	BXLM50
63S	63	2"	15	50.0	62.4	92.3	BXLM63S
63	63	2-1/2"	15	55.9	68.2	92.3	BXLM63
75S	75	2-1/2"	15	61.9	72.1	103.9	BXLM75S
75	75	3"	20	67.9	78.5	115.4	BXLM75
95	95	3-1/2"	20	***	***	121.2	BXLM95
100	100	4"	20	***	***	132.7	BXLM100

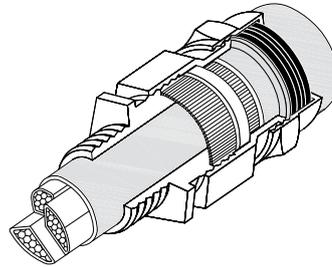
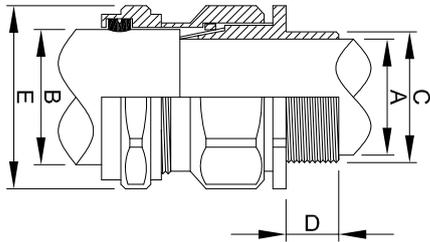
### Technical Data:

- Design Specifications as per BS6121, Part 1
- Ingress protection: IP2X
- Operating Temperature Range: -60°C to +100°C.
- Provides mechanical cable retention with electrical continuity through armour braid or steel tape termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Braid or steel tape armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.



## CWM Cable Gland: Industrial cable gland with single outer seal

For indoor and outdoor use, applicable for all types of steel wire armoured cables, providing a seal on the outer sheath, as well as mechanical cable retention with electrical continuity through armour wire termination.



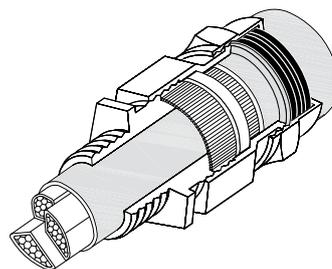
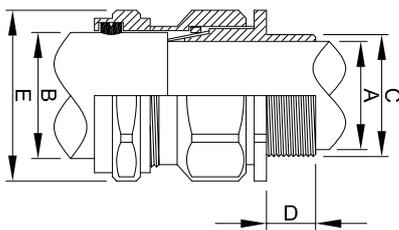
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	10	8.6	13.4	25.4	CWM16
20SS	20	1/2"	10	8.6	13.9	25.4	CWM20SS
20S	20	1/2"	10	11.6	15.9	28.8	CWM20S
20	20	1/2"	10	13.9	20.9	34.6	CWM20
25S	25	3/4"	10	19.1	24.5	34.6	CWM25S
25	25	3/4"	10	19.9	27.2	42.7	CWM25
32	32	1"	10	26.2	33.5	54.2	CWM32
40	40	1-1/4"	15	32.1	40.0	64.6	CWM40
50S	50	1-1/2"	15	38.1	46.3	75.0	CWM50S
50	50	2"	15	44.0	53.1	80.8	CWM50
63S	63	2"	15	50.0	59.4	92.3	CWM63S
63	63	2-1/2"	15	55.9	65.9	92.3	CWM63
75S	75	2-1/2"	15	61.9	72.1	103.9	CWM75S
75	75	3"	20	67.9	78.5	115.4	CWM75
95	95	3-1/2"	20	***	***	121.2	CWM95
100	100	4"	20	***	***	132.7	CWM100

### Technical Data:

- Design Specifications as per BSEN50262
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath
- Provides mechanical cable retention with electrical continuity through armour wire termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Steel wire armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## CWEM Cable Gland: Increased safety cable gland with single outer seal

Increased Safety (Type 'e') For indoor and outdoor use, applicable for all types of steel wire armoured cables, providing an environmental seal on the outer sheath, as well as mechanical cable retention with electrical continuity through armour wire termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas for increased safety terminal chambers.



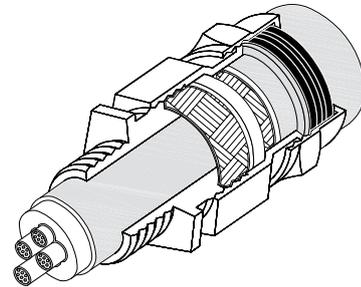
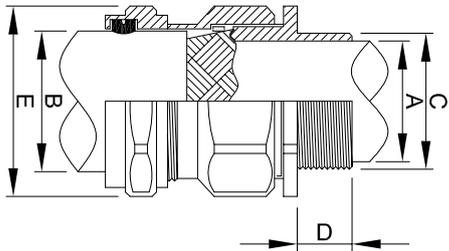
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	CWEM16
20SS	20	1/2"	15	8.6	13.9	25.4	CWEM20SS
20S	20	1/2"	15	11.6	15.9	28.8	CWEM20S
20	20	1/2"	15	13.9	20.9	34.6	CWEM20
25S	25	3/4"	15	19.1	24.5	34.6	CWEM25S
25	25	3/4"	15	19.9	27.2	42.7	CWEM25
32	32	1"	15	26.2	33.5	54.2	CWEM32
40	40	1-1/4"	20	32.1	40.0	64.6	CWEM40
50S	50	1-1/2"	20	38.1	46.3	75.0	CWEM50S
50	50	2"	20	44.0	53.1	80.8	CWEM50
63S	63	2"	20	50.0	59.4	92.3	CWEM63S
63	63	2-1/2"	20	55.9	65.9	92.3	CWEM63
75S	75	2-1/2"	20	61.9	72.1	103.9	CWEM75S
75	75	3"	25	67.9	78.5	115.4	CWEM75
95	95	3-1/2"	25	***	***	121.2	CWEM95
100	100	4"	25	***	***	132.7	CWEM100

### Technical Data:

- Design Specifications as per EN50014, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath
- Provides mechanical cable retention with electrical continuity through armour wire termination
- Gland material: Brass, Nickel plated brass, SS, Aluminum
- Cable type: Steel wire armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## CXM Cable Gland: Industrial cable gland with single outer seal

For indoor and outdoor use, applicable for all types of braid armoured cables, providing a seal on the outer sheath, as well as mechanical cable retention with electrical continuity through armour braid termination.



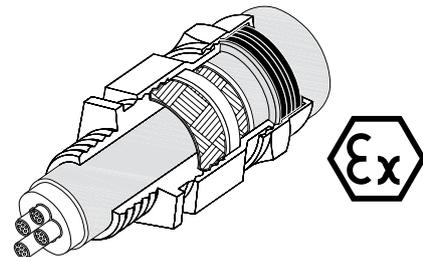
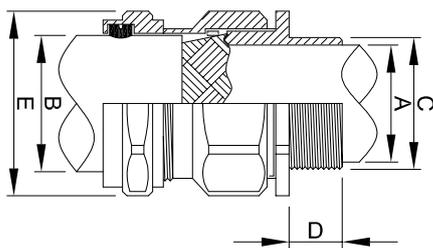
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	10	8.6	13.4	25.4	CXM16
20SS	20	1/2"	10	8.6	13.9	25.4	CXM20SS
20S	20	1/2"	10	11.6	15.9	28.8	CXM20S
20	20	1/2"	10	13.9	20.9	34.6	CXM20
25S	25	3/4"	10	19.1	24.5	34.6	CXM25S
25	25	3/4"	10	19.9	27.2	42.7	CXM25
32	32	1"	10	26.2	33.5	54.2	CXM32
40	40	1-1/4"	15	32.1	40.0	64.6	CXM40
50S	50	1-1/2"	15	38.1	46.3	75.0	CXM50S
50	50	2"	15	44.0	53.1	80.8	CXM50
63S	63	2"	15	49.9	59.4	92.3	CXM63S
63	63	2-1/2"	15	55.9	65.9	92.3	CXM63
75S	75	2-1/2"	15	61.9	72.1	103.9	CXM75S
75	75	3"	20	67.9	78.5	115.4	CXM75
95	95	3-1/2"	20	***	***	121.2	CXM95
100	100	4"	20	***	***	132.7	CXM100

### Technical Data:

- Design Specifications as per BSEN50262
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath
- Provides mechanical cable retention with electrical continuity through armour braid termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Braid armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## CXEM Cable Gland: Increased safety cable gland with single outer seal

Increased Safety (Type 'e') For indoor and outdoor use, applicable for all types of braid armoured cables, providing an environmental seal on the outer sheath, as well as mechanical cable retention with electrical continuity through armour braid termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas for increased safety terminal chambers.



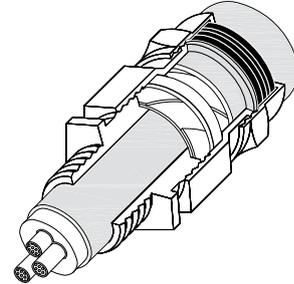
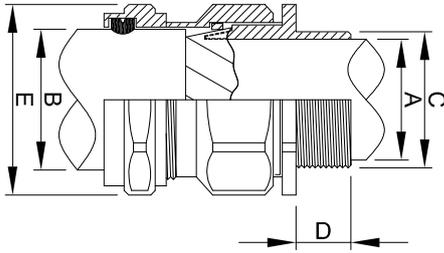
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	CXEM16
20SS	20	1/2"	15	8.6	13.9	25.4	CXEM20SS
20S	20	1/2"	15	11.6	15.9	28.8	CXEM20S
20	20	1/2"	15	13.9	20.9	34.6	CXEM20
25S	25	3/4"	15	19.1	24.5	34.6	CXEM25S
25	25	3/4"	15	19.9	27.2	42.7	CXEM25
32	32	1"	15	26.2	33.5	54.2	CXEM32
40	40	1-1/4"	20	32.1	40.0	64.6	CXEM40
50S	50	1-1/2"	20	38.1	46.3	75.0	CXEM50S
50	50	2"	20	44.0	53.1	80.8	CXEM50
63S	63	2"	20	49.9	59.4	92.3	CXEM63S
63	63	2-1/2"	20	55.9	65.9	92.3	CXEM63
75S	75	2-1/2"	20	61.9	72.1	103.9	CXEM75S
75	75	3"	25	67.9	78.5	115.4	CXEM75
95	95	3-1/2"	25	***	***	121.2	CXEM95
100	100	4"	25	***	***	132.7	CXEM100

### Technical Data:

- Design Specifications as per EN50014, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath
- Provides mechanical cable retention with electrical continuity through armour braid termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Braid armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## CZM Cable Gland: Industrial cable gland with single outer seal

For indoor and outdoor use, applicable for all types of steel tape armoured cables, providing a seal on the outer sheath, as well as mechanical cable retention with electrical continuity through armour steel tape termination.



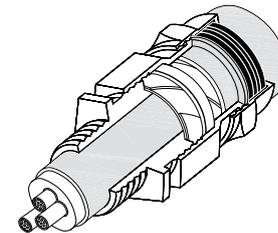
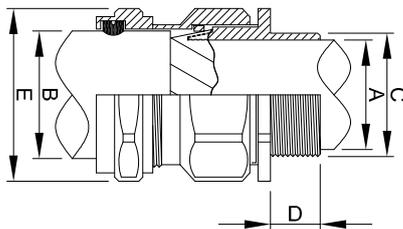
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	10	8.6	13.4	25.4	CZM16
20SS	20	1/2"	10	8.6	13.9	25.4	CZM20SS
20S	20	1/2"	10	11.6	15.9	28.8	CZM20S
20	20	1/2"	10	13.9	20.9	34.6	CZM20
25S	25	3/4"	10	19.1	24.5	34.6	CZM25S
25	25	3/4"	10	19.9	27.2	42.7	CZM25
32	32	1"	10	26.2	33.5	54.2	CZM32
40	40	1-1/4"	15	32.1	40.0	64.6	CZM40
50S	50	1-1/2"	15	38.1	46.3	75.0	CZM50S
50	50	2"	15	44.0	53.1	80.8	CZM50
63S	63	2"	15	49.9	59.4	92.3	CZM63S
63	63	2-1/2"	15	55.9	65.9	92.3	CZM63
75S	75	2-1/2"	15	61.9	72.1	103.9	CZM75S
75	75	3"	20	67.9	78.5	115.4	CZM75
95	95	3-1/2"	20	***	***	121.2	CZM95
100	100	4"	20	***	***	132.7	CZM100

### Technical Data:

- Design Specifications as per BSEN50262
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath
- Provides mechanical cable retention with electrical continuity through armour steel tape termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Steel tape armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## CZEM Cable Gland: Increased safety cable gland with single outer seal

Increased Safety (Type 'e') For indoor and outdoor use, applicable for all types of steel tape armoured cables, providing an environmental seal on the outer sheath, as well as mechanical cable retention with electrical continuity through armour steel tape termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas for increased safety terminal chambers.



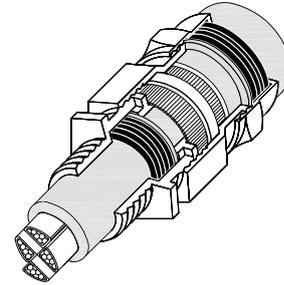
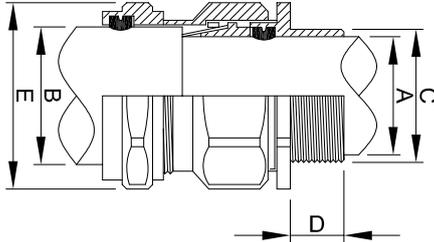
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	CZEM16
20SS	20	1/2"	15	8.6	13.9	25.4	CZEM20SS
20S	20	1/2"	15	11.6	15.9	28.8	CZEM20S
20	20	1/2"	15	13.9	20.9	34.6	CZEM20
25S	25	3/4"	15	19.1	24.5	34.6	CZEM25S
25	25	3/4"	15	19.9	27.2	42.7	CZEM25
32	32	1"	15	26.2	33.5	54.2	CZEM32
40	40	1-1/4"	20	32.1	40.0	64.6	CZEM40
50S	50	1-1/2"	20	38.1	46.3	75.0	CZEM50S
50	50	2"	20	44	53.1	80.8	CZEM50
63S	63	2"	20	49.9	59.4	92.3	CZEM63S
63	63	2-1/2"	20	55.9	65.9	92.3	CZEM63
75S	75	2-1/2"	20	61.9	72.1	103.9	CZEM75S
75	75	3"	25	67.9	78.5	115.4	CZEM75
95	95	3-1/2"	25	***	***	121.2	CZEM95
100	100	4"	25	***	***	132.7	CZEM100

### Technical Data:

- Design Specifications as per EN50014, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath
- Provides mechanical cable retention with electrical continuity through armour steel tape termination
- Gland material: Brass, Nickel plated brass, SS, Aluminum
- Cable type: Steel tape armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## E1WM Cable Gland: Industrial cable gland with double seal

For indoor and outdoor use, applicable for all types of steel wire armoured cables, providing a seal on both inner and outer sheath, as well as mechanical cable retention with electrical continuity through armour steel wire termination.



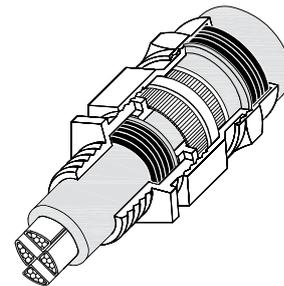
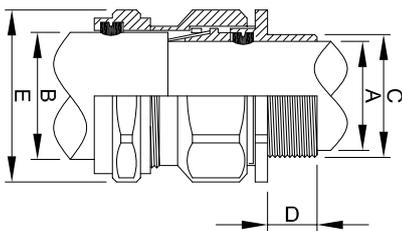
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	10	8.6	13.4	25.4	E1WM16
20SS	20	1/2"	10	8.6	13.9	25.4	E1WM20SS
20S	20	1/2"	10	11.6	15.9	28.8	E1WM20S
20	20	1/2"	10	13.9	20.9	34.6	E1WM20
25S	25	3/4"	10	19.1	24.5	34.6	E1WM25S
25	25	3/4"	10	19.9	27.2	42.7	E1WM25
32	32	1"	10	26.2	33.5	54.2	E1WM32
40	40	1-1/4"	15	32.1	40.0	64.6	E1WM40
50S	50	1-1/2"	15	38.1	46.3	75.0	E1WM50S
50	50	2"	15	44.0	53.1	80.8	E1WM50
63S	63	2"	15	49.9	59.4	92.3	E1WM63S
63	63	2-1/2"	15	55.9	65.9	92.3	E1WM63
75S	75	2-1/2"	15	61.9	72.1	103.9	E1WM75S
75	75	3"	20	67.9	78.5	115.4	E1WM75
95	95	3-1/2"	20	***	***	121.2	E1WM95
100	100	4"	20	***	***	132.7	E1WM100

### Technical Data:

- Design Specifications as per BSEN50262
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables inner and outer sheath
- Provides mechanical cable retention with electrical continuity through armour steel wire termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Steel wire armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## E1WEM Cable Gland: Increased safety cable gland with double seal.

Flameproof (Type 'd') and Increased Safety (Type 'e') For indoor and outdoor use, applicable for all types of steel wire armoured cable providing environmental seal on the cable outer sheath and flameproof seal on the cable inner sheath, as well as mechanical cable retention with electrical continuity through armour steel wire termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas.



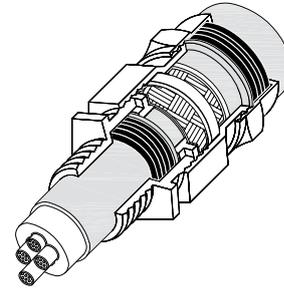
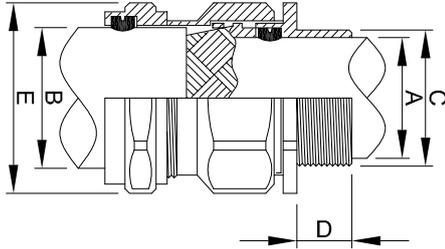
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	E1WEM16
20SS	20	1/2"	15	8.6	13.9	25.4	E1WEM20SS
20S	20	1/2"	15	11.6	15.9	28.8	E1WEM20S
20	20	1/2"	15	13.9	20.9	34.6	E1WEM20
25S	25	3/4"	15	19.1	24.5	34.6	E1WEM25S
25	25	3/4"	15	19.9	27.2	42.7	E1WEM25
32	32	1"	15	26.2	33.5	54.2	E1WEM32
40	40	1-1/4"	20	32.1	40.0	64.6	E1WEM40
50S	50	1-1/2"	20	38.1	46.3	75.0	E1WEM50S
50	50	2"	20	44.0	53.1	80.8	E1WEM50
63S	63	2"	20	49.9	59.4	92.3	E1WEM63S
63	63	2-1/2"	20	55.9	65.9	92.3	E1WEM63
75S	75	2-1/2"	20	61.9	72.1	103.9	E1WEM75S
75	75	3"	25	67.9	78.5	115.4	E1WEM75
95	95	3-1/2"	25	***	***	121.2	E1WEM95
100	100	4"	25	***	***	132.7	E1WEM100

### Technical Data:

- Design Specifications as per EN50014, EN50018, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx d IIC & EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables inner and outer sheath.
- Provides mechanical cable retention with electrical continuity through armour steel wire termination
- Gland material: Brass, Nickel plated brass, SS, Aluminum
- Cable type: Steel wire armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## E1XM Cable Gland: Industrial cable gland with double seal.

For indoor and outdoor use, applicable for all types of braid armoured cables, providing a seal on both inner and outer sheath, as well as mechanical cable retention with electrical continuity through armour braid termination.



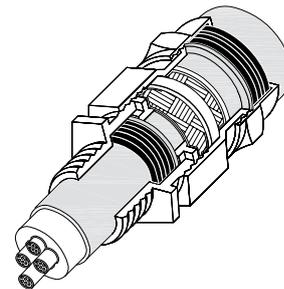
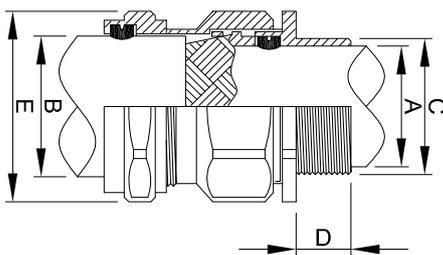
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	10	8.6	13.4	25.4	E1XM16
20SS	20	1/2"	10	8.6	13.9	25.4	E1XM20SS
20S	20	1/2"	10	11.6	15.9	28.8	E1XM20S
20	20	1/2"	10	13.9	20.9	34.6	E1XM20
25S	25	3/4"	10	19.1	24.5	34.6	E1XM25S
25	25	3/4"	10	19.9	27.2	42.7	E1XM25
32	32	1"	10	26.2	33.5	54.2	E1XM32
40	40	1-1/4"	15	32.1	40.0	64.6	E1XM40
50S	50	1-1/2"	15	38.1	46.3	75.0	E1XM50S
50	50	2"	15	44.0	53.1	80.8	E1XM50
63S	63	2"	15	49.9	59.4	92.3	E1XM63S
63	63	2-1/2"	15	55.9	65.9	92.3	E1XM63
75S	75	2-1/2"	15	61.9	72.1	103.9	E1XM75S
75	75	3"	20	67.9	78.5	115.4	E1XM75
95	95	3-1/2"	20	***	***	121.2	E1XM95
100	100	4"	20	***	***	132.7	E1XM100

### Technical Data:

- Design Specifications as per BSEN50262
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables inner and outer sheath
- Provides mechanical cable retention with electrical continuity through armour braid termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Braid armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## E1XEM Cable Gland: Increased safety cable gland with double seal.

Flameproof (Type 'd') and Increased Safety (Type 'e') For indoor and outdoor use, applicable for all types of braid armoured cables, providing environmental seal on the cable outer sheath and flameproof seal on the cable inner sheath, as well as mechanical cable retention with electrical continuity through armour braid termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas.



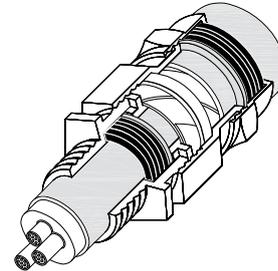
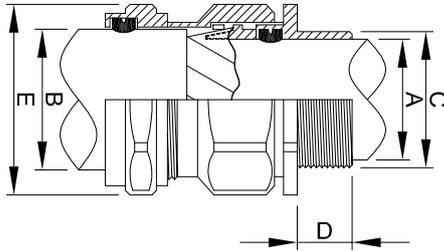
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	E1XEM16
20SS	20	1/2"	15	8.6	13.9	25.4	E1XEM20SS
20S	20	1/2"	15	11.6	15.9	28.8	E1XEM20S
20	20	1/2"	15	13.9	20.9	34.6	E1XEM20
25S	25	3/4"	15	19.1	24.5	34.6	E1XEM25S
25	25	3/4"	15	19.9	27.2	42.7	E1XEM25
32	32	1"	15	26.2	33.5	54.2	E1XEM32
40	40	1-1/4"	20	32.1	40.0	64.6	E1XEM40
50S	50	1-1/2"	20	38.1	46.3	75.0	E1XEM50S
50	50	2"	20	44.0	53.1	80.8	E1XEM50
63S	63	2"	20	49.9	59.4	92.3	E1XEM63S
63	63	2-1/2"	20	55.9	65.9	92.3	E1XEM63
75S	75	2-1/2"	20	61.9	72.1	103.9	E1XEM75S
75	75	3"	25	67.9	78.5	115.4	E1XEM75
95	95	3-1/2"	25	***	***	121.2	E1XEM95
100	100	4"	25	***	***	132.7	E1XEM100

### Technical Data:

- Design Specifications as per EN50014, EN50018, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx d IIC & EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables inner and outer sheath.
- Provides mechanical cable retention with electrical continuity through armour braid termination
- Gland material: Brass, Nickel plated brass, SS, Aluminum
- Cable type: braid armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## E1ZM Cable Gland: Industrial cable gland with double seal.

For indoor and outdoor use, applicable for all types of steel tape armoured cables, providing a seal on both inner and outer sheath, as well as mechanical cable retention with electrical continuity through armour steel tape termination.



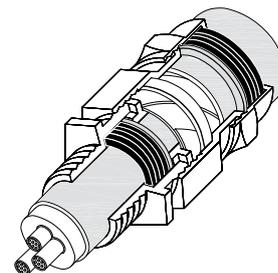
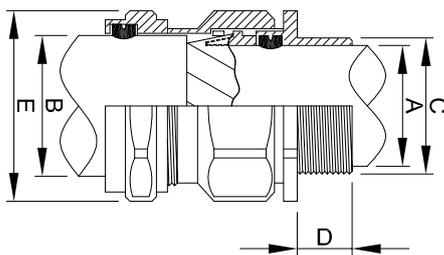
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	10	8.6	13.4	25.4	E1ZM16
20SS	20	1/2"	10	8.6	13.9	25.4	E1ZM20SS
20S	20	1/2"	10	11.6	15.9	28.8	E1ZM20S
20	20	1/2"	10	13.9	20.9	34.6	E1ZM20
25S	25	3/4"	10	19.1	24.5	34.6	E1ZM25S
25	25	3/4"	10	19.9	27.2	42.7	E1ZM25
32	32	1"	10	26.2	33.5	54.2	E1ZM32
40	40	1-1/4"	15	32.1	40.0	64.6	E1ZM40
50S	50	1-1/2"	15	38.1	46.3	75.0	E1ZM50S
50	50	2"	15	44.0	53.1	80.8	E1ZM50
63S	63	2"	15	49.9	59.4	92.3	E1ZM63S
63	63	2-1/2"	15	55.9	65.9	92.3	E1ZM63
75S	75	2-1/2"	15	61.9	72.1	103.9	E1ZM75S
75	75	3"	20	67.9	78.5	115.4	E1ZM75
95	95	3-1/2"	20	***	***	121.2	E1ZM95
100	100	4"	20	***	***	132.7	E1ZM100

### Technical Data:

- Design Specifications as per BSEN50262
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables inner and outer sheath
- Provides mechanical cable retention with electrical continuity through armour steel tape termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Steel tape armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## E1ZEM Cable Gland: Increased safety cable gland with double seal.

Flameproof (Type 'd') and Increased Safety (Type 'e') For indoor and outdoor use, applicable for all types of steel tape armoured cables, providing environmental seal on the cable outer sheath and flameproof seal on the cable inner sheath, as well as mechanical cable retention with electrical continuity through armour steel tape termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas.

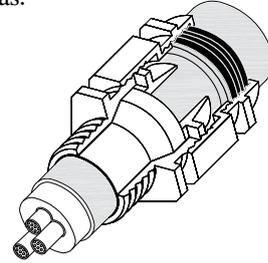
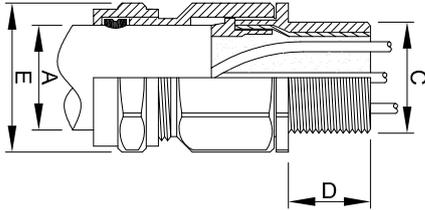


Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	E1ZEM16
20SS	20	1/2"	15	8.6	13.9	25.4	E1ZEM20SS
20S	20	1/2"	15	11.6	15.9	28.8	E1ZEM20S
20	20	1/2"	15	13.9	20.9	34.6	E1ZEM20
25S	25	3/4"	15	19.1	24.5	34.6	E1ZEM25S
25	25	3/4"	15	19.9	27.2	42.7	E1ZEM25
32	32	1"	15	26.2	33.5	54.2	E1ZEM32
40	40	1-1/4"	20	32.1	40.0	64.6	E1ZEM40
50S	50	1-1/2"	20	38.1	46.3	75.0	E1ZEM50S
50	50	2"	20	44.0	53.1	80.8	E1ZEM50
63S	63	2"	20	49.9	59.4	92.3	E1ZEM63S
63	63	2-1/2"	20	55.9	65.9	92.3	E1ZEM63
75S	75	2-1/2"	20	61.9	72.1	103.9	E1ZEM75S
75	75	3"	25	67.9	78.5	115.4	E1ZEM75
95	95	3-1/2"	25	***	***	121.2	E1ZEM95
100	100	4"	25	***	***	132.7	E1ZEM100

### Technical Data:

- Design Specifications as per EN50014, EN50018, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx d IIC & EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables inner and outer sheath.
- Provides mechanical cable retention with electrical continuity through armour steel tape termination
- Gland material: Brass, Nickel plated brass, SS, Aluminum
- Cable type: Steel tape armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

**BARM Cable Gland:** Explosion proof EEx d, Increased safety EEx e, cable gland with compound barrier Flameproof (Type 'd') and Increased Safety (Type 'e') class I division 2 For indoor and outdoor use, applicable for all types of unarmoured cables, providing environmental seal on the cable outer sheath and an explosion proof compound barrier seal around the discrete cable inner cores. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas.

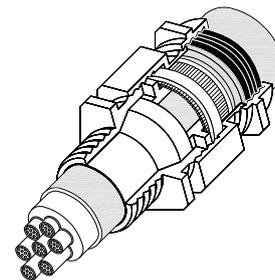
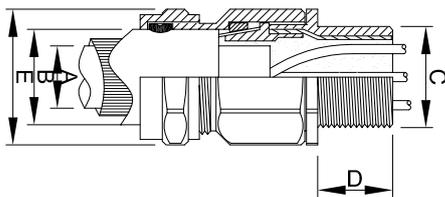


Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	-	25.4	BARM16
20SS	20	1/2"	15	8.6	-	25.4	BARM20SS
20S	20	1/2"	15	11.6	-	28.8	BARM20S
20	20	1/2"	15	13.9	-	34.6	BARM20
25S	25	3/4"	15	16.5	-	34.6	BARM25S
25	25	3/4"	15	19.9	-	42.7	BARM25
32	32	1"	15	26.2	-	54.2	BARM32
40	40	1-1/4"	20	32.1	-	64.6	BARM40
50S	50	1-1/2"	20	37.0	-	75.0	BARM50S
50	50	2"	20	44.0	-	80.8	BARM50
63S	63	2"	20	49.9	-	92.3	BARM63S
63	63	2-1/2"	20	55.9	-	92.3	BARM63
75S	75	2-1/2"	20	61.9	-	103.9	BARM75S
75	75	3"	25	67.9	-	115.4	BARM75
95	95	3-1/2"	25	***	-	121.2	BARM90
100	100	4"	25	***	-	132.7	BARM100

**Technical Data:**

- Design Specifications as per EN50014, EN50018, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx d IIC & EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66, IP67 & IP68 (10 meters depth for 7 days)
- Deluge protection: DTS 01:1991
- Operating Temperature Range: -20°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath
- Provides explosion proof compound barrier seal around the discrete cable inner cores.
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Unarmoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

**BRWM Cable Gland:** Explosion proof EEx d, Increased safety EEx e, cable gland with compound barrier Flameproof (Type 'd') and Increased Safety (Type 'e') class I division 2 For indoor and outdoor use, applicable for all types of steel wire armoured cables, providing environmental seal on the cable outer sheath and an explosion proof compound barrier seal around the discrete cable inner cores, as well as mechanical cable retention with electrical continuity through armour steel wire termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas.

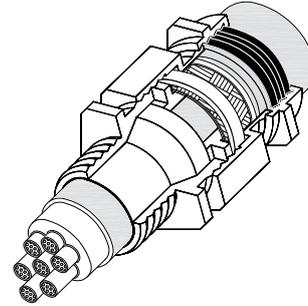
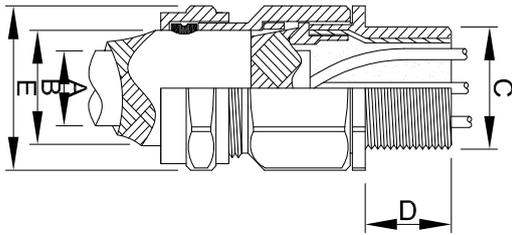


Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max)A E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	BRWM16
20SS	20	1/2"	15	8.6	13.9	25.4	BRWM20SS
20S	20	1/2"	15	11.6	15.9	28.8	BRWM20S
20	20	1/2"	15	13.9	20.9	34.6	BRWM20
25S	25	3/4"	15	19.1	24.5	34.6	BRWM25S
25	25	3/4"	15	19.9	27.2	42.7	BRWM25
32	32	1"	15	26.2	33.5	54.2	BRWM32
40	40	1-1/4"	20	32.1	40.0	64.6	BRWM40
50S	50	1-1/2"	20	38.1	46.3	75.0	BRWM50S
50	50	2"	20	44.0	53.1	80.8	BRWM50
63S	63	2"	20	49.9	59.4	92.3	BRWM63S
63	63	2-1/2"	20	55.9	65.9	92.3	BRWM63
75S	75	2-1/2"	20	61.9	72.1	103.9	BRWM75S
75	75	3"	25	67.9	78.5	115.4	BRWM75
95	95	3-1/2"	25	***	***	121.2	BRWM95
100	100	4"	25	***	***	132.7	BRWM100

**Technical Data:**

- Design Specifications as per EN50014, EN50018, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx d IIC & EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66, IP67 & IP68 (10 meters depth for 7 days)
- Deluge protection: DTS 01:1991
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath.
- Provides mechanical cable retention with electrical continuity through armour steel wire termination
- Provides explosion proof compound barrier seal around the discrete cable inner cores.
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Steel wire armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

**BRXM Cable Gland:** Explosion proof EEx d, Increased safety EEx e cable gland with compound barrier Flameproof (Type 'd') and Increased Safety (Type 'e') class I division 2 For indoor and outdoor use, applicable for all types of braid or steel tape armoured cables, providing environmental seal on the cable outer sheath and an explosion proof compound barrier seal around the discrete cable inner cores, as well as mechanical cable retention with electrical continuity through armour braid or steel tape termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas.



Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	BRXM16
20SS	20	1/2"	15	8.6	13.9	25.4	BRXM20SS
20S	20	1/2"	15	11.6	15.9	28.8	BRXM20S
20	20	1/2"	15	13.9	20.9	34.6	BRXM20
25S	25	3/4"	15	19.1	24.5	34.6	BRXM25S
25	25	3/4"	15	19.9	27.2	42.7	BRXM25
32	32	1"	15	26.2	33.5	54.2	BRXM32
40	40	1-1/4"	20	32.1	40.0	64.6	BRXM40
50S	50	1-1/2"	20	38.1	46.3	75.0	BRXM50S
50	50	2"	20	44.0	53.1	80.8	BRXM50
63S	63	2"	20	49.9	59.4	92.3	BRXM63S
63	63	2-1/2"	20	55.9	65.9	92.3	BRXM63
75S	75	2-1/2"	20	61.9	72.1	103.9	BRXM75S
75	75	3"	25	67.9	78.5	115.4	BRXM75
95	95	3-1/2"	25	***	***	121.2	BRXM95
100	100	4"	25	***	***	132.7	BRXM100

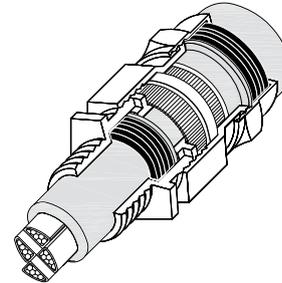
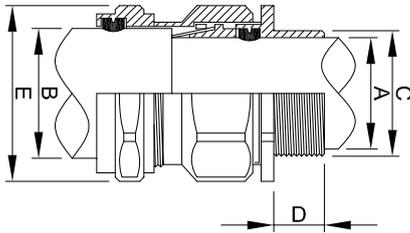
**Technical Data:**

- Design Specifications as per EN50014, EN50018, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx d IIC & EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66, IP67 & IP68 (10 meters depth for 7 days)
- Deluge protection: DTS 01:1991
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables outer sheath.
- Provides mechanical cable retention with electrical continuity through armour braid or steel tape termination
- Provides explosion proof compound barrier seal around the discrete cable inner cores.
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Braid or steel tape armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.



## E1WFM Cable Gland: Flame proof EEx d, Increased safety EEx e, cable gland.

Flameproof (Type 'd') and Increased Safety (Type 'e') class I division 2 For indoor and outdoor use, applicable for all types of steel wire armoured cables, providing environmental seal on the cable outer sheath and a flameproof seal on the cable inner sheath, as well as mechanical cable retention with electrical continuity through armour steel wire termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas.



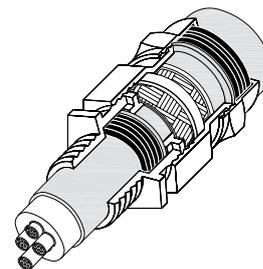
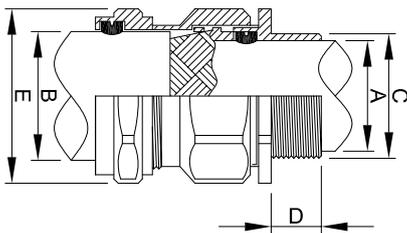
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	E1WFM16
20SS	20	1/2"	15	8.6	13.9	25.4	E1WFM20SS
20S	20	1/2"	15	11.6	15.9	28.8	E1WFM20S
20	20	1/2"	15	13.9	20.9	34.6	E1WFM20
25S	25	3/4"	15	19.1	24.5	34.6	E1WFM25S
25	25	3/4"	15	19.9	27.2	42.7	E1WFM25
32	32	1"	15	26.2	33.5	54.2	E1WFM32
40	40	1-1/4"	20	32.1	40.0	64.6	E1WFM40
50S	50	1-1/2"	20	38.1	46.3	75.0	E1WFM50S
50	50	2"	20	44.0	53.1	80.8	E1WFM50
63S	63	2"	20	49.9	59.4	92.3	E1WFM63S
63	63	2-1/2"	20	55.9	65.9	92.3	E1WFM63
75S	75	2-1/2"	20	61.9	72.1	103.9	E1WFM75S
75	75	3"	25	67.9	78.5	115.4	E1WFM75
95	95	3-1/2"	25	***	***	121.2	E1WFM95
100	100	4"	25	***	***	132.7	E1WFM100

### Technical Data:

- Design Specifications as per EN50014, EN50018, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx d IIC & EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables inner and outer sheath.
- Provides mechanical cable retention with electrical continuity through armour steel wire termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Steel wire armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## E1XFM Cable Gland: Flame proof EEx d, Increased safety EEx e, cable gland.

Flameproof (Type 'd') and Increased Safety (Type 'e') class I division 2 For indoor and outdoor use, applicable for all types of braid armoured cables, providing environmental seal on the cable outer sheath and a flameproof seal on the cable inner sheath, as well as mechanical cable retention with electrical continuity through armour braid termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas.



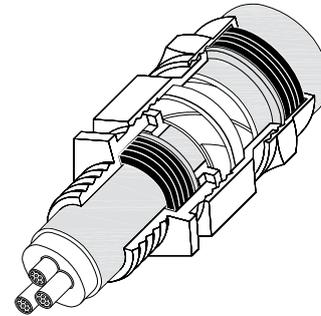
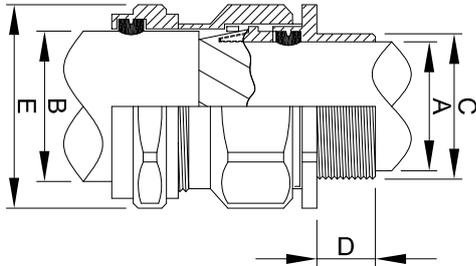
Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	E1XFM16
20SS	20	1/2"	15	8.6	13.9	25.4	E1XFM20SS
20S	20	1/2"	15	11.6	15.9	28.8	E1XFM20St
20	20	1/2"	15	13.9	20.9	34.6	E1XFM20
25S	25	3/4"	15	19.1	24.5	34.6	E1XFM25S
25	25	3/4"	15	19.9	27.2	42.7	E1XFM25
32	32	1"	15	26.2	33.5	54.2	E1XFM32
40	40	1-1/4"	20	32.1	40.0	64.6	E1XFM40
50S	50	1-1/2"	20	38.1	46.3	75.0	E1XFM50S
50	50	2"	20	44.0	53.1	80.8	E1XFM50
63S	63	2"	20	49.9	59.4	92.3	E1XFM63S
63	63	2-1/2"	20	55.9	65.9	92.3	E1XFM63
75S	75	2-1/2"	20	61.9	72.1	103.9	E1XFM75S
75	75	3"	25	67.9	78.5	115.4	E1XFM75
95	95	3-1/2"	25	***	***	121.2	E1XFM95
100	100	4"	25	***	***	132.7	E1XFM100

### Technical Data:

- Design Specifications as per EN50014, EN50018, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx d IIC & EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables inner and outer sheath.
- Provides mechanical cable retention with electrical continuity through armour braid termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Braid armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

## E1ZFM Cable Gland: Flame proof EEx d, Increased safety EEx e, cable gland.

Flameproof (Type 'd') and Increased Safety (Type 'e') class I division 2 For indoor and outdoor use, applicable for all types of steel tape armoured cables, providing environmental seal on the cable outer sheath and a flameproof seal on the cable inner sheath, as well as mechanical cable retention with electrical continuity through armour steel tape termination. Designed to be used in Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous areas.



Size	Entry thread		Min entry thread D	Cable diameter (Max)		Cross corners diameter (Max) E	Ordering reference
	Metric	NPT		A	B		
16	16	1/2"	15	8.6	13.4	25.4	E1ZFM16
20SS	20	1/2"	15	8.6	13.9	25.4	E1ZFM20SS
20S	20	1/2"	15	11.6	15.9	28.8	E1ZFM20S
20	20	1/2"	15	13.9	20.9	34.6	E1ZFM20
25S	25	3/4"	15	19.1	24.5	34.6	E1ZFM25S
25	25	3/4"	15	19.9	27.2	42.7	E1ZFM25
32	32	1"	15	26.2	33.5	54.2	E1ZFM32
40	40	1-1/4"	20	32.1	40.0	64.6	E1ZFM40
50S	50	1-1/2"	20	38.1	46.3	75.0	E1ZFM50S
50	50	2"	20	44.0	53.1	80.8	E1ZFM50
63S	63	2"	20	49.9	59.4	92.3	E1ZFM63S
63	63	2-1/2"	20	55.9	65.9	92.3	E1ZFM63
75S	75	2-1/2"	20	61.9	72.1	103.9	E1ZFM75S
75	75	3"	25	67.9	78.5	115.4	E1ZFM75
95	95	3-1/2"	25	***	***	121.2	E1ZFM95
100	100	4"	25	***	***	132.7	E1ZFM100

### Technical Data:

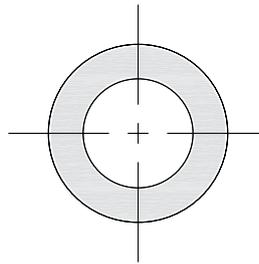
- Design Specifications as per EN50014, EN50018, EN50019, EN50281-1-1
- (ATEX) Certified
- Code of protection category: ATEX II 2 GD EEx d IIC & EEx e II, EQUIPMENT ZONE 1, ZONE 2, ZONE 21, & ZONE 22 - GAS GROUPS IIA, IIB, IIC
- Ingress protection: IP66
- Operating Temperature Range: -60°C to +100°C.
- Provides a cable retention seal onto the cables inner and outer sheath.
- Provides mechanical cable retention with electrical continuity through armour steel tape termination
- Gland material: Brass, Nickel plated brass, Stainless Steel, Aluminum
- Cable type: Steel tape armoured
- Optional accessories: Locknut, Earth Tag, Shroud, Entry thread seal, Adaptors and reducers.

### Locknuts

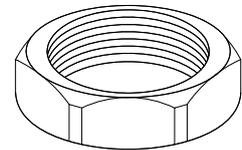
Locknuts are recommended to be used for securing the best fit between the cable glands and the gland plate or into equipment. They are available in Brass, Nickel plated brass, Stainless steel and Aluminum, while recommended to be similar to the gland body materials.

Note: Sealing washer can be ordered to improve the ingress protection between the equipment and the gland.

Thread		Ordering reference
METRIC	NPT	
M16	1/2"	MLN16
M20	1/2"	MLN20
M25	3/4"	MLN25
M32	1"	MLN32
M40	1-1/4"	MLN40
M50	1-1/2"	MLN50
M63	2"	MLN63
M75	2-1/2"	MLN75
M95	3"-1/2"	MLN95
M100	4"	MLN100



Sealing Washer



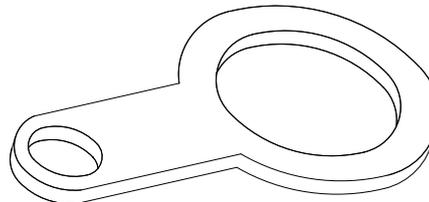
Locknuts

### Earth tag

As required in BS 6121 : Part 5 : 1993, earth tags provide the electrical earth connection, they are being installed between the cable gland and equipment.

They are available and recommended to be in Brass for better earthing continuity.

Thread		Ordering reference
METRIC	NPT	
M16	1/2"	MTG16
M20	1/2"	MTG20
M25	3/4"	MTG25
M32	1"	MTG32
M40	1-1/4"	MTG40
M50	1-1/2"	MTG50
M63	2"	MTG63
M75	2-1/2"	MTG75
M95	3"-1/2"	MTG95
M100	4"	MTG100



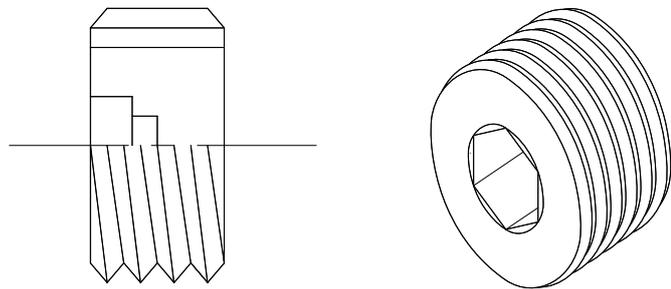
Size (mm)	Fault Current (KA) for 1 second
20	3
25	3.95
32	5.3
40	7.15
50	10.2
63	10.25
75	10.25
95	11.4
100	12.1

## Stopping plug

Stopping Plugs function to close unused entries in electrical equipment. Entry Thread, Sealing Washers are to be taken in consideration in order to maintain the equipemnet required ingress protection degree.

They are applicable and being used for both, industrial and hazardous requirements, while available in Brass, Nickel plated brass, Stainless steel and Aluminum

Thread		Ordering reference
METRIC	NPT	
M16	1/2"	MSP16
M20	1/2"	MSP20
M25	3/4"	MSP25
M32	1"	MSP32
M40	1-1/4"	MSP40
M50	1-1/2"	MSP50
M63	2"	MSP63
M75	2-1/2"	MSP75
M95	3"	MSP95
M100	4"	MSP100



## Adaptors

Adaptors are required when the equipment and the gland have different type of threads. Entry thread, specification and certifications shall to be taken in consideration in order to maintain the equipment required ingress protection degree.

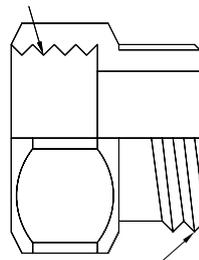
Adaptors are applicable and being used for both, industrial and hazardous requirements, while available in Brass, Nickel plated brass, Stainless steel and Aluminum.

Ordering: MA –Male-Female

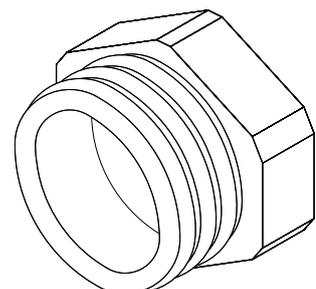
Example: MA-M16-NPT1/2"

Thread		Ordering reference
METRIC ( MALE )	NPT ( FEMALE )	
M20	1/2"	MA-M20-NPT1/2"
M25	3/4"	MA-M25-NPT3/4"
M32	1"	MA-M32-NPT1"
M40	1-1/4"	MA-M40-NPT1-1/4"
M50	1-1/2"	MA-M50-NPT1-1/2"
M63	2"	MA-M63-NPT2"
M75	2-1/2"	MA-M75-NPT2-1/2"
M95	3"	MA-M95-NPT3"

Inside Thread - Female



Outside Thread - Male



## Reducers

Reducers function to reduce the size of the equipment entries and. Entry thread, specification. Certifications shall to be taken in consideration in order to maintain the equipment required ingress protection degree. While considering the following restrictions:

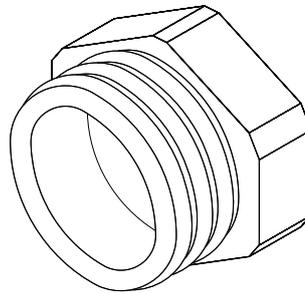
- a) Reducing range cannot be more than one step (see tables).
- b) Stopping plug cannot be fitted into the reducer or adaptor, it shall be fitted direct into the equipment.
- c) Maximum one adaptor or reducer can be used at the same time on the cable entry.

Reducers are applicable and being used for both, industrial and hazardous requirements, while available in Brass, Nickel plated brass, Stainless steel and Aluminum.

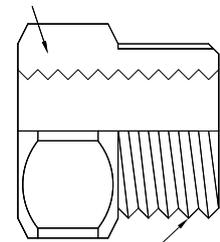
Ordering: MR –Male-Female

Example: MR-M32-M25

Thread		Ordering reference
METRIC ( MALE )	NPT ( FEMALE )	
M20	M16	MR-M20-M16
M25	M20	MR-M25-M20
M32	M25	MR-M32-M25
M40	M32	MR-M40-M32
M50	M40	MR-M50-M40
M63	M50	MR-M63-M50
M75	M63	MR-M75-M63
M95	M75	MR-M95-M75



Inside Thread - Female



Outside Thread - Male



## How to order

### Gland selection guidelines

Cable Gland Type	APPLICATION			CABLETYPE				SEALING CONFIGURATION			
	Indoor	Outdoor	Hazardous Areas	SWA	STA	Braided	Unarmoured	No Seal	Inner Seal	Outer Seal	Compound barrier
A2M	■	■					■			■	
A2EM	■	■	■				■			■	
BWM	■			■				■			
BWLM	■			■				■			
BXLM	■				■	■		■			
CWM	■	■		■						■	
CWEM	■	■	■	■						■	
CXM	■	■				■				■	
CXEM	■	■	■			■				■	
CZM	■	■			■					■	
CZEM	■	■	■		■					■	
E1WM	■	■		■					■	■	
E1WEM	■	■	■	■					■	■	
E1XM	■	■				■			■	■	
E1XEM	■	■	■			■			■	■	
E1ZM	■	■			■				■	■	
E1ZEM	■	■	■		■				■	■	
BARM	■	■	■				■			■	■
BRWM	■	■	■	■						■	■
BRXM	■	■	■		■	■				■	■
E1WFM	■	■	■	■					■	■	
E1XFM	■	■	■			■			■	■	
E1ZFM	■	■	■		■				■	■	

### Cross reference

MASEICO	Equivalent Part No.				
	BICC	CMP	HAWK	PEPPERS	CAPRI
A2M	A1/A2	A2	A2 - 321	A2	CM
BWM	BW	BW	BW - 150	BW	-
BWLM	BWL	BWL	-	BWL	CMDEL - T
BXLM	BXL	-	-	BXL	ADL 3F
CWM	CW	CW	CW - 151	CW	ADL 3F
CXM	CX	CX/Z	CX - 151	CXL	ADL 3F
CZM	CZ	CX/Z	-	CZL	ADE 4F
E1WM	E1W	E1W	EW1 - 353	E1W	ADE 4F
E1XM	E1X	E1X/Z	E1X - 353	E1X	ADE 4F
E1ZM	E1Z	E1X/Z	-	E1Z	AS ABOVE
BARM	BARR - A	PXSSZK	ICG - 623	-	AS ABOVE
BRWM	BARR - W	PROTEX -WR	ICG - 653	CFGW	AS ABOVE
BRXM	BARR - X	PROTEX -ZR	ICG - 653	CFGZ	ADL 4F
E1WFM	E1WF	E1FW	PSG - 554	E1WF	ADL 4F
E1XFM	E1XF	E1FX/Z	PSG - 553	E1XF	ADL 4F
E1ZFM	E1ZF	E1FX/2	-	E1FX/2	ADL 4F

### Hazardous areas and hazardous area equipment

A hazardous area is defined as an area in which an explosive atmosphere is present, or may be expected to be present, in quantities such as to require special precautions for the construction, installation and use of potential ignition sources.

Major industries affected would include oil, gas, petroleum refineries, chemical plants, sewerage treatment and grain handling. Other industries include spray painting shops, aircraft hangars, petrol depots, terminals and garages.

Therefore the use of any electrical apparatus in these areas is strictly controlled through various protection techniques to enable the operators to facilitate the handling or processing of the hazardous materials. This removes the possibility of ignition being caused by the electrical apparatus contained within the hazardous area.

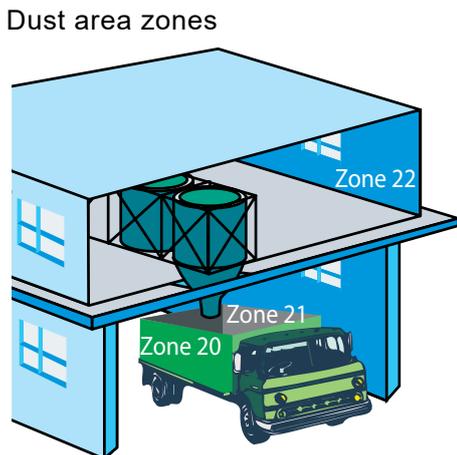
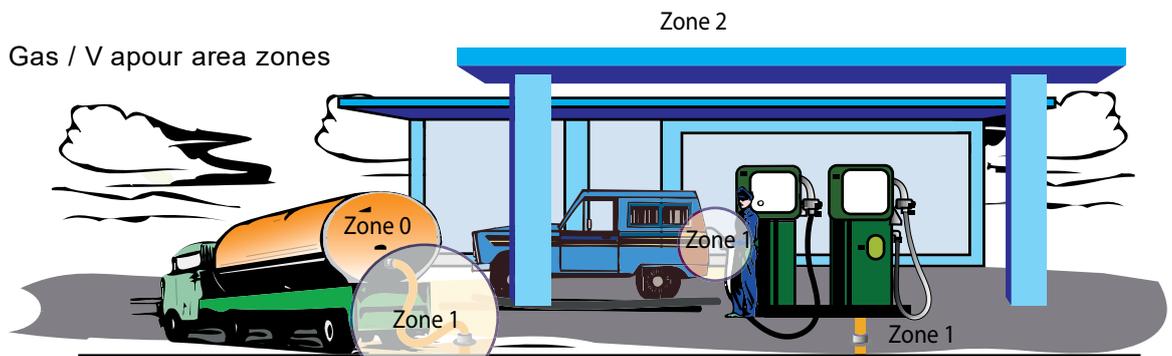
### Conditions required for an explosion

An explosion will only occur when three basic conditions are present:

- Explosive material
- Oxygen / air
- Sources of ignition

Remove any one of these basic conditions and an explosion will not occur.

Classification of hazardous areas	Explosive gas atmospheres AS 2430.1
	Combustible dusts AS/NZS 61241.3 (AS 2430.2)
	Specific occupancies AS 2430.3
Group II	Flammable gas, vapour or mist Combustible dusts
Zone classification	Classification of hazardous areas
Zone 0	Continuously hazardous (protection technique allowed) Exia intrinsic safety
Zone 1	Frequently hazardous (protection technique allowed) Exib intrinsic safety Exd flameproof Exe increased safety Exp pressured or purged Exv ventilation Exs special protection
Zone 2	Infrequently hazardous (protection technique allowed) Exn Non-sparking
Group II	Classification (protection technique allowed) DIP dust - excluding ignition proof:- the new DIP standard will reflect 3 zones for dust areas, zone 20, 21 and 22.



The classification of ZONE is a complex problem but the main factors to consider are

- The probability of the presence of gas
- The quantity and duration of hazardous vapour
- The amount of ventilation
- The nature of gas: lighter or heavier than air

The consequence of an explosion

The division of plant or parts of plant into zones is generally undertaken by the supervisory authority in that industry in tandem with process engineers / chemists at the design and or construction stage.

Group classification

Hazardous area equipment is specified in terms of the types of gases present, being:

Group I

For mining applications

Group II

For general industry

Equipment must be categorised as being suitable for use with gases in Group II industries.

Group I

As shown in the table below, **Group II** is again segmented into three different representative gas groups, Propane, Ethylene and Hydrogen. **Groups IIA, IIB and IIC** respectively.

Group Classification	Representative Gas
I	Methane
IIA	Propane
IIB	Ethylene
IIC	Hydrogen

As stated these are only representative gases where in fact there are many different types of gases one can be presented with when classifying equipment.

Temperature classification

Temperature Class	T1	T2	T3	T4	T5	T6
Maximum surface temperature (°C)	<450	<300	<200	<135	<100	<85
Minimum ignition temperature of gas (°C)	>450	>300	<200	<135	<100	<85
Minimum ignition temperature of dust (°C)	>500	>350	>250	>185	>150	>135

Temperature classification takes into account the ignition temperature of the flammable gases present in the particular environment.

Ambient temperatures are of course considered in this appraisal, however circumstances which may increase this surface temperature must also be taken into account.

## Zone protection techniques

### Group II

For example, an enclosure shall over a period of time, collect a layer of dust on its surfaces. This shall increase the units overall operating and surface temperatures, to a point where if it rises to a point nearing the flash or combustion point of surrounding gases, liquids or dusts, then an explosive situation would occur.

For Group I classified electrical equipment, where coal dust can form a layer, the maximum surface temperature shall not exceed 150 °C. If this layer can be avoided through sealing or protection from the ingress of dust, the internal surfaces must not exceed 450 °C. In respect to Group II electrical equipment, temperatures are classified as per the following table.

Temperature classes T1 to T6 (AS 1280.1) are used for all protection techniques, and correspond to the electrical devices maximum operational temperature.

The better the equipment, the lower the rated surface temperature. In other words a rating of T4 is better than that of T2.

Therefore, those items certified as being T6, can be used in T1, T2, T3, T4, T5 and T6 gases. Whereas a T2 certification only allows a piece of equipment to be used in T1 and T2 gases.

A “protection technique” is a specific process which negates one of the three components of combustion.

Applicable zone	Protection technique	Relevant standard		Description
		Equipment	Installation	
Zones 1 & 2	Exd	AS 2380.2	AS 2381.2	Flameproof Enc.
Zones 1 & 2	Exe	AS 2380.6	AS 2381.6	Increased safety
Zones 0 - ia 1 - ib 2 - ib	Exi	AS 2380.7	AS 2381.7	Intrinsic safety
Zones 1 & 2	Exm	AS 2431	-	Encapsulated
Zones 2	Exn	AS 2380.9	AS 1076.7	app.
Zones 1 & 2	Exo	IEC 79-6	-	Non-sparking
Zones 1 & 2	Exp	AS 2380.4	AS2380.4	Oil immersion Pressurised
Zones 1 & 2	Exq	IEC 79-6	-	rooms & encl.
Zones 0,1 & 2	Exs	AS 1826	AS 1076.8	Sand filled
Zones 1 & 2	Exv	AS 1482	-	Special protection
				Ventilation
Zones 20,21 & 22	DIP	AS/NZS	AS/NZS	
Zones 20,21 & 22	Exi	61241.3	61241.3 AS	Dust ignition proof
Zones 20,21 & 22	Exm	AS 2380.7	AS 2381.7 -	Intrinsic safety
Zones 20,21 & 22	Exp	AS 2431 AS 2380.4P	AS 2380.4	Encapsulation Pressurised

## Zone protection techniques

ITEMS		CENELEC	IEC	AUSTRALIA	USA																																		
Class "1" ZON Classification		ZONE 0	ZONE 0	ZONE 0	DIVISION 1																																		
		ZONE 1	ZONE	ZONE 1																																			
		ZONE 2	ZONE 2	ZONE 2	DIVISION 2																																		
Applicable Standards For Various Explosion Protection Techniques	Exd	EN50018	79-1	2380-2	UL698																																		
	Exe	EN50019	79-7	2380-6	-																																		
	Exn	EN50021	79-15	2380-9	CSA22213																																		
	Exp	EN500	79-2	2380-4	16NPF496																																		
	Exi	EN50020	79-1	2380-7	ANS14913																																		
Gas Groups and Representative Gasses		II A Ammonia, Butane, Propane, Pentane, Benzine, Acetone, Hexane, Heptane, Iso-octane,Decane, Cyclohexane, Methanol.			D Acetone, Propane Ethane, Butane																																		
		II B Butadiene, Ethylene Oxide, Town Gas, Coke-oven Gas.			C Acetaldehyde Ethylene																																		
		II C Hydrogen, Acetylene.			B Hydrogen, Butadiene Ethylene oxide																																		
					A Acetylene																																		
Temperature Rating (Limit of Temp. Rise Over Ambient Of 40°C)		Max Ignition Temp (°C )				Max Ignition Temp (°C )																																	
		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>T1</th> <th>T2</th> <th>T3</th> <th>T4</th> <th>T5</th> <th>T6</th> </tr> </thead> <tbody> <tr> <td>450</td> <td>300</td> <td>200</td> <td>135</td> <td>100</td> <td>85</td> </tr> </tbody> </table>						T1	T2	T3	T4	T5	T6	450	300	200	135	100	85	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>T1</th> <th>T2</th> <th>T2A</th> <th>T2B</th> <th>T2C</th> <th>T2D</th> <th>T3</th> </tr> </thead> <tbody> <tr> <td>450</td> <td>300</td> <td>280</td> <td>260</td> <td>230</td> <td>215</td> <td>200</td> </tr> </tbody> </table>						T1	T2	T2A	T2B	T2C	T2D	T3	450	300	280	260	230	215	200
		T1	T2	T3	T4	T5	T6																																
450	300	200	135	100	85																																		
T1	T2	T2A	T2B	T2C	T2D	T3																																	
450	300	280	260	230	215	200																																	
<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>T3A</th> <th>T3B</th> <th>T3C</th> <th>T4</th> <th>T4A</th> <th>T5</th> <th>T6</th> </tr> </thead> <tbody> <tr> <td>180</td> <td>165</td> <td>160</td> <td>135</td> <td>120</td> <td>100</td> <td>85</td> </tr> </tbody> </table>						T3A	T3B	T3C	T4	T4A	T5	T6	180	165	160	135	120	100	85																				
T3A	T3B	T3C	T4	T4A	T5	T6																																	
180	165	160	135	120	100	85																																	
DEGREES OF PROTECTION																																							
Weather Proof		IP54			Nema 3																																		
Water Tight		IP65			Nema 4																																		
Dust Tight		IP66			Nema 4x																																		
Immersion Proof		IP67			Nema 6																																		
Explosion Proof		Exd			Nema 7																																		
Dust Ignition Proof		D.I.P.			Nema 9																																		

## Explosion protection techniques

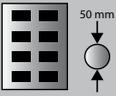
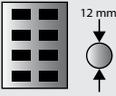
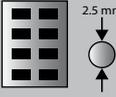
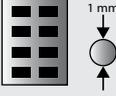
Method	Symbol	Type of protection
Exclusion	DIP Exm Exn  Exp Exq	Dust-excluding ignition proof Encapsulation Non-sparking (hermetically sealed devices, sealed devices and restricted breathing) Pressurised enclosure / Rooms Sand-filled (powder filling)
Explosion containment	Exd	Flameproof enclosure
Energy limitation	Exi	Intrinsic safety
Dilution	Exv	Ventilation
Avoidance of ignition source	Exe Exn	Increased safety Non-sparking (inherently non-sparking)

Type of Protection	Principle	Symbol	Typical Application
Flame proof Enclosure		d	Power Apparatus, Switchgears, Motors (all devices able to ignite flammable mixtures in normal operations)
Powder Filling		q	Capacitors, Electronics
Pressurised Apparatus		p	Power Apparatus (requires special measures to maintain safety features)
Oil Immersion		o	Transformers
Encapsulation		m	Measuring and Control Systems (avoiding hot spots on printed boards)
Increased Safety		e	Terminal and Connection boxes, Squirrel cage Motors and Lightning (no incendiary or hot surfaces in normal operations)
Intrinsic Safety		i	Terminal and Connection Boxes, Data Processing (small electrical values)

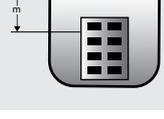
## Ingress protection (IP) ratings to AS1939 (IEC529)

Degree of protection of the enclosures for electrical equipment in accordance with the IEC 529 and EN 60529 standards.

### Protection against solid bodies

	Tests	Protection
0		No Protection
1		Protected against solid bodies larger than 50 mm (eg: accidental contact with the hand)
2		Protected against solid bodies larger than 12.5 mm (eg: finger of the hand)
3		Protected against solid bodies larger than 2.5 mm (tools,wires)
4		Protected against solid bodies larger than 1 mm (fine tools, small wires)
5		Protected against dust (no harmful deposit)
6		Completely protected against dust

### Protection against liquids

	Tests	Protection
0		No Protection
1		Protected against vertically-falling drops of water (condensation)
2		Protected against drops of water falling at up to 15° from the vertical
3		Protected against drops of rainwater at up to 60° from the vertical
4		Protected against projections of water from all directions
5		Protected against jets of water from all directions
6		Completely protected against jets of water of similar force to heavy seas.
7		Protected against the effects of immersion
8		Protected against effects of prolonged immersion under specific conditions

### Note:

The explosion protection certification of the equipment alone does not necessarily mean it has an adequate degree of protection for specified weather or environment. Hence it is necessary to check the IP rating of the equipment before selection for a particular environment.

## Application

MASEICO Junction Boxes are widely used in electrical wiring installations in domestic, commercial and industrial buildings.

## Features

- Designed and manufactured to ensure adequate mechanical strength at the time of installation and durability throughout service life.
- Designed for Surface and Flush mounting applications.
- Rounded corner covers, rounded lugs and quality cover fixing screws.
- Made of hot-dipped galvanized steel sheet, pre galv. stainless steel, or aluminum
- Boxes have ample number of precut knockouts to accommodate various standard glands.

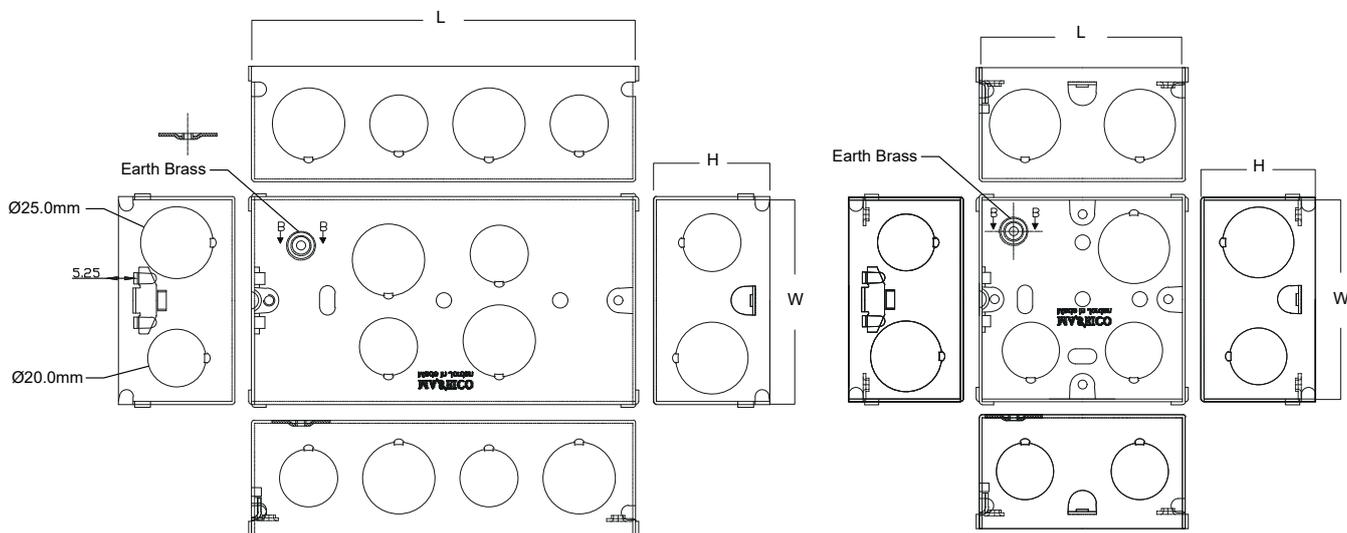
## Technical Specifications

Item	Description
Voltage Rating	120-440 V AC 50/60 Hz
Degree of protection	IP40 (NEMA 1)
Material	GI (Pre-galv Steel), HDG (Hot Dip Galv Steel), AL (Aluminum), SS (Stainless Steel)
Thickness	As requested by client
Knockouts	Double Knockout 019/25, Triple Knockout 023/28/35
Size	As requested by client



### Features

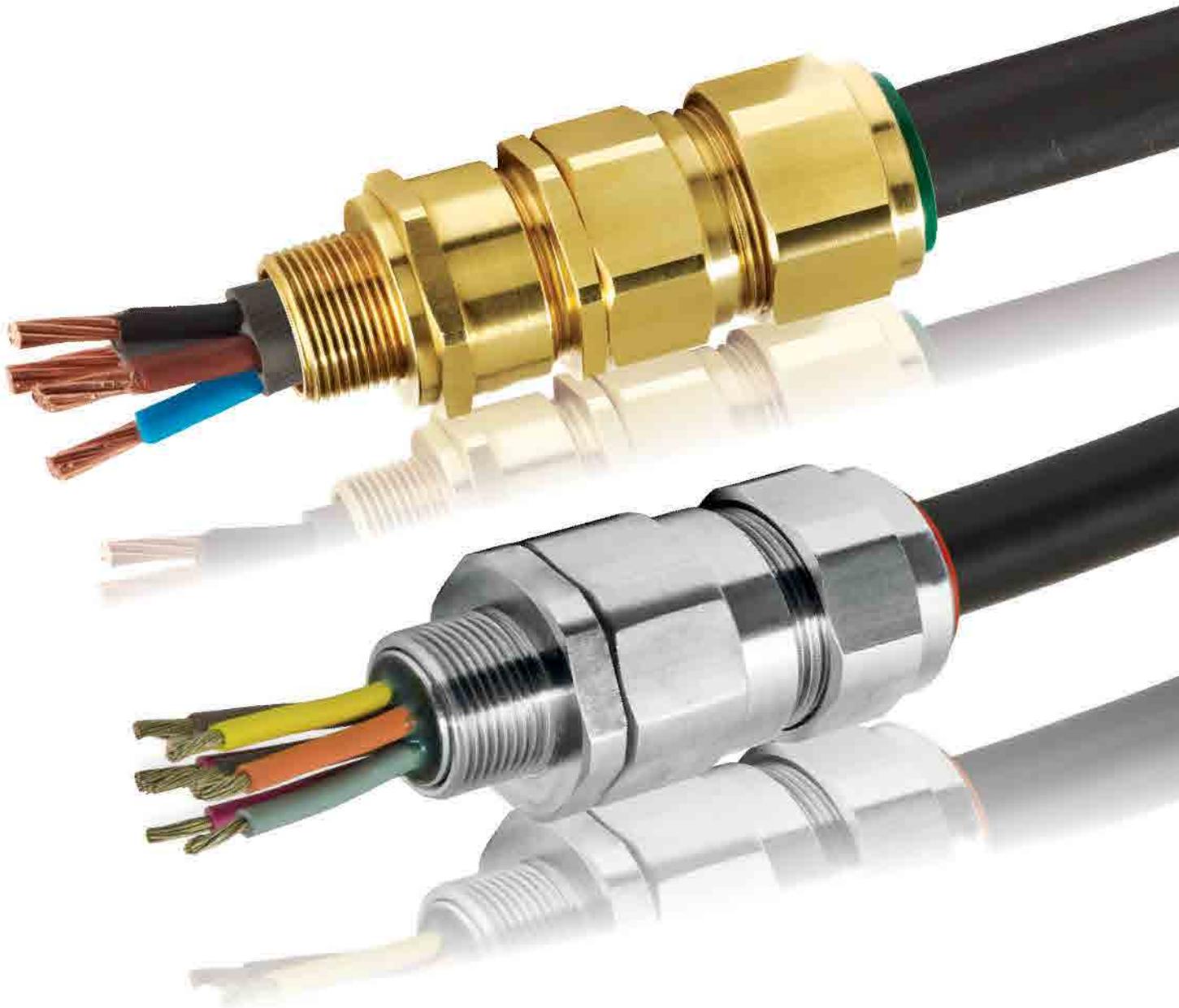
- Box thickness 0.9 mm
- Adjustable lug is included in all boxes to secure more flexibility for screw positions.
- Galvanized G90 steel for more rust resistance
- Earthing point is available
- All boxes come with earth brass.



### Technical Specifications

Item	Description
Depth	40 mm
Size	70×70mm, 70×140mm
Material	GI (Pre-galv Steel), AL (Aluminum)
Thickness	0.9mm
Knockouts	25 mm, 20 mm
Steel thickness	0.9mm





# MASEICO

## Earthing and Lightning Protection System Cable Lugs - Connectors - Terminations and Ex-Weld



## Introduction

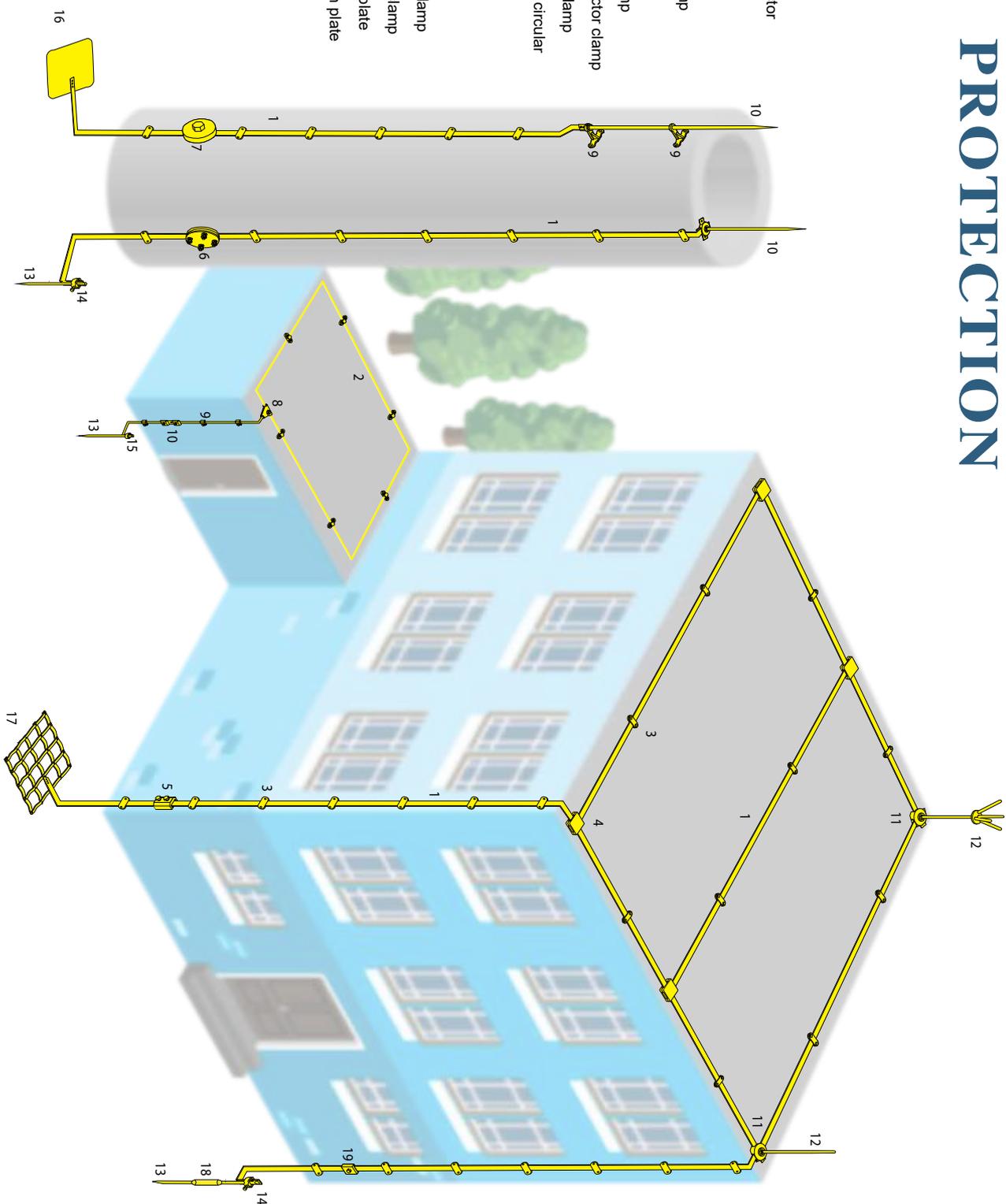
While serving the industry of the cable managements systems by introducing our total solutions for cable installation and supports, the earthing and lightening systems had become an essential requirements to be included in our products line in order to complete our solutions and serve the total line of industry in the best shape.

The long extensive experience of MASEICO team in this field, developed machinery, latest production technology, certification and standards play a big role leading those products to front line of quality.

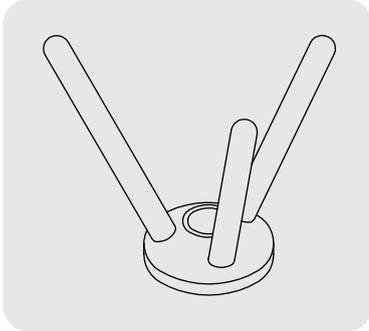
Earthing and lightening protection systems, cable lugs, cable terminations and Ex-Weld technology including powder and moulds are available in accordance to the latest international standards and market needs, as well, UL certification in order to be able to compete and lead in the international markets and mega vital projects. on the other hand any customised shapes and new non-standard sizes can be developed and produced in-house, since MASEICO has its own design and development well experienced team.

## MASEICO TOTAL SYSTEM PROTECTION

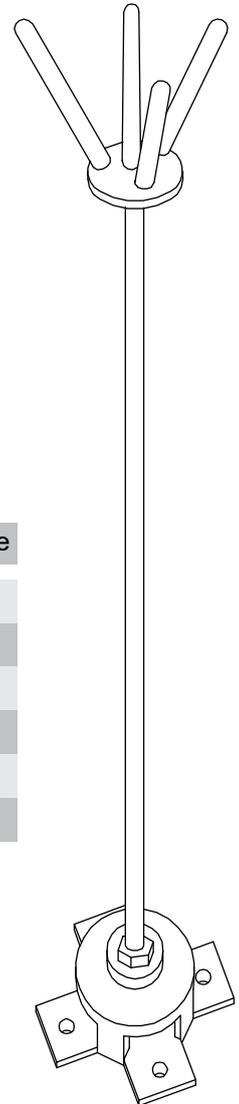
- 1- Copper tape
- 2- Solid circular conductor
- 3- DC tape clip
- 4- Square tape clamp
- 5- Oblong junction clamp
- 6- Plate test clamp
- 7- Screwdown test clamp
- 8- Tee joint solid conductor clamp
- 9- Double plate tower clamp
- 10- Test clamp for solid circular
- 11- Air terminal fixing
- 12 - Air terminal
- 13- Earth rods
- 14 - Earth rod to tube clamp
- 15- Earth rod to cable clamp
- 16- Solid copper earth plate
- 17- Lattice copper earth plate
- 18- Taper coupling
- 19- Beam to tape bond



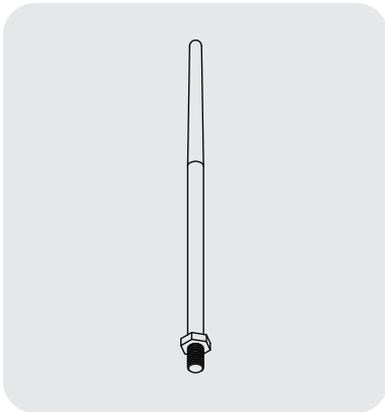
## Air terminal multiple point



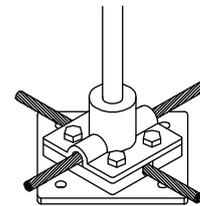
Rod diameter	Rod diameter	Ordering reference
15 mm	Copper	MATM



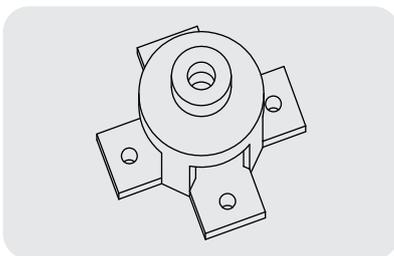
## Air terminal



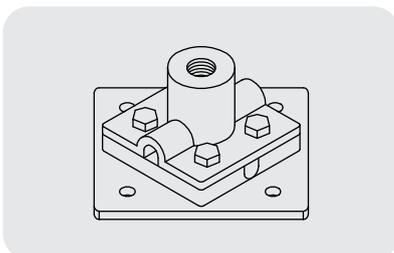
Length	Diameter	Material	Ordering reference
500 mm	15 mm	Copper	MCT5C
1000 mm	15 mm	Copper	MCT10C
2000 mm	15 mm	Copper	MCT20C
500 mm	15 mm	Aluminum	MAT5A
1000 mm	15 mm	Aluminum	MAT10A
2000 mm	15 mm	Aluminum	MAT20A



## Air terminal bases

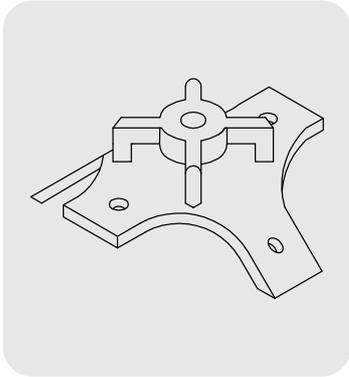


Max. conductor width	Rod diameter	Thread diameter	Material	Ordering reference
25 mm	15 mm	16 mm	Copper	MATBC
25 mm	15 mm	16 mm	Aluminum	MATBA

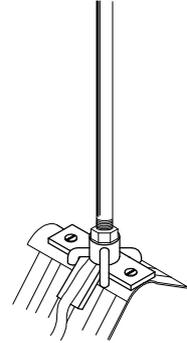


Conductor size	Rod diameter	Conductor material	Ordering reference
50 mm <sup>2</sup>	15 mm	Copper	MATB50
70 mm <sup>2</sup>	15 mm	Copper	MATB70
95 mm <sup>2</sup>	15 mm	Copper	MATB95

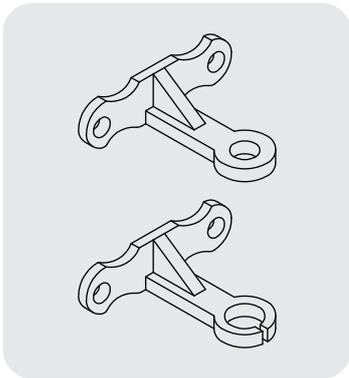
## Air terminal ridge saddle



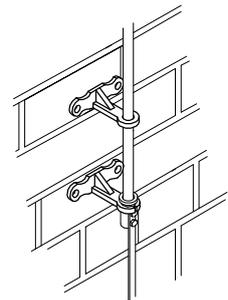
Rod diameter	Conductor width	Rod material	Ordering reference
15 mm	30 mm	Copper	MATRS



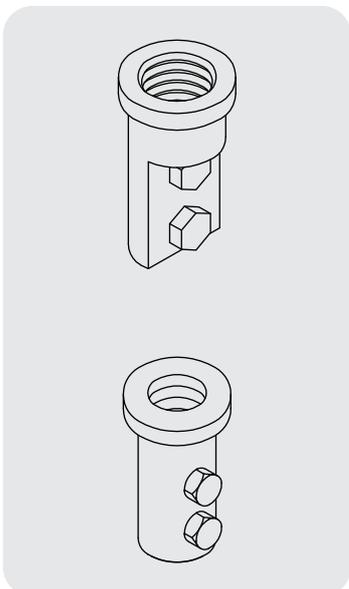
## Air terminal fixing bracket



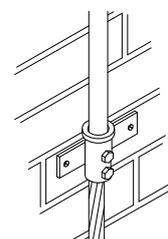
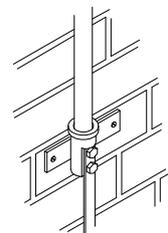
Rod diameter	Rod material	Ordering reference
15 mm	Copper	MATFBC
15 mm	Aluminum	MATFBA



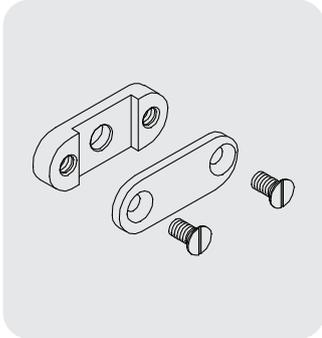
## Air terminal to tape coupling



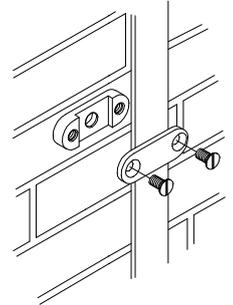
Rod diameter	Rod material	Ordering reference
15 mm	Copper	MATTCC
15 mm	Aluminum	MATTCA
15 mm	Copper	MATTCCC
15 mm	Aluminum	MATTCCA



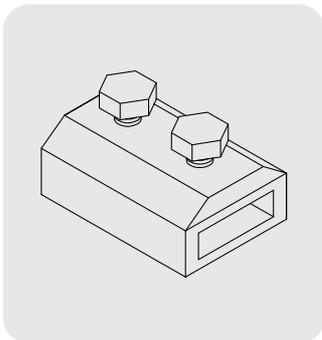
## DC tape clip



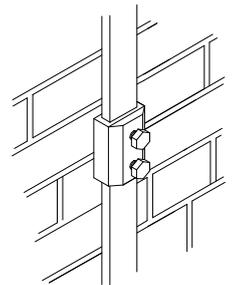
Width	Conductor		Ordering reference
	Thickness	Material	
20 mm	3 mm	Bare aluminum	MDCTCA203
25 mm	3 mm	Bare aluminum	MDCTCA253
25 mm	6 mm	Bare aluminum	MDCTCA256
50 mm	6 mm	Bare aluminum	MDCTCA506
20 mm	3 mm	Bare copper	MDCTCC203
25 mm	3 mm	Bare copper	MDCTCC253
25 mm	4 mm	Bare copper	MDCTCC254
25 mm	8 mm	Bare copper	MDCTCC258
31 mm	3 mm	Bare copper	MDCTCC313
31 mm	6 mm	Bare copper	MDCTCC316
38 mm	3 mm	Bare copper	MDCTCC383
38 mm	5 mm	Bare copper	MDCTCC385
38 mm	6 mm	Bare copper	MDCTCC386
40 mm	4 mm	Bare copper	MDCTCC404
40 mm	6 mm	Bare copper	MDCTCC406
50 mm	3 mm	Bare copper	MDCTCC503
50 mm	4 mm	Bare copper	MDCTCC504
50 mm	6 mm	Bare copper	MDCTCC506



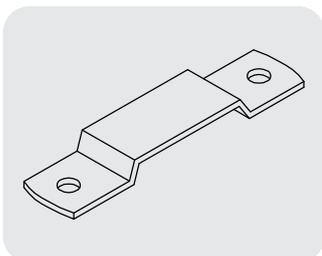
## Oblong junction clamp



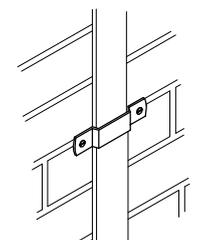
Conductor size	Conductor material	Ordering reference
26 x 8 mm	Copper	MOJCC
26 x 8 mm	Aluminum	MOJCA



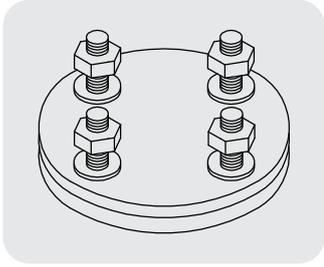
## Tape Clip



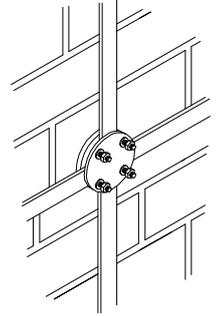
Conductor size	Conductor material	Ordering reference
20 x 3 mm	Copper	MTCC203
25 x 3 mm	Copper	MTCC253
20 x 3 mm	Aluminum	MTCA203
25 x 3 mm	Aluminum	MTCA253



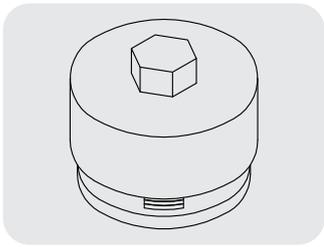
## Plate test clamp



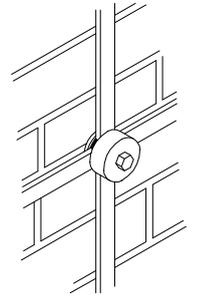
Conductor		Ordering reference
size	material	
26 x 8 mm	Copper	MPTC



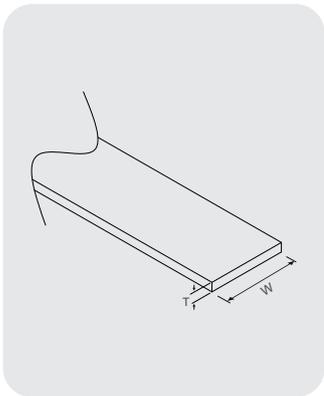
## Screwdown test clamp



Conductor		Ordering reference
size	material	
26 x 8 mm	Copper	MSTC



## Bare copper tape

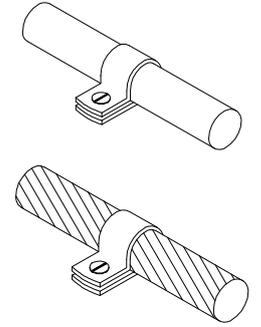


Conductor		Ordering reference
Width	Thickness	
12.5 mm	1.5 mm	MCT12515
12.5 mm	3 mm	MCT12530
20 mm	1.5 mm	MCT20015
20 mm	3 mm	MCT20030
25 mm	1.5 mm	MCT25015
25 mm	3 mm	MCT25030
25 mm	4 mm	MCT25040
25 mm	6 mm	MCT25060
30 mm	2 mm	MCT30020
30 mm	3 mm	MCT30030
30 mm	4 mm	MCT30040
30 mm	5 mm	MCT30050
31 mm	3 mm	MCT31030
31 mm	4 mm	MCT31040
31 mm	6 mm	MCT31060
38 mm	3 mm	MCT38030
38 mm	5 mm	MCT38050
38 mm	6 mm	MCT38060
40 mm	3 mm	MCT40030
40 mm	4 mm	MCT40040
40 mm	5 mm	MCT40050
40 mm	6 mm	MCT40060
50 mm	3 mm	MCT50030
50 mm	4 mm	MCT50040
50 mm	5 mm	MCT50050
50 mm	6 mm	MCT50060

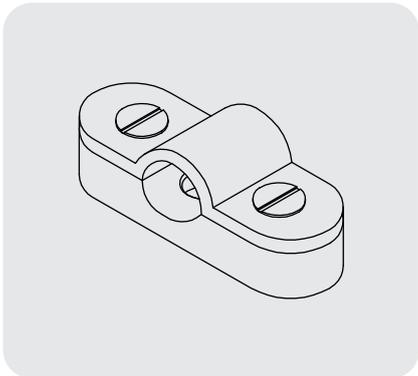
## One hole cable clips



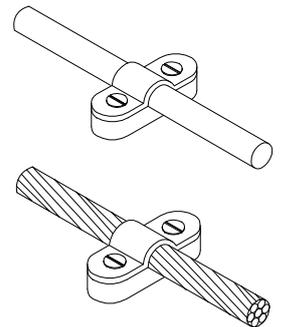
Conductor		Ordering reference
size	material	
8 mm	Copper	MCC8C
8 mm	Aluminum	MCC8A
10 mm	Copper	MCC10C
10 mm	Aluminum	MCC10A
50 mm <sup>2</sup>	Copper	MCC50C
70 mm <sup>2</sup>	Copper	MCC70C
95 mm <sup>2</sup>	Copper	MCC95C



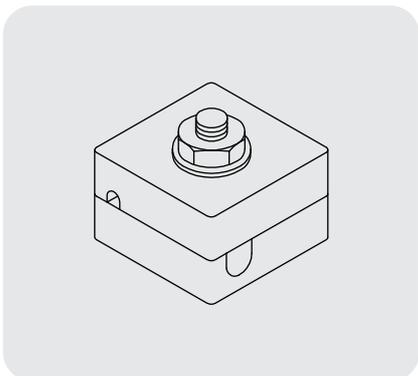
## Heavy duty cable saddle



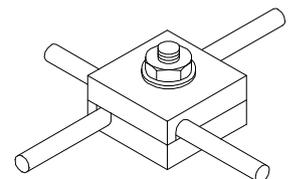
Conductor		Ordering reference
size	material	
8 mm	Copper	MCS8C
8 mm	Aluminum	MCS8A
10 mm	Copper	MCS10C
10 mm	Aluminum	MCS10A
50 mm <sup>2</sup>	Copper	MCS50C
70 mm <sup>2</sup>	Copper	MCS70C
95 mm <sup>2</sup>	Copper	MCS95C



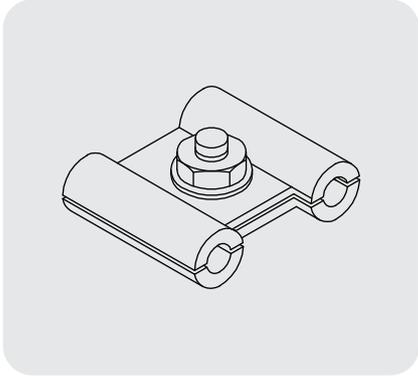
## Square clamp



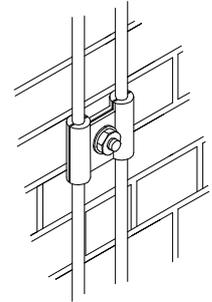
Conductor		Ordering reference
diameter	material	
8 mm	Copper	MSC8C
8 mm	Aluminum	MSC8A



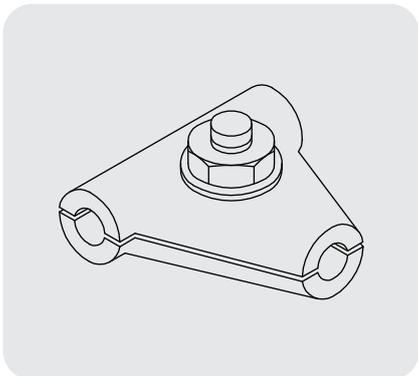
## Joining parallel clamp



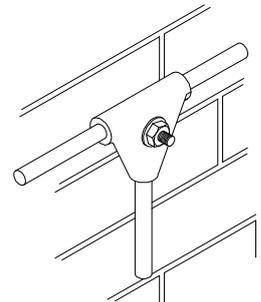
Conductor		Ordering reference
diameter	material	
8 mm	Copper	MPC8C
8 mm	Aluminum	MPC8A



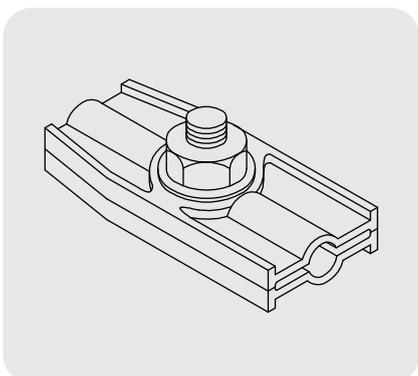
## Tee joint solid conductor clamp



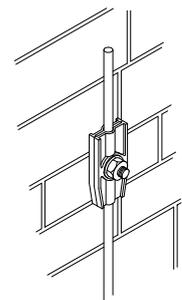
Conductor		Ordering reference
diameter	material	
8 mm	Copper	MTC8C
8 mm	Aluminum	MTC8A



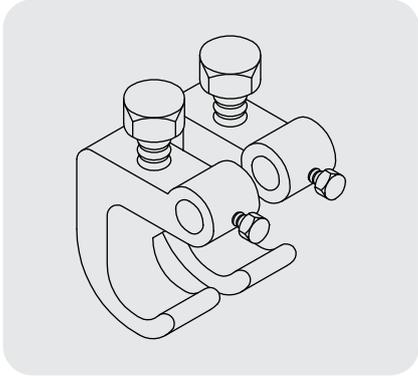
## Junction clamp



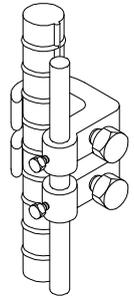
Conductor		Ordering reference
diameter	material	
8 mm	Copper	MJC8C
8 mm	Aluminum	MJC8A



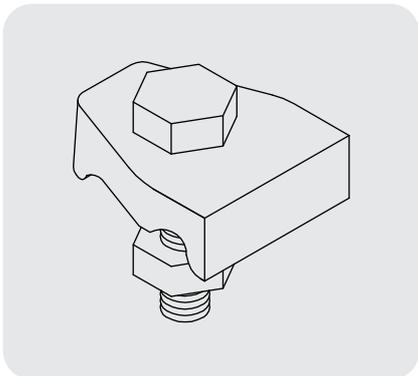
## Re-bar clamp



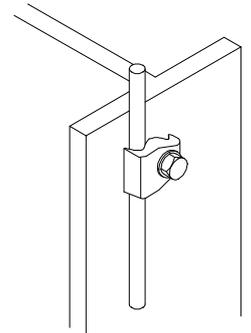
Conductor		Bar diameter	Ordering reference
diameter	material		
8 mm	Copper	8mm-18mm	MRC1
8 mm	Copper	18mm-38mm	MRC2



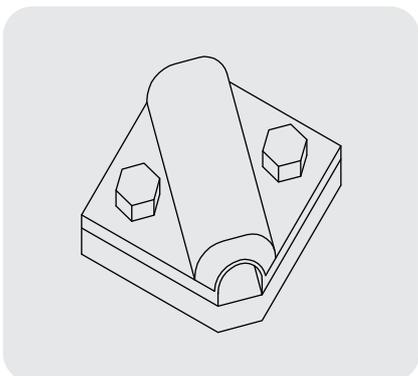
## Tower clamp



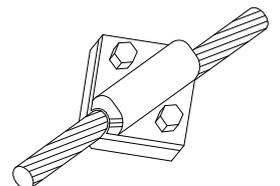
Conductor		Ordering reference
Diameter	Material	
8 mm	Copper	MJC8C
8 mm	Aluminum	MJC8A



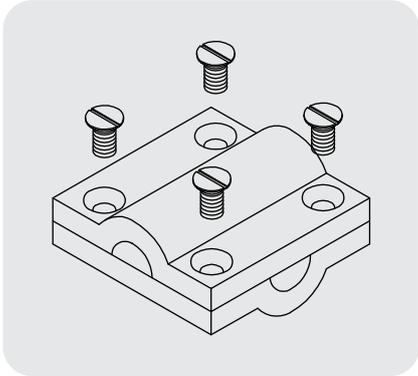
## Test conductor clamp



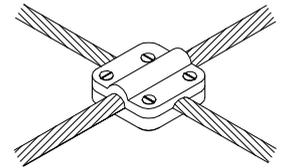
Conductor		Ordering reference
Size	Material	
50 mm <sup>2</sup>	Copper	MTCC50
70 mm <sup>2</sup>	Copper	MTCC70
95 mm <sup>2</sup>	Copper	MTCC95



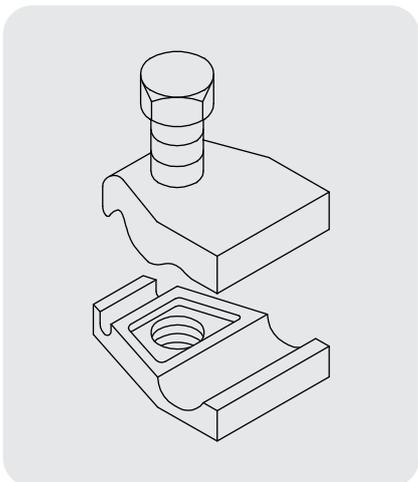
## Square conductor clamp



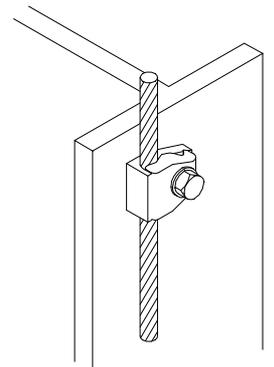
Conductor		Ordering reference
Size	Material	
50 mm <sup>2</sup>	Copper	MOCC50
70 mm <sup>2</sup>	Copper	MOCC70
95 mm <sup>2</sup>	Copper	MOCC95



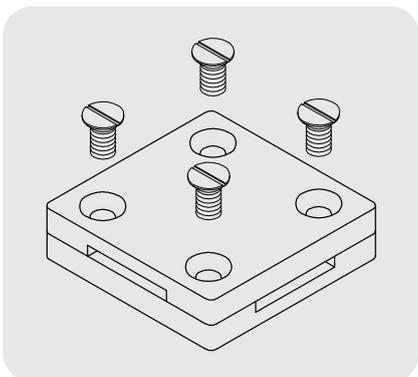
## Double plate tower clamp



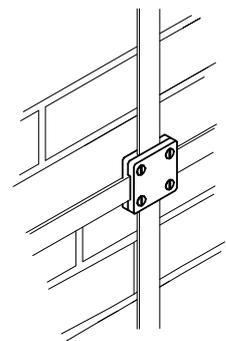
Conductor		Ordering reference
Size	Material	
50 mm <sup>2</sup>	Copper	MDTC50
70 mm <sup>2</sup>	Copper	MDTC70
120 mm <sup>2</sup>	Copper	MDTC120
185 mm <sup>2</sup>	Copper	MDTC185
240 mm <sup>2</sup>	Copper	MDTC240



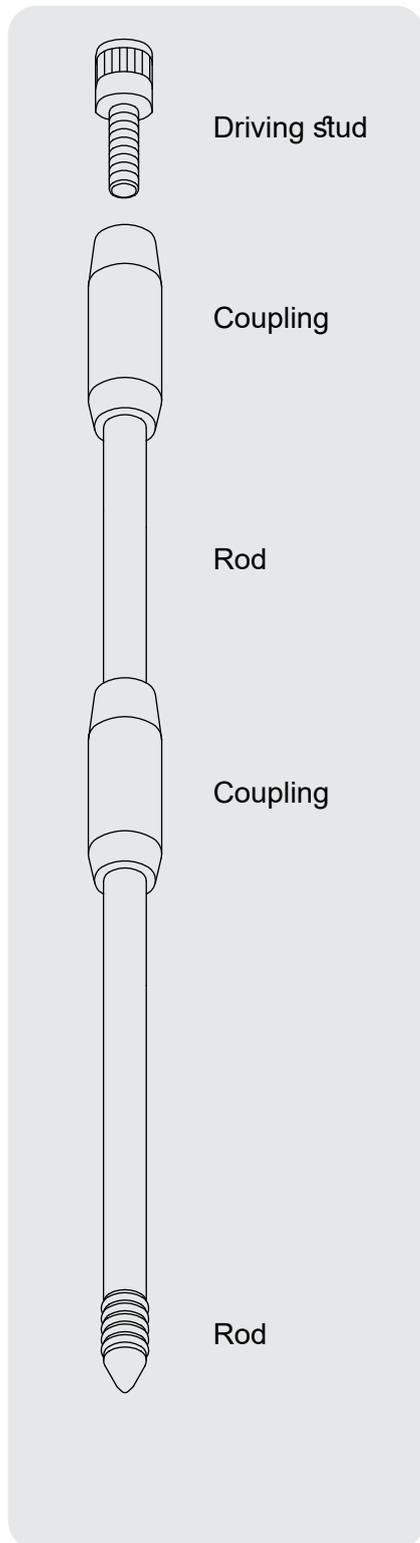
## Square tape clamp



Conductor size	material	Ordering reference
25 × 3 mm	Copper	MSTC253C
25 × 6 mm	Copper	MSTC256C
31 × 3 mm	Copper	MSTC313C
50 × 6 mm	Copper	MSTC506C
25 × 3 mm	Aluminum	MSTC253A



## Earth rods



### Copper bond threaded earth rods

Conductor			Ordering reference
Length	Diameter	Material	
1200 mm	1/2"	Copper bond	MCBTR11
1500 mm	1/2"	Copper bond	MCBTR12
1800 mm	1/2"	Copper bond	MCBTR13
2400 mm	1/2"	Copper bond	MCBTR14
1200 mm	5/8"	Copper bond	MCBTR21
1500 mm	5/8"	Copper bond	MCBTR22
1800 mm	5/8"	Copper bond	MCBTR23
2400 mm	5/8"	Copper bond	MCBTR24
3000 mm	5/8"	Copper bond	MCBTR25
1200 mm	3/4"	Copper bond	MCBTR31
1500 mm	3/4"	Copper bond	MCBTR32
1800 mm	3/4"	Copper bond	MCBTR33
2400 mm	3/4"	Copper bond	MCBTR34
3000 mm	3/4"	Copper bond	MCBTR35

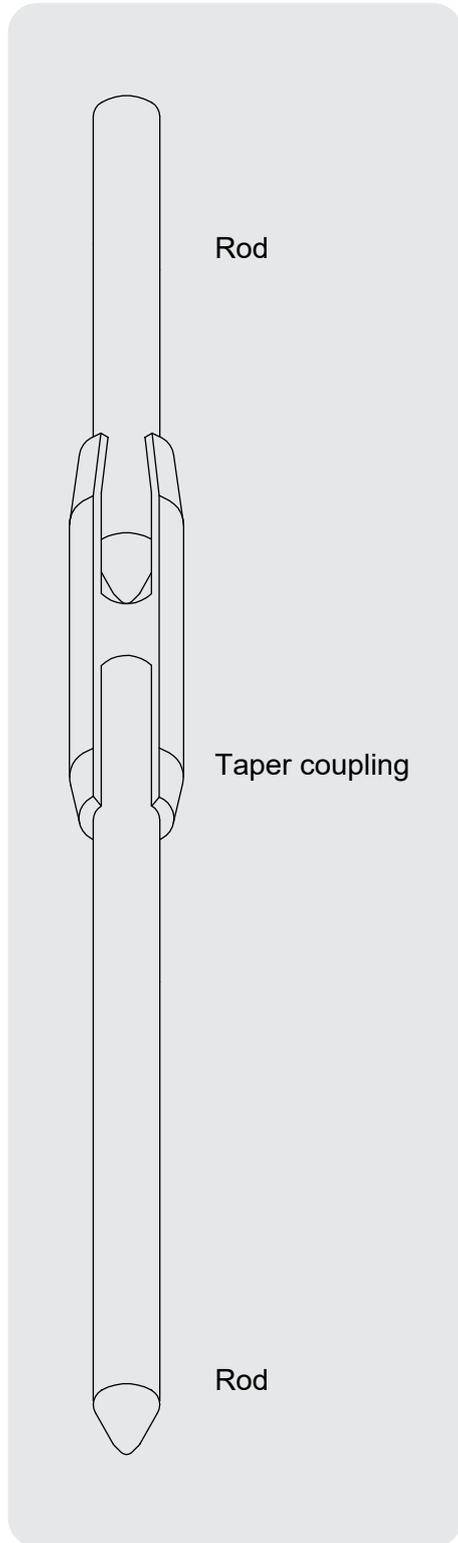
### Eaerth rod copper bond driving stud

Rod size	Ordering reference
1/2"	MDS1
5/8"	MDS2
3/4"	MDS3

### Eaerth rod threaded coupling

Rod size	Ordering reference
1/2"	MRC1
5/8"	MRC2
3/4"	MRC3

## Earth rods



### Copper bond unthreaded earth rod

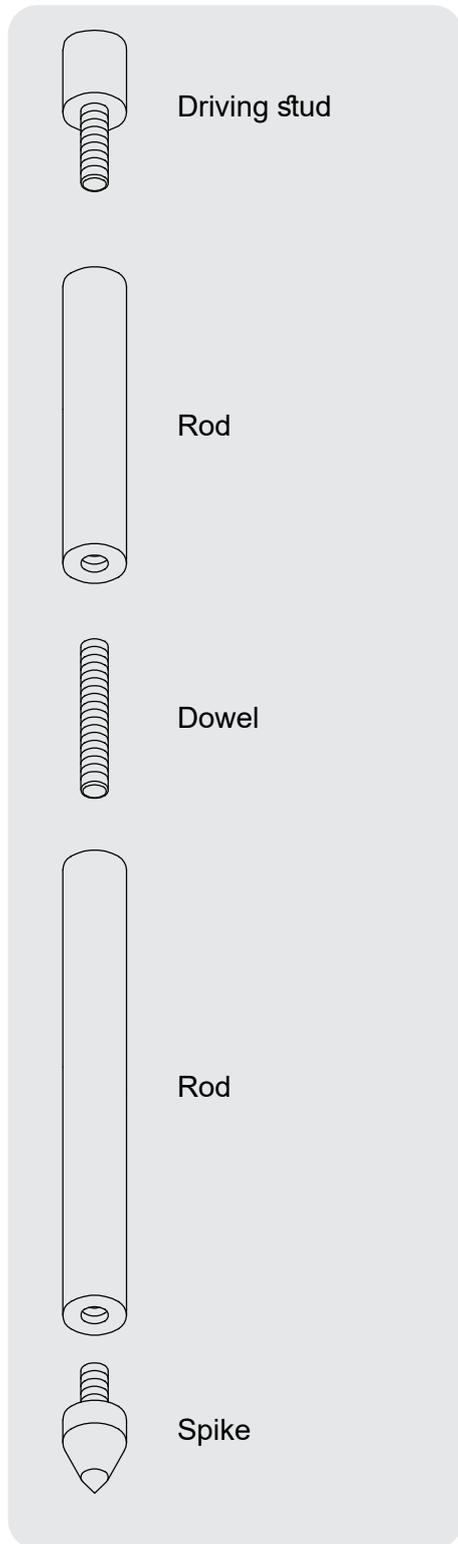
Length	Conductor		Ordering reference
	Diameter	Material	
1200 mm	9 mm	Copper bond	MCBUTR01
1200 mm	12.7 mm	Copper bond	MCBUTR11
1500 mm	12.7 mm	Copper bond	MCBUTR12
1800 mm	12.7 mm	Copper bond	MCBUTR13
2400 mm	12.7 mm	Copper bond	MCBUTR14
1200 mm	14.2 mm	Copper bond	MCBUTR21
1500 mm	14.2 mm	Copper bond	MCBUTR22
1800 mm	14.2 mm	Copper bond	MCBUTR23
2000 mm	14.2 mm	Copper bond	MCBUTR24
2400 mm	14.2 mm	Copper bond	MCBUTR25
3000 mm	14.2 mm	Copper bond	MCBUTR26
1200 mm	17.2 mm	Copper bond	MCBUTR31
1500 mm	17.2 mm	Copper bond	MCBUTR32
1800 mm	17.2 mm	Copper bond	MCBUTR33
2000 mm	17.2 mm	Copper bond	MCBUTR34
2400 mm	17.2 mm	Copper bond	MCBUTR35
3000 mm	17.2 mm	Copper bond	MCBUTR36

### Earth rod unthreaded coupling

Rod size	Ordering reference
12.7 mm	MRUC1
14.2 mm	MRUC2
17.2 mm	MRUC3



## Earth rods



### Solid copper earth rods

Conductor			Ordering reference
Length	Diameter	Material	
1200 mm	15 mm	Copper	MSCR11
1200 mm	20 mm	Copper	MSCR21
1200 mm	15 mm	S. steel	MSSR11
1200 mm	20 mm	S. steel	MSSR21

### Earth rod solid driving stud

Rod size	Material	Ordering reference
15 mm	Copper	MSCDS1
20 mm	Copper	MSCDS2
15 mm	S. steel	MSSDS1
20 mm	S. steel	MSSDS2

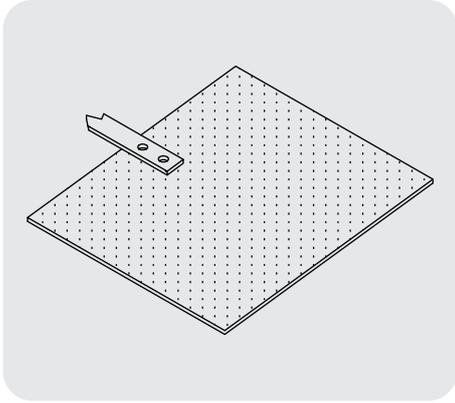
### Earth rod s.steel dowel coupling

Ordering reference
MDC

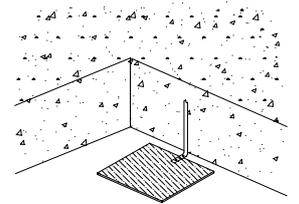
### Earth rod spike

Rod size	Ordering reference
15 mm	MRS1
20 mm	MRS2

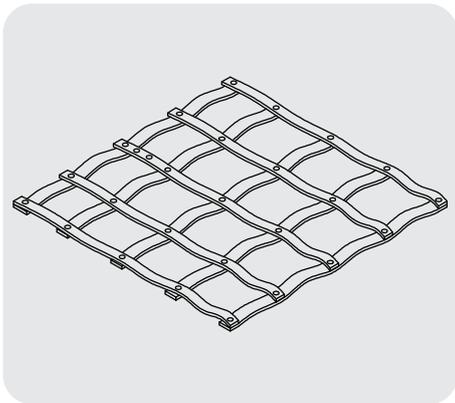
## Solid copper earth plate



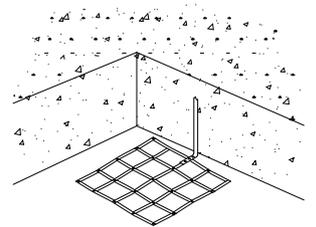
Size	Material	Ordering reference
600×600×1.5 mm	Copper	MSCP11
900×900×1.5 mm	Copper	MSCP12
600×600×3 mm	Copper	MSCP21
900×900×3 mm	Copper	MSCP22



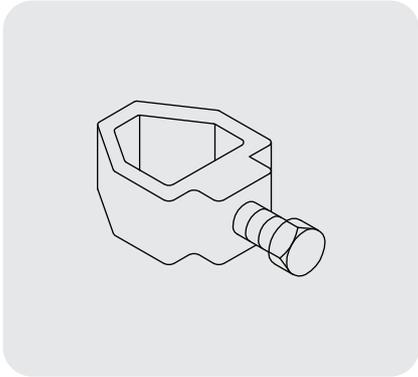
## Lattice copper earth plate



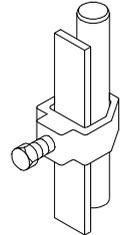
Size	Material	Ordering reference
600×600×3 mm	Copper	MLCP21
900×900×3 mm	Copper	MLCP22



## Earth rod to tape clamp



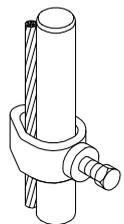
rod diameter	Conductor		Ordering reference
	width	thickness	
1/2"	26 mm	12 mm	MTC114
5/8"	26 mm	12 mm	MTC214
3/4"	26 mm	10 mm	MTC313
5/8"	30 mm	2 mm	MTC221
3/4"	30 mm	2 mm	MTC321
5/8"	40 mm	12 mm	MTC234
5/8"	50 mm	8 mm	MTC242
3/4"	50 mm	12 mm	MTC344
1/2"	26 mm	20 mm	MTC116
5/8"	26 mm	19 mm	MTC215
3/4"	26 mm	10 mm	MTC313
1"	26 mm	10 mm	MTC413



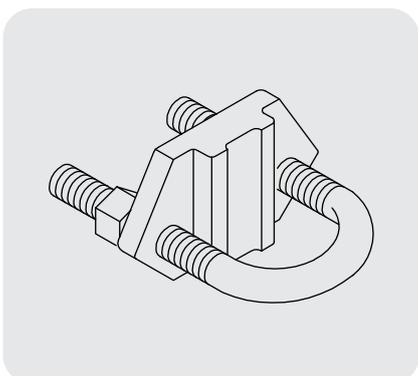
## Earth rod to cable clamp



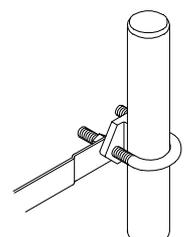
Rod diameter	Conductor		Ordering reference
	Size	Material	
3/4"	35 mm <sup>2</sup>	Copper	MCC31
1/2"	50 mm <sup>2</sup>	Copper	MCC12
5/8"	70 mm <sup>2</sup>	Copper	MCC23
3/4"	95 mm <sup>2</sup>	Copper	MCC34
1"	120 mm <sup>2</sup>	Copper	MCC45



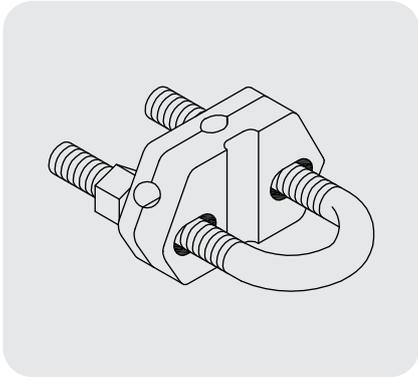
## Erth rod u-bolt clamp



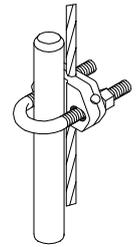
rod diameter	Conductor		Ordering reference
	Rod raduis		
5/8"	8 mm		MUB21
3/4"	9.5 mm		MUB32
1"	12.7 mm		MUB43



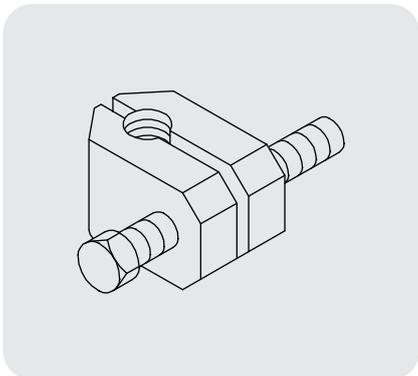
## Earth rod to cable GUV tybe clamp



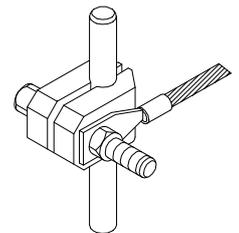
Conductor			Ordering reference
Rod diameter	Size	raduis	
5/8"	95 mm <sup>2</sup>	6.25 mm	MGUV222
3/4"	70 mm <sup>2</sup>	5.25 mm	MGUV311
5/8"	185 mm <sup>2</sup>	8.75 mm	MGUV234
3/4"	150 mm <sup>2</sup>	7.85 mm	MGUV343
5/8"	300 mm <sup>2</sup>	11.25 mm	MGUV255
3/4"	300 mm <sup>2</sup>	11.25 mm	MGUV365



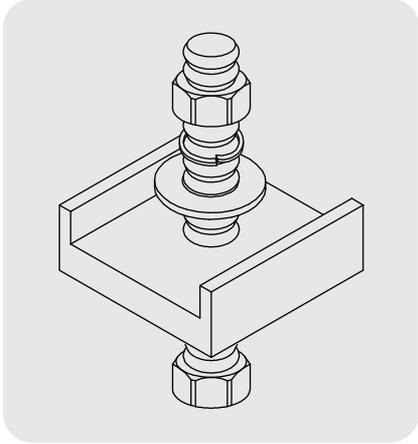
## Earth rod to cable lug clamp



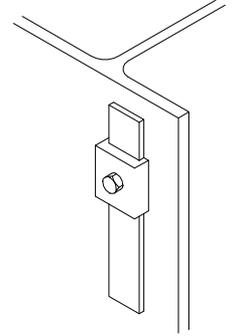
Conductor		Ordering reference
size	Rod material	
3/8"	Copper bond	MRTC0B
5/8"	Copper bond	MRTC2B
5/8"	Solid copper	MRTC2B
3/4"	Copper bond	MRTC3B
3/4"	Solid copper	MRTC3B



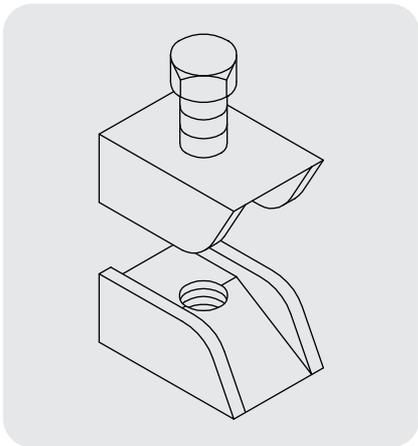
## Beam to tape bond



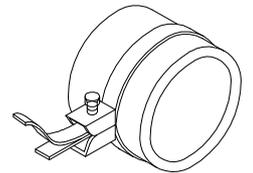
Conductor		Ordering reference
Width	Material	
26 mm	Copper	MBTT1C
26 mm	Aluminum	MBTT1A
31 mm	Copper	MBTT2C



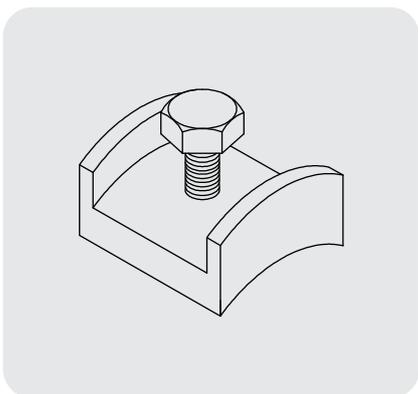
## Rain pipe to tape bond



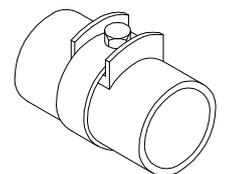
Conductor		Ordering reference
Width	Material	
26 mm	Copper	MRPT1C
26 mm	Aluminum	MRPT1A



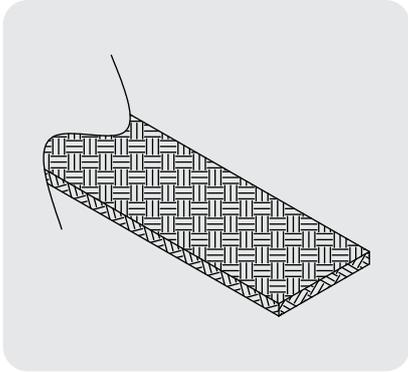
## Water pipe tape bond



Conductor		Ordering reference
Width	Material	
26 mm	Copper	MWPT1C

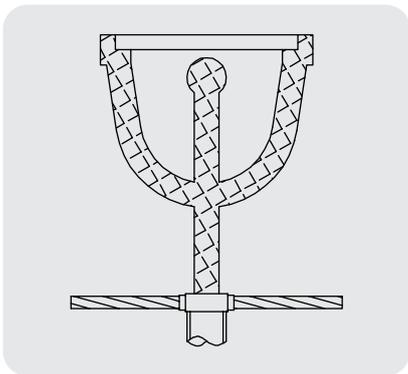


## Flexible copper earth braid

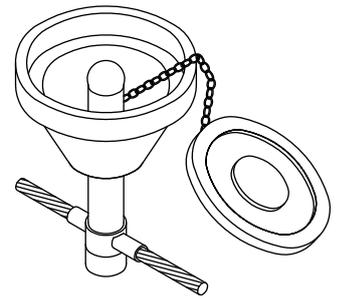


Width	Height	Ordering reference
25 mm	3.5 mm	MFCB2535

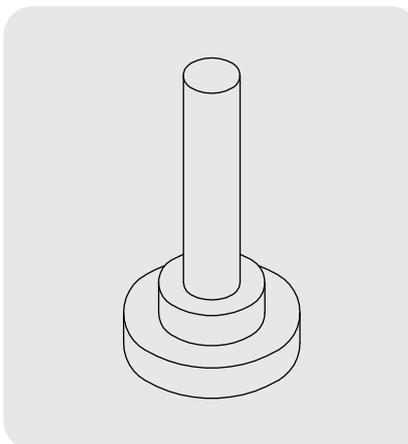
## Static earth receptacle



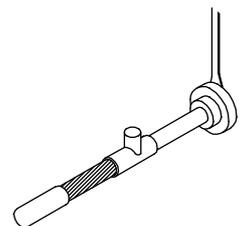
Conductor material	Ordering reference
Copper	MSER



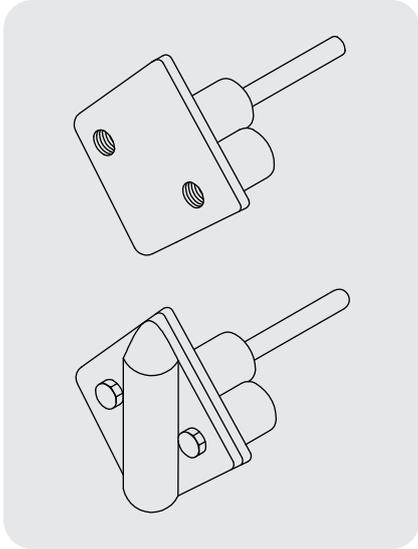
## Single hole earth point



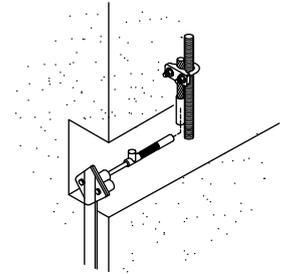
Hole	Hole size	Ordering reference
1 hole	M8×15 mm	MSHEP



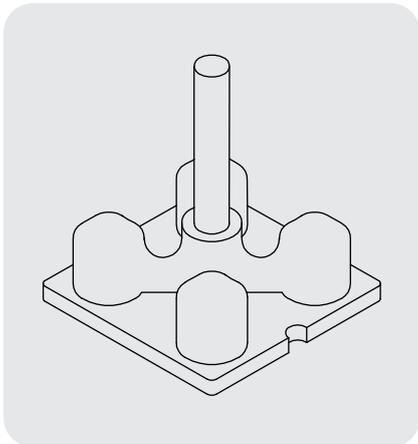
## Two hole earth point



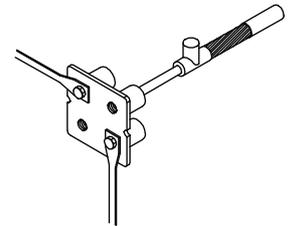
Holes	Hole size	Front Plate	Ordering reference
2 holes	M8×12 mm	For 25×3mm copper tape or 70mm <sup>2</sup>	MTHEP1
2 holes	M8×12 mm	For 25×3mm copper tape or 8mm solid circular copper conductor	MTHEP2
2 holes	M8×12 mm	Without	MTHEP3



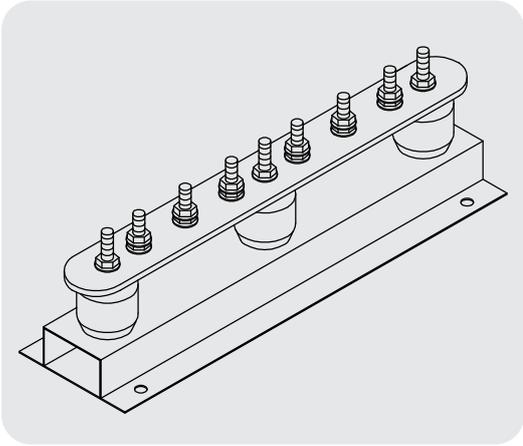
## Four hole earth point



Hole size	Ordering reference
M8×14 mm	MFHEP

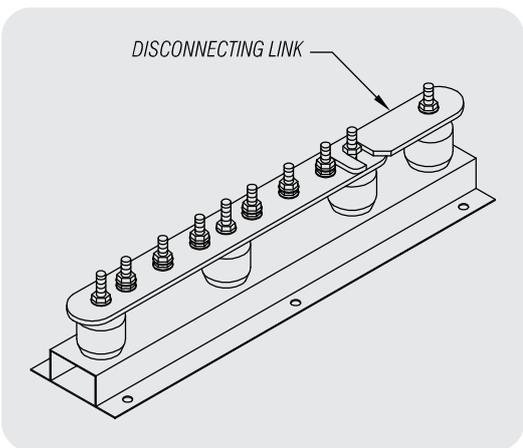


## Earth bar



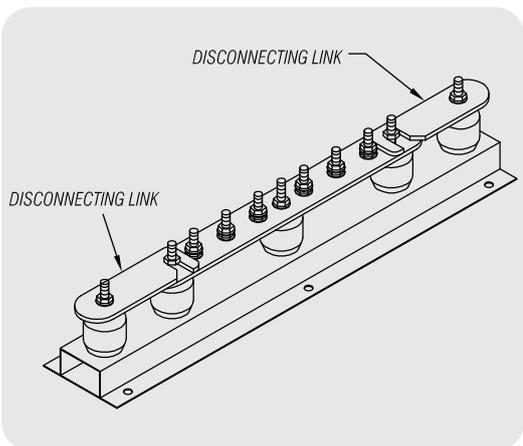
Length (mm)	Width (mm)	Height (mm)	Way	Ordering reference
400	90	90	6-way	MEB4006
500	90	90	8-way	MEB5008
650	90	90	10-way	MEB65010
750	90	90	12-way	MEB75012
850	90	90	14-way	MEB85014
950	90	90	16-way	MEB95016
1050	90	90	18-way	MEB105018
1200	90	90	20-way	MEB120020
1300	90	90	22-way	MEB130022
1400	90	90	24-way	MEB140024
1500	90	90	26-way	MEB150026
1650	90	90	28-way	MEB165028
1750	90	90	30-way	MEB175030

## Earth bar with single disconnecting link



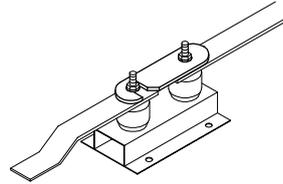
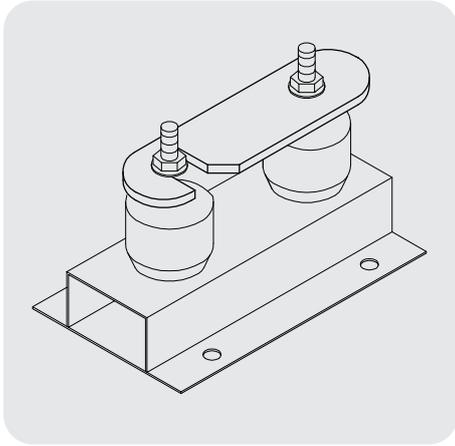
Length (mm)	Width (mm)	Height (mm)	Way	Ordering reference
475	90	96	6-way	MEBSL4756
575	90	96	8-way	MEBSL5758
725	90	96	10-way	MEBSL72510
825	90	96	12-way	MEBSL82512
925	90	96	14-way	MEBSL92514
1025	90	96	16-way	MEBSL102516
1125	90	96	18-way	MEBSL112518
1275	90	96	20-way	MEBSL127520
1375	90	96	22-way	MEBSL137522
1475	90	96	24-way	MEBSL147524
1575	90	96	26-way	MEBSL157526
1725	90	96	28-way	MEBSL172528
1825	90	96	30-way	MEBSL182530

## Earth bar with twin disconnecting link



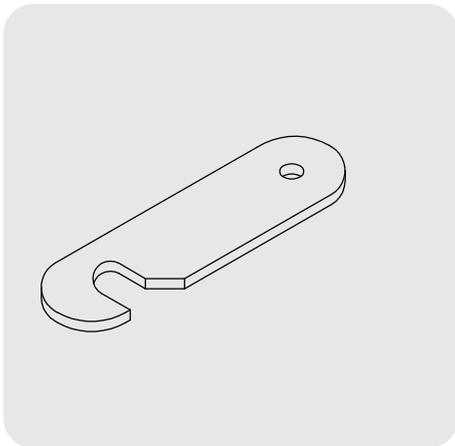
Length (mm)	Width (mm)	Height (mm)	Way	Ordering reference
550	90	96	6-way	MEBT5506
650	90	96	8-way	MEBT6508
800	90	96	10-way	MEBT80010
900	90	96	12-way	MEBT90012
1000	90	96	14-way	MEBT100014
1100	90	96	16-way	MEBT110016
1200	90	96	18-way	MEBT120018
1350	90	96	20-way	MEBT135020
1450	90	96	22-way	MEBT145022
1550	90	96	24-way	MEBT155024
1650	90	96	26-way	MEBT165026
1800	90	96	28-way	MEBT180028
1900	90	96	30-way	MEBT190030

## Disconnecting link



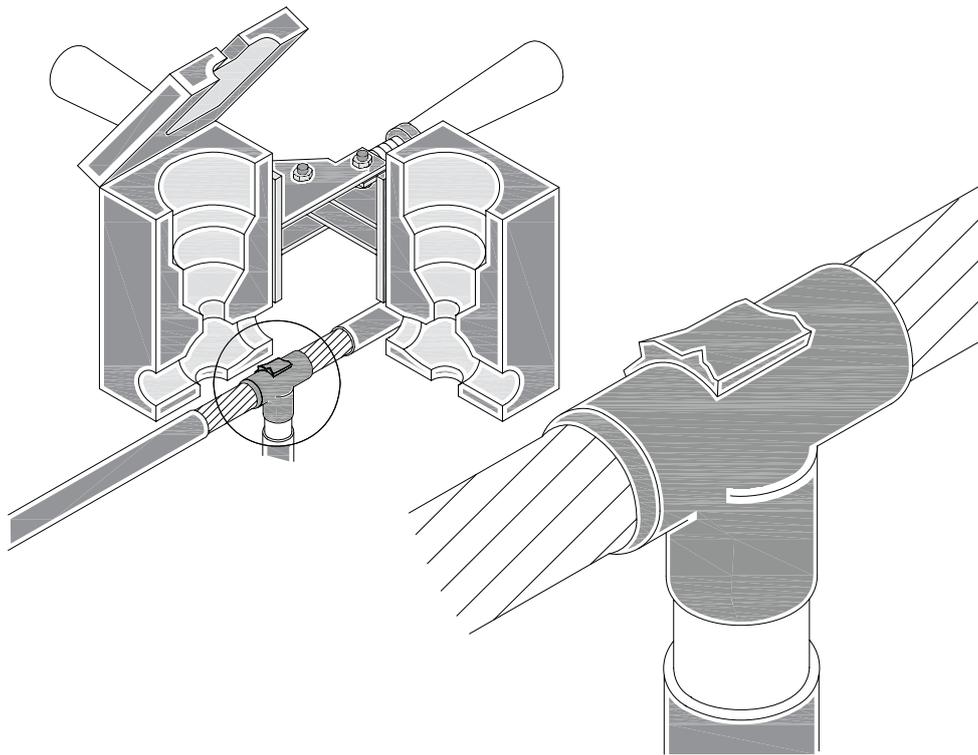
Length (mm)	Width (mm)	Height (mm)	Ordering reference
400	50	36	MDCL400

## Swan - neck link



Ordering reference
MSNL

## Exothermic Weld System



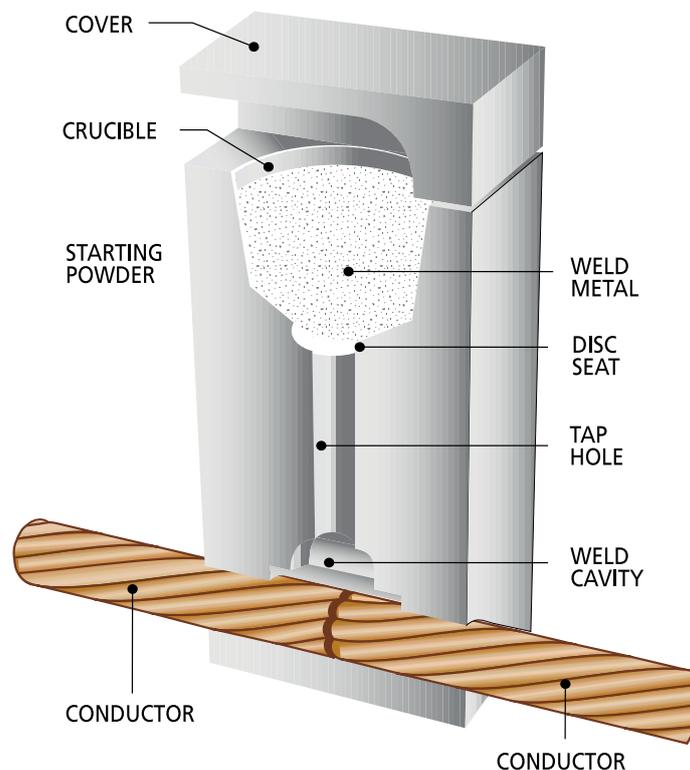
## Exothermic Welding System

To produce a permanent electrical solid connection of copper to copper or copper to steel without having an external source of power, the mold and powder is being designed and manufactured to suite any required shape and size of connection.

The principle consists of bringing together a welding filler material and ignition agent in a suitable graphite mould. The weld metal composition depends upon the metals to be welded (copper oxide and aluminum for a copper/copper weld).

The reduction of copper oxide by aluminum produces molten copper and aluminum oxide slag at extremely high temperatures.

The shape of the mould, its dimensions, and the size of the weld metal, are all dependent on the items to be welded and their size.



## How to inspect the mold

The mold is designed to serve an average of 80 shots if treated, inspected and maintained in proper way, hence, in order to achieve that, you need to follow the below check points.

### 1- Weld cavity:

- No chips or gouges shall exist inside the cavity.
- The cavity shall be well defined.

### 2- Conductor shall fit the opening:

- Since any loose will result in powder leakage.
- No cracks or worn out shall appear on the opening.

## Weld connection

Placing the conductors inside the mold, filling the powder and igniting is all what you need to make the point.

The joint will be clean, smooth with the required suitable properties.

This weld can be applied to other molds like iron, steel, cast iron bronze and rail ways.

It can be applied to serve the following projects:

- Grounding and lighting work.
- Cathodic construction
- Real way construction
- Lot of various electrical works

graphite mold advantages:

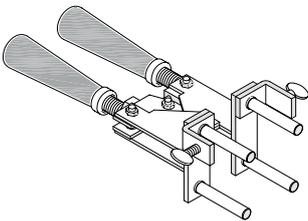
1. No need for external welding machine.
2. Virtually maintenance free.
3. A smooth metal connection that will not loosen or corrode.
4. Use only lightweight and cheap equipment.
5. It is not affected by high current surge or over current.

## Weld powder



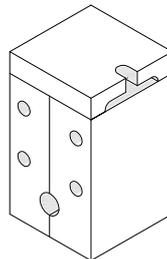
Weight (g)	Ordering reference
15	MP - 15
25	MP - 25
32	MP - 32
45	MP - 45
65	MP - 65
90	MP - 90
115	MP - 115
150	MP - 150
200	MP - 200
250	MP - 250

## Weld accessories



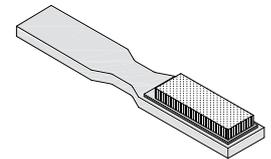
Handle clamp

For opening and closing the mould.  
(MMHC & MLHC)



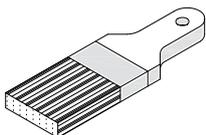
Moulds

Head resistance graphite block, a enough to weld  
80-100 shats



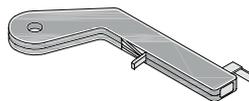
card cloth brush

For cleaning of the conductor before  
welding. (MCB)



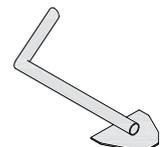
mould brush

For cleaning the inner part of the mould.  
(MMB)



Ignition lighter

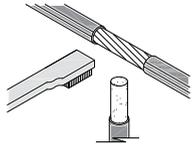
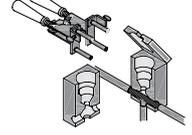
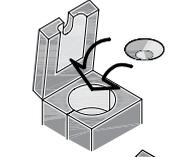
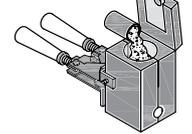
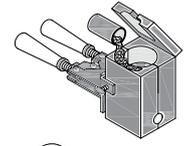
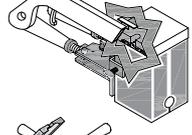
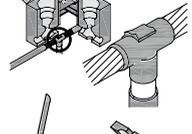
For safe and quick ignition of the starting  
powder.  
(MIL)



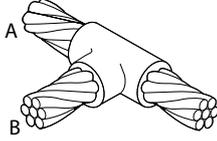
mould scraper

For removing easily the accumulated stags  
(MMS)

## Welding Instruction

<b>Step 1</b>			
<b>Step 2</b>	When using insulated cables, remove 150mm of the isolation of the conductor and all the dust and oxydes is to cleaned properly by mould brush, and/or cardcloth brush		
<b>Step 3</b>	Connect the handle clamp to the hole and separate the two arms to open the mould, then fit the conductors and leave 5 - 6mm gap on the other conductor		
<b>Step 4</b>	Preheat the welding mould with a welding torch or ignite a box of weld powder in order to remove the moisture before starting the first weld		
<b>Step 5</b>	Close the mould with the handle clamp and put the steel disc on the tap hole, the conical side of the disc should be at the bottom		
<b>Step 6</b>	Pour the weld powder, which is on the upper portion of the powder box, into the crucible		
<b>Step 7</b>	On the bottom of the powder canister, you can see the ignition powder, put it on the lip of the crucible and on the top of the weld powder for easy ignition		
<b>Step 8</b>	Ignite the flint ignitor from aside the ignition powder. pull away the flint ignitor once it ignited to avoid damage		
<b>Step 9</b>	After one minute, separate the two arms of the handle clamp to open completely the mould in order for the welded parts tube to be removed. extra care should be taken so as not to damaged the mould		
<b>Step 10</b>	Clean completely the mould by using mould scraper and by mould brush, you can continue welding as long as the mould is still warm		

## Cable to cable connection



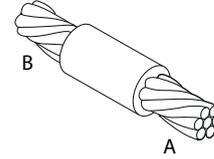
Horizontal tee

A (mm <sup>2</sup> )	B (mm <sup>2</sup> )	Clamp	Powder (g)
25	25	MMHC	45
	35	MMHC	45
	50	MMHC	45
35	25	MMHC	45
	35	MMHC	45
	50	MMHC	65
50	70	MMHC	65
	25	MMHC	65
	35	MMHC	65
70	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
95	25	MMHC	65
	35	MMHC	65
	50	MMHC	90
120	70	MMHC	90
	95	MMHC	90
	120	MMHC	115
150	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
185	70	MMHC	90
	95	MMHC	115
	120	MMHC	150
25	150	MMHC	115
	185	MMHC	150
	25	MMHC	90
35	35	MMHC	90
	50	MMHC	90
	70	MMHC	90
50	95	MMHC	115
	120	MMHC	150
	150	MMHC	150
70	185	MMHC	150
	25	MMHC	115
	35	MMHC	115
95	50	MMHC	115
	70	MMHC	115
	95	MMHC	150
120	120	MMHC	150
	150	MMHC	200
	185	MMHC	200
150	25	MMHC	115
	35	MMHC	115
	50	MMHC	115
185	70	MMHC	150
	95	MMHC	150
	120	MMHC	200
25	150	MMHC	200
	185	MMHC	200
	25	MMHC	200

Ordering reference:

**MCCHT - A - B**

Cable size \_\_\_\_\_ | \_\_\_\_\_ Cable size



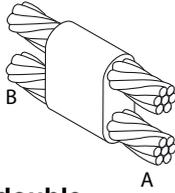
Horizontal straight

A (mm <sup>2</sup> )	B (mm <sup>2</sup> )	Clamp	Powder (g)
25	25	MMHC	32
	35	MMHC	45
35	25	MMHC	45
	35	MMHC	45
50	25	MMHC	45
	35	MMHC	45
70	50	MMHC	45
	50	MMHC	45
95	25	MMHC	45
	35	MMHC	45
120	50	MMHC	65
	70	MMHC	65
150	70	MMHC	65
	95	MMHC	65
185	25	MMHC	65
	35	MMHC	65
25	50	MMHC	90
	70	MMHC	90
35	95	MMHC	90
	120	MMHC	90
50	150	MMHC	90
	185	MMHC	90
70	25	MMHC	115
	35	MMHC	115
95	50	MMHC	115
	70	MMHC	115
120	95	MMHC	115
	120	MMHC	115
150	150	MMHC	115
	185	MMHC	115
25	25	MMHC	90
	35	MMHC	90
35	50	MMHC	90
	70	MMHC	90
50	95	MMHC	90
	120	MMHC	90
70	150	MMHC	90
	185	MMHC	90
95	25	MMHC	115
	35	MMHC	115
120	50	MMHC	115
	70	MMHC	115
150	95	MMHC	115
	120	MMHC	150
185	150	MMHC	150
	185	MMHC	150

Ordering reference:

**MCCS - A - B**

Cable size \_\_\_\_\_ | \_\_\_\_\_ Cable size



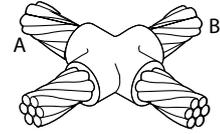
**Horizontal double**

A (mm <sup>2</sup> )	B (mm <sup>2</sup> )	Clamp	Powder (g)
25	25	MMHC	65
	35	MMHC	65
	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
	120	MMHC	115
35	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
	70	MMHC	90
	95	MMHC	115
	120	MMHC	115
50	150	MMHC	115
	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
	70	MMHC	90
	95	MMHC	115
70	120	MMHC	150
	150	MMHC	150
	185	MMHC	150
	25	MMHC	90
	35	MMHC	115
	50	MMHC	115
95	70	MMHC	115
	95	MMHC	150
	120	MMHC	150
	150	MMHC	200
	185	MMHC	200
	25	MMHC	115
120	35	MMHC	115
	50	MMHC	115
	70	MMHC	150
	95	MMHC	150
	120	MMHC	200
	150	MMHC	200
150	185	MMHC	200
	25	MMHC	115
	35	MMHC	115
	50	MMHC	150
	70	MMHC	150
	95	MMHC	200
185	120	MMHC	200
	150	MMHC	250
	185	MMHC	250
	35	MMHC	200
	50	MMHC	200
	70	MMHC	200

Ordering reference:

**MCCPH - A - B**

Cable size   Cable size



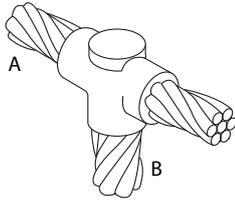
**Horizontal cross**

A (mm <sup>2</sup> )	B (mm <sup>2</sup> )	Clamp	Powder (g)
25	25	MMHC	65
	35	MMHC	65
	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
	120	MMHC	115
35	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
	70	MMHC	90
	95	MMHC	115
	120	MMHC	115
50	150	MMHC	115
	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
	70	MMHC	90
	95	MMHC	115
70	120	MMHC	150
	150	MMHC	150
	185	MMHC	150
	25	MMHC	90
	35	MMHC	115
	50	MMHC	115
95	70	MMHC	115
	95	MMHC	150
	120	MMHC	150
	150	MMHC	200
	185	MMHC	200
	25	MMHC	115
120	35	MMHC	115
	50	MMHC	115
	70	MMHC	150
	95	MMHC	150
	120	MMHC	200
	150	MMHC	200
150	185	MMHC	200
	25	MMHC	115
	35	MMHC	115
	50	MMHC	150
	70	MMHC	150
	95	MMHC	200
185	120	MMHC	200
	150	MMHC	250
	185	MMHC	250
	35	MMHC	200
	50	MMHC	200
	70	MMHC	200

Ordering reference:

**MCCHX - A - B**

Cable size   Cable size



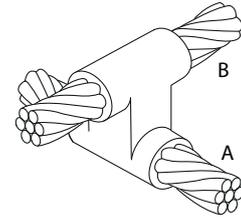
**Vertical tee**

A (mm <sup>2</sup> )	B (mm <sup>2</sup> )	Clamp	Powder (g)
25	25	MMHC	45
	35	MMHC	45
	50	MMHC	45
35	25	MMHC	45
	35	MMHC	45
	50	MMHC	65
50	70	MMHC	65
	25	MMHC	65
	35	MMHC	65
70	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
95	25	MMHC	65
	35	MMHC	65
	50	MMHC	90
120	70	MMHC	90
	95	MMHC	90
	120	MMHC	115
150	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
185	70	MMHC	90
	95	MMHC	90
	120	MMHC	115
25	150	MMHC	115
	185	MMHC	150
	25	MMHC	90
35	35	MMHC	115
	50	MMHC	115
	70	MMHC	115
50	95	MMHC	150
	120	MMHC	150
	150	MMHC	200
70	185	MMHC	200
	25	MMHC	115
	35	MMHC	115
95	50	MMHC	115
	70	MMHC	150
	95	MMHC	150
120	120	MMHC	150
	150	MMHC	200
	185	MMHC	200
150	25	MMHC	115
	35	MMHC	115
	50	MMHC	115
185	70	MMHC	150
	95	MMHC	150
	120	MMHC	200
25	150	MMHC	200
	185	MMHC	200

**Ordering reference:**

**MCCVT - A - B**

Cable size   Cable size



**Horizontal cross tap**

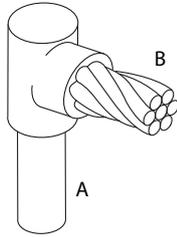
A (mm <sup>2</sup> )	B (mm <sup>2</sup> )	Clamp	Powder (g)
25	25	MMHC	90
	35	MMHC	115
	50	MMHC	115
	70	MMHC	115
	95	MMHC	150
	120	MMHC	150
35	150	MMHC	200
	185	MMHC	200
	25	MMHC	115
	35	MMHC	115
	50	MMHC	115
	70	MMHC	150
50	95	MMHC	150
	120	MMHC	200
	150	MMHC	200
	185	MMHC	200
	25	MMHC	115
	35	MMHC	115
70	50	MMHC	150
	70	MMHC	150
	95	MMHC	200
	120	MMHC	200
	150	MMHC	250
	185	MMHC	250
95	35	MMHC	150
	50	MMHC	200
	70	MMHC	200
	95	MMHC	250
	120	MMHC	250
	150	MMHC	250
120	185	MMHC	250
	35	MMHC	200
	50	MMHC	250
	70	MMHC	250
	95	MMHC	250
	120	MMHC	250
150	150	MMHC	250
	185	MMHC	250
	50	MLHC	200
	70	MLHC	250
	95	MLHC	150×2
	120	MLHC	150×2
185	150	MLHC	200×2
	185	MLHC	200×2
	50	MLHC	250
	70	MLHC	150×2
	95	MLHC	150×2
	120	MLHC	200×2
25	150	MLHC	200×2
	185	MLHC	200×2
	70	MLHC	200×2
	95	MLHC	200×2
	120	MLHC	250×2
	150	MLHC	250×2
35	185	MLHC	250×2
	70	MLHC	200×2
	95	MLHC	200×2
50	120	MLHC	200×2
	150	MLHC	200×2
	185	MLHC	250×2

**Ordering reference:**

**MCCHOX - A - B**

Cable size   Cable size

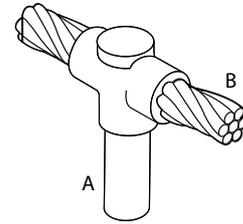
## Cable to rod / rod to rod connection



**Horizontal one side**

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
14.3	25	MMHC	65
	35	MMHC	65
	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
	120	MMHC	90
	150	MMHC	115
14.6	185	MMHC	115
	25	MMHC	65
	35	MMHC	65
	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
	120	MMHC	90
5/8	150	MMHC	115
	185	MMHC	115
	25	MMHC	65
	35	MMHC	65
	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
18.3	120	MMHC	90
	150	MMHC	115
	185	MMHC	115
	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
	70	MMHC	90
3/4	95	MMHC	90
	120	MMHC	90
	150	MMHC	115
	185	MMHC	115
	25	MMHC	90
	35	MMHC	90
	50	MMHC	90

Ordering reference:

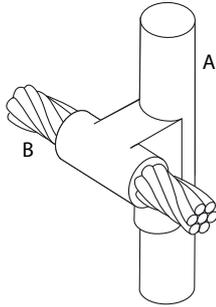


**Horizontal top tee**

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
14.3	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
	70	MMHC	115
	95	MMHC	115
	120	MMHC	150
	150	MMHC	200
14.6	185	MMHC	200
	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
	70	MMHC	115
	95	MMHC	115
	120	MMHC	150
5/8	150	MMHC	200
	185	MMHC	200
	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
	70	MMHC	115
	95	MMHC	115
18.3	120	MMHC	150
	150	MMHC	200
	185	MMHC	200
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
3/4	95	MMHC	115
	120	MMHC	150
	150	MMHC	200
	185	MMHC	200
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115

Ordering reference:



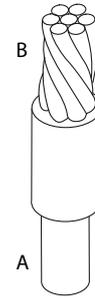


### Horizontal cross side

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
14.3	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
	95	MMHC	115
	120	MMHC	150
	150	MMHC	150
	185	MMHC	250
14.6	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
	95	MMHC	115
	120	MMHC	150
	150	MMHC	150
5/8	185	MMHC	250
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
	95	MMHC	115
	120	MMHC	150
	150	MMHC	150
18.3	185	MMHC	250
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	150
	95	MMHC	150
	120	MMHC	200
	150	MMHC	250
3/4	185	MMHC	150×2
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	150
	95	MMHC	150
	120	MMHC	200
	150	MMHC	250

Ordering reference:

**MCROX - A - B**  
 Rod size \_\_\_\_\_ Cable size \_\_\_\_\_

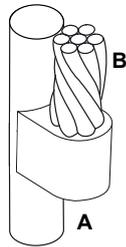


### Vertical straight

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
14.3	25	MMHC	65
	35	MMHC	65
	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
	120	MMHC	90
	150	MMHC	115
	185	MMHC	115
14.6	25	MMHC	65
	35	MMHC	65
	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
	120	MMHC	90
	150	MMHC	115
	185	MMHC	115
5/8	25	MMHC	65
	35	MMHC	65
	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
	120	MMHC	90
	150	MMHC	115
	185	MMHC	115
18.3	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
	120	MMHC	90
	150	MMHC	115
	185	MMHC	115
3/4	25	MMHC	90
	35	MMHC	90
	50	MMHC	90
	70	MMHC	90
	95	MMHC	90
	120	MMHC	90
	150	MMHC	115
	185	MMHC	115

Ordering reference:

**MCRS - A - B**  
 Rod size \_\_\_\_\_ Cable size \_\_\_\_\_



### Vertical one side

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
14.3	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	150
	95	MMHC	150
	120	MMHC	200
	150	MMHC	250
14.6	185	MMHC	150×2
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	150
	95	MMHC	150
	120	MMHC	200
5/8	150	MMHC	250
	185	MMHC	150×2
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	150
	95	MMHC	200
18.3	120	MMHC	200
	150	MMHC	250
	185	MMHC	150×2
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	150
3/4	95	MMHC	200
	120	MMHC	200

### Ordering reference:

**MCROP - A - B**  
 Rod size \_\_\_\_\_ Cable size \_\_\_\_\_



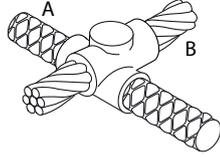
### Vertical parallel

Conductor size mm	Powder (g)	Clamp
14.3	200	MMHC
14.6	200	MMHC
5/8	200	MMHC
18.3	150×2	MMHC
3/4	150×2	MMHC

### Ordering reference:

**MRR - A**  
 Rod size \_\_\_\_\_

## Cable to concrete steel re-bar connection



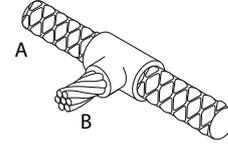
**Horizontal cross tap**

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
10	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	150
	95	MMHC	150
16	25	MLHC	115
	35	MLHC	115
	50	MLHC	150
	70	MLHC	150
	95	MLHC	200
	120	MLHC	200
20	150	MLHC	200
	25	MLHC	115
	35	MLHC	115
	50	MLHC	150
	70	MLHC	150
	95	MLHC	200
	120	MLHC	200
	150	MLHC	250
185	MLHC	250	
240	MLHC	150×2	

**Ordering reference:**

**MCBHOX - A - B**

Bar size  Cable size



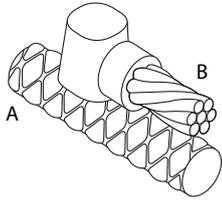
**Horizontal tee**

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
10	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	150
	95	MMHC	150
16	25	MMHC	150
	35	MMHC	150
	50	MMHC	150
	70	MMHC	150
	95	MMHC	200
	120	MMHC	200
20	150	MMHC	250
	25	MMHC	150
	35	MMHC	150
	50	MMHC	200
	70	MMHC	200
	95	MMHC	200
	120	MMHC	250
	150	MMHC	250
185	MMHC	150×2	
240	MLHC	200×2	

**Ordering reference:**

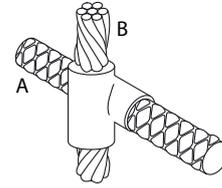
**MCBHT - A - B**

Bar size  Cable size



### Single parallel

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
10	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
	95	MMHC	150
16	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
	95	MMHC	150
	120	MMHC	150
20	150	MMHC	200
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
	95	MMHC	150
	120	MMHC	150
	150	MMHC	200
185	MMHC	250	
240	MMHC	250	



### Vertical cross

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
10	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	150
	95	MMHC	150
16	25	MMHC	115
	35	MMHC	115
	50	MMHC	150
	70	MMHC	150
	95	MMHC	200
	120	MMHC	200
20	150	MMHC	200
	25	MMHC	115
	35	MMHC	115
	50	MMHC	150
	70	MMHC	150
	95	MMHC	200
	120	MMHC	200
	150	MMHC	250
185	MMHC	250	
240	MMHC	150x2	

Ordering reference:

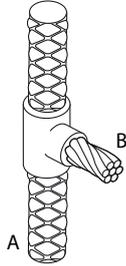
**MCBOP - A - B**

Bar size \_\_\_\_\_ Cable size

Ordering reference:

**MCBVOX - A - B**

Bar size \_\_\_\_\_ Cable size

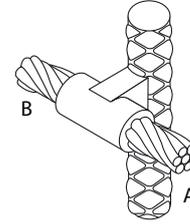


### Vertical tee

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
10	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
	95	MMHC	150
	120	MMHC	150
16	150	MMHC	200
	25	MMHC	150
	35	MMHC	150
	50	MMHC	150
	70	MMHC	150
	95	MMHC	200
20	120	MMHC	200
	150	MMHC	250
	25	MMHC	150
	35	MMHC	150
	50	MMHC	200
	70	MMHC	200
	95	MMHC	200
	120	MMHC	250
150	MMHC	250	
185	MMHC	150×2	
240	MMHC	200×2	

### Ordering reference:

**MCBVT - A - B**  
 Bar size \_\_\_\_\_ Cable size \_\_\_\_\_



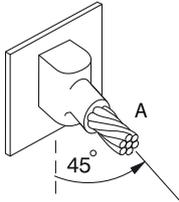
### Horizontal cross side

A (mm)	B (mm <sup>2</sup> )	Clamp	Powder (g)
10	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
	95	MMHC	150
	120	MMHC	150
16	150	MMHC	200
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
	95	MMHC	150
20	120	MMHC	150
	150	MMHC	200
	25	MMHC	90
	35	MMHC	90
	50	MMHC	115
	70	MMHC	115
	95	MMHC	150
	120	MMHC	150
150	MMHC	200	
185	MMHC	250	
240	MLHC	200×2	

### Ordering reference:

**MCBHOX - A - B**  
 Bar size \_\_\_\_\_ Cable size \_\_\_\_\_

## Cable to steel surface and cable to steel pipe connection



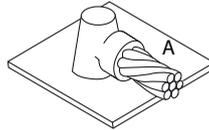
**Inclined straight**

A (mm <sup>2</sup> )	Clamp	Powder (g)
25	MMHC	45
35	MMHC	45
50	MMHC	90
70	MMHC	90
95	MMHC	115
120	MMHC	115
150	MMHC	150
185	MMHC	200

Ordering reference:

**MCPSVI - A**

Cable size



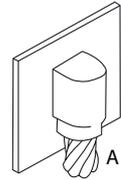
**Horizontal single**

A (mm <sup>2</sup> )	Clamp	Powder (g)
25	MMHC	45
35	MMHC	65
50	MMHC	90
70	MMHC	90
95	MMHC	115
120	MMHC	115
150	MMHC	150
185	MMHC	200

Ordering reference:

**MCP SH - A**

Cable size



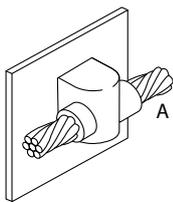
**Descending single**

A (mm <sup>2</sup> )	Clamp	Powder (g)
25	MMHC	45
35	MMHC	65
50	MMHC	90
70	MMHC	90
95	MMHC	115
120	MMHC	115
150	MMHC	150
185	MMHC	200

Ordering reference:

**MCPSV - A**

Cable size



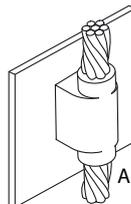
**Vertical double**

A (mm <sup>2</sup> )	Clamp	Powder (g)
25	MMHC	45
35	MMHC	65
50	MMHC	90
70	MMHC	90
95	MMHC	115
120	MMHC	115
150	MMHC	150
185	MMHC	200

Ordering reference:

**MCPDVH - A**

Cable size



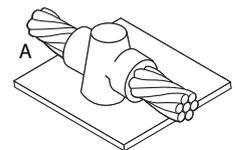
**Vertical parallel**

A (mm <sup>2</sup> )	Clamp	Powder (g)
25	MMHC	90
35	MMHC	115
50	MMHC	150
70	MMHC	200
95	MMHC	250
120	MMHC	250
150	MLHC	150×2
185	MLHC	150×2

Ordering reference:

**MCPDVV - A**

Cable size



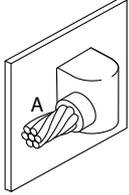
**Horizontal double**

A (mm <sup>2</sup> )	Clamp	Powder (g)
25	MMHC	65
35	MMHC	90
50	MMHC	90
70	MMHC	115
95	MMHC	115
120	MMHC	150
150	MMHC	200
185	MMHC	250

Ordering reference:

**MCPDHH - A**

Cable size



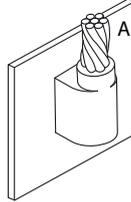
### One side single

A (mm <sup>2</sup> )	Clamp	Powder (g)
25	MMHC	65
35	MMHC	90
50	MMHC	90
70	MMHC	115
95	MMHC	115
120	MMHC	150
150	MMHC	200
185	MMHC	250
240	MMHC	150×2

Ordering reference:

**MCPSVH - A**

Cable size



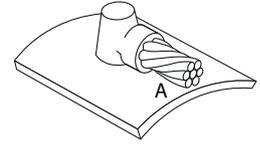
### Ascending single

A (mm <sup>2</sup> )	Clamp	Powder (g)
25	MMHC	65
35	MMHC	90
50	MMHC	115
70	MMHC	150
95	MMHC	200
120	MMHC	200
150	MMHC	250
185	MLHC	150×2
240	MLHC	150×2

Ordering reference:

**MCPSVV - A**

Cable size



### Horizontal single pipe

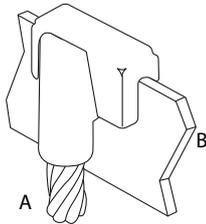
A (mm <sup>2</sup> )	Clamp	Powder (g)
10	MSC	15
16	MSC	15
25	MSC	25
35	MSC	32
50	MSC	45
70	MSC	65

Ordering reference:

**MCTSHH - A**

Cable size

## Cable to copper tape connection



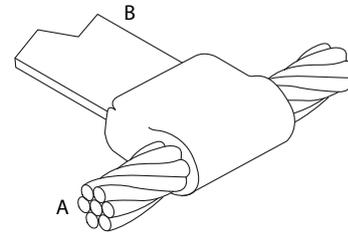
**Descending tee**

A (mm <sup>2</sup> )	B (mm)	Clamp	Powder (g)
25	20×2	MMHC	65
	20×3	MMHC	90
	25×3	MMHC	90
	30×3	MMHC	115
35	20×3	MMHC	115
	25×3	MMHC	115
	30×3	MMHC	115
	40×3	MMHC	115
50	20×3	MMHC	115
	25×3	MMHC	115
	30×3	MMHC	115
	40×3	MMHC	115
70	20×3	MMHC	115
	25×3	MMHC	150
	30×3	MMHC	150
	40×3	MMHC	150
95	20×3	MMHC	150
	25×3	MMHC	150
	30×3	MMHC	200
	40×3	MMHC	200
120	25×3	MMHC	200
	30×3	MMHC	200
	40×3	MMHC	250
	30×3	MMHC	200
150	40×3	MMHC	250
	30×3	MMHC	250
185	40×3	MMHC	150×2

Ordering reference:

**MCTVOT - A - B**

Cable size  Copper tape size 



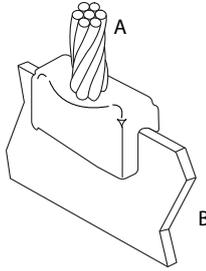
**Horizontal cable tee**

A (mm <sup>2</sup> )	B (mm)	Clamp	Powder (g)
25	20×2	MMHC	45
	20×3	MMHC	45
35	20×2	MMHC	45
	20×3	MMHC	45
50	25×3	MMHC	65
	20×2	MMHC	45
	20×3	MMHC	65
70	25×3	MMHC	90
	20×2	MMHC	65
	20×3	MMHC	90
	25×3	MMHC	90
95	20×2	MMHC	65
	20×3	MMHC	90
	25×3	MMHC	115
	30×3	MMHC	115
120	20×3	MMHC	150
	25×3	MMHC	150
	30×3	MMHC	200
	40×3	MMHC	200
150	25×3	MMHC	200
	30×3	MMHC	200
	40×3	MMHC	250
	30×3	MMHC	200
185	40×3	MMHC	250

Ordering reference:

**MTCHT - A - B**

Cable size  Copper tape size 



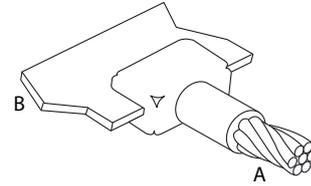
### Vertical tee

A (mm <sup>2</sup> )	B (mm)	Clamp	Powder (g)
25	20×2	MMHC	45
	20×3	MMHC	65
	25×3	MMHC	90
35	20×2	MMHC	65
	20×3	MMHC	90
	25×3	MMHC	90
50	30×3	MMHC	115
	20×3	MMHC	115
	25×3	MMHC	115
	30×3	MMHC	115
70	40×3	MMHC	115
	20×3	MMHC	115
	25×3	MMHC	115
	30×3	MMHC	115
95	40×3	MMHC	115
	20×3	MMHC	115
	25×3	MMHC	150
	30×3	MMHC	150
120	40×3	MMHC	150
	20×3	MMHC	150
	25×3	MMHC	150
	30×3	MMHC	200
150	40×3	MMHC	200
	25×3	MMHC	200
	30×3	MMHC	200
	40×3	MMHC	250
185	30×3	MMHC	200
	40×3	MMHC	250

### Ordering reference:

**MCTVT - A - B**

Cable size  Copper tape size 



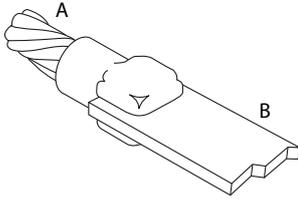
### Horizontal tape tee

A (mm <sup>2</sup> )	B (mm)	Clamp	Powder (g)
25	20×2	MMHC	32
	20×3	MMHC	45
35	20×2	MMHC	45
	20×3	MMHC	45
	25×3	MMHC	45
50	20×2	MMHC	45
	20×3	MMHC	45
70	25×3	MMHC	65
	20×2	MMHC	45
	20×3	MMHC	65
	25×3	MMHC	90
95	20×3	MMHC	65
	25×3	MMHC	90
	30×3	MMHC	90
	40×3	MMHC	115
120	20×3	MMHC	115
	25×3	MMHC	115
	30×3	MMHC	115
	40×3	MMHC	115
150	20×3	MMHC	115
	25×3	MMHC	115
	30×3	MMHC	115
	40×3	MMHC	115
185	20×3	MMHC	115
	25×3	MMHC	150
	30×3	MMHC	150
	40×3	MMHC	150

### Ordering reference:

**MCTHT - A - B**

Cable size  Copper tape size 



## Straight width

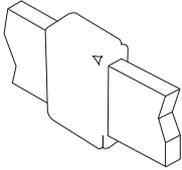
A (mm <sup>2</sup> )	B (mm)	Clamp	Powder (g)
25	20×2	MMHC	32
	20×3	MMHC	45
35	20×2	MMHC	45
	20×3	MMHC	45
	25×3	MMHC	45
50	20×2	MMHC	45
	20×3	MMHC	45
	25×3	MMHC	65
70	20×2	MMHC	45
	20×3	MMHC	65
	25×3	MMHC	90
95	20×2	MMHC	65
	20×3	MMHC	90
	25×3	MMHC	90
	30×3	MMHC	115
120	20×3	MMHC	115
	25×3	MMHC	115
	30×3	MMHC	115
	40×3	MMHC	115
	20×3	MMHC	115
150	25×3	MMHC	115
	30×3	MMHC	115
	40×3	MMHC	115
	20×3	MMHC	115
185	25×3	MMHC	150
	30×3	MMHC	150
	40×3	MMHC	150
	20×3	MMHC	150

## Ordering reference:

**MCTS - A - B**

Cable size   Copper tape size

## Busbar to busbar connection



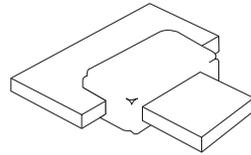
### Straight height

Conductor size mm	Clamp	Powder (g)
20×2	MMHC	45
20×3	MMHC	45
25×3	MMHC	65
30×3	MMHC	90
40×3	MMHC	115

### Ordering reference:

**MTTHS - A**

Copper tape size



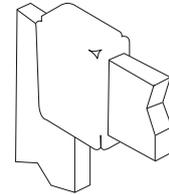
### Horizontal tee

Conductor size mm	Clamp	Powder (g)
20×2	MMHC	45
20×3	MMHC	65
25×3	MMHC	65
30×3	MMHC	90
40×3	MMHC	115

### Ordering reference:

**MTTHT - A**

Copper tape size



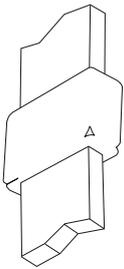
### Vertical angle

Conductor size mm	Clamp	Powder (g)
20×2	MMHC	45
20×3	MMHC	45
25×3	MMHC	65
30×3	MMHC	90
40×3	MMHC	115

### Ordering reference:

**MTTVL - A**

Copper tape size



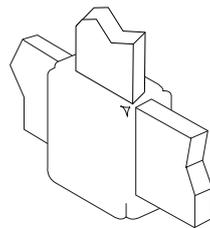
### Vertical straight

Conductor size mm	Clamp	Powder (g)
20×2	MMHC	65
20×3	MMHC	65
25×3	MMHC	90
30×3	MMHC	115
40×3	MMHC	150

### Ordering reference:

**MTTVS - A**

Copper tape size



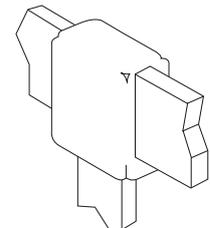
### Upside down

Conductor size mm	Clamp	Powder (g)
20×2	MMHC	115
20×3	MMHC	115
25×3	MMHC	150
30×3	MMHC	200
40×3	MMHC	250

### Ordering reference:

**MTTVUT - A**

Copper tape size



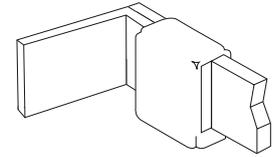
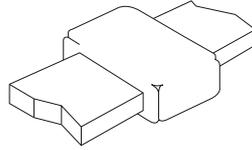
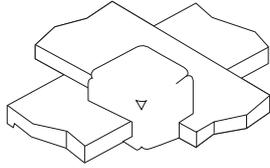
### Vertical tee

Conductor size mm	Clamp	Powder (g)
20×2	MMHC	45
20×3	MMHC	65
25×3	MMHC	90
30×3	MMHC	90
40×3	MMHC	115

### Ordering reference:

**MTTVDT - A**

Copper tape size



### Horizontal cross

Conductor size mm	Clamp	Powder (g)
20×2	MMHC	45
20×3	MMHC	65
25×3	MMHC	65
30×3	MMHC	90
40×3	MMHC	115

### Straight width

Conductor size mm	Clamp	Powder (g)
20×2	MMHC	45
20×3	MMHC	45
25×3	MMHC	65
30×3	MMHC	90
40×3	MMHC	150

### Branch height

Conductor size mm	Clamp	Powder (g)
20×2	MMHC	90
20×3	MMHC	90
25×3	MMHC	90
30×3	MMHC	115
40×3	MMHC	115

### Ordering reference:

**MTTHOX - A**

Copper tape size

### Ordering reference:

**MTTS - A**

Copper tape size

### Ordering reference:

**MTTHP - A**

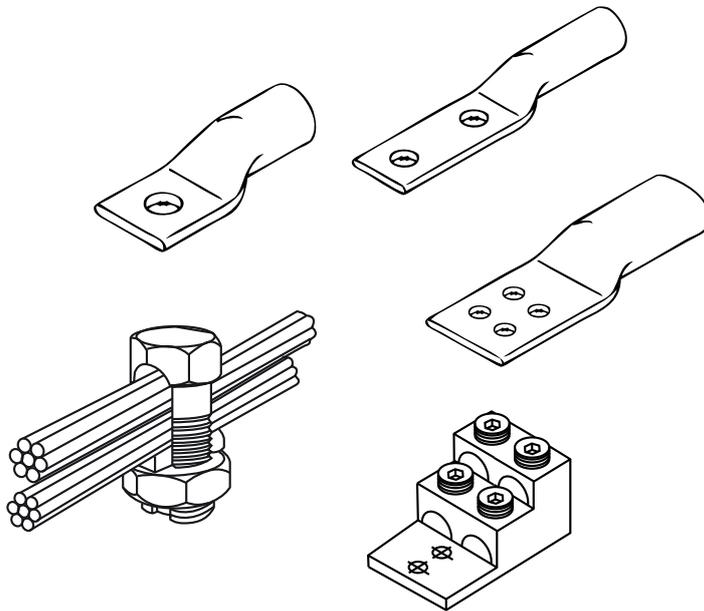
Copper tape size

## Information

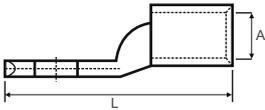
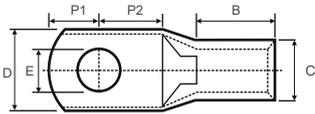
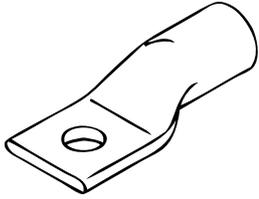
Conductor size		
Conductor size	Number of wires per diameter	Overall diameter
10 mm <sup>2</sup>	7 x 1.35mm	4.10mm
16 mm <sup>2</sup>	7 x 1.70mm	5.10mm
25 mm <sup>2</sup>	7 x 2.10mm	6.30mm
35 mm <sup>2</sup>	7 x 2.50mm	7.50mm
50 mm <sup>2</sup>	19 x 1.80mm	9.00mm
70 mm <sup>2</sup>	19 x 2.10mm	10.50mm
95 mm <sup>2</sup>	19 x 2.52mm	12.50mm
120 mm <sup>2</sup>	19 x 2.80mm	14.00mm
150 mm <sup>2</sup>	37 x 2.25mm	15.70mm
185 mm <sup>2</sup>	37 x 2.50mm	17.50mm
240 mm <sup>2</sup>	61 x 2.25mm	20.20mm
300 mm <sup>2</sup>	61 x 2.50mm	22.50mm
400 mm <sup>2</sup>	61 x 2.89mm	26.00mm
500 mm <sup>2</sup>	61 x 3.23mm	29.10mm

CONCRETE STEEL RE - BAR	
Nominal size	Overall diameter
6 mm	7.20mm
8 mm	9.60mm
10 mm	12.00mm
12 mm	14.40mm
14 mm	16.80mm
16 mm	19.20mm
20 mm	24.00mm
25 mm	30.00mm
32 mm	38.40mm

## Cable Lugs Connectors Termination

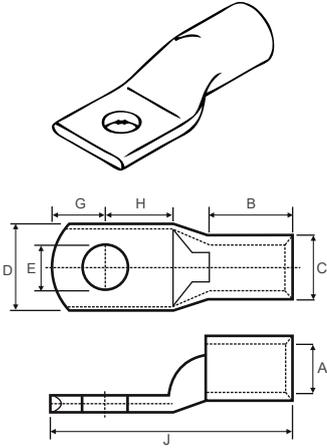


## Compression cable lugs



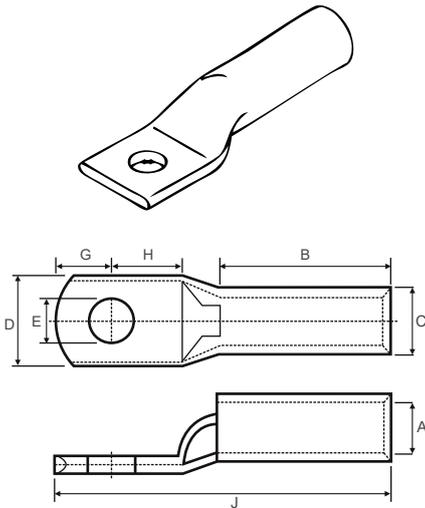
Conductor area (mm <sup>2</sup> )	Dimension								Ordering reference
	E	A	C	B	D	P2	P1	L	
6	6.5	3.8	5.5	9	11	6	6	24	MCCL-6 06
10	5.5	4.5	7	10	12	7.5	6.5	28.5	MCCL-10 05
10	6.5	4.5	7	10	12	7.5	6.5	31.5	MCCL-10 06
10	8.5	4.5	7	10	15	10	10	35	MCCL-10 08
16	5.5	5.5	8.5	13	12	6.5	5.5	31.5	MCCL-16 05
16	6.5	5.5	8.5	13	12	7.5	6.25	33.25	MCCL-16 06
16	8.5	5.5	8.5	13	15	9.5	8.5	37.5	MCCL-16 08
25	5.5	7	10	15	14	7.5	7.5	37.5	MCCL-25 05
25	6.5	7	10	15	14	7.5	7.5	37.5	MCCL-25 06
25	8.5	7	10	15	16	10	10	42	MCCL-25 08
25	10.5	7	10	15	18	12	12	46	MCCL-25 10
35	6.5	8.5	12	17	17	7.5	7.5	39.5	MCCL-35 06
35	8.5	8.5	12	17	17	10	10	44	MCCL-35 08
35	10.5	8.5	12	17	19	12	12	49	MCCL-35 10
50	6.5	10	14	19	20	10	10	47	MCCL-50 06
50	8.5	10	14	19	20	10	10	47	MCCL-50 08
50	10.5	10	14	19	20	12	12	51	MCCL-50 10
70	6.5	12	16.5	21	23	10	10	53	MCCL-70 06
70	8.5	12	16.5	21	23	10	10	53	MCCL-70 08
70	10.5	12	16.5	21	23	12	12	56	MCCL-70 10
70	13	12	16.5	21	23	13	13	59	MCCL-70 13
70	15	12	16.5	21	23	14	14	62	MCCL-70 15
95	8.5	13.5	18	25	26	12	12	60	MCCL-95 08
95	10.5	13.5	18	25	26	12	12	60	MCCL-95 10
95	13	13.5	18	25	26	13	13	62	MCCL-95 13
95	15	13.5	18	25	26	14.5	14.5	65.5	MCCL-95 15
120	8.5	15	19.5	26	28	14	14	65	MCCL-120 08
120	10.5	15	19.5	26	28	14	14	65	MCCL-120 10
120	13	15	19.5	26	28	14	14	65	MCCL-120 13
120	15	15	19.5	26	28	15	15	67	MCCL-120 15
150	8.5	16.5	21	30	31	14	14	70	MCCL-150 08
150	10.5	16.5	21	30	31	14	14	70	MCCL-150 10
150	13	16.5	21	30	31	15	15	72	MCCL-150 13
150	15	16.5	21	30	31	15	15	72	MCCL-150 15
150	17	16.5	21	30	31	16	16	74	MCCL-150 17
185	10.5	19	24	30	35	18	18	83	MCCL-185 10
185	13	19	24	30	35	18	18	83	MCCL-185 13
185	15	19	24	30	35	18	18	83	MCCL-185 15
185	17	19	24	30	35	18	18	83	MCCL-185 17
240	10.5	21	26	35	39	19	21.5	93.5	MCCL-240 10
240	13	21	26	35	39	19	21.5	93.5	MCCL-240 13
240	15	21	26	35	39	19	21.5	93.5	MCCL-240 15
240	17	21	26	35	39	19	21.5	93.5	MCCL-240 17
240	21	21	26	35	39	19	21.5	93.5	MCCL-240 21
300	13	23.5	29.5	44	43	24	24	111	MCCL-300 13
300	15	23.5	29.5	44	43	24	24	111	MCCL-300 15
300	17	23.5	29.5	44	43	24	24	111	MCCL-300 17
300	21	23.5	29.5	44	43	24	24	111	MCCL-300 21
400	13	27	34	44	49	24	24	114	MCCL-400 13
400	15	27	34	44	49	24	24	114	MCCL-400 15
400	17	27	34	44	49	24	24	114	MCCL-400 17
400	21	27	34	44	49	24	24	114	MCCL-400 21
500	15	29.5	38.5	44	53	24	24	119	MCCL-500 15
500	17	29.5	38.5	44	53	24	24	119	MCCL-500 17
500	21	29.5	38.5	44	53	24	24	119	MCCL-500 21
630	15	35	45	56	65	33	33	144	MCCL-630 15
630	16	35	45	56	65	33	33	144	MCCL-630 16
630	17	35	45	56	65	33	33	144	MCCL-630 17
630	20	35	45	56	65	33	33	144	MCCL-630 20
630	21	35	45	56	65	33	33	144	MCCL-630 21

## Heavy duty compression cable lugs



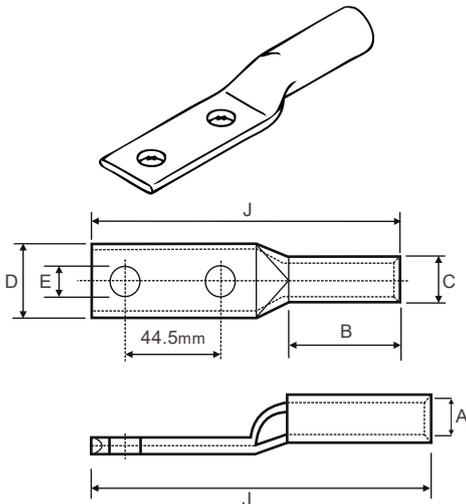
Conductor area (mm <sup>2</sup> )	Dimension								Ordering reference
	E	A	C	B	D	H	G	J	
25	8.5	7	10	18	16	10	10	45	MHCCL-25 08H
35	8.5	8.5	12	20	17	10	10	47	MHCCL-35 08H
50	8.5	10	14	25	20	10	10	53	MHCCL-50 08H
70	10.5	12	16.5	30	23	12	12	65	MHCCL-70 10H
95	13	13.5	18	37	26	13	13	74	MHCCL-95 13H
120	13	15	19.5	38	28	14	14	77	MHCCL-120 13H
150	13	16.5	21	42	31	15	15	84	MHCCL-150 13H
185	13	19	24	45	35	18	18	98	MHCCL-185 13H
240	17	21	26	53	39	19	21.5	111.5	MHCCL-240 17H
300	17	23.5	29.5	62	43	24	24	129	MHCCL-300 17H
400	21	27	34	64	49	24	24	134	MHCCL-400 21H

## Long barrel compression cable lugs



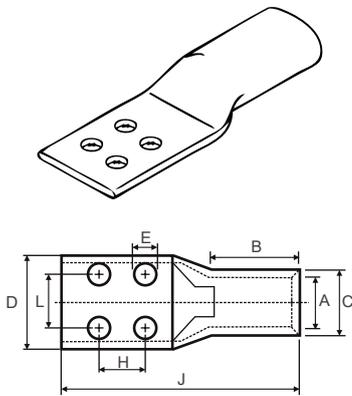
Conductor area (mm <sup>2</sup> )	Dimension								Ordering reference
	E	A	C	J	B	D	H	G	
6	6.5	3.8	5.5	20	11	11	6	6	MLCCL-6 06
10	8.5	4.5	7	26	11	15	10	10	MLCCL-10 08
16	8.5	5.5	8.5	31	15	15	9.5	8.5	MLCCL-16 08
25	8.5	7	10	32	15	16	10	10	MLCCL-25 08
35	8.5	8.5	12	34	17	17	10	10	MLCCL-35 08
50	10.5	10	14	40	20	20	12	12	MLCCL-50 10
70	13	12	16.5	47	22	23	13	13	MLCCL-70 13
95	13	13.5	18	49	25	26	13	13	MLCCL-95 13
120	13	15	19.5	52	27	28	14	14	MLCCL-120 13
150	13	16.5	21	59	32	31	15	15	MLCCL-150 13
185	13	19	24	74	39	35	18	18	MLCCL-185 13
240	17	21	26	83	46	39	19	21.5	MLCCL-240 17
300	21	23.5	29.5	94	51	43	24	24	MLCCL-300 21
400	21	27	34	99	53	49	24	24	MLCCL-400 21
500	21	29.5	38.5	109	58	53	24	24	MLCCL-500 21
630	21	35	45	115	60	65	33	33	MLCCL-630 21

## Two hole compression cable lugs



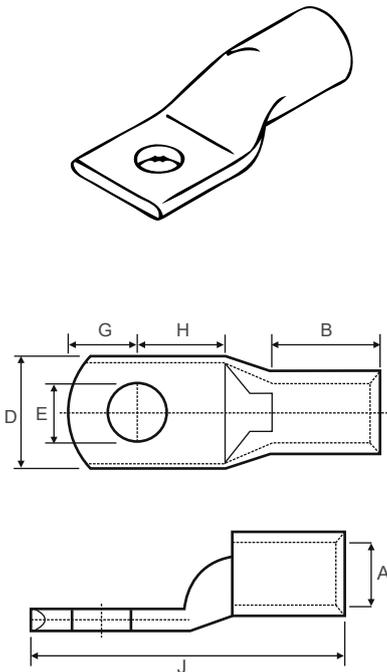
Conductor area (mm <sup>2</sup> )	Dimension						Ordering reference
	E	A	C	B	D	L	
16	10.5	5.4	7.1	15	15	84	MTHCCL-16 10
25	10.5	6.8	8.8	15	18	87	MTHCCL-25 10
35	10.5	8.2	10.6	17	18	90	MTHCCL-35 10
50	13	9.5	12.4	27.5	22.5	102	MTHCCL-50 13
70	13	11.2	14.7	30	24	107	MTHCCL-70 13
95	13	13.5	18	33	26	111	MTHCCL-95 13
120	13	15	19.5	36	28	118	MTHCCL-120 13
150	13	16.5	21	44	31	130	MTHCCL-150 13
185	10.5	19	24	55	35	149	MTHCCL-185 10
185	13	19	24	55	35	149	MTHCCL-185 13
240	10.5	21	26	55	39	150	MTHCCL-240 10
240	13	21	26	55	39	150	MTHCCL-240 13
300	13	23.5	29.5	55	43	160	MTHCCL-300 13

## Four holes compression cable lugs



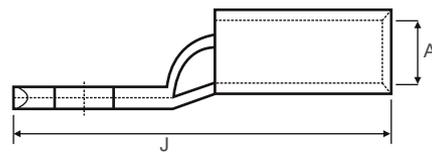
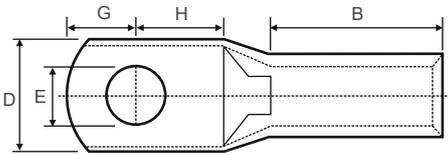
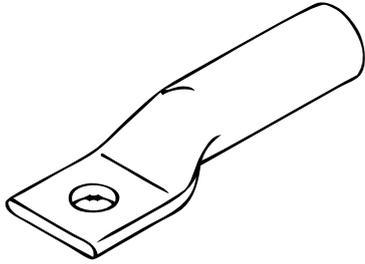
Conductor area (mm <sup>2</sup> )	Dimension								Ordering reference
	E	A	C	B	D	L	H	J	
240	8.5	21	28	45	58	35	25	110	FHCCL-240 08
240	10.5	21	28	45	58	35	25	110	FHCCL-240 10
300	8.5	23.5	31	50	58	35	25	115	FHCCL-300 08
300	10.5	23.5	31	50	58	35	25	115	FHCCL-300 10
400	8.5	27	36.5	52	58	35	25	120	FHCCL-400 08
400	10.5	27	36.5	52	58	35	25	120	FHCCL-400 10
500	8.5	30	39	56	58	35	25	124	FHCCL-500 08
500	10.5	30	39	56	58	35	25	124	FHCCL-500 10
630	8.5	34	44	66	65	35	25	145	FHCCL-630 08
630	10.5	34	44	66	65	35	25	145	FHCCL-630 10
800	8.5	35	45	63.5	58	35	25	148	FHCCL-800 08
800	10.5	35	45	63.5	58	35	25	148	FHCCL-800 10
1000	8.5	43	56.5	78.5	90	35	25	250	FHCCL-1000 08
1000	10.5	43	56.5	78.5	90	35	25	250	FHCCL-1000 10

## Aluminium compression cable lugs



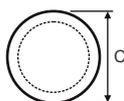
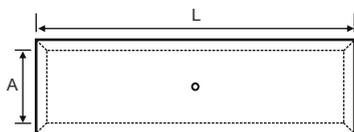
Conductor area (mm <sup>2</sup> )	Dimension						Ordering reference
	E	A	C	B	D	L	
2.5	3.2	2	6.6	4	4	18	MACCL-2.5 03
2.5	3.7	2.6	7	4	4	18	MACCL-2.5 03
4	4.2	2.9	7.2	4	4	18	MACCL-4 04
4	5.2	2.9	12	7	6	24	MACCL-4 05
6	5.2	3.5	7.5	7	6	24	MACCL-6 05
6	6.5	3.5	12	7	6	24	MACCL-6 06
10	4.2	3.8	8.4	9	8	28	MACCL-10 04
10	6.4	4.4	9.7	9	8	30	MACCL-10 06
10	8.2	4.4	15	9	8	30	MACCL-10 08
16	6.4	5.4	11.4	11	9	37	MACCL-16 06
16	8.2	5.4	11.4	11	9	37	MACCL-16 08
16	10.2	5.4	18	11	9	37	MACCL-16 10
25	6.4	7	13.7	12	9	44	MACCL-25 06
25	8.2	7	13.7	12	9	44	MACCL-25 08
25	10.2	7	20	11	10	44	MACCL-25 10
25	12.7	7	20	11	10	44	MACCL-25 12
35	6.4	8	15.4	11	11	47	MACCL-35 06
35	8.2	8	15.4	11	11	47	MACCL-35 08
35	10.2	8	20	11	11	47	MACCL-35 10
50	8.2	9.3	18.3	13	11	54	MACCL-50 08
50	10.2	9.3	23	13	11	54	MACCL-50 10
50	12.7	9.3	23	12	12	54	MACCL-50 12
70	8.2	11.6	22.6	13	13	60	MACCL-70 08
70	10.2	11.6	22.6	13	13	60	MACCL-70 10
70	12.7	11.6	22.6	13	13	60	MACCL-70 12
95	10.2	12.9	24.5	14	14	64	MACCL-95 10
95	12.7	12.9	24.5	14	14	64	MACCL-95 12
95	16.2	12.9	24.5	14	14	64	MACCL-95 16
120	10.2	15	28.2	15	15	73	MACCL-120 10
120	12.7	15	28.2	15	15	73	MACCL-120 12
120	16.2	15	28.2	15	15	73	MACCL-120 16
150	10.2	16.5	30.9	17	17	79	MACCL-150 10
150	12.7	16.5	30.9	17	17	79	MACCL-150 12
150	16.2	16.5	30.9	17	17	79	MACCL-150 16
185	10.2	18.6	34.8	18	18	84	MACCL-185 10
185	12.7	18.6	34.8	18	18	84	MACCL-185 12
185	16.2	18.6	34.8	18	18	84	MACCL-185 16
240	12.7	22	40	22	22	102	MACCL-240 12
240	16.2	22	40	22	22	102	MACCL-240 16
300	16.2	24	45.7	27	27	115	MACCL-300 16
300	20.3	24	45.7	27	27	115	MACCL-300 20
400	20.3	28	51	31	30	130	MACCL-400 20
500	20.3	31	58.7	33	32	140	MACCL-500 20

## Aluminium long barrel compression cable lugs



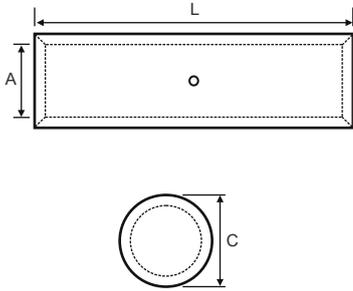
Conductor area (mm <sup>2</sup> )	Dimension						Ordering reference
	E	A	D	H	G	J	
2.5	3.2	2	6.6	4	4	21.5	MALBCCL-2.5 03
2.5	3.7	2.6	7	4	4	21.5	MALBCCL-2.5 03
4	4.2	2.9	7.2	4	4	21.5	MALBCCL-4 04
4	5.2	2.9	12	7	6	27.5	MALBCCL-4 05
6	5.2	3.5	7.5	7	6	27.5	MALBCCL-6 05
6	6.5	3.5	12	7	6	27.5	MALBCCL-6 06
10	4.2	3.8	8.4	9	8	34.5	MALBCCL-10 04
10	6.4	4.4	9.7	9	8	34.5	MALBCCL-10 06
16	6.4	5.4	11.4	11	9	43.5	MALBCCL-16 06
16	8.2	5.4	11.4	11	9	43.5	MALBCCL-16 08
16	10.2	5.4	18	11	9	43.5	MALBCCL-16 10
25	8.2	7	13.7	12	9	52	MALBCCL-25 08
25	10.2	7	20	12	9	52	MALBCCL-25 10
25	12.7	7	20	12	9	52	MALBCCL-25 12
35	8.2	8	15.4	11	11	56	MALBCCL-35 08
35	10.2	8	20	11	11	56	MALBCCL-35 10
50	8.2	9.3	18.3	13	11	65	MALBCCL-50 08
50	10.2	9.3	23	13	11	65	MALBCCL-50 10
50	12.7	9.3	23	13	11	65	MALBCCL-50 12
70	8.2	11.6	22.6	13	13	73	MALBCCL-70 08
70	10.2	11.6	22.6	13	13	73	MALBCCL-70 10
70	12.7	11.6	22.6	13	13	73	MALBCCL-70 12
95	10.2	12.9	24.5	14	14	78	MALBCCL-95 10
95	12.7	12.9	24.5	14	14	78	MALBCCL-95 12
95	16.2	12.9	24.5	14	14	78	MALBCCL-95 16
120	10.2	15	28	15	15	89	MALBCCL-120 10
120	12.7	15	28	15	15	89	MALBCCL-120 12
120	16.2	15	28	15	15	89	MALBCCL-120 16
150	10.2	16.5	30.9	17	17	96	MALBCCL-150 10
150	12.7	16.5	30.9	17	17	96	MALBCCL-150 12
150	16.2	16.5	30.9	17	17	96	MALBCCL-150 16
185	10.2	18.5	34.6	18	18	102	MALBCCL-185 10
185	12.7	18.5	34.6	18	18	102	MALBCCL-185 12
185	16.2	18.5	34.6	18	18	102	MALBCCL-185 16
240	12.7	22	40	22	22	124	MALBCCL-240 12
240	16.2	22	40	22	22	124	MALBCCL-240 16
300	16.2	24	45.7	27	27	138.5	MALBCCL-300 16
300	20.3	24	45.7	27	27	138.5	MALBCCL-300 20
400	20.3	28	51	31	30	158	MALBCCL-400 20
500	20.3	31	58.7	33	32	170	MALBCCL-500 20

## Aluminium compression joints



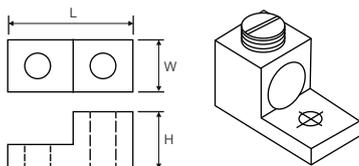
Conductor area (mm <sup>2</sup> )	Dimension			Ordering reference
	C	A	L	
2.5	5.5	2	16	MACJ-2.5 05
2.5	5.5	2.6	16	MACJ-2.5 05
4	5.5	2.9	16	MACJ-4 05
6	5.5	3.5	16	MACJ-6 05
10	6.2	3.8	20	MACJ-10 06
10	7.4	4.4	20	MACJ-10 07
16	8.3	5.4	26	MACJ-16 08
25	9.7	7	35	MACJ-25 09
35	10.8	8	40	MACJ-35 10
50	13	9.3	45	MACJ-50 13
70	16	11.6	55	MACJ-70 16
95	17.1	12.9	60	MACJ-95 17
120	19	15	65	MACJ-120 19
150	21.2	16.5	70	MACJ-150 12
185	24	18.5	75	MACJ-185 24
240	28.6	22	90	MACJ-240 28
300	31	24	100	MACJ-300 31
400	36	28	115	MACJ-400 36
500	41	31	125	MACJ-500 41
625	46	36	140	MACJ-625 46
800	51	39	160	MACJ-800 51
1000	57	43.5	210	MACJ-1000 57

## Standard barrel compression joints

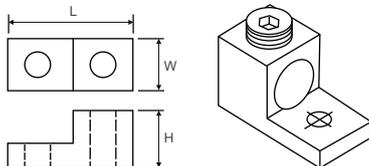


Conductor area (mm <sup>2</sup> )	Dimension			Ordering reference
	C	A	L	
0.75	2.8	1.3	20	MSBCJ-0.75 02
1.5	3.3	1.8	25	MSBCJ-1.5 03
2.5	4.2	2.3	25	MSBCJ-2.5 04
4	5	3	25	MSBCJ-4 5
6	6.5	3.5	25	MSBCJ-6 06
10	7	4.5	30	MSBCJ-10 7
16	8.5	5.5	35	MSBCJ-16 08
25	10	7	40	MSBCJ-25 10
35	12	8.5	45	MSBCJ-35 12
50	14	10	50	MSBCJ-50 14
70	16.5	12	55	MSBCJ-70 16
95	18	13.5	60	MSBCJ-95 18
120	19.5	15	50	MSBCJ-120 19
120	19.5	15	65	MSBCJ-120 19
150	21	16.5	55	MSBCJ-150 21
150	21	16.5	70	MSBCJ-150 21
185	24	19	60	MSBCJ-185 24
185	24	19	75	MSBCJ-185 24
225	24	20	65	MSBCJ-225 24
240	26	21	65	MSBCJ-240 26
240	26	21	85	MSBCJ-240 26
300	29.5	23.5	75	MSBCJ-300 29
300	29.5	23.5	85	MSBCJ-300 29
300	29.5	23.5	100	MSBCJ-300 29
400	34	27	90	MSBCJ-400 34
400	34	27	100	MSBCJ-400 34
400	34	27	120	MSBCJ-400 34
500	36	30	95	MSBCJ-500 36
500	39	30	100	MSBCJ-500 39
500	39	30	130	MSBCJ-500 39
625	41.5	35	105	MSBCJ-625 41
630	45	35	110	MSBCJ-630 45

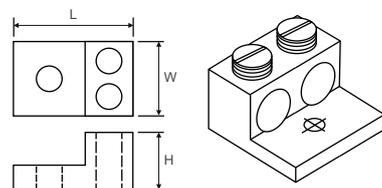
## Mechanical cable lugs



Single - hole connector  
( with slotted screw )



Single - hole connector  
( with hex screw )

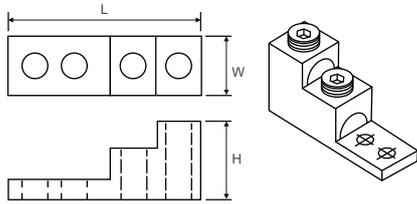


Double - hole connector  
( with slotted screw )

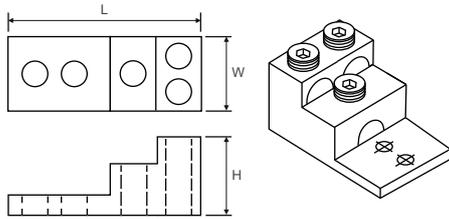
Wire range	Stud size (mm)	Dimension			Ordering reference
		L	W	H	
6-14 awg	6.5	27	10	13	MMSL-6 06
2-140awg	6.5	30	13	14.5	MMSL-2 06
1/10-14 awg	6.5	37	16	20	MMSL-1/10 06
1/10-14 awg	10	37	16	20	MMSL-1/10 10
2/0-14 awg	6.5	37	16	20	MMSL-2/0 06
2/0-14 awg	15.5	37	16	18	MMSL-2/0 15
250kcmil-6 awg	8	51	25	28.5	MMSL-250 8
250kcmil-6 awg	10	51	25	28.5	MMSL-250 10
350kcmil-6 awg	10	57	28.5	32	MMSL-350 10
350kcmil-6 awg	13	57	28.5	32	MMSL-350 13
500kcmil-4 awg	10	71.5	32	40	MMSL-500 10
500kcmil-4 awg	13	71.5	32	40	MMSL-500 13

Wire range	Stud size (mm)	Dimension			Ordering reference
		L	W	H	
1/0-14 awg(2)	6.5	37	28.5	20	MMSDL-1/0 06
2/0-14 awg(2)	6.5	37	32	20	MMSDL-2/0 06
250kcmil-6 awg(2)	10	65	41	30	MMSDL-250 10
350kcmil-6awg	13	73	49	32	MMSDL-350 13
250kcmil-6 awg(2)	13	81	61	40	MMSDL-250 13

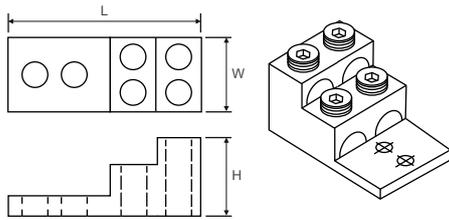
## Bus bar connectors



Double - hole connector  
( with hex screw )



Triple - hole connector  
( with hex screw )



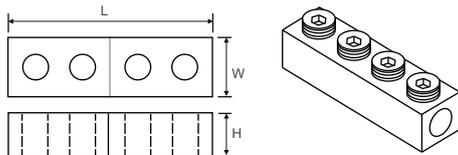
Foure - hole connector  
( with hex screw )

Wire range	Stud size (mm)	Dimension			Ordering reference
		L	W	H	
600kcmil-2 awg	10	125	38	76	MMBC2-600 10
750kcmil-1/0 awg	10	125	40	76	MMBC2-750 10

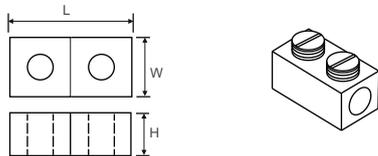
Wire range	Stud size (mm)	Dimension			Ordering reference
		L	W	H	
600kcmil-2 awg	10	125	63.5	76	MMBC3-600 10
750kcmil-1/0 awg	10	125	72	76	MMBC3-750 10

Wire range	Stud size (mm)	Dimension			Ordering reference
		L	W	H	
600kcmil-2 awg	10	125	63.5	76	MMBC4-600 10
750kcmil-1/0 awg	10	125	72	76	MMBC4-750 10

## Mechanical straight connectors



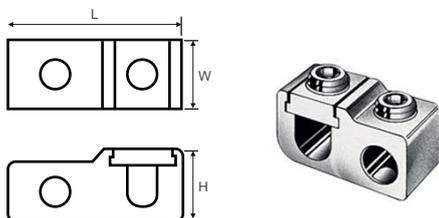
Straight - connector  
( with hep socket )



Straight - connector  
( with slotted screw )

Wire range	Stud size (mm)	Dimension			Ordering reference
		L	W	H	
2-14 awg	16	35	13	14.5	MMSC-2 16
1/0-14 awg	22	48.5	19	19	MMSC-1/0 22
250kcmil-6 awg	49.2	100	25.5	28.5	MMSC-250 49

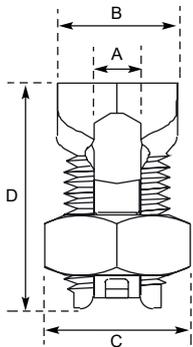
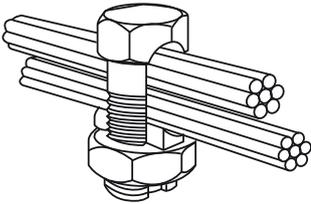
## Mechanical parallel tap connectors



Wire range		Stud size (mm)	Dimension			Ordering reference
Main	Tap		L	W	H	
2-12 awg	4-14 awg	16	35	16	22	MMPTC-2 16
1/0-2 awg	1/0-14 awg	19	44.5	19	25.5	MMPTC-1/0 19
250kcmil-1/0 awg	250kcmil-6 awg	27	58	27	33.5	MMPTC-250 27

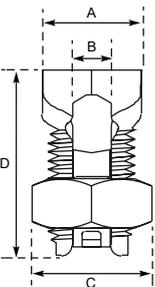
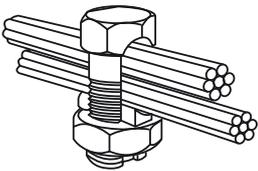
## Split-bolt connector

High strength split-bolt connector made of bronze alloy for use on copper conductors



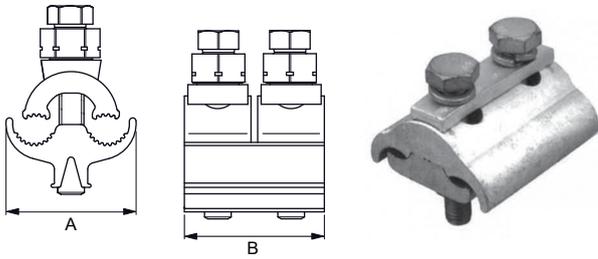
Conductor		Dimension				Ordering reference
Range for equal main tap	Min. tap with one max. Main	A	B	C	D	
10 str.-12 sol.	14 sol.	9.5	3.7	12.7	20	MSBC-10 12
8 str.-10 sol.	14 sol.	9.5	3.7	12.7	20	MSBC-8 10
8 str.-12 sol.	16 str.	9.5	3.7	12.7	23	MSBC-8 12
6 sol.-8 sol.	14 sol.	11.9	4.3	16.7	24.6	MSBC-6 8
6 sol.-10 sol.	16 str.	11.9	4.3	16.7	28.6	MSBC-6 10
4 sol.-8 sol.	14 sol.	13.5	6	18.3	27	MSBC-4 8A
4 sol.-8 sol.	16 str.	13.5	6	18.3	32.5	MSBC-4 8B
3 sol.-8 sol.	16 str.	11.9	4.3	16.7	27	MSBC-3 8
4 str.-8 sol.	16 str.	11.9	4.3	16.7	32.5	MSBC-4 8C
2 sol.-6 sol.	14 sol.	15	6.9	19.8	31.8	MSBC-2 6A
2 sol.-6 sol.	14 sol.	15	6.9	19.8	37.3	MSBC-2 6B
2 str.-6 sol.	14 sol.	17.5	8.4	22.2	34.1	MSBC-2 6C
2 str.-6 sol.	14 sol.	17.5	8.4	22.2	41.3	MSBC-2 6D
1/0 str.-4 sol.	14 sol.	19	9.8	23.8	40.5	MSBC-1/0 4
2/0 str.-2 sol.	14 sol.	22.2	11.3	27	46	MSBC-2/0 2
4/0 str.-2 sol.	6 sol.	25.4	14.8	33.3	54.8	MSBC-4/0 2
250kcmil.-1 str.	8 sol.	25.4	14.8	33.3	54.8	MSBC-250 1
350kcmil -250kcmil	1/0 str.	33.3	18.2	42.1	68.3	MSBC-350 250
500kcmil -400kcmil	2/0 str.	38.1	21.4	47.1	77	MSBC-500 400
750kcmil -600kcmil	4/0 str.	49.2	26.1	57.2	92.9	MSBC-750 600
1000kcmil -800kcmil	4/0 str.	57.2	30.1	64.3	102.4	MSBC-100 800

Plated split-bolt connector with spacer made of copper alloy for use on copper, aluminum, ACSR conductors

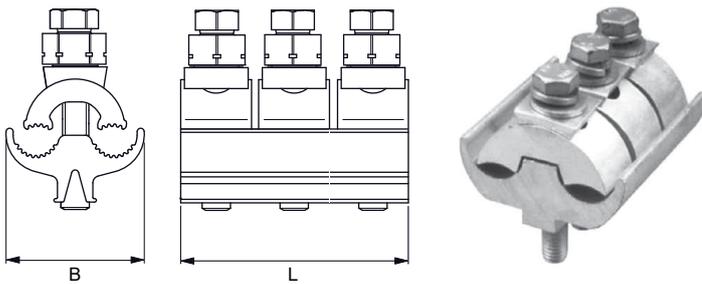


Conductor range			Dimension				Ordering reference
Range for equal main tap	Range for equal main tap	Min. tap with one max. main	A	B	C	D	
ACSR	Copper or aluminium						
-	10 str.-12 sol.	12 sol.	9.5	3.7	12.7	23	MSBPC-10 12
-	8 str.-10 sol.	12 sol.	9.5	3.7	12.7	23	MSBPC-8 10
8	6 sol.-12 sol.	12 sol.	11.9	4.3	16.7	28.6	MSBPC-6 12
6-8	4 sol.-12 sol.	12 sol.	13.5	6	18.3	32.5	MSBPC-4 12
4-8	2 sol.-8 sol.	8 sol.	15	6.9	19.8	37.3	MSBPC-2 8
2-8	1 str.-8 sol.	8 sol.	17.5	8.4	22.2	41.3	MSBPC-1 8
1-6	1/0 str.-4 sol.	6 sol.	19	9.8	23.8	46	MSBPC-1/0 4
1/0-6	2/0 str.-6 sol.	6 sol.	22.2	11.3	27	52.4	MSBPC-2/0 6
4/0-4	4/0 str.-4 sol.	4 sol.	25.4	14.8	33.3	62.7	MSBPC-4/0 4
266.8-1/0	350kcmil-1/0 str.	2 sol.	33.3	18.2	42.1	68.3	MSBPC-350 1/0
397.5-1/0	500kcmil-1/0 str.	1/0 str.	38.1	21.4	47.6	77	MSBPC-500 1/0
666.6-4/0	750kcmil-4/0 str.	2/0 str.	49.2	26.1	57.2	92.9	MSBPC-750 4/0
900-477	1000kcmil -500kcmil	4/0 str.	57.2	30.1	64.3	102.4	MSBPC-1000-500

## Aluminium parallel groove connector

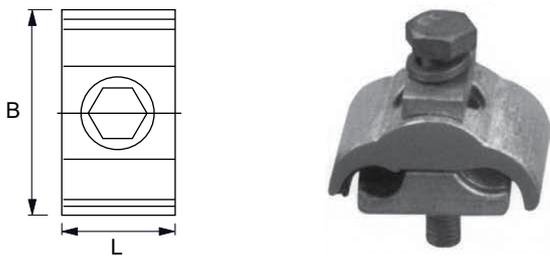


Bolt size	Main (mm <sup>2</sup> )	Tap (mm <sup>2</sup> )	Dimension		Ordering reference
			A	B	
1×m8	6-64	6-35	36	45	MAPGC-6-64-6-35
2×m8	6-64	6-64	36	50	MAPGC-6-64-6-64
2×m8	10-70	10-70	36	50	MAPGC-10-70-10-70
1×m8	10-95	6-35	40	50	MAPGC-10-95-6-35
2×m8	10-95	10-95	40	50	MAPGC-10-95-10-95
1×m8	35-120	10-35	45	50	MAPGC-35-120-10-35
2×m8	25-120	25-120	45	50	MAPGC-25-120-25-120
2×m10	25-150	25-150	48	55	MAPGC-25-150-25-150
1×m10	50-150	6-54	40	55	MAPGC-50-150-6-54
2×m10	50-240	50-240	61	70	MAPGC-50-240-50-240
3×m10	50-240	50-240	61	70	MAPGC-50-240-50-240

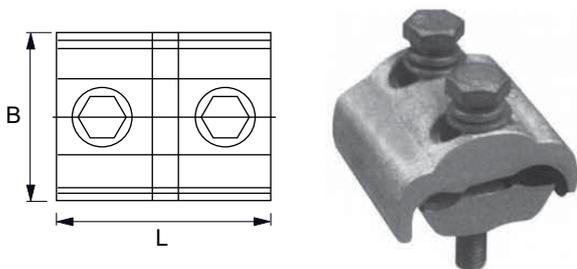


Conductor	Dimension		Ordering reference
	L	B	
16 -120	45	46	MAPGLC-16 -120A
16 -120	64	46	MAPGLC-16 -120B
50 -240	45	60	MAPGLC-50 -240A
50 -240	70	60	MAPGLC-50 -240B
120 -240	90	74	MAPGLC-120 -240A

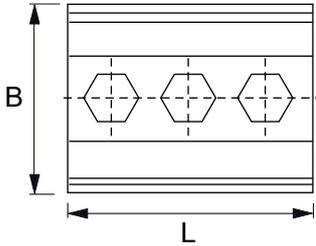
## Aluminium copper parallel groove connector



Bolt size	Aluminum area (mm <sup>2</sup> )	Copper (mm <sup>2</sup> )	Ordering reference
1×m8	16-70	1.5-10	MACPGCS1-16-70-1.5-10
1×m8	16-95	1.5-35	MACPGCS1-16-95-1.5-35
1×m8	16-70	6-50	MACPGCS1-16-70-6-50
1×m8	35-120	10-50	MACPGCS1-35-120-10-50

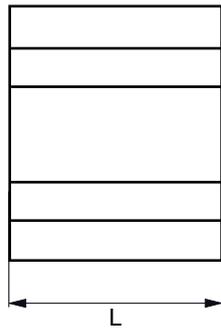
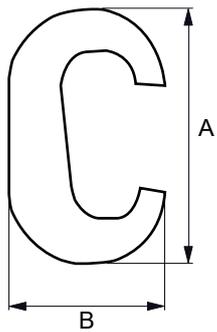


Bolt size	Aluminum area (mm <sup>2</sup> )	Copper (mm <sup>2</sup> )	Ordering reference
2×m8	16-95	1.5-10	MACPGCD2-16-95-1.5-10
2×m8	25-95	1.5-35	MACPGCD2-25-95-1.5-35
2×m8	16-70	6-50	MACPGCD2-16-70-6-50
2×m8	35-120	10-50	MACPGCD2-35-120-10-50
2×m8	25-120	10-95	MACPGCD2-25-120-10-95
2×m10	95-120	10-50	MACPGCD2-95-120-10-50
2×m10	35-200	16-185	MACPGCD2-35-200-16-185
2×m10	50-300	35-240	MACPGCD2-50-300-35-240
2×m10	50-150	25-70	MACPGCD2-50-150-25-70
2×m10	70 -120	95-120	MACPGCD2-70-120-95-120

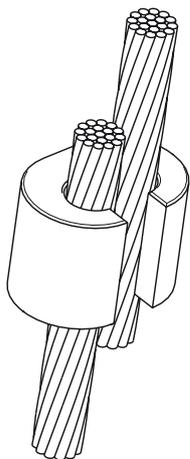


Bolt size	Aluminum area (mm <sup>2</sup> )	Copper (mm <sup>2</sup> )	Ordering reference
3*m10	35 - 185	35-185	MACGCT3-35-185- 35-185
3*m10	50-300	35 -240	MACGCT3-50-300- 35-240

## (C) type comprission connectors



Wire range (mm <sup>2</sup> )	Dimension			Ordering reference
	A	B	L	
25-25	29	18.8	35	MCCC-25-25
35-35	35	21	35	MCCC-35-35
50-50	35	22	35	MCCC-50-50
70-70	40	23.5	35	MCCC-70-70
95-95	44	25	35	MCCC-95-95
120-120	47	27	35	MCCC-120-120
150-150	51	30	35	MCCC-150-150
185-185	56	31.5	35	MCCC-185-185
240-240	62.4	33.2	35	MCCC-240-240



# MASEICO

## Solar Panels Mounting System



**Efficient  
Innovative  
Economical**

## **MASEICO Solar Structure**

MASEICO mounting solar systems are designed and engineered for each customer's site specific conditions to minimize the field installation labor by eliminating field welding, drilling, or other on-site fabrication. Our meticulous project planning and precise execution combine to provide you with solar racking solutions that are tailored to the unique conditions of your location while reducing your overall total project costs.

MASEICO provides a wide range of PV mounting systems in various sizes to offer freedom and flexibility to support every type of PV module.

All structures are available with angles range from 5 to 30 degrees, landscape and portrait can be provided on request .

Additional free services:

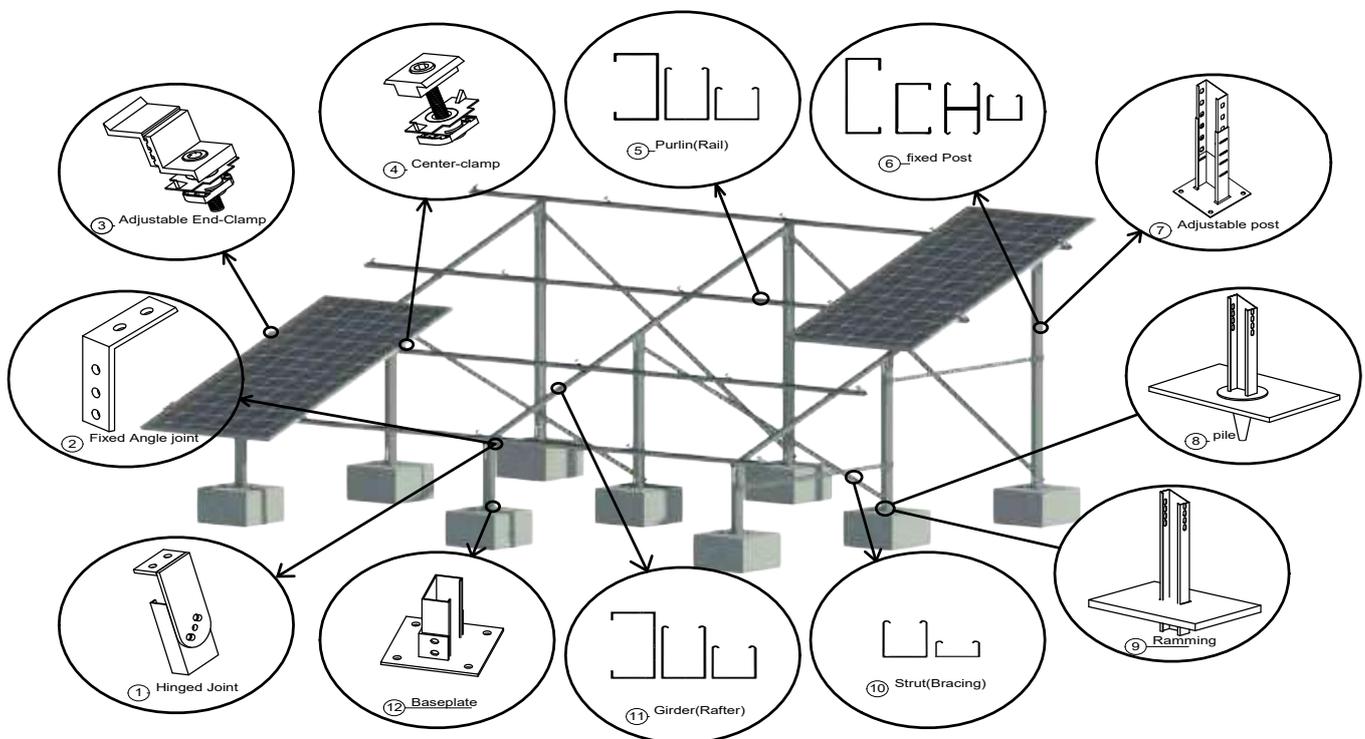
- CAD Drawings
- 5 years warranty
- Installation guide
- After Sales Technical Support
- Engineering experience in managing the cost and capacity you might need

## Ground Mounting Systems

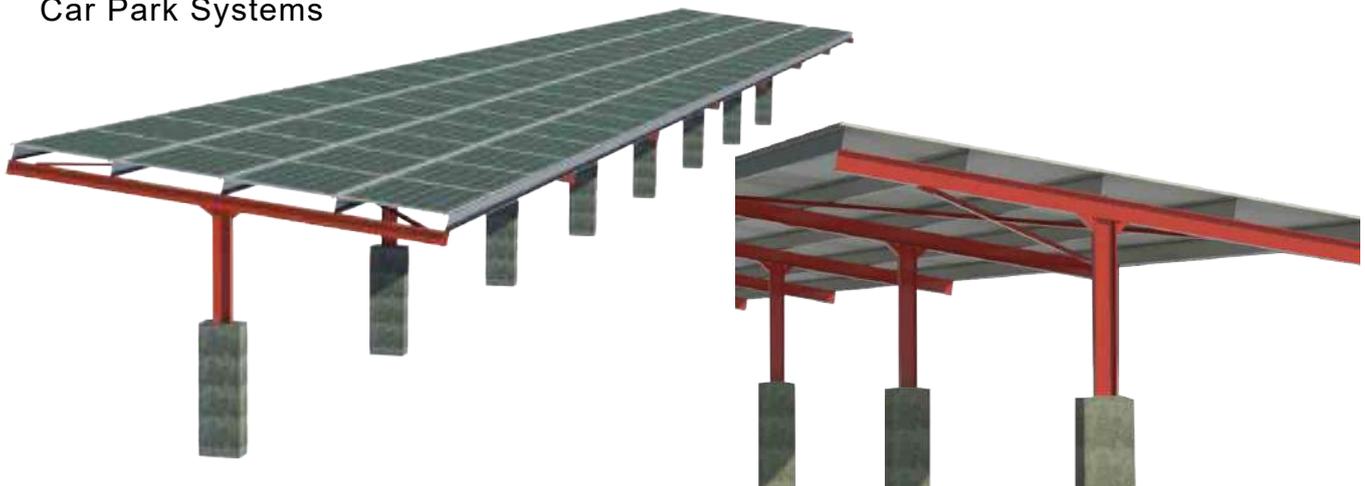
Our engineers design based on the best interests of customers and we are proud of their background and innovation in the industry. Utilizing our configurator as well as our knowledgeable team, we will guide you to a mounting solution that is easy to install on your project. Whether you're looking for a commercial, industrial, heavy duty and custom use system, our mounting solutions are designed to meet your PV sites needs.

we will guide you to install your projects easily and smoothly

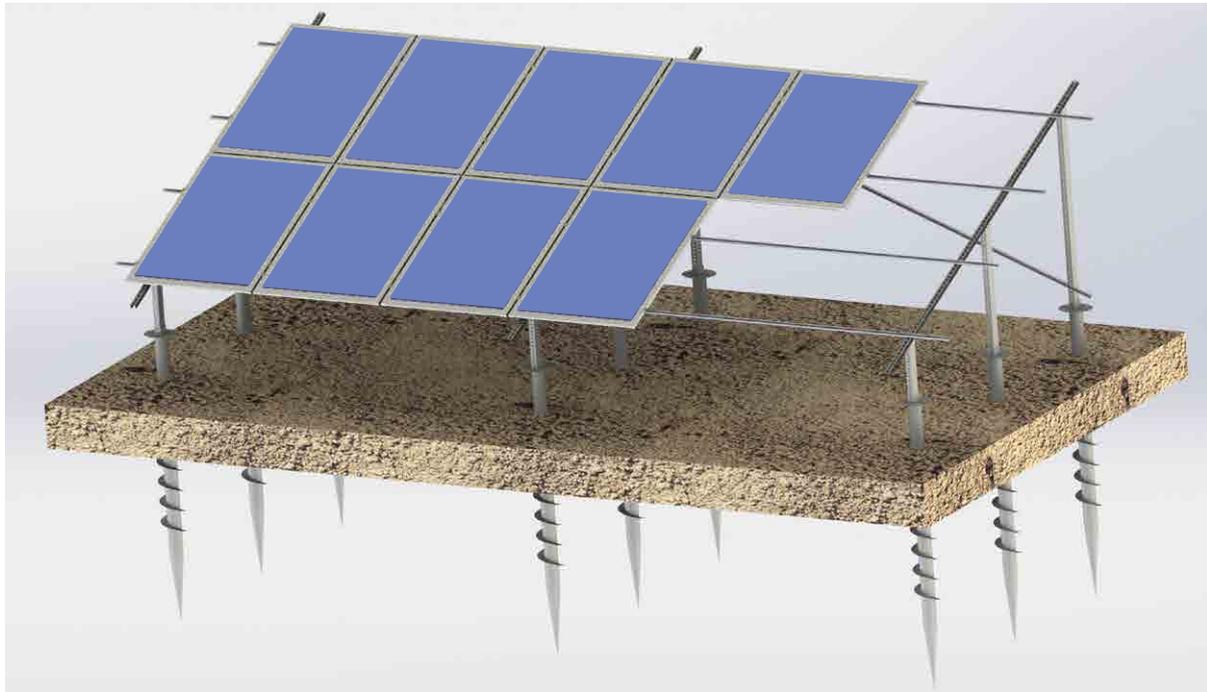
### Adjustable Systems



### Car Park Systems



## Piling and Ramming Mount Systems



## Simple Ground Mount



MASEICO has always look forward to providing it's customers with multi options and flexible solutions, where the ground structures of MASEICO provide many appropriate solutions based on the type of land, and can be installed on the roofs of cement houses with little modification of the base.

## Roof Mount Systems

All our roof solutions include the following benefits:

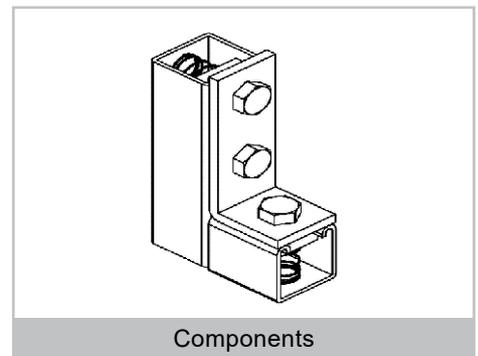
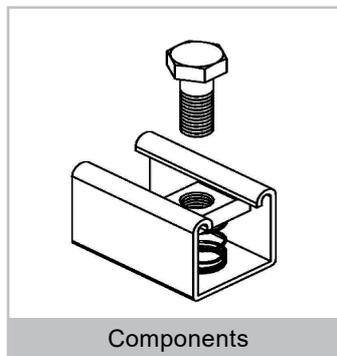
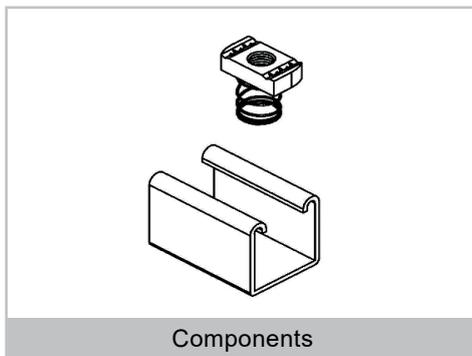
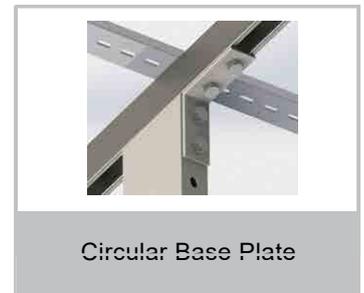
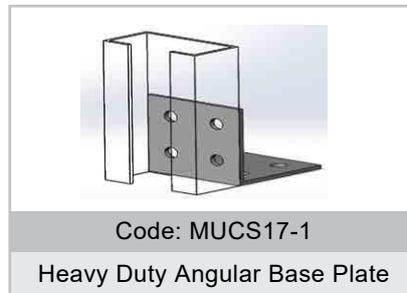
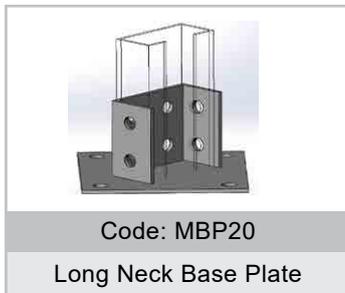
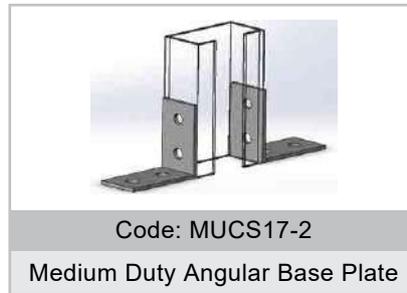
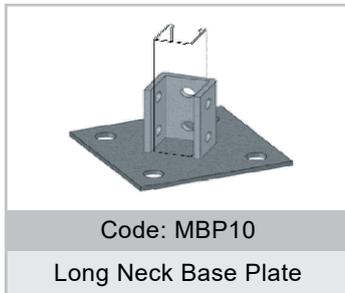
- Pre-assembled mounting components
- Made in Jordan
- Proprietary "one-size-fits-all" height-adjustable end clamps and mid clamps

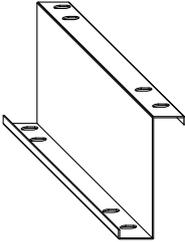
We understand that every roof is different, that is why each system is fully customizable to accommodate various low slope or flat roof types. As an innovator in solar PV mounting solutions, MASECIO Solar has the experience to develop, and produce a roof mount system that fits your roof type, PV output requirements, and budget. All of our roof mount solutions are reliable and designed for a long service life thanks to weather-resistant materials like galvanized and hot dip galvanized. With pre-assembled parts and easy to pack and ship components, your solar mounting system will be on time and at budget.

This solution can be suitable for all corrugated sheets and can be customized to all metal surfaces, Omega clamp MOC-41 solution have tested and approved to be a heavy duty with extra safety factor by the Royal Scientific Society RSS.

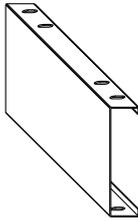


## Sections and Element's Used For Building The Solar Panel's Structure:

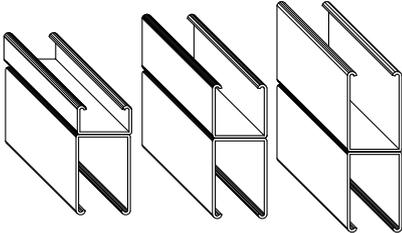




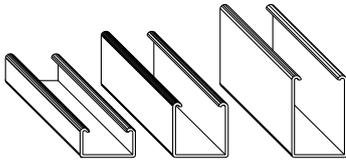
<b>Z-Section</b>
Width:120-300mm.
Height:40-80mm.
Lip:10-25mm.
Thickness:1.0 up to 3.2mm.
Materials: HDG, GI, SS, Aluminium.



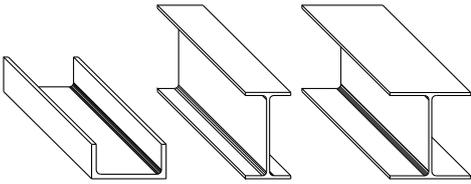
<b>C-Section</b>
Width:70-300mm.
Height:40-80mm.
Lip:10-25mm.
Thickness:1.0 up to 3.2mm.
Materials: HDG, GI, SS, Aluminium.



<b>U-Double Section</b>
Width:41mm
Height:42-62-82-103-124mm
Thickness:1.0 up to 3.0mm
Materials: HDG, GI, SS, Aluminium

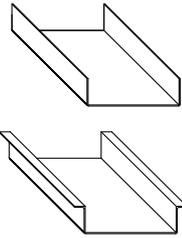


<b>U-Section</b>
Width:41mm
Height:21-41-62mm
Thickness:1.0 up to 3.0mm
Materials: HDG, GI, SS, Aluminium

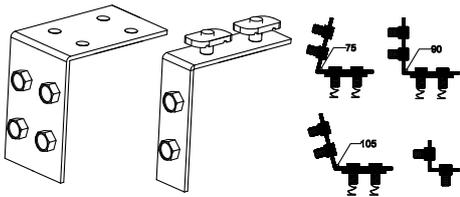


Dimension and specification, as per design parameters.  
Materials: Hot dip Galvanized

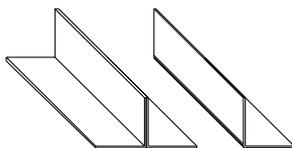
Beam U-Section    Beam I-Section    Beam H-Section



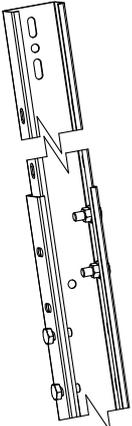
<b>HAT-Section</b>
Width:70-300mm
Height:10-40mm
Lip:10-20mm
Thickness:1.0 up to 3.0mm
Materials: HDG, GI, SS, Aluminium



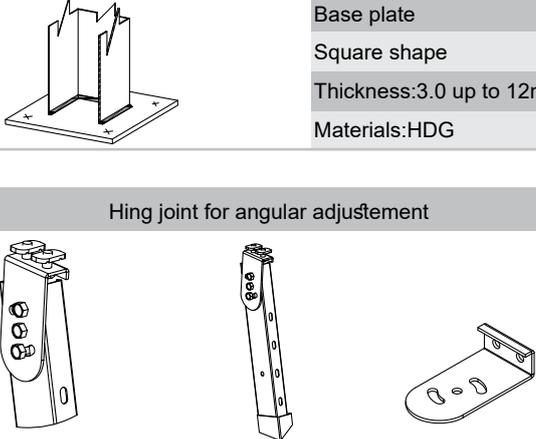
<b>Angle joint</b>
Width:41 up to 300mm
Length: variation
Tilte angle: variation
Thickness:3.0 up to 12mm
Materials: HDG, GI, SS, Aluminium



<b>Angle-Section</b>
Dimension and specification as per design parameters
single,double,star shape
Welding
Materials: Hot dip Galvanized



<b>Base plate</b>
Adjustable Leg
Width:81 up to 300mm.
Height:41 up to 120mm.
Thickness:1.5 up to 3.0mm.
Materials:Hot dip Galvanized, Mill Galvanized, stainless steel.
Adjustable LEG 1:MAX HEIGHT(860MM)
Adjustable LEG 2:MAX HEIGHT(1440MM)
Adjustable LEG 3:MAX HEIGHT(2120MM)
Adjustable LEG 4:MAX HEIGHT(2810MM)



<b>Base plate</b>
Square shape
Thickness:3.0 up to 12mm
Materials:HDG

**Hing joint for angular adjustment**

# MASEICO

## Safety Barriers & Guardrails System



## Safety Barriers & Guardrails System

MASEICO plant is fully integrated and designed to be a one stop solution to engineering needs, including safety barriers & guardrails system. spread over 1,0000 square meters.

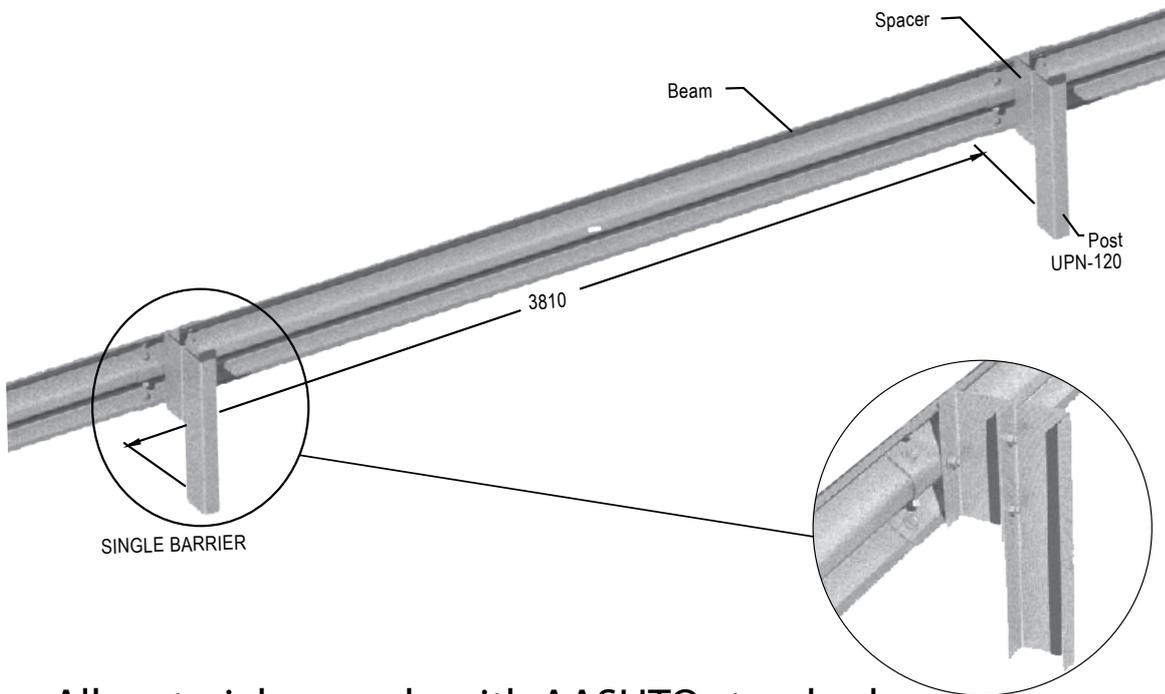
The plant covers the entire gamut of engineering fabrication and equipped with most sophisticated equipments and systems like Robotic welding, CNC machines & Purpose built CAD/CAM systems to achieve quality products consistently.

In addition to the above, this facility also incorporates facilities, such as a full-fedged tool room, machine shop, Hot Dip Galvanizing plant.

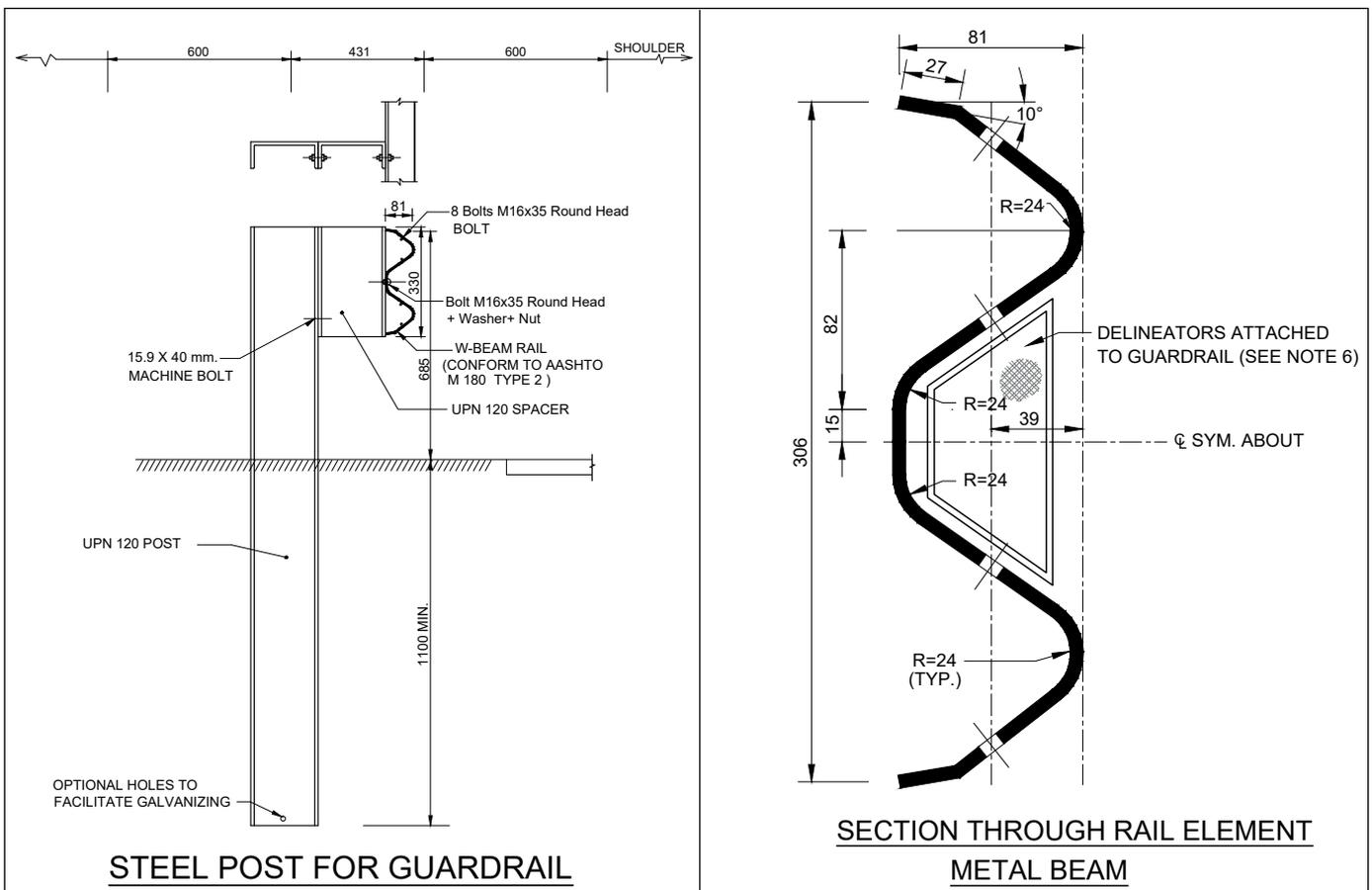
The use of Guard Rail Systems on highways as a safety barrier is quite well known, and is popular throughout the world, millions of kilometers of roads are fitted with these systems to protect the vehicles from skidding away and avert fatal accidents.

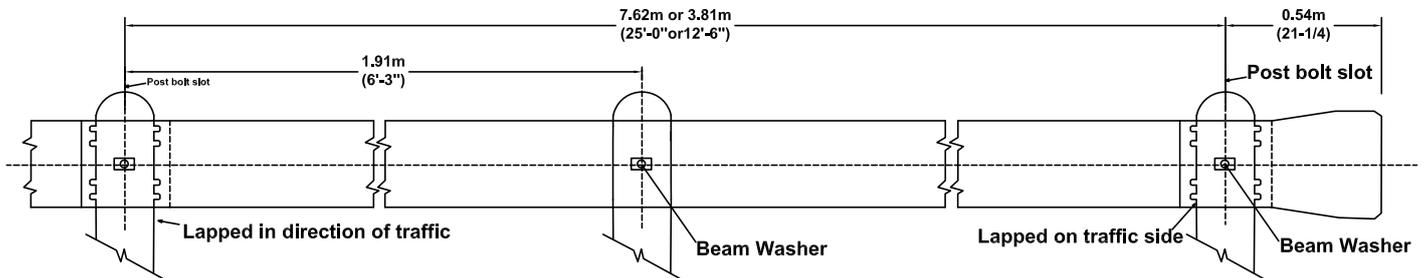
Our highway Guard Rail System is being produced according to ISO 9001 Certified process, and formed in accordance with the latest highway safety barrier technology and standards like AASHTO M-180 or any other international standard, with a wide range of accessories, including Posts, Spacer Blocks, End pieces and allied hardware.

For making sure about the high durability and strength. It is made of high quality steel, which reduces the impact force caused by mobile equipment to the maximum extent. Meanwhile, the zinc coating perfectly combined to the W-beam guardrail keeps the products free of damages of corrosion and rust.



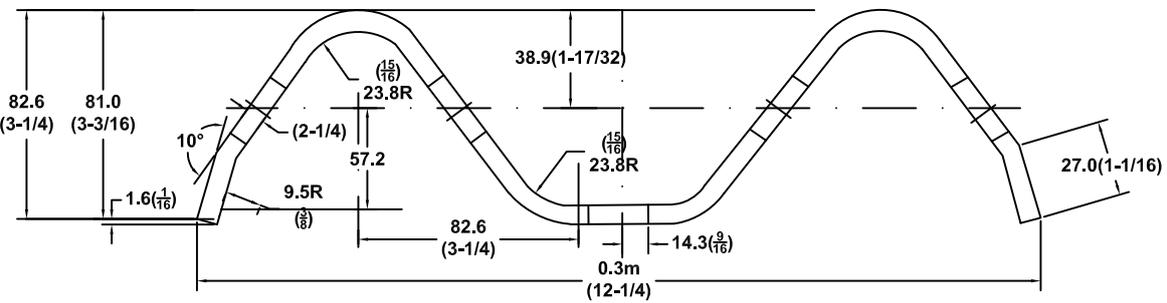
All materials comply with AASHTO standard



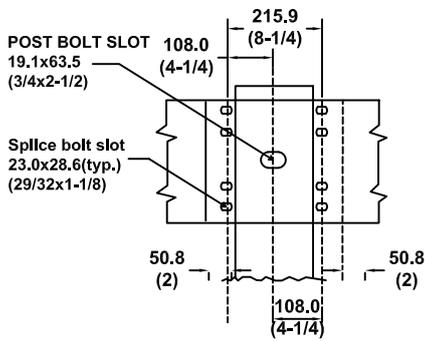


Wood post shown-when steel post is used, offset as required to miss web

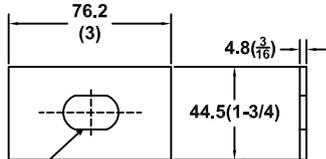
**ERECTION**



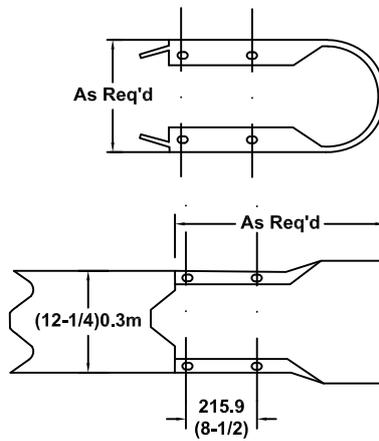
**SECTION THROUGH BEAM**



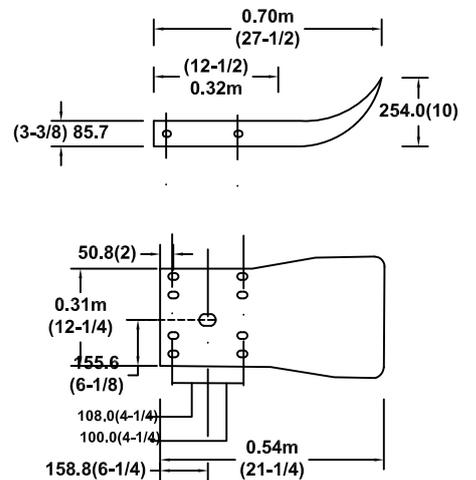
**BEAM SPLICE**



**BEAM WASHER**



**BUFFER END**



**END SECTION**

- 1- All dimensions are subject to manufacturer's tolerances except where allowable tolerances are shown.
- 2- All dimensions are in millimeters unless specified otherwise. (all parenthetical values are in inches, unless specified otherwise)
- 3- rectangular plate washers are optional only in the transition sections. they are not to be used in the main sections of strong post guardrail.



**Latest technology to produce our products**





**MASEICO**

Abdullah II Bin Alhussain Industrial Estate, Str. J, Sahab Industrial City , B.O.Box 110 Amman 11512 Jordan  
Tel: +962 6 4020020 - Fax: +962 6 4020023 - Website: [www.maseico.com](http://www.maseico.com) - E-mail: [Info@maseico.com](mailto:Info@maseico.com)