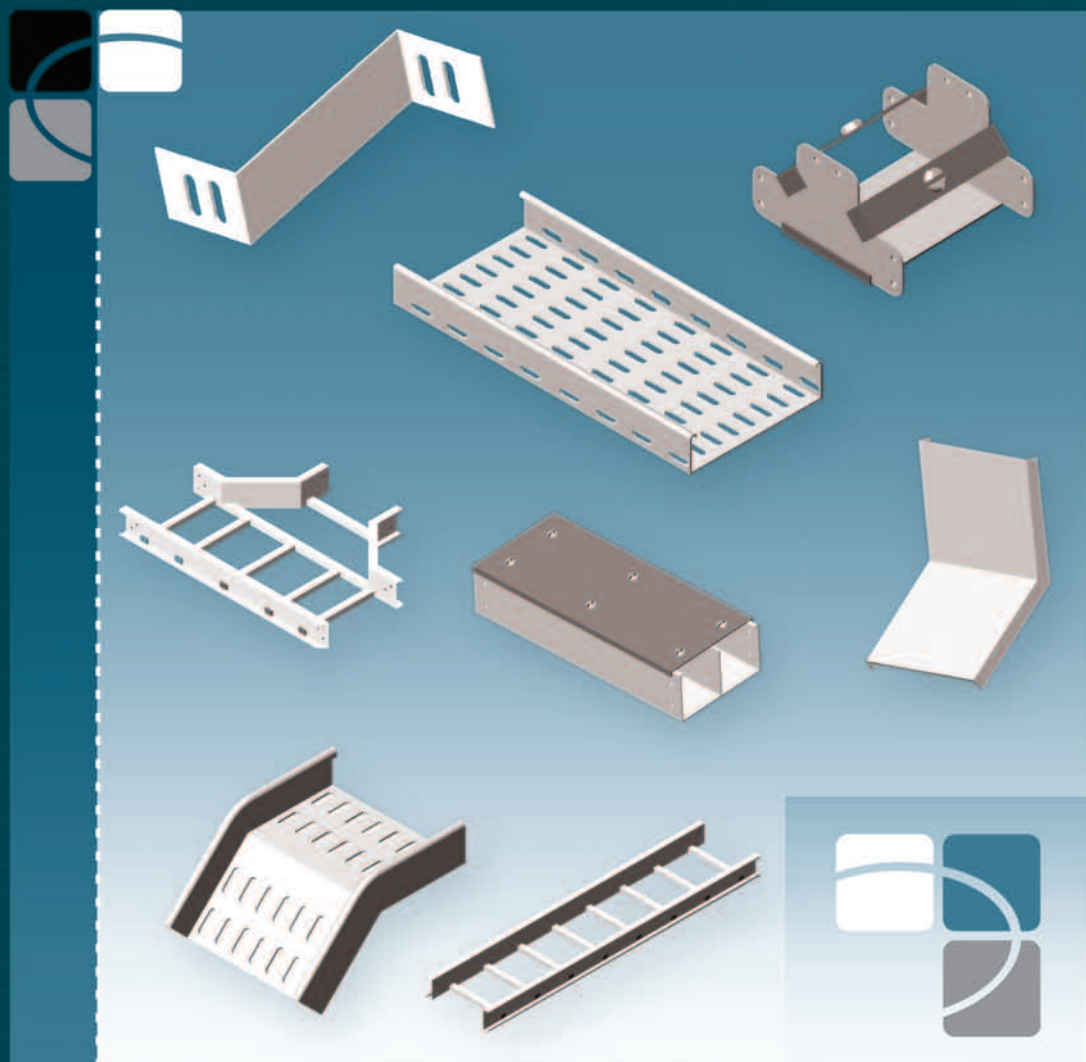


*Manufacturer of High-Tech  
Electro-Mechanical Products*

# **MECHATECH**





**TULEIMAT Factory** located in Syria and was founded in 1995 to design, manufacture top quality **pre - engineered steel building accessories** and export to the most leader structure fabricators at the Middle East and Arabian Gulf

The factory has grown from single division producing the accessories into the field of steel structure fabrication, pre-engineered steel buildings for use as a factory buildings, warehouses, workshops, showrooms, sport halls, office buildings.

We expanded our product lines and built an additional line for manufacturing Electro - Mechanical products / **MECHATECH** / such as cable trays, cable trunking, and cable ladders .

The factory is currently structured into three divisions; The Pre - Engineered Buildings Division, The Steel Building Accessories Division and the Electro Mechanical Products Division / **MECHATECH** /. In all the three divisions the quest for excellence is a never ending process. Attention to details is evident in all our activities. Each member of our organization recognizes that his livelihood and success is a result of sustained customer satisfaction. We all strive to ensure that quality and value are inherent in all our products and services.

TULEIMAT Factory constantly reviews and upgrades its fabrication skills to deliver the highest quality products and the most competitive prices. The current system combines the most up to date computer aided design procedures with hi-tech fabricating equipments.

It is our privilege to introduce our new line **MECHATECH** manufacturer of electro - mechanical products and accessories.

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## MATERIAL STANDARDS

Our products are manufactured according to the following international standards:

1 -Cold - Rolled Steel Sheet to JIS G3141 SPCC - SD equivalent to BS EN 10130.

2 -Hot Rolled Steel Sheet to JIS G3131 SPHC equivalent to BS EN 10025.

3-Pre - Galvanized Zink Coated Steel Sheet ( Mill Galvanized ) to JIS G3302 equivalent to BS EN 10142 (Supersedes BS 2989). The Hot dip mill galvanized coatings are produced by continuous rolling steel sheets or strips in coils through a bath of molten zinc then past air jets to remove excess Zink from the surface. The process involves pre - treating the steel to make the surface react readily with molten zinc as the strip moves through the bath at high speeds.

4 -Electro-Galvanized Steel Sheet to JIS G3313 SECC equivalent to BS EN 10152.

5 -Stainless Steel Sheet to SUS 304 ,SUS 316. BS1449 :Part 2.

## PRODUCT STANDARDS

1- Cable Trunking, BS 4678: Part 1; 1971 Steel Surface Trunking.

2- Cable Tray: NEMA VE 1: Metal Cable Tray Systems.

## FINISHES

### Epoxy Painting:

Epoxy painting can be processed using Electro-Galvanized Steel Sheet or Pre-Galvanized Zink Coated Steel Sheet. The fabricated materials shall be cleaned and prepared in factory according to standard process and conditions to be free of dirt, dust, grease, oil, wax and to be suitable for epoxy painting and achieve a high degree of adhesion necessary for good paint work and effective performance.

Epoxy paintings give a very hard, durable finish and usually quite thin for a minimum of 50 microns but they have excellent resistance to chemical, water, sea water, salt solutions, alkalis, detergents, white spirits, aliphatic, mineral and fatty oils, with excellent adhesion and coating flexibility according to ASTM D3359 with no detachments.

## INSTRUCTIONS

### CABLE INSTALLATION & PROTECTION

When installing cable in cable tray , it is important that care and planning be exercised so that the cable or the cable tray is not damaged or destroyed.

The cable manufacture should be contacted for maximum pulling tensions and minimum bending radii, and advice on prevention of deformation of cable shielding.

### PROTECTION OF CABLE INSULATION

The inside of cable tray system shall present no sharp edges, burrs, or projections which can damage cable insulation.

#### **WARNING!**

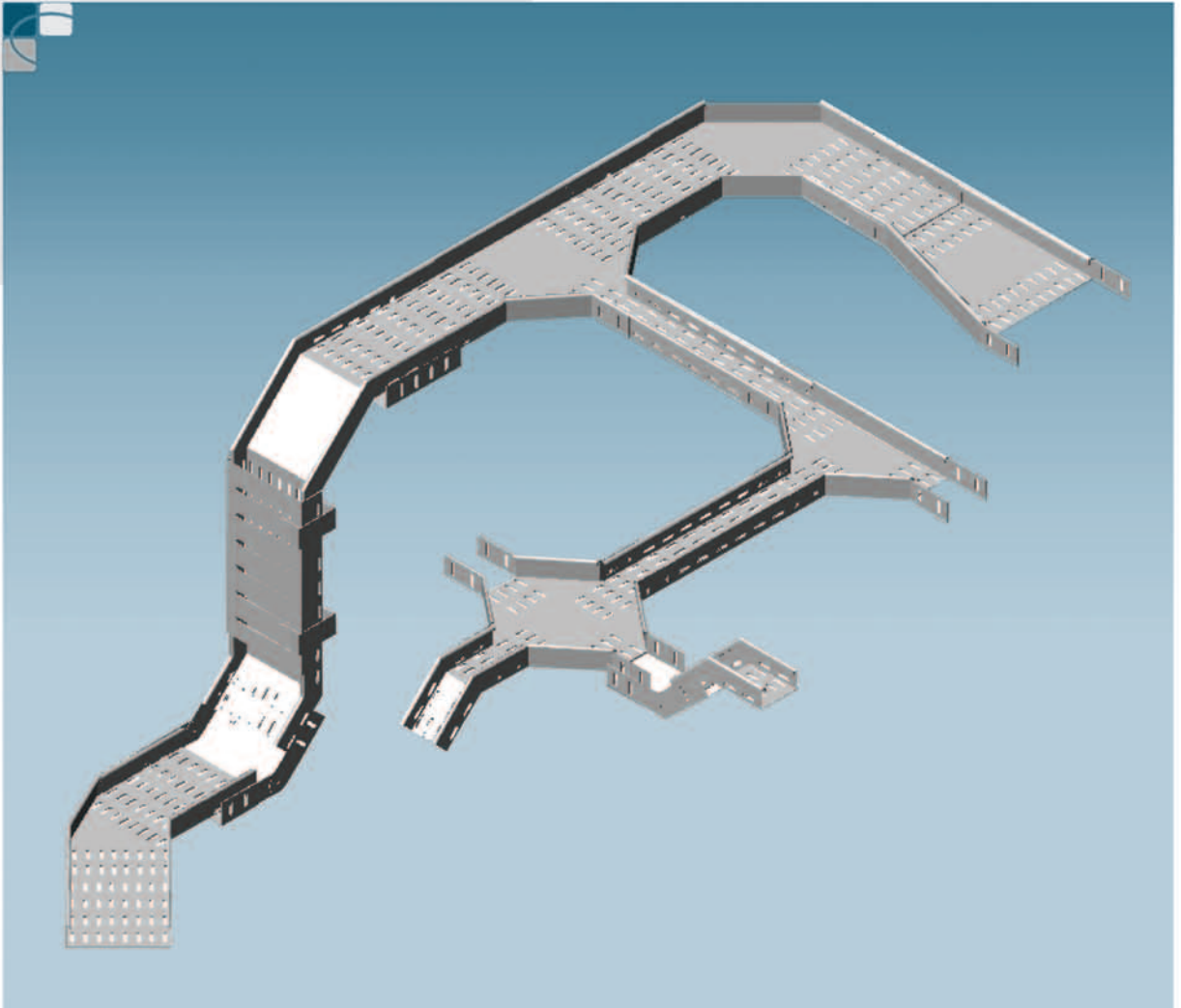
The cable tray is designed as a support for power or control cables or both and is not intended or designed to be a walkway or support for personnel. It should be used only as a mechanical support for cables and tubing.

### SUPPORTS OF CABLE TRAYS

Support for cable trays should provide strength and working load capacity sufficient to meet the load requirement of the cable tray systems.

- 1 . Horizontal and vertical tray supports should provide an adequate bearing surface for the tray and should have provisions for hold down clamps or fasteners.
- 2 .Vertical tray supports should provide means for fastening cable trays to it's supports.

## CABLE TRAY

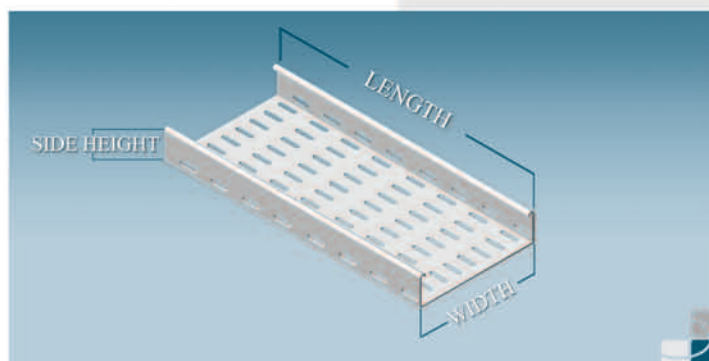


Cable Tray Network



## CABLE TRAY DIMENSIONS

TYPE				LENGTH m		WIDTH mm	THICKNESS mm	SIDE HEIGHT mm		
IF	ORF	IRF	OF	3.00	2.44	50	1.00	50	75	100
IF	ORF	IRF	OF	3.00	2.44	75	1.00	50	75	100
IF	ORF	IRF	OF	3.00	2.44	100	1.00	50	75	100
IF	ORF	IRF	OF	3.00	2.44	150	1.00	50	75	100
IF	ORF	IRF	OF	3.00	2.44	200	1.20	50	75	100
IF	ORF	IRF	OF	3.00	2.44	225	1.20	50	75	100
IF	ORF	IRF	OF	3.00	2.44	300	1.20	50	75	100
IF	ORF	IRF	OF	3.00	2.44	400	1.50	50	75	100
IF	ORF	IRF	OF	3.00	2.44	450	1.50	50	75	100
IF	ORF	IRF	OF	3.00	2.44	600	1.50	50	75	100
IF	ORF	IRF	OF	3.00	2.44	750	1.50	50	75	100
IF	ORF	IRF	OF	3.00	2.44	900	2.00	50	75	100
IF	ORF	IRF	OF	3.00	2.44	1000	2.00	50	75	100



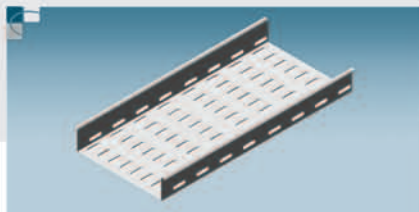
## CABLE TRAYS

A length of cable tray which has no change in direction or size consisting with ventilated bottom or solid bottom channel section.

The ventilated cable tray bottom having openings sufficient for the passage of air and utilizing 60 percent or less of the plan area of the surface to support cables .

The solid bottom cable tray consisting of a bottom with no openings

Standard sizes of 3 meters and 2.44 meters are available in deferent types, such as outside return flange, inside return flange, 90 degrees outside flange and 90 degrees inside flange .



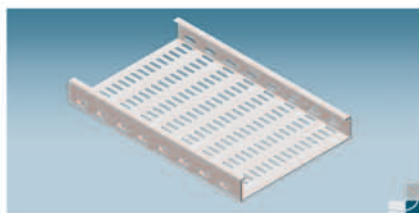
Outside Return Flange ORF



Inside Return Flange IRF



90 Degrees Outside Flange OF



90 Degrees Inside Flange IF

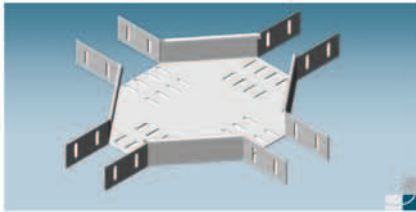


## CABLE TRAY FITTINGS

Devices which are used to change the direction or size of a cable tray system.

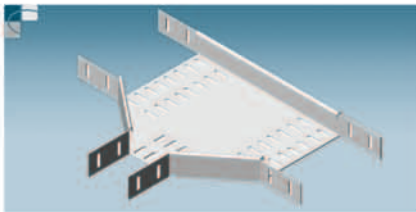
### Cross Horizontal

A cable tray fitting which is suitable for joining cable trays in four directions at 90 degrees intervals in the same plane.



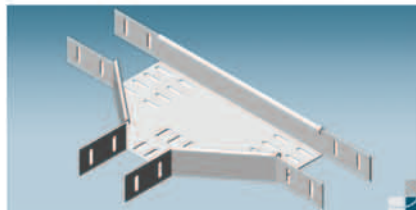
### Unequal T- Horizontal

A cable tray fitting which is suitable for joining different sizes cable trays in three directions at 90 degrees intervals in the same plane.



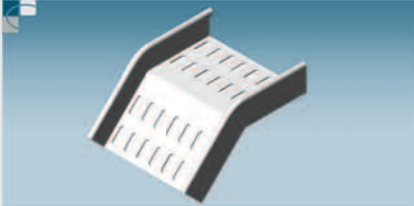
### Equal T- Horizontal

A cable tray fitting which is suitable for joining cable trays in three directions at 90 degrees intervals in the same plane.

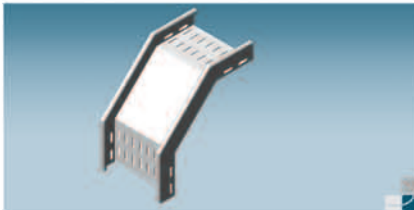


## External & Internal Risers

A cable tray fitting which changes direction between vertical and horizontal to a different plane upward or downward.



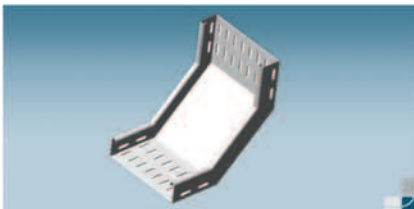
External Riser 45 Degrees



External Riser 90 Degrees



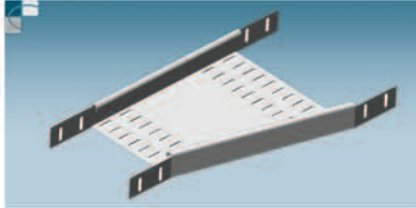
Internal Riser 45 Degrees



Internal Riser 90 Degrees

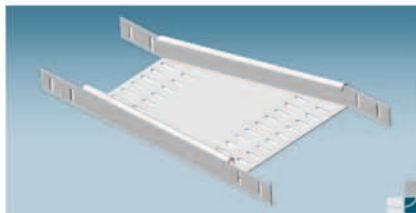
### Reducer Right

A cable tray fitting which is suitable for joining cable trays of different widths in the same plane, when viewed from the large end, has a straight side on right.



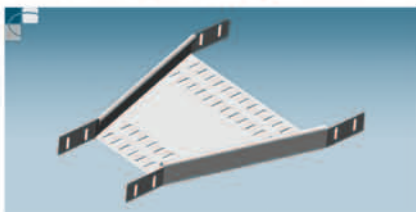
### Reducer Left

A cable tray fitting which is suitable for joining cable trays of different widths in the same plane, when viewed from the large end, has a straight side on left.



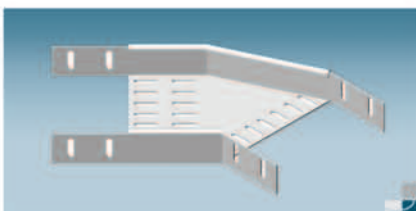
### Reducer Straight

A cable tray fitting which is suitable for joining cable trays of different widths in the same plane, has two symmetrical offset sides.

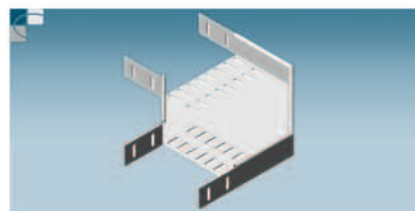


### Elbow Horizontal

A cable tray fitting which changes the directions in the same plane



Elbow 45 degrees

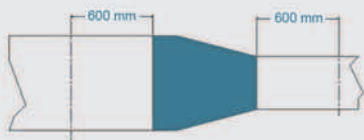


Elbow 90 Degrees

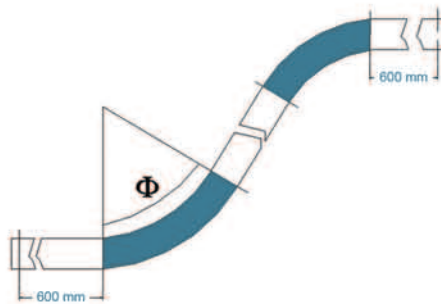


## LOCATION FOR SUPPORT FITTINGS

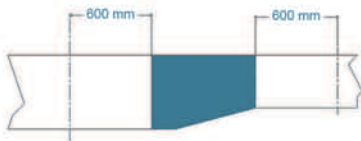
Supports should be located whenever practical so that connectors between the horizontal straight sections of cable tray runs fall between the support point and the quarter point of the span. Un - spliced straight sections should be used on all simple spans and on end spans of continuous span arrangements. A support should be located within ( 600mm) of each side of an expansion connector.



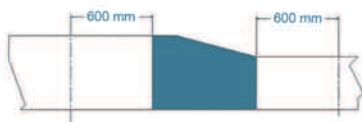
**REDUCER STRAIGHT**



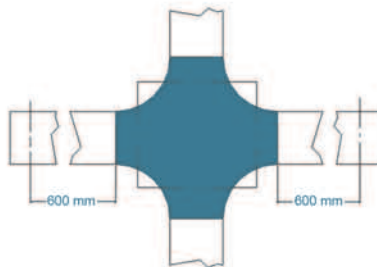
**ELBOW VERTICAL**



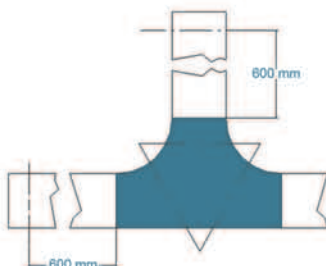
**REDUCER LEFT**



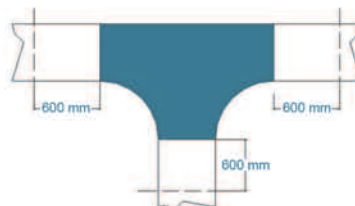
**REDUCER RIGHT**



**HORIZONTAL CROSS**

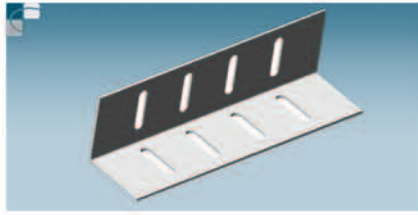


**EQUAL T-HORIZONTAL**

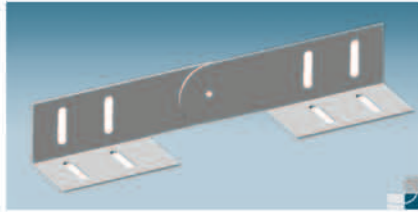


**T- VERTICAL**

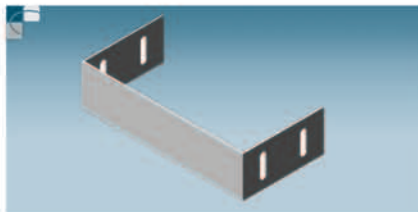
## CONNECTORS



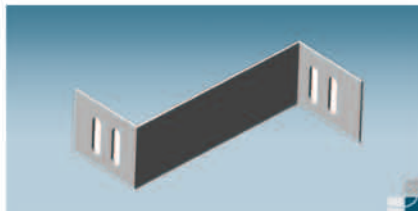
Standard Connector



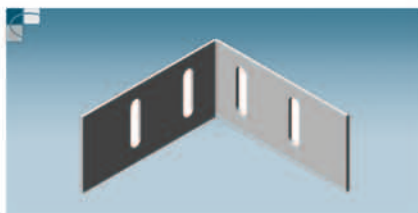
Adjustable Vertical Connector



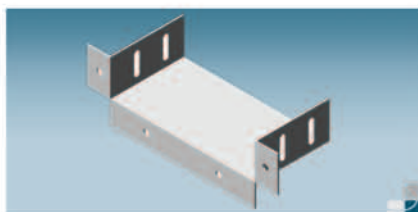
Blind End Connector



Reducing Connector



Right Angled Connector



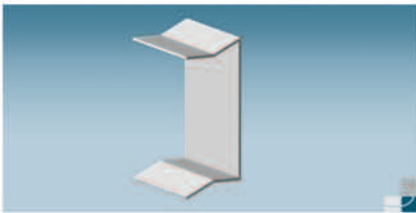
Box Connector

## ACCESSORIES

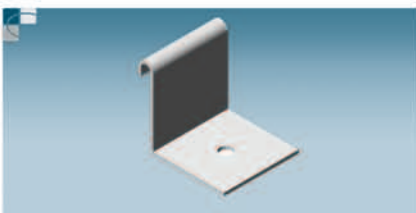
Devices which are used to supplement the function of straight sections and fittings.



Barrier Straight



Cover Clamp



Hold Down Clamp



Fish Plate

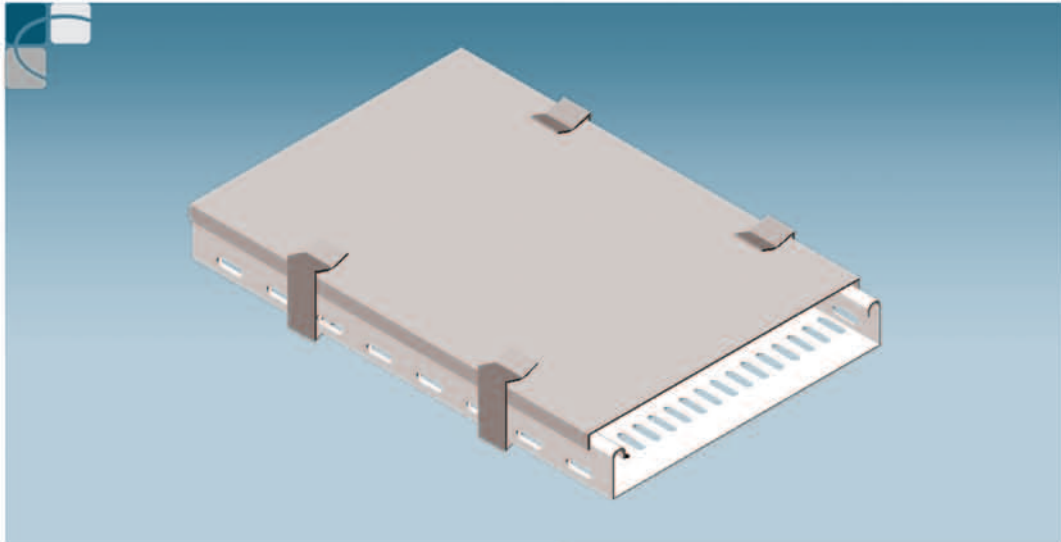


## CABLE TRAY COVERS

Cable Tray covers are provided with two types. listed down are the classifications.

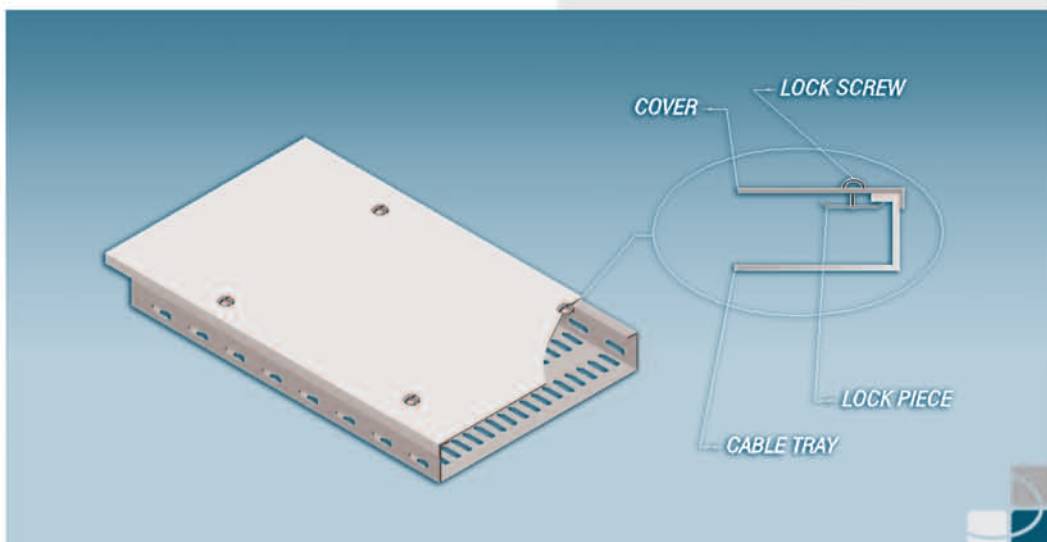
### Clamp Type

Suitable for outside, inside return flange (ORF),(IRF) and 90 degrees outside flange (OF) cable tray types.

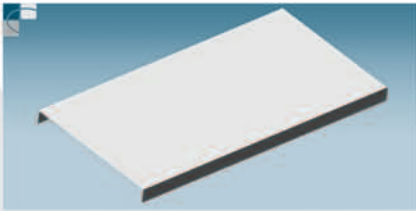


### Screw Lock Type

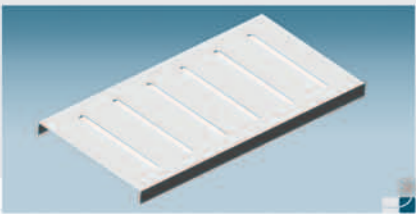
Suitable only for 90 degrees inside flange cable tray type (IF). The screw lock requires minimum rotation to fasten itself strongly.



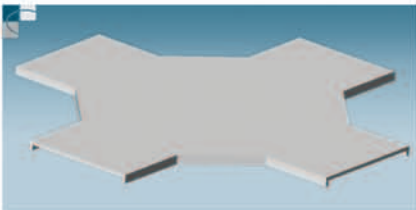
## COVERS FOR CABLE TRAYS & FITTINGS



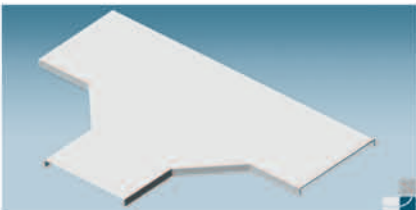
Flange Solid Cover



Flange Ventilated Cover



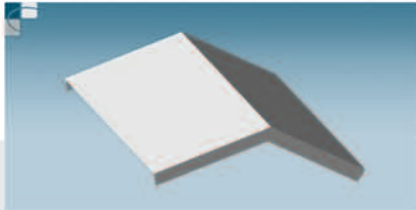
Cross Horizontal Cover



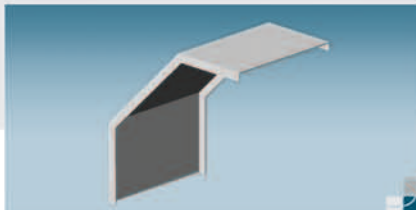
Equal T-Cover



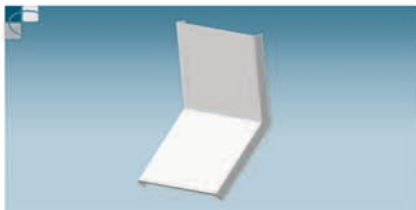
Un-Equal T-Cover



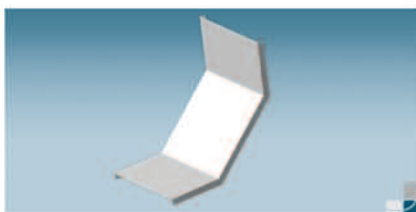
External Riser Cover 45 Degrees



External Riser Cover 90 Degrees

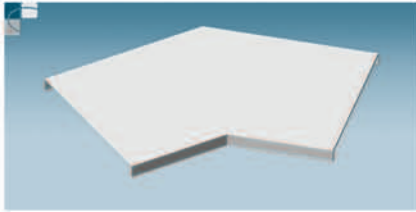


Internal Riser Cover 45 Degrees



Internal Riser Cover 90 Degrees

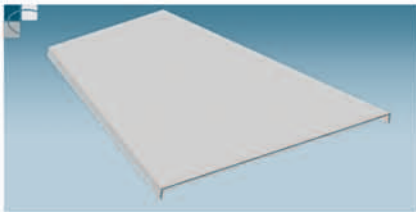




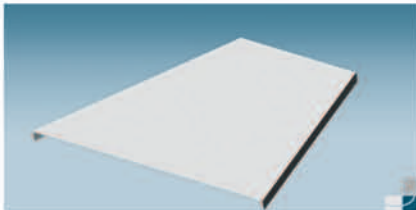
Elbow 45 Degrees Cover



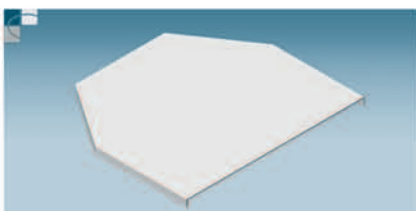
Elbow 90Degrees Cover



Reducer Left Cover



Reducer Right Cover

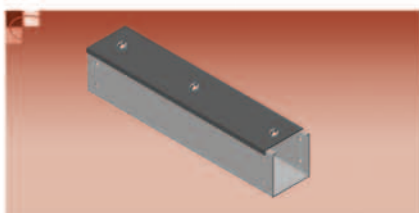


Reducer Straight Cover

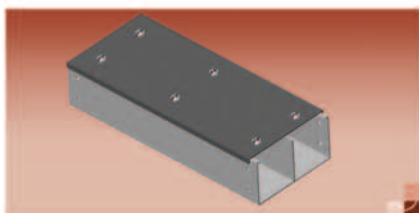
## CABLE TRUNKING

A length of covered cable trunking which has no change in direction or size. The covers are provided with locks require minimum rotation to fasten itself strongly.

Standard sizes of 3 meters and 2.44 meters are available in deferent types, such as Single Chamber and Multiple Chamber.



Single Chamber SC



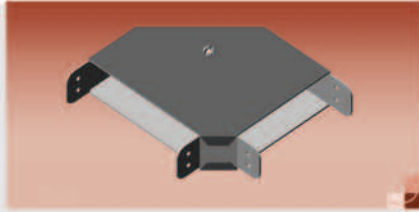
Multiple Chambers MC

## DIMENSIONS

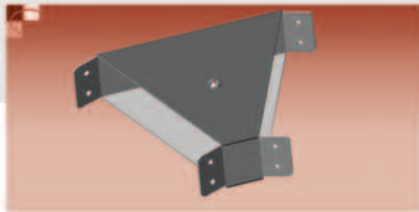
TYPE		LENGTH m		WIDTH mm	THICKNESS mm	SIDE HEIGHT mm									
SC	MC	3.00	2.44	50	1.00	50									
SC	MC	3.00	2.44	75	1.20	50	75								
SC	MC	3.00	2.44	100	1.20	50	75	100							
SC	MC	3.00	2.44	150	1.50	50	75	100	150						
SC	MC	3.00	2.44	200	1.50	50	75	100	150	200					
SC	MC	3.00	2.44	250	1.50	50	75	100	150	200	250				
SC	MC	3.00	2.44	300	2.00	50	75	100	150	200	250	300			
SC	MC	3.00	2.44	350	2.00	50	75	100	150	200	250	300	350		
SC	MC	3.00	2.44	400	2.00	50	75	100	150	200	250	300	350	400	

## CABLE TRUNKING FITTINGS

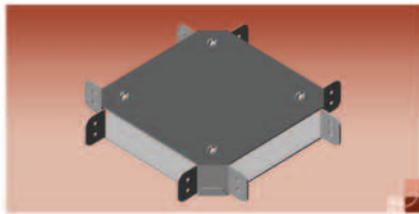
Devices which are used to change the direction or size of a cable trunking system.



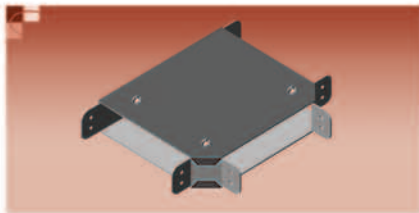
Bend Top Cover 90 Degrees



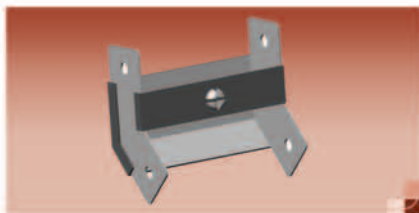
Bend Top Cover 45 Degrees



Cross Top Cover

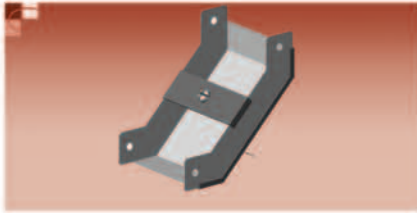


T-Top Cover

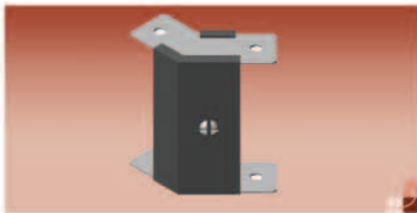


Bend Inside Cover 45 Degrees

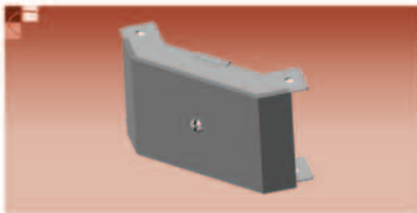




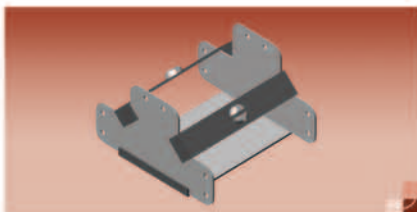
Bend Inside Cover 90 Degrees



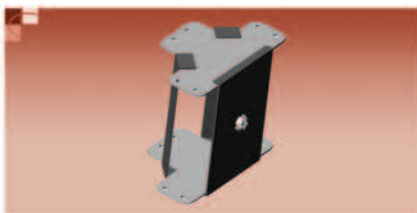
Bend Outside Cover 45 Degrees



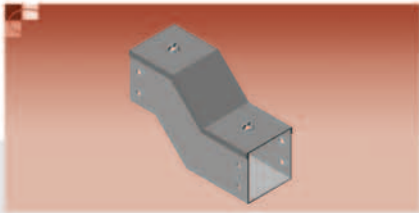
Bend Outside Cover 90 Degrees



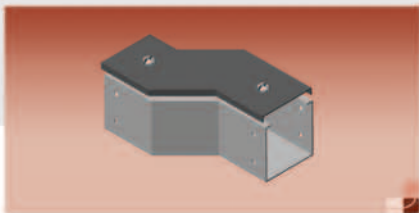
T-Inside Cover



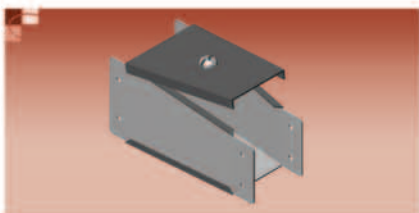
T- Outside Cover



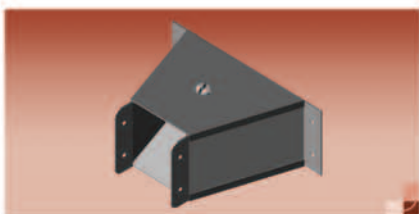
Offset Vertical



Offset Horizontal



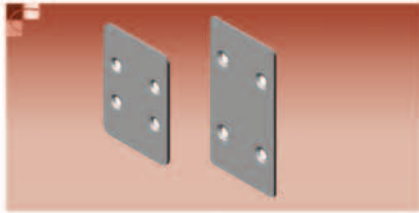
Reducer Straight



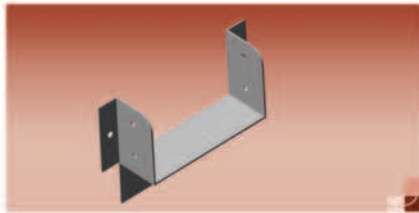
Ply Mouth

## CABLE TRUNKING ACCESSORIES

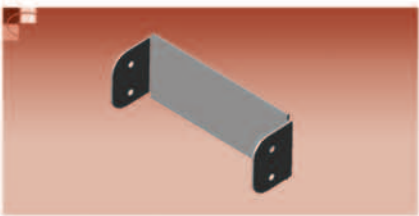
Devices which are used to supplement the function of straight sections and fittings or join cable trunking straight sections or fittings, or both.



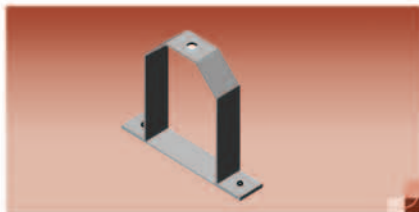
Connectors Standard



Box Connector



Blind End



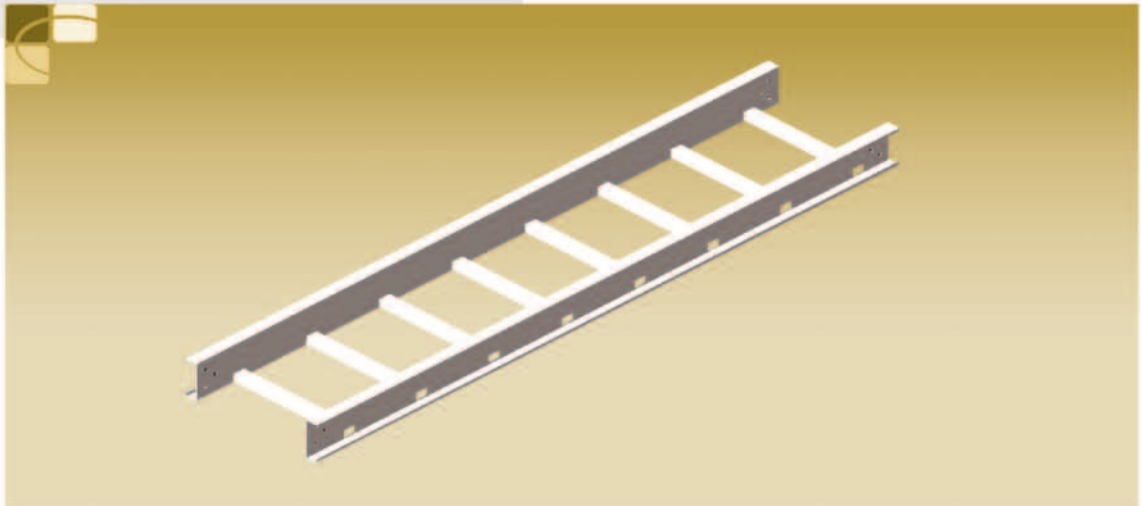
Hanger

## CABLE LADDER

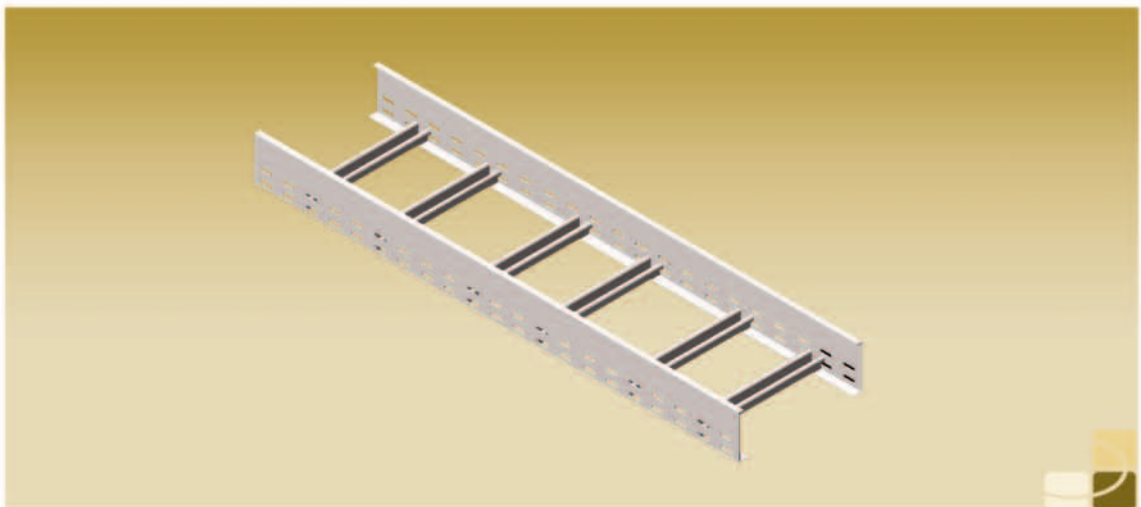
A pre-fabricated metal structure that consists of two longitudinal side rails connected by individual traverse members called rungs.

Standard sizes of 3 meters & 2.44 meters are available. Custom designed finishes and types are offered to suit the requirements such as welded or bolted rungs.

### Welded Rungs Type (WR)

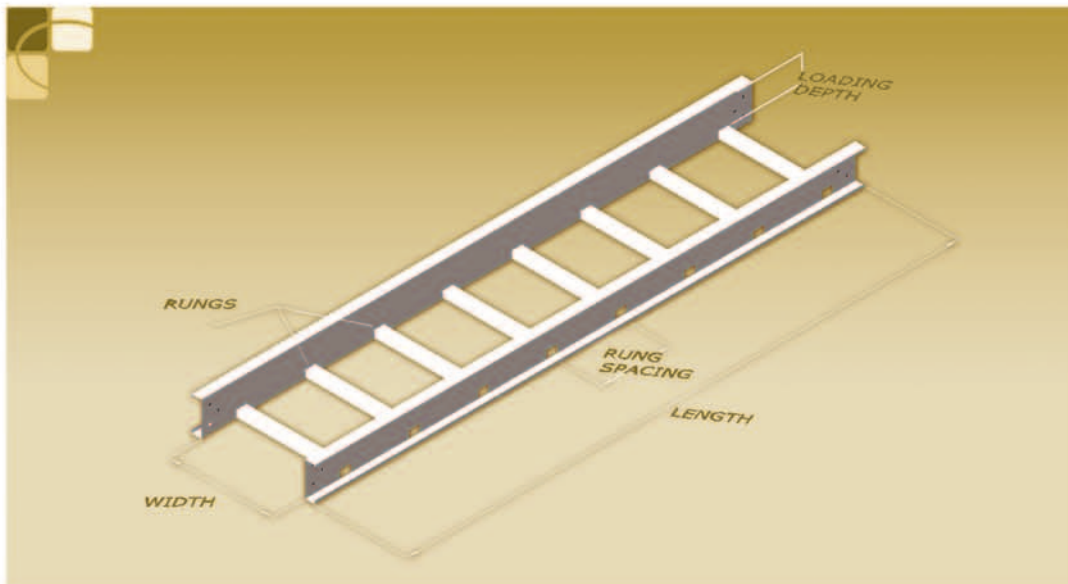


### Bolted Rungs Type (BR)





## CABLE LADDER DIMENTIONES



**SIDE RAILS:** (Stringers). Where the rungs are rigidly attached.

**RUNGS:** The traverse members that connect the two side rails. It must be rigidly attached at both ends so as to avoid free movement, twisting or bending.

**WIDTH:** The inside dimension between the two side rails.

**RUNGS SPACING:** The center to center distance (pitch) between two rungs.

**SIDE HEIGHT:** The overall height of the cable ladder, measured between the top and bottom flanges.

**LOADING DEPTH:** The distance between the upper part of the rung and the upper part of the side member, measured vertically.

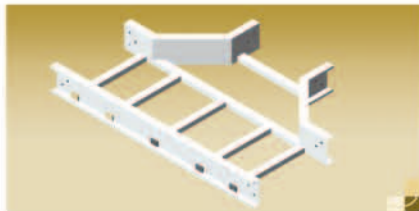
Type		Length m		WIDTH mm	THICKNESS mm	Side Height -Loading Depth mm			
WR	BR	3.00	2.44	100	1.00	100-75			
WR	BR	3.00	2.44	150	1.00	100-75	125-100	150-125	
WR	BR	3.00	2.44	200	1.20	100-75	125-100	150-125	175-150
WR	BR	3.00	2.44	225	1.20	100-75	125-100	150-125	175-150
WR	BR	3.00	2.44	300	1.20	100-75	125-100	150-125	175-150
WR	BR	3.00	2.44	400	1.50	100-75	125-100	150-125	175-150
WR	BR	3.00	2.44	450	1.50	100-75	125-100	150-125	175-150
WR	BR	3.00	2.44	600	1.50	100-75	125-100	150-125	175-150
WR	BR	3.00	2.44	750	1.50	100-75	125-100	150-125	175-150
WR	BR	3.00	2.44	900	2.00	100-75	125-100	150-125	175-150
WR	BR	3.00	2.44	1000	2.00	100-75	125-100	150-125	175-150

## CABLE LADDER FITTINGS

Devices which are used to change directions vertically or horizontally.



Elbow Horizontal 45&90 Degrees



T- Horizontal



Internal Riser



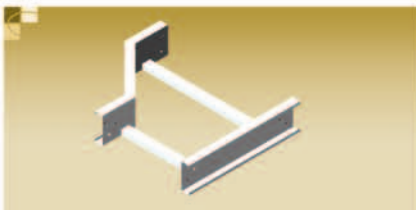
External Riser



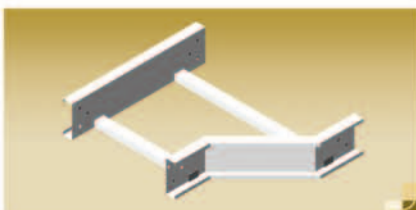
Cross Horizontal



Reducer Straight



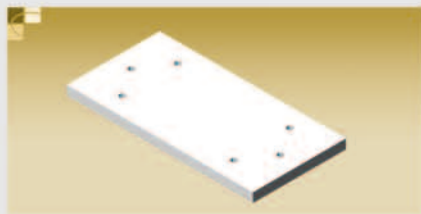
Reducer Left



Reducer Right

## CABLE LADDER ACCESSORIES

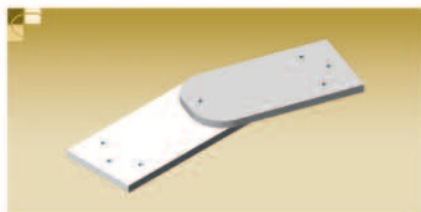
Devices which are used to supplement the function of straight sections and fittings or join cable ladder straight sections or fittings or both.



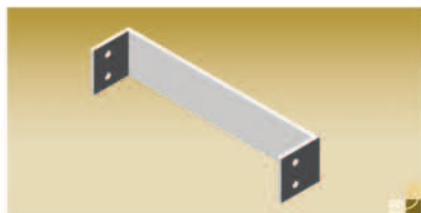
Connector Straight Standard



Connector Expansion Standard



Adjustable Vertical Connector



Blind End Connector

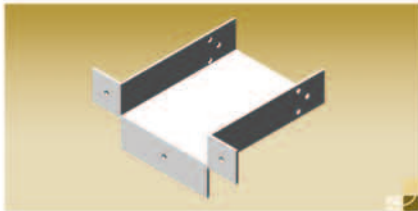


Reducing Connector

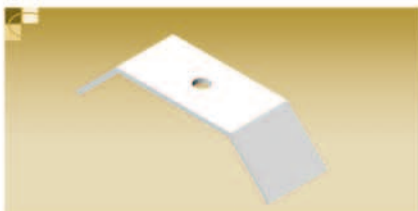




Right Angle Connector



Box Connector



Hold Down Clamp



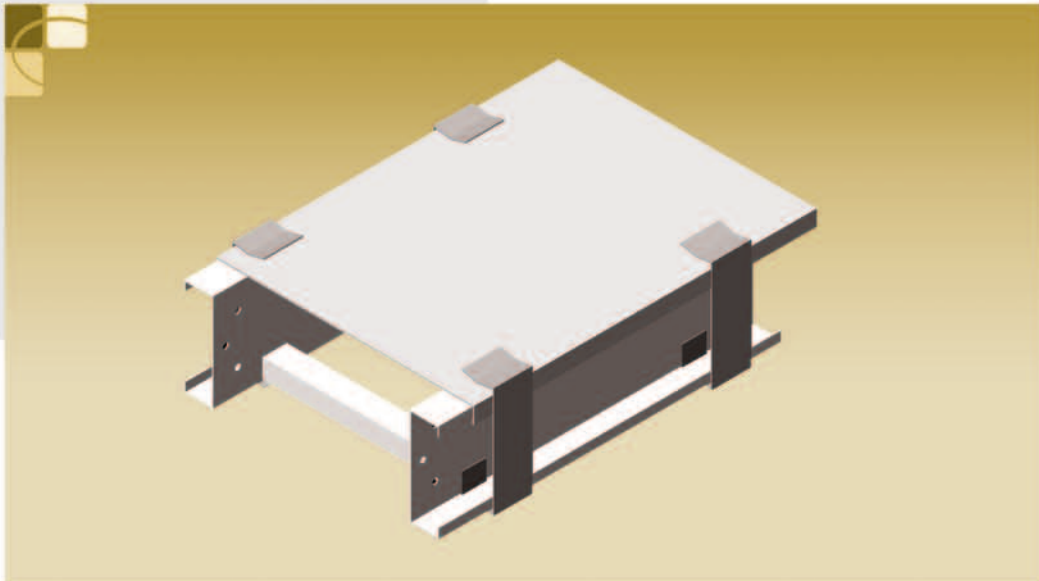
Cover Clamp

## CABLE LADDER COVERS

Cable Ladder covers are provided with two types. Listed down are the classifications.

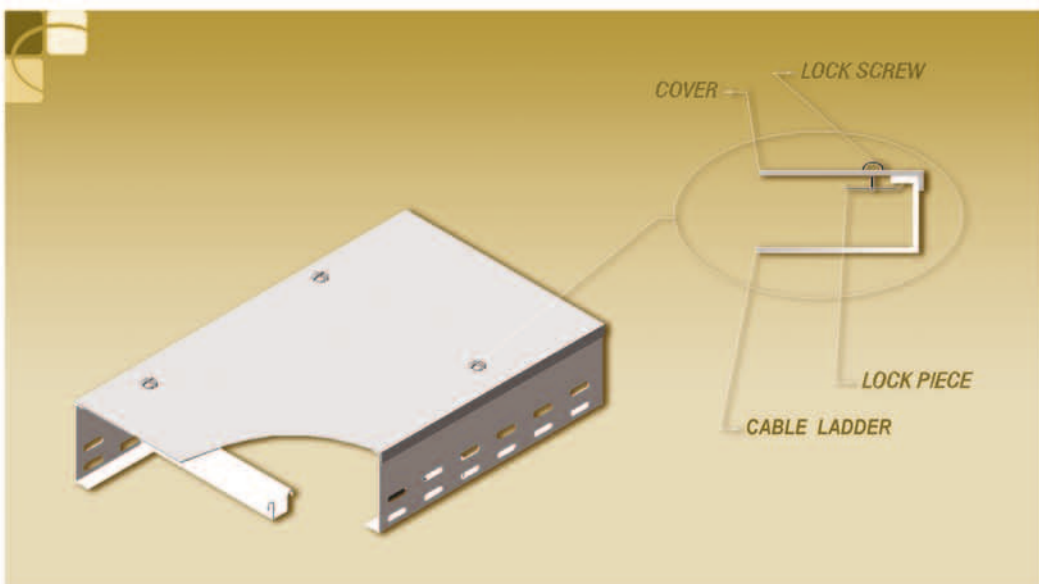
### Clamp Type

Suitable for welded rungs cable ladder type (WR).



### Screw Lock Type

Suitable for bolted rungs cable ladder type (BR). The screw lock requires minimum rotation to fasten itself strongly.



## COVERS FOR CABLE LADDERS & FITTINGS

Please refer to page number 13,14 and 15 .



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**Factory:**

Homs - Syria

P.O.Box : 4757

Tel. : +963 94 367060 / +963 31 670319

Fax : +963 31 223289

**U.A.E :**

Mob. : +971 50 8847278

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