



# Emerald

Steel Industries L.L.C

We are proud to introduce ourselves  
as one of the very reputed company,  
executing very prominent projects  
in and around UAE

## Cable Tray Catalogue

# Company Profile

Emerald Steel Industries LLC based in Ajman UAE , are the leading manufacturer and suppliers of cable management systems in the UAE, Africa and Middle East countries such as Oman, Kuwait, Qatar, Saudi Arabia, Iran, Iraq etc. We manufacture all types of cable management systems . Our products include cable trays, ladders, trunking, flush floor trunking, under floor trunking, service outlet box and strut- systems.

We have a proven track record of supplying to prestigious oil & gas projects in UAE and the middle east region including high-end clients. As an ISO 9001 certified listed company, Emerald Steel Industries LLC consider quality as our first priority in each stage of production . We have been exporting to various Middle East and African countries since longtime such as Oman ,Qatar,SaudiArabia,Kuwait,Bahrain, Nigeria, Kenya, Uganda, Mauritius, Africa, Morocco, Algeria, Syria, Jordan,Iran & Iraq

A cable tray system is an assembly of metallic cable tray sections and accessories, that forms a rigid structural system to support cables.

**MANUFACTURED FROM MILD STEEL  
COMPLYING WITH BS EN 10130 : 2006  
HOT DIP GALVANISED AFTER**

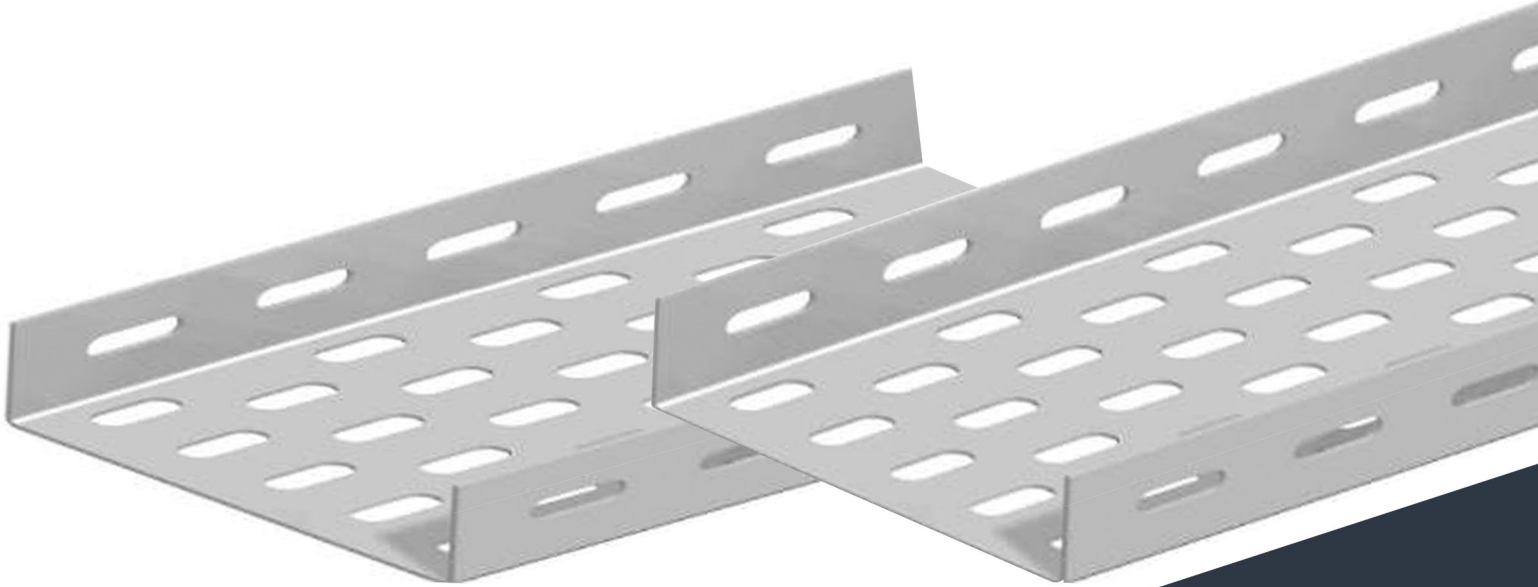
**MANUFACTURE TO BS EN ISO 1460 : 1991  
COMPLIES WITH BS EN 61537 : 2000  
COMPLIES WITH NEMA STANDARAD 7-14-76**

## **ADVANTAGES OF EMERALD CABLE TRAYS**

EMERALD cable tray systems are manufactured in accordance with the precise standards laid down by the National Electrical Manufacturers Association (NEMA}. Thus ensuring standardisation of materials used, as well as load-bearing capacities.

EMERALD STEEL INDUSTRIES L.L.C Produce a complete range of cable trays as an engineered product, on a regular basis.

EMERALD cable tray system offer the following advantages :



- Easy Installation
- Increased cable fill over other wiring method. Thereby saving material costs and installation labour
- Less space utilisation than comparable conduit or other systems
- The metal can be used as an equipment ground conductor
- Easy inspection of cables
- Easy location of faults and quick repair, without replacement of the original cable run
- Cables can be dropped out at any point without expensive boxes or fittings
- cables can instantly be added to existing trays at a later stage



## **THE NEED FOR A CABLE TRAY SYSTEM**

As technology advances, so too does the need for effective support systems. Today plants and buildings are moving more and more towards automation. Requiring complex system of wiring and cable laying. Old methods of cable management become obsolete under these demanding conditions.

- Regular inspections must be carried out, & faults located
- Many entry/exit points are required
- New cables may need to be installed, and old ones removed
- Ventilation, essential to power and similar cables, must be provided

Today cable trays have become a necessary part of industrial and commercial construction by offering quick, economical and flexible solutions to these problems.

Cable trays are capable of supporting all types of wiring:

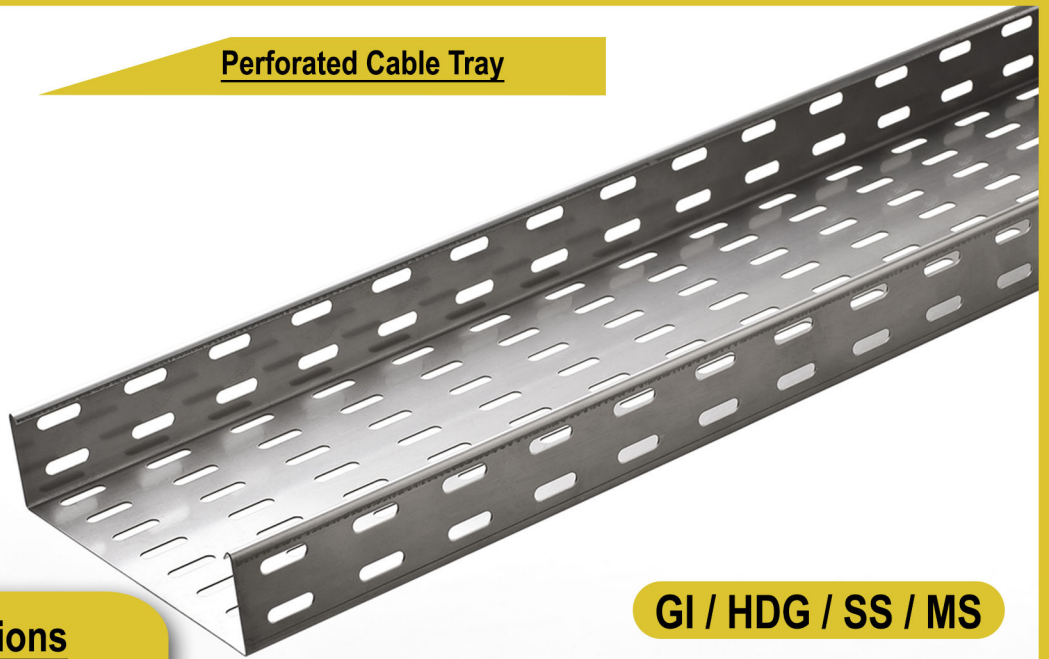
- High Voltage Power Lines
- Power Distribution Cables
- Sensitive Control Wiring
- Telecommunication Wiring
- Optical Cables

## **EMERALD STEEL INDUSTRIES MANUFACTURES FOUR TYPES OF CABLE TRAYS**

- Perforated Type**
- Ladder Type**
- Solid Bottom Type**
- Wire Mesh Type**



Perforated Cable Tray



**GI / HDG / SS / MS**

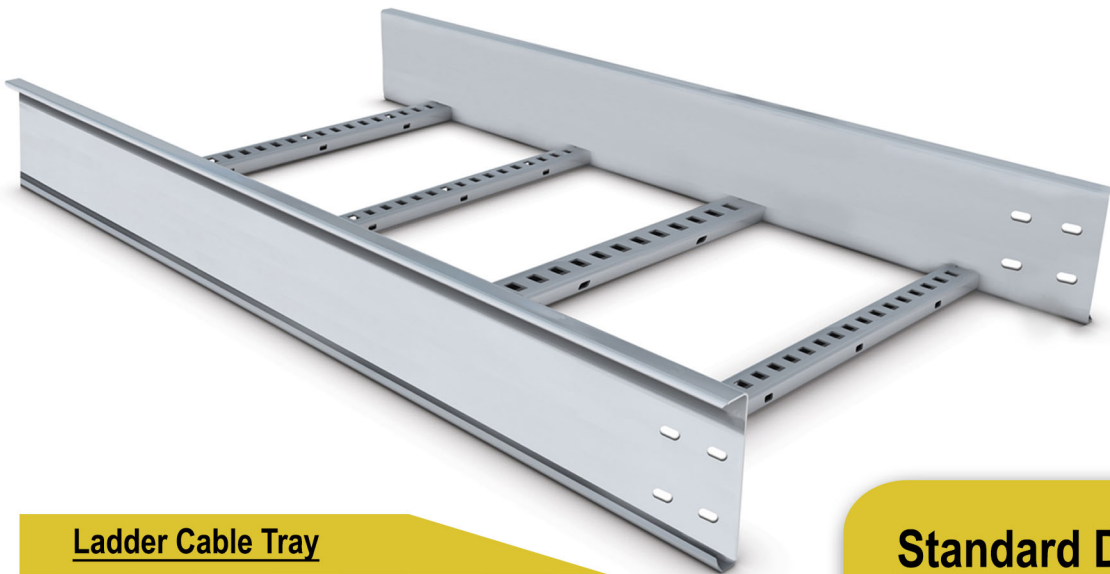
**Standard Dimensions**

Length (mm) 2440 ,3000

Depth (mm) 50 , 75 , 100 , 150 , 300

Width (mm) 50 , 75 , 100 , 150 , 300 ,  
450 , 600 , 750 , 900 ,  
1200

## TYPES OF CABLE TRAYS



Ladder Cable Tray

**Standard Dimensions**

Radius R 300mm

Width (mm) 100 ,150 , 300 , 450 ,  
600 , 750 , 900

Length (mm) 900 , 950 , 1100 ,  
1250,1400,1550,1700

Breadth (mm) 500 , 550 , 700 , 850 ,  
1000,1150,1300

## WIRE MESH CABLE TRAY



### Standard Dimensions

Length (mm) 2440 ,3000

Depth (mm) 50 , 75 , 100 , 150 , 300

Width (mm) 50 , 75 , 100 , 150 , 300 ,  
450 , 600 , 750 , 900 ,  
1200

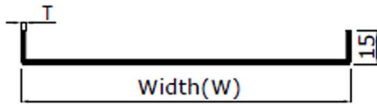
## TYPES OF CABLE TRAYS



# Emerald Cable Tray System

## Cable Tary

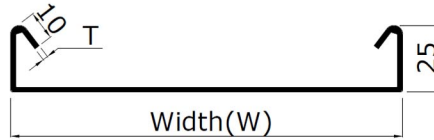
### Light Duty - Height 15mm



Product	Width	Thickness
ESI-LD50/3/(T)/HG	50	1.0 - 2.0
ESI-LD100/3/(T)/HG	100	1.0 - 2.0
ESI-LD150/3/(T)/HG	150	1.0 - 2.0
ESI-LD225/3/(T)/HG	225	1.2 - 2.0
ESI-LD300/3/(T)/HG	300	1.2 - 2.0
ESI-LD450/3/(T)/HG	450	1.5 - 2.0
ESI-LD600/3/(T)/HG	600	1.5 - 2.0
ESI-LD750/3/(T)/HG	750	2.0
ESI-LD900/3/(T)/HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

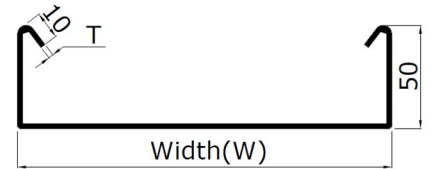
### Medium Duty - Height 25mm



Product	Width	Thickness
ESI-MD50/3/(T)/HG	50	1.0 - 2.0
ESI-MD100/3/(T)/HG	100	1.0 - 2.0
ESI-MD150/3/(T)/HG	150	1.0 - 2.0
ESI-MD225/3/(T)/HG	225	1.2 - 2.0
ESI-MD300/3/(T)/HG	300	1.2 - 2.0
ESI-MD450/3/(T)/HG	450	1.5 - 2.0
ESI-MD600/3/(T)/HG	600	1.5 - 2.0
ESI-MD750/3/(T)/HG	750	2.0
ESI-MD900/3/(T)/HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

### Heavy Duty - Height 50mm

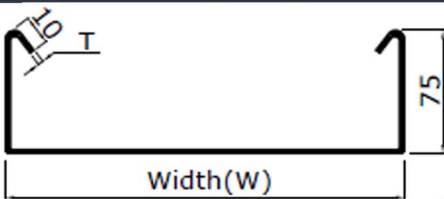


Product	Width	Thickness
ESI-HD50/3/(T)/HG	50	1.0 - 2.0
ESI-HD100/3/(T)/HG	100	1.0 - 2.0
ESI-HD150/3/(T)/HG	150	1.0 - 2.0
ESI-HD225/3/(T)/HG	225	1.2 - 2.0
ESI-HD300/3/(T)/HG	300	1.2 - 2.0
ESI-HD450/3/(T)/HG	450	1.5 - 2.0
ESI-HD600/3/(T)/HG	600	1.5 - 2.0
ESI-HD750/3/(T)/HG	750	2.0
ESI-HD900/3/(T)/HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

## Cable Tary

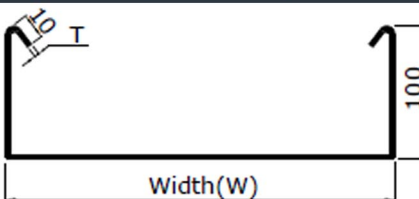
### Extra Heavy Duty - Height 75mm



Product	Width	Thickness
ESI-HD75/75/(T)/HG	50	1.0 - 2.0
ESI-HD100/75/(T)/HG	100	1.0 - 2.0
ESI-HD150/75/(T)/HG	150	1.0 - 2.0
ESI-HD225/75/(T)/HG	225	1.2 - 2.0
ESI-HD300/75/(T)/HG	300	1.2 - 2.0
ESI-HD450/75/(T)/HG	450	1.5 - 2.0
ESI-HD600/75/(T)/HG	600	1.5 - 2.0
ESI-HD750/75/(T)/HG	750	2.0
ESI-HD900/75/(T)/HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

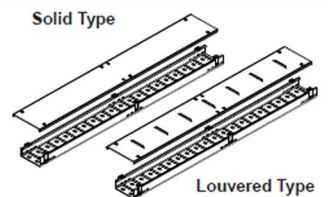
### Extra Heavy Duty - Height 100mm



Product	Width	Thickness
ESI-HD100/10/(T)/HG	100	1.0 - 2.0
ESI-HD150/10/(T)/HG	150	1.0 - 2.0
ESI-HD225/10/(T)/HG	225	1.2 - 2.0
ESI-HD300/10/(T)/HG	300	1.2 - 2.0
ESI-HD450/10/(T)/HG	450	1.5 - 2.0
ESI-HD600/10/(T)/HG	600	2.0
ESI-HD750/10/(T)/HG	750	2.0
ESI-HD900/10/(T)/HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

### Covers for All Types of Cable Tray



Product	Width	Thickness
ESI-HD50/3/(T)/HG	50	1.0 - 2.0
ESI-HD100/3/(T)/HG	100	1.0 - 2.0
ESI-HD150/3/(T)/HG	150	1.0 - 2.0
ESI-HD225/3/(T)/HG	225	1.2 - 2.0
ESI-HD300/3/(T)/HG	300	1.2 - 2.0
ESI-HD450/3/(T)/HG	450	1.5 - 2.0
ESI-HD600/3/(T)/HG	600	1.5 - 2.0
ESI-HD750/3/(T)/HG	750	2.0
ESI-HD900/3/(T)/HG	900	2.0

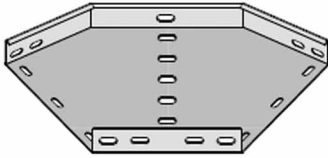
Standard Length: 3000 mm / T=(Thickness)



# Emerald - TRAY ACCESSORIES

## 90° Flat Bend

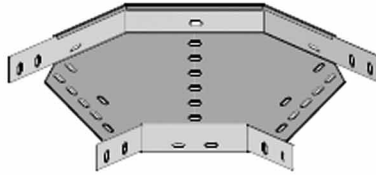
### Medium Duty - Height 25mm



Product	Width
ESI-MFB90-50/(T)/HG	50
ESI-MFB90-100/(T)/HG	100
ESI-MFB90-150/(T)/HG	150
ESI-MFB90-225/(T)/HG	225
ESI-MFB90-300/(T)/HG	300
ESI-MFB90-450/(T)/HG	450
ESI-MFB90-600/(T)/HG	600
ESI-MFB90-750/(T)/HG	750
ESI-MFB90-900/(T)/HG	900

Standard Length: 3000 mm / T=(Thickness)

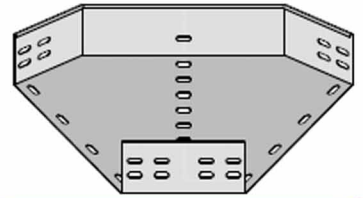
### Heavy Duty - Height 50mm



Product	Width
ESI-HFB90-50/(T)/HG	50
ESI-HFB90-100/(T)/HG	100
ESI-HFB90-150/(T)/HG	150
ESI-HFB90-225/(T)/HG	225
ESI-HFB90-300/(T)/HG	300
ESI-HFB90-450/(T)/HG	450
ESI-HFB90-600/(T)/HG	600
ESI-HFB90-750/(T)/HG	750
ESI-HFB90-900/(T)/HG	900

Standard Length: 3000 mm / T=(Thickness)

### Extra Heavy Duty - Height 75 / 100mm

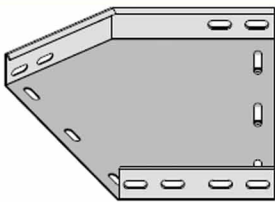


Product	Width
ESI-LD50/3/(T)/HG	50
ESI-LD100/3/(T)/HG	100
ESI-LD150/3/(T)/HG	150
ESI-LD225/3/(T)/HG	225
ESI-LD300/3/(T)/HG	300
ESI-LD450/3/(T)/HG	450
ESI-LD600/3/(T)/HG	600
ESI-LD750/3/(T)/HG	750
ESI-LD900/3/(T)/HG	900

T= (Thickness) / Standard Thickness 1.5 & 2.0mm  
\* Insert 75 for 75mm & 10 for 100mm Height

## 45° Flat Bend

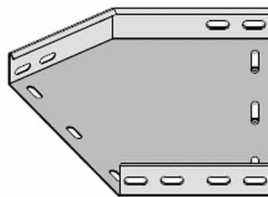
### Medium Duty - Height 25mm



Product	Width
ESI-MFB45-50/(T)/HG	50
ESI-MFB45-100/(T)/HG	100
ESI-MFB45-150/(T)/HG	150
ESI-MFB45-225/(T)/HG	225
ESI-MFB45-300/(T)/HG	300
ESI-MFB45-450/(T)/HG	450
ESI-MFB45-600/(T)/HG	600
ESI-MFB45-750/(T)/HG	750
ESI-MFB45-900/(T)/HG	900

Standard Length: 3000 mm / T=(Thickness)

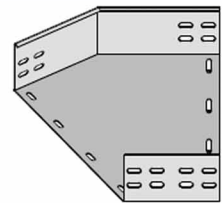
### Heavy Duty - Height 50mm



Product	Width
ESI-HFB45-50/(T)/HG	50
ESI-HFB45-100/(T)/HG	100
ESI-HFB45-150/(T)/HG	150
ESI-HFB45-225/(T)/HG	225
ESI-HFB45-300/(T)/HG	300
ESI-HFB45-450/(T)/HG	450
ESI-HFB45-600/(T)/HG	600
ESI-HFB45-750/(T)/HG	750
ESI-HFB45-900/(T)/HG	900

Standard Length: 3000 mm / T=(Thickness)

### Extra Heavy Duty - Height 75 / 100mm



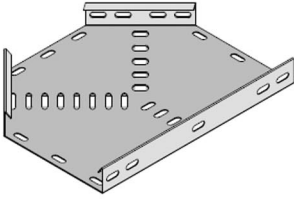
Product	Width
ESI-HFB45-75/(*)/(T)/HG	50
ESI-HFB45-100/(*)/(T)/HG	100
ESI-HFB45-150/(*)/(T)/HG	150
ESI-HFB45-225/(*)/(T)/HG	225
ESI-HFB45-300/(*)/(T)/HG	300
ESI-HFB45-450/(*)/(T)/HG	450
ESI-HFB45-600/(*)/(T)/HG	600
ESI-HFB45-750/(*)/(T)/HG	750
ESI-HFB45-900/(*)/(T)/HG	900

T= (Thickness) / Standard Thickness 1.5 & 2.0mm  
\* Insert 75 for 75mm & 10 for 100mm Height

# Emerald - TRAY ACCESSORIES

## Equal Tee

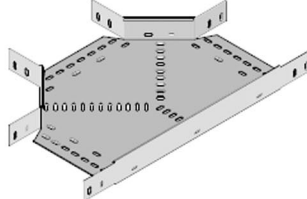
### Medium Duty - Height 25mm



Product	Width
ESI-MET-50/(T)/HG	50
ESI-MET-100/(T)/HG	100
ESI-MET-150/(T)/HG	150
ESI-MET-225/(T)/HG	225
ESI-MET-300/(T)/HG	300
ESI-MET-450/(T)/HG	450
ESI-MET-600/(T)/HG	600
ESI-MET-750/(T)/HG	750
ESI-MET-900/(T)/HG	900

Standard Length: 3000 mm / T=(Thickness)

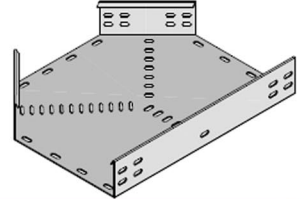
### Heavy Duty - Height 50mm



Product	Width
ESI-HET-50/(T)/HG	50
ESI-HET-100/(T)/HG	100
ESI-HET-150/(T)/HG	150
ESI-HET-225/(T)/HG	225
ESI-HET-300/(T)/HG	300
ESI-HET-450/(T)/HG	450
ESI-HET-600/(T)/HG	600
ESI-HET-750/(T)/HG	750
ESI-HET-900/(T)/HG	900

Standard Length: 3000 mm / T=(Thickness)

### Extra Heavy Duty - Height 75 / 100mm

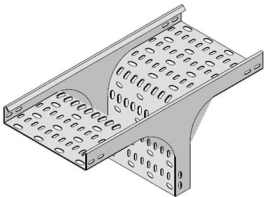


Product	Width
ESI-HET-75/(*)/(T)/HG	75
ESI-HET-100/(*)/(T)/HG	100
ESI-HET-150/(*)/(T)/HG	150
ESI-HET-225/(*)/(T)/HG	225
ESI-HET-300/(*)/(T)/HG	300
ESI-HET-450/(*)/(T)/HG	450
ESI-HET-600/(*)/(T)/HG	600
ESI-HET-750/(*)/(T)/HG	750
ESI-HET-900/(*)/(T)/HG	900

T= (Thickness) / Standard Thickness 1.5 & 2.0mm  
\* Insert 75 for 75mm & 10 for 100mm Height

## Vertical Tee

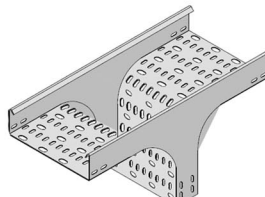
### Medium Duty - Height 25mm



Product	Width
ESI-MVT-50/(T)/HG	50
ESI-MVT-100/(T)/HG	100
ESI-MVT-150/(T)/HG	150
ESI-MVT-225/(T)/HG	225
ESI-MVT-300/(T)/HG	300
ESI-MVT-450/(T)/HG	450
ESI-MVT-600/(T)/HG	600
ESI-MVT-750/(T)/HG	750
ESI-MVT-900/(T)/HG	900

Standard Length: 3000 mm / T=(Thickness)

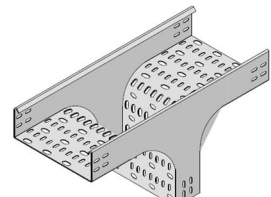
### Heavy Duty - Height 50mm



Product	Width
ESI-HVT-50/(T)/HG	50
ESI-HVT-100/(T)/HG	100
ESI-HVT-150/(T)/HG	150
ESI-HVT-225/(T)/HG	225
ESI-HVT-300/(T)/HG	300
ESI-HVT-450/(T)/HG	450
ESI-HVT-600/(T)/HG	600
ESI-HVT-750/(T)/HG	750
ESI-HVT-900/(T)/HG	900

Standard Length: 3000 mm / T=(Thickness)

### Extra Heavy Duty - Height 75 / 100mm



Product	Width
ESI-HVT-75/(*)/(T)/HG	50
ESI-HVT-100/(*)/(T)/HG	100
ESI-HVT-150/(*)/(T)/HG	150
ESI-HVT-225/(*)/(T)/HG	225
ESI-HVT-300/(*)/(T)/HG	300
ESI-HVT-450/(*)/(T)/HG	450
ESI-HVT-600/(*)/(T)/HG	600
ESI-HVT-750/(*)/(T)/HG	750
ESI-HVT-900/(*)/(T)/HG	900

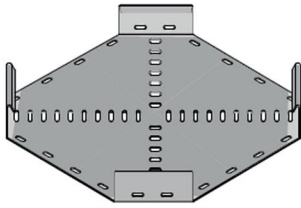
T= (Thickness) / Standard Thickness 1.5 & 2.0mm  
\* Insert 75 for 75mm & 10 for 100mm Height



# Emerald - TRAY ACCESSORIES

## Equal Cross

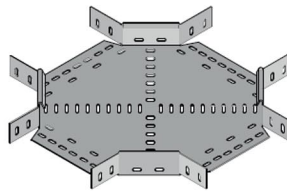
### Medium Duty - Height 25mm



Product	Width
ESI-MEC-50/(T)/HG	50
ESI-MEC-100/(T)/HG	100
ESI-MEC-150/(T)/HG	150
ESI-MEC-225/(T)/HG	225
ESI-MEC-300/(T)/HG	300
ESI-MEC-450/(T)/HG	450
ESI-MEC-600/(T)/HG	600
ESI-MEC-750/(T)/HG	750
ESI-MEC-900/(T)/HG	900

Standard Length: 3000 mm / T=(Thickness)

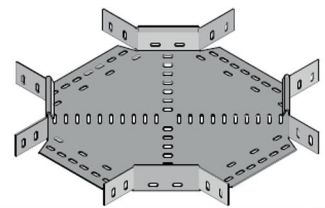
### Heavy Duty - Height 50mm



Product	Width
ESI-HEC-50/(T)/HG	50
ESI-HEC-100/(T)/HG	100
ESI-HEC-150/(T)/HG	150
ESI-HEC-225/(T)/HG	225
ESI-HEC-300/(T)/HG	300
ESI-HEC-450/(T)/HG	450
ESI-HEC-600/(T)/HG	600
ESI-HEC-750/(T)/HG	750
ESI-HEC-900/(T)/HG	900

Standard Length: 3000 mm / T=(Thickness)

### Extra Heavy Duty - Height 75 / 100mm

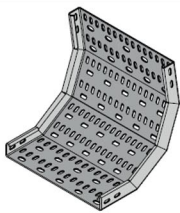


Product	Width
ESI-HEC-75/(*)/(T)/HG	75
ESI-HEC-100/(*)/(T)/HG	100
ESI-HEC-150/(*)/(T)/HG	150
ESI-HEC-225/(*)/(T)/HG	225
ESI-HEC-300/(*)/(T)/HG	300
ESI-HEC-450/(*)/(T)/HG	450
ESI-HEC-600/(*)/(T)/HG	600
ESI-HEC-750/(*)/(T)/HG	750
ESI-HEC-900/(*)/(T)/HG	900

T= (Thickness) / Standard Thickness 1.5 & 2.0mm  
\* Insert 75 for 75mm & 10 for 100mm Height

## Inside Riser 90° / 45°

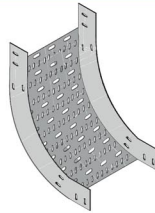
### Medium Duty - Height 25mm



Product	Width
ESI-MIR(*)-50/(T)/HG	50
ESI-MIR(*)-100/(T)/HG	100
ESI-MIR(*)-150/(T)/HG	150
ESI-MIR(*)-225/(T)/HG	225
ESI-MIR(*)-300/(T)/HG	300
ESI-MIR(*)-450/(T)/HG	450
ESI-MIR(*)-600/(T)/HG	600
ESI-MIR(*)-750/(T)/HG	750
ESI-MIR(*)-900/(T)/HG	900

T= (Thickness) / Standard Thickness 1.5 & 2.0mm  
\*Insert 90 for 90° / 45 for 45° Riser

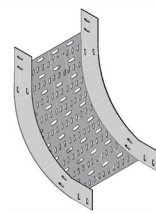
### Heavy Duty - Height 50mm



Product	Width
ESI-HIR(*)-50/(T)/HG	50
ESI-HIR(*)-100/(T)/HG	100
ESI-HIR(*)-150/(T)/HG	150
ESI-HIR(*)-225/(T)/HG	225
ESI-HIR(*)-300/(T)/HG	300
ESI-HIR(*)-450/(T)/HG	450
ESI-HIR(*)-600/(T)/HG	600
ESI-HIR(*)-750/(T)/HG	750
ESI-HIR(*)-900/(T)/HG	900

T= (Thickness) / Standard Thickness 1.5 & 2.0mm  
\*Insert 90 for 90° / 45 for 45° Riser

### Extra Heavy Duty - Height 75 / 100mm



Product	Width
ESI-HIR(*)-75/(**)/(T)/HG	75
ESI-HIR(*)-100/(**)/(T)/HG	100
ESI-HIR(*)-150/(**)/(T)/HG	150
ESI-HIR(*)-225/(**)/(T)/HG	225
ESI-HIR(*)-300/(**)/(T)/HG	300
ESI-HIR(*)-450/(**)/(T)/HG	450
ESI-HIR(*)-600/(**)/(T)/HG	600
ESI-HIR(*)-750/(**)/(T)/HG	750
ESI-HIR(*)-900/(**)/(T)/HG	900

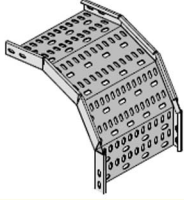
T= (Thickness) / Standard Thickness 1.5 & 2.0mm  
\*Insert 90 for 90° / 45 for 45° Riser  
\* Insert 75 for 75mm & 10 for 100mm Height



# Emerald - TRAY ACCESSORIES

## Outside Riser 90° / 45°

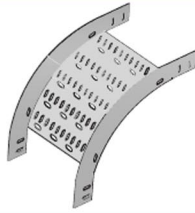
### Medium Duty - Height 25mm



Product	Width
ESI-MOR(*)-50/(T)/HG	50
ESI-MOR(*)-100/(T)/HG	100
ESI-MOR(*)-100/(T)/HG	150
ESI-MOR(*)-225/(T)/HG	225
ESI-MOR(*)-300/(T)/HG	300
ESI-MOR(*)-450/(T)/HG	450
ESI-MOR(*)-600/(T)/HG	600
ESI-MOR(*)-750/(T)/HG	750
ESI-MOR(*)-900/(T)/HG	900

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm  
\*Insert 90 for 90° / 45 for 45° Riser

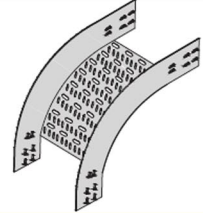
### Heavy Duty - Height 50mm



Product	Width
ESI-HOR(*)-50/(T)/HG	50
ESI-HOR(*)-100/(T)/HG	100
ESI-HOR(*)-150/(T)/HG	150
ESI-HOR(*)-225/(T)/HG	225
ESI-HOR(*)-300/(T)/HG	300
ESI-HOR(*)-450/(T)/HG	450
ESI-HOR(*)-600/(T)/HG	600
ESI-HOR(*)-750/(T)/HG	750
ESI-HOR(*)-900/(T)/HG	900

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm  
\*Insert 90 for 90° / 45 for 45° Riser

### Extra Heavy Duty - Height 75 / 100mm

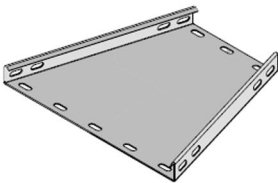


Product	Width
ESI-HOR(*)-75/(**)/(T)/HG	75
ESI-HOR(*)-100/(**)/(T)/HG	100
ESI-HOR(*)-150/(**)/(T)/HG	150
ESI-HOR(*)-225/(**)/(T)/HG	225
ESI-HOR(*)-300/(**)/(T)/HG	300
ESI-HOR(*)-450/(**)/(T)/HG	450
ESI-HOR(*)-600/(**)/(T)/HG	600
ESI-HOR(*)-750/(**)/(T)/HG	750
ESI-HOR(*)-900/(**)/(T)/HG	900

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm  
\*Insert 90 for 90° / 45 for 45° Riser  
\*\* Insert 75 for 75mm & 10 for 100mm Height

## Straight Reducer

### Medium Duty - Height 25mm

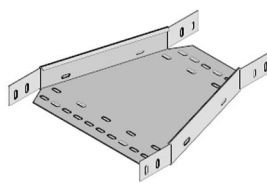


#### Product

ESI-MSR(W1)-(W2)/(T)/HG

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm

### Heavy Duty - Height 50mm

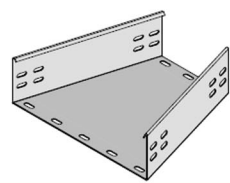


#### Product

ESI-HSR(W1)-(W2)/(T)/HG

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm

### Extra Heavy Duty - Height 75 / 100mm



#### Product

ESI-HSR(W1)-(W2)/(\*)/(T)/HG

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm  
\*\* Insert 75 for 75mm & 10 for 100mm Height

## Left Hand Reducer

### Medium Duty - Height 25mm

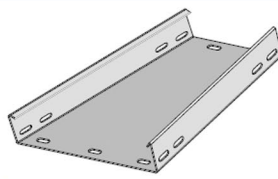


#### Product

ESI-MLR(W1)-(W2)/(T)/HG

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm

### Heavy Duty - Height 50mm

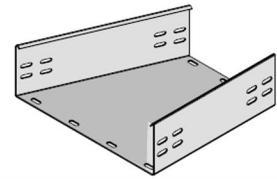


#### Product

ESI-HLR(W1)-(W2)/(T)/HG

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm

### Extra Heavy Duty - Height 75 / 100mm



#### Product

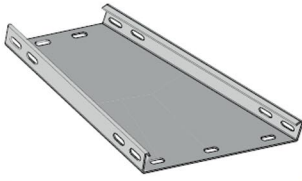
ESI-HLR(W1)-(W2)/(\*)/(T)/HG

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm  
\*\* Insert 75 for 75mm & 10 for 100mm Height

# Emerald - TRAY ACCESSORIES

## Right Hand Reducer

### Medium Duty - Height 25mm

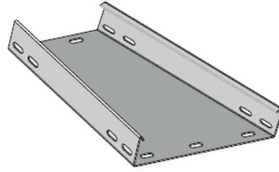


#### Product

ESI-MRR(W1)-(W2)/(T)/HG

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm

### Heavy Duty - Height 50mm

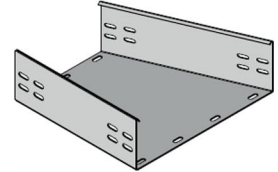


#### Product

ESI-HRR(W1)-(W2)/(T)/HG

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm

### Extra Heavy Duty - Height 75 / 100mm



#### Product

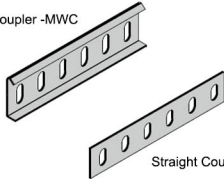
ESI-HRR(W1)-(W2)/(\*)/(T)/HG

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm  
\*\* Insert 75 for 75mm & 10 for 100mm Height

## Couplers

### Medium Duty - Height 25mm

Wrap Over Coupler -MWC



Straight Coupler -MSC

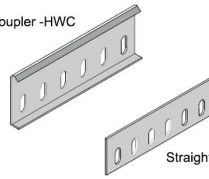
#### Product

ESI-MWC | Wrap Over Coupler

ESI-MSC | Straight Coupler

### Heavy Duty - Height 50mm

Wrap Over Coupler -HWC



Straight Coupler -HSC

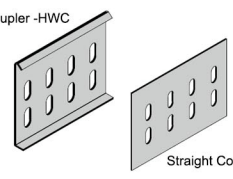
#### Product

ESI-HWC | Wrap Over Coupler

ESI-HSC | Straight Coupler

### Extra Heavy Duty - Height 75 / 100mm

Wrap Over Coupler -HWC



Straight Coupler -HSC

#### Product

ESI-HWC/(\*) | Wrap Over Coupler

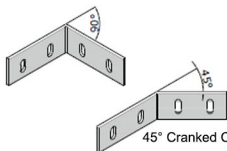
ESI-HSC/(\*) | Straight Coupler

T= (Thickness)/ Standard Thickness 1.5 & 2.0mm  
\*\* Insert 75 for 75mm & 10 for 100mm Height

## Cranked Couplers

### Medium Duty - Height 25mm

90° Crar



45° Cranked Coupler -MCC45

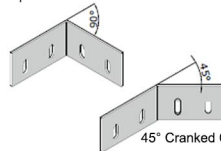
#### Product

ESI-MCC90 | Wrap Over Coupler

ESI-MCC45 | Straight Coupler

### Heavy Duty - Height 50mm

90° Cranked Coupler -HCC90



45° Cranked Coupler -HCC45

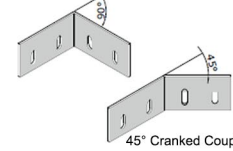
#### Product

ESI-HCC90 | 90° Cranked Coupler

ESI-HCC45 | 45° Cranked Coupler

### Extra Heavy Duty - Height 75 / 100mm

90° Cranked Coupler -HCC90



45° Cranked Coupler -HCC45

#### Product

ESI-HCC90/\* | 90° Cranked Coupler

ESI-HCC45/\* | 45° Cranked Coupler

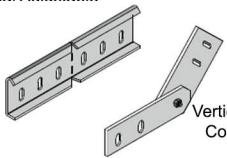
\* Insert 75 for 75mm & 10 for 100mm Height

# Emerald - TRAY ACCESSORIES

## Horizontal / Vertical Adjustable Couplers

**Medium Duty - Height 25mm**

Horizontal Adjustable Coupler -MAWC

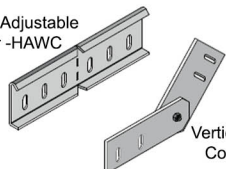


Vertical Adjustable Coupler -MVSP

Product	
ESI-MAWC	Horizontal Adjustable Wrapover Coupler
ESI-MVSP	Vertical Adjustable Coupler

**Heavy Duty - Height 50mm**

Horizontal Adjustable Coupler -HAWC

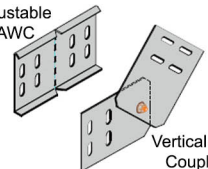


Vertical Adjustable Coupler -HVSP

Product	
ESI-HWC	Horizontal Adjustable Wrapover Coupler
ESI-HSC	Vertical Adjustable Coupler

**Extra Heavy Duty - Height 75 / 100mm**

Horizontal Adjustable Coupler -HAWC



Vertical Adjustable Coupler -HVSP

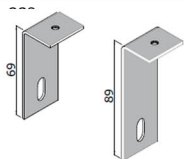
Product	
ESI-HWC/(*)	Horizontal Adjustable Wrapover Coupler
ESI-HSC/(*)	Vertical Adjustable Coupler

\* Insert 75 for 75mm & 10 for 100mm Height

## Cover Clips

**Cover Clip**

Closed Cover Clip

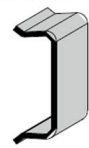


Ventilated Cover Clip - VCFB

Product	
ESI-CCS	Closed Cover Clip for Cover
ESI-VCFB	Ventilated Cover Clip for Cover

**Press Type Cover Clip**

Press Type Cover Clip -PCC




Note: Press Cover Clip will be bent as per height of Cable Tray.

Product	
ESI-PCC/*	Press Type Cover Clip for Cover

\*Insert 25 for 25mm, 50 for 50mm, 75 for 75mm & 10 for 100mm Height Tray.


**Hold Down Bracket**



Product
ESI-HHDB (*)

\*Insert 25 for 25mm, 50 for 50mm, 75 for 75mm & 10 for 100mm Height Tray.

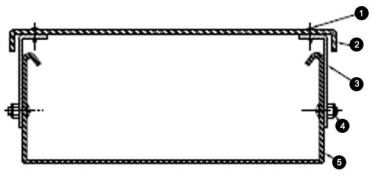
**Earth Braid for Cable Tray**



Product
ESI-EB-100

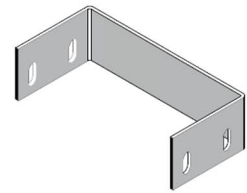
Description: Earth Braid 6mm<sup>2</sup> x 110mm x 6mm End Lugs

**Cover Clip Fixing Arrangement**



- 1 Self Tapping Screw
- 2 Cable Tray Cover
- 3 Closed Cover Fixing Bracket (CT-CCS)
- 4 Roofing Bolt & Hex. Nut. (HW-RB/M6x16)
- 5 Cable Tray

**Extra Heavy Duty - Height 75 / 100mm**

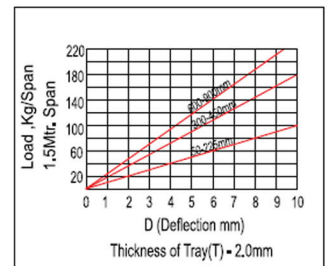
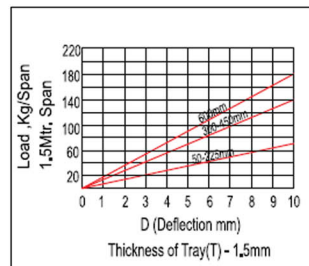
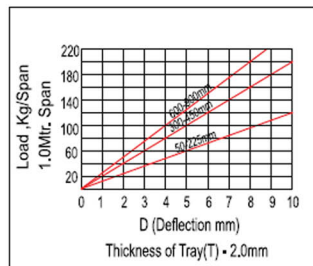
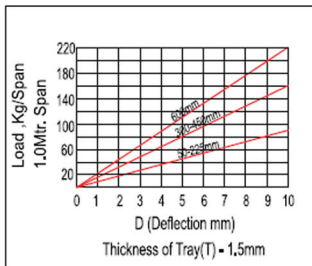


Product	Width
ESI-BE-50/(*)/(T)/HG	
ESI-BE-100/(*)/(T)/HG	
ESI-BE-150/(*)/(T)/HG	
ESI-BE-225/(*)/(T)/HG	
ESI-BE-300/(*)/(T)/HG	
ESI-BE-450/(*)/(T)/HG	
ESI-BE-600/(*)/(T)/HG	
ESI-BE-750/(*)/(T)/HG	
ESI-BE-900/(*)/(T)/HG	

\*Insert 25 for 25mm, 50 for 50mm, 75 for 75mm & 10 for 100mm Height Tray.

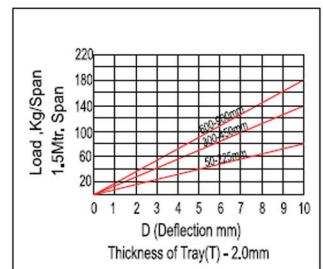
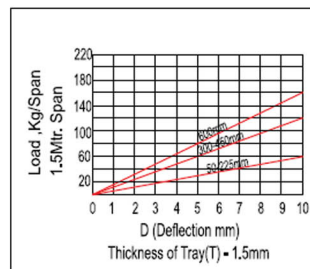
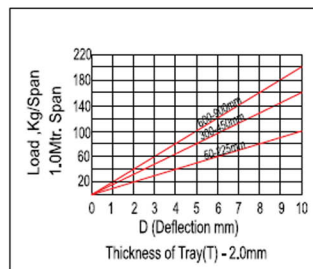
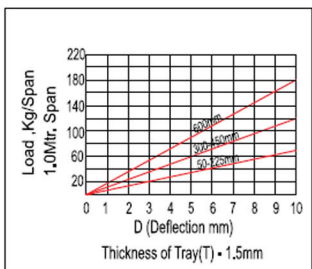


## Heavy Duty TrayLoad



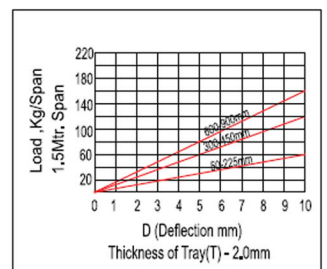
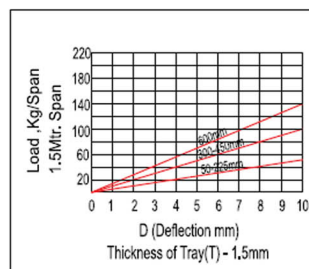
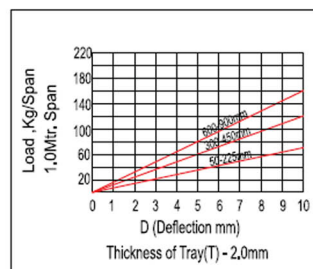
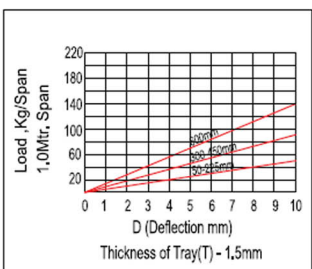
Load table loads are based on a UNIFORMLY DISTRIBUTED LOAD (UDL) across the full width and length of the Tray. All loads are based on Mild Steel Trays.

## Medium Duty TrayLoad



TrayLoad table loads are based on a UNIFORMLY DISTRIBUTED LOAD (UDL) across the full width and length of the Tray. All loads are based on Mild Steel Trays.

## Light Duty TrayMedium



TrayLoad table loads are based on a UNIFORMLY DISTRIBUTED LOAD (UDL) across the full width and length of the Tray. All loads are based on Mild Steel Trays.



# **MATERIALS AND FINISHES**

## **FITTINGS**

Fittings are sections of cable trays which are joined to other cable trays sections for the purpose of changing the direction, elevation or width of the cable run. All fittings are available in sizes and types corresponding to the straight cable tray sections.

**Elbows** - Horizontal and vertical elbows enable directional and elevational changes, respectively.

**Horizontal Tee** - These join cable tray sections in three directions at 90 degree angles.

**Horizontal Cross** - Same as "Tee" except in four directions at 90 degree angles.

**Reducers** - These join cable trays of different widths in the same plane.

## **COVERS**

Covers act as an additional safeguard, providing shelter from sunlight dirt accumulation and accidental contact. They also isolate cables from fires and radio frequency interference. Available in solid top or louvered top.

## **CONSTRUCTION ACCESSORIES**

EMERALD STEEL INDUSTRY manufactures all construction accessories to enable on site installation of cable tray systems. These include splice plate connectors, channels, clamps brackets and hangers.

## **SPECIFIC REQUIREMENTS**

Other types of cable trays and fittings can be supplied to meet specific requirements.

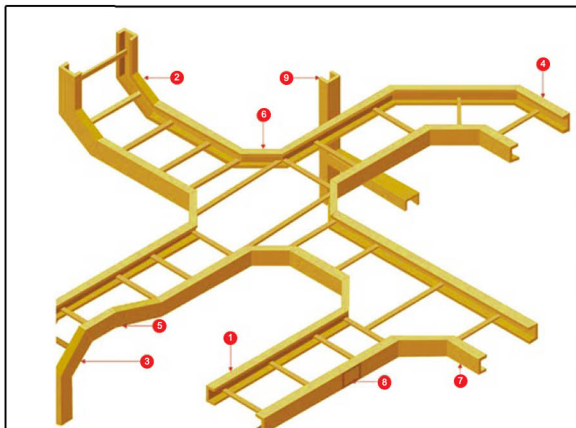


# FRP Cable Management

Composites are gaining more popularity than the traditional materials due to their several benefits and durable performance in challenging environments. In the area of cable management, Emerald can offer a versatile range of solutions, from standard product range to customer-tailored solutions.

## Fiberglass Cable Tray Assembly System

1. Straight Run
2. 90° Inside Vertical Bend
3. 90° Outside Vertical Bend
4. 90° Horizontal Bend
5. Left Hand Reducer
6. Horizontal Cross
7. Horizontal Tee
8. Splice Plate For Joining



## THE SUPERIOR FEATURES OF EMERALD COMPOSITE CABLE TRAYS

- Corrosion free
- High load carrying capacity even with long spans
- Light weight, easy to install
- Electrically insulating
- Complete system
- Fire Resistance
- Accessibility for future
- Space efficiency
- Versatile
- UV stabilities

### Quality & Consistency

Emerald product performance is consistent and reliable as all the products go through comprehensive programs of quality control in a world-class testing laboratory.

### Engineering & Design Assistance

All engineering and design assistance for your project will be handled by our highly qualified and experienced staff. With our wide exposure we would be able to tackle a unique design problem that you face.

### AutoCAD, PDMS

Emerald can help you in design process not only with AutoCAD details but also the cable tray offering is available in PDMS.

### Specification Assistance

The most important phase for the success of a composite cable management solution is the specification phase. Our experience of installations in a wide variety of difficult environments can help you specify the best resin system and the correct structural properties that are long lasting and low on acquisition cost.

## Fiberglass Cable Tray System

Fibreglass Reinforced plastics (FRP) are increasingly being considered as a superior material of construction in many fields. FRP has proved immensely beneficial in a wide range of industrial applications due to the following salient features.

### THE FIBERGLASS ADVANTAGES

#### As compared to galvanized Steel

- Corrosion resistance coating not required.
- No risk of injury.
- Resistant to salt water, sulfur, chlorine or basis environments.

#### As compared to aluminum

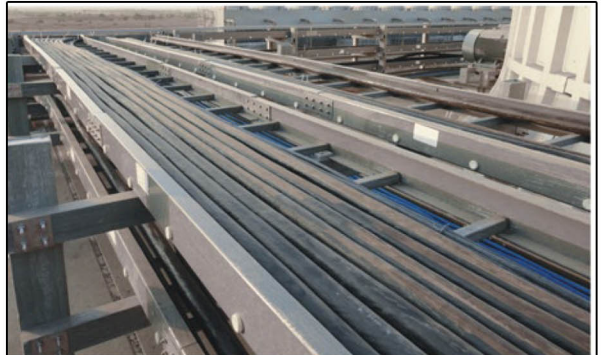
- No electrolytic corrosion due to contact of two metals in humid environment.
- Much more longer life span in basic chlorine or halogen atmosphere.

#### As compared to Stainless Steel

- Absence of corrosion under tension (mechanical).
- Recommended in chlorine environment.

#### As Compared to Metals

- No earthing required.
- Resistance to corrosion contributes to reduce the life cycle costs (LCC) of installations.
- No requirement for electric continuity test.
- Will not deform under impact.
- Easy to work (Cut, drill) at site and id much easier to move and place because is it light weight.



### FRP LADDER TYPE CABLE TRAY

#### Nomenclature For Ladder Type Cable Tray

Example : ACL - P - 12 - 40 - S - 150 - Y

Cable Tray Type	Resin Type	Width	Height	Rung Type	Rung Spacing	STD Length
ACL	P-Polyester	06-150mm	20-50	S-Normal*	A-150mm	X-1M
Ladder Type	V-Vinylester	12-300mm	30-75	M-Marine	B-250mm	Y-3M*
		18-450mm	40-100		C-300mm*	
		24-600mm	60-150		D-450mm	
		30-750mm	80-200			
		36-900mm				

\* Standard Size

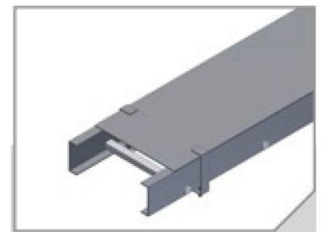
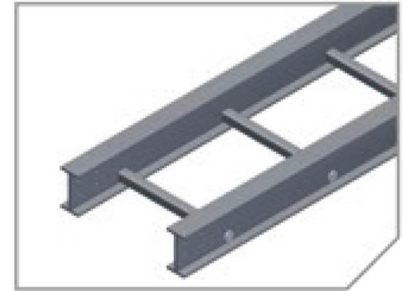
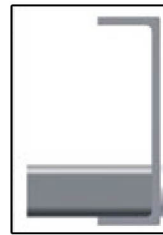


## Nomenclature For Ladder Type Cable Tray Fitting

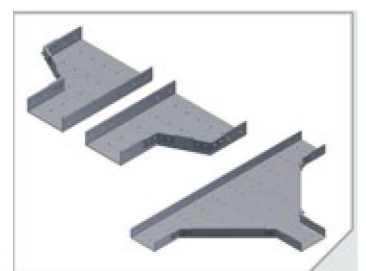
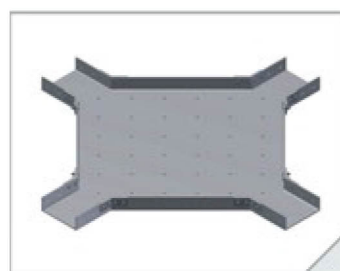
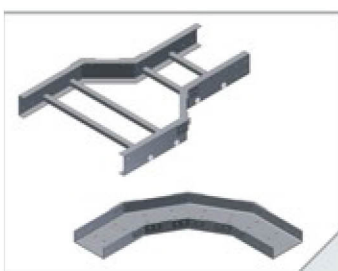
Example : ACL - 90 - VIB - W - H - R

Cable Tray Type	Angle	Type	Width	Height	Radius
ACL	30°	HB-Horizontal Bend	06-150mm	20-50	300
Ladder Type	45°	HT-Horizontal Tee	12-300mm	30-75	450
	60°	HX-Horizontal Cross	18-450mm	40-100	600
	90°	VIB-Vertical Inside Bend	24-600mm	60-150	900
	#	VOB-Vertical Outside Bend	30-750mm	80-200	Direct
		VT-Vertical Tee	36-900mm		
		VTU-Vertical Tee, Up			
		RR-Right Reducer			
		LR-Left Reducer			
		SR-Straight Reducer			

Nomenclature system includes each system with their respective side rail height, flange width, channel thickness etc. All cable trays are available in Polyester, Vinyl ester, Antistatic and halogen-free resin. Rung connections are made with a mechanical and chemical lock



## CABLE TRAY FITTINGS

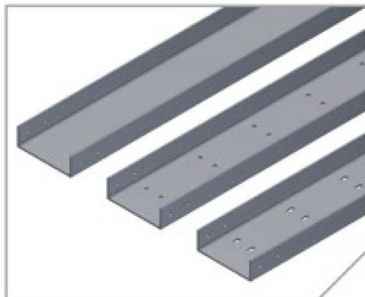




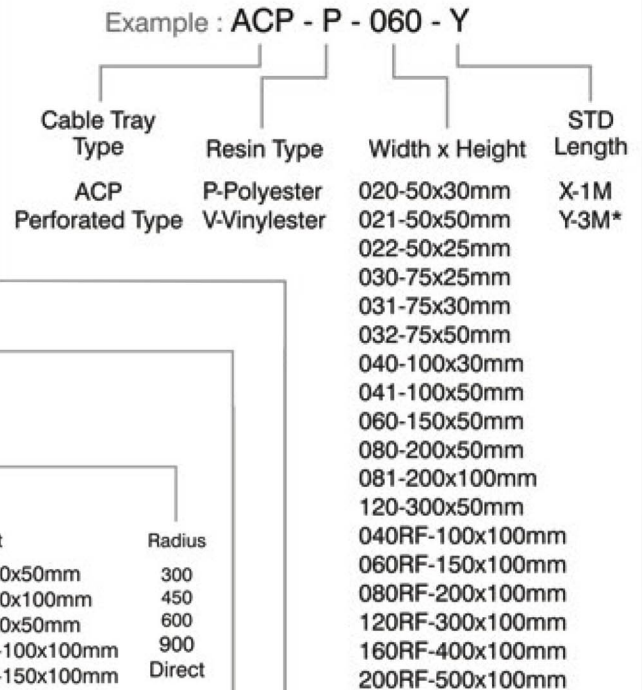
# CHANNEL/ PERFORATED TYPE CABLE TRAY

## CHANNEL/DUCT TYPE CABLE TRAY\*

## FLANGED TYPE CABLE TRAY



### Nomenclature For Perforated Type Cable Tray



## FITTING SELECTION GUIDE

### Nomenclature For Perforated Type Cable Tray Fitting

Example : ACL - 90 - VIB - C - R

Cable Tray Type	Angle	Type	C=Width x Height		Radius
ACP	30°	HB-Horizontal Bend	020-50x30mm	080-200x50mm	300
Perforated Type	45°	HT-Horizontal Tee	021-50x50mm	081-200x100mm	450
	60°	HX-Horizontal Cross	022-50x25mm	120-300x50mm	600
	90°	VIB-Vertical Inside Bend	030-75x25mm	040RF-100x100mm	900
	#	VOB-Vertical Outside Bend	031-75x30mm	060RF-150x100mm	Direct
		VT-Vertical Tee	032-75x50mm	080RF-200x100mm	
		VTU-Vertical Tee, Up	040-100x30mm	120RF-300x100mm	
		RR-Right Reducer	041-100x50mm	160RF-400x100mm	
		LR-Left Reducer	060-150x50mm	200RF-500x100mm	
		SR-Straight Reducer			

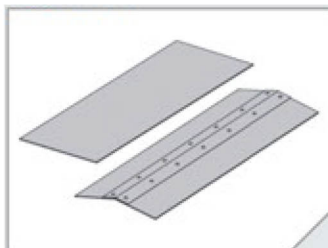
Custom Size Available On Request

#-For Reducers

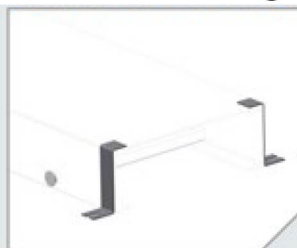
Custom Size Available On Request

## Cover

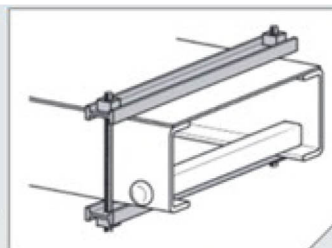
## Cover Fitting



Flat cover & Peaked cover



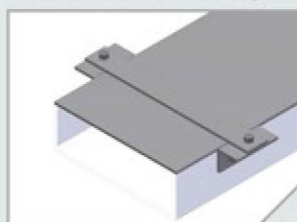
Standard Cover Clamp



Heavy Duty Cover Clamp



Flanged / Box Cover



Cover Fitting Perforated Cable Tray

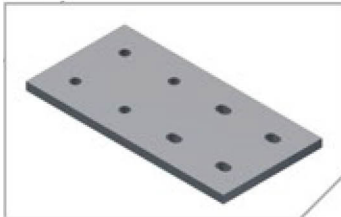
### Quantity of Standard Cover Clamps Required

Straight Section 3000mm.....	4 pcs.
Straight Section 6000mm.....	6 pcs.
Horizontal/Vertical Bends.....	4 pcs.
Tees.....	6 pcs.
Crosses.....	8 pcs.

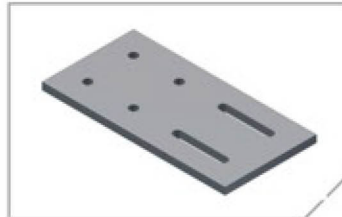
Note : When using the Heavy Duty Cover Clamp, only one-half the number of clamps stated above is required.

## ACCESSORIES

Emerald offers a full line of accessories for our electrical products including cable tray covers, divider strips, drop outs, blind ends, adapters, hold-down clips, marine rungs, strut rungs and a wide variety of stainless steel or FRP cable tray fasteners appropriate for any application.



Standard Splice Plates



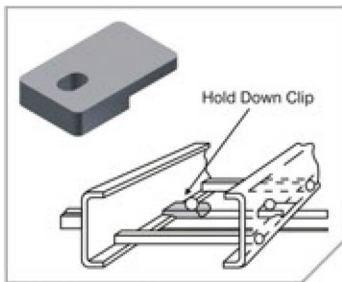
Expansion Splice Plates



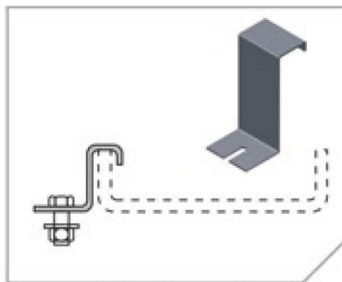
Vertical Adjustable  
Splice Plates



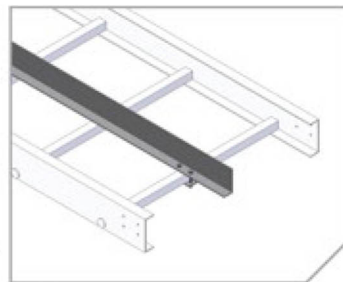
Vertical Adjustable  
Splice Plates



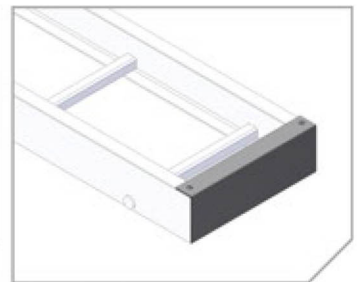
Hold Down Clip



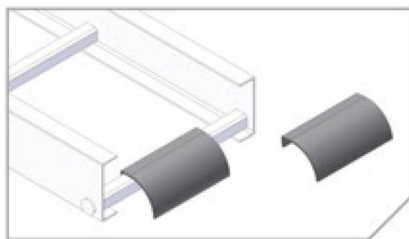
Channel Hold Down Clamp



Divider Strip



Blind Plate



Ladder Drop-out  
Specially-designed  
Ladder Drop-Outs  
provide a rounded  
surface with adequate  
radius to protect cable  
as it exits from the  
tray, preventing damage  
to insulation.

### WORKING LOAD CAPACITY

The working load capacity represents the ability of a fiberglass cable tray to support the static weight of cables. It is equivalent to destructive load capacity, with minimum safety factor of 1.5

Width of Cable Tray	Side Rail	Load Kg/Mtr. For Support span 2.0 Mtr.
150mm	75	35
300mm	75	65
450mm	100	85
600mm	100	95
750mm	100	125
900mm	150	155

Concentrated Static Load is 70 Kg. at the centre of the span.

As per NEMA Loading standards :

Load	Lb/ft.	Kgs/Mtr.	Side Rail	Load Class
A	50	74	75	8A
B	75	111	100	8C, 12C, 16A
C	100	148	150	12C, 16B, 20A, 20C

Support span : 8, 10, 12 are in Feet

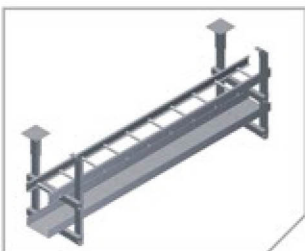
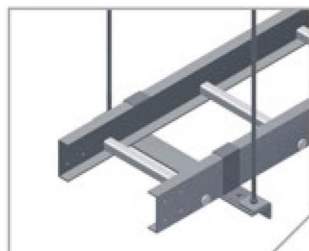
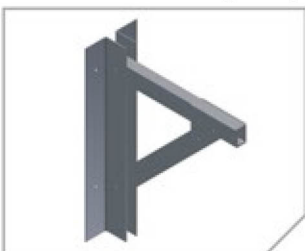
### EFFECT OF TEMPERATURE

Strength properties of fiberglass are reduced when continuously exposed to elevated temperatures. Working loads shall be reduced based on the following:

Temp. in °F	75	100	125	150	175	200
Approx. % of Strength	100	90	78	68	60	52

## SUPPORT SYSTEMS

Wall Mounted, Ceiling Hanged & Floor Mounted.



Properties	Test Methods	Unit/Value	Longitudinal	Transverse
Tensile Strength	ASTM D638	MPa	206.8	48.2
Flexural Strength	ASTM D790	MPa	206.8	68.9
Izod impact	ASTM D256	J/mm	1.33	0.21
Barcol Hardness	ASTM D2583	-	45	45
Shear Strength	ASTM D2344	MPa	31	-
Density	ASTM D792	g/ee	2	-
Coefficient of Thermal Expansion	ASTM D696	10°mm/mmFC	8	-
Water Absorption (24 Hours)	ASTM D570	%Max	0.45	-
Dielectric Strength	ASTM D149	kv/in	35	-
Flammability Classification	UL 94	-	VO	-

## STANDARDS

- IS 6746 -1994 Specs for Unsaturated Polyester Resin System for Low Pressure Fiber Reinforced Plastics
- NEMA FG-1 1984-1993 (Current Issue) Specification for Fiberglass Tray System - Loading Characteristics
- IS 6746 Appendix - K/UL 94 Flame Retardant (Low Flammability/v0)

## INSTALLATION GUIDELINES

The installation of Emerald Cable Tray should be made in compliance with the standards set forth by the National Electric Code and NEMA Publications FG-1 (current issue). Avoid excessive pressure when sawing, drilling, and routing, etc.

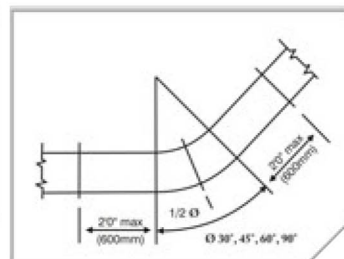
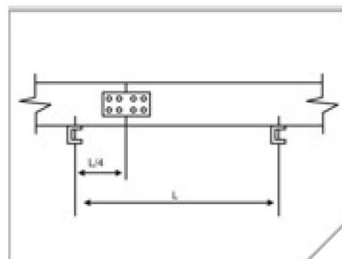
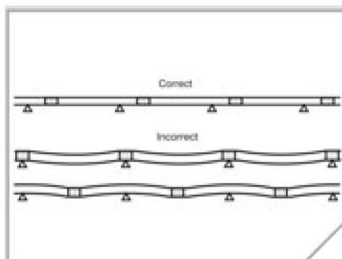
Use carbide-tipped drill bits and saw blades for extended tool life.

The use of lubricant during machining is not recommended.

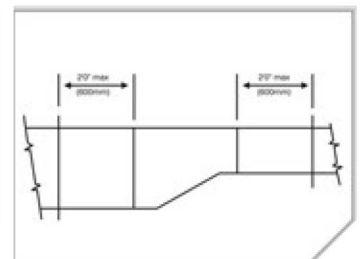
To avoid chipping of material at cut edges, secure cable tray and fittings properly during field cut operations. Follow label instructions carefully. A combination of mechanical fasteners and adhesives make the strongest most reliable connections.

## SUPPORT RECOMMENDATION AS PER NEMA STANDARD

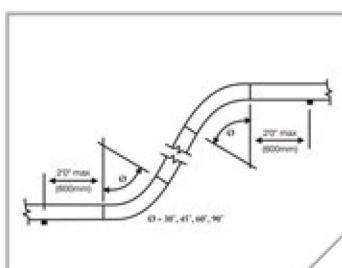
As Per Nema FG1, Splice Plate Is Recommended To Be Located At  $\frac{1}{4}$  Of The Span From The Support, Where The Bending Moment Is Zero.



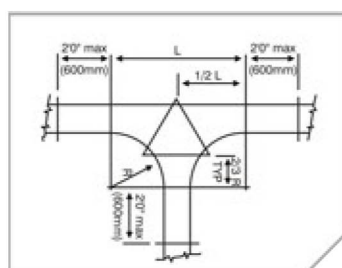
Horizontal Elbows



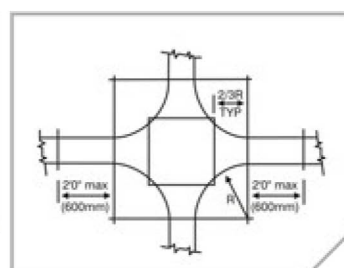
Offset Reducer



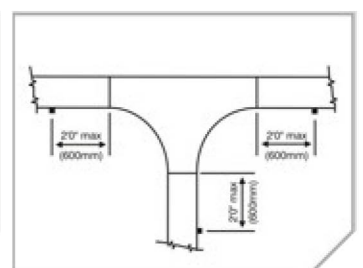
Vertical Elbows



Horizontal Tee



Horizontal Cross



Vertical Tee



## **LOADING CAPABILITY & SUPPORT SPAN**

All EMERALD cable trays are manufactured in accordance with the NEMA standard publication VE 1-3.02 1979, TITLED "Cable Tray Systems". Thus they meet and/or exceed the loading capability of comparable cable trays.

For guidelines on the maximum distance between support please consult the above mentioned NEMA codes.

All EMERALD cable trays are fabricated from Prime quality Sheet.

To provide adequate protection against corrosion, three types of protection are offered

- Painted after fabrication
- Fabricated from pre-galvanized {GI} sheets
- Hot dip galvanised after fabrication

**— For More Deatils Please contact us**

CONTACT US

# Emerald

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