



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

Emerald
Steel Industries L.L.C

Catalogue

- **Cable Tray**
- **FRP Cable Tray**
- **Trunking**
- **Strut Channel**

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 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, Saudi-Arabia, 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 GALVANIZED AFTER
MANUFACTURE TO BS EN ISO 1460 : 1991
COMPLIES WITH BS EN 61537 : 2000**

Advantages Of Emerald Cable Tray

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.

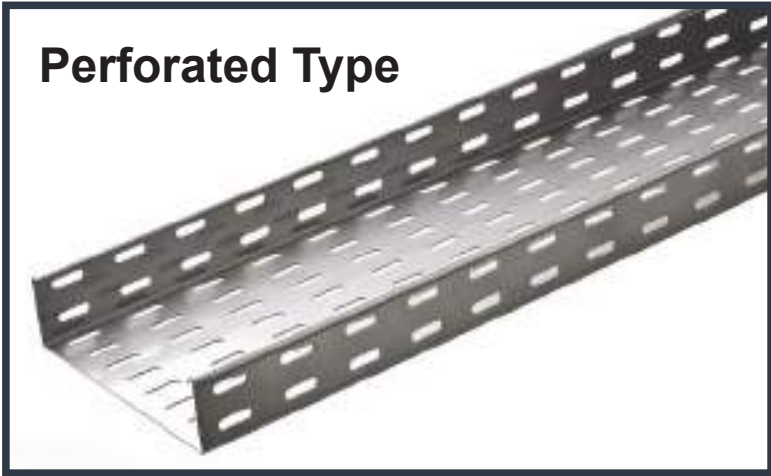
- Regular inspections must be carried out & faults located.
- Many entry/exit points are required.
- New cables may need to be installed, and old ones removed.
- Ventilation, essential to power and similar cables, must be provided.

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 Manufactures Types Of Cable Trays



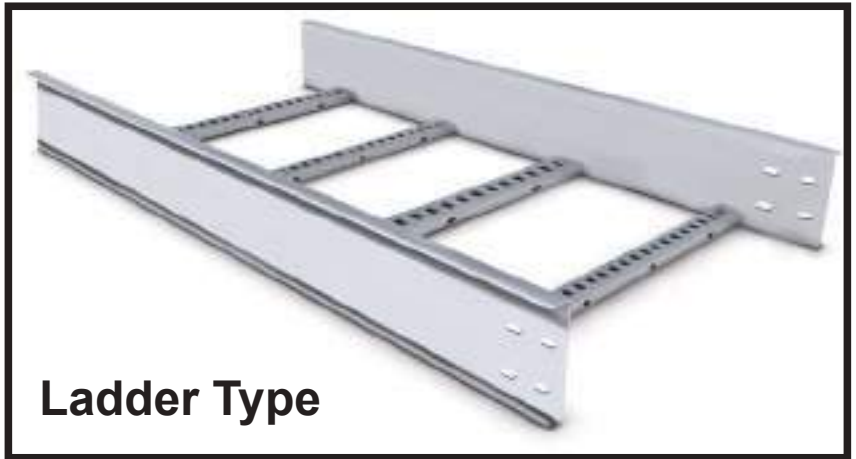
Perforated Type

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
 GI / HDG / SS / MS

Standard Dimensions

Radius(mm) R 300
 Length(mm) 900,950,1100,
 1250,1400,1550,
 1700,2000,2400,3000
 Breadth (mm) 500,550,700,850,
 1000,1150,1300
 Width (mm) 100,150,300,450,
 600,750,900



Ladder Type



Solid Bottom Type

Standard Dimensions

Length(mm) 2440,3000
 Breadth (mm) 50,75,100,
 150,300
 Width (mm) 100,150,300,
 450,600,750,
 900

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Emerald Cable Tray System

Cable Tray

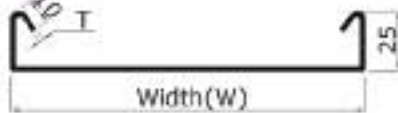
Light Duty - Height 15mm



Product	Width	Thickness
ESI-L050/3(T)HG	50	1.0 - 2.0
ESI-L0100/3(T)HG	100	1.0 - 2.0
ESI-L0150/3(T)HG	150	1.0 - 2.0
ESI-L0225/3(T)HG	225	1.2 - 2.0
ESI-L0300/3(T)HG	300	1.2 - 2.0
ESI-L0450/3(T)HG	450	1.5 - 2.0
ESI-L0600/3(T)HG	600	1.5 - 2.0
ESI-L0750/3(T)HG	750	2.0
ESI-L0900/3(T)HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

Medium Duty - Height 25mm



Product	Width	Thickness
ESI-M050/3(T)HG	50	1.0 - 2.0
ESI-M0100/3(T)HG	100	1.0 - 2.0
ESI-M0150/3(T)HG	150	1.0 - 2.0
ESI-M0225/3(T)HG	225	1.2 - 2.0
ESI-M0300/3(T)HG	300	1.2 - 2.0
ESI-M0450/3(T)HG	450	1.5 - 2.0
ESI-M0600/3(T)HG	600	1.5 - 2.0
ESI-M0750/3(T)HG	750	2.0
ESI-M0900/3(T)HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

Heavy Duty - Height 50mm



Product	Width	Thickness
ESI-H050/3(T)HG	50	1.0 - 2.0
ESI-H0100/3(T)HG	100	1.0 - 2.0
ESI-H0150/3(T)HG	150	1.0 - 2.0
ESI-H0225/3(T)HG	225	1.2 - 2.0
ESI-H0300/3(T)HG	300	1.2 - 2.0
ESI-H0450/3(T)HG	450	1.5 - 2.0
ESI-H0600/3(T)HG	600	1.5 - 2.0
ESI-H0750/3(T)HG	750	2.0
ESI-H0900/3(T)HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

Cable Tray

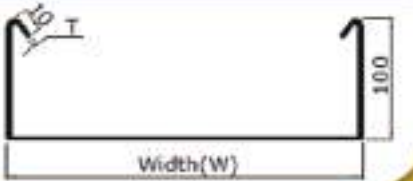
Extra Heavy Duty - Height 75mm



Product	Width	Thickness
ESI-H075/75(T)HG	50	1.0 - 2.0
ESI-H0100/75(T)HG	100	1.0 - 2.0
ESI-H0150/75(T)HG	150	1.0 - 2.0
ESI-H0225/75(T)HG	225	1.2 - 2.0
ESI-H0300/75(T)HG	300	1.2 - 2.0
ESI-H0450/75(T)HG	450	1.5 - 2.0
ESI-H0600/75(T)HG	600	1.5 - 2.0
ESI-H0750/75(T)HG	750	2.0
ESI-H0900/75(T)HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

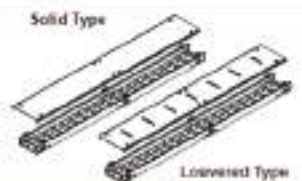
Extra Heavy Duty - Height 100mm



Product	Width	Thickness
ESI-H0100/100(T)HG	100	1.0 - 2.0
ESI-H0150/100(T)HG	150	1.0 - 2.0
ESI-H0225/100(T)HG	225	1.2 - 2.0
ESI-H0300/100(T)HG	300	1.2 - 2.0
ESI-H0450/100(T)HG	450	1.5 - 2.0
ESI-H0600/100(T)HG	600	2.0
ESI-H0750/100(T)HG	750	2.0
ESI-H0900/100(T)HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

Covers for All Types of Cable Tray




Product	Width	Thickness
ESI-H050/3(T)HG	50	1.0 - 2.0
ESI-H0100/3(T)HG	100	1.0 - 2.0
ESI-H0150/3(T)HG	150	1.0 - 2.0
ESI-H0225/3(T)HG	225	1.2 - 2.0
ESI-H0300/3(T)HG	300	1.2 - 2.0
ESI-H0450/3(T)HG	450	1.5 - 2.0
ESI-H0600/3(T)HG	600	1.5 - 2.0
ESI-H0750/3(T)HG	750	2.0
ESI-H0900/3(T)HG	900	2.0

Standard Length: 3000 mm / T=(Thickness)

Emerald - Cable 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-LD500(T)HG	50
ESI-LD1000(T)HG	100
ESI-LD1500(T)HG	150
ESI-LD2250(T)HG	225
ESI-LD3000(T)HG	300
ESI-LD4000(T)HG	450
ESI-LD6000(T)HG	600
ESI-LD7500(T)HG	750
ESI-LD9000(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)

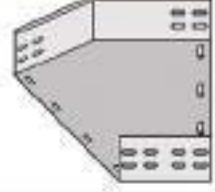
Heavy Duty - Height 50mm



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-HFB45-750(T)HG	50
ESI-HFB45-1000(T)HG	100
ESI-HFB45-1500(T)HG	150
ESI-HFB45-2250(T)HG	225
ESI-HFB45-3000(T)HG	300
ESI-HFB45-4000(T)HG	450
ESI-HFB45-6000(T)HG	600
ESI-HFB45-7500(T)HG	750
ESI-HFB45-9000(T)HG	900

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

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Emerald - Cable Tray Accessories

Equal Tee

Medium Duty - Height 25mm		Heavy Duty - Height 50mm		Extra Heavy Duty - Height 75 / 100mm	
					
Product	Width	Product	Width	Product	Width
ESI-MET-50(T)HG	50	ESI-HET-50(T)HG	50	ESI-HET-75(T)HG	75
ESI-MET-100(T)HG	100	ESI-HET-100(T)HG	100	ESI-HET-100(T)HG	100
ESI-MET-150(T)HG	150	ESI-HET-150(T)HG	150	ESI-HET-150(T)HG	150
ESI-MET-225(T)HG	225	ESI-HET-225(T)HG	225	ESI-HET-225(T)HG	225
ESI-MET-300(T)HG	300	ESI-HET-300(T)HG	300	ESI-HET-300(T)HG	300
ESI-MET-450(T)HG	450	ESI-HET-450(T)HG	450	ESI-HET-450(T)HG	450
ESI-MET-600(T)HG	600	ESI-HET-600(T)HG	600	ESI-HET-600(T)HG	600
ESI-MET-750(T)HG	750	ESI-HET-750(T)HG	750	ESI-HET-750(T)HG	750
ESI-MET-900(T)HG	900	ESI-HET-900(T)HG	900	ESI-HET-900(T)HG	900
Standard Length: 3000 mm / T=(Thickness)		Standard Length: 3000 mm / T=(Thickness)		T= (Thickness) / Standard Thickness 1.5 & 2.0mm * Insert 75 for 75mm & 10 for 100mm Height	

Vertical Tee

Medium Duty - Height 25mm		Heavy Duty - Height 50mm		Extra Heavy Duty - Height 75 / 100mm	
					
Product	Width	Product	Width	Product	Width
ESI-MVT-50(T)HG	50	ESI-HVT-50(T)HG	50	ESI-HVT-75(T)HG	50
ESI-MVT-100(T)HG	100	ESI-HVT-100(T)HG	100	ESI-HVT-100(T)HG	100
ESI-MVT-150(T)HG	150	ESI-HVT-150(T)HG	150	ESI-HVT-150(T)HG	150
ESI-MVT-225(T)HG	225	ESI-HVT-225(T)HG	225	ESI-HVT-225(T)HG	225
ESI-MVT-300(T)HG	300	ESI-HVT-300(T)HG	300	ESI-HVT-300(T)HG	300
ESI-MVT-450(T)HG	450	ESI-HVT-450(T)HG	450	ESI-HVT-450(T)HG	450
ESI-MVT-600(T)HG	600	ESI-HVT-600(T)HG	600	ESI-HVT-600(T)HG	600
ESI-MVT-750(T)HG	750	ESI-HVT-750(T)HG	750	ESI-HVT-750(T)HG	750
ESI-MVT-900(T)HG	900	ESI-HVT-900(T)HG	900	ESI-HVT-900(T)HG	900
Standard Length: 3000 mm / T=(Thickness)		Standard Length: 3000 mm / T=(Thickness)		T= (Thickness) / Standard Thickness 1.5 & 2.0mm * Insert 75 for 75mm & 10 for 100mm Height	

Emerald - Cable Tray Accessories

Vertical Tee

Medium Duty - Height 25mm		Heavy Duty - Height 50mm		Extra Heavy Duty - Height 75 / 100mm	
					
Product	Width	Product	Width	Product	Width
ESI-MEC-50(T)HG	50	ESI-HEC-50(T)HG	50	ESI-HEC-75(W)T)HG	75
ESI-MEC-100(T)HG	100	ESI-HEC-100(T)HG	100	ESI-HEC-100(X)T)HG	100
ESI-MEC-150(T)HG	150	ESI-HEC-150(T)HG	150	ESI-HEC-150(Y)T)HG	150
ESI-MEC-225(T)HG	225	ESI-HEC-225(T)HG	225	ESI-HEC-225(X)T)HG	225
ESI-MEC-300(T)HG	300	ESI-HEC-300(T)HG	300	ESI-HEC-300(Y)T)HG	300
ESI-MEC-450(T)HG	450	ESI-HEC-450(T)HG	450	ESI-HEC-450(X)T)HG	450
ESI-MEC-600(T)HG	600	ESI-HEC-600(T)HG	600	ESI-HEC-600(Y)T)HG	600
ESI-MEC-750(T)HG	750	ESI-HEC-750(T)HG	750	ESI-HEC-750(X)T)HG	750
ESI-MEC-900(T)HG	900	ESI-HEC-900(T)HG	900	ESI-HEC-900(Y)T)HG	900
Standard Length: 3000 mm / T=(Thickness)		Standard Length: 3000 mm / T=(Thickness)		T= (Thickness) / Standard Thickness 1.5 & 2.0mm * Insert 75 for 75mm & 100 for 100mm Height	

Inside Riser 90° / 45°

Medium Duty - Height 25mm		Heavy Duty - Height 50mm		Extra Heavy Duty - Height 75 / 100mm	
					
Product	Width	Product	Width	Product	Width
ESI-MIR(*)-50(T)HG	50	ESI-HR(*)-50(T)HG	50	ESI-HR(*)-75(X)T)HG	75
ESI-MIR(*)-100(T)HG	100	ESI-HR(*)-100(T)HG	100	ESI-HR(*)-100(Y)T)HG	100
ESI-MIR(*)-150(T)HG	150	ESI-HR(*)-150(T)HG	150	ESI-HR(*)-150(X)T)HG	150
ESI-MIR(*)-225(T)HG	225	ESI-HR(*)-225(T)HG	225	ESI-HR(*)-225(Y)T)HG	225
ESI-MIR(*)-300(T)HG	300	ESI-HR(*)-300(T)HG	300	ESI-HR(*)-300(X)T)HG	300
ESI-MIR(*)-450(T)HG	450	ESI-HR(*)-450(T)HG	450	ESI-HR(*)-450(Y)T)HG	450
ESI-MIR(*)-600(T)HG	600	ESI-HR(*)-600(T)HG	600	ESI-HR(*)-600(X)T)HG	600
ESI-MIR(*)-750(T)HG	750	ESI-HR(*)-750(T)HG	750	ESI-HR(*)-750(Y)T)HG	750
ESI-MIR(*)-900(T)HG	900	ESI-HR(*)-900(T)HG	900	ESI-HR(*)-900(X)T)HG	900
T= (Thickness) / Standard Thicknesses 1.5 & 2.0mm *Insert 90 for 90° / 45 for 45° Riser		T= (Thickness) / Standard Thicknesses 1.5 & 2.0mm *Insert 90 for 90° / 45 for 45° Riser		T= (Thickness) / Standard Thicknesses 1.5 & 2.0mm *Insert 90 for 90° / 45 for 45° Riser * Insert 75 for 75mm & 100 for 100mm Height	

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Emerald - Cable Tray Accessories

Outside Riser 90° / 45°

Medium Duty - Height 25mm		Heavy Duty - Height 50mm		Extra Heavy Duty - Height 75 / 100mm	
					
Product	Width	Product	Width	Product	Width
ESI-MOR(*)-50(T)HG	50	ESI-HOR(*)-50(T)HG	50	ESI-HOR(*)-75(*)*(T)HG	75
ESI-MOR(*)-100(T)HG	100	ESI-HOR(*)-100(T)HG	100	ESI-HOR(*)-100(*)*(T)HG	100
ESI-MOR(*)-150(T)HG	150	ESI-HOR(*)-150(T)HG	150	ESI-HOR(*)-150(*)*(T)HG	150
ESI-MOR(*)-225(T)HG	225	ESI-HOR(*)-225(T)HG	225	ESI-HOR(*)-225(*)*(T)HG	225
ESI-MOR(*)-300(T)HG	300	ESI-HOR(*)-300(T)HG	300	ESI-HOR(*)-300(*)*(T)HG	300
ESI-MOR(*)-450(T)HG	450	ESI-HOR(*)-450(T)HG	450	ESI-HOR(*)-450(*)*(T)HG	450
ESI-MOR(*)-600(T)HG	600	ESI-HOR(*)-600(T)HG	600	ESI-HOR(*)-600(*)*(T)HG	600
ESI-MOR(*)-750(T)HG	750	ESI-HOR(*)-750(T)HG	750	ESI-HOR(*)-750(*)*(T)HG	750
ESI-MOR(*)-900(T)HG	900	ESI-HOR(*)-900(T)HG	900	ESI-HOR(*)-900(*)*(T)HG	900
T= (Thickness) Standard Thickness 1.5 & 2.0mm *Insert 90 for 90° / 45 for 45° Riser		T= (Thickness) Standard Thickness 1.5 & 2.0mm *Insert 90 for 90° / 45 for 45° Riser		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	Heavy Duty - Height 50mm	Extra Heavy Duty - Height 75 / 100mm
		
Product	Product	Product
ESI-MSR(W1)-(W2)(T)HG	ESI-HSR(W1)-(W2)(T)HG	ESI-HSR(W1)-(W2)(*)*(T)HG
T= (Thickness) Standard Thickness 1.5 & 2.0mm	T= (Thickness) Standard Thickness 1.5 & 2.0mm	T= (Thickness) Standard Thickness 1.5 & 2.0mm ** Insert 75 for 75mm & 10 for 100mm Height

Straight Reducer

Medium Duty - Height 25mm	Heavy Duty - Height 50mm	Extra Heavy Duty - Height 75 / 100mm
		
Product	Product	Product
ESI-MLR(W1)-(W2)(T)HG	ESI-HLR(W1)-(W2)(T)HG	ESI-HLR(W1)-(W2)(*)*(T)HG
T= (Thickness) Standard Thickness 1.5 & 2.0mm	T= (Thickness) Standard Thickness 1.5 & 2.0mm	T= (Thickness) Standard Thickness 1.5 & 2.0mm ** Insert 75 for 75mm & 10 for 100mm Height

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



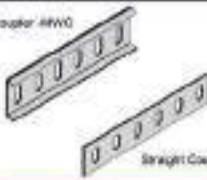
Product

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

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

Couplers

Medium Duty - Height 25mm



Product

ESI-MWC	Wrap Over Coupler
ESI-MSC	Straight Coupler

Heavy Duty - Height 50mm



Product

ESI-HWC	Wrap Over Coupler
ESI-HSC	Straight Coupler

Extra Heavy Duty - Height 75 / 100mm



Product

ESI-HWC(*)	Wrap Over Coupler
ESI-HSC(*)	Straight Coupler

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

Cranked Couplers

Medium Duty - Height 25mm



Product

ESI-MCC90	Wrap Over Coupler
ESI-MCC45	Straight Coupler

Heavy Duty - Height 50mm



Product

ESI-HCC90	90° Cranked Coupler
ESI-HCC45	45° Cranked Coupler

Extra Heavy Duty - Height 75 / 100mm



Product

ESI-HCC90*	90° Cranked Coupler
ESI-HCC45*	45° Cranked Coupler

* Inset 75 for 75mm & 10 for 100mm Height

Emerald - Cable Tray Accessories

Horizontal / Vertical Adjustable Couplers

Medium Duty - Height 25mm

Horizontal Adjustable Coupler
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* x 110mm x 6mm End Lugs	

Cover Clip Fixing Arrangement

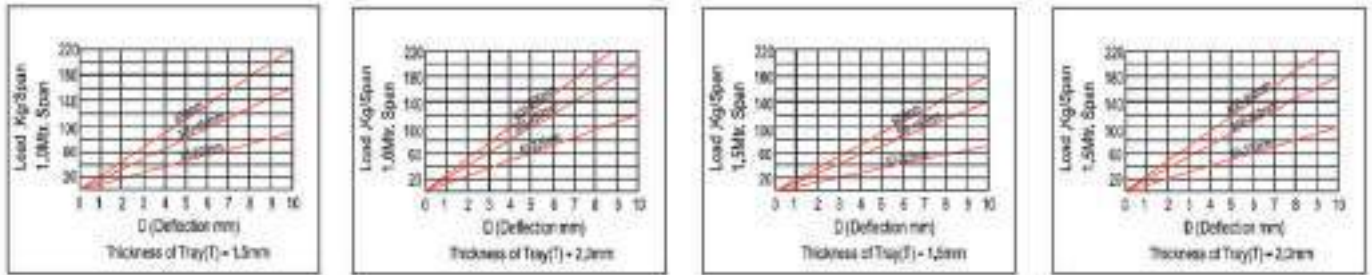
- 1 Self Tapping Screw
- 2 Cable Tray Cover
- 3 Closed Cover Fixing Bracket (CT-CCS)
- 4 Roofing Bolt & Hex. Nut. (HW-RB/M6x16)
- 5 Cable Tray

Extra Heavy Duty - Height 75 / 100mm

Product	Width
ESI-RE-50*(*)/T/H/D	
ESI-RE-100*(*)/T/H/D	
ESI-RE-150*(*)/T/H/D	
ESI-RE-200*(*)/T/H/D	
ESI-RE-300*(*)/T/H/D	
ESI-RE-400*(*)/T/H/D	
ESI-RE-500*(*)/T/H/D	
ESI-RE-600*(*)/T/H/D	
ESI-RE-750*(*)/T/H/D	
ESI-RE-900*(*)/T/H/D	

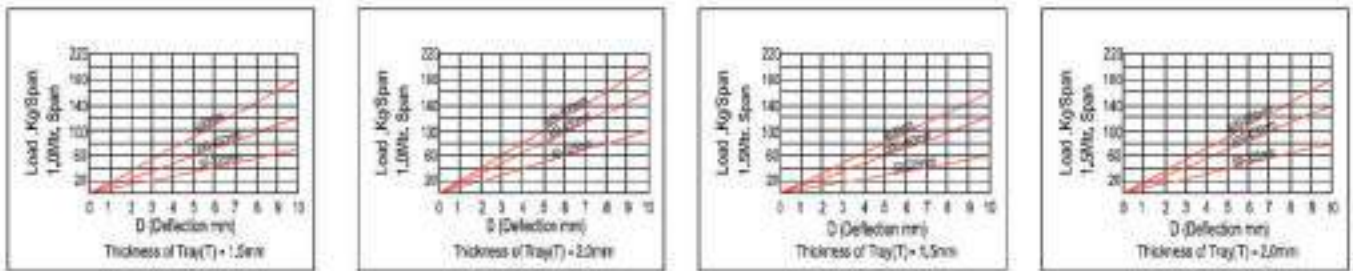
*Insert 25 for 25mm, 50 for 50mm, 75 for 75mm & 10 for 100mm Height Tray

Heavy Duty TrayLoad



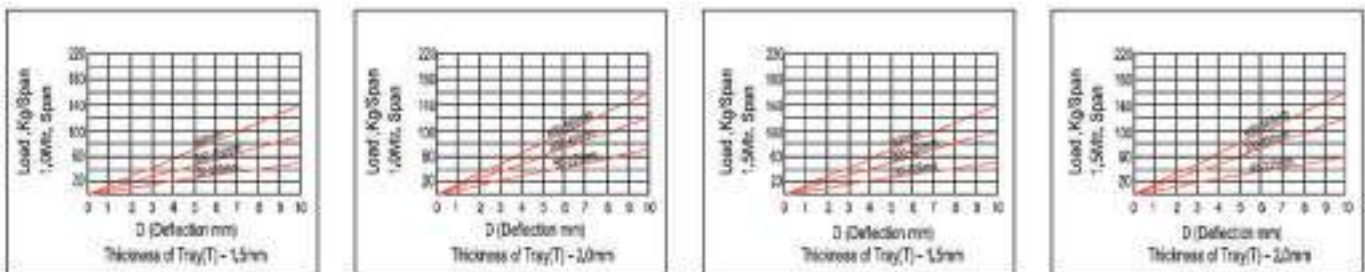
Load table loads are based on a UNIFORMLY DISTRIBUTED LOAD (UDL) across the full width and length of the Tray. All loads are based on Mild Steel Trays.

Medium Duty TrayLoad

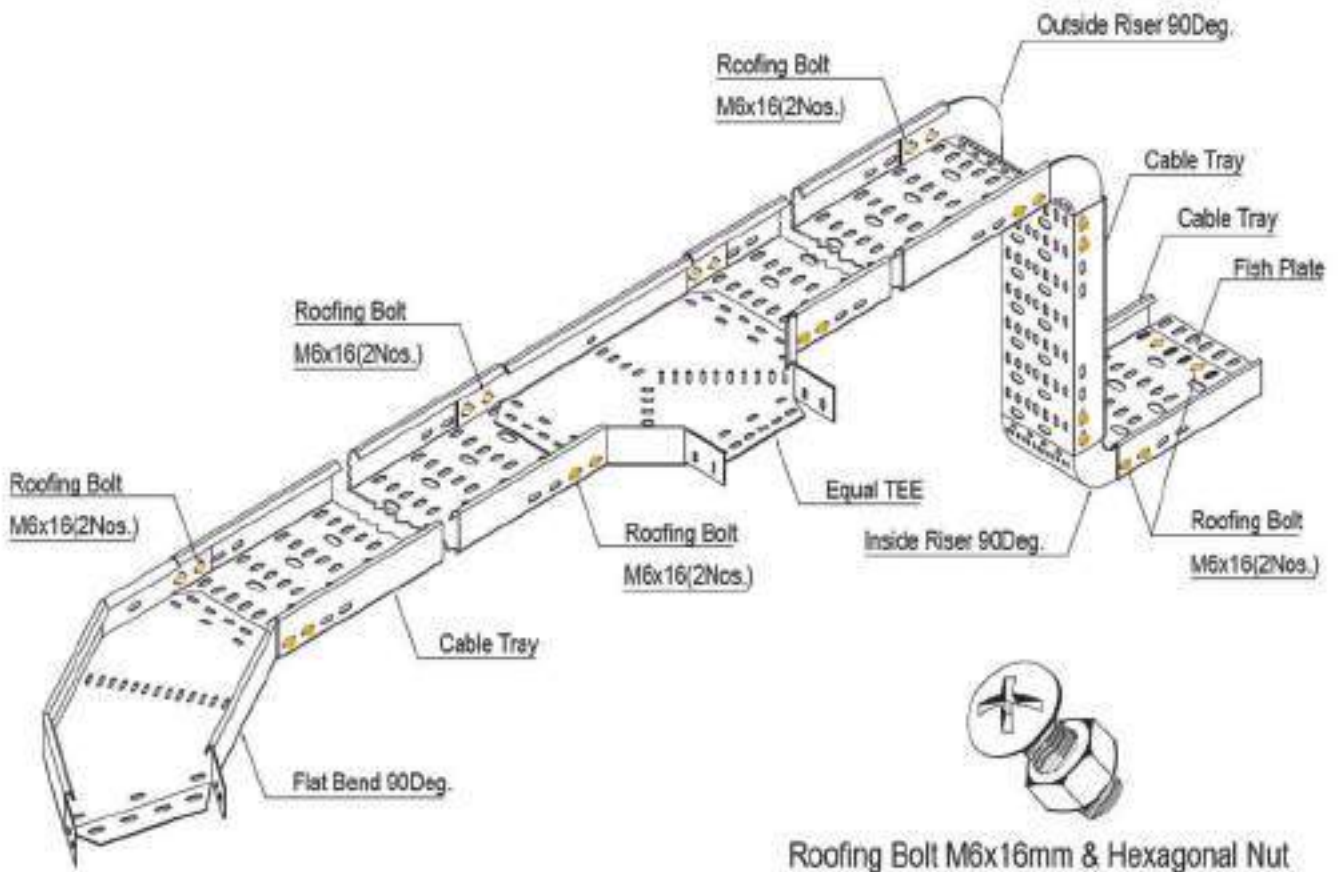


TrayLoad table loads are based on a UNIFORMLY DISTRIBUTED LOAD (UDL) across the full width and length of the Tray. All loads are based on Mild Steel Trays.

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.



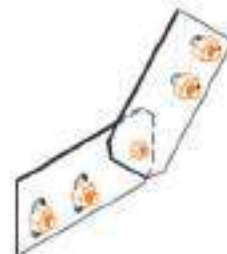
Straight Coupler
Roofing Bolt M6x16mm & Nut - 4 Nos.



Wrapover Coupler
Roofing Bolt M6x16mm & Nut - 4 Nos.



Horizontal Splice Plate
Roofing Bolt M6x16mm & Nut - 4 Nos.



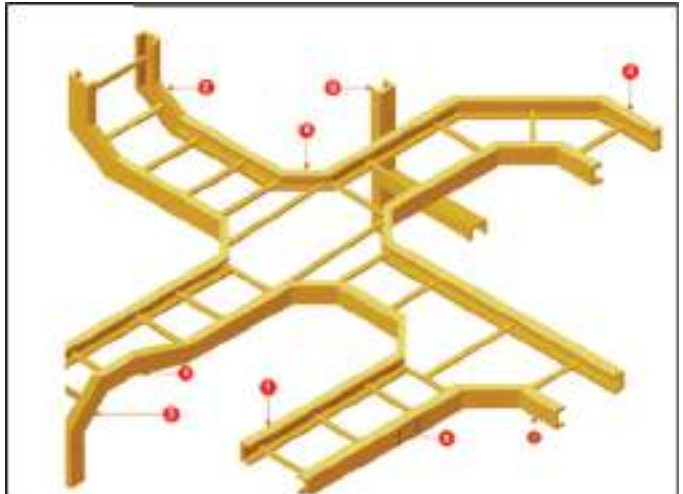
Vertical Splice Plate
Roofing Bolt M6x16mm & Nut - 5 Nos.

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.

The Superior Features Of Emerald Composite Cable Tray

- 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.

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.

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.

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.

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

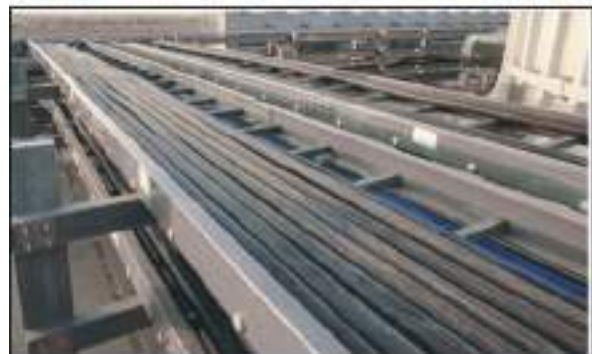
- No electrolytic corrosion due to contact of two metals in humid environment.
- Much more longer life span in basic chlorine or halogen atmosphere.

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 much easier to move and place because it is 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 Ladder Type	P-Polyester	06-150mm	20-50	S-Normal*	A-150mm	X-1M
	V-Vinylester	12-300mm	30-75	M-Marine	B-250mm	Y-3M*
		24-600mm	40-100		C-300mm	
		30-750mm	60-150		D-450mm	
		30-900mm	80-200			
						*Standard Size

Heavy Duty Cable Tray With I-Beam Side Rail (Available In 100 & 150 mm Height)

Nomenclature For Ladder Type Cable Tray Fitting

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

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

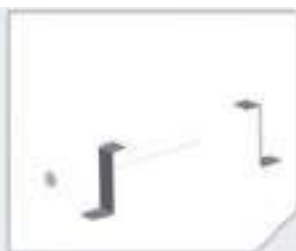
Cable Tray Fittings



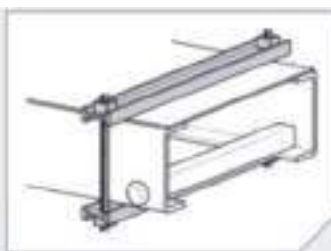
Cover & Cover Fittings



Flat cover & Peaked cover



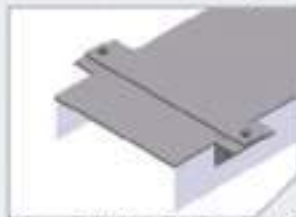
Standard Cover Clamp



Heavy Duty Cover Clamp



Flanged / Box Cover



Cover Fitting Perforated Cable Tray

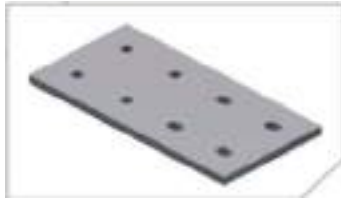
Quantity of Standard Cover Clamps Required

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



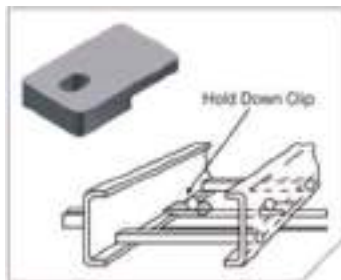
Expansion Splice Plates



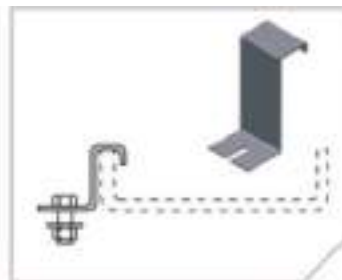
Vertical Adjustable Splice Plates



Vertical Adjustable



Hold Down Clip



Channel Hold Down Clamp



Divider Strip



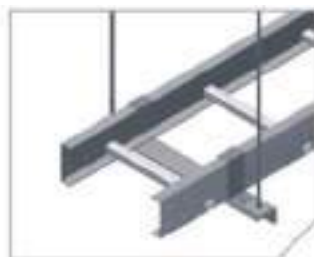
Blind Plate



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.

Support System

Wall Mounted, Ceiling Hanged & Floor Mounted.



WORKING LOAD CAPACITY

The working load capacity represents the ability of a fibreglass 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
200mm	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	72	75	8A
B	75	111	100	8C, 12C, 16A
C	100	148	150	12C, 16A, 20A, 20C

Effect Of Temperature

Strength properties of fibreglass 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	66	60	52

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/cc	2	-
Coefficient of Thermal Expansion	ASTM D696	10 ⁻⁶ mm/mm°C	8	-
Water Absorption (24 Hours)	ASTM D570	%Max	0.45	-
Dielectric Strength	ASTM D149	kw/in	35	-
Flammability Classification	UL 94	-	VO	-

Channel / Perforated Type Cable Tray

Channel / Duct Type Cable Tray



Flanged Type Cable Tray



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

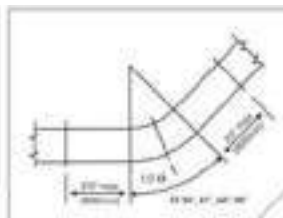
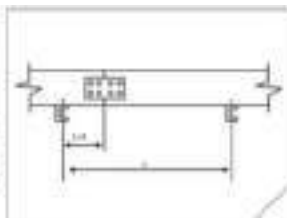
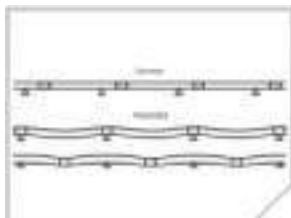
The installation of Emerald Cable Tray should be made in compliance with the standards set forth by the National Electric Code and NEMA Publications FG-1 (current issue). Avoid excessive pressure when sawing, drilling, and routing, etc. Use carbide-tipped drill bits and saw blades for extended tool life.

The use of lubricant during machining is not recommended.

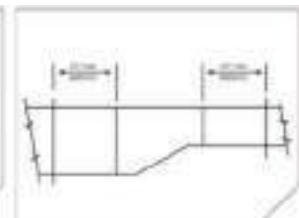
To avoid chipping of material at cut edges, secure cable tray and fittings properly during field cut operations. Follow label instructions carefully. A combination of mechanical fasteners and adhesives make the strongest most reliable connections.

Support Recommendation As Per NEMA Standard

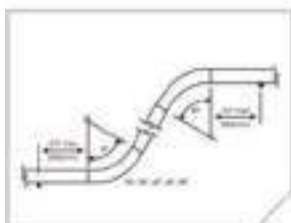
As Per Nema FG1, Splice Plate Is Recommended To Be Located At 1/4 Of The Span From The Support, Where The Bending Moment Is Zero.



Horizontal Elbows



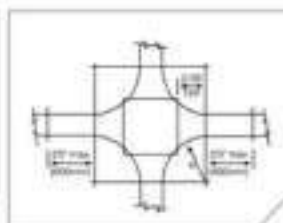
Offset Reducer



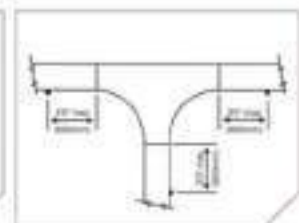
Vertical Elbows



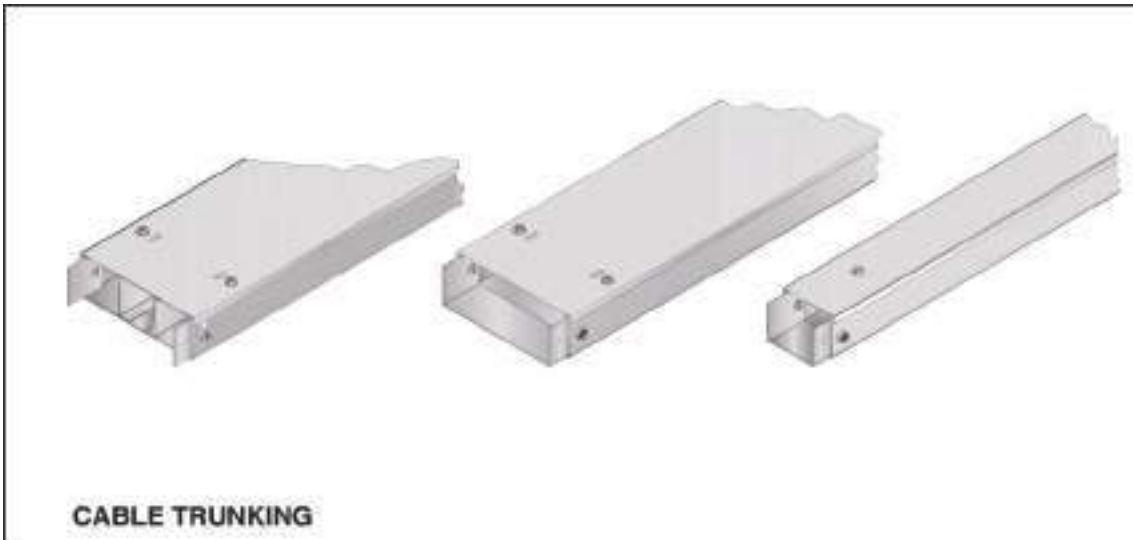
Horizontal Tee



Horizontal Cross



Emerald -Trunking G.L Trunking System



Standard Surface Trunking



Emerald Trunking is designed to provide a simple method of containing lightweight and structured cables. It is designed to meet all the requirements of BS 4678 & BS 50085. We offer a comprehensive range of standard Surface Trunking in single or multi-compartment.

Both the trunking and the body are supplied in 3 metre lengths complete.

Emerald uses complete weldless joints and fixing arrangement. The system also ensures earth continuity between body & lid and take care of any variation in the sheet thickness & keep the lid & body fully secured.

A wide range of Fittings and Accessories are also available to complement and complete the range.

Materials and Finishes

- Pre-Galvanized zinc coated steel JIS G3302 equivalent to BS EN 10142, (BSEN 10142 supersedes BS2989), ASTM A653.
- Pre-Galvanized zinc coated steel JIS G3302 equivalent to BS EN 10142, (BS EN 10142 supersedes BS2989), ASTM A653 with Epoxy Powder Coating with minimum film thickness 60 microns after fabrication.
- Hot dip galvanized with using Hot Rolled Steel to BS 10149-3:1996, Cold Rolled Steel to BSEN 10130:2006 then post galvanizing as per BS EN 1461 (Formerly BS729), ASTM-A123.
- Stainless Steel Sheet to ASTM A240 type 304, 316L.
- Aluminum Grade AA1100.

Note:

1. All drawings are for indicative purpose only. Emerald reserves the right to change product dimensions, specifications and details at any time without notice. All dimensions and material specification subject to commercial tolerance within published specification. 2. We reserve the right to make specification changes without notice. All dimensions and material specification subject to commercial tolerance within published specification. Emerald reserves the right to change product dimensions and details at any time without notice. 3. Emerald reserves the right to change perforation patterns without prior notice. 4. Technical drawings for all product can be provided on the request.

EMI G.I. Trunking Fittings & Accessories



TOP LID BEND 90°



INSIDE LID BEND 90°



OUTSIDE LID BEND 90°



TOP LID BEND 45°



INSIDE LID BEND 45°



OUTSIDE LID BEND 45°



TOP LID TEE



INSIDE/OUTSIDE TEE



INTERSECTION



LOOSE DIVIDER



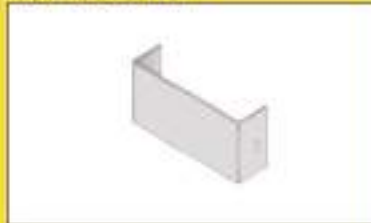
SHORT COUPLER



SUSPENSION HANGER



FLARED REDUCER



BLANK END



FLANGED END



EARTH LINK



CABLE RETAINER



LEFT HAND FACE OFF RIGHT HAND FACE OFF



VERTICAL OFFSET



HORIZONTAL OFFSET-LEFT HAND



HORIZONTAL OFFSET-RIGHT HAND

T
R
U
N
K
I
N
G

Product Guide

Trunking Size (Width x Height x Thickness)	50 x 50 x 1.0	75 x 50 x 1.2	100x50 x 1.2	150x50 x 1.2	75 x 75 x 1.2	100x 75 x 1.2	150x75 x 1.2	100 x 100 x 1.2	150 x 100 x 1.2	150 x 150 x 1.5
Product Description										
Straight Length 3 mtr	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
90 deg Bend Top Lid	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
90 deg Bend Inside Lid	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
90 deg Bend Outside Lid	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
45 deg Bend Top Lid	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
45 deg Bend Inside Lid	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
45 deg Bend Outside Lid	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Tee Top Lid	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Tee Inside/Outside Lid	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Intersection Top Lid	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Blank End	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Flange Plate	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Flared Reducer	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Vertical Offset	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Cable Retainer	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Suspension Hanger	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Coupler	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Loose Divider	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Right Hand Face Off	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Left Hand Face Off	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Horizontal Offset-Left Hand	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Horizontal Offset-Right Hand	/22	/32	/42	/62	/33	/43	/63	/44	/64	/66
Spare Turnbuckle										
Earth Link										
Screw and Nuts										

Please note that when ordering multi-compartment trunking add /2 or /3 after the part numbers to denote 2 or 3 compartments Trunking
ie 100 x 100 x 3 compartment = TSL/44/1.0-3C

Thicknesses above conform to BS 4678 table 1. **Other sizes and thicknesses can be supplied on request.**

Emerald G.I Trunking

Trunking General Information

All Emerald Trunking is available in a range of thickness from 0.8mm to 2.0mm and is available in 1, 2, 3 or 4 compartments.

In addition we can offer in alternative metal such as Stainless Steel to Grades 304 or 316L and Aluminium. We can also offer in a variety of surface coating finishes such as Epoxy or and Powder Coating.

Trunking Loading Capacity Table

Trunking (Width x Height x Thickness)		Cable size mm ²										
Size	Capacity	Solid Cable mm ²		Stranded Cables mm ²								
W x H		1.5	2.5	1.5	2.5	4	6	10	16	25	35	50
50 x 50	1032	146	101	128	90	68	45	28	20	13	10	7
75 x 50	1553	219	152	191	136	102	67	42	30	20	16	11
100 x 50	2090	294	205	258	183	137	91	57	41	27	22	15
150 x 50	3159	445	310	390	277	208	138	87	62	41	33	23
75 x 75	2368	333	232	292	207	155	103	65	47	31	24	17
100 x 75	3187	449	312	393	279	209	139	87	63	42	33	24
150 x 75	4741	668	465	585	416	312	207	130	94	62	49	35
100 x 100	4250	598	416	524	372	279	185	117	84	56	44	32
150 x 100	6393	900	626	789	560	420	279	176	27	84	67	48
150 x 150	9695	1365	950	1197	850	637	423	267	192	128	102	73
Common Cable Factor		7.1	10.2	8.1	11.4	15.2	22.9	36.3	50.3	75.4	95	133

The table show the number of same sized cables that can be used in a length of Trunking. For mixed sized of cables you must first determine the Common Cable Capacity Factor then locate the appropriate larger Trunking size.

Example;

Cable being used are 20x10mm² Stranded plus 20x2.5 mm² Stranded plus 55x2.5

$$20 (10\text{mm}^2) \times 36.3 = 726$$

$$25 (2.5\text{mm}^2) \times 11.4 = 285$$

$$55 (2.5\text{mm}^2) \times 10.2 = 561$$

$$\text{Total Capacity} = 1575$$

Therefore nearest Trunking size to suit is 100x50

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.

SPECIFIC REQUIREMENTS

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

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.

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.

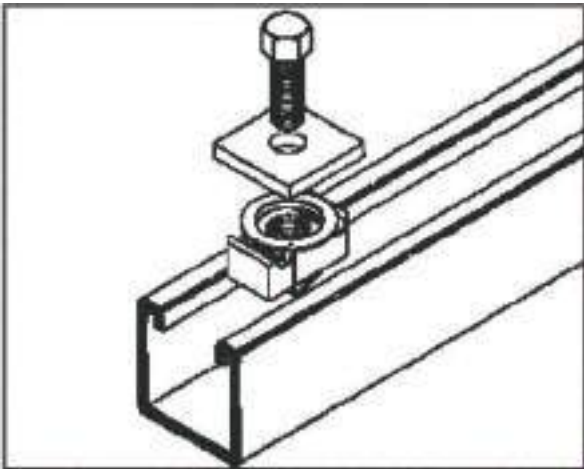
To provide adequate protection against corrosion, three types of protection are offered

- Painted after fabrication**
- Fabricated from pre-galvanized (GI) sheets**
- Hot dip galvanised after fabrication**

For More Deatils Please contact us-

Introduction

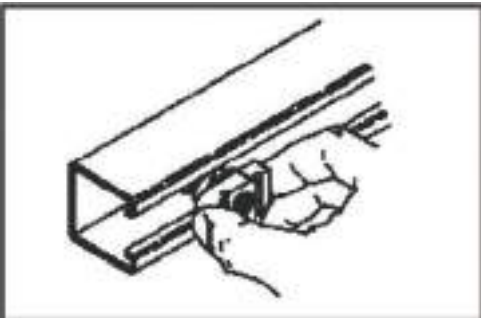
Our strut support system is designed with many time-saving features. They are fully adjustable and reusable, with a complete line of channels, fittings and accessories for multi-purpose applications.



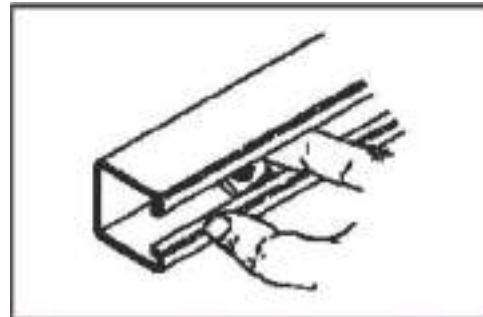
- No Welding
- No Drilling
- Use Your Imagination

The strut system installs quickly, with no need for special tools. All you need is a wrench and hacksaw. Channels and parts can be taken apart for reuse as quickly as they were assembled, yet help provide the strength of welded construction. Elimination of welding and drilling results in substantial savings in time and labor.

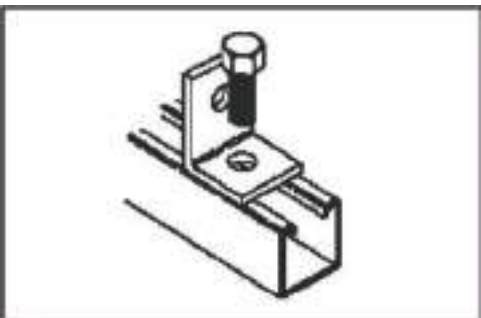
4 Steps is All it Takes



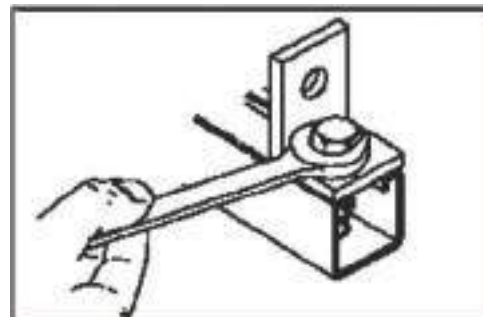
Step 1- Insert channel nut anywhere along the continuous slot, designed for easy insertion and self-alignment.



Step 2- A 90° turn aligns channel nut grooves with in-turned lips of the channel.



Step 3- Position fitting over channel nut and then insert a bolt to start any connection.



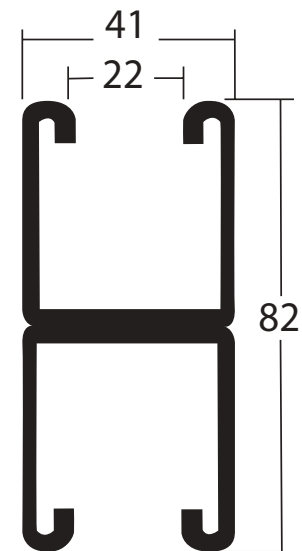
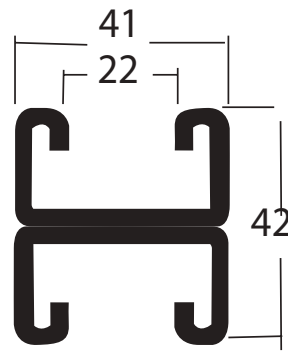
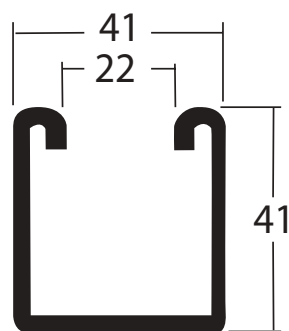
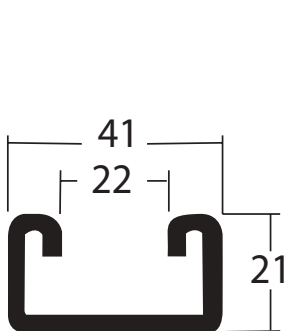
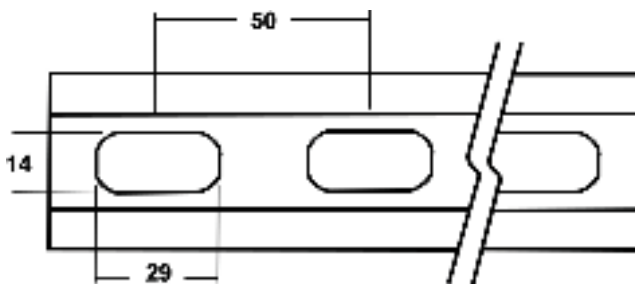
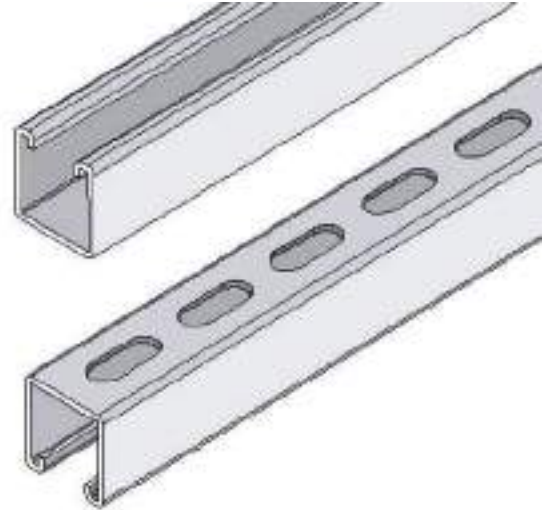
Step 4- With the twist of a wrench, channel nut locks its teeth firmly against in-turned lips of the channel.

STRUT CHANNELS

- U-profiled Emerald channel for horizontal and vertical installation.
- Fast and streamlined fastening of pipe tracks and load bearing constructions.
- Serration in the channel lips for secure hold of ESI(Spring Nut).
- Versatile options for wall, floor and ceiling installation.

APPLICATION

- Industrial plumbing.
- Heating and sanitary supply piping.
- Fire Fighting systems.
- Residential and commercial piping.
- Electrical installations like cable trays, data lines etc.
- Solar modules installations.
- Hvac - piping and ducting installations.
- Automation systems.
- Assembly lines and transfer lines.
- Conveyors.
- Structural framing.
- Building and construction.
- Storage.
- Fabrication.



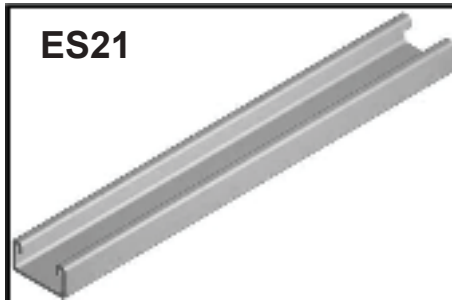
SLOT PATTERNS

Strut channels are produced with slots also with a standard length of 3 mtrs.

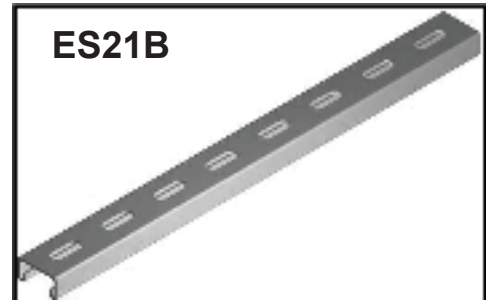
STRUT CHANNELS



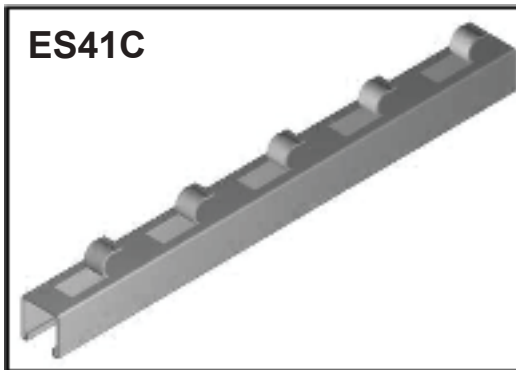
ES41
PLAIN CHANNEL 41X41



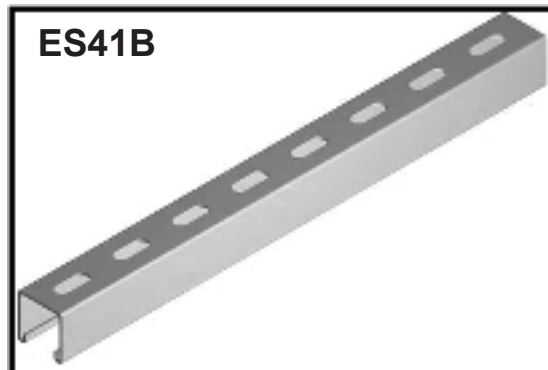
ES21
PLAIN CHANNEL 21X41



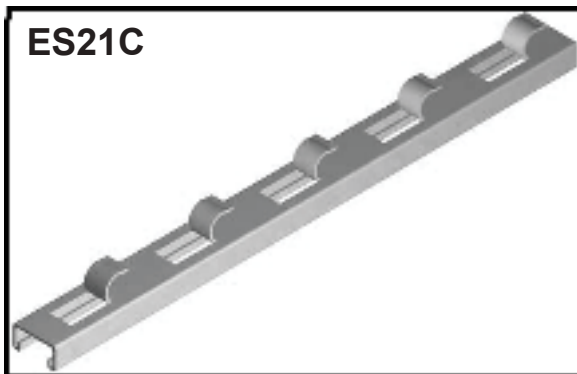
ES21B
SLOTTED CHANNEL 41X21



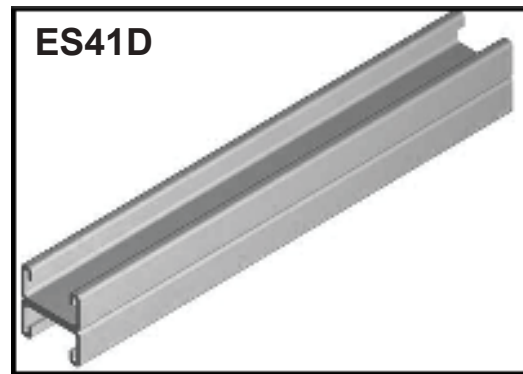
ES41C
CONCRETE INSERTS 41X41



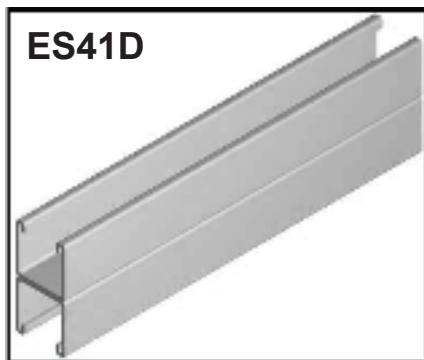
ES41B
SLOTTED CHANNEL 41X41



ES21C
CONCRETE INSERTS 41X21



ES41D
BACK TO BACK CHANNEL 41X21



ES41D
BACK TO BACK CHANNEL 41X41

END CAP 41X21



END CAP 41X41



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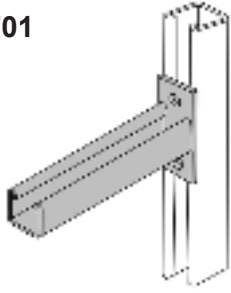
STANDARD FINISHES

HDG Hot dip Galvanized to BS EN ISO 1461:1999 (Formerly BS 729)

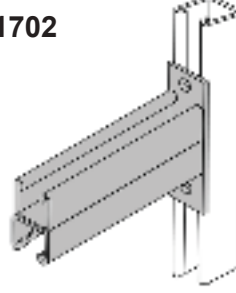
Pre-galvanized to BS EN 10142 & 10143

CANTILEVERS

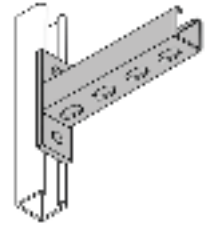
ES 1701



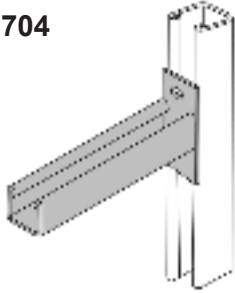
ES 1702



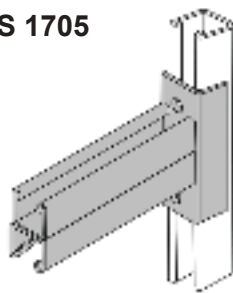
ES 1703



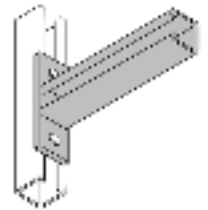
ES 1704



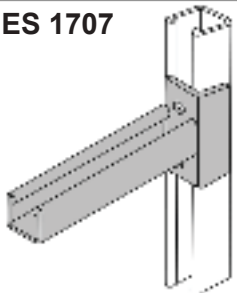
ES 1705



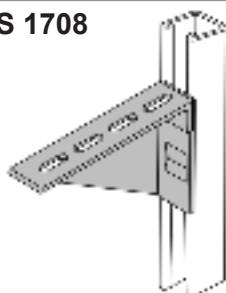
ES 1706



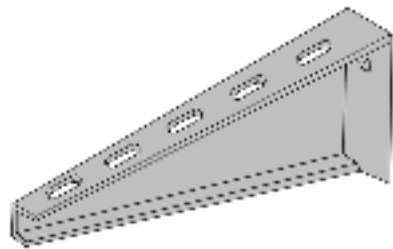
ES 1707



ES 1708



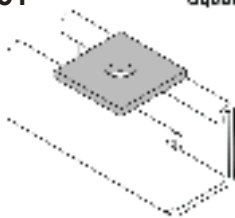
ES 1709



FLAT PLATE FITTING

ES 1851

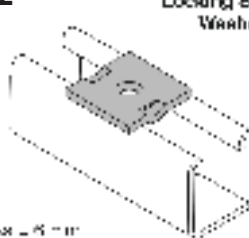
Square Washer



Thickness - 5 mm

ES 1852

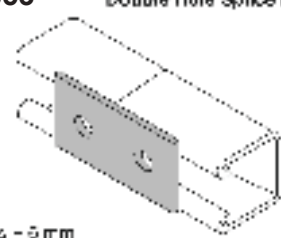
Locking Square Washer



Thickness - 5 mm

ES 1853

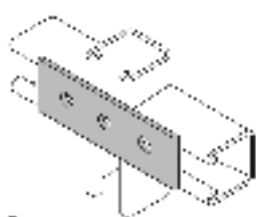
Double Hole Splice Plate



Thickness - 5 mm

ES 1854

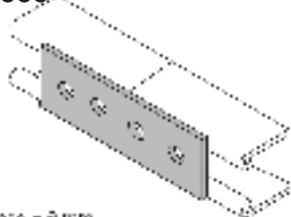
Triple Hole Splice Plate



Thickness - 5 mm

ES 1855

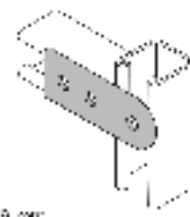
4 Hole Splice Plate



Thickness - 5 mm

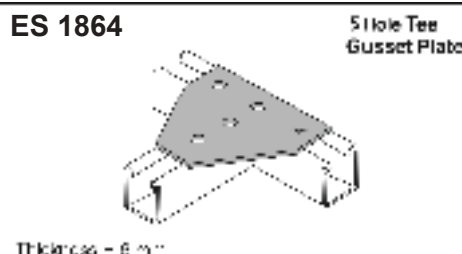
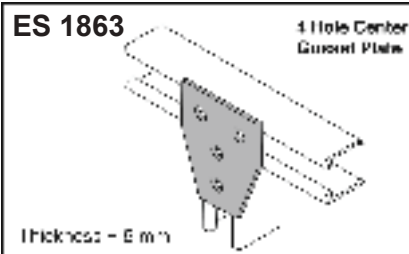
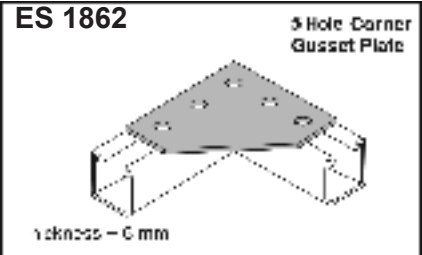
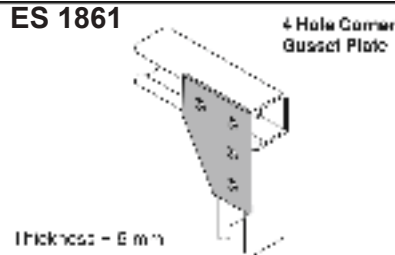
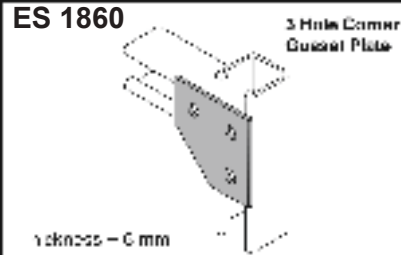
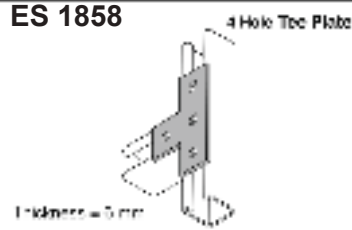
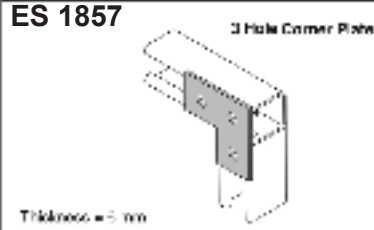
ES 1856

3 Hole Splice Plate

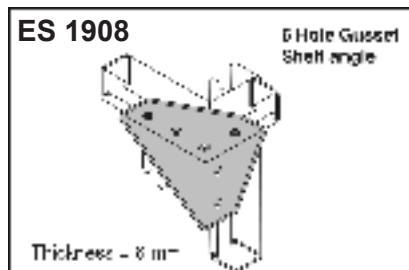
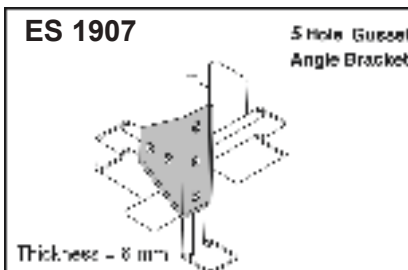
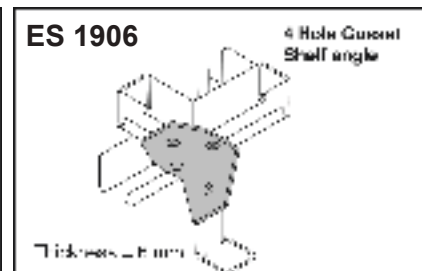
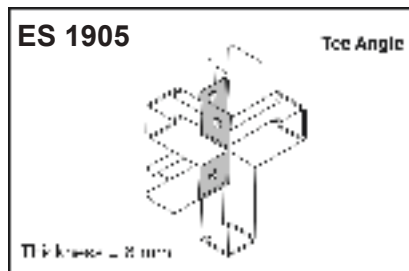
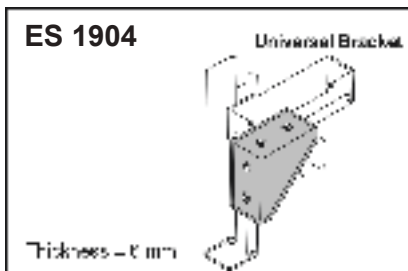
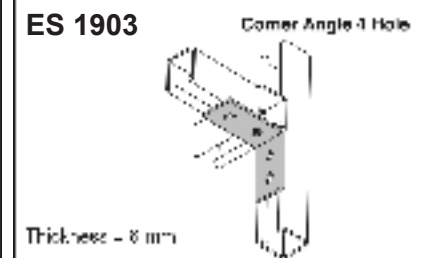
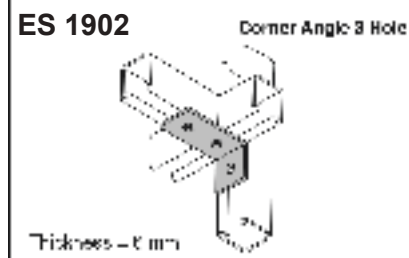
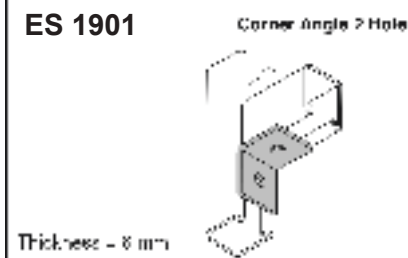


Thickness - 5 mm

FLAT PLATE FITTING

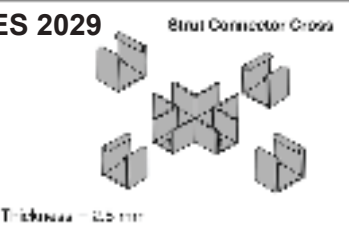
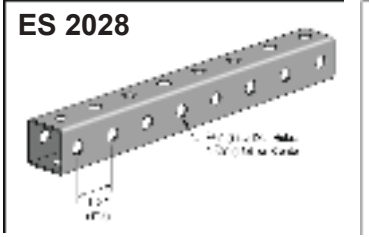
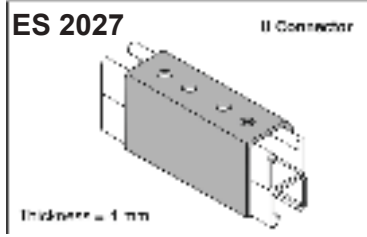
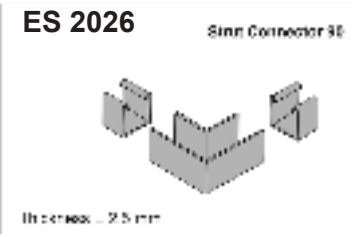
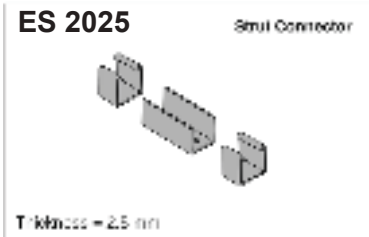
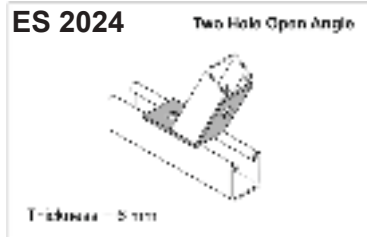
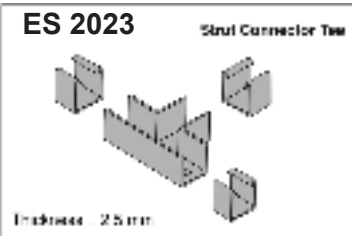
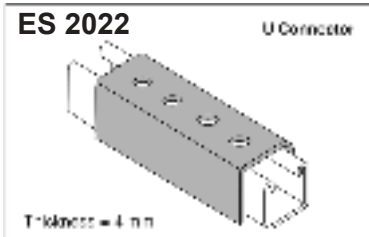
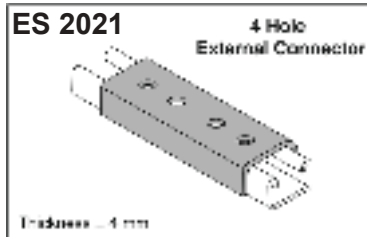


ANGLE FITTING

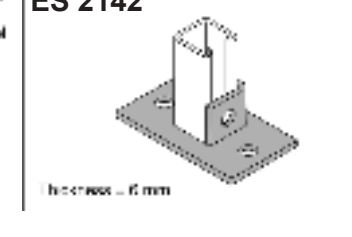
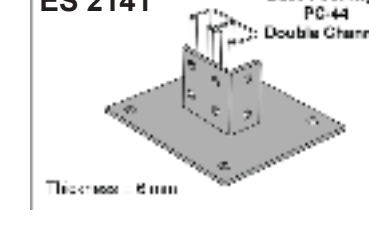
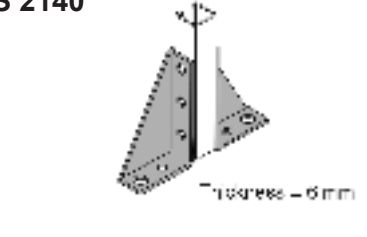
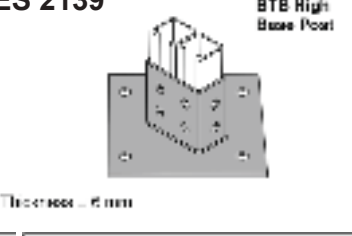
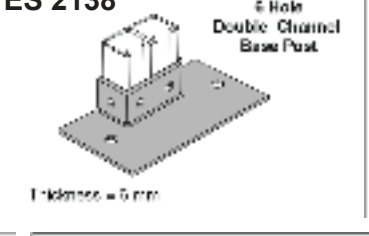
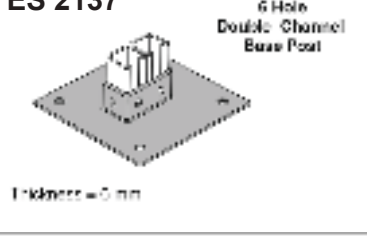
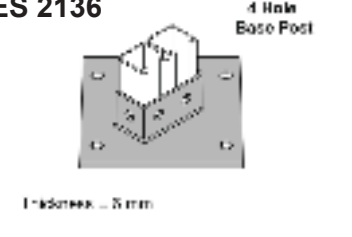
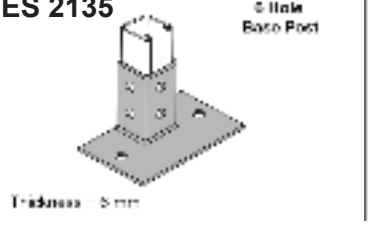
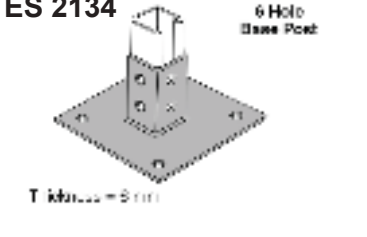
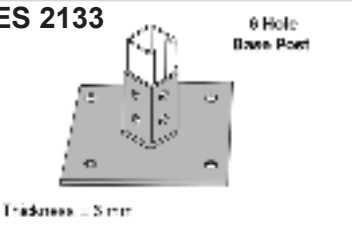
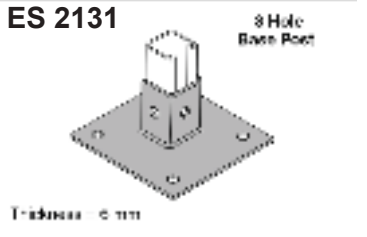


STRUT CHANNEL

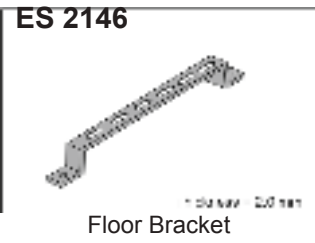
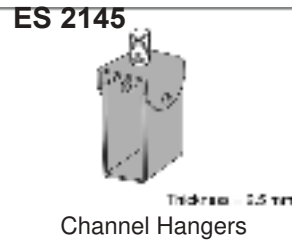
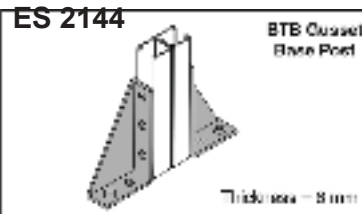
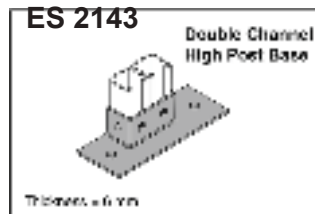
CHANNEL CONNECTOR



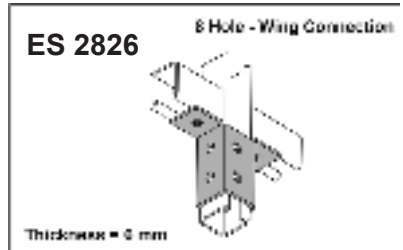
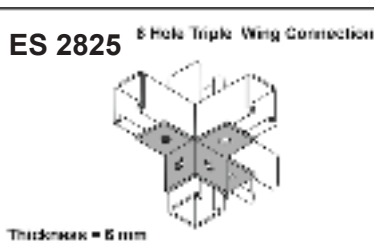
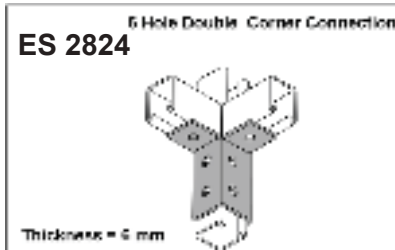
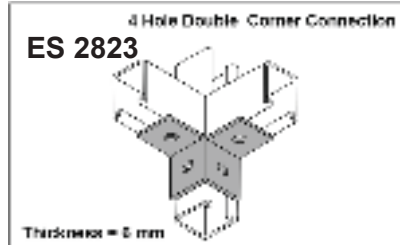
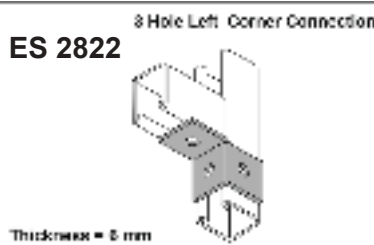
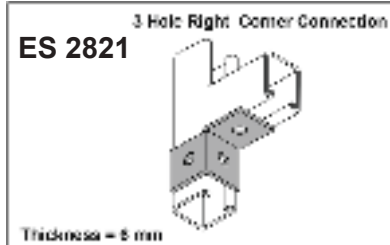
BASE POSTS



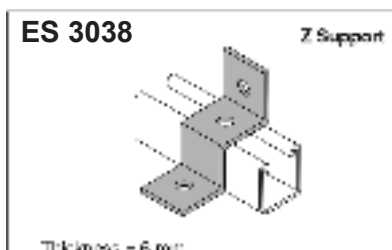
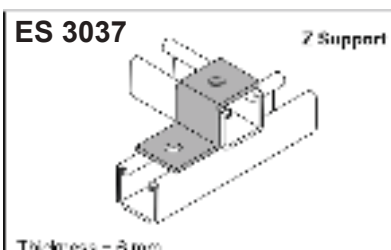
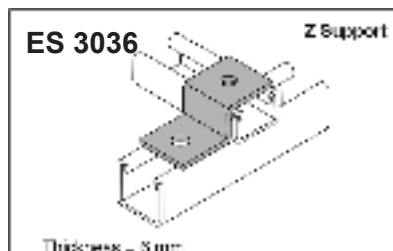
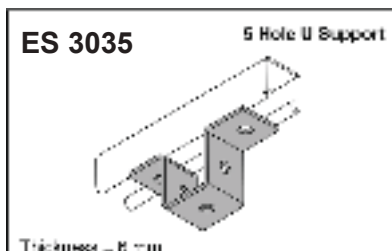
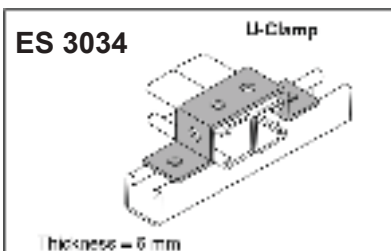
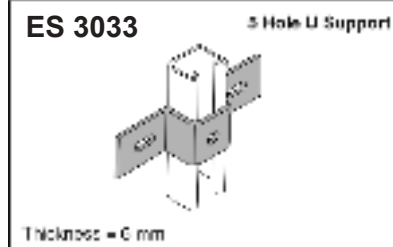
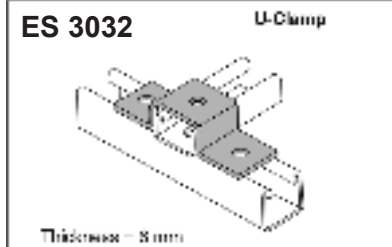
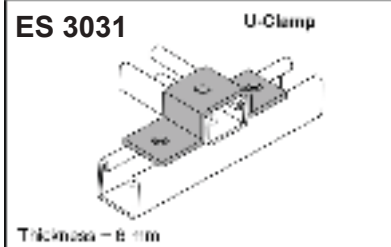
STRUT CHANNEL



WINGS FITTING



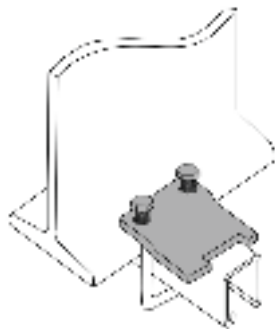
Z & U FITTINGS



STRUCTURAL CHANNEL

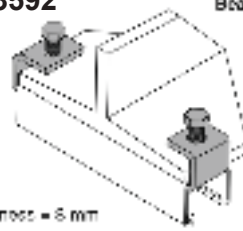
BEAM CLAMPS

ES 3591 Beam Clamp



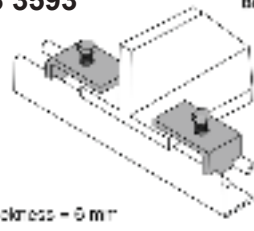
Thickness = 8 mm

ES 3592 Beam Clamp



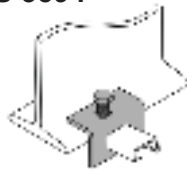
Thickness = 6 mm

ES 3593 Beam Clamp



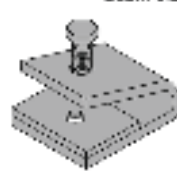
Thickness = 6 mm

ES 3594



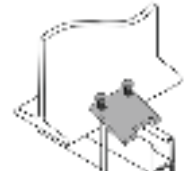
Thickness = 6 mm

ES 3595 Beam Clamp



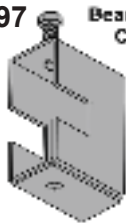
Thickness = 6 mm

ES 3596 Beam Clamp



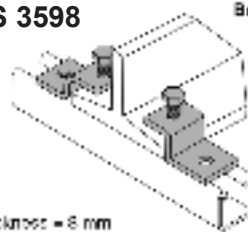
Thickness = 8 mm

ES 3597 Beam Clamp C Type



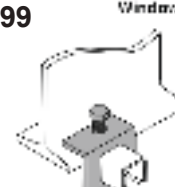
Thickness = 2 mm

ES 3598 Beam Clamp Z Type



Thickness = 6 mm

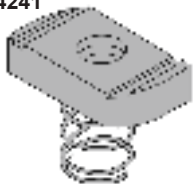
ES 3599 Window Beam Clamp



Thickness = 4 mm

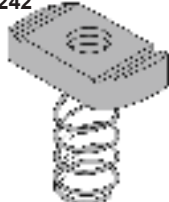
FASTNERS

ES 4241



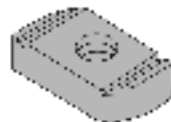
Channel Nut with short spring

ES 4242



Channel Nut with long spring

ES 4243



Channel Nut without spring

ES 4244



Machine Screw

ES 4245



Hexagonal Bolt

ES 4246



Hooking Bolt

ES 4247



Hexagonal Nut

ES 4248



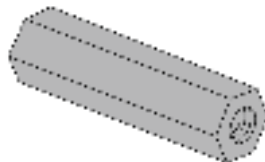
Flat Washer

ES 4249



Carriage Bolt

ES 4251



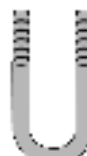
Channel Nut

ES 4252



Threaded Rod

ES 4253

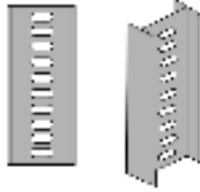


U - Bolt

I - BEAM SUPPORTS

ES 3861

I - Support



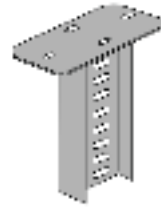
ES 3862

I-Support Connector



ES 3863

Top Head I-Support



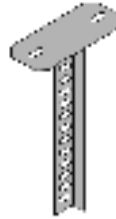
ES 3864

Base Head Plate



ES 3865

Top Head T-Support



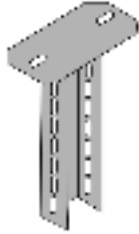
ES 3866

Base Head Plate



ES 3867

Top Head Plate



ES 3868

Base Head Plate



ES 3869

U Support



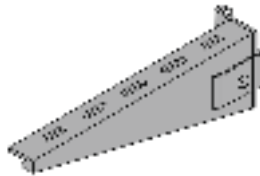
ES 3870

T - Support Bracket



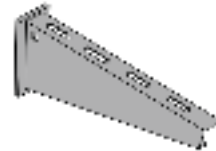
ES 3871

I - Support Bracket



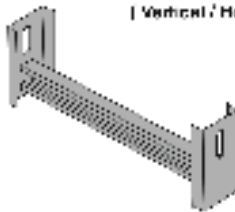
ES 3872

U - Support Bracket



ES 3873

Joint Bracket
{ Vertical / Horizontal }



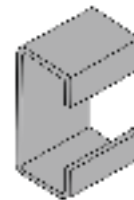
ES 3874

U Support Connector



ES 3875

Spacer



S
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Properties Of Section Profiles

Loading tables

PC 44

Distance between supports L (mm)	Safe Working Load as total UDL across span (kN)	UDL at L/180 Deflection (kN)	UDL at L/360 Deflection (kN)	Maximum Axial Column Load (kN)
500	8.48	-	-	50.0
1000	4.24	-	3.36	33.5
1500	2.86	-	1.46	20.1
2000	2.12	1.68	0.84	12.7
2500	1.67	1.07	0.53	9.0
3000	1.41	0.75	0.37	7.0

PC42

500	2.5	-	2.32	29.4
1000	1.25	1.16	0.58	11.5
1500	0.83	0.51	0.26	5.2
2000	0.61	0.29	0.14	-
2500	0.50	0.18	0.09	-
3000	0.41	0.12	-	-

BTB 44

Distance between supports L (mm)	Safe Working Load as total UDL across span (kN)	UDL at L/180 Deflection (kN)	UDL at L/360 Deflection (kN)	Maximum Axial Column Load (kN)
500	23.28	-	-	105.0
1000	11.64	-	-	91.1
1500	7.76	-	7.5	63.3
2000	5.82	-	4.3	40.2
2500	4.65	-	2.7	26.8
3000	3.88	3.8	1.9	19.0

BTB 42

500	6.96	-	-	69.0
1000	3.48	-	2.8	44.1
1500	2.32	2.2	1.2	23.0
2000	1.74	1.3	0.8	13.3
2500	1.39	0.8	0.4	8.7
3000	1.16	0.6	0.3	-

	Moment of inertia I (mm ⁴)	Section modulus Z (mm ³)	Radius of gyration r (mm)	Maximum Bending Moment M (Nm)
PC 44	75000	3400	14.9	530
PC 42	13000	1000	7.5	156
BTB 44	380000	9300	23.8	1455
BTB 42	59000	2800	11.3	435

	Moment of inertia I (mm ⁴)	Section modulus Z (mm ³)	Radius of gyration r (mm)	Maximum Bending Moment M (Nm)
PC 44	93000	4600	16.6	720
PC 42	56000	2700	15.6	420
BTB 44	188000	9200	16.6	1440
BTB 42	112000	5400	15.6	845

Important notes on loading data supplied:

Loads have been treated as imposed loads in accordance with BS 5950 with a load factor of 1.6

Beam loads - assumptions

Beams are simply supported over span L

Load is applied perpendicular to the axis XX

There is lateral restraint to the beams

No restriction to loads which may exceed slp resistance of bracket fixings

Column loads - assumptions

Distance between supports is the "effective length" of column

Slenderness ratio is calculated with the lesser value of radius of gyration of the profile, and restricted to $L/r < 180$

In practical assembly conditions, using brackets, it will be necessary to calculate the bending moment and combine with axial column loading to establish a safe working load.

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